



Official Rulebook

Last Revised 4/15/19

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1. Definitions

Best-of-X – means a Match has X number of Games, and the Player that wins a majority of the Games is declared the winner. Once a Player wins the number of Games needed to reach the requisite majority, then that Player will be declared the winner of the Match, and any Games that have not been played at that point will not be played. For example, in a Best-of-Three Match, once a Player wins 2 Games, that Player will immediately be declared the winner of that Match.

Doubles – a format where Players compete as groups of two unique Players, called “Teams”.

Game – a single Title Game competition between two Players.

Match or Set – Tournament play between two Players that may involve multiple Games.

Player – each person who participates in the Tournament.

Singles – a format where Players compete as individuals.

Title Game – Super Smash Bros. Ultimate (“**Ultimate**”) and Super Smash Bros. Melee (“**Melee**”)

Tournament – Singles, Doubles, and Squad Strike competitions for any Title Game.

Tournament Organizers (TOs) – VGBootCamp, Xanadu Games, any entity involved in supplying or fulfilling prizes, and any other entity involved in implementing, producing or managing the Tournament, in whole or in part.

2. Event Rules

2.1. Code of Conduct

All Players are expected to exhibit good sportsmanship and maintain respect for one another and for all TOs and spectators. Players are expected to play at their best at all times and to avoid any behavior inconsistent with the principles of good sportsmanship, honesty, or fair play. Behavior that is considered to be inappropriate and in violation of the Code of Conduct includes, but is not limited to, the following:

- Interfering with tournament operation;
- Acting in an unsportsmanlike or disruptive manner, or to annoy, abuse, threaten or harass any other person;
- Engaging in collusion (e.g., any agreement between two or more Players to pre-determine the outcome of a Game or Match);
- Cheating of any sort through any means;
- Intentionally delaying or slowing gameplay or tampering with gameplay in any other known or unknown manner;
- Offensive, vulgar or obscene gamertags;
- Sexism, ageism, racism or any other form of prejudice or bigotry;
- Engaging in violence or any activity which is deemed in the judgment of TOs to be immoral, unethical, disgraceful, or contrary to common standards of decency;
- Engaging in any activity that is illegal in the jurisdiction where the affected Player is located;

- Offering any gift or reward to a Player or TO for assistance designed to provide a competitive advantage to the person offering the gift or reward or designed to impose a competitive disadvantage on any opponent;
- Using any language or wearing any clothing or apparel that is obscene, foul, vulgar, insulting, threatening, abusive, libelous, slanderous, defamatory or otherwise offensive or objectionable, or promotes or incites hatred or discriminatory conduct;
- Taking any action or performing any gesture directed at an opposing Player, official or spectator, or inciting any other individuals to do the same, which is insulting, mocking, disruptive or unsportsmanlike;
- Touching or otherwise interfering with consoles, TVs, lights, cameras or other tournament and/or production equipment;
- Engaging in any other type of behavior or conduct deemed inappropriate by the TOs in their sole discretion; or
- Otherwise violating these rules.

2.2. Notice of Filming

By entering and by your presence in the tournament venue, you consent to be photographed, filmed, and/or otherwise recorded. Your entry to the venue constitutes your consent to such photography, filming, and/or recording to any use, in any and all media throughout the universe in perpetuity, or your appearance, likeness, voice, and name for any purpose whatsoever in connection with the production presently entitled The Script 2.

2.3. Minors

If the Player is under the age of majority in his or her state or country of residence (a "Minor"), such Minor Player represents and warrants that he or she has received permission from his or her parent or legal guardian to register for and participate in the Tournament, and all references to "Player" shall include that Minor Player's parent or legal guardian.

2.4. Event Conduct

- All attendees must be registered as a Player, spectator, or media, or have the consent of the TOs to enter the venue. All attendees must keep their badge visible at all times.
- Possession of drugs, alcohol, or weapons is forbidden.
- Smoking, including e-cigarettes, is only permitted in the designated areas outside the building.
- All attendees are responsible for their own belongings. By entering the venue, you agree that anything you bring into the venue is your responsibility. TOs and any sponsors therein claim no responsibility for items which are lost, damaged, or destroyed as a result of being in the venue.

- Attendees may not tamper with, manipulate, or attempt to remove any equipment in the venue.
- Recording equipment besides phones or handheld video cameras are not permitted without permission from TOs.
- TOs reserve the right to deny entry into the venue to any Player suspected of committing anything considered a crime or acting in a manner that is detrimental to the integrity of the event.
- Any issues that arise outside of these terms will be held on a case-by-case basis, and be judged by TOs.
- Violation of any of these rules may result in being ejected from the event at the sole discretion of TOs.

3. Tournament Rules

3.1. Format

All Players will be seeded into double elimination bracket groups. Players will advance either in winners bracket or losers bracket. Players who advance in losers bracket will begin in losers bracket in the next phase. In the Grand Finals, the Player that advanced from the losers bracket must win two (2) Matches to be awarded first (1st) place in the Tournament.

In the event that there are less than 257 entrants for Ultimate Singles or Melee Singles, that event will use Round Robin groups. The top ranked Player from each group will advance to the next phase in winners bracket. The 2nd and 3rd ranked Players from each group will advance to the next phase in losers bracket. All other Players will be eliminated.

3.2. Round Robin Tiebreakers

Round Robin results will be determined by comparing the number of Match wins achieved by each Player. If two or more Players in contention for a top-3 spot in their Round Robin group achieve the same number of Match wins, ties will be resolved by applying the following tiebreaking mechanisms, in order of application.

1. Game Win Percentage, defined as total Games won divided by total Games played.
2. Total Game wins in Games between tied Players.
3. Tied Players play a Round Robin with Best-of-1 Matches. If Players are still tied, this step is repeated until the tie is resolved.

If any step resolves the tie for one or more Players but not all Players, a new tie will be declared between the remaining tied Players. This tie will be resolved using the same tiebreaking mechanisms listed above.

3.3. Set Length

All sets are Best-of-3 except for the following which are Best-of-5:

Ultimate & Melee Singles: Top-48

Ultimate & Melee Doubles: Top-8

The entirety of Squad Strike will be Best-of-3. However, Top-16 will be 5-on-5 Squad Strike instead of 3-on-3 Squad Strike.

3.4. Set Procedure

1. Players select their characters. Either Player may elect to do **Double Blind Character Selection** (see next section)
2. Use Stage Striking to determine the first stage
3. The Players play the first game of the set
4. Winning Player of the preceding match bans a stage/stages
5. The losing Player of the preceding match picks a stage for the next game
6. The winning Player of the preceding match may choose to change characters.
7. The losing Player of the preceding match may choose to change characters.
8. The next game is played.
9. Repeat Steps 4 through 8 for all subsequent matches until the set is complete.

3.5. Mutual Agreement

Players may select any legal stage if they both agree on it. Players may also disregard Stage Clause if both agree. Players may not play on illegal stages or change the length of a set.

3.6. Double Blind Character Selection

Either Player may request that a double blind selection occur. In this situation, a referee or other tournament staff member will be told, in secret, each of Player's choices for the first round. Both Players are to then select their first round character, with the referee validating the character selections.

3.7. Neutral Start

If a Player requests Neutral Start, the Players must use the neutral port

configuration described in Sections 3.3.4 or 4.3.6.

3.8. Port Priority

If an agreement cannot be made as to who gets what port, the Players may enact a best of 1 game of Rock Paper Scissors or Game & Watch Judgment (the Player who gets the higher number wins). Winner has the option of selecting port first.

3.9. Pausing

If a Player either intentionally or accidentally pauses the Game by either pressing the start button or unplugging his or his opponent's controller, the Player who paused forfeits a stock. The penalty may be increased to a multiple stock forfeiture or a Game forfeiture at the discretion of the TO.

3.10. Restarts

The TOs may approve a Game restart due to exceptional circumstances, such as a power outage.

3.11. Stalling

Stalling, or excessively delaying the Game or Match, may result in a Game or Match forfeit at the discretion of TOs. In Melee, Players may stall for the purposes of waiting out a particular transformation on Pokémon Stadium. Stalling must end when the neutral transformation returns, as indicated by the icon shown on the in-game screen.

3.12. Sudden Death

If a game goes to Sudden Death, the winner is determined by stocks and percentage at the time the match ends. When the timer hits 0:00, the Player with the higher stock count is the winner. If both Players are tied in stocks the Player with the lower percentage is the winner. In the event of a percentage tie, or a match in which both Players lose their last stock simultaneously, a 1 stock tiebreaker will be played with time limit equal to the regular time limit divided by the regular number of stocks, rounded up to the minute. The results of Sudden Death do not count.

3.13. Stock Sharing

Taking an partner's stock is allowed in doubles.

3.14. "Grab and Go" Clause

In doubles, Players may not switch controllers with their teammate.

3.15. Missing Teammate Clause

If a Player's teammate is not present for a Match, that Player may replace their

teammate with a CPU Player. If a Player takes this action, they must team with a CPU Player for the remainder of the Tournament.

3.16. Alting

You will be immediately disqualified from the Tournament with no refunds if you are found using an alternate tag/tags and/or hide your identity to manipulate the bracket/seeding. The only exception to this rule is if the Player notifies a TO prior to the registration end date.

3.17. Colorblind Clause

Players may request that their opponent change colors to accommodate colorblindness or if their color is indistinguishable from either the other team color or the stage background. The request must be made before the match starts.

3.18. Warm-ups

Warm-up periods and controller tests may not exceed 30 seconds on the in-game timer. Violation of this rule may result in an automatic forfeit at the discretion of TOs.

3.19. Coaching

Coaching, defined as deliberately giving or receiving advice to/from another person during a Match or between Matches during Grand Finals, is not allowed, and may result in penalties for both parties.

3.20. Tardiness

Anyone who is not present for their match by 15 minutes past the scheduled start time, without prior communication with tournament staff, is subject to a total disqualification from the event.

3.21. Collusion

Players suspected of colluding may be immediately disqualified from the tournament. This includes intentionally throwing a match, splitting a payout, or committing any other form of bracket manipulation. The TO reserves the right to deny payout of event winnings to any Player suspected of colluding.

3.22. Misinterpretation / Misconfiguration

If a game was played under a misconfiguration of the Game Settings that could have materially affected the result of the game, a Player may petition the TO to have that game replayed. The final decision is at the discretion of the TO. This must be done immediately after the game in question; after the next game is started, the previous game shall not be replayed regardless of whether the rules were set correctly.

3.23. Final Rulings

If any unforeseen situations occur, judgment of tournament staff is final. Rules may be altered between phases of a tournament in the best interests of the event.

4. Super Smash Bros. Ultimate

Rules for Super Smash Bros. Ultimate are subject to change. Updates to the rules will be included in this Official Rulebook as long as those updates are published prior to registration closing.

4.1. Game Version

The Tournament will use any updates (including characters) to the game that are publicly available in North America by 2:00 PM Eastern Time on April 16, 2019.

4.2. Game Settings

- Stock: 3
- Timer: 7:00
- Handicap: Off
- Team Attack: On
- Launch Rate: 1.0x
- Items: Off and None
- FS Meter: Off
- Damage Handicap: Off
- Custom Balance: Off
- Spirits: Off
- Pause: Off
- Stage Selection: Loser's Pick
- Stage Hazards: Off
- Stage Morph: Off
- Underdog Boost: Off
- Score Display: Off
- Show Damage: Yes

4.3. Options

- Radar: Small
- Echo Fighters: Separate
- Custom Balance: Off
- Mii Fighters are permitted with any combination of specials.

4.4. Stage List

Starter Stages

- Battlefield*
- Final Destination**
- Lylat Cruise
- Smashville

- Pokemon Stadium (PS1)

Counterpick Stages

- Unova Pokemon League
- Kalos Pokemon League
- Town & City

** On Counterpick, any version Battlefield may be used, so long as it was not banned by the opponent*

*** On Counterpick, any version of Final Destination may be used, so long as it was not banned by the opponent*

**** Lylat Cruise BF form is banned, as well as both versions of Gamer.*

4.5. Additional Rules

4.5.1. Stage Striking

Players play a best-of-1 Rock-Paper-Scissors, and winner may choose to either strike a stage first or select a port first. Stages are struck in a 1-2-2-1 order.

4.5.2. Stage Bans

After each game of the set, before counterpicking, the player who won the previous game may strike two stages from either the starter or counterpick list. These strikes do not persist throughout the set.

4.5.3. Broadcast Review

If you are playing on the broadcast, you may be asked to refrain from using certain Battlefield/Omega form stages at their discretion.

4.6. Rules for Squad Strike

4.6.1. Squad Strike Settings

- Format: Tag Team
 - 3-on-3 prior to Top-16.
 - 5-on-5 for Top-16.
- Stage Selection: Anyone

4.6.2. Character Selection

For the first Game in a Set, characters should be selected in a snake draft (1-2-2-1-1-2) format. The Player that didn't choose stage strike order chooses who picks the first character. Character / stage selection for the remaining Games in the Set uses the standard procedure described in

Section 3.4, with the winner of the previous Game going first in the snake draft format for character selection.

4.6.3. Echo Fighters

From the following list of Echo Fighter pairs, each Player may select only one character from each pair per Game.

- Marth / Lucina
- Peach / Daisy
- Pit / Dark Pit
- Roy / Chrom
- Samus / Dark Samus
- Simon / Richter

5. Super Smash Bros. Melee

Rules for Super Smash Bros. Melee are based on the [Melee Recommended Ruleset](#), with the exception of Section 5.4.4. Updates to the rules will be included in this Official Rulebook as long as those updates are published prior to registration closing.

5.1. Game Version

The official game version is NTSC 1.02 for the Nintendo Gamecube, using the most recent available version of Universal Controller Fix (UCF) with all characters and relevant stages unlocked.

5.2. Game Settings

- Stocks: 4
- Timer: 8 minutes
- Handicap: Off
- Damage ratio: 1.0
- Items: Off
- Pause: Off
- Team Attack: On

5.3. Stage List

Starter Stages

- Yoshi's Story
- Fountain of Dreams (singles only)
- Battlefield
- Final Destination
- Dream Land
- Pokémon Stadium (doubles only)

Counterpick Stages

- Pokémon Stadium (singles only)

5.4. Additional Rules

5.4.1. Stage Striking

Players play a best-of-1 Rock-Paper-Scissors, and winner may choose to either strike a stage first or select a port first. Stages are struck in a 1-2-2-1 order.

5.4.2. Stage Bans

After each game of the set, before counterpicking, the Player who won

the previous game may ban one stage from either the starter or counterpick list. This rule is not in effect for best-of-5 sets.

5.4.3. Stage Clause

A Player/team may not pick any stage they previously won on during the set.

5.4.4. Controllers

First Party wired Gamecube Controllers and Licensed Third Party Gamecube Controllers are permitted as long as they do not contain turbo functions, macros, and/or hardware modifications (other than case modifications, such as notches and cosmetic changes). For other controllers, please see the [Controller Addendum](#).

5.4.5. Neutral Start

If a Player or Team requests Neutral Start, the Players must use the neutral port configuration described below. Alternatively, Players may elect to move to opposite sides of the stage and then count down prior to starting the match. TOs will not be responsible for any miscommunications that occur as a result of this alternative procedure.

Singles:

Stage	Port 1	Port 2	Port 3	Port 4
Final Destination	X	X		
Fountain of Dreams	X	X		
Yoshi's Story	X	X		
Dreamland 64		X		X
Battlefield			X	X
Pokémon Stadium			X	X

Doubles:

Stage	Port 1	Port 2	Port 3	Port 4
Final Destination	Team A	Team B	Team A	Team B
Yoshi's Story	Team A	Team B	Team B	Team A
Dreamland 64	Team A	Team B	Team B	Team A
Battlefield	Team A	Team B	Team B	Team A
Pokémon Stadium	Team A	Team B	Team B	Team A

5.4.6. Freeze Glitch

Activating the Freeze Glitch with the Ice Climbers is not allowed; penalties may or may not be enforced at TO discretion.

6. Prizes

Prizes for all events will be paid from a variable prize pool. The amount available in the variable prize pool for each competition will be drawn solely from and will vary based in part on the number of Players or teams that register for each respective competition. Payments will be made in United States dollars. The prizes will be awarded and paid to Players in accordance with the charts below.

6.1. Ultimate Singles & Melee Singles

Standing	Percentage of Prize Pool
1st	40%
2nd	24%
3rd	12%
4th	8%
5th (two Players)	4%
7th (two Players)	2%
9th (four Players)	1%

6.2. Ultimate Doubles & Melee Doubles

Prizes are split evenly between all members of the Team.

Standing	Percentage of Prize Pool
1st	40%
2nd	20%
3rd	15%
4th	10%
5th (two Teams)	5%
7th (two Teams)	2.5%

6.3. Squad Strike

Standing	Percentage of Prize Pool
1st	40%
2nd	20%
3rd	15%
4th	10%
5th	5%
7th	2.5%

7. Indemnification

All attendees hereby agree to indemnify and hold VGBootCamp, Xanadu Games, Laurel Race Track, and event staff harmless from and against any and all third party claims, actions or proceedings of any kind and from any and all third party damages, liabilities, costs and expenses, including reasonable outside legal fees and costs relating to or arising out of any breach of any of the warranties, representations, covenants, obligations or agreements of the attendee under these rules.

8. Help

If you have any questions, please write to xanadugames@vgbootcamp.com.

Controller Addendum for Super Smash Bros. Melee

This Addendum is an expansion of [Section 5.4.4](#) from this Official Rulebook, covering the usage of controllers other than wired First Party Gamecube Controllers.

A. Definitions

Actuator - any device that activates a controller input.

Analog Input - the analog stick, C-stick, L (analog), and R (analog).

Analog-to-Digital (ATD) Input - any digital input that emulates an Analog Input.

Analog Adjustment Device (AAD) - any electronic device (e.g., an Arduino) that alters an Analog Input without the use of a Conditional Input, Macro, or Modifier.

Button Input - A, B, L (digital), R (digital), X, Y, Z, and D-pad up/down/left/right.

Coordinate - an (X-axis, Y-axis) value corresponding to a specific analog stick or C-stick value. For the purposes of this Addendum, all Coordinates will be written as values between -1 and 1.

Conditional Input - an Actuator that changes function based on previous or simultaneous inputs.

GCC - Gamecube Controller

Macro - any activated pre-programmed input that results in controller outputs read by the game on future frames.

Modifier - an Actuator that alters the input of one or more other Actuators.

Non-Dedicated Modifier (NDM) - an Actuator that is simultaneously bound to both a Modifier and a Button Input or ATD Input.

SOCD - Simultaneous Opposite Cardinal Direction (left and right being input simultaneously or up and down being input simultaneously)

B. Enforcement

TOs may inspect any controller at any time. If a Player suspects their opponent's controller of not abiding by these parameters, they may request a controller inspection by TOs. The TO is not required to abide by this request. If TOs are unable to determine that a controller is in full compliance, that controller may be banned at the TOs' sole discretion. If a Game or Set cannot be played out in full due to a controller malfunction

which cannot be fixed in a timely manner, and the Player using this controller does not have a replacement controller readily available, the Player may be disqualified at sole discretion of TOs.

C. Controller Requirements

C.1. First Party GCCs

Physical modifications such as case notches, replacement analog sticks, and cosmetic changes are permitted. Capacitors for snapback reduction are also permitted. If a First Party GCC uses a device that modifies the input of a First Party GCC in any capacity (e.g., Arduinos), that controller will be subjected to the same rules as Other Controllers (Section C.3). Any such modifications must be externally visible and housed outside of the GCC shell.

C.2. Licensed Third Party GCCs

Licensed Third Party GCCs are subject to the same rules as First Party GCCs, but any additional features (e.g., Turbo) are not permitted to be used.

C.3. Other Controllers

Controllers that are neither First Party GCCs nor Licensed Third Party GCCs must abide by the parameters in the following sections.

C.4. Input Mapping

C.4.1. Button Inputs

Each Button Input can only be actively bound to a maximum of one Actuator. An Actuator that is bound to a Button Input may not be bound to any other Button Inputs, Analog Inputs, or ATD Inputs.

C.4.2. Analog Inputs

Each Analog Input can only be actively bound to a single analog device, except as described below. If a controller features multiple methods of input for a specific Analog Input (i.e., both an analog device and ATD Inputs), only one input method for that specific Analog Input may be active at a time.

C.4.2.1. Analog Stick and C-Stick

The analog stick and C-stick may each be replaced by a maximum of 4 Actuators corresponding to cardinal directions (up, down, left, and right).

C.4.2.2. Analog L and R

A controller may only have up to one Actuator that generates L inputs and up to one Actuator that generates R inputs.

C.4.3. Controller Layout

Generally, any layout of Actuators on a controller is permitted. However, Actuators may not be arranged in a manner that guarantees simultaneous or conditional activation (e.g. an Actuator physically contained within another Actuator, such that activation of only one of those actuators is difficult or impossible).

C.4.4. Actuation

Actuators must always be manually activated. For example, an Actuator may never activate as a result of another Actuator being activated or deactivated.

C.4.5. Macros

Actuators may not activate Macros. Note that Macros are different from Modifiers and Conditional Inputs.

C.5. Analog-to-Digital Inputs

Controllers that use ATD Inputs must abide by the following restrictions.

C.5.1. SOCD Handling

If two opposing cardinal directions are activated simultaneously, the more recent input must override the less recent input. If two opposing cardinal directions are activated on the same frame, the controller may either produce a neutral input or may give priority to one of the inputs in a predetermined manner.

C.5.2. Modifiers

Modifiers, or combinations of Modifiers, may not be used with Analog Inputs, and may only change the magnitude of ATD Inputs that correspond to Analog Inputs, except for L and R, in which Modifiers may be used to switch between analog and digital activation. Modifiers may simultaneously change the magnitude of multiple ATD Inputs. Within the context of Super Smash Bros. Melee, Modifiers may not solely change the current “zone” that the analog stick or C-stick Coordinate lies in. These zones (pictured below) are the Coordinates corresponding to up, down, left, right, up-right, up-left, down-right, down-left, and neutral (“dead zone”). For example:

- If the analog stick or C-stick is pointed at a Coordinate that corresponds to “right”, Modifiers cannot solely move the Coordinate to “up-right”.

- If the analog stick or C-stick is pointed at a Coordinate in neutral, Modifiers cannot solely move out of neutral.

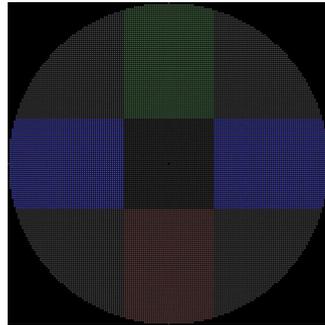


Figure 1: Illustration of all possible analog stick coordinates, visually divided into the 9 zones. (Credit: [Aziz Al-Yami](#))

C.5.3. Non-Dedicated Modifiers

Within the context of Super Smash Bros. Melee, NDMs must obey the following restrictions in addition to those described in Section 3.5.2.

- All NDMs must be explicitly described when notifying TOs of intent to use a controller other than a GCC. TOs may reject specific NDMs at their sole discretion.
- NDMs may not be bound to Actuators that generate X or Y inputs.
- NDMs bound to Actuators that generate B inputs cannot modify analog stick or C-stick Coordinates, except to prevent a controller from inputting a neutral-B with analog stick Coordinates outside of the dead zone.
- NDMs bound to Actuators that generate A, L or R inputs may not redirect the analog stick to a Coordinate in a manner that meaningfully circumvents a stick motion that would have otherwise been necessary to perform an action. Examples include, but are not limited to performing:
 - A long ledge wavedash
 - Long wavedash into down-tilt
 - Fastfall into a long wavedash
 - Long wavedash out of Fox/Falco down-B

C.6. Analog Adjustment Devices

Controllers that use AADs (i.e. Arduinos) are prohibited.

C.7. Conditional Inputs

Conditional Inputs generally may not be used except to implement lockouts described in Section 3.7.2. Any other Conditional Inputs must be approved by TOs.

C.8. Analog-to-Digital and Adjusted Analog Input Restrictions

Due to the potential precision and consistency of ATD Inputs and adjusted Analog Inputs, Controllers using ATD Inputs must adhere to the following limitations.

C.8.1. Banned Coordinates

Within the context of Super Smash Bros. Melee, there are certain functional analog stick Coordinates that are impossible to consistently activate with unadjusted Analog Inputs. These Coordinates may not be pinpointed.

C.8.1.1. Shield Drop

The mechanic known as “Shield Drop Down” must not be accessible in conjunction with L, R, or Z. Specifically, if digital or altered analog inputs would result in an analog stick Coordinate with $Y = -0.6625$, -0.6750 , or -0.6875 in conjunction with L, R, or Z, the analog stick Coordinate must be such that $|X| \geq 0.7000$.

C.8.1.2. Directional Air-Dodge Angles

All angled air-dodges (wavedashing) using ATD Inputs must be within the following bounds:

- $(\pm 0.3875, \pm 0.9125) - 67^\circ$
- $(\pm 0.9125, \pm 0.3875) - 23^\circ$

C.8.1.3. Ice Climbers’ Desyncs

The following Coordinates, allowing Ice Climbers to instantly “desync,” must not be accessible.

- $X = \pm 0.8000$ - Popo Smash / Nana Tilt
- $X = \pm 0.8000$ on C-Stick - Popo F-Smash
- $Y = \pm 0.6625$ - Popo Smash / Nana Tilt
- $Y = \pm 0.6625$ on C-Stick - Popo U/D-Smash
- $X = \pm 0.7000$ - Popo Roll
- $Y = \pm 0.7000$ - Popo Dodge / Nana Shield Drop
- $X = 0.6250$ - Popo Run / Nana Runbrake
- $X = 0.7500$ - Popo Teeter Break / Nana Teeter
- $Y = 0.5625$ - Popo Jump (out of dash)
- $X \leq 0.5875, Y = -0.5500$ - Nana Neutral-B
- Any Coordinate that allows Ice Climbers to perform two different aerials simultaneously with the same input.

The Coordinates $(\pm 0.7000, \pm 7000)$, $(\pm 0.7000, \pm 7125)$, and $(\pm 0.7125, \pm 7000)$ are exceptions to this list.

C.8.1.4. Turnaround Up-Tilt and Down-Tilt

The range of Coordinates, allowing for a 2-frame turnaround vertical tilt in non-buffered situations, must not be accessible. See

the Figure below for an illustration of this zone in the up-right quadrant.

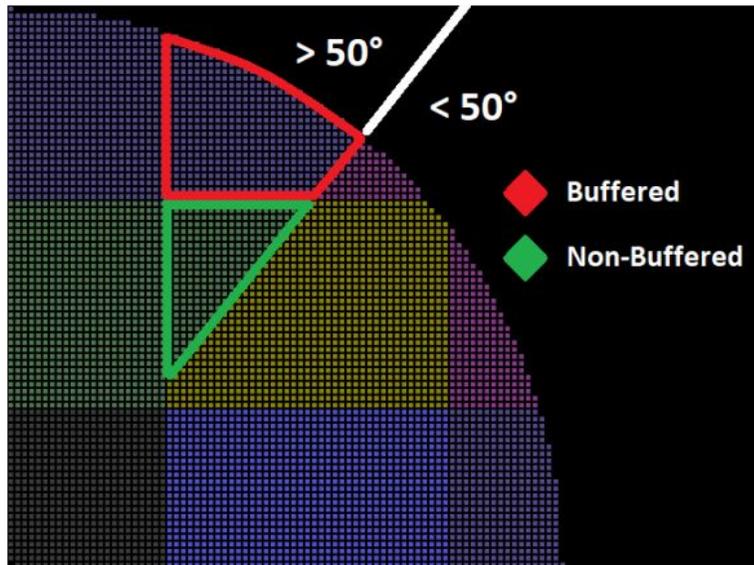


Figure 2: Illustration of the coordinates that may produce a non-buffered vertical up-tilt in the up-right quadrant. (Credit: [Aziz Al-Yami](#))

C.8.1.5. “Middle-Tilted” Tilts & Smashes

The Coordinates (± 0.9500 , ± 0.2875), allowing certain characters to access “Middle-Tilted” versions of Tilts and Smashes, must not be accessible in conjunction with A or the C-stick.

C.8.1.6. Pikachu & Pichu “Double Up-B”

The following Coordinates, allowing Pikachu and Pichu to move vertically twice during an Up-B, must not be accessible.

- (± 0.5000 , 0)
- (0, -0.5000)
- (± 0.4000 , ± 0.3000)
- (± 0.3000 , ± 0.4000)

C.8.2. Analog Triggers

Within the context of Super Smash Bros. Melee, analog L and analog R values range from 0 to 140, with 43 being the minimum value that generates a shield. Certain functional analog L and analog R values are difficult to consistently activate with unadjusted Analog Inputs. Either the value 49 (equivalent to Z lightshield) or 94 (the halfway analog shield value), but not both, may be pinpointed with digital Actuators.