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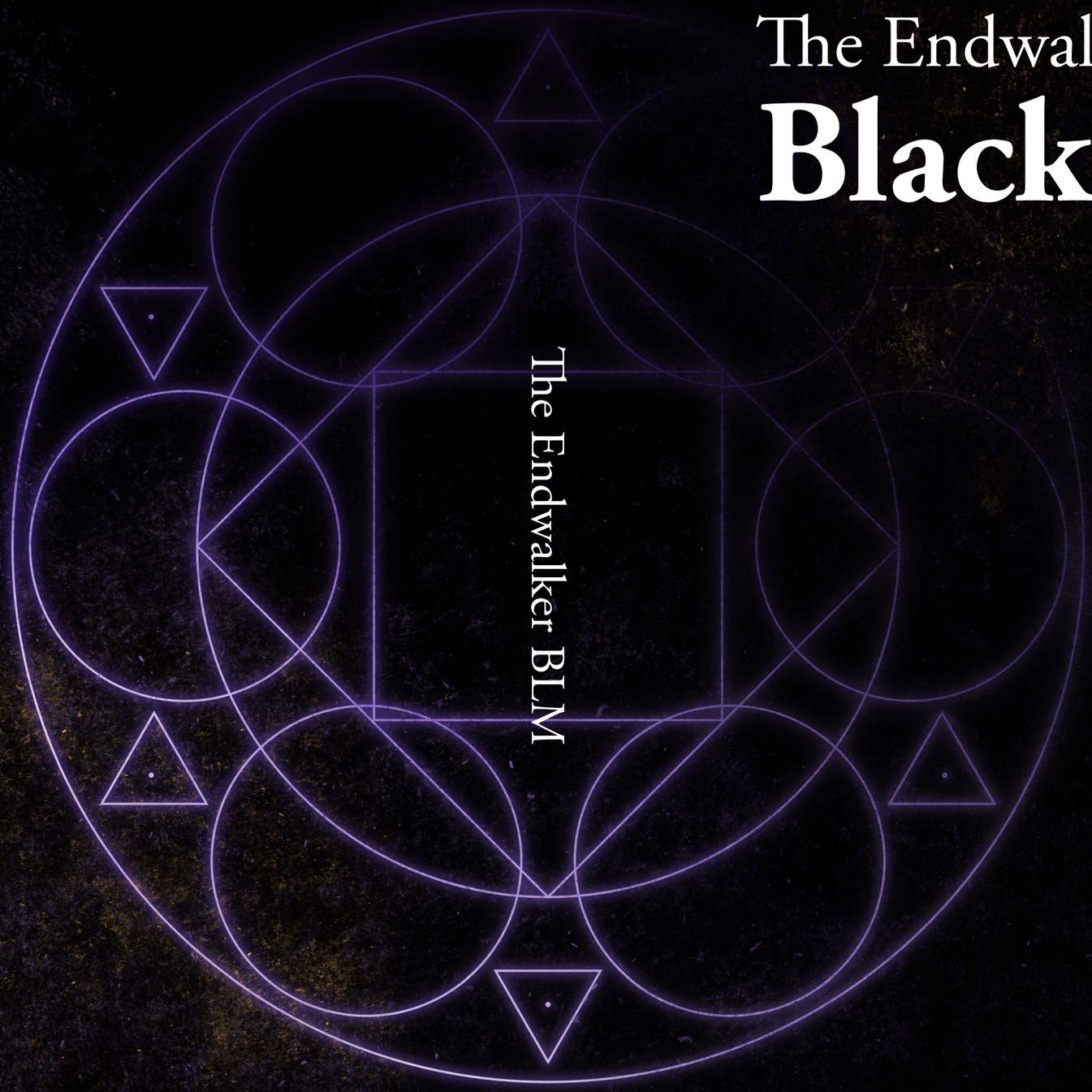
The Endwalker
Black Mage

A Nonstandard
Journey



12/07
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A Nonstandard Journey

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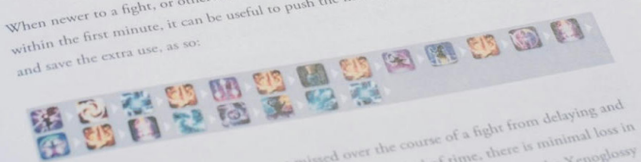
5. Polyglot timer
6. Paradox marker

Opener

Fire III Opener

The standard opener for BLM. Sharpcast used around 12 seconds prepull (though using it earlier or later than that will generally be fine), with the initial Fire III starting around 3-4 seconds prepull (to land at the same time the boss is pulled).
Note that the initial Triplecast is intentionally clipped in this opener, to allow for weaving opportunities. The Xenoglossy and Thundercloud proc at the end of the opener are used to catch the potion and other raid buffs before they fall off.

When newer to a fight, or otherwise know that Triplecast may be needed for movement within the first minute, it can be useful to push the first Triplecast usage back one GCD and save the extra use, as so:



As long as uses of Triplecast are not missed over the course of a fight from delaying and then holding onto two charges of it for a longer period of time, there is minimal loss in being conservative with Triplecast usage. There is also potential to save the Xenoglossy use near the end of the opener if needed for movement, instead of using it under raid buffs.

To all black mages

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The Endwalker Black Mage

Preface

The discovery of the Nonstandard playstyle was a revolutionary moment for Black Mage. The basic rotation is simple, but beneath lies a vast arsenal of options. These options provided unprecedented flexibility, moving away from the monotonous fixed rotations of most FFXIV jobs. Each player could develop a unique understanding of the job, greatly enhancing its depth. A perfected Black Mage rotation, with its harmony of ticks, procs, and mechanics, embodies a graceful and artistic expression appreciated only by those who truly understand it.

Despite its complexity, mastering the inherent difficulty remains tied to the basic rotation. Even with just the Standard Rotation, Black Mages can handle most high-end raid mechanics elegantly. It's no exaggeration to call the Black Mage of 6.0 a perfect job.

Dawntrail's Black Mage changes remain deeply controversial. Invested players express frustration at the continued simplification and loss of intricacies, while others cheer for the disappearance of what they perceive as intimidating. The path forward in Dawntrail is uncertain, and in a way, that makes this book more precious. However, one thing is certain: players drive the innovation of this job's depth and complexity. The Endwalker Black Mage, as conceived by Square Enix, was a good job; in the hands of players, it transformed into a masterpiece, worthy of a legacy in FFXIV's history.

In memory of my favourite job that defined my Endwalker era—Black Mage

Reina Leigh,
June 2024

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6.x Standard Black Mage Guide

Written by Rika Vanih

Job Overview

Black Mage is a caster specializing in high, steady personal damage in place of providing party buffs. The job maintains a cyclical flow of expending MP via long, powerful casts in Astral Fire then swapping to refresh MP in Umbral Ice. While the rotation itself is somewhat simple, utilizing its movement tools and the flexibility built into its rotation to their fullest is key to maintaining uptime and maximizing damage as a Black Mage.

Basic Concepts/Resources

Astral Fire grants a damage bonus to all fire-aspected spells while increasing their MP cost. Ice-aspected spells are 0MP cost in Astral Fire and deal less damage. At three stacks of Astral Fire, ice-aspected spell cast times are reduced by half. Astral Fire prevents MP regen, though things which grant MP directly like Manafont and Ethers still work.

	Fire Spells		Ice Spells		
	MP Cost	Damage	MP Cost	Damage	Cast Time
1 Stack	2x	1.4x	0x	0.9x	1x
2 Stacks	2x	1.6x	0x	0.8x	1x
3 Stacks	2x	1.8x	0x	0.7x	0.5x

Umbral Ice grants increased MP refresh, while decreasing the damage of fire-aspected spells. At three stacks of Umbral Ice, ice-aspected spells are 0MP cost, and fire-aspected spell cast times are reduced by half.

	MP Regen	Fire Spells			Ice Spells
		MP Cost	Damage	Cast Time	MP Cost
1 Stack	3200 / tick	0x	0.9x	1x	0.75x
2 Stacks	4700 / tick	0x	0.8x	1x	0.5x
3 Stacks	6200 / tick	0x	0.7x	0.5x	0x

Unaspected Spells like Foul, Xenoglossy, Paradox, and Scathe do not count as fire-aspected or ice-aspected and so do not gain any damage bonus/penalty from either Astral Fire or Umbral Ice.

Enochian provides a personal passive bonus to all damage dealt, and is active while in either Astral Fire or Umbral Ice. It also remains active while swapping between Astral Fire and Umbral Ice (even via Transpose), and is only lost upon completely dropping Astral Fire or Umbral Ice.

Umbral Hearts are a resource gained from casting Blizzard IV, Freeze (level 58+), or Umbral Soul. One Umbral Heart is consumed with each fire-aspected spell casted in Astral Fire (other than Flare and Despair), negating the increased MP cost. Flare instead will consume all current Umbral Hearts, and reduce the MP cost of the Flare by 1/3. This interaction is not present with Despair, which will use all remaining MP and not consume Umbral Hearts.

Polyglot is a resource gained every 30 seconds that Enochian is active. At level 80+, a maximum of two Polyglot stacks can be held at a time. If the Polyglot timer completes while at maximum stacks, no additional Polyglot stack is gained, and the timer restarts at 0 again. If Enochian is dropped the Polyglot stacks remain, but the timer is reset to 0.

Paradox is a new resource and spell available at level 90. When you have the resource, Paradox replaces both Fire and Blizzard on your hotbars. In Astral Fire, it replaces the

Fire cast to refresh your Astral Fire timer, and can similarly proc Firestarter. In Umbral Ice, it is a strong instant cast spell. You gain a Paradox marker on your job gauge by doing one of the following:

- Transition from Astral Fire III to Umbral Ice
- Transition from Umbral Ice III with three Umbral Hearts to Astral Fire

Job Gauge

1. Astral Fire/Umbral Ice stacks
2. Duration of Astral Fire/Umbral Ice
3. Umbral Hearts
4. Polyglot stacks
5. Polyglot timer
6. Paradox marker

General Gameplay

In Astral Fire, the goal is to use all of your MP on Fire IV casts, and end in Despair. However, Fire IV does not refresh the Astral Fire timer, so Paradox is used once in between the Fire IV spam to maintain Astral Fire. In Umbral Ice, Blizzard IV is used to obtain three Umbral Hearts (as well as produce a Paradox marker when entering Astral Fire again). Paradox is used here as well, since it is both a strong spell, and helps to guarantee enough time is spent in Umbral Ice to get sufficient MP to sustain the rotation. In either stance, keeping the Thunder III DoT up is important, as well as utilizing Polyglot stacks for Xenoglossy for movement/weaving/damage as needed.

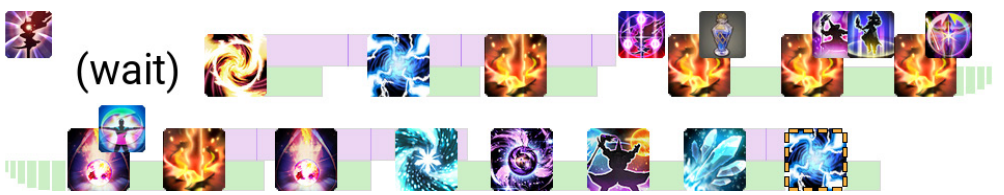
Opener

Fire III Opener

The standard opener for BLM. Sharpcast used around 12 seconds prepull (though using it earlier or later than that will generally be fine), with the initial Fire III starting around 3-4 seconds prepull (to land at the same time the boss is pulled).

Note that the initial Triplecast is intentionally clipped in this opener, to allow for weaving opportunities. The Xenoglossy and Thundercloud proc at the end of the opener are used to catch the potion and other raid buffs before they fall off.

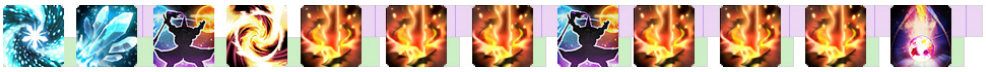
When newer to a fight, or otherwise know that Triplecast may be needed for movement within the first minute, it can be useful to push the first Triplecast usage back one GCD and save the extra use, as so:



As long as uses of Triplecast are not missed over the course of a fight from delaying and then holding onto two charges of it for a longer period of time, there is minimal loss in being conservative with Triplecast usage. There is also potential to save the Xenoglossy use near the end of the opener if needed for movement, instead of using it under raid buffs.

Single Target Rotation

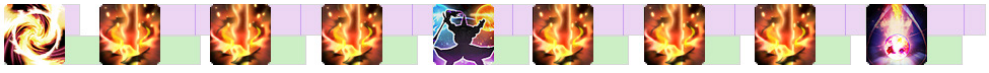
Rotation Overview



The single target rotation follows after the opener, with the entry point being the Fire III. Pictured above is the standard format for the rotation, which is very similar to the single target rotation from ShB BLM. The main change is the addition of Paradox, which serves as an additional filler spell for Umbral Ice, as well as replacing the Fire cast in your Astral Fire cycle. We can break this up into Astral Fire and Umbral Ice phases for further explanation.

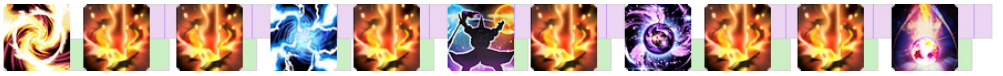
Note that, while not pictured here, both Thunder III and Xenoglossy are used. Instead of having a set place in the rotation, they are used more specifically when needed. This usage is detailed in the following Xenoglossy and Thunder III sections.

Astral Fire Phase



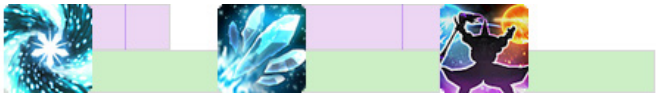
A standard Astral Fire phase begins with Fire III to grant Astral Fire III, followed by 6 Fire IV casts with a Paradox to refresh your Astral Fire timer, then finally ends in a Despair cast. Typically there will be 3 Fire IV casts on each side of the Paradox, since it provides the most leeway on the Astral Fire timer. However, even at base Spell Speed, there is sufficient time to fit in an extra cast on both sides without dropping Astral Fire. Here is an example with four Fire IV casts on the front half of Astral Fire:

This also allows for some flexibility to use other spells as needed, like Thunder III and Xenoglossy, wherever they may be needed. An example:



Finally, the Paradox cast has a 40% chance to generate a Firestarter proc for a 0MP, instant cast Fire III cast. This can be used to help with movement, refreshing your AF timer, or potentially for weaving oGCD abilities. If none of these options are specifically needed, the proc can be used at any point in Astral Fire for damage, or potentially more specifically for small optional optimizations–an example is included within the Basic Optimizations section.

Umbral Ice Phase



In order to get enough MP to sustain the Standard Rotation, two MP ticks are required. For this purpose, at least two spells are needed in Umbral Ice to act as "filler" spells. Therefore, a standard Umbral Ice phase begins with Blizzard III to grant Umbral Ice III, then includes Blizzard IV to obtain three Umbral Hearts and a Paradox to act as a filler spell (which is also overall a strong cast). Optionally/situationally, Thunder III and Xenoglossy may also be used in Umbral Ice if needed. However even they are, you will still want to use both Blizzard IV and Paradox–there is no issue or loss with using additional casts as needed in Umbral Ice.

Xenoglossy

With Paradox available in Umbral Ice for filler, there is full flexibility with both Thunder III and Xenoglossy usage without relying on potentially requiring them for filler. Therefore, they do not have a set place in the rotation, but instead can be moved throughout the rotation wherever they may be needed.

Xenoglossy has use as an instant cast for movement, weaving oGCDs, and just generally is our strongest spell. It is important to not miss out on uses of Xenoglossy, either due to overcapping the Polyglot gauge, using Amplifier while already at two stacks, or not using all Polyglot stacks before the end of a fight.

Thunder III

For Thunder III, the goal is to maximize uptime on the DoT while minimizing hardcast (non-proc) refreshes. With this in mind, the general recommendation for Thunder III refresh timing is:

- Thundercloud proc: use when the DoT is falling off on the target
- Hardcast Thunder III (non-proc): use just after the DoT has completely fallen off on the target

Since the DoT lasts 30 seconds and the Standard Rotation is generally slightly longer than 30 seconds, the refresh timing will naturally drift throughout the rotation. Thus, it is generally expected to refresh the DoT in Astral Fire if the DoT falls off of the target at that time.

AoE Rotation (3+ targets)

Rotation Overview

The AoE rotation follows a similar flow to the single target rotation. High Blizzard II grants Umbral Ice III, Freeze grants three Umbral Hearts, Thunder IV applies the DoT to all enemies around your target.

Following this, the first High Fire II grants Astral Fire III. The second High Fire II grants the buff “Enhanced Flare” which lasts until Astral Fire ends, increasing the potency of all subsequent Flare casts. It is generally worthwhile to cast a third High Fire II for damage.

Finally, with the single Umbral Heart remaining, the MP cost of Flare is reduced, allowing for the use of a second Flare.

Foul can be used for movement, weaving oGCDs, or just generally as a strong AoE spell. Consider skipping a High Fire II cast if mobs will die before finishing the second Flare, or when using Triplecast.

Manafont and/or any ether that grants at least 800MP can be used for additional Flare spells before reentering Umbral Ice with High Blizzard II. Pictured below is an example utilizing Triplecast, Swiftcast, Manafont, and an ether for three instant Flares within one Astral Fire cycle. If Foul is available, it can be used to weave the Triplecast after the second High Fire II in order to make all four Flares instant.

While Paradox will be available with each swap, it will generally be ignored for AoE other than potential for movement, high HP targets, or when there are only two targets remaining.

2-Target Situations

For 2-target situations, the standard single target rotation is used, with a few adjustments. Use Foul over Xenoglossy for a Polyglot spender, and use High Blizzard II/ High Fire II instead of Blizzard III/Fire III.

Use Thunder III on each target. Flare can be a gain over Despair if you can make it instant cast (via Swiftcast or Triplecast), even without the Enhanced Flare buff.

oGCD Abilities

Whenever possible, oGCD abilities should be weaved to avoid delays in casting. One oGCD ability can be used after Fire III/High Fire II from Umbral Ice III, and after Blizzard III/High Blizzard II from Astral Fire III. Up to two oGCD abilities can be weaved after instant-cast spells (Xenoglossy/Foul, Paradox in Umbral Ice, Thundercloud/Firestarter procs, or spells made instant via Swiftcast/Triplecast).

In case of emergency to prevent deaths (using Addle/Manaward/panic Aetherial Manipulation) or to keep uptime where it otherwise would not be possible, it situationally can still be good to use oGCD abilities even without weaving them. However, it is recommended to later figure out a better way to deal with the situation without relying on clipping oGCD abilities.

Below are general recommendations for usage of various oGCD abilities for BLM.

Ley Lines

Standing within Ley Lines grants the user the buff Circle of Power, reducing the cast time and recast time of all spells. Since Ley Lines affects all GCDs and lasts for 30s, it does not need to be specifically lined up for use in Astral Fire, but instead should generally be used off cooldown at the next available weaving window.

Fight-specific mechanics/timings may warrant specific positioning or potentially small delays in order to maximize overall uptime within Ley Lines.

Triplecast/Swiftcast

Using Triplecast and Swiftcast on spells that are longer than base GCD (notably Fire IV, Despair, High Fire II, and Flare) will instead make them instant, saving a small amount of time and eventually resulting in additional casts over the course of a fight. For example, on a Fire IV cast, instead of taking the ~2.8s before starting the following cast, it is instead subject to the base 2.5s GCD, saving ~0.3s. In general, the ideal is to get maximum uses out of Swiftcast, and especially Triplecast, in a fight.

However, these instant casts are also valuable for weaving other oGCD abilities, as well as continuing casting while moving for mechanics. With the ability to hold up to two charges of Triplecast, it can be very beneficial to hold onto one charge if it may be needed for movement, while still being able to avoid missing uses. Being able to keep casting in situations where it would be impossible otherwise provides much more benefit than the time savings from simply making longer casts instant.

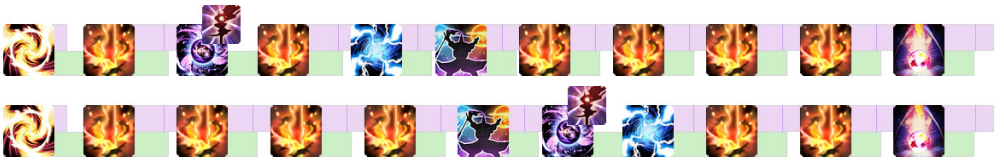
Sharpcast

Sharpcast grants a 30s buff. Using Fire (or Paradox in Astral Fire), Thunder, or Scathe will consume this buff and cause the "additional effect" listed on the tooltip to occur, granting a Firestarter proc, Thundercloud proc, or double potency Scathe respectively.

The main recommendation is to use Sharpcast primarily with Thunder. Since the Thunder III DoT lasts 30s, Thundercloud proc lasts 40s, and Sharpcast is on a 30s cooldown, the goal is to refresh the DoT every 30s with a Sharpcasted Thundercloud proc. On average this is the strongest use of Sharpcast.

Occasionally extra effort will be required in order to use Sharpcast on Thunder III without the Astral Fire Paradox consuming it, notably if the DoT is falling off on the second half of Astral Fire. Pictured below are some examples of utilizing the leeway

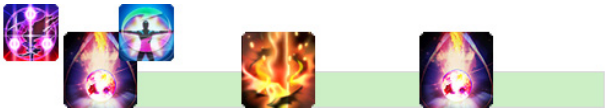
present in Astral Fire to weave Sharpcast and refresh Thunder III without losing any other casts:



The second charge of Sharpcast allows for one additional usage over the course of the fight, often spent early on with a Paradox in Astral Fire for a Firestarter proc. Additionally, the average difference between Sharpcast on Paradox vs Thunder III is relatively small so if the Firestarter proc may be situationally beneficial (or if the Thunder III DoT will fall off for multiple GCDs in order to use Sharpcast with it) it may be better to Sharpcast Paradox instead.

Miscellaneous

Manafont: for single target, Manafont is weaved after a Despair, for use on an additional Fire IV and Despair. It can be a strong consideration to weave Triplecast near the end of an Astral Fire phase for use alongside Manafont for instant Fire IV + 2x Despair, like:



For AoE, Manafont can be used for a third Flare before the High Blizzard II.

Amplifier: used roughly on cooldown, as long as it will not overcap the Polyglot gauge and waste a stack.

Aetherial Manipulation: movement tool used when a party member is in a position to move to, in order to reposition for a mechanic or whatever else may be required. Mostly useful when the distance required to travel is larger than a slidecast or current available movement tools will allow for.

Manaward: solid personal shield which can be used proactively to help with mitigation, or reactively if needed to survive a mechanic.

Transpose: used primarily when bosses become untargetable/die while in Astral Fire, in order to swap to Umbral Ice to allow use of Umbral Soul. Can also be used in the case of larger mistakes where Astral Fire will drop otherwise, to swap to Umbral Ice and maintain Enochian. There is also potential for use in small optional optimizations–a simple example is listed in the Basic Optimizations section.

Addle: used to lower damage dealt by the target, more effective on magic-based damage. Consider planning uses in a static environment, otherwise use when available to help mitigate raidwide damage.

Surecast: used to nullify knockback/draw-in effects in order to help keep uptime

Lucid Dreaming: Astral Fire prevents MP refresh effects like Lucid Dreaming, and Umbral Ice III grants enough MP without the aid of Lucid Dreaming to sustain the rotation. Other than some more niche advanced optimizations, Lucid Dreaming will generally not be used.

Recovery Options

Inevitably when learning a fight (and the job itself), there will be situations where maintaining the rotation perfectly will not be possible. In these cases, learning how best to maintain Astral Fire, or how to recover in cases where it is dropped completely, is important.

Maintaining Astral Fire/Umbral Ice

The most common situation to encounter is running out of time on the Astral Fire timer. In order to try to prevent dropping Astral Fire entirely, there are a few options to consider:

- Preemptively using Sharpcast on the Astral Fire Paradox, then using the Firestarter proc to later refresh the Astral Fire timer to make it possible to finish the phase without losing any Fire IV casts or the Despair cast.
- Using Triplecast and/or Swiftcast in order to speed up the Astral Fire phase, making Fire IV casts and potentially the Despair instant. Since instant Despair refreshes Astral Fire sooner than a casted Despair, this will sometimes allow for finishing the phase properly.
- If other options are not available, using Despair early to prematurely end the phase will generally be stronger than casting Fire to refresh the Astral Fire timer, then finishing off the phase.

If all else fails, attempt to salvage things by using Blizzard III prematurely, or as a last ditch effort, use Transpose to switch to Umbral Ice and consider the following sequence to recover before returning back to the Standard Rotation:

Using Transpose to swap from Astral Fire III to Umbral Ice will grant the Paradox. Paradox in Umbral Ice will give another Umbral Ice stack, so only Blizzard is required to build up to Umbral Ice III.

A small note for Umbral Ice–if there is some potential for dropping Umbral Ice during uptime due to using several filler spells or other delays, keep in mind that the Umbral Ice Paradox can be used to refresh the timer.

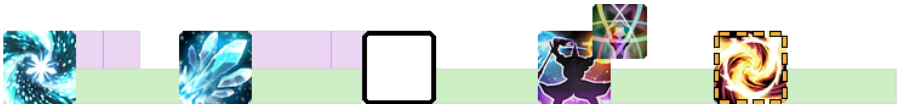
Dropped Astral Fire/Umbral Ice

If Astral Fire/Umbral Ice are completely dropped, the best course of action generally depends on the amount of MP available. With 2800MP or more, consider using Fire III into a shortened Astral Fire phase (Fire IV casts until low MP, then Despair). With less than 2800MP, the better option will generally be to use Blizzard III and restart with the Standard Rotation.

If Swiftcast or Triplecast are available to make the Fire III/Blizzard III instant, they should generally be used here for recovery.

Basic Optimizations

Transpose Usage



When receiving a Firestarter proc from the Paradox cast in Astral Fire, there is generally a small gain to do the above in order to use the proc in Astral Fire I instead of using Fire III from Umbral Ice III. The empty space designates an additional filler spell (Thundercloud proc or Xenoglossy), which depending on MP tick timing may be necessary to guarantee both MP ticks to get to full since Transpose grants Astral Fire earlier compared to a non-proc Fire III. Weaving Transpose late into the recast timer is recommended as well.

Additionally, since the Firestarter proc applies Astral Fire III at the start of the GCD instead of at the end, the first half of the Astral Fire phase is tighter. Other than having high Spell Speed and/or using instant casts, this allows for only three Fire IV casts before the Paradox instead of the standard leeway to fit four casts.

There are further optional optimizations utilizing Transpose which are covered separately in the Advanced guide, for both single target and AoE.

Optimizing for Downtime/End of Fight

When approaching downtime or the end of a fight, there are options to consider in order to maximize damage within the time remaining, replacing weaker casts with stronger ones.

Outside of rare exceptions, DoTs do not deal damage during downtime (and of course will not deal damage after the target is dead). Therefore, it can sometimes be a better option to skip refreshing Thunder III before downtime, particularly for a non-Thundercloud refresh, if it will allow for a stronger, more direct damaging spell. For reference, Thundercloud proc needs to result in at least 12 seconds of additional DoT uptime in order to do more damage than a Fire IV.

When unable to finish off a full Astral Fire cycle before downtime, prioritizing ending Astral Fire on Despair, even at the cost of a Fire IV, is a gain. Skipping a Blizzard IV in the last Umbral Ice phase for a shorter Astral Fire phase may also be a consideration depending on when the downtime occurs, since the GCD saved from not casting Blizzard IV may result in a stronger GCD in its place (like Fire IV).
Some other things to consider include:

- Use Polyglot stacks as needed before downtime to prevent overcapping before the boss is targetable again. For the end of the fight, ideally use all Polyglot stacks, as Xenoglossy is the strongest spell.
- An instant cast frontloads its damage at the start of the GCD, so it is good practice to plan to end on an instant cast before the downtime/end of fight. This can result in a last tap of damage where a normal cast would not have been able to finish otherwise.
- Since Paradox is a strong spell, sometimes it can be valuable to Transpose after a Despair instead of Blizzard III to get a Paradox off before the downtime.

Preparing Resources During Downtime

Typically during downtime, the basic plan is to use Umbral Soul during downtime to build back up to Umbral Ice III with three Umbral Hearts (using Transpose beforehand if in Astral Fire). With a longer amount of downtime (~15s or more), Paradox can be obtained by first building up to Umbral Ice III + three Umbral Hearts, Transposing back into Astral Fire, then Transposing into Umbral Ice again, like so:

This sequence obtains a Paradox and ends with Umbral Ice II with three Umbral Hearts. Using Paradox when the boss returns will grant Umbral Ice III, otherwise for longer downtime Umbral Soul can be used additional times as needed.

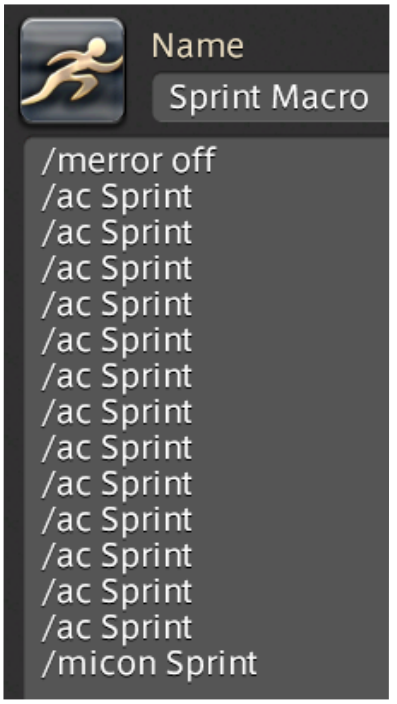
Amplifier can also be used during downtime if it is available, as long as it will not cause the Polyglot gauge to overcap before the boss reappears. Sharpcast can also preemptively be used during downtime if needed–since the buff lasts for 30 seconds, it does not need to be used specifically during uptime as long as it is still active when casting the Thunder III (or Astral Fire Paradox) when the boss is targetable once more.

Appendix

Macros

Since Sprint cannot be properly queued like regular oGCD actions, using a macro to spam the action can help with reliability, with no downside:

```
/merror off
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/ac "Sprint"
/micon "Sprint"
```



Manually targeting to use Aetherial Manipulation can often result in minor delay due to needing to change targets multiple times. Therefore, a common alternative is to use a mouseover macro for the ability:

```
/merror off
/ac "Aetherial Manipulation" <mo>
/ac "Aetherial Manipulation" <mo>
/ac "Aetherial Manipulation" <mo>
/ac "Aetherial Manipulation" <mo>
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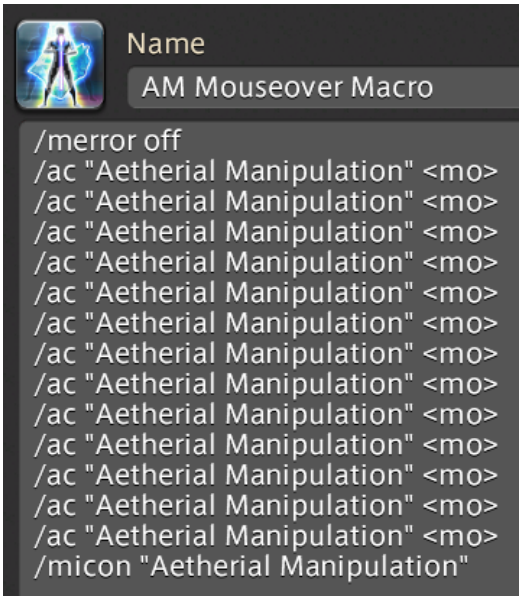


Hovering over the character model of a party member, or even their name in the party list, and then pressing the macro will use Aetherial Manipulation on them without changing target. If the flexibility for regular targeting is desired, the bottom <mo> or two can be replaced with <t>. There is also the option to replace the <mo> with the number of the slot of a specified party member (i.e. <3>) that may be consistently in a good spot to use Aetherial Manipulation to (though in this case it is recommended to have a regular version of Aetherial Manipulation available for more manual targeting in case another target is situationally preferred).

Common Abbreviations

For this document, full names of spells, buffs, and abilities were used for clarity. However, these are frequently abbreviated in regular discussion. Below are the most common abbreviations for these:

- F1, F2, F3, F4: Fire spells, the number designates the rank (i.e. F1 = Fire, F2 = Fire II, etc.)
- B1, B2, B3, B4: Blizzard spells, the number designates the rank (i.e. B1 = Blizzard, B2 = Blizzard II, etc.)
- T1, T2, T3, T4: Thunder spells, the number designates the rank (i.e. T1 = Thunder, T2 = Thunder II, etc.)
- HF2/HB2: High Fire II, High Blizzard II
- AF1, AF2, AF3: Astral Fire, Astral Fire II, and Astral Fire III respectively
- UI1, UI2, UI3: Umbral Ice, Umbral Ice II, Umbral Ice III respectively
- Eno: Enochian
- Xeno: Xenoglossy
- Para: Paradox
- Amp: Amplifier
- LL: Ley Lines
- Triple: Triplecast

- Sharp: Sharpcast
- Swift: Swiftcast
- AM: Aetherial Manipulation
- BtL: Between the Lines
- Poly: Polyglot
- MF: Manafont
- Lucid: Lucid Dreaming
- SpS/sps: Spell Speed
- Pot: Main stat (Intelligence) potion, current strongest option is - HQ Grade 8 Tincture of Intelligence

FAQ

Q: What is the secondary stat/meld priority?

A: SpS to comfort first and foremost. Probably around 1.3k SpS is where most people will start to find comfort for now, but if you want to run higher or lower SpS you will likely end up with a fairly comparable set. After that, for a high crit set it's Crit > Det >= DH. For a high SpS set, it's SpS > Det >= DH > Crit.

Q: Do I need both Fire and Blizzard on my hotbars for Paradox?

A: Technically no–when fulfilling the conditions for Paradox, both Fire and Blizzard are replaced on your hotbars with Paradox, and function the same. So you will only need one available (generally recommended to keep Fire over Blizzard). However, there are small use cases for Blizzard still, so it may be good to keep it available on your hotbars (if perhaps less easily accessible).

Q: Why are there three High Fire II casts instead of two in the AoE rotation?

A: Despite only needing the first cast to enter Astral Fire, and a second cast to get the Enhanced Flare buff, it's marginally more potency per second to cast a third instead of going for Flares right away.

Q: Is it okay to use a Thundercloud proc early if I need it for movement?

A: If you have no other movement options in the given situation, using the proc early is better than losing out on the GCD entirely. However, try to plan better for next time you're in the situation to have something available for movement, allowing you to use the Thundercloud proc with more proper timing.

Q: How do I use Umbral Soul?

A: Umbral Soul is a downtime spell, used to build up to and maintain Umbral Ice III with three Umbral Hearts. When you can actively hit a target, you should not be using Umbral Soul. Since it can only be used in Umbral Ice, you may need to Transpose from Astral Fire before you can use it.

Q: Do I do anything to align with raid buffs/maximize damage dealt within raid buffs?

A: Often it will be advantageous to align pot uses with the rest of the party. oGCD abilities if used roughly on cd will often keep some semblance of alignment naturally with other buffs. If you can spare a Xenoglossy (or two) for use in raid buffs that you won't need elsewhere to help keep uptime, it's a pretty reasonable consideration to do so. Otherwise, BLM will generally fit good spells within raid buffs regardless of alignment– prioritize uptime and solid rotational choices first and foremost.

Q: If I have ~2.4k MP left and my Astral Fire timer is about to run out, do I use Fire to refresh the timer?

A: On average it will be better to just prematurely Despair. Consider preemptively using Sharpast Paradox to get a Firestarter proc to use to refresh your timer, and/or see if you can utilize Triplecast and/or Swiftcast in order to finish your Astral Fire phase without dropping any casts.

Acknowledgements

Big thanks to my fellow mentors Fürst Blumier and Tsutsumi Tsumi for their work and support. Thanks to Reina Leigh as well for his work on the Advanced guide and various recommendations for this one (and his patience while I finish the main guide).

And also to all the various BLM players on the Balance–whether you're one of the bigger names who help teach others or otherwise just hang out, one of the newer players asking questions to help learn and improve, or anyone in between, know that you're very much appreciated <3

Square Enix's Official Black Mage Guide for 6.x

Link

6.x Advanced Nonstandard Black Mage Guide

Written by Reina Leigh

Prologue

"To make it short, they don't teach or research "potency per second" in universities."

- DiaStarvy

Hello. I am Reina, a caster player, and I am standing on the shoulders of giants. This document aims to provide a comprehensive guide on advanced Nonstandard playstyle. There is the assumption you know all of the basics of BLM. If not, refer to the 6.x Black Mage guide before proceeding here.

The Standard Rotation is more than sufficient to play at a high level of Black Mage. If you are looking to generally improve, use the Standard Rotation and work on the basics such as achieving extremely high uptime, oGCD usage, slidecasting, and positioning. The optimizations listed here are meant for players with a great understanding of the fundamentals of BLM's playstyle and rotation, and are already familiar with executing the rotation well in fights. Furthermore, Nonstandard is not required to do well in any high end content. **Once again, Nonstandard is not the solution to low dps, and instead, work on your fundamentals.** If you can maintain a substantially high uptime on BLM and are interested in learning alternative and potentially challenging BLM rotations, then I welcome you to read on.

This document is written in three sections such that you do not need the knowledge of later sections to utilize the former ones. You do not need to know everything about Nonstandard to make use of it, and you can choose the level of optimization you want to learn in this document. Undoubtedly, as time goes on, more BLM optimizations will be discovered. This document will aim to include any new discoveries prior to every major patch. If you have any questions or comments, feel free to contact me on Discord at *reinaleigh*. Finally, I want to thank the Black Mage theorycrafters on The Balance Discord for providing the theories, structures of thought and mathematical calculations necessary for creating this document.

Basics

General Idea

The idea behind the optimizations in Nonstandard lines is the elimination of weak spells, F3, B3, and B4 which lower the average potency per second (PPS) of the rotation. We do this by utilizing Transpose with F3s in AF1 in place of weak UI3 F3s, resulting in a potency gain. In addition, we also use Transpose to transition from AF to UI, which eliminates the need to cast weak B3s. Due to this, B4 no longer yields a Paradox, so it is often skipped as well.

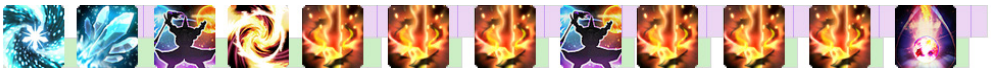
These concepts allow the overall PPS of the Nonstandard gameplay to increase compared to the Standard Rotation. While accomplishing this, it exhausts much more resources than is needed in the Standard Rotation and also often reduces the rotational time. As a result, the fire phase is usually very tight and requires prolonged periods of stillness, which make this playstyle much more prone to errors.

From sims and calculations of Nonstandard when compared to pure Standard (no AF1 F3P), we have estimated a gain of 0.7% to somewhat higher than 3%. The 0.7% floor comes from AF1 F3P Standard's gain, and the comparison is lowered by ~0.7% if we are comparing to that instead. There is no single exact number to the how much gain Nonstandard can bring, and is instead dependent on the fight as well as the player's incorporation of effective lines. In short phases with specific timings, such as those in Ultimates, Nonstandard playstyle offers much more flexibility than Standard and yields even greater gains. Furthermore, the benefits of Nonstandard are a matter of great diminishing returns. It is relatively easy to obtain, as an example, an 1% gain through Nonstandard optimizations. Obtaining the next 0.5% requires a drastic step up in effort and difficulty, with a further 0.5% being exponentially more difficult.

The bracketed letter and number below are an index to the BLM lines comparison sheet (page 77), where you can find the math behind everything as well as more lines that were not chosen to be discussed here. For example, [N0] refers to the Normal rotation tab, ID 0.

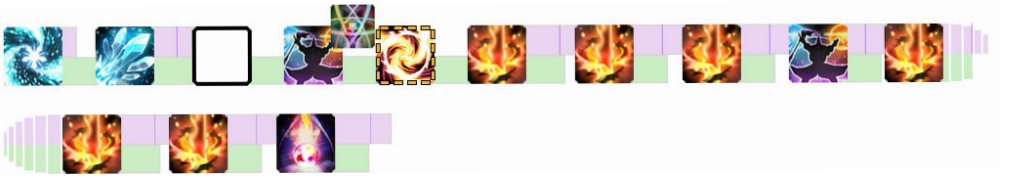
Base Rotation

Standard Rotation [N0]



A reminder of what is referred to as the Standard Rotation. B3 + B4 with 2 MP ticks into a long fire phase with Paradox refresh.

AF1 F3P Standard [N6]



Instead of spending the F3P during the line it is proc'd, it can be saved and used in conjunction with Transpose to buff its potency in AF1. **The white space represents an instant filler GCD.** By itself with the F3P, this line is a 3% gain in a vacuum. However, we must also consider the previous line that yielded the F3P, as well as its potential to repeat itself. Consistently using F3P this way results in about a 0.7% damage increase (more details in the next section) of fire and ice spells over multiple lines. This is highly recommended to players first starting to optimize, as it is a relatively easy optimization for a decent dps increase. Note that due to receiving the stacks of Astral Fire at the beginning of the GCD instead of the end, at lower SpS, there is no longer the option to fit 4 F4s between the F3 and AF Paradox, and any filler spells become exceedingly tight if possible at all. This increases the execution difficulty of the Standard line.

Higher Level BLM Concepts

MP and Lucid ticks

MP regens for 600 per tick out of combat and 200 per tick during combat, with each tick happening every 3 seconds. While in Umbral Ice, we gain an additional MP of 3000, 4500, and 6000 MP from the UI1, UI2, and UI3 bonuses respectively. In total, we can expect 3200, 4700, or 6200 MP per tick while in UI. On the other hand, Lucid provides 550 MP per tick. In the overworld, each Lucid tick happens exactly halfway between two MP ticks. However, while in an instance, this timer will constantly drift, and it will become random when a Lucid tick occurs.

Both MP and Lucid ticks can be tracked via triggers. While not essential for many Nonstandard lines and casual Nonstandard players, having a tick trigger makes tracking MP ticks considerably easier and is recommended for those serious about high end BLM optimizations. In addition, some optimizations listed in later sections are only possible with MP tick triggers.

Early and correct MP ticks

Understanding how MP ticks interact with our rotation will become increasingly important as we dive deeper into Nonstandard lines. In many cases, if we get the right MP tick, often in the form of an early tick, we can conserve one filler resource. **Such filler skips will prove to be crucial in reducing the cost of Nonstandard lines.** For example, in the AF1 F3P Standard line above, if an MP tick happens right after we enter UI, we know that the next tick will happen sometime during or after the B4 cast, granting us full MP. With this, we can safely skip one filler.

The BLM rotation and lines

A line is a sequence of casts with specific characteristics that ends after a fire phase. A rotation refers to a line or lines that can feasibly loop and repeat itself. This is why only the Standard line is typically referred to as a rotation, while other lines are more strictly referred to as lines. Combinations of Nonstandard lines are collectively referred to as Nonstandard playstyle.

When calculating and comparing relative potencies of lines, only the fire and ice spells are considered and the potencies of Xeno and Thunder spells are excluded. **Thus, any damage gains and losses listed in this document only refer to comparison with other fire and ice spells, and do not reflect the gain or loss of the whole rotation.** Overall, fire and ice spells account for approximately 75% of our total damage, which means the gains and losses of Nonstandard lines in the overall rotation are only about 75% of what is listed here. In the AF1 F3P Standard line shown above, the ~0.9% increase by itself would translate to about a 0.7% overall increase in damage.

Fight and BLM-specific strategies

All of the optimizations listed here require you to stand still as much as possible, and sometimes have control over mechanics' resolution. Thus, it would be easier to execute these optimizations in a post-prog static environment with cooperative teammates. Conversely, the Standard Rotation gains more prevalence in pugs. Strategizing around fight mechanics and timelines to reduce movement and instant cast usage is a key part of BLM optimization's effectiveness and must not be ignored.

To get started, you can check the BLM raid guide on page 147. There are many more optimizations with strategies that can be done than what is written here. As a generic tip, for every instant spent on a mechanic, think about how to eliminate its need. And for every movement required, think about how it can either be eliminated or done effectively. Be proactive when creating your own alterations of strats to conserve resources.

Caster tax

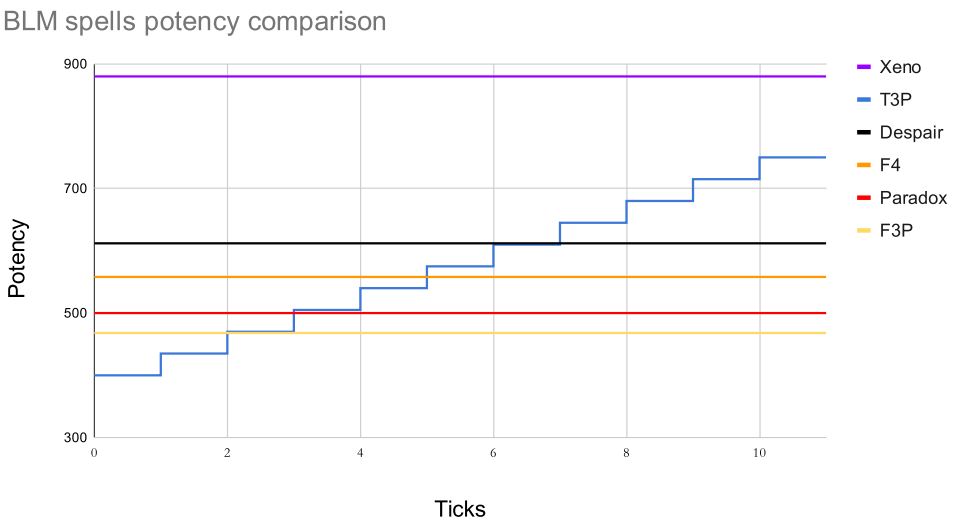
Caster tax is on average an additional 0.1+2/FPS seconds to the listed cast time of a hard casted spell due to animation lock at the end of the spell. In this document, we will take 0.1s as the caster tax. While not unique to this job, BLM is the job affected the most by caster tax. This means a hard casted Fire 4 is in fact 2.9 seconds and not the 2.8 seconds shown. Caster tax is mitigated by instant casting spells which have their animation lock while the GCD is active.

Strong and weak spells

Not all BLM spells are equal; there is a large discrepancy in damage between the strong spells and weak ones. When considering a spell's potency, not only should we look at the spell's potency, we must also consider its cast time (including caster tax) and potency per second.

Spell	Cast Time	On-Hit Potency	PPS
Xenoglossy	2.5	880	352.00
Despair	3.1	612	197.42
Fire IV	2.9	558	192.41
Paradox (UI)	2.5	500	200.00
Paradox (AF)	2.6	500	192.31
Fire III proc	2.5	468	187.20
Fire	2.6	324	124.62
Blizzard IV	2.6	310	119.23
Fire III (from UI3)	2.5	182	72.80
Blizzard III (from AF3)	2.5	182	72.80
Blizzard	2.6	180	69.23

Thunder is not listed above as it is a DoT. When a T3P's DoT is able to run for its full duration, it becomes a high potency spell in our arsenal. Note that Thunder also receives additional potency scaling from Spell Speed.



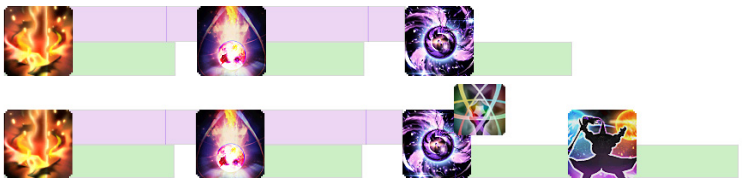
Completing fire phases

The ice phase provides MP and/or Umbral Hearts, crucial resources that enable the strong fire spells at the cost of casting much weaker spells. To fully utilize this cost, we want to complete as much of the fire phase as possible before the boss dies or phases and finish the Despair cast. This could mean either cutting the fire phase short and only cast 5 F4s before the Despair, or planning ahead and choosing a shorter line.

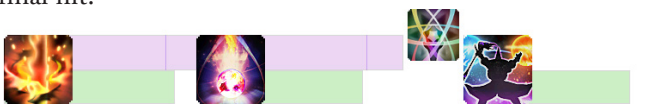
Finishing the Despair cast by cutting a F4.

There are not many effective short B3 lines. You may opt to do a 4xF4 Transpose instead of a full Standard line to finish the fire phase. More details on this line later.

In addition to the Despair cast, we also want to utilize an instant cast as our last hitting spell. This instant could be a Xeno, F3P, or even a UI Paradox.



If no instant cast is available, you might consider clipping Transpose into Paradox as the final hit.



If the boss phases with at least ~16 seconds of actionable downtime, then the UI Paradox after Despair should be used. We can then regain the Paradox by using Umbral Souls to obtain 3 stacks of UI and UHs, swap to AF via Transpose, swap back to UI and regain the UI stacks with Umbral Soul.

Damage application and ghosting

Almost every damage ability in this game has a delay between when the ability is cast and when the damage is applied. This delay varies due to animation and other factors. When damage fails to land caused by the target being dead or invulnerable, this is known as “ghosting”. It is possible to see the damage number on screen while still having it ghost. Be sure to check logs to know for certain whether your damage has landed or not. When planning your last hit on the boss, it is important to keep in mind the amount of time between your spell’s cast and when damage lands. Below is a chart of approximately how long it takes for each spell’s damage to apply.

Spell	Damage Application Delay (s)
Despair	0.56
Paradox	0.62
Xeno	0.63
Scathe	0.67
B3	0.89
T3	1.02
Flare	1.16
Foul	1.16
F4	1.16
F3	1.29

Advanced Manafont usage

From the potency comparison chart prior, we can see that the PPS of F4 and Despair are very similar. In situations where Manafont delays would lead to a lost use, it can be used to grant two additional F4s during a fire phase instead of being reserved for a single F4 and Despair. While less ideal than securing a Despair through Manafont, it is still preferable to forfeiting a use. Beware of MP values and AF timer limitations when implementing this method.

Example usages of Manafont for two F4s in Standard.

Introduction to Transpose Lines

From the potency comparison chart, we can see that B3 and F3 are very weak spells when casted from UI3 or AF3 of the opposite element. Thus, instead of using a weak spell to swap elements, we look to use another tool: Transpose. When using Transpose to swap to Umbral Ice, typically we do not cast B3 as the purpose is to skip it. This means we lack the requirement to obtain the AF Paradox since we need 3 Umbral Ice stacks, which in turn also reduces B4's effectiveness. This results in one less Paradox in the line as well as shorter fire and ice phases. In addition, due to a more limited AF phase to finish the maximum number of fire casts, Transpose lines are more difficult to execute.

In most situations, Transpose to UI should be weaved in the first weave slot to allow the maximum amount of time for MP to regenerate. It should also be weaved after an instant, as clipping the Transpose will almost certainly invalidate any gain from a Transpose line and instead become a loss.

4xF4 Transpose [N33]

To cast 4xF4 and Despair, a minimum of 7200 MP is needed. This can be obtained from 1 UI1 and 1 UI2 MP tick. The slow casting F3 gives ample time to obtain the 2 ticks needed.

While a weak B3 and B4 are skipped, the slow casting UI2 F3 is still abysmal. Compared to Standard, this line is a 0.3% gain. However, it should be compared to AF1 F3P Standard instead, as the latter already has a gain of 0.9% with additional flexibility. **In general, it is recommended to do AF1 F3P Standard over 4xF4 Single Transpose.**

5xF4 Transpose [N36]

(8800 MP) Same principle as 4xF4 Transpose, but with higher SpS for an additional F4 in the fire phase. 2 UI2 ticks or 3 UI1 ticks are required. This line is a 1.9% PPS increase compared to Standard. Beware of how MP ticks interact with increased SpS under LL.

3xF4 Transpose F3P [N101]

(5600 MP) To alleviate the weak slow casting F3, one method is to use a F3P generated from the previous fire phase in its place, which eliminates the F3's long cast time and improves the line's effectiveness. This has been made viable from F3P's change to 30 seconds in Endwalker. However, as we are transitioning to AF with an instant, we can only fit in 3 F4s without high SpS. In addition, we must also consider the Standard line with its probability that produced the F3P. With these considerations, this line in conjunction with Standard yields a 0.55% gain, which is still less than AF1 F3P Standard.

In practice, we want to take advantage of Double Transpose for an even stronger line, and would only use this line should an abysmally timed MP tick occur. Double Transpose lines are discussed shortly below.

Umbral Ice fillers

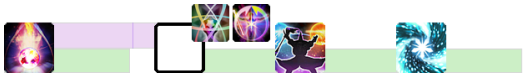
Unless specified, the blank white GCDs in this guide refer to T3P and Xenoglossy. During AoE, T4 and Foul can be used instead. Below is an example of a Double Transpose line with Xeno and T3P as fillers. If the correct MP tick occurs, the last Xeno should be skipped.

Swift and Triple can be weaved to facilitate casts during the fire phase. When a Despair is instant cast, it can substitute as the first instant GCD into Umbral Ice. Below is an example of 4xF4 Transpose with Swift and Triplecast used:

In many Transpose lines, the middle filler can be used to hardcast refresh Thunder. One tick before the Thunder cast is needed as a hardcast Thunder has a cost of 400 MP. Beware of how this MP cost interacts with the MP requirement and generation of the line. There should be an instant cast before the hardcast Thunder for the first Transpose, and another instant after the hardcast Thunder if it is a Double Transpose.

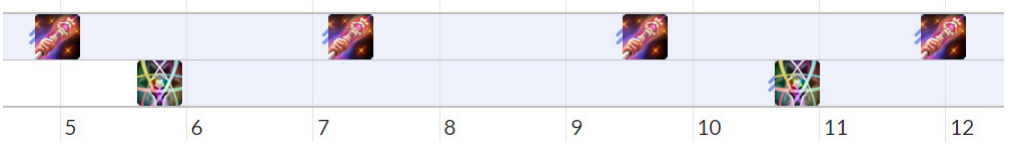
Instant B3 with Transpose [I3]

Should a situation call for B3 to be instant casted, Transpose can be used to increase its potency. 1 MP tick is required before B3 is cast. Instant casting B3 this way is about equal to instant casting a F4 in terms of overall gain to the line's PPS. B3 has an MP cost in UI1 and UI2, so beware of MP generation when executing this transition. Transpose should be weaved first to increase the chance of obtaining a MP tick.



Double Transpose

Although using an instant F3 increases the effectiveness of Transpose lines, a F3 under UI2 is still very undesirable. To circumvent this, we can use a second Transpose during UI to change back to AF and increase the fire spell's potency. The first Transpose should be weaved ASAP after the first instant, and the second Transpose will be off cooldown around mid to late weave of the third instant GCD.



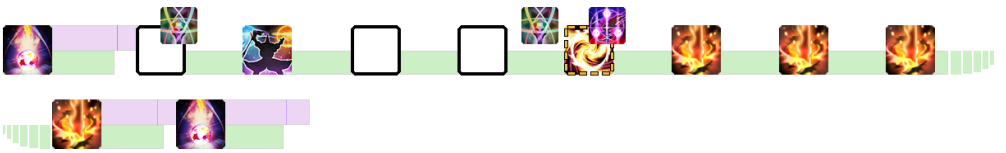
The advent of Paradox in Endwalker has vastly increased the viability of Double Transpose lines. Not only is Paradox an extra filler during Transpose lines, its purpose as a filler in Standard also means other instants can be stored and utilized to enable strong lines. Scathes in this image represent instant GCDs.

When executing Double Transpose off its cooldown, a mere 5 seconds window is not enough to guarantee two MP ticks, and there is a 33% chance of failing to obtain two MP ticks. To guarantee that necessary ticks are obtained, an extra filler may be needed. Alternatively, MP tick triggers can play a crucial role in ensuring the correct ticks happen with minimum instant resources.

3xF4 Double Transpose F3P [N111]

(5600 MP) An incredibly strong line that has eliminated almost all weaknesses in the rotation. This line, along with N112, are the reasons why F3Ps are extremely powerful as they enable these lines. This line is the ideal go-to line for spending F3P. Furthermore, a fundamental goal of Nonstandard playstyle has been adjusted with the goal of enabling strong F3P lines.

4xF4 Double Transpose F3P [N112]



(7200 MP) Additional F4 granted by higher SpS. If Triple is not used, finishing 4xF4 and Despair after F3P requires at least 2.24 GCD, realistically faster for leniency. Not only is the PPS of this line higher from the extra F4, its extra cast also means more time is spent in this strong line.

5xF4 Double Transpose F3P [N113]

(8800 MP) Another F4 can be obtained when LL and Triple are combined. LL must be used before or during the F3 weave. A minimum of 2.36 GCD or 1117 SpS is required, with more SpS recommended for leniency.

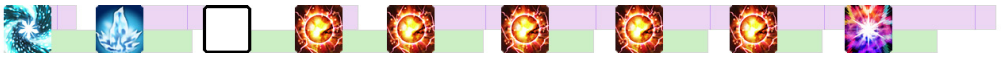
Standard + 3xF4 Double Transpose F3P [N76]

Combining Standard with 3xF4 Double Transpose F3P forms the new backbone of our Nonstandard rotational foundation. Sharpcast can be used to ensure the F3P and is a gain over Sharping Thunder when doing so. With only the natural F3P proc rate considered and without Sharpcast, this line is a 1.5% gain over pure Standard.

Advanced AoE Lines

These AoE rotations follow the same principles as single target Transpose lines. High Blizzard 2 and High Fire 2 when swapping elements, as well as Freeze, are all weak spells and skipping them can result in a gain. Importantly, as these AoE lines are shorter, they overcome one key weakness of the Standard AoE rotation, which is its length and lack of flexibility when aiming to finish the rotation. **If an early tick occurs, a filler can be skipped from each of the following lines.** Same as the Standard AoE rotation, these lines are only better than the single target rotation at 3 targets or above.

Single Flare Standard [A2]

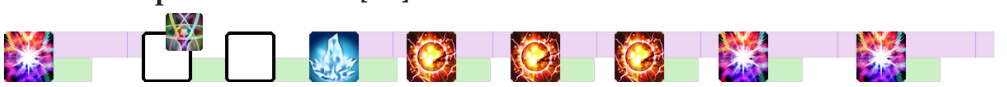


(8300 MP) An extended Standard AoE rotation that utilizes HF2's higher PPS than Flare at above 6 targets. This becomes higher than normal double Flares at 4 targets and above, around 0.5% greater, and becomes ~3% greater at a much higher enemy count. If Triplecast is available to instant cast Flares, then the line with both Flares should generally be used.

Double Transpose with Freeze [A5]

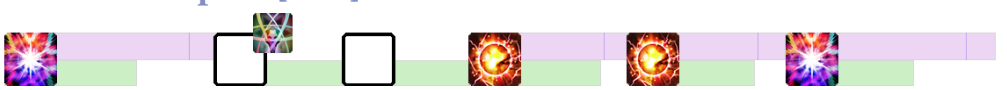
(8400 MP) Skips both weak HB2 and HF2. This line is a 6.6% to 8% gain over Standard, depending on the number of mobs (all % gains or losses in this section are calculated between 3 and 12 mobs), with diminishing effectiveness as mob count increases. The high number of fillers required makes this line less useful than the following lines.

2xHF2 Transpose with Freeze [A7]



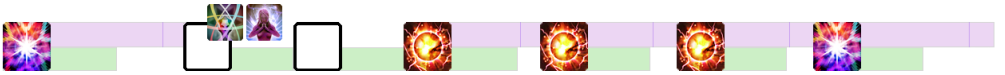
(8400 MP) Same line as A5 but only one Transpose is used. The other Transpose is replaced by an UI1 HF2. This line is about 4.5% to 5% better than Standard.

2xHF2 Transpose [A10]



(3800 MP) A very short Transpose line that also skips the Freeze. 2 UI1 ticks are required. This line is about 3.6% better than Standard.

3xHF2 Transpose [A11]



(6800 MP) Same concept as 2xHF2 Transpose, but with more MP allowing for an extra HF2. The extra MP can be obtained from a Lucid tick, or from an early or extra UI1 tick. This line is 6.7% to 8.2% better than Standard, with higher effectiveness on more targets. **With only 2 filler resources needed, this line is very cost effective and is the go-to Transpose AoE line in most situations if Lucid is available.**

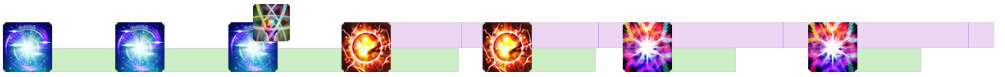
4xHF2 Transpose [A12]

(9800 MP) With an additional UI1 tick, another HF2 is enabled. Requires 3 UI1 ticks + 1 Lucid tick, or 4 UI1 ticks. This is one of the strongest AoE lines, with a gain of 8.5% to 11.2%, with increasing effectiveness against a higher mob count. However, the requirement of 3 fillers and Lucid is not always available, thus making its usage situational.

2xHF2 Double Transpose [A16]

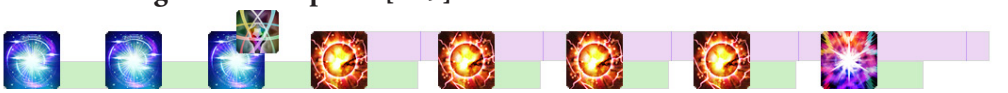
(6800 MP) The extreme case of a Transpose AoE line where Freeze and both weak HF2 and HB2 are all skipped. While the short line boasts an impressive 13.5% gain, the excessive amount of resources makes it costly.

AF1 HF2 Double Flare re-opener [A18]



Extending on the idea of 2xHF2 Double Transpose, the amount of instant resources needed can be obtained during downtime, such as before arriving at the next mob pack in dungeons. Instead of starting in UI3 with a weak HF2, we can start in AF1 with a stronger fire spell. This gives us about a 3.5% gain. This line is applicable for 3-5 targets.

AF1 HF2 Single Flare re-opener [A19]



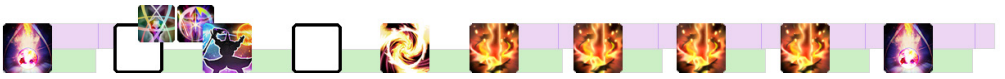
Same concept as AF1 HF2 Double Flare, but with more targets in mind. At a higher number of targets, HF2 becomes more effective with its lack of damage falloff. This line becomes better than A18 at 6 targets or more.

Intermediate

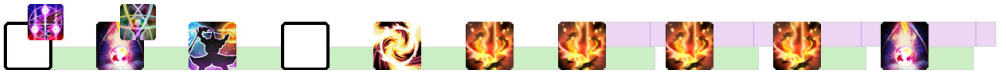
Transpose Instant F3

In addition to using F3P with Transpose, we can also utilize Swift and Triple to instant cast the F3. Doing so has the opportunity cost of not using them on F4 or Despair, but does not require a F3P producing line to yield an instant F3. In the comparisons below, Swift and Triple usage are compared to a Standard line where they are used on Despair and F4s.

4xF4 Transpose Instant F3 [I7]



(7200 MP) Requires 1 UI1 tick + 1 UI2 tick, which can be easily obtained. SpS is needed for 4xF4 after instant F3, which can be done by using Triple in place of Swift. This line is about 1.2% gain compared to Standard.



Another variation of the line where Despair is instant cast. Again, SpS is required for the 4xF4.

5xF4 Transpose Instant F3 [I10]

(8800 MP) Another F4 can be obtained when LL and Triple are combined. LL must be used before the F3 cast, or used during the F3 cast with an additional instant from Swift.. A minimum of 2.36 GCD or 1117 SpS is required, with more SpS recommended for leniency. This line yields a gain of about 2.7%.

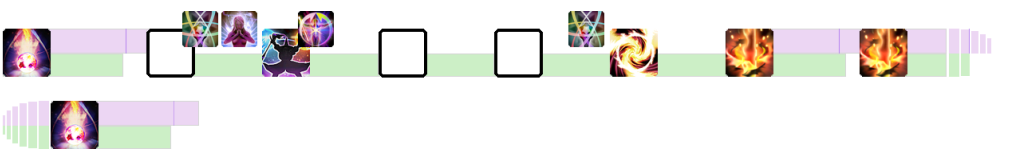
3xF4 Transpose Instant F3 [I5]

(5600 MP) Same principle as the 4xF4 line, but with only 3 F4s. This is a loss compared to using the Swift on a Despair in Standard, about 0.9% lower. However, it is a line with a short length and can be considered if a short fire phase is desired.

3xF4 Double Transpose Instant F3 [I14]

(9600 MP) 3 UI1 ticks or 2 UI2 + 1 Lucid ticks are required. This is a powerful line with a hefty resource cost, and is the go-to line when aiming for instant F3 with Transpose. Compared to Swift Despair in Standard, this line yields about a 4.2% gain. This is another tool in our arsenal to utilize instant casts for an increase in damage.

2xF4 Double Transpose Instant F3 [I15]



(8000 MP) Double Transpose with instant F3 is so strong that one fewer F4 is still a sizable gain. Only 1 UI1 tick and 1 UI2 tick with a Lucid tick are required. This line also has a higher chance of skipping a filler, making it rather cost effective. Compared to Standard, this is higher by ~2.3%.

Openers with Transpose

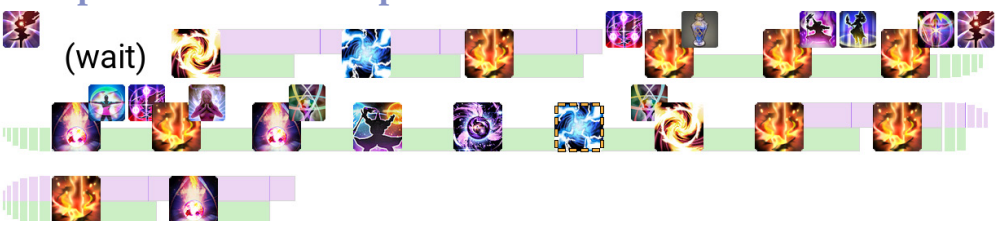
With our newfound knowledge of Transpose lines, we can append our opener and create a stronger opener. These variations of openers all require stillness during the Transpose line, and will not be applicable to all scenarios. Furthermore, the following only shows a

few examples of Transpose variations of openers. There are more possibilities than what's shown and they may be more optimal depending on the fight.

F3 Opener Single Transpose variation

A straightforward F3 opener followed by 4xF4 with instant F3.

F3 Opener Double Transpose variation



One of the most potent openers by utilizing the strong Double Transpose Instant F3 line. As 3xF4 Double Transpose Instant F3 requires 3 UI1 ticks or 2 UI2 ticks + 1 Lucid tick, obtaining the necessary ticks under LL is not guaranteed and this opener has a certain fail rate. This means this opener requires a MP tick trigger as well as being able to pull in order to be consistent, or to be done conditionally with 4xF4 Transpose as backup should a bad MP tick occur.

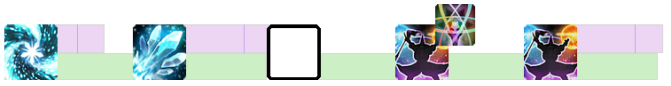
F3 Opener Single Transpose 5xF4 variation

Xeno can be used during UI to catch raid buffs.

B3 Opener Double Transpose F3P variation

A long opener that utilizes the strong Double Transpose F3P line. It is about equal in strength compared to the 4xF4 Transpose with instant F3 variation, but aligns worse with buffs and requires a much longer period of stillness. This opener can be useful for alignment reasons. In addition, note that opening with B3 and B4 only serves the purpose of enabling a Double Transpose F3P line, and any B3 openers without the F3P line are otherwise worse than F3 openers.

Double Paradox



Paradox has the unique property of being unaffected by AF and UI multipliers while giving a AF/UI stack. With Transpose, we can use Paradox to obtain AF2 without losing any value. We can then continue the fire phase in various ways.

Double Paradox 4xF4 [N15]

(8000 MP) From AF2 after Paradox, a F1 is used to obtain AF3. 2 F4s are sacrificed to trade an AF2 F1 in place of a weak UI3 F3. Overall, this line is about 0.6% lower in PPS compared to Standard. However, this does not paint the whole picture. Recall

that F3Ps are highly potent and enable strong lines. Compared to Standard's mere 40% chance of proccing a F3P, this line has a 64% chance of proccing a F3P. The F3P can then be used in F3P lines. With the consideration of F3P lines, this results in an overall higher gain from this line than Standard.

The strength of Double Paradox comes from its prospect of producing a F3P. If the first Paradox yields a F3P and we intend on using the F3P for a F3P line, then the F1's chance of proccing F3P is ignored. Variations of other F3P usage are discussed below. Due to the large amount of hardcasts in the fire phase, this line requires a long period of stillness, which often makes it less effective than Standard.

4xF4 Double Paradox + 3xF4 Double Transpose F3P [N82]

Compared to the average gain of 1.6% when Standard is combined with 3xF4 Double Transpose F3P, Double Paradox 4xF4 yields a 2.0% gain when combined with this F3P line.

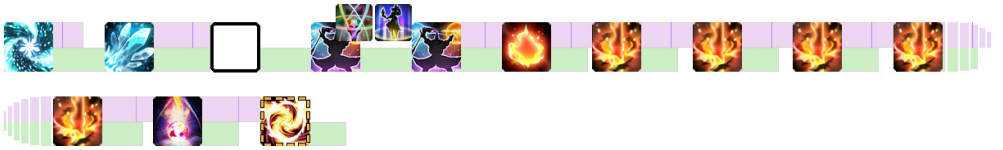
Double Paradox AF2 F4 variation [N16.1]

Uses F1's refresh to enable 1 more F4 under AF2. The AF2 F4 makes it very slightly higher in PPS at a longer line length. As the gain of Double Paradox is from the high proc rate for strong F3Ps, when F3P lines are considered, this line is overall slightly lower with the AF2 F4 compared to Double Paradox without it.

4xF4 Double Paradox F3P F4 variation [N17]

Another use of the F3P is to grant an extra F4. This line by itself is about 0.2% stronger than Standard, but also weaker when F3P lines are factored.

5xF4 Double Paradox [N19]



Gaining an additional F4 under LL while still keeping the high F3P proc rate. This line is 0.6% stronger than Standard and is preferred over Standard during LL.

AF1 Paradox re-opener [N129]

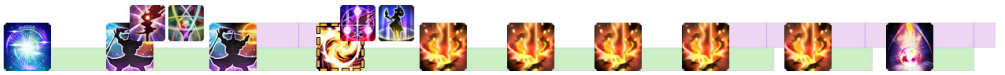
The concept of Double Paradox can be extended to re-openers. Instead of starting in UI3 and casting a weak F3, we can instead start in AF1 and reach AF3 with Paradox and F1. Note that while this line appears stronger than the Standard re-opener in terms of PPS, its shorter line length means it's often not the preferred re-opener over Standard.

Under Ley Lines, 5 F4s is possible, and this re-opener is generally preferred over Standard.

If the UI Paradox is available (reminder that during long actionable downtime, obtaining the UI Paradox is guaranteed), we can use it before Transposing to AF.

Sharp and Triple can be used to upgrade the AF2 F1 to an AF2 F3P while still keeping

4 F4s. Note that it might be better to save the F3P for a F3P line afterwards.



With LL and Triple, we can acquire an additional F4 for 5xF4. A minimum of 2.36 GCD or 1117 SpS is required, with more SpS recommended for leniency.

F3P Concepts

F3P producer and F3P consumer lines

Lines can be categorized into whether they are able to produce a F3P, or consume a F3P. Examples of F3P producers include Standard and Double Paradox, and F3P consumers include all of the F3P Transpose lines previously discussed. Some lines neither produce nor consume a F3P, and some lines can produce as well as consume F3Ps. Another way to conceptualize this is to treat lines as F3P plus, F3P neutral, or F3P minus. Some of the strongest lines are F3P minus lines: these lines consume a F3P and must be paired with a F3P plus line in order to be looped.

This concept has several applications. For one, it is less ideal to end a phase or fight on a F3P producing line, as that F3P that could be used to enable a strong line is now wasted. In addition, this also plays a factor in line lengths. Imagine two F3P producing lines with the same PPS but have different lengths. The shorter line would then be stronger as it can enable F3P lines more frequently. Finally, when evaluating a line's strength, its capability of producing a F3P must also be considered.

Evaluating F3P lines

When looking at F3P lines on their own, they seem to have ridiculously high PPS. This does not paint the whole picture of their strength. Keep in mind that F3P lines are F3P consumers. In order to obtain a F3P line, we must first go through a line that produces F3P, and F3P lines should be evaluated alongside these F3P producing lines. Within

the F3P line, we can either rely on the natural proc rate, or use a Sharpcast. Whichever option we choose, there are additional costs associated with F3P lines that reduce their effectiveness. It is important to consider the management of these resources when evaluating if the gain in dps is worth it.

Variation as a result of F3P lines

Unlike the singular GCD of a F3P, F3P lines are done across a sequence of casts. This means whether a F3P procs or not can vary the rotation by some 10-20 seconds. This is a huge variance when aiming to align with fight phases and mechanics, and manipulating this variance can be challenging. For this reason, it may be preferred to choose a line without such variation, such as Sharpcasting a Standard line, over relying on the proc chance of a F3P producing line such as Double Paradox.

Additional Double Transpose Lines

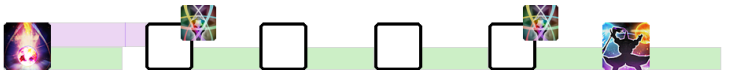
3xF4 Double Transpose F3 [N41]

(9600 MP) Same principle as 3xF4 Double Transpose Instant F3, except without the instant and with a slow casting F3. Even though the F3 is slow, this line still proves to be potent, about a 3.4% gain over Standard. One filler can be used during the fire phase.

2xF4 Double Transpose F3 [N42]

(8000 MP) Same concept as 3xF4 but without Lucid. ~1.5% increase over Standard.

Double Transpose Paradox



Double Transpose AF1 lines specifically refers to a Double Transpose line that arrives at

AF1, and then uses Paradox and/or F1 to reach AF3. The concept is similar to Double Paradox lines, but with an additional Transpose to skip both ice spells. In Double Transpose Paradox, the UI Paradox is conserved and used in AF instead. Double Transpose Paradox will also be relevant during micro downtimes, discussed in a later section.

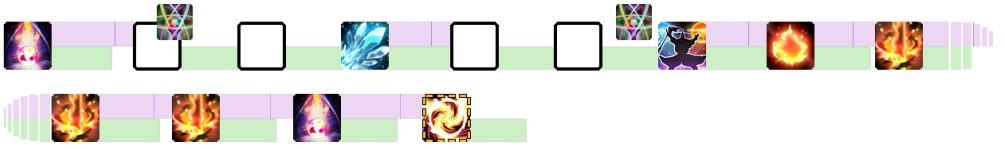
4xF4 Double Transpose Paradox with B4 [N69]

(8000 MP + 600 MP) B4 can be used in place of a filler while also providing a longer fire phase. 3 UI1 ticks are required. This line is surprisingly potent as it shares the principles of Double Paradox but skips the weak B3 cast. This line yields a 3.4% gain and provides a high F3P proc rate at the same time.

4xF4 Double Transpose Paradox with B4, AF2 F4 variation [N69.69]

(9600 MP + 600 MP) Uses F1's refresh to enable 1 more F4 under AF2. This line is about 0.2% lower in PPS compared to N69, but 1 GCD longer.

3xF4 Double Transpose Paradox with B4 [N70]



(6400 MP + 600 MP) Same line as N69 but with one less F4. 3 UI1 ticks or 2 UI1 ticks and 2 Lucid ticks are needed. Compared to the 4xF4 variant, this line has a much higher chance of skipping a filler. The fire phase also offers an extra cast. ~2.0% stronger than Standard.

5xF4 Double Transpose Paradox with B4 [N71]

(9600 MP + 600 MP) Another stronger variant of the line, enabled by Ley Lines. ~4.4% gain over standard.

4xF4 Double Transpose F3P with F1 [N116]

(8800 MP) Uses F1 to refresh when Triple is unavailable to enable 4 F4s in AF. Somewhat weaker than previous shorter Double Transpose F3P lines, but provides the ability to produce a F3P.

6xF4 Double Transpose F3P with B4 [N119]

(9600 MP + 600 MP) Another powerful Double Transpose F3P line. 2 UI2 ticks and 1 Lucid tick are required. While this line is also not as potent as 3xF4 Double Transpose F3P, its length and its ability to produce a F3P brings it closer in strength.

6xF4 Double Transpose F3P with B4, AF Paradox variation [120]

(9600 MP + 600 MP) An upgrade from N119 by eliminating the F1 with the UI Paradox. This is one of the strongest F3P lines but with a hefty resource cost.

Notes on Thunder

The ideal Thunder refresh in Nonstandard is the same as it is in Standard: as the DoT falls off. However, compared to Standard, Nonstandard lines are generally much shorter in length and have stricter filler applications. This causes Thunder usage to diverge during Nonstandard gameplay where we do not have a filler space when the DoT is about to fall off. Every 30 seconds of overwritten DoT with T3P is equal to replacing a spell with a 400 potency T3P. If a T3 is used instead of T3P, then this becomes a lot less than 400 potency. This results in a devaluation of lines if DoT ticks are cut short, and it is also true for the Standard Rotation.

Generally during Nonstandard, you should aim to avoid cutting the DoT short by more than 5-10 seconds with a proc, and avoid cutting the DoT short at all with a hardcast. Sharpcast adds some degree of leniency with regards to cutting ticks short. In addition, dropping the DoT for more than 1 tick should also be avoided. The exact gains and losses from Thunder use in Nonstandard is dependent on various factors. As a rule of thumb, the stronger the Nonstandard line, the more leniency you have with deviating from optimal Thunder usage. Sharpcast on Paradox or F1 is a gain if strong Double Transpose F3P lines are enabled when compared to using it on Thunder.

Notes on Spell Speed

Unless specified, the lines in this document are tested at 1400 SpS, or 2.32 GCD. With a few exceptions which are also specified, all lines are doable at 2.32 GCD with the listed fillers without missing MP ticks. To perform the 4xF4 Despair after F3P with Triplecast, a minimum of 2.43 GCD is required, and a 2.37 GCD is required if only 2 stacks of Triple are used on F4s. See the Appendix section for more Spell Speed thresholds. More SpS should be added for leniency. Some lines might not be applicable at (much) higher Spell Speeds and additional fillers might be needed at extremely high Spell Speeds. The higher your Spell Speed, the less luck you will have with MP ticks. This principle

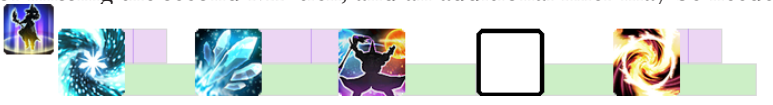
also applies to Ley Lines. While LL can enable additional F4s in the fire phase, it also changes how MP ticks interact with fillers in UI. Thus, beware of MP ticks during UI when LL is active. Double Transpose lines also require an additional filler under LL as the faster GCD will be clipped by Transpose's cooldown.

In addition to MP tick considerations, much of Black Mage's resources function on a fixed timer that are not affected by Spell Speed. Additional Spell Speed will not increase the number of available fillers, Swifts/Triples, and Sharpcasts available. Furthermore, a faster Spell Speed will often require extra Thunder ticks to be cut short. As a general rule of thumb, while some lines require a high Spell Speed, the higher the Spell Speed, the noticeably less available and less effective some other lines, especially short Double Transpose lines, will become.

This concept has several applications. For one, it is less ideal to end a phase or fight on a F3P producing line, as that F3P that could be used to enable a strong line is now wasted. In addition, this also plays a factor in line lengths. Imagine two F3P producing lines

Standard Rotation under Ley Lines

At a SpS of 2.3 GCD or faster, obtaining 2 UI3 ticks during ice phase with Standard under Ley Lines is no longer guaranteed. With SpS BiS, there is about a 10-15% chance of missing the second MP tick, and an additional filler may be needed.



Comparing Fire/Ice Lines

For calculations and details behind the math of everything in this document, see the lines comparison sheet on page 77. When analyzing strengths and weaknesses of lines, there are numerous factors to be considered.

PPS

PPS is the most straightforward factor and has a direct effect on a line's effectiveness. When comparing PPS, the percent of difference should be the metric over a raw number. When calculating PPS of lines, potencies of Thunder and Xeno are not included. As mentioned prior, this creates a difference in the PPS and PPS comparisons of lines, versus the PPS of the overall rotation.

Resources

Another important factor is the amount of resources each line requires. Resources come in the form of instant casts spent, F3Ps used, Sharpcasts available, and Swift/Triples used. There is a correlation between the amount of resources a line requires and its potency. Finding the optimal rotation has thus become a balancing act of using less potent lines that conserve resources, versus stronger lines that expend resources.

A consistent resource expenditure when analyzing lines is essential. If more resources are spent, then a higher return should be expected. This is pivotal when looking at instant F3 lines, with Swift/Triple and F3P. It would be disingenuous to compare a line that has used Swiftcast to a line that does not use Swift. The effect of Swiftcast would skew the result in its favour.

Swift and Triple also have an unequal effect on each line's PPS due to varying line lengths. The same reduction in cast time will increase a shorter line's PPS more than it would on a longer line. As such, the PPS and relative potencies of lines with Swift and Triple should be adjusted to account for this effect. For this reason, a line with Swift might have a higher raw PPS but a lower relative PPS once Swift's effect has been normalized.

Likelihood of filler skips from correct MP ticks

Every line has a certain probability of allowing a filler skip from obtaining the right MP ticks. It is possible to calculate precisely how likely it is to skip a filler in each line. Using less resources increases effectiveness and thus a high chance of skipping a filler also increases a line's effectiveness.

Line Length

The length of each line is another crucial consideration for two reasons. Firstly, as discussed previously, one goal of utilizing different lines is to align with mechanics and phases. Finishing a full fire phase is always a priority. In addition, each line's length also dictates their strength. Some lines may be very powerful, but expend a high amount of resources and only last a short amount of time. We are then forced to return to a relatively weaker line, such as Standard, for a larger portion of our rotation. Compare this to a similar line in terms of resources requirement that is slightly weaker, but at a longer length. This would mean we get to stay in this line for a prolonged period of time before needing to return to a weak line.

Time Gained Equivalent

Time Gained Equivalent (TGE) is a more advanced metric of evaluating line strength. Each unit of TGE equates to gain in time as if we did the Standard Rotation for that amount of time. For example, a TGE of 1.0 would mean the gain of the line is equal to one second of the Standard line. This number is given by the formula *relativePPS * lineLength - lineLength,* and normalizes the line lengths by treating its gain in PPS as a gain in time. This allows comparison of lines with varying lengths and PPS. The concept of TGE can be extended by multiplying TGE by PPS of the Standard line, which converts TGE into a potency equivalent: Potency Gained Equivalent or PGE. This is useful when conceptualizing a line's overall return as a potency and has application in Thunder related comparisons. TGE and PGE should be treated as theoretical ideas for evaluating lines rather than a deterministic calculation.

Flexibility

The extent of optimization is fundamentally limited by fight mechanics. In order to line up with mechs, some degree of flexibility may be required in the lines we choose. An easy way to determine a line's flexibility is its number of available filler spots during its AF phase. For Standard, there are two available filler spots, one on each side of the Paradox refresh. The majority of Nonstandard lines offer no flexibility, which contributes to their difficulty in execution.

Choosing Fire/Ice Lines

When choosing which line to use, there are a number of factors to consider.

Mechanics

The most important and most straightforward consideration. If motion is required, then lines that require stillness are unavailable. This can also come in the form of needing to use an instant for weaving. This factor can sometimes favour Nonstandard lines, as many Double Transpose lines utilize multiple instant cast spells during UI, which are valuable as movement tools.

Example: during a phase with a high movement requirement, instead of using F3P for a Double Transpose line, it is instead used to prolong the fire phase to allow extra fillers for handling mechanics.

PPS

Another straightforward consideration. We want to aim to choose lines that provide the highest overall potency over the same amount of time.

Example: during AoE, using 3xHF2 Transpose over 2xHF2 Transpose with Freeze for its higher PPS with the same amount of instant fillers.

Available resources

The amount of resources also dictate which lines are available. Keeping track of instants, Swift/Triple, Sharpcast, and Fire and Thunder procs is key in deciding the optimal line. Be mindful of resources that may be needed to handle mechanics.

Example: using Double Transpose with instant F3 with an available T3P, 2 Xenos, and Swiftcast.

Phase and buff alignment

Although BLM's damage is relatively consistent, small gains can be made by aligning properly with buff windows. In addition, lines should be chosen if their fire phase can be completed before the boss phases.

Example: choosing a shorter line before buff window arrives so that the start of the next fire phase aligns with buffs.

Thunder refresh

If choosing a line would result in a long period of dropped Thunder, it is likely better to choose a different line with a well timed Thunder refresh.

Example: entering a Standard line to refresh T3 instead of cutting Thunder DoT ticks short for a Nonstandard line.

MP ticks

Having a correct tick often means conserving instant resources. This may impact the chosen line as spending less resources returns a higher effectiveness. In more advanced cases where MP ticks are aimed to be accurately aligned, interaction between lines and tick alignment also become much more important.

Example: choosing a different line over 3xF4 Double Transpose due to its tighter tick timing when 1 filler is skipped.

The decision of which line to enter is extremely situational as it is more dependent on mechanics, alignments, procs, and resources, rather than a simple potency comparison.

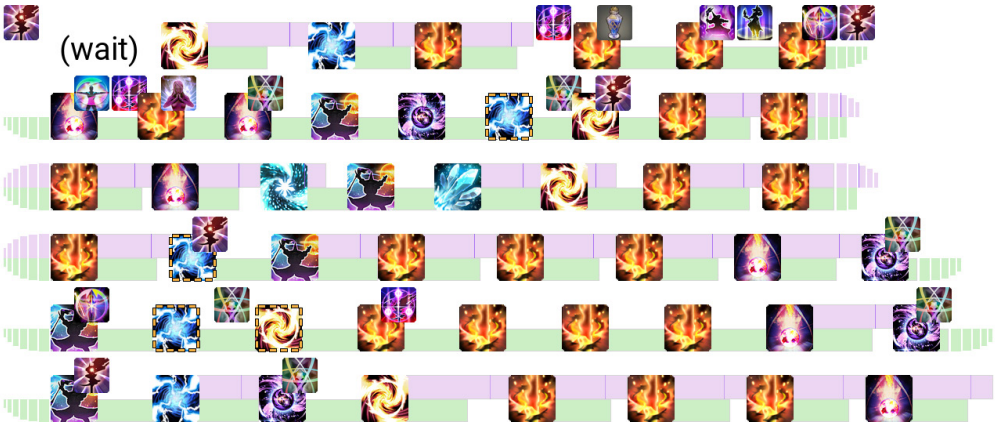
Advanced

Certain sections require the MP tick trigger.

Opener Sequence

Earlier, we explored the possibility of combining Nonstandard lines into our opener for longer and stronger openers. With the ability to track MP ticks as well as being able to do the countdown, we have far more control over the beginning of each fight. We can eliminate unnecessary fillers during UI and create stronger openers. A prolonged opener phase also eliminates some variance and provides consistency to what we aim to do.

Example opener sequence

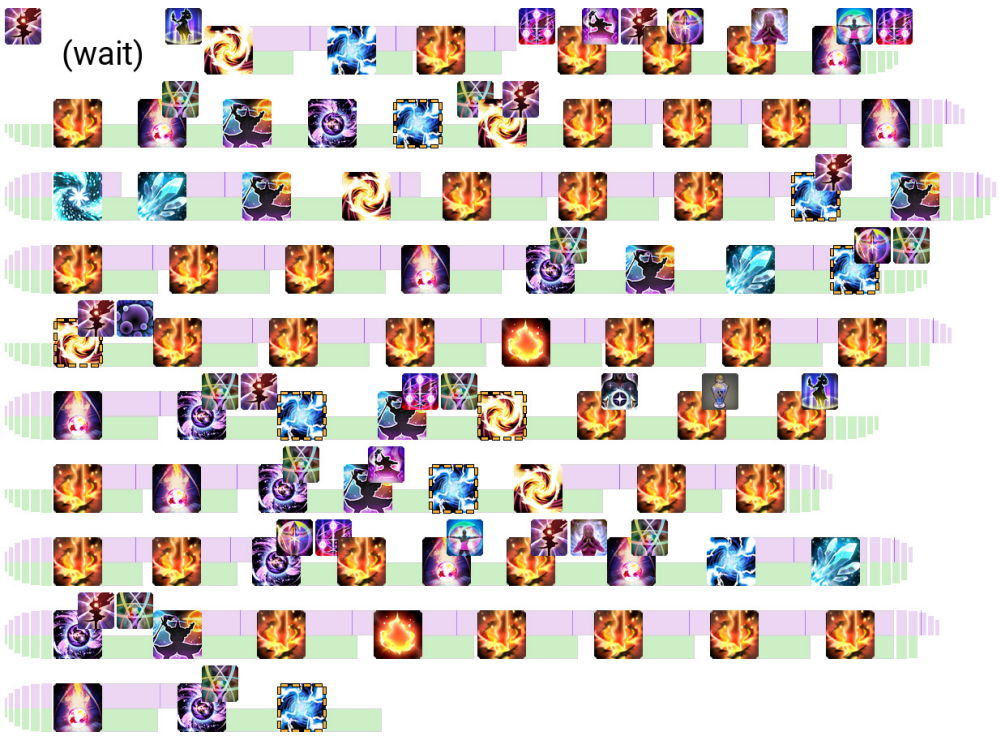


Sharpcast at -18 seconds. 1:53 in length, 2.32 GCD. The last 3xF4 Double Transpose can be dropped depending on the fight.

It's possible for opener sequences to be much longer (and much more optimal) than what is shown. The limitation to how long a dummy opener sequence can be planned comes from the variance in T3 and F3 procs. Compared to Shadowbringers, Nonstandard in Endwalker is likely to be more capable of being spreadsheeted due to

the increase in length of procs. The exact tick timing and optimal sequence not only depends on the fight's mechanics and timeline, but also on the individual player's Spell Speed and ping. It's up to you to figure out what is possible and optimal.

Example Endwalker P2S opener sequence



Up until the first frozen wave push. 3 minutes 5 seconds in length.

Sequence branching

When planning an opener sequence, whether a proc occurs or not can alter our planned sequence. Similarly, randomness in mechanics may also force a deviance. To factor these random elements, we must either plan our sequence in such a way that the variance is eliminated, or plan multiple branches within the sequence should any deviances occur.

Utilizing Micro Downtime

A micro downtime refers to any actionable downtime where 2-3 Umbral Souls cannot be completed, or unactionable downtime where MP is still regenerated without dropping Enochian. Examples include short downtimes in E6S, Basic and Intermediate Relativities in E12S, and forced march mechanics. Commonly, a Sharp'd Paradox is used to prolong the fire phase, or the player enters ice phase with B4 and other fillers prior to the downtime. While full uptime is kept with these strategies, they miss the potential of a gain. **Instead, micro and frozen downtimes should be viewed as an opportunity for MP to regenerate,** thus enabling stronger lines. Micro downtime is not the same as long periods of actionable downtime.

We start by finishing the fire phase before the boss is untargetable. The simplest way to utilize micro downtimes is by Transposing after the Despair and let MP naturally regenerate instead of spending valuable filler instants. Ice Paradox can be used as the last hit and T3 can still be applied in these lines if needed. We can then Double Transpose into a variety of lines, using the MP we had received.

We can do better than this with Double Transpose Paradox lines. Simply conserve the UI Paradox and use it to obtain AF3.

The number of F4s is flexible, depending on the amount of MP received.

If Paradox procs, we can use the F3P and obtain an additional F4. Alternatively, Sharpcast can be used to ensure the proc. There are more variations of lines possible, depending on the MP and UH available and the exact scenario. Other Transpose lines can also be considered with this principle.

Advanced BLM Concepts

Approaches to Nonstandard playstyle

There are two approaches to Nonstandard: spreadsheeting and improvising. In Shadowbringers, the Thunder proc's length in relation to the DoT's length was a major contributor to sequence deviations. With Endwalker's Thunder changes and an extra Sharpcast charge, Thunder refreshes are now predictable. By limiting F3P variations and managing MP ticks, we can plan out and “spreadsheet” a sequence of casts up to the duration of an entire fight. A predictable and precise sequence enables meticulous calculations, ensuring the optimal line with exact timings. In contrast, a more reactive "improvisation" playstyle (also known as freestyling) involves minimal prior planning, with decisions made in real time. Certain fights, mechanics, and lines often present numerous variations where planning is less effective, and spontaneous decision-making proves more effective. Double Paradox exemplifies a line that benefits from a flexible sequence rather than a fixed one. Additionally, fights with variable kill time phases cannot be precisely planned due to unpredictable MP tick occurrences and other factors. This includes Ultimates and any fight with an adds phase. Both spreadsheeting and improvisation have distinct merits and challenges, and players should become proficient in both styles.

Shifting of early Thunder refreshes

When consecutive Thunder refreshes have ticks cut short, examine the total shortened ticks rather than each refresh individually. For instance, if one refresh is cut by 10 seconds and the next by 5 seconds, consider the total 15 seconds of shortened DoT. This is the same as cutting one refresh short by 15 seconds and the other by 0 seconds. This

approach allows for better Thunder alignment. For example, if Thunder is refreshed under buffs, it's preferable to let it run longer.

This principle is crucial for refreshes dependent on natural proc rates. In the following sequence, the second and third Thunder refreshes each have their DoTs cut short by 5 seconds. The first Thunder is Sharped, and the second is not, guaranteeing a proc for the second Thunder and leaving the third to a natural proc rate. Since the second Thunder's proc is guaranteed and unaffected by the DoT length, it should be refreshed early to maximize ticks for the third Thunder, increasing its proc chance.

Buff alignment

While BLM's damage output is relatively consistent, Nonstandard provides us with the tools to better align with buff phases. Below a chart of comparative potencies using AF3 F4 as a base. While fitting in stronger spells such as Xenoglossy and T3P are a gain, avoiding weak spells emerge as a higher priority. An instant should also be utilized as the last spell to snapshot buffs before they expire.

*Thunder's damage has additional scaling from Spell Speed

Spell	Potency	Potency vs. F4
F4 (AF3)	558	0
Despair (AF3)	612	+54
Paradox	500	-58
Xeno	880	+322
T3P* (10 ticks)	750	+192
T3* (10 ticks)	400	-158
F3 (AF3)	468	-90
F3 (AF1)	364	-194
F3 (UI3)	182	-376
F3 (UI2)	208	-350
F3 (UI1)	234	-324
B3 (AF3)	182	-376
B4	310	-248

Lucid methods

The majority of lines utilizing Lucid Dream only require 1 tick from Lucid, with some lines requiring 2 ticks. This means as long as Lucid's buff remains in UI for that amount of time, the application of Lucid Dream is flexible.

At certain Spell Speeds, Lucid's duration is able to grant the MP regen utility for two consecutive lines.

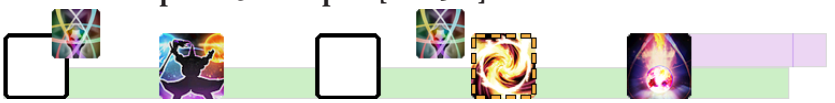
Weaving under fast F3/B3

While fast F3 and B3 are considered valid weave slots, they typically introduce a 0.1 to 0.2-second clip. With the advent of Paradox in Endwalker and Sharpcast's 30-second cooldown, we now have more instant casts available for weaving, allowing for more lenient oGCD usage. If possible, prioritize weaving in other slots over fast F3 and B3. Though the time saved is minimal and primarily relevant for top-tier optimization, over a full uptime fight, the accumulated clip can be the difference between ghosting the last GCD or not.

Optimizing the last Sharpcast

Suppose the boss dies at t-0 seconds. Ideally, the last Thunder refresh would occur at t-30 seconds, posing a problem: there isn't enough time to effectively use the Sharpcast between t-30 and t-0. For most players, where precise kill timing isn't guaranteed, using Sharpcast to ensure a T3P for kill time variance is likely more important. However, if the kill time is optimized with precise GCD planning, using the last Sharpcast for a F3P line may result in a gain. In this case, a shorter line like N116 is preferable due to Sharpcast's cooldown and the time constraint before the kill.

Double Transpose F3P Despair [N115.1]

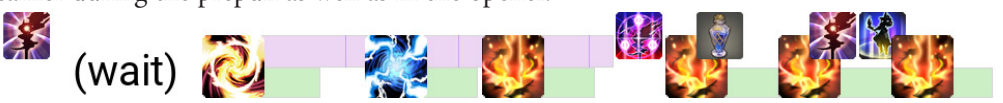


This must be a Double Transpose to be a gain. One or more F4s could be cast before the Despair.

Example Triple Transpose finisher.

Rushing Sharpcast during opener

There may be times when specific timings of Sharpcasts are required and having Sharpcast available sooner is beneficial. We can look to prioritize Sharpcast and use it earlier during the prepull as well as in the opener.



Sharpcast used at ~21 seconds prepull.

Sharpcast double weaved with pot in an extreme case. Not recommended for players with high ping. Sharpcast used at ~23 seconds prepull.

Tracking Filler Skips with MP Triggers

Earlier, we mentioned that UI fillers can be skipped if an early MP tick occurs. Building on this, we can calculate the feasibility of skipping a filler based on the timing of the next MP tick in relation to our rotation. To do this, we need a reference point, such as "when B3 starts casting" or "when the first instant is cast." Using these calculations, we can determine the probability of a filler skip for each line. For example, an MP tick tracker can mark the start of F3's cast while ensuring the required MP tick.

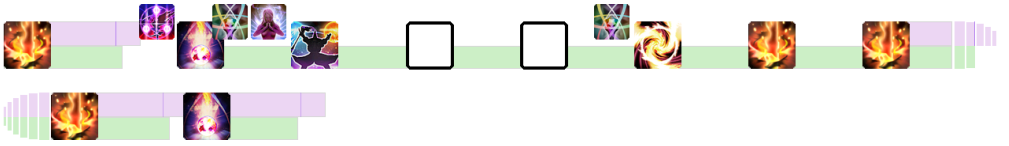
Cast confirmation, a key game mechanic, occurs ~0.5 seconds before the end of the cast, within the slidecast window. This means B3 and F3 transition elements about 0.5 seconds before their casts end. Tracking MP ticks is highly dependent on SpS and ping, so you should calculate and test for your own setup. **The key takeaway is that it is possible to precisely determine the feasibility of a filler skip.**

Likelihood of filler skip in each line

Extending on the principle of tracking filler skips, we can also calculate how likely it is for the right MP ticks to occur in each line and allow potential filler skips. In the lines comparison sheet, the probabilities of filler skips in some common lines are listed. This is yet another element to determining a line's strength, as a higher chance of skipping a filler means less resource is required to execute the line.

Additional Niche Lines

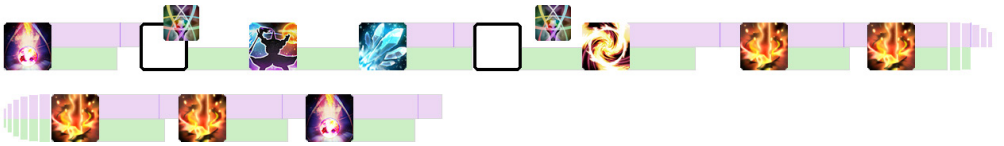
3xF4 Double Transpose Instant F3 with Clipped Triple [I27]



In order to reduce the resource requirement of the strong 3xF4 Double Transpose line, we can create an instant by forcefully clipping Triplecast before Despair. This line still yields a 0.6% gain.

More productively, we can utilize the Triple clip to enable an extra F4 that would have been impossible without the clip.

4xF4 Double Transpose w B4 [N44]



(7600 MP + 600 MP) 2 UI2 ticks are required. This line is about 0.9% stronger than Standard. It may be useful in a situation where 2 fillers are available and the appropriate line length is desired.

4xF4 Double Transpose instant F3 w B4

Instant F3 principles also apply.

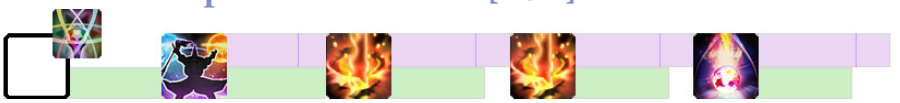
5xF4 Double Transpose w B4 [N45]

(9200 MP + 600 MP) Additional F4 from Ley Lines. 1 UI1 tick plus two UI2 ticks are required.

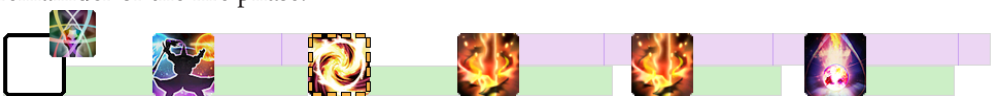
5xF4 Transpose with HF2 [N36.1]

(8800 MP) Very slightly worse than 5xF4 Transpose with slow F3, about 1.6% in gain compared to the aforementioned line's 1.9%. However, HF2's faster cast time enables any needed MP tick alignment.

Double Transpose Paradox AF2 [N51]

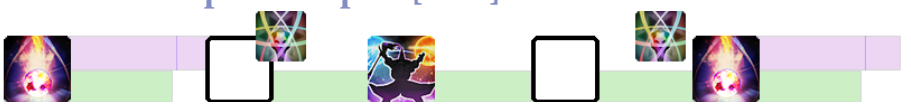


(5600 MP) In certain situations, it may be optimal to reach AF2 and stay in AF2 for the remainder of the fire phase.



(5600 MP) F3P variations can occur.

Double Transpose Despair [N46]

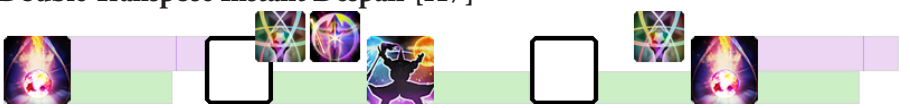


A line with a notably short length at the cost of two fillers with a 2.4% gain over Standard. Its variations may come in handy when excess resources are available during a short amount of time. Note that even though we have MP for a F4, it is undesirable to cast it as the gain from this line is from the strong Paradox and AF1 Despair, and using an AF1 F4 would reduce its effectiveness.

Double Transpose Despair + Standard [N47]

This line can be attached to a Standard line with a B4 cast during Double Transpose Despair.

Double Transpose Instant Despair [I17]



The Despair can be made instant to further increase its effectiveness.

Example usage with Triplecast and Manafont.

Double Transpose Paradox Despair [N50]

The Despair is further buffed by AF2 from the AF Paradox. This line can be useful with certain micro downtimes, or during very specific phases.

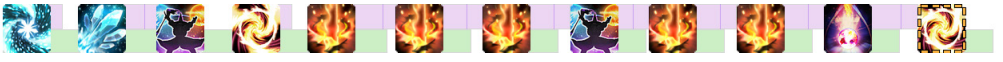
Suboptimal Lines

This section explores nontraditional lines that yield in a loss. This section explores nontraditional lines that yield in a loss. In situations that force a nonoptimal rotation, commonly during progression, these lines can help manage the situation and minimize further loss. Additionally, understanding these lines keeps thought processes calm and structured, allowing for better focus on mechanics. Choosing a line with a 5% loss over one with a 10% loss is still an improvement.

Standard with clip [N2]

If a clip occurs, it results in a 2.2% loss to the Standard line. This also applies to any lost uptime equivalent to the duration of a clip.

Standard with 1 less F4 [N4]

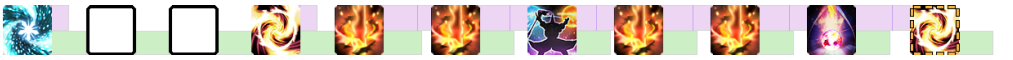


About 1.2% less than Standard. It is preferable to finish the Despair with an F4 cut short rather than losing Enochian or not completing the Despair.

Standard with additional F1 [N5]

About 3% worse than Standard. Generally it's better to cut a F4 short than it is to extend the fire phase with a F1.

4xF4 [N10]



About 1.8% less than Standard but is able to produce a F3P. The Paradox can be shifted to UI as a filler.

5xF4 [N13]

Requires Ley Lines or Triplecast at high SpS. Essentially the same in PPS as Standard.

Appendix

Spell Speed Thresholds

The table below shows minimum Spell Speeds at which each sequence is possible. This table can also be found in the Lines Comparison sheet. The values are tested at ~100 FPS and ~70 ping, out of instance. This table is meant to serve as a rough reference only and you should test specific sequences for yourself. Your results may vary based on latency and a number of other factors. In addition, for simplicity, SpS are in base 2.5 seconds cast, which could have differing cast times for other base Spell Speeds. For example, a 2.46 seconds cast in 2.5 seconds base could mean either a 2.76 seconds cast or a 2.75 seconds cast in base 2.8 seconds. Lastly, you should aim for more Spell Speed than what is listed for leniency and other factors.

* = Instant cast
# = Circle of Power buff falls off
LL = Ley Lines

Casts	Min. Recast Reqt.
Instant F3 FxF4	
F3* F4 F4 F4 T3 Para	2.36
F3* F4 F4 F4 T3P/Xeno Para	2.38
F3* F4 F4 F4 F4 Para	2.32
F3* F4 F4 F4 F4 Desp	2.24
F3* F4* F4 F4 F4 Desp	2.31
F3* F4* F4* F4 F4 Desp	2.37
F3* F4* F4* F4* F4 Desp	>2.40
F3* F4* F4 F4 F4 T3P/Xeno Swift Desp*	2.29
F3* F4* F4* F4 F4 T3P/Xeno Swift Desp*	2.36
F3* F4 F4 F4 F4 Swift Desp*	>2.40
LL F3 F4 F4 F4 F4 F4 Swift Desp*	2.38

LL 5xF4 Instant F3	
F3* F4* F4* F4* F4 F4 Desp	2.40
F3* F4* F4* F4 F4 F4 Desp	2.36
F3* F4* F4 F4 F4 F4 Desp	2.31
F3* LL F4* F4* F4* F4 F4 Desp	2.36
F3* F4* LL F4* F4* F4 F4 Desp	2.31
LL F3* F4 F4 F4 F4 F4 Swift Desp*	>2.40
LL 5xF4 with partial LL	
LL F3 F4 F4 F4 F4 F4 # Desp	2.38
LL F3 F4 F4 F4 F4 # F4 Desp	2.33
2.40 or higher	
Fast F3 F4 F4 F4 F4 Para	Base
Fast F3 F4 F4 F4 F4 Despair	>2.40

Acknowledgements

- Lady Yuna'lesca for developing the simulation "Megumin" AI (origin of the name "AI rotation") which paved the way of discovering many of these lines, and for his contributions to this document. **You can find Yuna's AI here: https://tinyurl.com/yunasai**
- Fürst Blumier for the help with math, his general BLM inspirations to me and reviewing this document.
- DiaStarvy also for his help with math. We all wish that unis taught us PPS.
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- Caro Kann for his 5.x document on Nonstandard Rotation (https://tinyurl.com/ShBHypermemeBLM), which also built a foundation for high end BLM theorycrafting.
- Laqi Thish for the document format and building the foundation for BLM discussion and optimization.

Epilogue

My initial intention with my previous Transpose lines document was simply to create a compilation of Transpose lines as such a thing was absent. I did not anticipate being this deeply involved with Black Mage theorycrafting. However, as I dug through the different forms of rotations, I became intrigued with them and gradually discovered more things about them and about Black Mage. There is a sort of mathematical beauty in seeing an optimal BLM rotation with upgraded lines and perfect alignments of procs, ticks, and mechanics. The base or standard BLM rotation is extremely easy, but evidently, this is only the surface. Beneath the surface lies a hidden but vast arsenal of optimizations to increase BLM's damage. Mastering the usage of this arsenal takes incredible skill, and it's a great contrast to the simplistic nature of the base rotation. In an age where job complexity is reducing across the board, I am proud that Black Mage still has much to offer, and I am excited to see what players do to push its limits.

June 2024 update: This document was written at the start of Endwalker, a very different time compared to now. During 5.x, Nonstandard playstyles lacked good resources, and those who adopted them were serious about optimization. They were the players who would read a 40 page guide like this one. Initially, this guide catered to such an audience. However, as Endwalker progressed, Nonstandard playstyles became more widespread than I anticipated, necessitating both simpler and more advanced versions of the guide. While a more advanced version was created, a simpler one was not, misleading players about Nonstandard's difficulty. While I am extremely proud of the revolutionary improvements this guide offered at its release, I feel a personal regret that certain introductory information was not better presented for those less invested.

6.x Black Mage Lines Comparison Sheet

Made by Reina Leigh

Normal Rotation Lines (N)

Spell	AF3	AF2	AF1	UI3	UI2	UI1
Fire 1	324	288	252	N/A	N/A	N/A
Fire 3	468	416	364	182	208	234
Fire 4	558	496	434	N/A	N/A	N/A
Despair	612	544	476	N/A	N/A	N/A
Blizzard 3	182	208	234	260	260	260
Blizzard 4	N/A	N/A	N/A	310	310	310
Paradox	500					

Notation

- () Possible inclusion(s) to line
- {} Branches within the same line
- [] Only 1 occurance within the looping line
- Transpose is represented as UI1/AF1
- Underlined lines are noteable lines. Bolded IDs are lines discussed in the Nonstandard doc

B3 lines

ID	Line	Type	Casts	Potency	Time	PPS	Rel. PPS	TGE
0	Standard	Standard	B3 B4 PD F3 3xF4 PD 3xF4 Desp (F3P)	5821	34.20	170.21	1.0000	0.00
1	Standard without F3P	Standard	B3 B4 PD F3 3xF4 PD 3xF4 Desp	5634	33.20	169.70	0.9970	-0.10
2	Standard w 1 clip	Standard	B3 B4 PD F3 3xF4 PD 3xF4 Desp (F3P)	5821	34.90	166.80	0.9799	-0.70
3	Standard w UI PD skip	Standard	B3 B4 F3 3xF4 PD 3xF4 Desp (F3P)	5321	31.70	167.86	0.9862	-0.44
4	Standard w 5xF4	Standard	B3 B4 PD F3 3xF4 PD 2xF4 Desp (F3P)	5263	31.30	168.15	0.9879	-0.38
5	Standard w additional F1	Standard	B3 B4 PD F3 3xF4 PD F1 2xF4 Desp (F3P) (F3P)	5774	34.90	165.46	0.9721	-0.97
5.1	Standard without Despair	Standard	B3 B4 PD F3 3xF4 PD 3xF4 (F3P)	5209	31.10	167.50	0.9841	-0.50
6	AF1 F3P Standard	Standard	B3 B4 PD {F3} {AF1 F3P} 3xF4 PD 3xF4 Desp	5707	33.20	171.89	1.0099	0.33
7	AF1 F3P Standard	*Standard*	*B3 B4 PD {F3} {AF1 F3P} 3xF4 PD 3xF4 Desp*	*5720*	*33.31*	*171.70*	*1.0087*	0.29
8	Standard w B1	Standard	UI1 PD B1 B4 F3 3xF4 PD 3xF4 Desp (F3P)	5819	34.30	169.66	0.9967	-0.11
9	Standard with AF1 F3	Standard	B3 B4 PD AF1 F3 3xF4 PD 2xF4 Desp (F3P)	5445	32.40	168.06	0.9874	-0.41
10	4xF4 | AF PD	B3 Nonstandard	B3 F3 4xF4 PD Desp (F3P)	3895	23.30	167.18	0.9822	-0.42
11	4xF4 Transpose Fire F3P	B3 Nonstandard	B3 {F3} {AF1 F3P} 4xF4 PD Desp	3781	22.30	169.54	0.9961	-0.09
12	4xF4 Transpose Fire F3P	*B3 Nonstandard*	*B3 {F3} {AF1 F3P} 4xF4 PD Desp*	*3790*	*22.38*	*169.34*	*0.9949*	-0.11
13	5xF4	B3 Nonstandard	B3 PD F3 5xF4 Desp	4266	25.10	169.96	0.9985	-0.04
14	3xF4 | AF PD	B3 Nonstandard	B3 F3 3xF4 PD Desp (F3P)	3337	20.40	163.59	0.9611	-0.79
15	Double Paradox	B3 Nonstandard	B3 B4 PD AF1 PD F1 4xF4 Desp (F3P)	4924	29.10	169.19	0.9940	-0.17
16	Double Paradox witout F3P	B3 Nonstandard	B3 B4 PD AF1 PD F1 4xF4 Desp	4624	27.50	168.15	0.9879	-0.33
16.1	Double Paradox AF2 F4 variation	B3 Nonstandard	B3 B4 PD AF1 PD F4 F1 4xF4 Desp (F3P)	5420	32.00	169.36	0.9950	-0.16
17	Double Paradox F3P F4 variation	B3 Nonstandard	B3 B4 PD AF1 PD F1 4xF4 (F3P F4) Desp	5281	30.96	170.59	1.0022	0.07
18	Double Paradox 3xF4	B3 Nonstandard	B3 B4 PD AF1 PD F1 3xF4 Desp (F3P)	4366	26.20	166.62	0.9789	-0.55
19	Double Paradox 5xF4	B3 Nonstandard	B3 B4 PD AF1 PD F1 5xF4 Desp (F3P)	5482	32.00	171.30	1.0064	0.20
20	Double Paradox F3P variation	B3 Nonstandard	B3 B4 PD AF1 PD {F3P 5xF4 F1 Desp} {F1 4xF4 Desp} (F3P)	5215	30.66	170.10	0.9993	-0.02
21	Double Paradox F3P variation 1	B3 Nonstandard	B3 B4 PD AF1 PD {F3P 5xF4 F1 Desp (F3P)} {F1 4xF4 (F3P F4) Desp}	5349	31.36	170.59	1.0022	0.07
22	Double Paradox F3P variation 2 + AF1 F3P Standard	Hybrid	B3 B4 PD AF1 PD {F3P 5xF4 F1 Desp} {F1 4xF4 Desp} (B3 B4 PD AF1 F3P 3xF4 PD 3xF4 Desp)	7354	42.82	171.75	1.0091	0.39
23	Double Paradox Despair	B3 Nonstandard	B3 [B4] PD AF1 PD (F3P) Desp	1920	11.70	164.07	0.9639	-0.42
24	Double Paradox Despair | No F3P	B3 Nonstandard	B3 [B4] PD AF1 PD Desp	1726	10.70	161.31	0.9477	-0.56
24	Double Paradox Despair + Double Transpose Despair	Hybrid	B3 [B4] PD AF1 PD (F3P) Desp UI1 PD AF1 Desp	2896	17.40	166.41	0.9777	-0.39

25	Double Paradox Despair x2 + Double Transpose Despair	Hybrid	B3 [B4] PD AF1 PD (F3P) Desp B3 PD AF1 PD (F3P) Desp UI1 PD AF1 Desp	4815	29.10	165.47	0.9722	-0.81
26	Double Paradox Despair + Double Transpose PD Despair	Hybrid	B3 [B4] PD AF1 PD {Desp} {F3P Desp} AF1 PD {Desp} {F3P Desp}	3157	18.40	171.59	1.0081	0.15
27	Double Paradox Despair x2 + Double Transpose PD Despair	Hybrid	B3 [B4] PD AF1 PD {Desp} {F3P Desp} B3 PD AF1 PD {Desp} {F3P Desp} AF1 PD {Desp} {F3P Desp}	5077	30.10	168.66	0.9909	-0.27
28	Double Paradox Despair x3 + Double Transpose PD Despair	Hybrid	B3 [B4] PD AF1 PD {Desp} {F3P Desp} B3 PD AF1 PD {Desp} {F3P Desp} AF1 PD {Desp} {F3P Desp}	6996	41.80	167.38	0.9834	-0.70
29	Double Paradox Despair + standard	Hybrid	B3 B4 PD AF1 PD Desp B3 PD F3 3xF4 PD 3xF4 Desp	7360	43.90	167.65	0.9850	-0.66
30	Double Paradox Despair + standard	Hybrid	B3 B4 PD AF1 PD (F3) Desp B3 PD F3 3xF4 PD 3xF4 Desp	7554	44.90	168.23	0.9884	-0.52
31	Double Paradox Despair + Double Transpose 4xF4	Hybrid	B3 B4 PD AF1 PD Desp UI1 PD AF1 F3 4xF4 Desp	5744	34.10	168.45	0.9896	-0.35
	Ley Lines	N/A	N/A	N/A	N/A	N/A	N/A	4.50
	Manafont	N/A	F4 Desp	1170	6.00	195.00	1.1456	0.87
	Manafont for 2 F4s	N/A	2xF4	1116	5.80	192.41	1.1304	0.76
	Manafont for Despair	N/A	Desp	612	3.10	197.42	1.1599	0.50

Transpose lines

ID	Line	Type	Casts	Potency	Time	PPS	Rel. PPS	TGE
32	3xF4 Transpose Ice	Transpose	UI1 PD F3 3xF4 Desp	2994	17.90	167.26	0.9827	-0.31
33	4xF4 Transpose Ice	Transpose	UI1 PD F3 4xF4 Desp	3552	20.80	170.77	1.0033	0.07
33.1	4xF4 Transpose Ice w HF2	Transpose	UI1 PD HF2 4xF4 Desp	3456	20.30	170.25	1.0002	0.00
33.2	4xF4 Transpose Ice w HF2 | 2 targets	Transpose	UI1 PD HF2 4xF4 Desp	3568	20.30	175.76	1.0326	0.66
33.3	3xF4 Transpose Ice w HF2	Transpose	UI1 PD HF2 3xF4 Desp	2898	17.40	166.55	0.9785	-0.37
33.4	3xF4 Transpose Ice w HF2 | 2 targets	Transpose	UI1 PD HF2 3xF4 Desp	3010	17.40	172.99	1.0163	0.28
34	4xF4 Transpose Ice | AF PD	Transpose	UI1 F3 4xF4 PD Desp (F3P)	3765	21.90	171.93	1.0101	0.22
35	4xF4 Transpose Ice + F1	Transpose	UI1 PD F3 4xF4 F1 Desp (F3P)	4063	24.40	166.52	0.9783	-0.53
36	5xF4 Transpose Ice	Transpose	UI1 PD F3 5xF4 Desp	4110	23.70	173.42	1.0188	0.45
36.1	5xF4 Transpose Ice w HF2	Transpose	UI1 PD HF2 5xF4 Desp	4014	23.20	173.02	1.0165	0.38
36.2	5xF4 Transpose Ice w HF2 | 2 targets	Transpose	UI1 PD HF2 5xF4 Desp	4126	23.20	177.84	1.0449	1.04
37	6xF4 Transpose Ice w B4	Transpose	UI1 PD B4 F3 6xF4 F1 Desp (F3P)	5489	32.80	167.35	0.9832	-0.55
38	6xF4 Transpose Ice w B4 | AF PD	Transpose	UI1 B4 F3 6xF4 PD Desp (F3P)	5191	30.30	171.33	1.0066	0.20
39	2xF4 Transpose Ice	Transpose	UI1 PD F3 2xF4 Desp	2436	15.00	162.40	0.9541	-0.69
40	3xF4 Transpose Ice | clipped Transpose	Transpose	UI1 PD F3 3xF4 Desp	2994	18.60	160.97	0.9457	-1.01
41	3xF4 Double Transpose	Double Transpose	UI1 PD AF1 F3 3xF4 Desp	3150	17.90	175.98	1.0339	0.61

41.1	3xF4 Double Transpose w HF2	Double Transpose	UI1 PD AF1 HF2 3xF4 Desp	2982	17.40	171.38	1.0069	0.12
41.2	3xF4 Double Transpose w HF2 | 2 targets	Double Transpose	UI1 PD AF1 HF2 3xF4 Desp	3178	17.40	182.64	1.0730	1.27
42	2xF4 Double Transpose	Double Transpose	UI1 PD AF1 F3 2xF4 Desp	2592	15.00	172.80	1.0152	0.23
43	1xF4 Double Transpose	Double Transpose	UI1 PD AF1 F3 1xF4 Desp	2034	12.10	168.10	0.9876	-0.15
44	4xF4 Double Transpose w B4	Double Transpose	UI1 B4 PD AF1 F3 4xF4 Desp	4018	23.40	171.71	1.0088	0.21
44.1	3xF4 Double Transpose w B4	Double Transpose	UI1 B4 PD AF1 F3 3xF4 Desp	3460	20.50	168.78	0.9916	-0.17
45	5xF4 Double Transpose w B4	Double Transpose	UI1 B4 PD AF1 F3 5xF4 Desp	4576	26.30	173.99	1.0222	0.58

Double Transpose (DT) AF1 lines

ID	Line	Type	Casts	Potency	Time	PPS	Rel. PPS	TGE
46	DT Despair	Double Transpose	UI1 PD AF1 Desp	976	5.60	174.29	1.0239	0.13
47	DT Despair + Standard	Hybrid	UI1 PD B4 AF1 Desp B3 PD F3 3xF4 PD 3xF4 Desp (F3P)	6797	39.80	170.78	1.0034	0.13
48	DT Despair PD variation	Double Transpose	AF1 PD Desp (F3P)	1231	6.70	183.76	N/A	0.53
49	DT Despair w F4	Double Transpose	UI1 PD AF1 1xF4 Desp	1410	8.50	165.88	0.9746	-0.22
50	1xF4 PD AF2	Double Transpose	AF1 PD 1xF4 Desp (F3P)	1727	9.60	179.92	1.0570	0.55
51	2xF4 PD AF2	Double Transpose	AF1 PD 2xF4 Desp (F3P)	2223	12.50	177.86	1.0449	0.56
52	2xF4 PD AF2 F3P variation	Double Transpose	AF1 PD {2xF4 Desp} {F3P 2xF4 Desp}	2279	12.50	182.34	1.0712	0.89
53	2xF4 PD AF2 F3P variation	Double Transpose	AF1 PD {F1 2xF4 Desp} {F3P 3xF4 Desp}	2790	15.22	183.34	1.0771	1.17
54	3xF4 PD AF2	Double Transpose	AF1 PD 3xF4 Desp (F3P)	2719	15.40	176.57	1.0374	0.58
55	3xF4 PD AF2 F3P variation	Double Transpose	AF1 PD {3xF4 Desp} {F3P 3xF4 Desp}	2800	15.40	181.82	1.0682	1.05
56	2xF4 DT F1	Double Transpose	UI1 PD AF1 F1 F1 2xF4 Desp (F3P)	3068	18.20	168.55	0.9902	-0.18
57	2xF4 DT F1 F3P variation	Double Transpose	UI1 PD AF1 F1 {F3P 3xF4 Desp} {F1 2xF4 Desp (F3P)}	3155	18.32	172.20	1.0117	0.21
58	2xF4 DT F1 | no F3Ps	Double Transpose	UI1 PD AF1 F1 F1 2xF4 Desp	2768	16.60	166.75	0.9797	-0.34
59	3xF4 DT F1	Double Transpose	UI1 PD AF1 F1 F1 3xF4 Desp (F3P)	3626	21.10	171.83	1.0095	0.20
60	3xF4 DT F1 F3P variation	Double Transpose	UI1 PD AF1 F1 {F3P 3xF4 Desp} {F1 3xF4 Desp (F3P)}	3490	20.06	173.95	1.0220	0.44
61	3xF4 DT F1 F3P variation 2	Double Transpose	UI1 PD AF1 F1 {F3P 4xF4 Desp} {F1 3xF4 Desp (F3P)}	3713	21.22	174.96	1.0279	0.59
62	1xF4 DT F1	Double Transpose	UI1 PD AF1 F1 F1 1xF4 Desp (F3P)	2510	15.30	164.02	0.9636	-0.56
63	1xF4 DT F1 F3P variation	Double Transpose	UI1 PD AF1 F1 {F3P 2xF4 Desp} {F1 1xF4 Desp (F3P)}	2597	15.42	168.40	0.9894	-0.16
64	3xF4 DT F1 w B4	Double Transpose	UI1 B4 PD AF1 F1 F1 3xF4 Desp (F3P)	3936	23.70	166.06	0.9756	-0.58
65	3xF4 DT F1 w B4 F3P variation	Double Transpose	UI1 B4 PD AF1 F1 {F3P 3xF4 Desp} {F1 3xF4 Desp (F3P)}	3800	22.66	167.68	0.9851	-0.34
66	3xF4 DT F1 w B4 F3P variation 2	Double Transpose	UI1 B4 PD AF1 F1 {F3P 4xF4 Desp} (F1 {F3P 5xF4 Desp} {4xF4 Desp}}	4491	26.26	171.06	1.0050	0.13
67	2xF4 DT PD	Double Transpose	AF1 PD F1 2xF4 Desp (F3P)	2816	15.70	179.33	1.0536	0.84
68	3xF4 DT PD	Double Transpose	AF1 PD F1 3xF4 Desp (F3P)	3374	18.60	181.37	1.0656	1.22
69	4xF4 DT PD w B4	Double Transpose	UI1 B4 AF1 PD F1 4xF4 Desp (F3P)	4242	24.10	176.00	1.0340	0.82

69.69	4xF4 DT PD w B4, AF2 F4 variation	Double Transpose	UI1 B4 AF1 PD F4 F1 4xF4 Desp (F3P)	4738	27.00	175.46	1.0309	0.83
70	3xF4 DT PD w B4	Double Transpose	UI1 B4 AF1 PD F1 3xF4 Desp (F3P)	3684	21.20	173.75	1.0208	0.44
71	5xF4 DT PD w B4	Double Transpose	UI1 B4 AF1 PD F1 5xF4 Desp (F3P)	4800	27.00	177.76	1.0444	1.20
72	2xF4 DT PD w B4	Double Transpose	UI1 B4 AF1 PD F1 2xF4 Desp (F3P)	3126	18.30	170.79	1.0034	0.06

Combined lines (DT = Double Transpose)

ID	Line	Type	Casts	Potency	Time	PPS	Rel. PPS	TGE
73	Standard + 4xF4 Transpose Fire F3P	Hybrid	B3 B4 PD F3 3xF4 PD 3xF4 Desp (B3 PD AF1 F3P 4xF4 Desp)	7190	42.08	170.87	1.0038	0.16
74	Standard + 3xF4 Transpose Ice F3P	Hybrid	B3 B4 PD F3 3xF4 PD 3xF4 Desp (UI1 PD F3P 3xF4 Desp)	6832	39.92	171.13	1.0054	0.22
75	Standard + 4xF4 Transpose Ice F3P	Hybrid	B3 B4 PD F3 3xF4 PD 3xF4 Desp (UI1 PD F3P 4xF4 Desp)	7055	41.08	171.73	1.0089	0.37
76	Standard + 3xF4 DT F3P	Hybrid	B3 B4 PD F3 3xF4 PD 3xF4 Desp (UI1 PD AF1 F3P 3xF4 Desp)	6894	39.92	172.70	1.0146	0.58
77	Standard + 4xF4 DT F3P	Hybrid	B3 B4 PD F3 3xF4 PD 3xF4 Desp (UI1 PD AF1 F3P 4xF4 Desp)	7117	41.08	173.25	1.0179	0.73
78	Standard + 4xF4 DT F3P w F1	Hybrid	{B3 B4 PD F3 3xF4 PD 3xF4 Desp} {UI1 PD AF1 F3P 4xF4 F1 Desp}	4993	28.84	173.13	1.0172	0.50
79	Standard + 6xF4 DT F3P w B4	Hybrid	{B3 B4 PD F3 3xF4 PD 3xF4 Desp} {UI1 PD B4 AF1 F3P 3xF4 F1 3xF4 Desp}	5564	32.20	*172.78*	*1.0151*	0.49
80	4xF4 w AF PD + 3xF4 DT F3P	Hybrid	B3 F3 4xF4 PD Desp (UI1 PD AF1 F3P 3xF4 Desp)	4968	29.02	171.19	1.0058	0.17
81	Double Paradox + 3xF4 Transpose Ice F3P	Hybrid	B3 B4 PD AF1 PD F1 4xF4 Desp (UI1 PD F3P 3xF4 Desp)	6540	38.25	170.98	1.0045	0.17
82	Double Paradox + 3xF4 DT F3P	Hybrid	B3 B4 PD AF1 PD F1 4xF4 Desp (UI1 PD AF1 F3P 3xF4 Desp)	6640	38.25	173.59	1.0198	0.76
83	Double Paradox + 4xF4 DT F3P w F1	Hybrid	{B3 B4 PD AF1 PD F1 4xF4 Desp} {UI1 PD AF1 F3P 4xF4 F1 Desp}	4318	24.82	174.02	1.0224	0.56
84	Double Paradox + 6xF4 DT F3P w B4	Hybrid	{B3 B4 PD AF1 PD F1 4xF4 Desp} {UI1 PD B4 AF1 F3P 3xF4 F1 3xF4 Desp}	5054	29.15	173.38	1.0187	0.54
85	Double Paradox F3P variation + 3xF4 Transpose Ice F3P	Hybrid	B3 B4 PD AF1 PD {F3P 5xF4 F1 Desp} {F1 4xF4 Desp} (UI1 PD F3P 3xF4 Desp)	6226	36.38	171.13	1.0054	0.20
86	Double Paradox F3P variation + 3xF4 DT F3P	Hybrid	B3 B4 PD AF1 PD {F3P 5xF4 F1 Desp} {F1 4xF4 Desp} (UI1 PD AF1 F3P 3xF4 Desp)	6288	36.38	172.84	1.0155	0.56
87	4xF4 DT PD w B4 + 3xF4 Transpose Ice F3P	Hybrid	UI1 B4 AF1 PD F1 4xF4 Desp (UI1 PD F3P 3xF4 Desp)	5858	33.25	176.17	1.0350	1.17
88	4xF4 DT PD w B4 + 3xF4 DT F3P	Hybrid	UI1 B4 AF1 PD F1 4xF4 Desp (UI1 PD AF1 F3P 3xF4 Desp)	5958	33.25	179.18	1.0527	1.75
89	4xF4 DT PD w B4 + 6xF4 DT F3P w B4	Hybrid	{UI1 B4 AF1 PD F1 4xF4 Desp} {UI1 PD B4 AF1 F3P 3xF4 F1 3xF4 Desp}	4724	26.73	176.73	1.0383	1.02
90	DT F1 2xF4 + 3xF4 Transpose Ice F3P	Hybrid	UI1 PD AF1 F1 F1 2xF4 Desp (UI1 PD F3P 3xF4 Desp)	4684	27.35	171.25	1.0061	0.17

91	DT F1 2xF4 + 3xF4 DT F3P	Hybrid	UI1 PD AF1 F1 F1 2xF4 Desp (UI1 PD AF1 F3P 3xF4 Desp)	4784	27.35	174.90	1.0276	0.75
92	DT F1 2xF4 + 6xF4 DT F3P w B4	Hybrid	{UI1 PD AF1 F1 F1 2xF4 Desp} {UI1 PD B4 AF1 F3P 3xF4 F1 3xF4 Desp}	4156	23.88	174.07	1.0227	0.54

F3P Spender lines

ID	Line	Type	Casts	Potency	Time	PPS	Rel. PPS	TGE
93	Standard w AF1 F3P	Standard	B3 B4 PD AF1 F3P 3xF4 PD 3xF4 Desp (F3P)	6003	34.20	175.53	1.0313	1.07
94	4xF4 Transpose Fire F3P	B3 Nonstandard	B3 AF1 F3P 4xF4 PD Desp (F3P)	4077	23.30	174.99	1.0281	0.65
95	3xF4 Transpose Fire F3P	B3 Nonstandard	B3 AF1 F3P 3xF4 PD Desp (F3P)	3519	20.40	172.51	1.0135	0.28
96	2xF4 Transpose Fire F3P	B3 Nonstandard	B3 AF1 F3P 2xF4 PD Desp (F3P)	2961	17.50	169.21	0.9941	-0.10
97	4xF4 Transpose Fire F3P | UI PD	B3 Nonstandard	B3 PD AF1 F3P 4xF4 Desp	3890	22.20	175.23	1.0295	0.65
98	4xF4 Transpose Fire F3P + F1	B3 Nonstandard	B3 PD AF1 F3P F1 4xF4 Desp (F3P)	4401	25.80	170.59	1.0022	0.06
99	3xF4 Transpose Fire F3P | UI PD	B3 Nonstandard	B3 PD AF1 F3P 3xF4 Desp	3332	19.30	172.64	1.0143	0.28
100	2xF4 Transpose Fire F3P | UI PD	B3 Nonstandard	B3 PD AF1 F3P 2xF4 Desp	2774	16.40	169.15	0.9937	-0.10
101	3xF4 Transpose Ice F3P	Transpose	UI1 PD F3P 3xF4 Desp	2994	16.80	178.21	1.0470	0.79
102	4xF4 Transpose Ice F3P	Transpose	UI1 PD F3P 4xF4 Desp	3552	19.70	180.30	1.0593	1.17
103	2xF4 Transpose Ice F3P	Transpose	UI1 PD F3P 2xF4 Desp	2436	13.90	175.25	1.0296	0.41
104	1xF4 Transpose Ice F3P	Transpose	UI1 PD F3P 1xF4 Desp	1878	11.00	170.73	1.0030	0.03
104.1	Transpose Ice F3P Despair	Transpose	UI1 PD F3P Desp	1320	8.10	162.96	0.9574	-0.34
105	3xF4 Transpose Ice F3P | clipped T'pose	Transpose	UI1 PD F3P 3xF4 Desp	2994	17.50	171.09	1.0051	0.09
106	4xF4 Transpose Ice F3P w F1	Transpose	UI1 PD F3P 4xF4 F1 Desp (F3P)	4063	23.30	174.39	1.0245	0.57
107	3xF4 Transpose Ice F3P w B4	Transpose	UI1 PD B4 F3P 3xF4 Desp	3304	19.40	170.31	1.0006	0.01
108	4xF4 Transpose Ice F3P w B4	Transpose	UI1 PD B4 F3P 4xF4 Desp	3862	22.30	173.18	1.0175	0.39
109	5xF4 Transpose Ice F3P w B4 + F1	Transpose	UI1 PD B4 F3P 3xF4 F1 2xF4 Desp (F3P)	4931	28.80	171.22	1.0059	0.17
110	6xF4 Transpose Ice F3P w B4	Transpose	UI1 PD B4 F3P 3xF4 F1 3xF4 Desp (F3P)	5489	31.70	173.16	1.0173	0.55
111	3xF4 Double Transpose F3P	Double Transpose	UI1 PD AF1 F3P 3xF4 Desp	3150	16.80	187.50	1.1016	1.71
112	4xF4 Double Transpose F3P	Double Transpose	UI1 PD AF1 F3P 4xF4 Desp	3708	19.70	188.22	1.1058	2.08
113	5xF4 Double Transpose F3P	Double Transpose	UI1 PD AF1 F3P 5xF4 Desp	4266	22.60	188.76	1.1090	2.46
114	2xF4 Double Transpose F3P	Double Transpose	UI1 PD AF1 F3P 2xF4 Desp	2592	13.90	186.47	1.0956	1.33
115	1xF4 Double Transpose F3P	Double Transpose	UI1 PD AF1 F3P 1xF4 Desp	2034	11.00	184.91	1.0864	0.95
115.1	Double Transpose F3P Despair	Double Transpose	UI1 PD AF1 F3P Desp	1476	8.10	182.22	1.0706	0.57
116	4xF4 Double Transpose F3P w F1	Double Transpose	UI1 PD AF1 F3P 4xF4 F1 Desp	4032	22.30	180.81	1.0623	1.39
117	3xF4 Double Transpose F3P w B4	Double Transpose	UI1 PD B4 AF1 F3P 3xF4 Desp	3460	19.40	178.35	1.0478	0.93
118	4xF4 Double Transpose F3P w B4	Double Transpose	UI1 PD B4 AF1 F3P 4xF4 Desp	4018	22.30	180.18	1.0586	1.31
119	6xF4 Double Transpose F3P w B4	Double Transpose	UI1 PD B4 AF1 F3P 3xF4 F1 3xF4 Desp (F3P)	5645	31.70	178.08	1.0462	1.47

120	6xF4 DT F3P w B4, AF PD variation	Double Transpose	UI1 B4 AF1 F3P 3xF4 PD 3xF4 Desp (F3P)	5321	29.20	182.23	1.0706	2.06
120.1	5xF4 DT F3P w B4, AF PD variation	Double Transpose	UI1 B4 AF1 F3P 3xF4 PD 2xF4 Desp (F3P)	4763	26.30	181.11	1.0640	1.68
121	1xF4 Transpose Ice w F3P | AF PD	Transpose	UI1 F3P 1xF4 PD Desp (F3P)	2065	12.10	170.68	1.0027	0.03
122	2xF4 Transpose Ice w F3P | AF PD	Transpose	UI1 F3P 2xF4 PD Desp (F3P)	2623	15.00	174.88	1.0274	0.41
123	3xF4 Transpose Ice w F3P | AF PD	Transpose	UI1 F3P 3xF4 PD Desp (F3P)	3181	17.90	177.72	1.0441	0.79
123.1	4xF4 Transpose Ice w F3P | AF PD	Transpose	UI1 F3P 1xF4 PD Desp (F3P)	3739	20.80	179.77	1.0562	1.17

Reopener/Continuation lines

ID	Line	Type	Casts	Potency	Time	PPS	Rel. PPS	TGE
	UI3 + 3 UHs							
123	Standard	Standard	F3 3xF4 PD 3xF4 Desp (F3P)	4829	26.60	181.55	1.0000	0.00
124	Standard (2 Hearts)	Standard	F3 3xF4 PD 2xF4 Desp (F3P)	4271	23.70	180.22	0.9927	-0.17
125	5xF4	B3 Nonstandard	F3 5xF4 Desp	3584	20.10	178.31	0.9822	-0.36
126	4xF4	B3 Nonstandard	F3 4xF4 PD Desp (F3P)	3713	20.80	178.52	0.9833	-0.35
127	Transpose 5xF4	Double Transpose	AF1 F3 5xF4 Desp	3766	21.20	177.64	0.9785	-0.46
128	AF1 4xF4	Double Transpose	AF1 PD F1 4xF4 Desp (F3P)	3932	21.50	182.86	1.0072	0.16
129	AF1 5xF4	Double Transpose	AF1 PD F1 5xF4 Desp (F3P)	4490	24.40	184.00	1.0135	0.33
130	AF1 4xF4 | F3P AF3 variation	Double Transpose	AF1 PD {F3P 5xF4 F1 Desp} {F1 4xF4 Desp} (F3P)	4223	23.06	183.14	1.0088	0.20
131	AF1 4xF4 | F3P AF3 variation 2	Double Transpose	AF1 PD {F3P 4xF4 Desp} {F1 4xF4 Desp (F3P)}	3796	20.50	185.15	1.0198	0.41
132	AF1 5xF4 + F1 | assuming 100% F3P	Double Transpose	AF1 PD F3P 5xF4 F1 Desp (F3P)	4829	26.30	183.62	1.0114	0.30
133	AF1 4xF4 | assuming 100% F3P	Double Transpose	AF1 PD F3P 4xF4 Desp	3760	19.90	188.94	1.0407	0.81
	UI3 + 1 UH							
	4xF4	B3 Nonstandard	F3 4xF4 PD Desp (F3P)	3713	20.80	178.52	1.0488	1.02
	AF1 4xF4	Double Transpose	AF1 PD F1 4xF4 Desp (F3P)	3932	21.50	182.86	1.0743	1.60
	Double Transpose F1 2xF4	Double Transpose	AF1 F1 {F3P 3xF4 Desp} {F1 2xF4 Desp (F3P)}	2655	15.82	167.81	0.9859	-0.22
	Double Transpose F1 3xF4	Double Transpose	AF1 F1 {F3P 3xF4 Desp} {F1 3xF4 Desp (F3P)}	2990	17.56	170.25	1.0002	0.00
	Double Transpose F1 4xF4	Double Transpose	AF1 F1 {F3P 3xF4 Desp} {F1 4xF4 Desp (F3P)}	3324	19.30	172.24	1.0120	0.23
	UI2							
	4xF4 Transpose Ice	Transpose	UI1 PD F3 4xF4 Desp	3552	20.90	169.95	0.9985	-0.03
	5xF4 Transpose Ice	Transpose	UI1 PD F3 5xF4 Desp	4110	23.80	172.69	1.0146	0.35

The gains from F3P lines below should not be inspected individually but should be treated in conjunction with a line that provides the F3P.
Actual gains of F3P lines should be taken as a lot less than what's shown here.

Instant Cast Lines (I)

Swiftcast lines

ID	Line	Type	Casts	Swift	δ Time	δ Potency	Potency	Time	PPS	Rel. PPS	TGE
0	Standard 6xF4	Standard	B3 B4 PD F3 3xF4 PD 3xF4 Desp (F3P)	Despair	-0.34	0.00	5821	33.86	171.93	1.0000	0.00
1	Standard 6xF4	Standard	B3 B4 PD F3 3xF4 PD 3xF4 Desp (F3P)	F4	-0.23	0.00	5821	33.97	171.35	0.9966	-0.11
2	Standard w clipped Swift	Standard	B3 B4 PD F3 3xF4 PD 3xF4 Desp (F3P)	Despair	0.06	0.00	5821	34.26	169.93	0.9884	-0.40
3	Standard w buffed B3	Standard	UI1 B3** B4 PD F3 3xF4 PD 3xF4 Desp (F3P)	B3**	0.00	44.46	5866	34.20	171.51	0.9976	-0.08
4	Standard w buffed F3	Standard	B3 B4 PD AF1 F3** 2xF4 PD 2xF4 Desp (F3P)	F3**	0.00	86.15	4791	28.40	168.71	0.9813	-0.53
5	3xF4 Transpose	Transpose	UI1 PD F3* 3xF4 Desp	F3*	-0.33	0.00	2994	17.57	170.39	0.9910	-0.16
6	3xF4 Transpose w clipped Swift	Transpose	UI1 PD F3* 3xF4 Desp	F3*	-0.12	0.00	2994	17.78	168.40	0.9794	-0.37
7	4xF4 Transpose	Transpose	UI1 PD F3* 4xF4 Desp	F3*	-0.38	0.00	3552	20.42	173.96	1.0118	0.24
8	4xF4 Transpose w clipped Swift	Transpose	UI1 PD F3* 4xF4 Desp	F3*	-0.14	0.00	3552	20.66	171.92	0.9999	0.00
9	4xF4 Transpose + F1	Transpose	UI1 PD F3* 4xF4 F1 Desp (F3P)	F3*	-0.45	0.00	4063	23.95	169.63	0.9866	-0.32
10	5xF4 Transpose	Transpose	UI1 PD F3* 5xF4 Desp	F3*	-0.43	0.00	4110	23.27	176.66	1.0275	0.64
11	2xF4 Transpose	Transpose	UI1 PD F3* 2xF4 Desp	F3*	-0.27	0.00	2436	14.63	166.54	0.9687	-0.46
12	6xF4 Transpose w B4	Transpose	UI1 B4 F3* 6xF4 PD Desp (F3P)	F3*	-0.50	0.00	5165	29.80	173.33	1.0082	0.24
13	6xF4 Transpose w B4 | UI PD	Transpose	UI1 PD B4 F3* 6xF4 F1 Desp (F3P)	F3*	-0.55	0.00	4931	29.50	167.16	0.9723	-0.82
14	3xF4 Double Transpose	Double Transpose	UI1 PD AF1 F3** 3xF4 Desp	F3**	-0.33	0.00	3150	17.57	179.26	1.0427	0.75
15	2xF4 Double Transpose	Double Transpose	UI1 PD AF1 F3** 2xF4 Desp	F3**	-0.28	0.00	2592	14.73	176.03	1.0238	0.35
16	1xF4 Double Transpose	Double Transpose	UI1 PD AF1 F3** 1xF4 Desp	F3**	-0.22	0.00	2034	11.88	171.24	0.9960	-0.05
17	Desp Double Transpose	Double Transpose	UI1 PD AF1 Desp**	Despair**	-0.06	0.00	976	5.54	176.05	1.0239	0.13
18	1xF4 Double Transpose - no F3	Double Transpose	UI1 PD AF1 1xF4 Desp**	Despair**	-0.09	0.00	1410	8.50	165.88	0.9648	-0.30
19	4xF4 Double Transpose w B4	Double Transpose	UI1 PD B4 AF1 F3** 4xF4 Desp	F3**	-0.43	0.00	4018	23.02	174.55	1.0153	0.35
20	3xF4 Double Transpose w B4	Double Transpose	UI1 PD B4 AF1 F3** 3xF4 Desp	F3**	-0.38	0.00	3460	20.36	169.93	0.9884	-0.24
21	5xF4 Double Transpose w B4	Double Transpose	UI1 PD B4 AF1 F3** 5xF4 Desp	F3**	-0.48	0.00	4576	25.85	177.00	1.0295	0.76
22	4xF4 Double Transpose w B4 + F1	Double Transpose	UI1 PD B4 AF1 F3** 4xF4 F1 Desp	F3**	-0.48	0.00	4342	25.55	169.92	0.9883	-0.30

Reopener Lines

ID	Line	Type	Casts	Swift Usa	δ Time	δ Potency	Potency	Time	PPS	Rel. PPS	TGE
23	Standard 6xF4	Standard	PD F3 3xF4 PD 3xF4 Desp (F3P)	Despair	-0.29	0.00	5329	28.91	184.35	1.0000	0.00
24	Standard w buffed F3	Standard	PD AF1 F3** 4xF4 PD Desp (F3P)	F3**	0.00	70.98	4284	23.40	183.08	0.9931	-0.16

Triplecast lines

ID	Line	Type	Casts	Swift	δ Time	δ Potency	Potency	Time	PPS	Rel. PPS	TGE
25	Standard 6xF4	Standard	B3 B4 PD F3 3xF4 PD 3xF4 Desp* (F3P)	2xF4 Despair	-0.80	0.00	5821	33.40	174.28	1.0000	0.00
26	4xF4 Transpose	Transpose	UI1 PD F3* 4xF4 Desp	F3* 2xF4	-0.66	0.00	3552	20.14	176.35	1.0119	0.24
27	3xF4 Double Transpose w clipped Triple	Double Transpose	UI1 PD AF1 F3** 3xF4 Desp	Despair F3* F4	0.07	0.00	3150	17.97	175.26	1.0056	0.10
28	4xF4 Double Transpose w B4	Double Transpose	UI1 PD B4 AF1 F3** 4xF4 Desp	Despair B4 F3	-0.43	0.00	4018	22.97	174.92	1.0037	0.08
29	Standard + 3xF4 Double Transpose F3P	Hybrid	B3 B4 PD F3 3xF4 PD 3xF4 Desp (UI1 PD AF1 F3P 3xF4 Desp)	2xF4 Despair	-0.93	0.00	6894	38.99	176.82	1.0146	0.57
30	Standard + 4xF4 Double Transpose F3P	Hybrid	B3 B4 PD F3 3xF4 PD 3xF4 Desp (UI1 PD AF1 F3P 4xF4 Desp)	3xF4	-0.82	0.00	7117	40.26	176.79	1.0144	0.58
31	3xF4 Transpose	Transpose	UI1 PD F3* 3xF4 Desp	F3* 2xF4	-0.57	0.00	2994	17.33	172.73	1.0047	0.08
32	Double Paradox 5xF4 w clipped Triple	B3 Non-Standard	B3 B4 PD AF1 PD F1 5xF4 Desp (F3P)	2xF4 Despair	-0.11	0.00	5560	31.90	174.31	1.0002	0.01

Notation

- () Possible inclusion(s) to line
- * = Instant
- ** = Transpose buffed instant
- Transpose is represented as UI1/AF1.
- Underlined lines are noteable lines.
- Bolded IDs are lines discussed in the Nonstandard doc.
- Swift/Triple is assumed used every 60 seconds.
- Effects of Swift/Triple are normalized to allow comparison of diffferent lines

AoE Lines (A)

All calculations are done with 3 enemies

ID	Line	Casts	Potency	Time	PPS	Rel. PPS	TGE
0	Standard	HB2 Freeze 3xHF2 Flare Flare	4678	22.30	209.76	1.0000	0.00
0.1	Standard w Paradox	HB2 Paradox Freeze 3xHF2 Flare Flare	5178	24.80	208.77	0.9953	-0.12
1	Standard w 2 HF2s	HB2 Freeze 2xHF2 Flare Flare	3922	19.20	204.25	0.9737	-0.50
2	Single Flare Standard	HB2 Freeze 5xHF2 Flare	5081	24.40	208.23	0.9927	-0.18
3	Double Transpose with Freeze | both Transpose clippped	UI1 Freeze AF1 2xHF2 Flare Flare	3922	18.70	209.71	0.9998	0.00
4	Double Transpose with Freeze | one Transpose clip	UI1 Freeze AF1 2xHF2 Flare Flare	3922	18.00	217.87	1.0387	0.70
5	Double Transpose with Freeze	UI1 Freeze AF1 2xHF2 Flare Flare	3922	17.30	226.68	1.0807	1.40
6	3xHF2 Transpose ice Freeze | clipped Transpose	UI1 Freeze 3xHF2 Flare Flare	4468	21.00	212.74	1.0142	0.30
7	3xHF2 Transpose ice w Freeze	UI1 Freeze 3xHF2 Flare Flare	4468	20.30	220.08	1.0492	1.00
8	Single Flare	HB2 Freeze 5xHF2 Flare	5081	24.40	208.23	0.9927	-0.18
9	4xHF2 Freeze skip	HB2 4xHF2 Flare	3965	18.40	215.48	1.0273	0.50
10	2xHF2 Transpose Ice	UI1 2xHF2 Flare	2243	10.30	217.75	1.0381	0.39
11	3xHF2 Transpose Ice	UI1 3xHF2 Flare	2999	13.40	223.79	1.0669	0.90
12	4xHF2 Transpose Ice	UI1 4xHF2 Flare	3754.8	16.50	227.56	1.0849	1.40
13	1xHF2 Transpose Ice	UI1 1xHF2 Flare	1249	7.20	173.50	0.8271	-1.24
14	2xHF2 Transpose Ice | clipped Transpose	UI1 2xHF2 Flare	2999	14.10	212.68	1.0139	0.20
15	3xHF2 Double Transpose	AF1 3xHF2 Flare	3208.8	13.40	239.46	1.1416	1.90
16	2xHF2 Double Transpose	AF1 2xHF2 Flare	2452.8	10.30	238.14	1.1353	1.39
	Reopener/Continuation lines						
17	Standard	UI3 3xHF2 Flare Flare	4024	16.90	238.08	1.0000	0.00
18	AF1 HF2 Double Flare	AF1 2xHF2 Flare Flare	3561.6	14.4	247.33	1.0389	0.56
19	AF1 HF2 Single Flare	AF1 4xHF2 Flare	3964.8	16.50	240.29	1.0093	0.15

6.x Advanced Nonstandard Black Mage Optimization Techniques

Written by Eydis Darkbane

Prologue

Hello! I'm Eydis, you might have recognized me from SMN guides in previous expansions. My Carbuncle is retired now and I decided that nuking things with Fire IV looked more fun. This guide is written to be used in conjunction with Reina's advanced Nonstandard guide and related resources. It is highly recommended to read that guide first and be comfortable with the fundamentals of Black Mage. This guide is meant to be about the application of the core concepts explained in that guide.

By no means do I claim this is a complete and comprehensive guide and further techniques may be discovered in the future that may not be covered here. However, I think the topics of application of Nonstandard techniques and advanced optimization on Black Mage have not been covered very thoroughly. This guide is meant to shed some light on those subjects and will further explain much of the theory behind Nonstandard techniques, application of these techniques, analysis practices, and a further explanation of commonly used lines.

The lines comparison sheet is a handy reference for lines in this guide, as I'll be referring to them through their **[line number]**, and the sheet can be found on page 77.

Nonstandard Core Theory

A reminder of the core concept of Nonstandard

A point that I commonly see overlooked is the reason why Nonstandard exists in the first place. This is covered in the introductory section of Reina's guide but I think it's worth repeating again here. Why go through all that effort to learn to use strange or niche lines? Is it just for the theoretical dps gains? Is it too big brain for practical use? Not quite.

Black Mage gameplay is ultimately about generating mana to cast strong spells (Fire IV, Paradox, and Despair). Nonstandard is all about casting those spells at a discounted cost. It is a combination of generating mana through alternate methods and strengthening transition spells to lower the overall potency "cost" of strong spells. We ultimately want to cast the highest number of fire spells possible for the lowest overall potency cost in weak spells when looking at individual lines and the fight as a whole.

This mindset of cost efficiency forms the basis of Nonstandard gameplay and I encourage you as the reader to approach Nonstandard with this mindset.

Approach to Nonstandard Theory

A common mistake that people make when first approaching Nonstandard gameplay is focusing on the strengths of a singular line while ignoring its overall cost and impact to the sequence of a fight as a whole.

Nothing in Black Mage gameplay comes without a price, the longer the line, the more fire spells you get out of it, the higher the potency or resource cost you pay, up to the full potency cost of a Standard line which will yield the most spells without any cost in terms of resources. It is an infinitely repeatable sequence however we pay the highest

price for it, 2 weak transition spells (F3/B3) and 1 moderately weak ice spell (B4). As a result, standard Black Mage gameplay is our baseline and all lines are compared against it. To perform a line with better potency efficiency and with a higher theoretical potency per second, we have to consume resources to perform those lines. These resources can be broadly grouped into two categories: ways to generate mana i.e. fillers (Xenoglossy, Thunder III, Blizzard IV, Lucid Dreaming) and ways to re-enter fire without having to use a slow cast fire spell, our instant cast cooldowns (Triplecast, Swiftcast). Sharpcast is special as it can fulfill either category through Thundercloud or Firestarter.

The fundamental combination of these concepts is shaping the highest overall potency sequence by expending resources efficiently around the constraints of movement/fight mechanics, self potency gains, and team buff alignment. We'll go over these three constraints in the following sections.

Movement

Most resources that Black Mage has for performing Nonstandard also serve a dual purpose as our movement tools that we need to perform mechanics with uptime, so the number one constraint that will shape your sequences is how they fit into a fight. The less movement we have to do, the more resources we can spare for both raw potency gains and team buff alignment. However in the opinion of this author, catering for Black Mage in terms of movement should be reserved for post-prog gameplay.

A common misconception is that Nonstandard is harder to do in fights or makes fights harder. While this can be true in certain cases where resources are being overstretched in the name of further potency gains, when utilized correctly in a conservative way, Nonstandard lines can actually make fights easier! If resources serve a dual purpose to enable Nonstandard lines and also provide movement for a mechanic, why not use Nonstandard lines during mechanics?

The most important factor in fight sequencing is matching line length with the fight. I.E. Mixing and matching different lines in order to fit lines around mechanics smoothly. If your lines don't fit with mechanics smoothly, this can result in resource inefficiency, very difficult to execute sequences, dropped uptime, and mechanics failure! We don't want this as it turns out! **Ideally created plans are relatively easy to execute.** From a gameplay perspective we want to avoid anything that is "cursed" as both for progression and optimization gameplay, consistency is the most important thing. This is where many niche lines come into play that would have been fairly weak or may have significant downsides that prevent common use.

The easiest way to set this up is to have a line be close to ending as a mechanic is about to begin. If a mechanic that requires movement occurs when you are starting a line, unless you have Triplecast, you can't perform the line without dropping uptime! We

typically want to avoid this kind of occurrence as Triplecast is an instant cast resource we can enable efficient lines with. There are circumstances where this is unavoidable or even optimal. However this is a general rule of thumb that can yield efficient sequences and makes Nonstandard easy to perform.

So let's go into some examples of this concept.

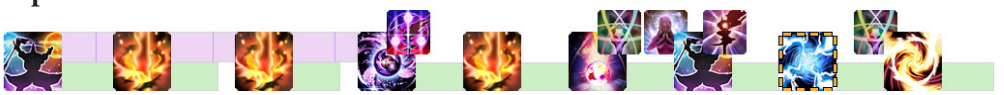
Setting up short lines for movement

Let's say you have a line that fits well into a fight before a movement mechanic and you want to move near the end of your fire phase.

A very common line to perform with this setup is a Double Transpose short line with 2-3x F4 **[I15/I14]**.

In conjunction with movement tools, this lets us also take advantage of ice Paradox for an additional instant cast GCD to move with. The primary benefit of such a sequence is performing powerful lines that offer a reasonably high number of fire spells for a low cost while also performing movement for a fight. Similar sequences can be enabled with Swiftcast and Firestarter.

Triplecast Enabled:



Swiftcast Enabled:

Firestarter Enabled:

We can chain two of these lines together for an extreme amount of movement for a set piece mechanic in a fight that requires constant movement for an extended period of time:

Chained Short Lines:

Longer Lines

Short lines however are not the only lines that can be enabled in this fashion, really any line that can make use of Swift or Triplecast to enable the line without having to cast a slow fire spell or generates a weave slot with these instant cast tools can take advantage of this.

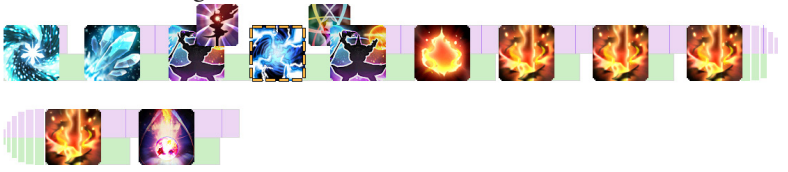
An example of line [N120] from an existing fight plan:

My Standard line ends at a bad time and I have no resources to spare for a high potency line!

If you find a Standard line is too long for this technique or puts you in a bad spot you may need to examine your previous lines. It may go past examining the line immediately previous to the point in the fight you need to move. Examples of commonly used low resource cost lines that are shorter than Standard that can be used to in its place to better align for mechanics are:

Double Paradox [N15]

A ~2 spell reduction in length



4x F4 Single Transpose with slow F3 [N33]

A ~3.5 spell reduction in length

4x F4 Single Transpose with HF2 [N33.1]

A ~4 spell reduction in length

Raw Potency

Raw potency gains through efficient resource usage is what most people think of when they think about Nonstandard gameplay. Remember what I said at the start about the core concept of Black Mage? We want to cast as many strong fire spells as possible without paying the full price for doing so. We want to maximize our overall potency in a phase or fight by efficiently spending the resources we have to enable strong lines. What we are ultimately doing through this practice is replacing weak spells like UI3 F3, AF3 B3, and B4 with stronger spells while not compromising on the number of strong fire spells we cast.

Lines can be broadly categorized into resource generating and resource spending lines. Resource generating lines are lines that require no or few resources to perform and also take a long time to get through, buying a significant amount of time for our cooldowns and Polyglot gauge. However, resource generating lines that are not Standard often have drawbacks that make spamming them unideal. These niche lines can and should be used to make specific substitutions for Standard in order to line things up for mechanics and for minor potency gains through spell replacement.

Resource spending lines are lines that are high potency per second lines that have a high resource cost but grant a large number of fire spells for the resources invested and have a low transition spell potency "cost". Examples of lines such as these are short Double Transpose lines (**[I14/I15/N111]**) and long Double Transpose lines with Blizzard IV that are resource intensive **[N120]** and **[N69]**.

Of course there are lines that don't fall into either of these categories that are moderate with their cost but also moderate in terms of potency gains but are used because they specifically fit within the fight to line things up for mechanics and team buffs.

In general, we want to alternate resource spending and resource generating lines. Use resource generating lines to build up resources during times in fights where no movement is required. Use strong resource spender lines where there is movement or over team buffs.

Without further ado, let's go into commonly used lines and some niche lines for both types of lines. I will be talking more about how these lines are used more so than the basic fundamentals of each line.

Commonly Used Resource Spender Lines

Double Transpose 3x F4 with Firestarter [N111]

The most common usage for Firestarter that isn't a variant of the Standard line. Used especially often in freestyle gameplay. Also used in mapped runs that upgrade lines which would have otherwise used single Transpose 3x F4 **[I5]** when a proc is obtained through the previous line.
Typically a filler can be skipped when running very low Spell Speed levels with minimal chance of clipping. 3 Fillers are needed at higher Spell Speed levels. The higher the Spell Speed level, the greater the chance that 3 fillers will be needed in order to avoid clipping.

Double Transpose 3x F4 with instant cast Fire III [I14]

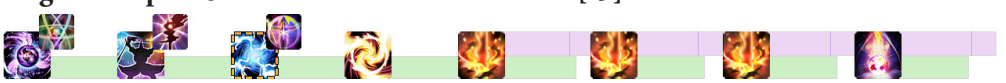
This is probably the most commonly used resource spender line in Nonstandard gameplay. Generating a Firestarter proc is unreliable unless Sharpcast is used, which will come at an opportunity cost. We can get around that and create a line similar to **[N111]** by utilizing Lucid Dreaming and Swift/Triplecast to make F3 instant cast.

Without the usage of 3 fillers and Lucid Dreaming, Enough mana to cast 3 F4s is not guaranteed. Skipping a filler is ideal; however it is only guaranteed if a mana tick tracker is used and the tick plan falls at the correct time for two UI2 ticks to be obtained.

Double Transpose 2x F4 with instant cast Fire III [I15]

More commonly used in freestyle gameplay, if mana ticks cannot line up correctly and a UI1 tick occurs, we have to give up a F4 in the line to use Double Transpose. Not as commonly used in mapped runs due to the fact that losing a F4 often results in compromising a later line in order to generate enough spells to fill out a phase. Remember that no fire spell comes without some cost!

Single Transpose 3x F4 with instant cast Fire III [I5]



When you don't have Lucid or if you need 3 F4 out of a line instead of 2 F4 and can't guarantee line **[I14]**, line **[I5]** is an option. It is ideal to use this line after a line that can generate F3P as we can upgrade this line to **[N111]** if that proc occurs. While it is weaker than Standard when comparing against Standard with Swift Despair, at the end of the day 4 strong spells for the cost of only 1 weak spell is a slightly better ratio than Standard and can cut out a weak spell if the fight lines up favorably with your sequence.

Can be extended to 4xF4 with Ley Lines. Can also be used with Despair skip practices to save mana for the next line.

Double Transpose 6x F4 with Firestarter and Blizzard IV [N120]

A very expensive line that yields a large number of strong spells. Firestarter is required for this line which will often involve trading a Sharp Thunder for Sharp Fire. Lucid Dreaming is also typically required as well. Without Lucid, only 5x F4 will be possible, slightly decreasing the value of this line. Slightly less PPS compared to chaining **[N111/ I15]** lines for the resources used due to the fact that B4 is effectively substituting for one of the AF1F3s. However this line plays very well with buff windows compared to chaining short lines and is recommended for that purpose.
Ideally the Umbral Ice phase of this line is used under the latter half of a buff window to dump Xenoglossy and other strong spells in that window.

Filler skip is possible but only reliable with a mana tick tracker and specific tick plan.

Double Transpose 4x F4 with Double Paradox and Blizzard IV [N69]

Similarly expensive to line **[N120]** however Firestarter and Lucid Dreaming isn't required to enable this line. It is correspondingly lower in both PPS and the number of fire spells gained. Can be used in a similar way to line **[N120]** for buff alignment purposes. This line's main strength is in the high chance of generating a Firestarter proc and less so in terms of resource efficiency or PPS.

Can be used under Ley Lines in conjunction with Lucid Dreaming to gain an extra F4 for 5x F4.

Filler skip is possible but only reliable with a mana tick tracker and specific tick plan.

Commonly Used Resource Generating Lines

Standard [N0]

Good old fashioned Standard. A long line which requires no resources that has the potential to generate a Firestarter proc. This is the baseline that we compare all other lines against. We pay 2 weak spells and 1 somewhat weak spell to gain 8 strong spells. We want the ratio of our Nonstandard lines to be better than this and if not, then the cost to obtain those spells must be significantly lower compared to Standard to be worth it. I.E those transition spells used have to be high potency.

It should be noted that the goal of Nonstandard gameplay is not to avoid Standard entirely but instead to find the highest effective potency plan for any given phase or fight. This means that Standard will most often be used at least once or twice a fight at minimum and is sometimes the most optimal option available due to its costless nature in terms of resources and long line length.

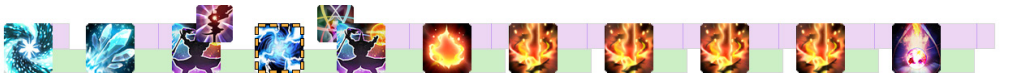
You might ask why Standard is the only line in the "commonly used resource generating lines" category. This is because the lines I am about to go over are not meant to be spammed as they all have drawbacks which make it not worth it overall to do so. Standard combined with resource spender lines typically takes long enough that an entire fight can be filled out with different combinations of those lines. Niche lines are used because they make a minor improvement over Standard in specific situations because either Standard fits poorly into a fight plan and/or when spell replacement is examined, one of the weak spells in Standard can be replaced with a stronger one through niche line usage.

It is possible and optimal in most fights to cut out most uses of Standard and replace those with niche lines in fights in order to make minor gains. However this must be carefully examined when planning as it is very easy to erase the gains of those niche lines

and come out at a loss when used improperly. We'll talk more on that in a later section in this guide. Remember, niche lines are niche for a reason.

Niche Lines

4x F4 Double Paradox [N15]



A shorter line than Standard that should be used sparingly. Despite the attractive PPS compared to Standard on average when you factor in how Firestarter can be used in the next line, this line has a couple drawbacks that make it not worthwhile to spam.

Getting only 4 F4 while paying the price of having to use B3 and B4 isn't a very good deal. Because this line is shorter than Standard, if you have to perform an additional line in the future (necessitating additional transition spell casts) or compromise the strength of a future line to be longer in order to fill out the rest of a fight, the gains from this line through better Firestarter proc generation and AF2F1 replacing UI3F3 are easily erased.

Additionally, Firestarter can have limited usefulness due to the fact that **[N111]** style lines that are enabled through Firestarter can be easily substituted through Lucid Dreaming and Swift/Triplecast to enable **[N14]** style lines. It is for this reason that **[N15]** should be used only when the length is desirable in a fight to line your sequence up smoothly for mechanics.

5x F4 Double Paradox [N19]

Requires Ley Lines to enable.

[N15]'s bigger and better sibling. A slightly shorter line than Standard that is better in most ways including raw potency per second. Higher transition spell potency back into Astral Fire and increased Firestarter proc generation are major benefits.
However, this line typically plays poorly into buffs as Ley Lines is often used over buff windows and you will often be stuck performing F4 or Despair hardcasts as the buff window is ending. This usually results in a lost spell under buffs, along with not being able to dump higher potency spells like Xenoglossy or Thundercloud into buffs.

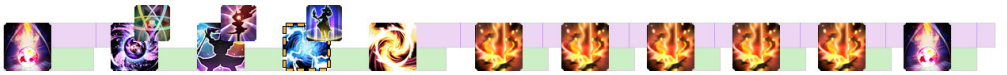
Single Transpose 4x F4 with Slow F3 [N33]

A line best used due to its length and where there is an excess of filler resources but a lack of instant cast enabling resources. This line has one major drawback that prevents its common use: Slow F3.

Because its cast time is so long, each time a slow F3 is used, the chance that a GCD overall in a fight is lost becomes significantly higher. With 3 slow casts used, the chance that a GCD is lost is guaranteed. The overall sequence enabled by slow F3 must be extremely high quality in order to make this line worth it or the potential lost cast must be guaranteed to not occur, for example in short phases where you know that the sequence will fit without cast loss.

One additional niche use for this line compared to its sister line **[N33.1]** is to better align hardcast spells into the start of a buff window if said buff window comes up too late for the spells you want to put into the start of that window by a very small amount. Also can be used to align for MP ticks if your MP tick comes up too early when comparing it against **[N33.1]**.

Single Transpose 5x F4 with Slow F3 [N36]



Requires Ley Lines to enable. Unless using an MP tick tracker and related tick plan, an extra filler in ice needs to be used to avoid the low chance of getting only 1 UI2 tick.

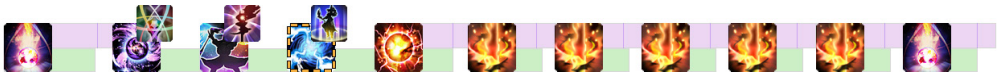
This line, while attractive on paper due to its higher PPS than Standard, has a couple drawbacks. Similarly to **[N33]**, the usage of slow F3 can result in a spell being lost at the end of a fight. This line also has the issue of playing poorly into buff windows due to needing Ley Lines to enable and as mentioned, Ley Lines is often used over buff windows. You very much want to avoid using slow F3 during a buff window due to its low potency and the significant chance that a spell usage will be lost in a buff window due to the slow cast time. Additionally, it is common to run into the issue of hardcasting F4 if the buff window ends in the middle of this line as you will not be able to last hit with an instant cast. The result of which is an additional spell lost under buffs along with simply not being able to dump high potency filler spells into buffs like Xenoglossy and Thundercloud.

Single Transpose 4x F4 with HF2 [N33.1]

Used for similar situations where **[N33]** is useful, with a significantly smaller chance to lose a GCD compared to **[N33]**. However, using a 112p spell with a 3 second cast time is still a heavy price to pay because HF2 is so weak on a single target, so similarly to all of these lines listed, it is niche and should be used when it fits the situation well.

Same niche use as mentioned in the **[N33]** line section but in reverse, can also be used to align for MP ticks and buff windows if your GCD comes up too late when compared to **[N33]**. An extra filler in Umbral Ice may be needed at higher Spell Speeds to guarantee 2 UI ticks.

Single Transpose 5x F4 with HF2 [N36.1]



Requires Ley Lines to enable. Similar to **[N36]**, unless using an MP tick tracker and related tick plan, an extra filler in ice needs to be used to avoid getting only 1 UI2 tick if using just Paradox in Umbral Ice.

Useful for similar situations that **[N36]** is useful but with an extra F4 enabled by Ley Lines. Similar to **[N33.1]**, we trade out slow F3 with HF2, significantly reducing the chance a spell cast is lost in a fight. Of course, casting a 112p spell is very weak so we want this line to enable a strong overall sequence in a phase in order to justify its usage. However, similarly to **[N36]**, this line often plays poorly into buffs.

Single Transpose 6x F4 with Instant Cast F3 and F1 Refresh [I13]

Requires Lucid Dreaming to reasonably enable.

Useful in the situation where you think you can substitute this line for a Standard line and the resources used are ideal to place in this fashion. Effectively you are substituting B3 for AF3F1. However, the overall PPS of this line is rather poor and its gains are only through this specific spell substitution.

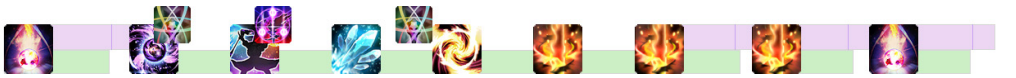
Double Transpose 6x F4 with Firestarter and F1 Refresh [N119]

A better version of **[I13]** that requires Firestarter to enable. Also can be viewed as poverty **[N120]**.

Useful when you want to Sharp Fire when excess Sharpcast is available, if Sharp Fire is specifically advantageous for the fight, or when this line length lines up well in a fight.

Requires considerably fewer filler resources to enable than **[N120]** but casting AF3F1 is effectively substituting B3 for a stronger, but still fairly weak spell, bringing down the strength of the line.

Double Transpose 3x F4 with Blizzard IV and Instant F3 [I20]



Requires Triplecast to enable without clipping and without tick luck.

Blizzard IV brings down the strength of this line significantly. On paper it is worse than Standard and is not able to generate a F3P. However there are situations when a phase or fight is about to end and this line becomes the best option over a line which uses B3 and no other filler resources are available to generate mana through weak ticks.

Double Transpose 3x F4 with Slow F3 [N41]

Undesirable compared to its sibling **[I14]** due to the slow F3 cast. A gain over Standard on paper however that gain can be erased through spell loss in a fight due to slow F3. It is also uncommon to have excess filler resources available but no instant cast resources. For these reasons this line is typically avoided in favor of better sequencing options and practices but like other niche lines, can have its place where it is the optimal option.

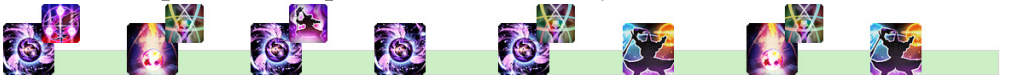
Double Transpose 2x F4 with Slow F3 [N42]

Similarly unused to its sister line **[N11]** but even worse due to having 1 less F4 in the line. Still a gain over Standard on paper but should almost never be used. That being said, there are some situations where this line may be the best option available.

Double Transpose Instant Despair [I17]

Useful for ending fights that awkwardly have you re-enter Astral Fire at the very end but otherwise should be avoided for its high filler resource cost and very short length and payoff for that cost.

Double Transpose AF2 Despair with Paradox Carryover [N48]



Requires Triplecast for easy last hitting.

Similar to **[I17]**. It is common to end fights close to or after buff windows. If enough strong fillers like Xenoglossy were used in Umbral Ice to buy time for ticks and there isn't enough time to perform a long line afterwards, we can carry over Paradox to be used in Astral Fire to strengthen Despair.

Team Buffs

Don't just play for the rDPS stat!

An often overlooked part of optimization for Black Mage is optimizing around your team's buffs. This is more difficult to do the more movement a fight requires and this is a major benefit that catering to a Black Mage can bring. As a result this style of play is most often seen in and usually only possible in organized runs post-prog. Xenoglossies and other resources that would have otherwise been used for movement can now be saved for buff windows, greatly strengthening your contribution to buff windows.

There are few techniques that can increase your contribution under team buffs, namely aiming to perform resource spending lines, preferably ending a previous line and starting the Umbral Ice phase of a new line where you can burn resources under team buffs. The goal is to gain 8 spells under the main 15 second buff window commonly offered by jobs with offensive support. however sometimes this isn't possible if Ley Lines are unavailable due to mechanics constraints or if team buffs are aligned poorly with your particular sequence.

There are a few techniques we can use to both maximize our personal raw potency gains while also contributing a considerable amount of potency under team buffs.

Positioning the end of a line under the start of a buff window

We want to position the end of a line under the start of a buff window for a few reasons. The first of which is to align a hardcast so that you are casting into the buff window where the beginning of the cast is outside the buff window and the end of the cast where it registers buffs is inside the buff window. This makes it significantly easier to gain 8 spells under a 15 second window. This also lines up Manafont to be used for extra strong fire spells under a buff window if available.

Performing Nonstandard line resource consumption under a buff window

We want to only catch the strong part of our Umbral Ice phase under buffs by performing the beginning of a Nonstandard line during the end of a buff window. Ideally we will not catch the transition spell back to fire or Blizzard IV under the main buff window as they are fairly weak spells.

Last hitting with an instant cast spell at the end of a buff window

Similar to ending a phase with an instant cast to last hit the boss, we also want to last hit the buff window to gain an extra cast under that window and maximize the amount of potency we can put inside the window.

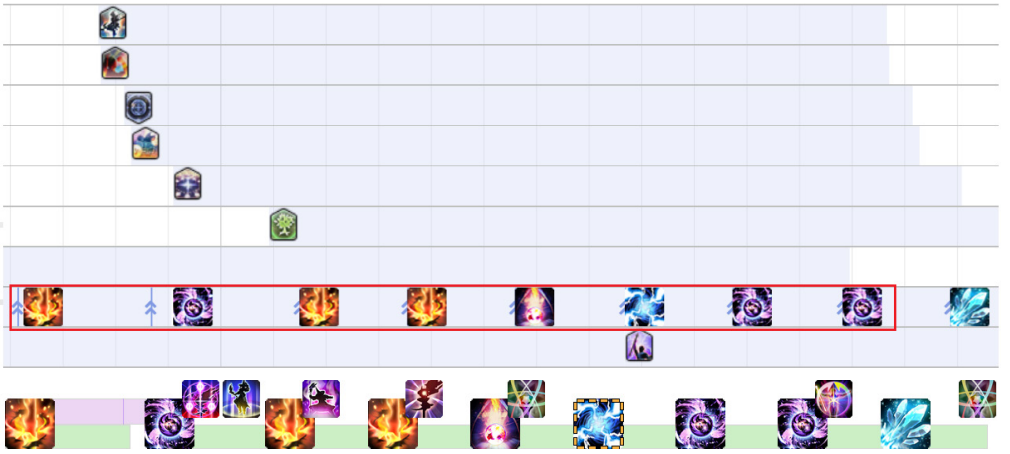
Combining strong team buff gains with strong personal raw potency gains

While aligning potency under buffs often comes at a detriment to our raw potency gains through Nonstandard techniques, a technique that is useful for both putting a large amount of potency under buffs while simultaneously enabling a significant raw potency gain for ourselves is performing line **[N120]** or **[I14]** under a buff window.

When performing **[N120]** under buffs, try to align the beginning of the line under the buff window to avoid casting B4 during the buff window. The MP tick addon is required to instant cast B4 as the last spell in Umbral Ice if a mana tick can fix the 600 MP cost of B4. That MP cost will otherwise lose a F4 usage if B4 is used as the last spell in Umbral Ice. This line is not always possible if mechanics prohibit the use of a long line where you can't move or if the line length is not desirable for future lines.

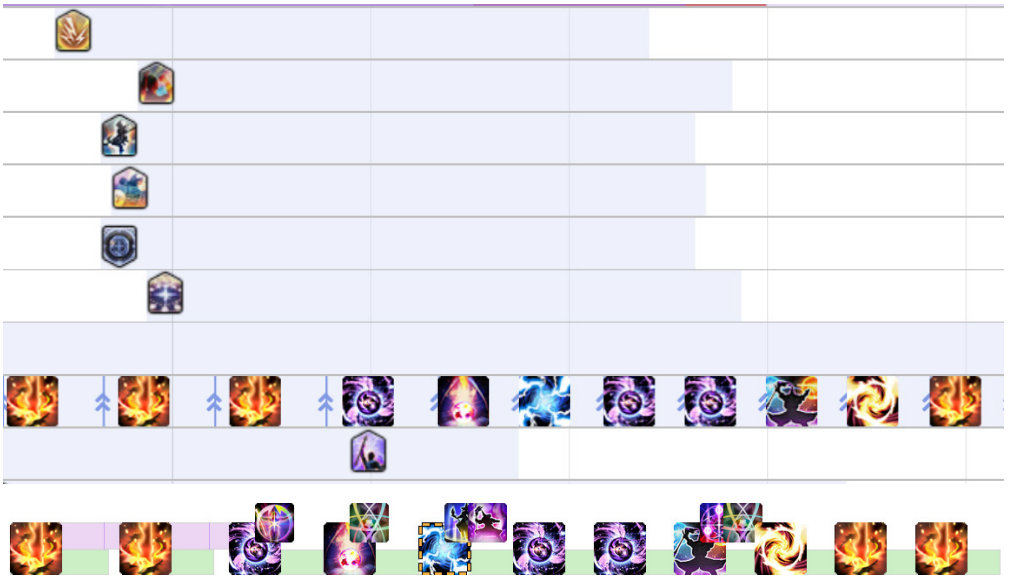
If Sharp Fire is not desirable or if **[N120]** is too long, **[I14]** can be used instead. A bit of a "waste" in terms of raw potency efficiency to use so many filler resources to enable **[I14]**, however this can be made up for with a rather convenient 2 minute "cycle" that will be detailed later in this guide.

An example of the culmination of all of these techniques is shown here:



Notice how a Fire IV hardcast is aligned into buffs while the buff window ends without including the weak Blizzard IV portion of **[N120]** into the buff window. It should be noted in this example that this is a modified version of line **[N120]** that gains only 5x F4 due to the lack of Lucid Dreaming used.

As mentioned it is not always possible to perform [N120] due to various constraints. In that case a regular [I14] can be used to capitalize the time spent gaining mana ticks:



Things to avoid

Avoid hardcasting at the end of a buff window, a spell will most likely be lost as a result of this practice under the buff window. If you are unlucky and your spells line up unfavorably, it is possible to only get 6 casts under a 15 second buff window! This is very undesirable.

Avoid casting weak spells such as Blizzard III and UI Fire III under buff windows if possible. We don't want to use weak spells in the buff window, even if you can't Xeno-dump inside a buff window, at the very least, strong fire spells should be used.

Avoid expending resources outside of a buff window if they can be used to enable similarly strong sequences in a buff window. You wouldn't want to throw away the gains of ultimately replacing an AF3 Blizzard III with an AF1 Fire III by using Blizzard III instead of Xenoglossy inside of a buff window worth ~1.31x. In this example, you would be throwing away your raw potency gain of 182p with a loss of 191p that could have resulted from that spell replacement under buffs!

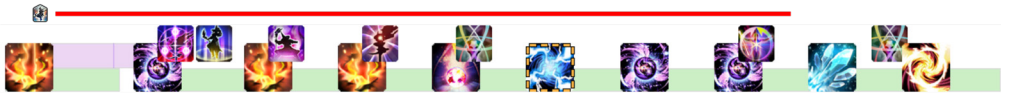
Optimal Cooldown Usage

Ley Lines

Ley Lines is a tricky cooldown to use on Black Mage. Ideally, we want to keep Ley Lines on cooldown and align Ley Lines into team buff windows. Doing so is almost always required to put an extra spell into the buff window. However due to fight constraints, sometimes this isn't always possible due to movement.

In general dumping filler resources in buffs like Xenoglossy and Thundercloud along with strong fire spells with Ley Lines while simultaneously enabling a strong but expensive line like **[N120]** is ideal. If a long line cannot be used, consider using **[I14]** and then a second line which can be enhanced by Ley Lines like Single Transpose 4x F4 **[I7]**. As a note, most efficient lines that require Ley Lines such as **[N36]** play poorly into buff windows that you would ideally want to put Ley Lines over. Those lines should thus be avoided if Ley Lines is used over a buff window.

For Example:



If resource dumping in buffs isn't possible with Ley Lines and/or Ley Lines cannot be used during a buff window, the next best thing is using lines which can be enhanced by Ley Lines. For example turning a single Transpose **[I5]** or Double Transpose Firestarter enabled **[N111]** 3x F4 line into a 4x F4 line. Or performing resource efficient lines that are theoretically better than Standard in terms of PPS like **[N19]** or **[N36]**.

Above all, Ley Lines usages should not be lost! It is never worth it to lose Ley Lines casts in order to enable Nonstandard lines, even if it is very favorable at that moment!

Manafont

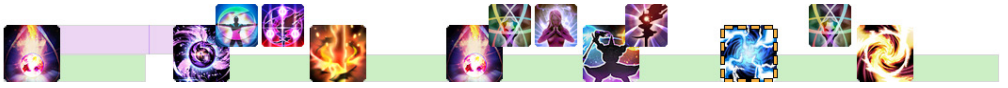
Manafont is a rather low value (but not worthless!) cooldown on Black Mage. When you think about it, Manafont is getting 2 strong fire spells for free, which is great right? However Manafont needs a weave slot that is granted through filler resource usage to use which can detract from being able to enable strong lines and can often mess with sequencing in terms of being able to fit lines around mechanics.

Ideally, Manafont should be used over buff windows to gain an extra Despair cast under buffs and no cooldown usages should be lost. However, sometimes this isn't optimal once fight mechanic constraints and efficient sequencing is taken into account. It is for these aforementioned reasons that make it permissible and optimal to desync Manafont usage from buff windows and even lose a Manafont usage over a fight.

Because Manafont isn't a cooldown which grants direct potency and is rather a cooldown which manipulates one of our key resources: mana, Manafont should instead be viewed as a very short line that can be freely inserted to lengthen lines in order to make them fit smoothly into mechanics.

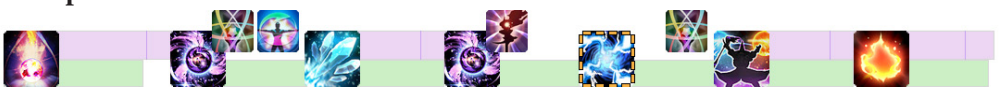
It is often recommended to pair Triplecast with Manafont in order to carry over the weave slot granted by the filler spell used to weave Manafont and save on filler resources.

Example:



Manafont in very niche circumstances can be used in Umbral Ice in order to generate mana quickly when insufficient fillers are available or used in the middle of Astral Fire to put Manafont on cooldown ASAP.

Example:



If you find yourself losing more than one usage of Manafont during a fight because of these limitations however, you should probably re-examine your plan as there is likely a better solution that is possible. ABCs still apply here!

Amplifier

Amplifier should ideally be used on cooldown during buff windows so the Xenoglossy gained from the ability can be placed in said window. This also makes it convenient to enable expensive lines which require multiple fillers to use during that window.

However this isn't always possible if there is no weave space to use Amplifier on cooldown. The next best option is to simply not lose any usages of the ability. It is typically not worth it to clip to use Amplifier unless a usage will be lost in the fight.

Lucid Dreaming

If Manafont is valued because it gives us free mana to cast fire spells, then Lucid Dreaming is like a lesser version of Manafont with more restrictions on its usage. In many lines, when used in Umbral Ice, Lucid Dreaming will give you enough mana through its ticks to give one additional fire spell in the next Astral Fire phase.

Lucid Dreaming can also last long enough to hit two lines as it lasts a fairly long 20 seconds. It should be noted on low Spell Speed that when chaining Lucid in this way with the first line being 3x F4, Lucid Dreaming should be used in the GCD before the last filler instead of weaving it after Transpose or earlier fillers if using more than two fillers in order to give adequate time to guarantee a Lucid tick in the second line. This

has a small chance of causing a small clip when weaving the second Transpose in Double Transpose lines as Lucid ticks are separate from normal MP ticks. Ley Lines can resolve this issue by increasing the cast speed of the first line.

Example:

Optimization Techniques

Despair Skip

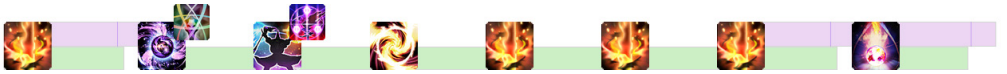
Mana efficiency is an important part of Black Mage. Remember that every tick of mana comes at a resource, potency, or cooldown price! Oftentimes with short single Transpose or Firestarter lines that use only 3x F4 or less, there will be excess mana when Despair is used. Because Fire IV has marginally lower PPS compared to Despair, under theory the loss should be minimal. However it is important to examine things through what is actually being replaced and realized losses and gains.

While the realized loss of using Fire IV instead of Despair is 54 potency, this can be made up through the main benefit of this practice: providing mana equivalent to or greater than Lucid Dreaming for the next line. This allows for a single Transpose line to be upgraded to a Double Transpose line or otherwise enabling an extra F4 in the next line. Especially when UI2 F3 is upgraded to AF1 F3, in this example the gain then becomes 182p from that upgrade minus the 54p loss from using Fire IV instead of Despair, a total gain of 128p plus the very minor chance of gaining an extra spell during the fight through the faster cast time of Fire IV.

This practice is situational and sometimes this replacement is not always straightforward. Like with many optimizations on Black Mage, it has a proper time and place and is not universally applicable.

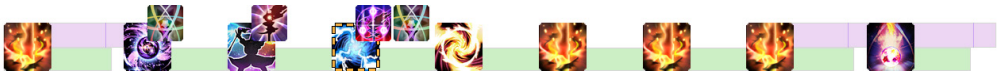
Examples:

[I5] Enabled:



Requires a minimum of 2400 MP carried over to perform as 1 UI1 tick is guaranteed.

[I14] Enabled:



[I14] will require Lucid Dreaming as well as at least 1150 MP carried over to guarantee if only two fillers are used. If at least 1700 MP is carried over, Lucid Dreaming can be skipped. If these conditions are not fulfilled, an **[I15]** line is guaranteed instead.

Sharp Fire vs Sharp Thunder

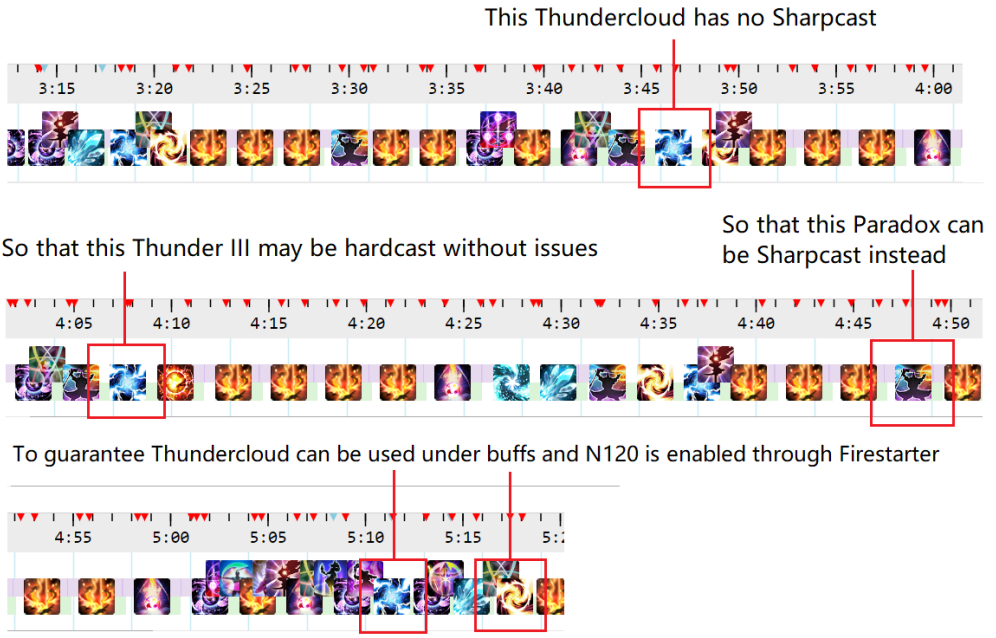
Sharpcast is typically used on Thunder III as it is easier to control the variability of Thunder. This variance control confers a couple benefits for Nonstandard gameplay. Along with the sizable and straightforward potency upgrade, Thundercloud is costless and is instant cast, making it very convenient as a filler for Nonstandard lines, especially Double Transpose lines which are trying to do filler skips. If regular Thunder III is used, in certain lines the hardcast nature and 400 MP cost of Thunder III can sometimes cause F4 loss and weave issues. Additionally, many lines want to cast Thunder spells in Umbral Ice as using Thunder spells in Astral Fire can cause timer issues and lost fire casts in order to keep Enochian. This serves a dual purpose for convenience and filler resource efficiency. Sometimes casting Thunder spells in Astral Fire is unavoidable and optimal, in those cases Thundercloud often also serves as a weave slot.

However, despite the large benefits of Thundercloud, Sharp Fire has cases where it is more useful than Sharp Thunder. Sharp Fire is harder to evaluate than Sharp Thunder because its benefit isn't just through direct potency, of which the upgrade from UI F3 to AF1F3 is smaller than the upgrade of Thunder III to Thundercloud. The main benefit of Sharp Fire is enabling higher quality lines and higher quality sequences. The evaluation of this benefit can only be done by determining what spell replacements have been made and the total potency benefit of doing so.

Examples of where this practice is useful is enabling line **[N120]** in aligning for buff windows. It is also useful when you have no instant cast resources to spare to avoid slow F3 casts and really need a Nonstandard line to make things work.

Remember how I said in the previous paragraph that having to hardcast Thunder III can cause weave and mana issues? This is something that can be worked around with a couple practices. Ideally, we place a hardcast Thunder III over a spot where it will not cause weaving issues or be placed under buffs. Weave issues typically occur in Double Transpose lines as we need Xenoglossy to weave the second Transpose if Thunder III is hardcast in Umbral Ice. This issue is resolved by using Thunder as a filler in a single Transpose line or using hardcast Thunder in a Standard line.

An Example of these Concepts:



It should be noted that despite the benefits of using Sharp Fire in this way, the majority of your Sharpcast usages should be on Thunder. Firestarter and its benefits/substitutes will be talked about more in the next section.

One more thing to note is using Sharp Fire instead of Sharp Thunder will grant higher variability to a run as natural Thunderclouds have a higher potency swing than natural Firestarters. This can be seen as a benefit or a downside, depending on the situation and goal of your gameplay.

Firestarter and Upgrade Potential

As alluded to in previous sections, Firestarter's main benefit past direct potency upgrades is enabling high PPS Double Transpose lines without needing to use an instant cast resource. It has an additional benefit of being costless in terms of MP. This allows for both longer lines such as **[N120]** by carrying over ice Paradox along with being able to carry over mana to the next line through the Despair skip tech as discussed in the previous section.

However despite these benefits, Firestarter's usefulness is often diminished due to the fact that it can be substituted in its most commonly used line: **[N111]**. This is done by using instant cast F3 and Lucid Dreaming. Both of these tools will enable **[I14]** which is identical in potency and potency per second to **[N111]** when 3 Fire IVs are used in the latter line. Because of the ability to substitute for many of the situations where Firestarter would have been good with other tools, lines that can generate natural Firestarter correspondingly become less useful. Additionally, if all instant cast resources are used to enable Transpose lines, often the limitation will be filler resources instead of instant cast resources, diminishing the usefulness of Firestarter in enabling an extra **[N111]** or other strong Nonstandard line as no filler resources can be spared for an extra Double Transpose line with Firestarter.

If a line can generate Firestarter and Sharpcast isn't used to guarantee the proc, **the next line ideally should have the potential to be upgraded with Firestarter,** turning a line that otherwise would have used UI F3 (such as **[I5]** into one that uses AF1 F3 or saving an instant cast resource to be used elsewhere. Lines that can generate Firestarter typically

have to pay for that proc generation potential in the form of weaker transition spells so it is important to make the most of what you paid for.
In mapped runs, the latter benefit is greatly diminished because resources are usually stretched to their maximum potential and instant cast resources cannot be delayed lest they interfere with future planned usages of that resource. Oftentimes that instant cast resource is simply used on speeding up a Fire IV or Despair cast by making it instant cast. The former also is not as frequent of a benefit either due to the fact that mapped runs will often have guaranteed 2 filler **[I14]** lines or other similar lines which have a filler skip chance guaranteed by a MP tick tracker.

It is recommended when mapping to have lines of the same length regardless of if Firestarter is procced. This effectively shifts the gain from Firestarter from a theoretically better sequence into a direct potency upgrade. This is preferred for mapping as we want to keep our sequences consistent as sequences in mapping have been fine tuned to squeeze out every bit possible from the job.

It is perfectly possible to create maps which have branching sequences, however this is very costly in time spent theorycrafting in an activity which is already time intensive. During freestyle gameplay, the opposite is recommended, Firestarter can be freely used to enable a line of drastically different length (For example **[N111]** vs Standard with AF1F3) as we don't have a clear picture of how the fight will end and would prefer to take the larger PPS upgrade. However, forethought should be put into whether or not it will cause problems with mobility later on in a fight as resources will have to be used to enable stronger resource spending lines.

Example:

The "Cycle" of Building and Using Resources

As covered in previous sections, Black Mage goes through resource building "phases" where there are no major mechanics that require movement or team buff windows. Then those resources are spent over movement or buff windows on high potency per second "spender lines". In general, lines will last long enough that these can be condensed into a few common and convenient "cycles". Depending on the fight, sometimes this isn't possible due to mechanics constraints. I'll discuss both mapped cycles and freestyle cycles here.

Let's start with mapped cycles.

A prevalent practice in organized runs is the practice of aligning 3 and sometimes 4 Xenoglossies into buffs and performing an **[I14]** line, followed by a combination of either one **[I14]** and two Standard lines or two **[I14]** or **[I5]** lines and one shorter line such as **[N33.1]** in addition to one Standard line.

It will look typically something like this **(movement mechanics may change up the order)**:

Resource Dump **-** **[I14]** **-** Standard **-** **[I14]** **-** Standard **-** ***Resource Dump***
OR
Resource Dump **-** **[I14]** **-** **[I5/I14]** **-** Standard **-** **[I14]** **-** **[N33.1]** **-** ***Resource Dump***

If **[N120]** is used and enabled instead of **[I14]** after a buff window, a shorter niche line than Standard must be used to substitute one of the two Standard lines used. Manafont is also often needed to further lengthen one of the shorter lines, especially if 2 **[I5/I14/N111]** lines are used in a cycle. Usage of **[N120]** can net small gains when compared to using **[I14]** after a resource dump into buff windows due to more efficient resource usage however it is not always applicable due to fight constraints.

Resource Dump - [N120] - [I5/N111] - Niche line - Standard **- Resource Dump**

As for freestyle cycles, they will be based more upon fight movement than team buff optimization as freestyling is typically used in fights where the player has low familiarity. Standard and immobile niche lines are used to build resources which are spent in mechanics which require movement on **[I14/I15]** Double Transpose lines which are often chained one after another. *Of course being freestyle, oftentimes a fight will not allow for such a straightforward cycle and lines will have to be mixed and matched depending on what is going on.*

Typically it will look something similar to:

Standard **- [I14/I15/N111] - [I14/I15] -** Standard **-** Standard **- [I14/I15/N111] - [I14/I15]**
OR
Standard **- [I14/I15/N111] - [I14/I15] -** Standard **- Niche Line - [I14/I15/N111] - [I14/I15]**

More F4s and Lower Transition Spell Potency vs Less F4s and Higher Transition Spell Potency

A common issue that will occur is deciding whether to use a **[I5]** 3x F4 with single Transpose vs **[I15]** 2x F4 line with Double Transpose in addition to **[I14]** 3x F4 with an extra filler vs **[I15]** 2x F4 with a filler skip.

Recall that each fire spell comes at a cost and purposefully shorter lines will usually have consequences later on in that a later line must be lengthened to compensate for that gap in order to fill out a fight. No line lengthening can come without a cost! This consequence is the reason that mapped runs will stretch out lines to their maximum length and shorter lines like 2x F4 **[I15]** are most often used only in multi phase fights where the shorter length is known to not compromise later lines.

Additionally, sequences comprised of many short lines will often end up cutting out Fire IV casts for transition spells. They will also often incorporate extra Thundercloud casts as a result of needing more fillers than is normally available without clipping Thunder. This practice is of course undesirable and will wipe out much of the theoretical gain of performing these spender lines.

In freestyling however, this is a different story as things are not able to be precisely planned out. **[I15]**'s shorter length can offer a solution to mechanics that have movement back to back but split into two parts. This is due to needing to stand still for one less hardcast as Triplecast usually does not cover the entire fire line. Additionally, we want to keep Lucid Dreaming on cooldown like our job based cooldowns, so when choosing between using Lucid Dreaming and doing a 2x F4 **[I15]** line and skipping a Lucid usage to do 3x F4 **[I5]**, it is usually better to opt for the Double Transpose line and take the known gain over the unknown potential loss.

In short, it is typically better in mapped runs to do the longest line possible when given a choice between a 2x F4 Double Transpose line and a 3x F4 single Transpose line. And oftentimes in mapped runs, 3x F4 **[I14]** lines with a filler skip should be guaranteed through the use of an MP tick tracker, resolving the issue of **[I14]** vs **[I15]** with an extra filler. However in freestyle, shorter lines can have their place in Nonstandard optimization due to the fact that shorter lines can work better with movement mechanics and the consequence of the shorter line is unknown.

Resource Efficiency and Line Planning

Ideally, no high potency filler resources should be used on only movement without enabling a gain through high potency lines, team buff alignment, or setting up for high potency lines. Whenever you spend a resource, always be looking to gain something besides movement. When spending resources on Nonstandard lines, always question if the number of fire spells you have gained is worth the transition cost.

During fights with no downtime, it is impossible to avoid at least a few Standard lines, especially when taking team buffs into account and trying to play around those. There simply aren't enough resources available to perform just Nonstandard lines and trying to do so will involve using too many niche lines, cutting out the potential to perform popular resource spender lines which are much more powerful along with very poor synergy with team buff windows. While it is possible to enable more efficient sequences in terms of raw potency by completely ignoring buff windows and purely playing from a selfish standpoint. Overall this will result in a significantly worse effective dps, or you could say, real damage, which should be the only damage stat that matters.

From this author's experience, we can measure the usage of Standard lines through the usage of B3. It is very difficult to cut B3 usage below 0.5 cast per minute (CPM) without making compromises that make the sequence worse in quality such as losing buff alignment or overusing niche lines. A CPM of 0.5 means that one Standard or other niche B3 line was used every two minutes. However during fights with heavy movement, it is more common to have closer to 2 Standard/B3 lines every 2 minutes due to the need to bank up resources for mechanics. Typically it is common for the usage rate of B3 in finely tuned mapped runs to range from 0.5-1.0 CPM depending on the fight. A CPM of B3 that is over 1.0 typically indicates that there may be additional room for raw potency optimization.

This changes entirely in fights that have downtime phases. Being able to obtain full MP and 3 Umbral hearts for free through Umbral soul along with stocking up additional resources and cooldowns allows for much greater line efficiency. In extreme cases, like DSR, lines that use B3 can be avoided for most of the fight.

Re-Openers

A short note on re-openers, it is more important when choosing between re-opening with a full Standard line with 6x F4 and an AF1 Paradox re-opener **[N129]** with 4-5x F4 to pick the re-opener that fits better with mechanics and later lines. The potency gain from substituting UI3 F3 for AF2 F1 is less important than sequencing around mechanics and fight length. If the lost F4 from an AF1 Paradox re-opener causes awkward lines later on or a substitution of a weaker longer line over a stronger shorter line later on, its gains become nullified or may even result in a loss. It is for this reason that line **[N129]** is not universally used as a re-opener, there are cases when the longer Standard re-opener is desirable despite its lower PPS and lesser F3P generation.

Freestyling Techniques and Mindset

The ability to "freestyle" is the ability to use different lines and adjust on the fly based on what is happening in a fight without a clear plan. It is probably the **most valuable** set of skills for Black Mage as for most players, progression raiding is where most of their time will be spent so it's important to be able to play well in a "dirty" environment.

The most important thing that will help with freestyling ability is just pure practice and line familiarity. There should not be much thought needed in which line to use thus is recommended to stick with lines that you are familiar with. Like with other jobs, all lines can be learned as muscle memory, it just takes more time as there is more to learn. Too much thought put into how an unfamiliar niche line will affect your sequence and ability to do mechanics in the future will usually result in undesirable failures such as mechanics failure and dropped uptime.

Most of the potential of Nonstandard can be achieved with just a few common lines: Standard, short spender lines such as **[N111/I14/I15/I5]**, and shorter than Standard niche lines like **[N15]** or **[N33]**. No fancy tricks required. A good marker of familiarity

is the ability to "dry run", as in doing no damage in order to devote attention to mechanics during early prog and then be able to quickly whip up a working sequence in a couple pulls.

The number one thing to think about is how to layer resource spending lines over mechanics. If previous lines are too long or too short then fix them with niche line usage. Get a good feel for how mana ticks work so you don't have to look at your MP bar or tick tracker in order to perform Transpose lines. If you are using the MP tick tracker in freestyle, learn to use instant cast tools and slowcast spells such as HF2 and F3 to align your MP tick if you have the mental space and foresight to predict and enable filler skips using the MP tick tracker.

Learn to slidecast smoothly without the need to closely look at the cast bar. Being able to slidecast to cover small movements will save a lot of resources. Most fights will not cause movement issues if you are skilled at slidecasting.

Don't overprovision movement tools to handle mechanics which don't need huge amounts of movement. For example, try not to use a weave resource + Triplecast to handle moving just several yalms. Similarly, don't try to greed high potency lines and then underprovision movement tools for mechanics. If you are stuck in that situation, just acknowledge your mistake and drop uptime to move.

Learn how to recover mistakes as they will happen, learn to also not tilt or overly think about rotational mistakes until enrage becomes an issue, any additional time spent on that is time and mental space wasted.

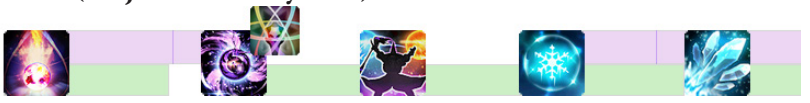
Learn to be familiar with what you can and can't do sequence wise at your Spell Speed level. It is recommended to stick with a familiar Spell Speed level during progression regardless of substat efficiency as fewer mistakes from unfamiliarity with speed will inevitably outweigh small gains from substat efficiency. You should not have to look at your gauge to know how much time you have left on Enochian and AF/UI. It is

recommended to count spells you are casting instead of looking at your Enochian gauge. Staring at your gauge will really only promote unnecessary anxiety and take away from attention to fight mechanics as most lines will take Enochian down to 1 second or less on the timer before a refresh or element transition. If you have a mess up or interrupted cast, just skip that cast in the line and move on to the next one, don't try and force it anyways as you'll likely drop Enochian as a result.

Recovery Techniques

It is inevitable to make mistakes during freestyle play, no matter the skill level of the player. There are a few techniques that can be used to recover with minimized losses. These recovery techniques are for lines which need to be cut short, the most common type of error. The most common cause for this type of error is unexpected or miscalculated movement. As a result, these lines utilize a filler resource weaved with Transpose Paradox which will provide at least 2 GCDs worth of movement.

GIRL (Geiji Ice Recovery Line)

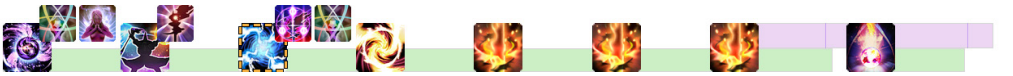


An option to perform a Standard line after making an error which prevents the usage of Blizzard III. Is an insignificant loss of 2 potency when compared to Standard, however a Xenoglossy resource is used to enable this which will be a loss in terms of opportunity cost in enabling Nonstandard lines.

No Despair Transpose

[I5] Enabled:

[I14] Enabled:



In situations where Despair cannot be used, Despair can be skipped to enable strong or discounted Nonstandard lines using the leftover mana from a previous line. An identical practice to Despair skip tech, however this is not mana which would have otherwise gone unused. This practice can yield higher potency per second sequences compared to GIRL at the cost of using an instant cast resource.

Early Despair Transpose Paradox into [N33/N33.1]

An alternative to **GIRL** or Despair Skip if no resources are available and a Standard line is undesirable because of its length.

Early Despair vs Extra Fire 1

When evaluating whether or not it is better to end the fire line early with Despair if there is not enough time on the Enochian timer or if it is better to refresh AF with an extra F1, we can think about a similar comparison to short Nonstandard lines like **[I15]**. AF3F1 is worth 324p, which is not far off from the 364p or 208p Fire III used in those lines. We can thus think in a similar way when evaluating if extra Fire 1 is worth it. From a PPS perspective, F1 + F4 + Despair (all AF3) is roughly 173.7 PPS or around where Standard will be. Thus, as a rule of thumb, you'll want to have at least 4000 mana in order to justify an extra Fire 1 over skipping Despair as you want to get at least 1 F4 and Despair off of that modified "line". Getting only Despair off of F1 isn't ideal and generally is not worth it.

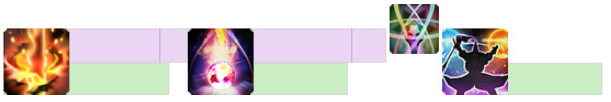
How to End Fights Optimally

If you are able to plan out a specific kill time, ending fights at the end of a line is most optimal, to avoid having to pay for fire spells that won't be used. This is one of the major limitations of purely using PPS to calculate lines. Nonstandard lines which force awkward endings will usually end up with an unnecessary loss.

The last cast should ideally be instant Despair, Xenoglossy, or Paradox. We want to last hit with an instant cast to eliminate any chance of missing a cast through having a hardcast not complete in time at the end of the fight. This also applies for any phase end with downtime afterwards.

Because resources are usually stretched to their thinnest when trying to shoot for the most optimal sequence, it can be a common issue to have no weaving tools at the end of a fight or phase. Ending on hardcast Despair with clipped Transpose into ice Paradox can be an acceptable solution but is not ideal. This practice is far better for phase ends with a reliable end time as they will be 100% predictable and that chance to lose a cast from clipping becomes all or nothing.

It is not preferred to end long fights or phases in this manner, clipping presents a significant chance that the Paradox cast will be lost. However if it cannot be avoided, it is better to err on the side of caution and cut short Fire IVs from a line to ensure Despair and Paradox can both come out and an instant cast last hit can be achieved if things look sketchy.



Sometimes acceptable for phase ends, but rarely ideal for ending fights.

Of course, no cooldown usages should be lost (with the exception of Manafont if desyncing Manafont enables an overall better sequence for the fight). The last Sharpcast usage should ideally be used on Sharp Fire in order to enable a line that can take advantage of the proc. If Sharp Fire can't be used, Sharp Thunder may provide a

convenient way to weave Transpose to last hit with Paradox, however this is typically not preferred due to the potential to replace a Fire IV with base damage Thundercloud.

MP Tick Tracker Optimization

MP tick trackers offer a distinct advantage for Black Mage when it comes to mapping runs. They can also have a minor benefit for inexperienced players in freestyle gameplay.

As covered in Reina's guide, the biggest advantage that MP tick dependent plans have is the ability to guarantee filler skip lines which would otherwise be unreliable with random MP ticks. This is especially powerful when designing openers for a fight due to the fact that Ley Lines usage typically necessitates the usage of an extra filler if Transpose is used after the opener line.

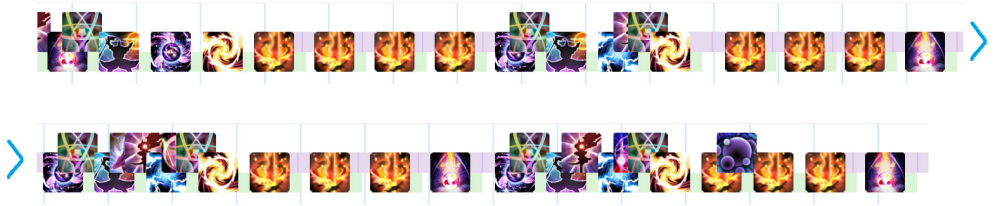
Particularly powerful first minute sequences can be enabled through the usage of single Transpose lines with only Paradox as a filler during the opener. The weakness of this practice however, is the inability to put Thundercloud or Xenoglossy into the opener. Depending on the fight, team composition, and buff window timings, this practice may not be the best overall solution.

For Example, For P7S:

The MP tick tracker also useful for chaining **[I14]** lines as on common low Spell Speed BIS sets (2.42 and 2.41), Instant cast F3, 3x F4, and Despair last roughly 15 seconds

when combined with caster tax and weave times for Transpose, granting a large window where if one **[I14]** line succeeds with only 2 fillers, that the next line will also be able to use only 2 fillers. This becomes guaranteed with the MP tick tracker and corresponding tick plan, making for very powerful fight sequences which have heavy **[I14]** line usage.

For Example:
A more minor benefit for both mapped and freestyle gameplay is the ability to anticipate when a mana tick will occur without having to "get a feel for it".



The MP tick tracker is not necessary to play Black Mage at a high level but it will offer an undeniable advantage to the overall sequencing potential for a fight. A MP tick dependent plan will always beat out a similar tick agnostic plan.

Two-Target Optimization

Black Mage Nonstandard gameplay becomes significantly more powerful than Standard gameplay when looking at AoE or two target gameplay. AoE is covered in existing guides so we'll focus on two target optimization in this section.

Black Mage two target Nonstandard is especially powerful compared to Standard lines which substitute AoE spells where applicable. This is primarily because we can chain Double Transpose short lines much more easily than compared to single target gameplay. The need to double DoT means that we are able to guarantee 3 fillers per ice phase. This means we can guarantee coming in with 10000 MP with a very slight clip in the case of very late mana ticks. Being able to chain **[I14]** lines in this manner is extremely powerful.

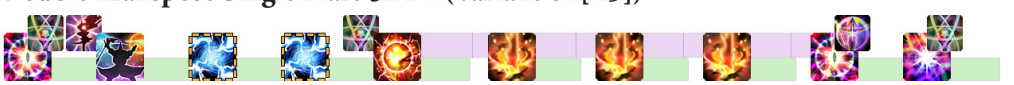
If the targets are close enough to hit with AoE spells, Black Mage Nonstandard gains an even greater amount relative to Standard. HF2's reduced cast time ensures that we don't need instant cast resources to avoid slow Fire III casts and can instead use them on Flare. Additionally, AF1HF2 will kill two birds with one stone and grant us Enhanced Flare along with AF3 stacks. In the situation where both targets can be hit with one spell, Swiftcast and Triplecast should *always* be saved for instant casting Enhanced Flare if possible. Enhanced Flare on two targets greatly exceeds the potency per second of any available spell barring Foul. (Note: this was no longer true after 6.3)

Let's go over two primary resource spender lines that can be used in two target scenarios where targets are close. If Triplecast or Swiftcast are not available, then line **[I14]** should be performed instead as non Swift casted Flare has poor PPS.

Double Transpose Double Flare 1x F4 (Variant of [A5])

Miniscule potency difference (0.4p) compared to Double Transpose Single Flare 3x F4 when using the same instant cast resource. Very slightly higher PPS due to Blizzard IV taking a shorter time to cast than Fire IV. Main benefit is that Lucid Dreaming is not needed to eliminate the chance of clipping with 3 fillers. Triplecast should be spent on this line if possible.

Double Transpose Single Flare 3x F4 (Variant of [A5])



If no Triplecast is available but Swiftcast is, then this line can be used and is nearly identical in potency. Requires Lucid Dreaming to eliminate clipping with 3 fillers.

These lines can be chained for very powerful two target sequences, for example:

If a fight allowed for this sequence mechanics-wise, it would be extremely powerful.

Optimization Philosophy

The Limitations of PPS-Based Theorycrafting

Potency per second (PPS) is a useful theorycrafting methodology for determining the relative strength of lines but has its limitations. It is a common mistake to be attracted by the theoretical gains of a line but not implement it correctly, losing out on the theoretical gains of that line or even coming out with a loss. Another common mistake is to be attracted by the benefits of a line and fail to evaluate the opportunity cost of that line compared to other line combinations when it comes to any number of constraints such as resource efficiency and team buff timings.

One of the most important parts of theorycrafting and optimization is being able to analyze and turn theoretical gains into realized gains. This is where **spell replacement** and overall sequence analysis comes in. Once PPS is used to filter out viable lines, usage of lines should be examined to see what spells are being replaced with when different line combinations are taken into account.

An easy way of doing this and looking at the strength of an overall sequence is to count all spells cast in a table and then add up the total effective potency of that sequence for comparison against other sequences. Effective potency as being defined as raw potency + potency gained from buff contribution. By doing this practice you can much more easily see if what you are doing is overall optimal. For example if you see that you are transitioning much more frequently or using stronger transition spells, are you sacrificing strong fire spells and is that sacrifice overall worth it? Plans which cut out too many strong fire spells in favor of stronger transition spells or plans which use resources inefficiently are easily exposed with this practice.

The one weakness of simply adding up effective potency is that it doesn't take into account different levels of Spell Speed so it can be difficult to compare plans against other players who have a different Spell Speed stat. However most players will be using the same or very similar BIS sets, especially in Nonstandard gameplay where 2.41s-2.43s GCD Spell Speed builds are common.

So let's look at an example scenario of where this kind of philosophy comes into play. Let's take line **[N36]**. In theory the line is a bit less than 2% stronger than Standard in terms of PPS. Sounds great for only 2 fillers right, no instant cast resources, and a relatively long line right?

However it has a major downside: the use of a slow F3, which may end up losing a cast over the course of a fight. Under theory, it is a good trade in terms of potency cost to cast a 3.5s 208p spell for 5 Fire IVs and Despair vs two 182p spells (5s of cast time) and a 310p spell (2.5s of cast time) for 6 Fire IVs, Paradox, Despair, and Firestarter proc generation.

When you perform line **[N36]**, you are hoping that the potential spell lost is a weak spell and not a strong spell such as F4. However, depending on how the fight is sequenced, let's say for example you had to use an extra line because **[N36]** is a few spells shorter than Standard. Now you have ended up paying for an extra transition spell which could be replacing Fire IV. In that worst case scenario you have now performed a line which is baseline weaker overall.

Even if that extra transition spell is effectively replacing a weak spell, you must then also consider the opportunity cost that using those two fillers has cost you along with losing out on the chance to generate a Firestarter proc. Overall this is possible that the opportunity cost is too great and using line **[N36]** is not the most optimal path you could have taken.

This also applies to proc generation. When taking into account the potency value of

what procs can add to your overall sequence, it is common to look at calculations as an average. This average is useful for determining if something is worth it or not. However in live play, the average is never the real result. This is most applicable when trying to fish high rolling runs. A plan which relies more on natural procs but has similar average potency to a plan which relies on lines that cannot generate procs and does not rely on natural procs may have advantages when trying to farm out high roll runs due to its higher potential.

Optimization Process: From Prog to Fully Mapped

Prog - The goal of prog first and foremost is mechanics discovery/understanding and building proficiency at mechanics as quickly as possible. As a result we want to be conservative with our freestyling and use only lines that are familiar such as Standard and **[I14/I15/I5]** to make a sequence that will not be fully optimal but works smoothly with all mechanic variations.

Freestyling - The style and depth of play that most players will obtain but go no further than. Freestyling during and after prog is essentially the same but after prog, greater attention can be paid to optimization and less familiar lines can be used to nab small gains. The goal should be to use Standard lines during parts of the fight without movement and niche lines to fit lines where Standard won't work well. Spend resources on strong spender lines over movement mechanics and buff windows. You'll often get a good idea for sequence pieces which work well in a fight and can be reused during mapping.

Mapping - If you're an optimization enthusiast who seeks to tune the best possible run, by mapping out your plan on spreadsheets or through tools like Black Mage in the Shell, you can find small efficiency gains much more easily than through just ordinary gameplay and practice. It is recommended to properly map out your sequences if you plan to do competitive parsing or speedrunning activities.

It is best to have an idea of buff and specific kill times as making plans that are agnostic to those limitations will inevitably be less efficient than one tuned around specific killtimes and buff times. MP tick tracker is recommended but not required for similar reasons. Mapping on Black Mage is akin to solving a large puzzle. When mapping, have an idea of what you would do to fit your ideal sequence around mechanics and buff timings. If there are too many constraints, try to think of the specific reason a sequence won't work and then think about ways around that limitation. Simple solutions usually yield better results than unorthodox ones. The latter is sometimes the only way to solve things however and knowledge of niche lines can help greatly.

Mapping is a very time intensive activity as translating maps from paper to real gameplay can involve a lot of practice. Be prepared to execute unfamiliar or very situational sequences that will only work in the specific order you have planned. This author's recommendation in terms of mapping practices is to find the timeline for the fight you wish to plan for, create a map using a tool like Black Mage in the Shell around the constraints required for your run (such as movement mechanics and buff windows), spreadsheet its potency to compare it against existing plans, refine as needed, and practice on a dummy to build muscle memory before trying it out in real instances.

Optimization Traps

There are a few optimization traps I will go over in this section: practices that may look attractive but end up being inefficient or having their gains nullified by unforeseen downsides.

Clipping to Wait For Mana

As a general rule of thumb, you should almost never clip to wait for mana. As detailed in earlier sections we don't want to lose casts over the course of a fight as each lost cast, even weak casts significantly increase the gain from a line needed to justify the practice which caused spell loss. Let's take for example **[I14]** vs **[N11]**. As discussed previously line **[I14]** is much more desirable than **[N11]** due to **[N11]**'s slow cast and chance of spell loss. If you end up waiting a second to wait for MP ticks in trying to cut out fillers, you'll have effectively "wasted" the instant cast resource you used on enabling **[I14]** and the line length becomes similar to **[N11]** instead! During freestyle gameplay you may not have a choice due to resource constraints and the fact that you've committed to doing a certain line by the time you need to Transpose back to fire, however know that it may end up costing you your theoretical gains.

There are some situations and plans which can benefit from clipping, but those practices are different from clipping to wait for mana as the clip is deliberate and is used because there is no filler available to weave. This issue can be mostly alleviated by using an MP tick tracker to guarantee that filler skip lines can work reliably.

Focusing Too Much on the Strengths of One Line While Ignoring Its Effect on Overall Sequencing

As directly discussed in the prior section, it is a common mistake to look at the PPS or other benefits of a line and ignore the overall impact it has on a fight sequence. This is an especially common mistake to make in evaluating niche lines, as their gains are minor and can be lost through downsides like spell loss, trading strong spells for weak ones, losing strong spell usages overall in a fight, etc. This is also applicable to expensive lines which can look very attractive but sometimes can be worse than chaining shorter or weaker lines overall.

For example, **[N69]** or its variant with 5x F4 can look attractive due to its long length and ability to save on instant cast resources. But is such a line really worth it if you can't take good advantage of its higher Firestarter proc generation rate? It is after all, a very expensive line in terms of resources consumed, and other line combinations might have been better.

Trying to Cut Out Too Many B3 Usages/Trying to Avoid Standard Too Much

Trying to cut out too many Standard lines is an easy trap to fall for in optimization. We want to minimize casts of weak spells and B3 is one that is replaceable through Transpose, sounds like a logical step to try and cut out as many Standard lines as possible right? After all this is Nonstandard Black Mage right? Wrong, this is a practice that can be taken too far. Standard has one major benefit that all other niche lines don't have or have to a lesser extent. It requires no filler resources to perform and has a very long length to build up resources to dump in buffs or on expensive resource spender lines (or both!). Oftentimes what will happen if you try to cut out too many Standard lines is that you'll end up substituting in lots of lines like **[N33]** that are marginally

stronger than Standard but still consume resources. Because these resources have been spent enabling lines which are of questionable strength, oftentimes you'll lose the ability to enable strong resource spender lines which would be much better by comparison when used with Standard. We don't want our sequence to be composed of mainly niche lines! Such a sequence can actually even be outperformed by pure Standard with efficient instant cast usage on Despair and Fire IV in extreme cases.

As a general rule of thumb, as mentioned earlier: It is very difficult to cut B3 usage below 0.5 CPM on full uptime fights without making compromises that make the sequence worse in quality such as losing buff alignment or overusing niche lines.

Trying to Use Too Many Lines Which Involve Slow Cast F3

A common issue is the overuse of slow F3 lines in the name of theoretical PPS gains. Because the cast time is so long, each time a slow F3 is used, the chance that a GCD overall in a fight is lost becomes significantly higher. With 3 slow casts used, the chance that a GCD is lost is guaranteed. To look at what GCD is lost in a fight because of this practice, one has to look at how the last line in a fight would be modified with one less spell cast. Oftentimes this is a F4 cast. This is an extremely hefty price to pay if that becomes the case. Each line that uses F3 must have a good justification for doing so. It must enable a great sequence as the line itself is not that much stronger than Standard on paper.

When mapping runs with a planned kill time or in multiphase fights, sometimes this loss doesn't occur due to how your GCD lines up at the end of a phase, in this case the chance of loss becomes 0 if the plan is executed correctly and this concern becomes resolved.

Trying to Strengthen Transition Spells Too Much at the Cost of Overall Sequence Strength

This is more specific to niche lines which either use B4 to substitute for a filler or lines which are too short to justify the resources used in Double Transpose.

For the former situation, the issue that occurs when using B4 as a filler when no other fillers are available is that there is a high chance that B4 replaces a F4 or other strong fire spell when we take future lines into account. Let's think about B4 usage in Standard to try and get a grasp of its value in that line. When you think about it, B4 grants 2x F4 along with a Paradox usage and corresponding Firestarter proc chance. That is 3 strong spells gained plus a chance for a Firestarter proc for the usage of one moderately weak spell. This is the reason why we perform Standard as a baseline and not 4x F4 with weak F3/B3 **[N10]**. From that rationale, if B4 isn't gaining anything remotely similar, one must question its worth in a Nonstandard line. As a general rule of thumb, outside of specific spell replacement cases where B4 is replacing a spell weaker than it, we want to gain at least 2 extra F4 from the usage of B4 in a Nonstandard line.

For the latter situation, as mentioned previously in previous sections, we usually don't want to willingly shorten lines in order to be able to use Double Transpose lines. For example if we compare 1x F4 Double Transpose with instant F3 **[I16]** vs 3x F4 with single Transpose **[I5]**, both of which are possible lines to get with 7900 MP, the result of a UI1 + UI2 tick without Lucid Dreaming or carried over mana from a previous line. While **[I16]** might have a higher PPS than **[I5]**, a later line will be compromised in order to make up for the fewer number of spells cast in **[I16]**. This will overall be a loss. As a result **[I16]** is never used, except to end fights when a kill time is awkward and doesn't allow for a better line. A similar bit of logic is why Swiftcast/Triplecast are almost never used to Transpose AF1F3 when Firestarter is not available in Standard lines to do 4x F4 instead of 6x F4. In this case the PPS is actually lower than Standard due to the higher potency cost paid for so few strong fire spell casts. But more important than the slight PPS loss is the same issue: compromise of later lines.

Trying to Force Thunder Clipping to Generate Extra Fillers

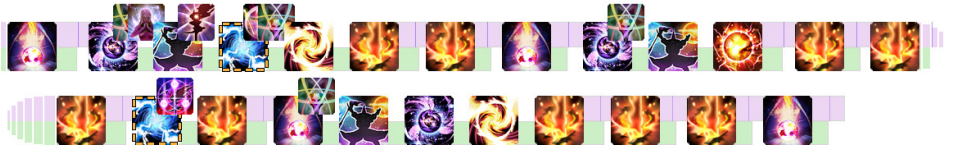
A temptation is to use extra Thundercloud casts during the course of a fight for the purpose of using them as fillers to force out extra Nonstandard lines. This is a practice which is more commonly seen in freestyle type gameplay rather than mapped runs. While this practice can be a gain over Standard, an issue that often arises is that while Thundercloud can substitute out weak spells, they will also end up substituting out strong fire spells such as Fire IV as well. We can value these extra Thunderclouds at 400 potency which is obviously a loss compared to Fire IV at 558 potency. This brings down the benefit of this type of practice.

There is an additional downside to extra Thunderclouds that will come up in mapping: the fact that those Sharpcasts could have been used on one or even two Sharp Fires. Sharp Fire can enable powerful sequences. Efficient resource usage combined with extra Sharpcast spent on fire instead of Thunder will come out on top over additional Nonstandard lines forced through extra Thundercloud.

Let's Demonstrate Some of These Traps:

Take these cases that uses the same resources and has similar length for each sequence.

I15 + N33.1 + I5



I15 + I20 + N33.1 - 1F4

Standard + I14

Lets call **[I15]** + **[N33.1]** + **[I5]** “Sequence 1”, **[I15]** + **[I20]** + **[N33.1]** - **1F4** “Sequence 2”, and Standard + **[I14]** “Sequence 3”. We can’t add clip Transpose Paradox to the end of Sequence 1 as that would lengthen that sequence to be an entire GCD ahead of the other two. It as a result is slightly shorter than the other two sequences.

If we add up all of the potencies of these sequences they come out to 12802 potency for Sequence 1, 12710 potency for Sequence 2, and 12862 potency for Sequence 3. As we can see, the Sequence 3 with the Standard line is actually the strongest one!

How can this be? Let’s break down how things played out in this example. If we compare Sequence 1 with Sequence 2, we can see that a F4 is being directly substituted for a B4. Despite the additional AF1F3 in Sequence 2, that gain is not enough to override the downside of the spell substitution of F4 for B4. As a result Sequence 2 is the weakest sequence of the three. Sequence 3 has one more spell cast than either Sequence 1 or Sequence 2 but is of similar length. This is because Triplecast and Swiftcast have been used to their maximum efficiency and have been placed on Despair or F4. The other two lines do not make as good use of Triplecast in terms of time efficiency and also include extra long hardcasts through the usage of extra Despair and HF2. Even though Sequence 3 has the weakest transition spells, it's time efficiency along with the strength of line **[I14]** mean that it gets an extra spell and actually comes out on top.

Black Mage Gearing

A very common question is whether to use high speed vs low speed gear sets. While everything is ultimately down to personal preference, for the purposes of Nonstandard gameplay, a low Spell Speed set has undeniable advantages over a high speed set. Let's talk briefly about a few of them here.

On low speed sets, we have a much higher chance of skipping fillers in lines without clipping. This allows for greater Nonstandard line implementation and easier Xenoglossy dumping in buffs. If a clip does occur, it is not as severe due to the longer GCD of a low speed set. If you are clipping because of too high of a Spell Speed when performing Nonstandard lines, your extra speed is effectively wasted.

On very low speed sets (those with a GCD of 2.41-2.43 or similar), we can take advantage of the high chance of skipping a filler in the second **[I14]** line when chaining 2x **[I14]** lines with filler skips if the first line was able to skip a filler. This is very useful for both mapping runs and higher end freestyle gameplay.

On high speed sets, we need to use more movement tools to do any given mechanic as our GCD is shorter. This means fewer movement tools to enable Nonstandard lines.

It is for these reasons that low speed sets are recommended for Nonstandard gameplay. While using a very low speed set (for example the 2.42 GCD set for patch 6.2) is ideal, if you are uncomfortable with such a low speed you can run ~1300 SPS sets to familiarize yourself with low speed gameplay.

Acknowledgements

A big thanks to the Black Mage mentors and helpfuls who assisted me in reviewing this document and offered suggestions for content: Eksu Plosion, Keiji, Silvi, Fürst Blumier, and Reina.

And a big thanks to Reina who wrote the original advanced Nonstandard guide and created the lines spreadsheet. The foundations of which this guide is built upon and which this guide wouldn't be possible to have without.

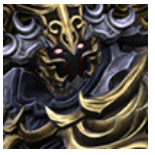
If you read all the way to the end, I'm impressed! Between Reina's guide and mine, you've probably read 80 pages! That's equivalent to a small book on how to play just one job at a high level in FFXIV.

~~Here's the perfectly balanced secret Black Mage tech they don't want you to know about:~~

6.x Black Mage Raid Guide

Written by Rika Vanih, Reina Leigh, Eydis Darkbane, Claudie Haignere, Yara Saltcliffe, Andrew Neko, Silvi Vee

Pandæmonium: Asphodelos (Savage)



Asphodelos: The First Circle [Erichthonios]

Overall, this fight does not require many extra considerations or adjustments. With extra resources and flexibility, it serves as both a sort of dummy fight, good for newer players to get their feet wet with savage, as well as a good training ground for starting to learn some Nonstandard gameplay.

Opener

- The standard opener is sufficient; you should not have to save movement tools or adjust the opener for this fight.
- Consider slidecasting or moving during the pot weave to place your Ley Lines

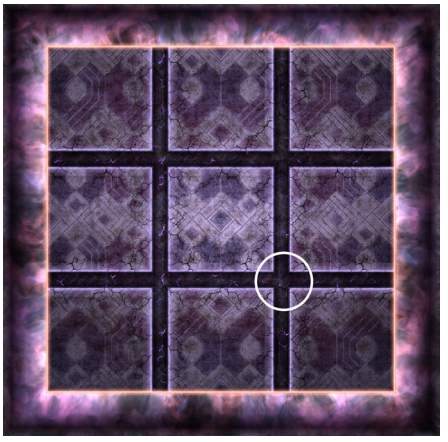
closer to your assigned spot for chains.

- If you need to move for chains, don't move instantly as soon as the debuffs go out. Positioning doesn't matter until the chains resolve, so you can maintain more uptime in your Ley Lines. Just make sure your team knows you might be late to move.

Ley Lines timings/positioning

Overall, Ley Lines should be used roughly on cooldown for this fight.

1. Use as normal in opener, ideally close to your position for chains.
2. At the start of Intemperance, placed at an intersection between four squares. With this placement, you can move to the edge of your Ley Lines in whichever square you need to be in for the mechanic (example below).



3. In the middle of Shining Cells, after the second Aetherflail, place them between two adjacent tiles so you can stand on the required tile for Shackles of Time.
4. Use at the end of the second Intemperance, when you get to your final position for the mechanic.
5. This depends a bit on kill time. If kept strictly on cooldown, there's a decent window after chains before the Aetherflails. With a kill time at enrage, there's a good window after Aetherflails during the Warder's Wrath spam leading up to enrage.

Positioning/movement for mechanics

Chains

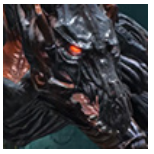
- Ideally, you have a set position and only have to move if you get the other debuff. For example, if you have NE for chains, you always have that spot unless you get a purple chain and have to take an inner spot.
- For Fourfold, if you are doing Timer Strat, try to preposition in the center of the arena to lower the distance required to get into position for your debuff.

Intemperance

- Having a position W/E/SW/SE allows you to stay within your Ley Lines as you move between squares as needed to perform the mechanic.
- If you get stuck with a NW/NE position and can't get anyone to swap with you, when the pattern comes up that you have to change your color to the south, you will have to momentarily abandon your Ley Lines.

Gaoler's Flail

- For the in/out variant, the border of the safe spots is shared. Standing near this border allows you to do the in → out or out → in movement with a small slidecast
- For the left/right variant, you can stand in the center of the boss' hitbox, one step to the safe side for the first cleave. This is sufficient to avoid the first cleave, and leaves just a small movement to avoid the second hit. Consider zooming your camera in for better visibility for the center of the hitbox (see youtu.be/TfvzYF01Z2M for reference).



Asphodelos: The Second Circle [Hippokampos]

Opener

Standard opener with prepull Ley Lines is generally recommended. Ley Lines ~4s prepull, F3 ~3s prepull.

Ley Lines timings/positioning

1. Prepull ~4s before pull.
2. On cooldown as Shockwave is going off. With the first use being prepull, you can get full uptime with this use before potentially having to move for Spoken/Winged Cataract.
3. After Kampeos Harma, grouped up with party members for raid buffs.
4. If used properly on cd you should be able to get essentially a full usage before you have to move for Sewage Eruption. You may alternatively consider delaying until after Sewage Eruptions (especially if it will be slightly delayed and it won't make you lose a use) but it is generally less recommended.
5. The final use depends on killtime–if you are killing at enrage, using it when you get into position for the final Shockwave → stacks is best. Otherwise you may need to fit a use somewhere in the middle of Channeling Overflow 2 whenever you can get the most uptime in them.

Positioning/movement for mechanics

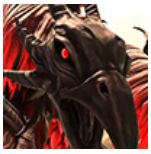
- For Sewage Deluge, it takes a while for the water to actually rise. Instead of standing on one edge and potentially having to run all the way to the opposite side, you can stand in the center of the arena when the cast goes out, shortening the distance you have to travel.
- To prepare for Spoken/Winged Cataract, it is generally beneficial to be near or at the square opposite the dirty one beforehand, so at most you will have to move one square to dodge.
- If you end up on the opposite corner from the safe spot for Spoken/Winged Cataract, depending on the orientation, there is sometimes a small section of the grate right next to the dirty square that is safe for you to use. However, make sure that you and the party can be properly situated for Coherence (or other mechanics) afterward.

Additional notes

- It is generally recommended not to attempt to use Aetherial Manipulation

through the water. Like all movement skills, it is not a teleport but instead fast movement, and so there is a good chance that you will get dropsy if you AM through the water.

- As a last resort, getting dropsy is better than outright dying. Try to alert your healers that you might get (or already have gotten) dropsy, use Manaward to have a better chance of survival, and try to avoid the situation next time.
- You can (and should) aim to nullify the knockback from Shockwave via Surecast. Since it is a long cast, make sure you don't use it too early (around 50% into the cast or later is sufficient).



Asphodelos: The Third Circle [Phoinix]

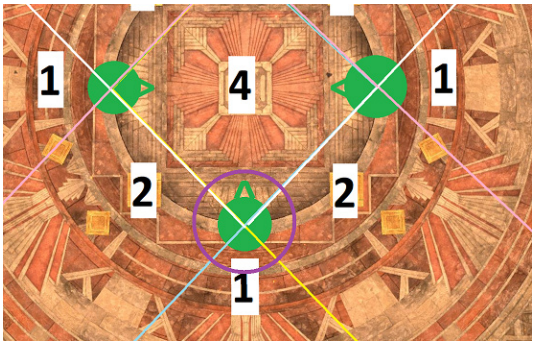
Opener

Standard opener is generally fine. Consider saving Swiftcast (using the second Triplecast in its place) to help with movement for the first Experimental Fireplume.

Ley Lines timings/positioning

1. Use as normal in opener.
2. Use at edge during Devouring Brand, after dodging the Searing Breeze AoEs. Ideally you can dodge Left/Right Cinderwing within them, stay at edge during Heat of Condemnation tethers, and only move to mid right before the Experimental Fireplume snapshot. If your party cannot adjust to allow you to get decent uptime with your Ley Lines at the edge like that, move to mid after Left/Right Cinderwing and then use them.
3. After adds phase.
4. After stretching your bird's tether during Fountain of Fire. Ideally the tanks/party can do the Heat of Condemnation tethers relative to where you are standing in your Ley Lines.

5. On cd at the tail end of tornado phase allows for a full usage if you don't get targeted with a Fledgling Flight add, and a mostly full usage if you do. Make sure you are in range for healing/mitigation for the Scorched Exaltation.
    a. Alternatively, consider placing your Ley Lines directly on one of the Fledgling Flight adds. It is somewhat tight and you'll want to stand on the edge of your LL for safety, but if the other ones are placed well, you can stand on the edge of your LL to fulfill the requirements of any of the Death's Toll debuffs, as pictured below:



- Roughly on cd, making sure you don't have to abandon them for Left/Right Cinderwing.

Positioning/movement for mechanics

- For the initial Experimental Fireplume, Xeno →AM will generally be able to handle the movement. Consider saving Swiftcast from the opener for an additional instant if needed. The F3P from the Sharp Paradox can be used to help with getting into position for Darkened Fires.
- For the Shiva pattern, keep in mind that you do not need to go to the edge of the arena, just outside of the center circle to dodge the final hit.
- For Fountain of Fire, ideally you can take the first or second set of baits so you can drop your LL after stretching your tether without delaying them or losing uptime in them.
- Try to save a Triple to handle the movement for the Searing Breeze AoEs during

the tornado phase.

- For the first set of Fledgling Flight adds, they do not all need to be positioned outside of the hitbox. If you get targeted, you can instead opt to slidecast out to place yours, instead of utilizing instants to place it further out like normal. Just make sure your party is aware that they may have to adjust slightly, that you don't place yours too close to another party member's add, and that you're not preventing a melee player from doing positionals.

Additional notes

- For the Darkened Fire adds, unless the boss is moved closer to any fires, you can't hit any of them while targeting the boss and casting Foul. You can, however, target one of the fires with Foul and hit the fire + boss for a small gain over using Xeno.
    - If you have to assist with killing the fires outside of Foul, try to use an instant cast if possible–the fires do not have much HP and ideally you don't want to have a cast canceled due to someone killing it before your cast completes.
- Adds phase damage is not counted on fflogs. While, of course, it is important that the adds die in time (and you should burn resources if needed to pass the phase), if your group has damage to spare you can make sure you have two Polyglot stacks, prep a Thundercloud proc and potentially spam Fire to have a Firestarter proc ready for a re-opener post-adds.
    - For efficiency on adds, Thunder is not worth it on the small adds but can be worth it on the big ones (Sharp T3 → T3P on another add), especially if they take a bit longer to die.

Asphodelos: The Fourth Circle Part 1 [Hesperos]

Opener

The standard opener is sufficient; you should not have to save movement tools or adjust the opener for this fight.

Ley Lines timings/positioning

1. Regular timing in opener.
2. At the end of the first Pinax at the edge (Manaward the Bloodrake to ensure you survive).
3. At the first tether spot/tower, should be over by the second tower. Alternatively (especially if you cannot use the second LL on the edge), you can also place them after the first tether/tower, partially overlapping the tower you may need to take.
4. At the end of the second Pinax, or earlier if the boss will die sooner.

With faster kill times, some groups will switch to 0/3/5 raid buff timings, which are comfortable as well to align Ley Lines with (regular timing in opener, before orbs, and near the end of the tower mechanic).

Positioning/movement for mechanics

- For the tethers during tether + rot and tether + towers, there is room to take a tether directly under the boss/between all four towers without clipping others. The tether AoE is around the size of the boss' hitbox, so as long as others are a few steps away from his hitbox, they should be safe. Make sure the party knows if you plan on doing this.
- For the stack/spread at the end of Pinax 1, it is preferable to be able to stay at the edge near the sword/cape so you can LL immediately and not have to move for the stack/spread.

- Planning for Triple use to help deal with Pinax and orb movements is recommended.

Additional notes

- For Pinax, you can time Surecast to cover both the water knockback as well as the cape knockback if they occur together—the timing is when the water finishes spouting, which is around the 60% mark in the Cardinal Shift cast bar.

Asphodelos: The Fourth Circle Part 2 [Hesperos]

Opener

The standard opener is sufficient. You may consider saving Swiftcast to help with movement for Act 1, especially with a higher SPS set.

Ley Lines timings/positioning

1. Regular timing in opener.
2. Near mid after Act 2, ideally between two potential towers if you're soaking the first towers in Act 3. It should be over by the time you have to move to soak your tower.
3. Near the end of Act 4. There's a lot of room to place them in the quadrant opposite the 3rd and 4th tether break (assuming you don't have to break the tether).
4. At the start of Curtain Call, near mid on the side where you have to run out to break your tether. If it doesn't cause you to lose uptime, you may consider waiting to use them until after your tether break.

With a very fast kill time, you may need to use the Act 4 LL earlier in the center of the arena to avoid missing value from the Curtain Call LL—it's a bit tight, but you can dodge at the edge of your LL opposite each tether break and be out of range of it.

With a kill time at enrage, an earlier 3rd LL can result in partial extra usage at the end of the fight. However, since the center dodge for Act 4 can be a bit risky and the potential gain is minimal (and zero once you kill slightly faster and miss the use anyways), it's generally recommended to slightly delay this usage in this situation.

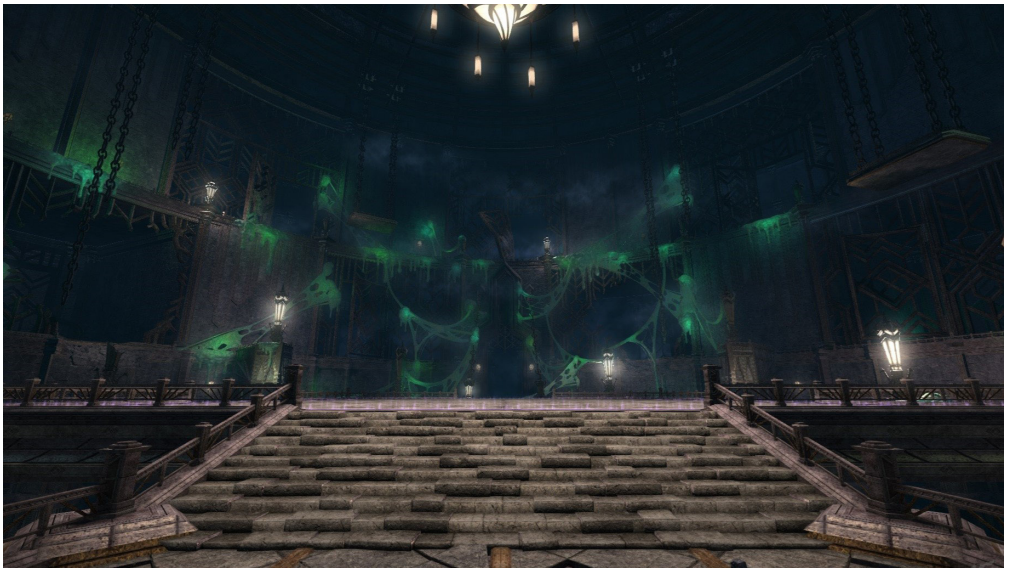
Positioning/movement for mechanics

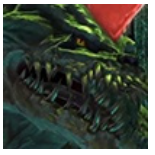
- With lower SPS, a standard opener followed by a Sharped AF Paradox allows you to handle movement for Act 1 with the standard AF1 F3P line. With higher SPS, consider saving Swiftcast for the following F4, and potentially use Xeno to help adjust for Nearsight/Farsight if needed.
- Being conservative with Triplecast usage, especially when newer to the fight, can help keep uptime during the mechanics. Having one use for Act 2 and one (or two) uses for Act 4 makes this very cozy.

Additional notes

- Manaward has very high value in progression/in pugs during Curtain Call when you step out to break your tether.

Pandæmonium: Abyssos (Savage)





Abyssos: The Fifth Circle

[Proto-Carbuncle]

Opener

The standard opener with LL in the center will generally be fine. Consider swapping pot and Amplifier + LL to avoid leaving LL early for the first Ruby Glow. Using sprint to help get a good angle to AM to the safe corner is very useful. For additional comfort, saving a Triple from the opener to help with movement may be beneficial.

Ley Lines timings/positioning

1. Use in the opener in the center of the arena, potentially one weave space sooner as mentioned.

2. On cooldown in the middle of the Topaz Stone for Double Rush.
3. Delay and use when soaking the tower after Devour.
4. With an especially quick kill time that skips the Venomous Mass after Tail/Claw, use when soaking the tower after Squall/Surge, using AM/BtL to dodge Tail/Claw if you get unlucky. Otherwise, delay LL slightly and place under the boss to be able to dodge Tail/Claw within them.
5. Use under the boss for Tail/Claw similar to the previous use.

Positioning/movement for mechanics

- For Venomous Squall/Surge, keep in mind that you don't necessarily have to stack with everyone to bait your AoE, which can potentially save you from a bit of excess movement. Just make sure that you aren't baiting it where people will be dodging towards, and that you don't miss any healing/mitigation for doing so (consider supplementing with Manaward if necessary).
- For Tail/Claw, the cleaves occur directly along the centerline of the boss. Standing along this threshold means only a small movement is required to dodge between the two.

Additional notes

- Using AM through poison puddles is not recommended. While it is possible to get lucky and not get the DoT when doing so, it is more likely that you will get it, and since all movement can be handled without relying on AM through the puddles it is a needless risk.

Abyssos: The Sixth Circle

[Hegemone]

Opener

The standard opener is sufficient.

Ley Lines timings/positioning

Use at the normal weave spot during the opener and then on cooldown afterward. It is especially important to minimize delays in LL usage as some will finish just before mechanics that would require leaving them.

1. Regular timing in the opener, on the same side as your light party stack.
2. In the position you will be stacking for Transmission (usually SE).
3. On the side of your light party stack.
4. Near your assigned square for Dark Sphere.
5. Close to the middle. Precise positioning is unimportant as it will end before Cachexia 2 goes off.

Positioning/movement for mechanics

- The N/S and E/W cleaves (Chorus Ixou) are exactly 90 degrees, so when prepositioning for them you can generally stand on an intercardinal, one step in the safe direction. This means you only have to do a small movement to dodge after the first hit.
- Most mechanics in the fight generally will not require more than an instant to handle the movement. Mechanics to consider specifically having Triplecast available for are Cachexia, the Dark Sphere/Dark dome combo, and especially the Chorus Ixou with the + and x tiles before Cachexia 2.

Abyssos: The Seventh Circle [Agdistis]

Opener

Standard opener is sufficient.

Ley Lines timings/positioning

1. Regular timing in opener.
2. When you get to your spread/stack position in the second hit of Inviolate Bonds.
3. After dodging the punch from Bough of Attis. If this and/or previous usages have been delayed, place in the middle of the arena for more comfort with the following Forbidden Fruit.
4. On the edge of one of the circle platforms before the Immortal's Obol knockup.
5. In the middle/side of the circle platform after dodging the chasing Hemitheos's Glare AoEs.

Positioning/movement for mechanics

- Use Aetherial Manipulation during Immortal's Obol damage to get to the edge.
- If you have Hemitheos's Aero second during Inviolate Bonds, you can resolve the spread on the bridge and travel less distance.
- Use Manaward during the Multicast knockback. It is very easy to miss a heal here.
- Aim to claim the middle spot for Purgation spreads.
- Save stacks of Triple and Sharpcast for Purgation. Sharpcast can be used on F3P to ensure a prolonged fire phase. Use Aetherial Manipulation when possible.

Abyssos: The Eighth Circle Part 1 [Hephaistos]

Opener

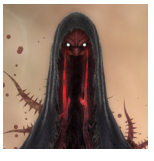
Prepull Ley Lines opener, run or use Aetherial Manipulation to your assigned corner once Ley Lines end.

Ley Lines timings/positioning

1. (-0:05) Prepull
2. (1:55) If you are not doing an uptime Manifold strat and you get Dog first, you will have to move out at the end of this usage. This is an acceptable loss as it is only around 5 seconds or so.
3. (3:55) You will get most of a use before Fourfold starts.
4. (5:55) At your snake stack position/retargetable once Dog 2 phase is done.

Positioning/movement for mechanics

- Use the wiggle trick for gazes, or stay near the center.
- At the end of Fourfold, use Aetherial Manipulation or stay at the very edge near where you are.



Abyssos: The Eighth Circle Part 2 [Hephaistos]

Opener

Standard opener is sufficient.

Ley Lines timings/positioning

1. (0:05) Opener

2. (2:40) Retargetable after High Concept 1.
3. (4:40) Place on the center line during Ashing Blaze (half-room cleave). Try to avoid delaying as doing so will lose you time on the final LL.
4. (6:40) Weave ASAP after the boss is targetable after Ego Death, since you may need to move for the first Dominion tower.

Additional notes

- The small phase between the end of High Concept 2 and Ego Death only allows for a limited number of spells to be cast. To get the most out of it, the following sequence is an example that you can modify (note that this exact sequence is for the Spell Speed BiS, but the same principles apply):

HC2 -> Ego Death

- Manaward usages are highly effective.
- Since DoTs still tick while Ego Death is occurring, we put up a Sharped T3 right away. This also gets us a T3P for our later re-opener. Similarly, a Sharped fire Paradox allows us to reopen with an F3P instead of a clipped Swiftcast spell or a slow F3.
- The final Transpose to UI is very important to get our MP back.
- If you need to cut a cast from the above sequence (because you are slower speed or for safety reasons), remove the F1 cast.

Pandæmonium: Anabaseios (Savage)

Anabaseios: The Ninth Circle

[Kokytos]

Opener

Recommend a Standard line opener with no Transpose. This is to set up a 3x Double Transpose line sequence during Dualspell for ease of movement with some personal gains. A Sharp Fire in the Standard line after the opening line is required for this.

Ley Lines timings/positioning

1. Prepull at -5s with the rest of the group, no special position needed.
2. On cooldown in front of the wall where you will be knocked back for Archaic Rockbreaker.

3. When the boss returns, drop at your clock spot for Two Minds.
4. On cooldown in front of the wall you will be knocked back into for the second Archaic Rockbreaker.
5. On cooldown in your clock spot for Dualspell.

Positioning/movement for mechanics

- Movement for Dualspell can be kept to a minimum. Movement should only be a few yalms in either direction "in" or "out" lined up with your clock spot. Note that the same pattern cannot repeat, as in if "out" was used, "in" will be next for the paired AoE. No major movement resources are required, so resources can be spent on Nonstandard gains if the player in question has the knowledge to do so.
- It is recommended to save a Triplecast charge for the "Ascendant Fist" mechanic. It is most efficiently handled by performing a Double Transpose line as the knockback comes out so that Triplecast can be chained with Ice Paradox and other instant casts without interrupting Astral Fire. Aetherial Manipulation can be used as a last resort if you are unable to find safe spots and know that someone else in your party is reliable at finding them.
- It is recommended to save a Triplecast charge for the "Ecliptic Meteor" mechanic and the movement prior to that. Keep in mind that the meteors take about 2 GCDs to explode once triggered, so you have a small amount of time if a delay is needed.

Additional notes

- Sharp Thunder should be used near when the boss leaves for the "Scrambled Succession" mechanic so that Thundercloud can be used when the boss comes back. This is both efficient in terms of damage and provides another instant cast in order to get into your clock spot for "Two Minds."

Anabaseios: The Tenth Circle [Pandæmonium]

Opener

Recommend a Standard line opener with no Transpose. This is to set up Triplecast to hit at the end of the Standard line after the opening line, into a Double Transpose with Firestarter 3x F4 line to handle Dividing Wings comfortably. A 2x Double Transpose line sequence can then be used to comfortably handle Entangling Web and Towers movement.

Ley Lines timings/positioning

1. Standard timing in the opener.
2. Delay until after you return to the main platform after Daemonic Bonds #1.
3. On cooldown shortly before Wicked Step.
4. As soon as your role in Dividing Wings is finished.

Positioning/movement for mechanics

- Triplecast is recommended for Dividing Wings #1. Ending a line with Triplecast so that a Transpose line can be used is recommended to perform the mechanic comfortably.
- Ice Paradox combined with other instant cast resources like Xeno is recommended for Tower Set #1. If Triplecast wasn't used during Dividing Wings #1, then it should be used here.
- Silkspit #1 and positioning for center platform meltdown can be done with singular instant casts and slidecasting.
- Triplecast at the end of a line, chained with Ice Paradox and other instant casts, is recommended to handle movement to the side platform for Daemonic Bonds #1, the mechanic itself, and movement back to the main platform.
- Triplecast is recommended for the Turrets mechanic. Chaining 2 short lines involving Transpose is recommended to handle the mechanic. For example,

using Triplecast to handle turrets, then Ice Paradox combined with another instant cast and Swiftcast to handle the Daemonic Bonds and half-room that comes afterward.

- Triplecast combined with instant casts is recommended for Entangling Web, Towers, and Daemonic Bonds #3. Two Triplecasts are recommended to handle this mechanic comfortably; however, only one is required if timing and movement are precise.
- Triplecast should be used for Dividing Wings #2 if available. Aetherial Manipulation can work if coordinated and other movement resources are unavailable. If Triplecast is unavailable, instant cast resources like Xeno and Ice Paradox should be used to handle movement. Slidecasting can be used to get back to the main platform as the time given before the bridge disappears is generous.
- Triplecast combined with Ice Paradox and other instant cast resources to perform a Transpose line is recommended for Dividing Wings #3.
- Ice Paradox and remaining instant cast resources should be used to handle the Harrowing Hell knockback and accompanying Daemonic Bonds.

Additional notes

- Good knowledge of Nonstandard sequencing is all but required for full uptime on this fight due to the amount of movement required.

Anabaseios: The Eleventh Circle [Themis]

Opener

A standard opener is sufficient, but you will want to place your Ley Lines at your clock spot to cover Jury Overruling. They will expire the moment the cast goes off, so normal timing will suffice.

Ley Lines timings/positioning

1. Standard timing in the opener.
2. Towards where your group will go for the first set of clones.
3. Place them slightly outside of the boss' hitbox in your light party stack position.
4. Can be placed either anywhere or in your intercardinal position to preposition for Dark Current.
5. Off cooldown, leaning south to preposition for Letter of the Law.

Positioning/movement for mechanics

- The variance in the amount and timing of the movement during Dark and Light means that adapting to the fight can save you resources over sticking to a fixed GCD plan.
- Start in the middle for Dark Current, and move to the appropriate side.

Anabaseios: The Twelfth Circle Part 1 [Athena]

Opener

Holding Swiftcast or Triplecast may be necessary in order to move towards the safe spot for lasers.

Ley Lines timings/positioning

1. Prepull
2. During Superchain 1
3. After Paradeigma 3
4. After Superchain 2A

Note that for fast kill times, you will have to shift all uses earlier. Extremely fast kill times will use Ley Lines up to 15 seconds before the pull. This will also shift the final use

to be during Superchain 2A, which will necessitate a Black Mage relative strategy.

Positioning/movement for mechanics

- The Trinity of Souls cleaves can be slidecasted in order to save resources. You can move into the animation of the cleaves as they snapshot earlier than this.
- You can use Between the Lines (and Aetherial Manipulation) repeatedly to get casts in Ley Lines between the stack mechanics during Superchain 1 as the Ley Lines cast time reduction snapshots at the start of the cast.
- Black Mage relative Superchain 1 strats are possible with the Black Mage anchored in the middle.

Additional notes

- Manaward is useful during the downtime limit cut in case of unlucky healer positioning or damage variance from bad positioning by other players.
- Re-opening after downtime with a Sharp-Para Standard line into a Double Transpose F3P line (N112) using Triplecast is a comfortable way to handle Superchain 2A.

Anabaseios: The Twelfth Circle Part 2 [Pallas Athena]

Opener

A Standard opener will suffice, with the option to use a single Triplecast to handle the movement for the first Missing Link. Make sure to place your Ley Lines in the center of the upper middle intersection to handle your initial position during Gaiaochos.

Ley Lines timings/positioning

1. Standard timing during the opener - place center of the arena to be in position for the chains mechanic.
2. After Classical 1
3. After Pangenesis
4. After Exaflare 2 - place at the center of the arena to be in position before the second chains mechanic, as the same as the opener.

Additional notes

- Manaward is useful during the first Exaflare dodge as the group will be very spread apart before the Pangenesis raidwide.
- Classical 1 dodge can be done within Ley Lines.
- There are ways to obtain an additional partial use of Ley Lines beyond the timings above, but they require much more optimization.

Dragonsong's Reprise (Ultimate)

Phase 1: Adelphel, Grinnaux and Charibert

Note: All example sequences shown in this fight are done with 884 Spell Speed.

Opener principles

- Target Adelphel with a precast F3, target Grinnaux with the first T3 cast, then retarget Adelphel with the T3 proc.
- Consider modifying the opener to optimize two-target cleave, assuming it is a gain in the current patch, for the first 37 seconds before Adelphel goes untargetable.

Positioning/movement for mechanics

- In the second cleave group for Hyperdimensional Slash, it is possible to position

early at one of the inner two cleave spots on your side. DO NOT preposition at one of the outer spots, as if the cleave is angled towards you, you may clip party members.

- Triplecast is recommended for the movement before and during the PlayStation chains mechanic.
- You may be briefly knocked out of casting range to break your chain. Aetherial Manipulation can be used as a gap closer after Heavensflames resolve.

Example sequences

Phase 2: King Thordan

Opener & sequences principles

- The short phase time makes the opener very dependent on your Spell Speed, but a Double Transpose opener usually fits in. At low Spell Speeds (>2.40), a B3 first opener into a full Standard line with AF3 F3P also works and has better raid buff contribution.
- Note that you can carry a T3P from the opener through Strength of the Ward.

Ley Lines timings/positioning

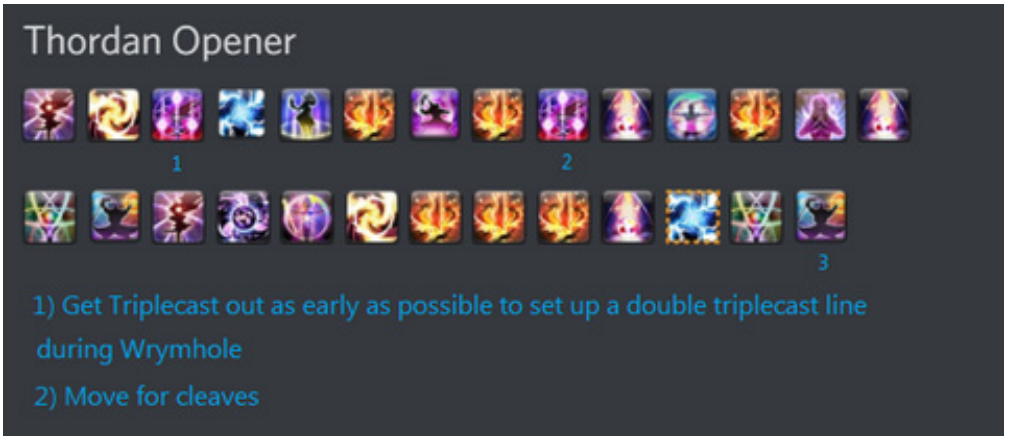
- Prepull: Place off-center from your party so that you can dodge the proteans without leaving your Ley Lines.

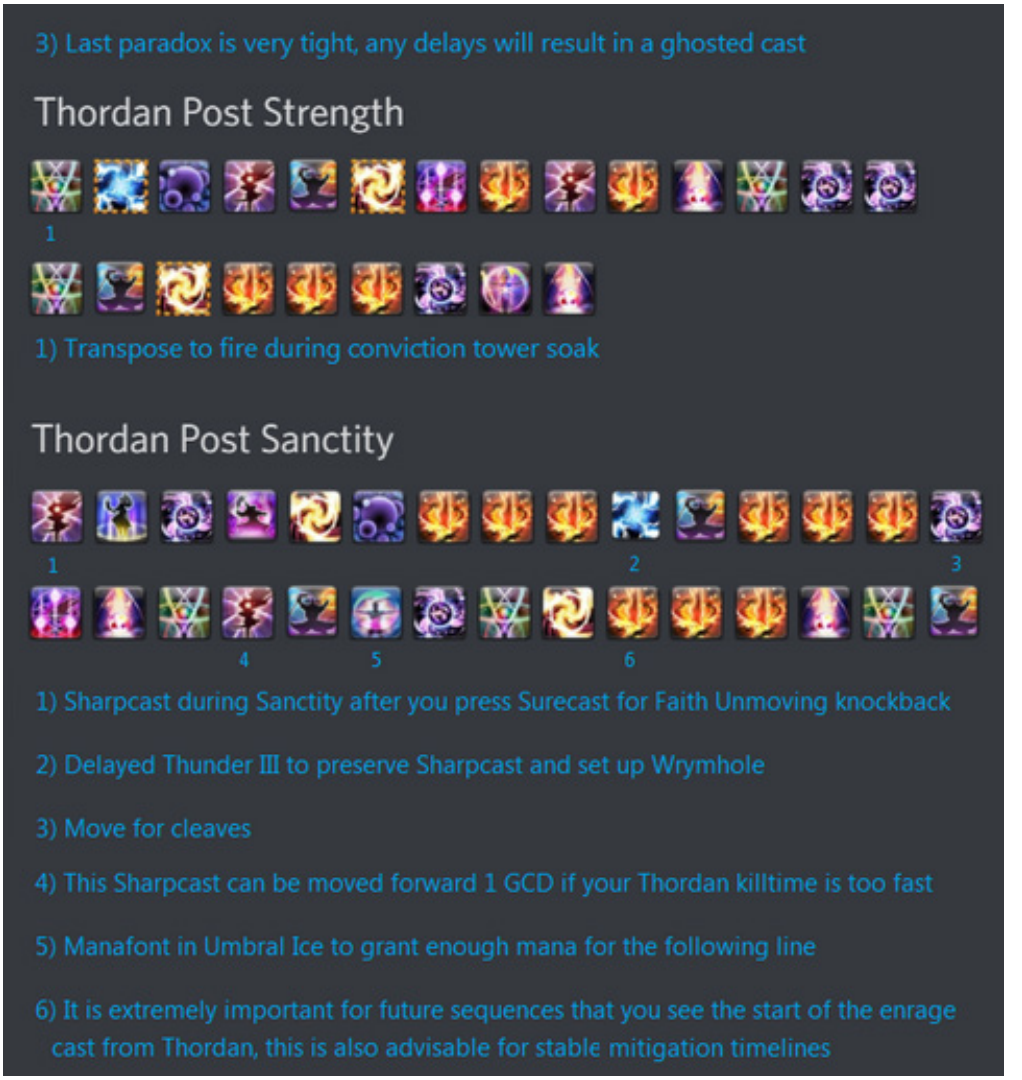
- After Sanctity of the Ward: Approximately midway between the arena edge and the center, in front of Thordan. This should allow you to dodge his sword cleaves while remaining in Ley Lines. If you preposition before the arena texture changes, you are just on the outside of the decorative inner rings.

Positioning/movement for mechanics

- Almost all movement in King Thordan takes place while the boss is untargetable. You can choose to slidecast the cleaves, but you should have plenty of instants to cover it.

Example sequences





Additional notes

- Manaward is good for mitigating the physical damage from the knight dashes during Sanctity.
- If you are Addling Ultimate End, you must wait 1 GCD after Thordan is targetable; otherwise, it will not catch the damage.

Phase 3: Nidhogg

Re-opener principles

- You have approximately 30s of uninterrupted casting before arrows apply. Conserve instants as they will be needed to handle Wyrmhole.

Ley Lines timings/positioning

- After the 4x towers mechanic, on the E/W side of the boss.

Positioning/movement for mechanics

- There are at least two movement windows for each Wyrmhole player, placing your tower and soaking another. Triplecast is highly recommended for any movement paired with a "Gnash and Lash" cast, as you must make sure you are completely outside the hitbox while moving around the boss.
- Geirskogul cleaves can be dodged by slidecasting through your clone. Wait for the cast bar to appear before moving to ensure they are properly baited.

Example sequences

- It is very common to open this phase with a Sharp-Para Standard line, then go into a Double Transpose F3P line (N112) using both Triplecasts, and potentially follow this up with a Double Transpose instant-F3 line (I14/I15). This allows handling of Wyrmhole with relative ease. After Wyrmhole, there is very little movement, so sequences are up to preference.

1) Move to place tower 1 or join group stack

2) Lucid to set up subsequent lines

3) Move to soak tower 1

4) Move to place tower 2

5) Move to soak tower 2

6) Move to place tower 3 or soak group stack

7) Move to soak tower 3

8) Wait for >=9950 MP if Umbral Ice ticks are late

9) Dodge Drachenlance with a slidecast if needed

10) Move to soak final towers

11) Wait for 10000 MP if Umbral Ice ticks are late

12) Can insert Xenoglossy here to avoid clipping if more DPS is required on Nidhogg

Additional notes

- The variance in P2 kill times, combined with the randomness of the Limit Cut movement, means that you may not be able to go into this phase with a fixed GCD plan.
- If your group asks you to pre-spread, ensure you are positioned to claim a spot before Nidhogg becomes targetable. If you get a 2, and your group consents, you can utilize a chat macro to claim a spot (not already occupied by your second-in-line partner) while remaining at one of the cardinals.
- 

Phase 4: The Eyes

Re-opener & sequence principles

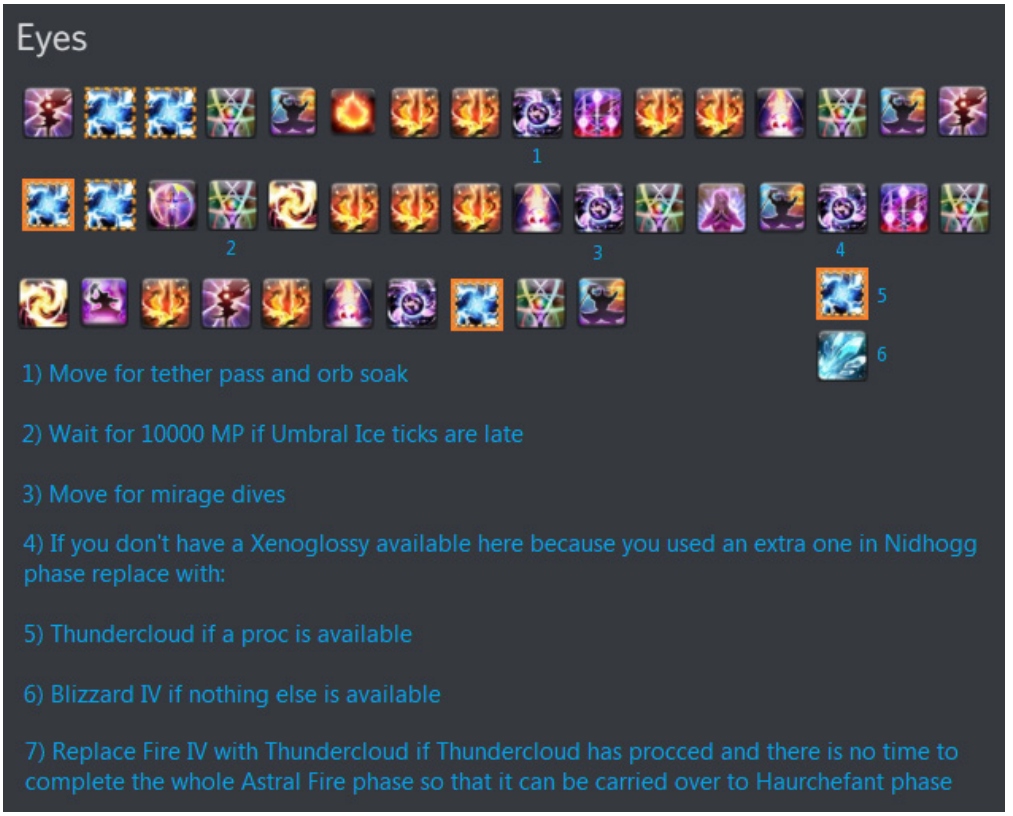
- Apply Thunder to both eyes while moving to your preassigned spot. Focus targeting the other eye can help you to swap more easily to reapply.

Positioning/movement for mechanics

- If you are in the first group of blue tethers to swap under the eye, and a red

player is not standing there, you may preposition after popping your orb to save movement.

Example sequences



Additional notes

- Manaward can be helpful during dives in case you are hit more than once. It saves your healers from having to spot heal you.
- Movement in eyes is extremely strat dependent. Therefore, a preplanned rotation may not be possible outside of a static. Always prioritize completing mechanics successfully.

Intermission: Rewind!

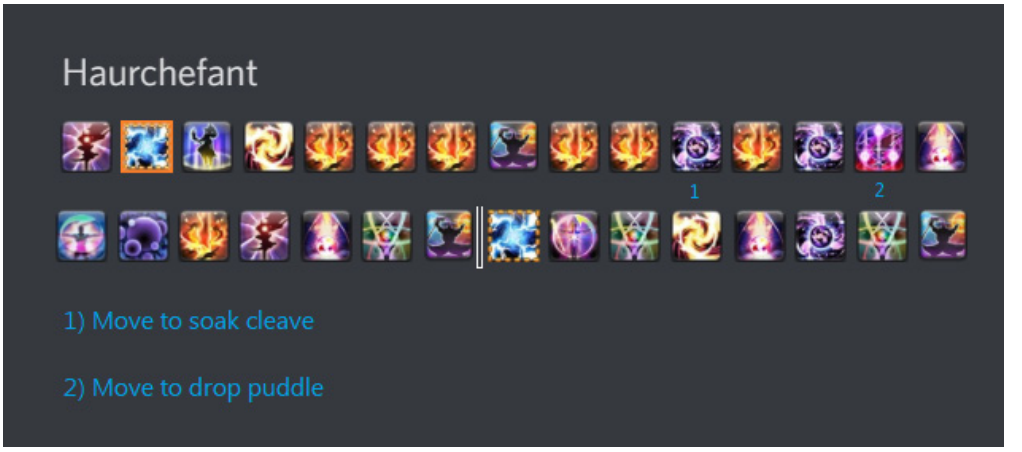
Re-opener principles

- A Double Paradox re-opener aligns well here. Fast sets can opt for 5F4 and will be ending just as they take the 3rd set of cleaves; slow sets can opt for a shorter sequence using a Sharped Paradox into F3P.

Positioning/movement for mechanics

- If you are taking a later set of Brightwing cleaves, you can use Ley Lines as soon as the boss is targetable, at the center of the circle. If you are taking an earlier set of cleaves, you will miss some uptime here.

Example sequences



Phase 5: King Thordan II

Positioning/movement for mechanics

- Similar to King Thordan I, all movement in this phase takes place while the boss is untargetable.
- During Death of the Heavens, if you have a puddle, you can use Aetherial Manipulation to return to the party after the final bait. However, you must

ensure your AM target does not have lightning.

Example sequences

Phase 6: Nidhogg and Hraesvelgr

Re-opener principles

- Depending on the strategy you use, aim to place Ley Lines where you anchor. Apply Thunder to both dragons. Focus targeting the other dragon can help you to swap more easily to reapply.

Ley Lines timings/positioning

- Re-opener
- During Wyrmsbreath 2 or at the edge after Touchdown (note: this may require you to take the final Mortal Vow pass, and so may be difficult if you received it first).

Positioning/movement for mechanics

- Wroth Flames will require heavy resource use and is the optimal place for a Double Transpose line.
- Use Aetherial Manipulation for any needed rot or Wroth Flames pairs.

Phase 7: The Dragon King

Re-opener principles

A Standard re-opener is sufficient.

Ley Lines timings/positioning

- When arriving at the final safe spot for the first Gigaflares.
- At the spot for the last Akh Morn's Edge.

Positioning/movement for mechanics

- This phase is fairly straightforward. Use Xenos and Triplecast for Gigaflares.
- When familiar with the phase, understanding Exaflare patterns can help reduce movement as not all patterns require the second leg of the movement.

The Omega Protocol (Ultimate)

Phase 1: Omega

Opener principles

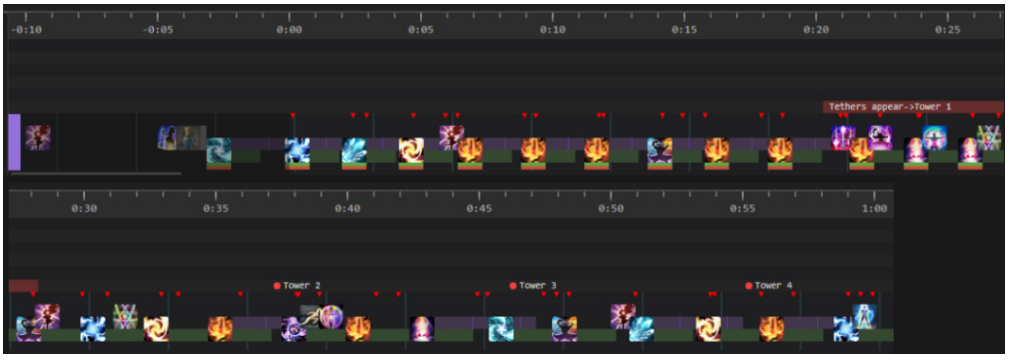
- Standard opener, holding either Swiftcast or Triplecast to handle movement during Program Loop. Whichever one is not held will be used in combination with Triplecast to handle Pantokrator.
- Slow sets may opt to use a B3 opener to ensure better alignment for Program Loop.
- You should almost certainly use a potion here. While a 2-minute potion can be better, the 7-minute pot window is far worse than the 5-minute pot window, so delaying potion in the opener is not preferred.

Positioning/movement for mechanics

- Aetherial Manipulation can be utilized in Looper to cut down on movement. However, this is an advanced tactic. Never risk stealing a tether to cut out a movement GCD.
- After Looper finishes, you can zoom your camera through the boss while standing mid to more easily slidecast to your correct starting side (point camera top down).

Example sequences

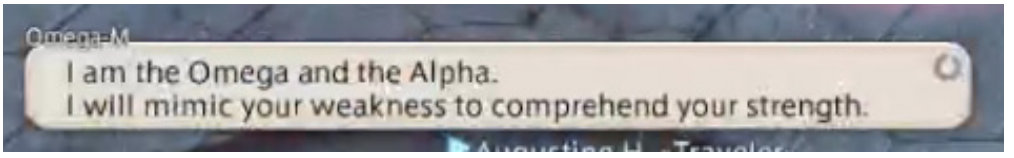
Opener through the end of Looper (2.42 GCD)



Pantokrator (2.42 GCD)

Additional notes

- The last line of your rotation in this phase is dependent on whether your party asks you to LB. If so, you can queue up caster LB1 as soon as the following text box appears.



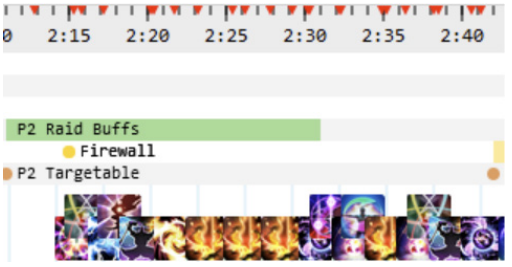
Phase 2: Omega-M/F

Re-opener & sequence principles

- If you're not struggling with P1 enrage, casting B4 before P1 dies (or Umbral Souls) can help you have a better sequence here.
- Ensure you press LL (just) before the boss becomes targetable for maximum effect. This can be the difference between ghosting and hitting your last GCD!
- You can carry a T3P through the Party Synergy downtime, and this is preferable.

Example sequences

Re-opener (840 SpS)



Additional notes

- A T3P can be carried through the Party Synergy downtime. Carrying one through to phase 3 requires a very late refresh.
- A clutch AM can also save the run in case of a 5-3 stack error for the spotlight at the end of Party Synergy.

Phase 3: Omega Reconfigured

Re-opener principles

- Reopen with Ley Lines and potion. Using a Double Paradox 5F4 line is optimal and allows for Nonstandard follow-ups for handling Hello World movement.

You can use Triplecast on the Despair -> Manafont -> F4 -> Despair at the end of the line, and also use this opportunity to move to your first Hello World position.

Ley Lines timings/positioning

- Press Ley Lines just before the boss is targetable for maximum effect. Using Ley Lines after your first GCD will likely lead to missed GCDs at the end as you will have to leave it for Hello World the majority of the time.
- The 2nd Ley Lines can be used on cooldown if desired, but you may lose some uptime while handling monitors. It can also be held for P4, which can make doing the ranged spot much easier, and also shifts some damage from P3 to P4 if needed.

Positioning/movement for mechanics

- The amount of movement you have to do in this phase can be quite random depending on where towers spawn relative to you. You should have a lot of resources banked from the long downtime before P3, so you can use these to aid you. Double Transpose lines can further aid you in doing this.

Additional notes

- In most cases, you should hold the second Manafont for P4.
- If you are ahead on damage, you can reapply Thunder just before it dies (make sure it doesn't ghost!), and the P4 boss will still have 20s left on the DoT when it spawns, meaning you only need to do a single application in P4.

Phase 4: Blue Screen

Re-opener principles

- On slower Spell Speeds, open with Double Para (N15) with Triple + Manafont at the end. Follow this up with a Double Transpose line. If you get an F3P,

go into a Double Transpose F3P line (N111/N112). If you don't get an F3P, instead opt for a Double Transpose instant F3 line (I14/I15) with Swift. If you don't have Swift, you can Despair (Manafont) Despair instead, skipping the F4, leaving one stack of Triple left to make the F3 instant.

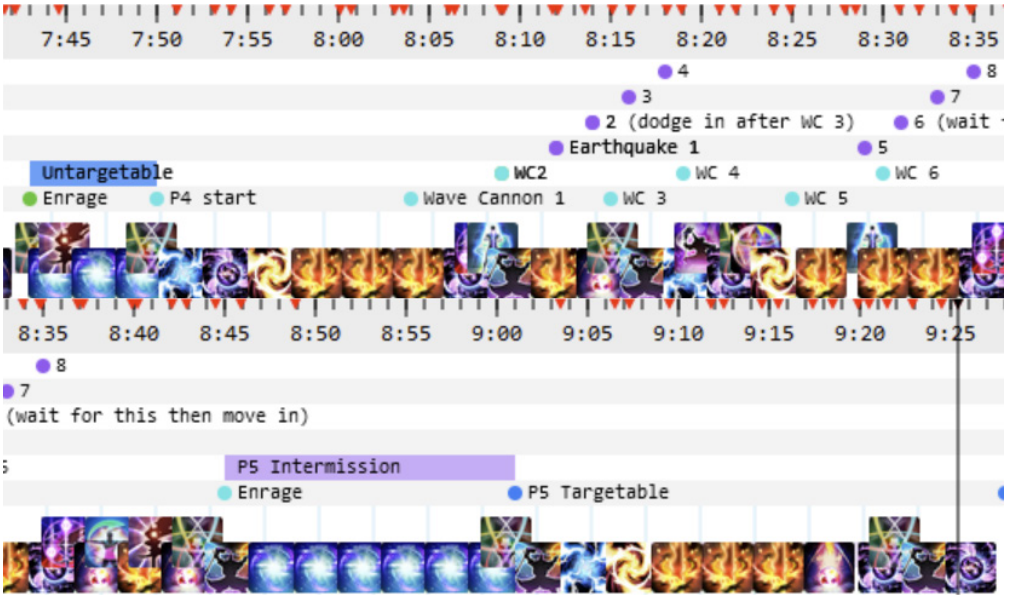
- Faster speeds follow the same principle with a Double Para re-opener, but you can Sharpcast to guarantee an F3P that should be used to extend the AF timer and enable 5F4. From there, you can go into a Double Transpose line (I14) with Xenoglossy to supplement your movement for the final in/out.

Positioning/movement for mechanics

- Since you should be dumping most of your resources in this phase (both Triplecasts, Swiftcast, Amplifier) there should be no issues with handling the movement.
- Aetherial Manipulation (and Between the Lines, if Ley Lines is used) can assist with moving into and out of the laser stack.

Example sequences

P4 + P5 re-opener (840 SpS)



Phase 5: Run: Dynamis

Re-opener & sequence principles

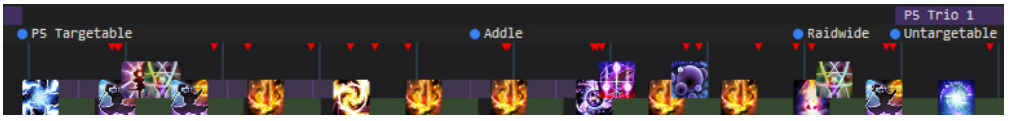
- You can carry over a T3P from P4. If your group is ahead on damage, you can guarantee this by reapplying with Sharpcast—there is a lot of downtime in P5 to get charges back.
- Before the final knockback after Omega, end your sequence in Umbral Ice to ensure full MP for the P6 re-opener. Similarly, it's best to carry Paradox and two Xenoglossies into P6 for a strong re-opener, assuming they aren't needed to meet the P5 dps check.

Ley Lines timings/positioning

- After Run: Dynamis Delta, reopen with T3 cast into Ice Paradox, which should offer enough movement to handle the tether break, then place LL.
- Off cooldown, before Run: Dynamis Omega. The movement for Omega may mean you lose uptime here, potentially losing a cast, but delaying LL until after the mechanic is over will make it unavailable for the re-opener in P6.

Example sequences

Re-opener (2.24 GCD)



This re-opener can be enhanced by carrying over an extra T3P, Xeno, or both, which can be used to replace the AF2 F4 or the non-proc T3 (if no T3P).

Phase 6: Alpha Omega

Re-opener principles

- Both Swift B3 and Swift F3 are workable here; choose whichever re-opener is better for alignment. Generally, Spell Speed sets prefer Swift B3 to set up a Double Paradox 5F4 line in Ley Lines.

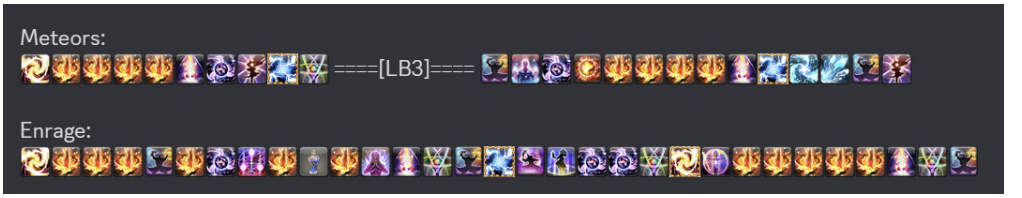
Ley Lines timings/positioning

- As soon as possible at the intercardinal where your party will dodge Exasquares to get near full uptime.
- After wave cannon 2 and before the second Exaflares. This will not grant full uptime but using it here will allow a use right before enrage.
- Synced with final party buffs before enrage.

Positioning/movement for mechanics

- Exasquares have very tricky snapshot timing. Slidecasting should be done very cautiously.
- For both Wave Cannons, it's ideal for the party to stack on you, but it is still workable without doing this, albeit requiring a bit more effort.

Example sequences

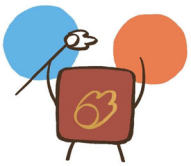


Additional notes

- P6 of Omega is perhaps the worst phase for Black Mage this expansion, and there's really no way around that.
- You will get one potion use. This can be in the re-opener, but synced with final party buffs (and potential Ley Lines) before enrage is an alternative. Both options are fine and depend on where you can find the space to weave it.
- The combined cast time and animation lock of Limit Break is nearly enough to make you drop Enochian. It is strongly recommended to refresh the timer before and after Limit Break, usually by Transposing to UI before using it, then refreshing with Paradox afterwards. This also assists with movement for flares.
- Make sure to plant for LB directly outside the circle AoE. Unlike everyone else, you can't move in at all after the circle goes off to help out healers.
- Mitigation is extremely important in this phase. Don't forget to use Addle! Almost every group will have the caster addling both Cosmo Dives, but make sure to check!
- If you want to get 3 Manafont usages (not really necessary), you will almost certainly have to use the first one early, before Despair. This is quite easy if you open with F3 and have Paradox carried over from P5.

Notes on This Chapter

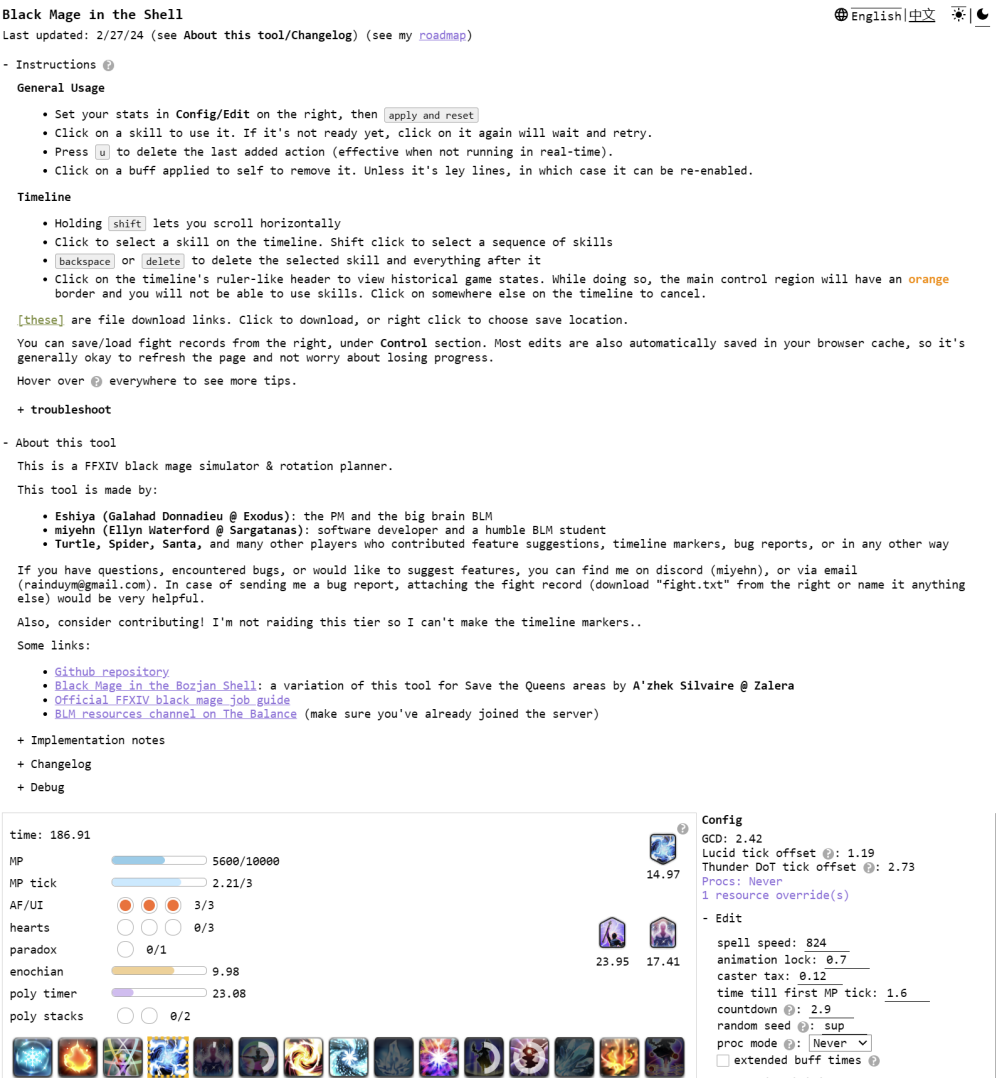
The tips provided in this chapter went over various recommendations and information relevant to playing Black Mage for various endgame fights for Endwalker. Keep in mind that these are just generalized tips to be used as a starting point–there may be different strats, killtimes, or other personal optimizations which may require alternative planning that will deviate from the suggestions in this document. If you have any questions or comments, feel free to give your input over in the Black Mage channels in the Balance.



Extra Highlights

Black Mage in the Shell

Black Mage in the Shell is a Black Mage rotation simulator and planner created by Eshiya (Galahad Donnadieu on Exodus) and miyehn (Ellyn Waterford on Sargatanas). This tool enables Black Mage players to fully plan their sequences in relation to phases, mechanics, and MP ticks. The creation of Black Mage in the Shell has been instrumental, significantly reducing the workload for dedicated Black Mage players and greatly enhancing their ability to realize the job's potential.



Wait until 1 second(s) since now GO Wait until 0:00 GO

Wait until Manafont / MP tick / lucid tick Remove trailing idle time

+ Override initial resources

apply and reset

Control

real-time auto pause

manual

- Skill sequence presets

clear all presets

Load from file: Choose File

Load from URL: https://miyehn.me/ffxiv-blm-rotation/presets/lines/defa load

F3 opener after sharpcast ( ) [x]

F3 opener after sharpcast (single triple) ( ) [x]

Standard ( ) [x]

Double PD ( ) [x]

5xF4 Transpose Ice (need LL) ( ) [x]

Double transpose start (need T3P & ideally MP tick lineup) ( ) [x]

name: (untitled) add selection to preset

[download presets to file]

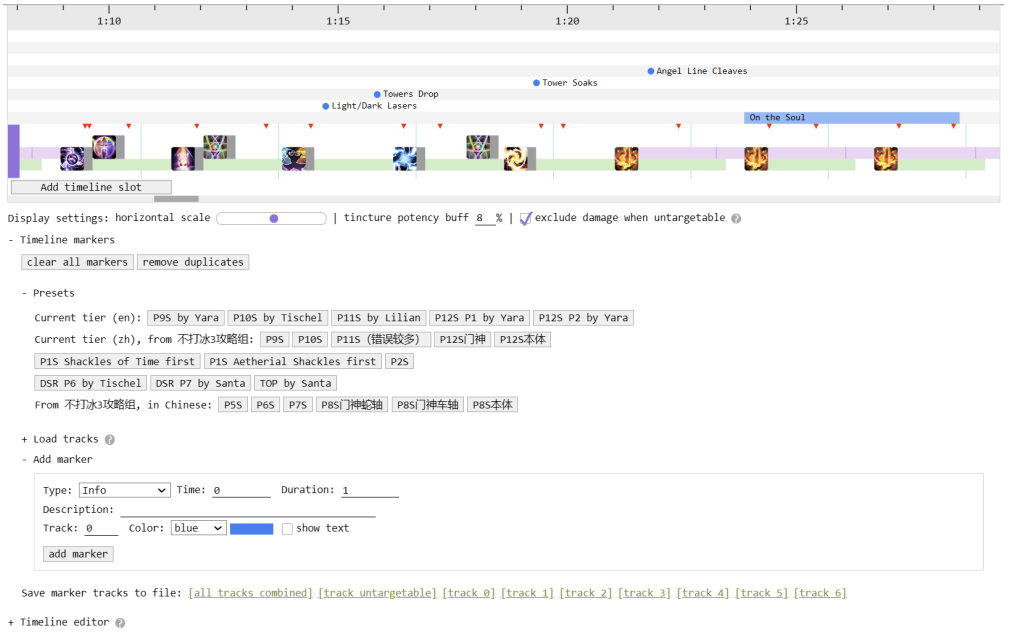
Last damage application time: 184.43
Total potency (pot +8%) : 51162.16 (221.49 pending)
PPS : 277.41
GCD skills: 76
Thunder DoT uptime: 95.60% (ticks: 60/62)
[download detailed damage log as CSV file]

Applied Skills

skill		potency	count	total
Fire 4	AF3	686.34	31	21276.54 +274.54(pot)(5)
Xenoglossy	ENO	1082.40	8	8659.20 +86.59(pot)(1)
Despair	AF3	752.76	8	6022.08 +180.66(pot)(3)
Paradox	ENO	615.00	9	5535.00 +98.40(pot)(2)
Thunder 3 (DoT)			7	4810.41 +74.80(pot)(1)
Fire 3	AF1	447.72	3	1343.16 +35.82(pot)(1)
	UI3	223.86	3	671.58
		260.00	1	260.00
Blizzard 4	UI3	381.30	3	1143.90
Blizzard 3	AF3	223.86	3	671.58 +17.91(pot)(1)
Triplecast			4	
Ley Lines			2	
Swiftcast			3	
Tincture			1	
Amplifier			2	
Sharpcast			6	
Manafont			2	
Lucid Dreaming			1	
Transpose			6	
Aetherial Manipulation			1	
Between the Lines			1	
Manaward			1	
				50393.45 +768.72 (pot +8%)

Thunder 3

cast time	application time		gap	override	initial	DoT	ticks	total
0.61	3.56	ENO	3.56		61.50	44.30	7	371.59
23.58	24.61	ENO TC		8.95	492.00	44.30	10	934.98 +74.80(pot)
52.66	53.69	ENO TC		0.92	492.00	44.30	8	846.39
76.20	77.23	ENO TC		6.46	492.00	44.30	10	934.98
105.19	108.13	ENO	0.91		61.50	44.30	10	504.48
139.14	140.16	ENO TC	2.03		492.00	44.30	10	934.98
168.94	171.89	ENO	1.73		61.50	44.30	5	282.99
			8.22	16.33			60/62	4810.41 +74.80 (pot +8%)



https://github.com/miyehn/ffxiv-blm-rotation

Additional Documents

6.x Black Mage - A Guide to Theorycrafting and Speedrunning

Written by Eydis Darkbane

Advanced Chinese BLM Guide

ChatGPT recommended for translation. For questions, please contact *reinaleigh* on Discord.

Itu's TGE Notes

ExtraTricky's TGE Methodology

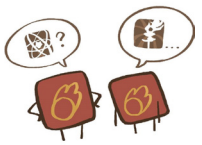
Paradox Rotation

The Paradox Rotation, more accurately No F4 Rotation, was a meme rotation created early in Endwalker where B3 Paradox Transpose Paradox Despair is looped indefinitely. One B4 is cast in the opener, and as neither Despair nor Paradox consume Umbral Hearts, conditions for obtaining Paradox were continuously met. The time between B3 and Transpose guaranteed a MP tick at moderate Spell Speeds. F3Ps should be used before Despair, and Thunders and Xeno are used normally.

The meme rotation was created and popularized by the Japanese Black Mage Yakkuru Imu after he obtained a 90+ percentile parse with this rotation. It was often claimed to offer higher mobility and "comparable" damage to the Standard Rotation, but in reality, the trade-offs were not worth it. Nonetheless, this rotation showcases the ingenuity of players and the creativity enabled by this iteration of Black Mage.

The Endwalker Black Mage Iceberg

Created by *@ZenthonPrime*. More about the items here: *pastebin.com/EmTnbKVa*



Reflections

Peri DoT

Having started playing FFXIV in Shadowbringers, I felt I had only begun to scratch the surface of Black Mage optimization by the end of the expansion. When Endwalker was released, I was elated to see the FFXIV team embracing the unorthodox aspects of Black Mage gameplay, and it truly felt like the depth and complexity of Black Mage optimization expanded tenfold. I have never had more fun in the game both painstakingly flowcharting entire encounters for speedkills, then full sending improvised rotations during the world first races. I'm very grateful that I had the opportunity to experience this iteration of Black Mage, and I'll miss talking about Black Mage rotations in jargon sounding like Chess moves. Although the class is being taken in another direction in Dawntrail, I know I'll always end up finding an excuse to instance into a raid with my Black Mage job stone equipped.

Big shoutout to the Black Mage community for their love and passion for the class. The collective time and effort spent on pushing this class to its limits is nothing short of incredible.

Eksu Plosion

Some of my fondest memories playing BLM were in Endwalker. The amount of possibilities and flexibility Endwalker BLM had were quite frankly endless. It was awe-inspiring to see the rotations other BLMs came up with - from when I was a still developing speedrunner in Asphodelos, and seeing creative rank 1 parses, to being more seasoned in Anabaseios and seeing intricately timed rotations to maximize nonstandard potential. The amount of “tech” was mind boggling. Things like, skipping F4 with Manafont, shortened openers, aligning mana ticks to do back to back instant AF1 F3 lines, Paradox refresh re-openers. Seeing things people did to ensure your raid buff contribution was maximized, putting as many Xenos in buffs as you could without compromising your own movement. These things in my opinion were an art. It was such a joy to discuss these rotations with other players and think things like “Wow, look at the sequence this player did. It’s amazing to think of.” And - in speedrunning - no two BLM players did the same

rotation. Independent minds came to similar conclusions but the journey to get there was vastly different for everyone.

Silvi Vee

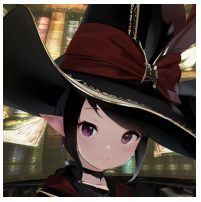
When I first started my FFXIV journey in 5.0, and thus my Black Mage journey, I wouldn't have expected the kind of path the job would take me on over the past 5 years. With the very high skill ceiling the job had, it allowed for players to craft their own plans, or discuss with the vast community the job brought to solve problems with similar goals in mind. While the Shadowbringers iteration had its quirks, it wouldn't have prepared us for the insanely deep rabbit hole that would become the Endwalker Black Mage that we all know and love. It allowed for players to express their skill and knowledge in so many different ways, either in the form of intricate plans tailored for a specific encounter, or getting punished trying to freestyle in a new encounter and figuring out potential solutions to a new problem. While a lot of players, including myself, find this iteration of Black Mage to be near perfect, the game is changing, and the ever-adapting nature of the community will always find a way to bring the best out of this amazing job.

Eydis Darkbane

Endwalker Black Mage was one of the most intricate and flexible job iterations to have been released in FFXIV. It held a rare duality where it had both a playstyle with extreme depth and a playstyle that was easy to pick up for new players. It was a happy accident which will be missed.

Sfia Pirion

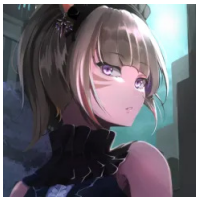
Endwalker Black Mage truly felt like the final form that the class had built toward since Heavensward. Every bit of unique nuance (or jank) felt like it had a place and didn't impede the class but instead allowed more diverse options. After a decade of maining the job I still feel like I have more and more to learn, practice, and refine. I am grateful to the designers of the job to get it to this point, and the black mage community for exploring just how deep it can go.



Yakkuru Imu

私は6.xでパラドックスを用いたミームローテーションの開発とp1～p4sのスピードランを実行しました。6.xの黒魔道士は独創性に富最高のジョブでした！最高のジョブをありがとう吉p！でも可能であれば7.xも同じ方向性でお願いします(笑).

In version 6.x, I developed a meme rotation using Paradox and executed speed runs for P1 to P4S. The Black Mage in 6.x was the most creative and best job! Thank you, Yoshi-P, for the amazing job! If possible, please keep the same direction for 7.x (lol).



Feuer E'

殆どのジョブが過度な易化の憂き目に遭っていた中、暁月の黒魔道士は珍しく今までの拡張の中でも柔軟性が高い/面白い部類だったと思う。コンテンツに対して取れる選択肢が多かったので、考えるのは大変だけど楽しかった。MPTickに関しては、考える事に対するリワードがあるのはいいと思う一方で、最も強いスキル回しを外部ツールを使用せずに再現するのが困難なのはメカニクスとして良いとは言えないと思っていた。

While many jobs in EW suffered from oversimplification, I would say EW Black Mage was an outlier here in that it arguably was one of the more flexible and interesting iterations of this job when compared to its older versions (and from the looks of it, what comes next too). With plenty of viable non-standard lines we could choose from that can be applied to various scenarios, coming up with

rotations for content was an enjoyable exercise. I did have mixed feelings about MP generation, where part of me felt it's nice to have mechanics that reward theorycraft, and the other part of me felt that when you need a third-party tool to reliably replicate the best skill rotations, that is not a good game mechanic.

Hosiume San

こんにちは。Hosiume San です。Patch5.0 以降黒魔道士をメインにプレイし続け 5 年が経ちました。黒魔道士では Parse や TA を主にプレイしています。

元々黒魔道士のスキル回しの研究を日頃から行っていた私は、辺獄編実装時、私の研究を Lodestone で発表するための一環として spreadsheet で RotationBuilder の作成を始めました。これが私の ENDWALKER の黒魔道士における最大のターニングポイントとなりました。そして spreadsheet でスキル回しを作成する過程で、ENDWALKER の黒魔道士はコンテンツを通して回しをほとんど固定化でき、事前のスキル回しの構築が黒魔道士としての強さに直結することに気がづきました。また Kaito Kob さんにより開発された、いわゆる "Double Transpose rotation" を初めて目撃し衝撃をうけるなど、私が黒魔道士の魅力に取りつかれるには十分すぎる体験を得ました。

煉獄編、天獄編を通じて、ENDWALKER の黒魔道士においてスキル回しで最も差が付くポイントは「バースト火力をいかに最大化するか」という点にあったと感じました。そのためバースト火力が最大化させ、かつ自身の火力も最大化できる黒魔道士が私の目指す理想の姿だと信じて ENDWALKER を走り抜けました。その結果、私が立てた目標は一通り達成できたと満足しています。探求すればするほどどこまでも奥深いスキル回しを開発できる ENDWALKER の黒魔道士のことが私は大好きです。

P.S. もしあなたが日本語を読める場合、私の lodestone で黒魔道士の研究に関する記事を是非読んでみてください。コメントお待ちしております！

Hello, this is Hosiume San. I've been playing Black Mage as my main job for five

years since Patch 5.0, focusing mainly on parsing and time attacks (TA).

As someone who has always researched Black Mage rotations, I started creating a Rotation Builder spreadsheet during the release of the Pandæmonium raids to share my findings on Lodestone. This marked the greatest turning point in my Endwalker experience as a Black Mage. Through this process, I realized that Endwalker's Black Mage allows for a highly fixed rotation across content, and pre-constructed rotations directly contribute to the job's strength. Witnessing Kaito Kob's development of the "Double Transpose rotation" was a particularly inspiring moment for me, and I fell further under the spell of Black Mage.

Throughout the Abyssos and Anabaseios raids, I felt that the key to mastering Endwalker's Black Mage lay in maximizing burst damage. My ideal Black Mage could maximize both burst and overall damage, and I strove to achieve this throughout Endwalker. I'm satisfied that I met my goals, and I love the depth and potential for continuous discovery that Endwalker's Black Mage offers.

P.S. If you can read Japanese, please check out my articles on Black Mage research on Lodestone. I look forward to your comments!

阿西果果

6.0 的黑魔法师拥有极高的灵活性和极低的随机性干扰，兼具了职业深度的同时还优化了 5.0 短腿的缺点。让黑魔法师既可以在大运动会中打出核动力黑魔般、连续十几个瞬发的表现，又可以在木桩本中排出收益极高的连续双星灵循环，实在令人难以忘怀。

The 6.0 Black Mage boasts exceptional flexibility and minimal randomness, enhancing the class's depth while addressing the mobility issues seen in 5.0. This allows Black Mages to deliver continuous bursts of instant casts in high-movement scenarios, as well as execute highly efficient Double Transpose rotations in dummy encounters, making the class truly unforgettable.

Vanilla Milksmoothie

相信所有研究学习过 6.x 的黑魔法师的人对其独树一帜的循环灵活性都会印象深刻。我很喜欢黑魔的循环就像是乐高积木的比喻，而冰悖论就是 6.x 所有积木中最重要的那一块。每个副本对黑魔法师都是一个独一无二的挑战，在追求一个个最优解的过程中，不同人对于细节的思考和取舍甚至使得黑魔法师成了“1000 个人手中有 1000 个黑魔法师”的职业。

我个人特别想感谢一下 yakkuru imu@Elemental 与 kaito kob@Meteor 两位日本黑魔，6.0 版本初期他们的循环思路对于我个人甚至整个中国黑魔社区都是非常具有启发性的，全程用 0 火 4 循环开荒边狱零式也是 6.x 黑魔带给我的无数快乐回忆之一。

另外我强烈推荐所有黑魔爱好者尝试一下 4 黑魔零式乃至龙诗和绝欧，真的很有趣 :3

I believe that everyone who has studied the Black Mage in 6.x is impressed by its unique rotation flexibility. I like to compare the Black Mage's rotation to LEGO bricks, with Ice Paradox being the most crucial piece out of all 6.x bricks. Each raid presents a unique challenge for Black Mages. In the pursuit of optimal solutions, different players' thoughts and choices result in "a thousand Black Mages in a thousand people's hands."

I want to especially thank Yakkuru Imu@Elemental and Kaito Kob@Meteor, two Japanese Black Mages. Their early 6.0 rotation ideas were highly inspiring to me and even the entire Chinese Black Mage community. Clearing Asphodelos Savage with Paradox Rotation is one of the countless joyful memories 6.x Black Mage has given me.

Additionally, I strongly recommend all Black Mage enthusiasts try a four-Black Mage Savage run or even the Dragonsong's Reprise and The Omega Protocol; it's super fun. :3

丶祈祷丶

6.0 的黑魔随着三连激情可充能以及悖论的加入，获得了前所未有的机动性以及循环选择性，在降低了黑魔的上手门槛的同时还使黑魔拥有了更深的职业深度。他拥有着近乎无限的可能性，几乎每隔一段时间就会有一些新的技巧、思路被开发出来，哪怕时至今日也仍有许多技巧思路在等待着开发。黑魔法师是我 FF14 最爱的职业，而 6.0 的黑魔法师更是我最爱的版本，希望以后还能玩到这么好玩有趣的黑魔吧。

With the introduction of Triplecast's charge and Paradox, the 6.0 Black Mage gained unprecedented mobility and rotation flexibility. This lowered the entry barrier for new players while adding deeper complexity. The class possesses almost infinite possibilities, with new techniques and theories being developed regularly. Even today, there are many techniques and ideas yet to be discovered. Black Mage is my favorite job in FFXIV, and the 6.0 Black Mage is my favorite iteration. Hopefully I will be able to enjoy such a fun and interesting Black Mage in the future.

窗 Yoru

我在 6.0 初期参与了 CN 社区的 blm 的理论构建和指南写作，6.x 的黑魔法师的趣味性得益于优秀的职业底层机制，并随着技能的逐渐丰富，这个体系呈现出了具有包容度和趣味性的结果。

I participated in theorycrafting and guidewriting of BLM in the CN community in early 6.0 as lead author—the fun of BLM benefits from the excellent foundational mechanic design of this job, and with new skills accumulated in each patch, this whole system manifests itself inclusively and intriguingly in 6.x.

№号被

5.0 的黑魔法师在 4.0 的玩法基础上增加了新的可用循环，而 6.0 是在 5.0 的基础上延申而来的。在这两个版本，黑魔法师可以通过选用不同的循环组合来自然地使得瞬发技能出现在需要的时机，而这也是黑魔在这两个版本中的游玩重心。7.0 版本的黑魔并不是 6.0 的延申，它回归了 4.0 版本的黑魔法师思路，即在相对固定的循环组合中通过能力技的安排来获得瞬发，我们可以将 7.0 版本看作是 4.0 版本的另一种发展方向。希望制作组能让 4.0 的黑魔游戏理念在 7.0 版本带给大家不亚于 5.0 和 6.0 版本的乐趣，希望黑魔玩家们曾经在 5.0 和 6.0 开拓的视野能在 7.0 也带来帮助，最后，希望未来的黑魔法师职业设计能够融汇两种游戏理念，让玩家们可以更加随心所欲地发挥。

The Black Mage in Shadowbringer added new available rotations based on the gameplay of Stormblood, and Endwalker BLM is an extension of Shadowbringer BLM. In these two patchs, the Black Mage can naturally make instant cast skills appear when needed by choosing different rotation combinations, which is also the focus of playing as a Black Mage in these two patchs. Dawntrail BLM is not an extension of Endwalker; it returns to the mindset of the Black Mage in Stormblood, that is, obtaining instant casts through arranging ability skills within relatively fixed rotation combinations. We can consider Dawntrail BLM as an alternate version for the Shadowbringer BLM.

Hopefully the development team can bring the same enjoyment to players in terms of game concept for the Black Mage from Stormblood to Dawntrail as they did in Shadowbringer and Endwalker; hopefully Black Mage players' perspectives gained from exploring Shadowbringer and Endwalker will also be helpful in Dawntrail; finally, hopefully future design for the Black Mage job class will be able to integrate both game concepts so that players can play more freely according to their own preferences.

Credits

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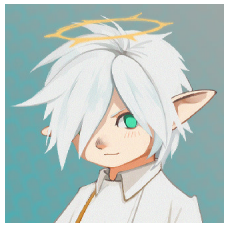

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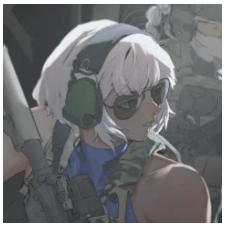

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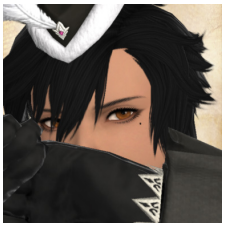

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