# 2nd Blockless Pauseful Cheat Sheet

There are 2 options for paused 2nd blockless. Climb-up was the first version found and posted by nero_x2 and later described by Chaikitty in a video. Demohyper is the more common version today and is more often recommended because it takes less inspection of frames, making it easier to do quickly and consistently. Demohyper is also the most common method used for unpaused 2nd blockless so it is useful to know the details. Climb-up is mainly chosen by people who want to skip the first pause, because it gives an extra frame to start the unpaused ultra. The frame sets for both options are described here for completeness.

Demohyper Frame Set

Extended hyper off the falling block, wait until you touch the left side of the platform, then demo to the right and pause. Frame advance to one of the correct frames if necessary, then you will unpause and buffer both jump and down-right dash for the ultra. Continue holding down-right and then pause again when you reach the ground for the jump. In this version, there are 2 frames to start the ultra, and 2 frames from which to start a 2f jump. The jump frames do not change depending on the initial pause frame.

Frame set:

Pause on either of these frames, buffer the ultra out of pause
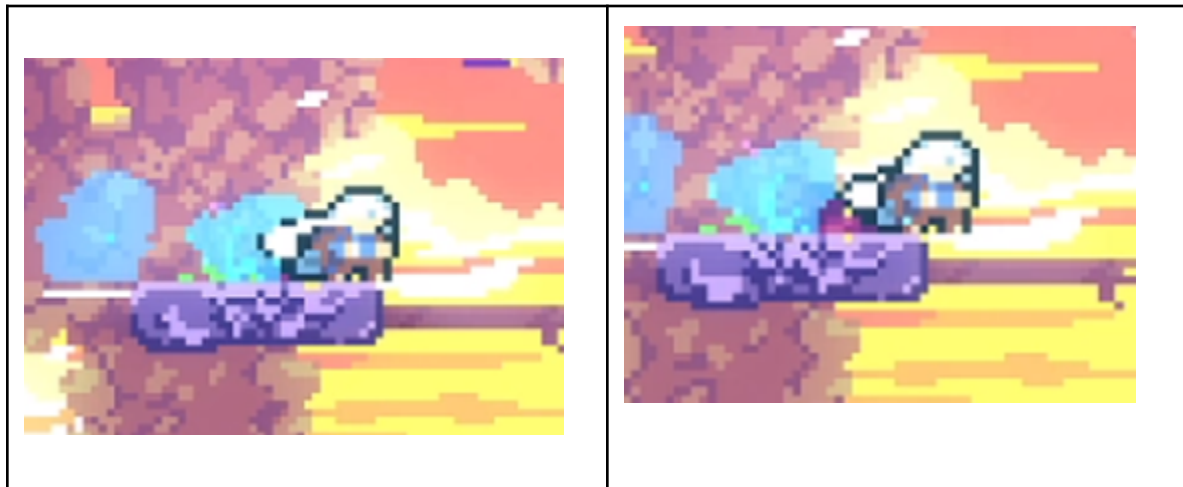
Repause on the lower ground and do either of the following 2-frame jumps

Option 1:

Jump Here (2f jump)	Release jump here

Note: Normally it doesn't matter whether you hold down-right or forward after the bunny hop, but in this particular case, ONLY if you are holding down-right the whole time, a 3f jump also works. This applies only if you did the first frame jump (Option 1). This also works for either ultra frame. This could be used if you accidentally skip a frame and it makes unpaused blockless feel a little bit more lenient.

Or, equivalently:

Option 2:

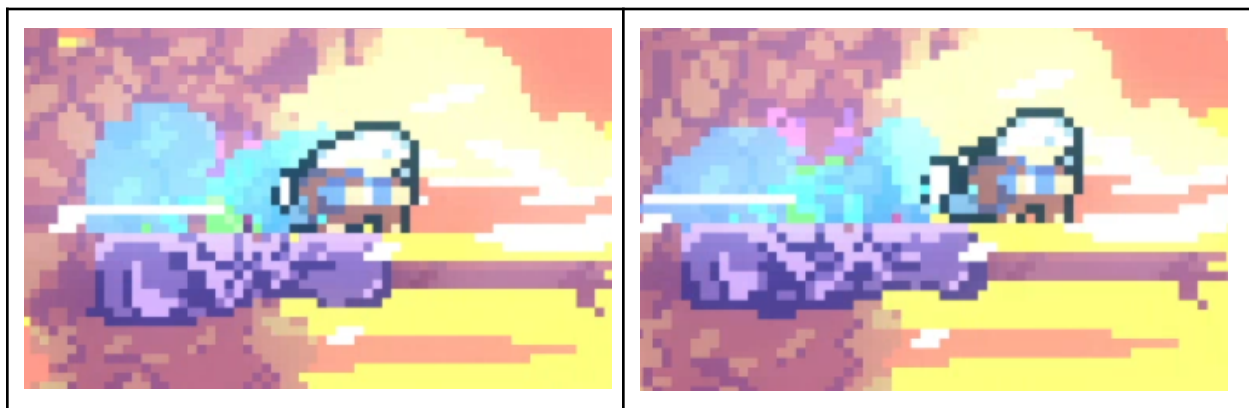| Jump 1 frame later than above (2f jump)	Release jump here
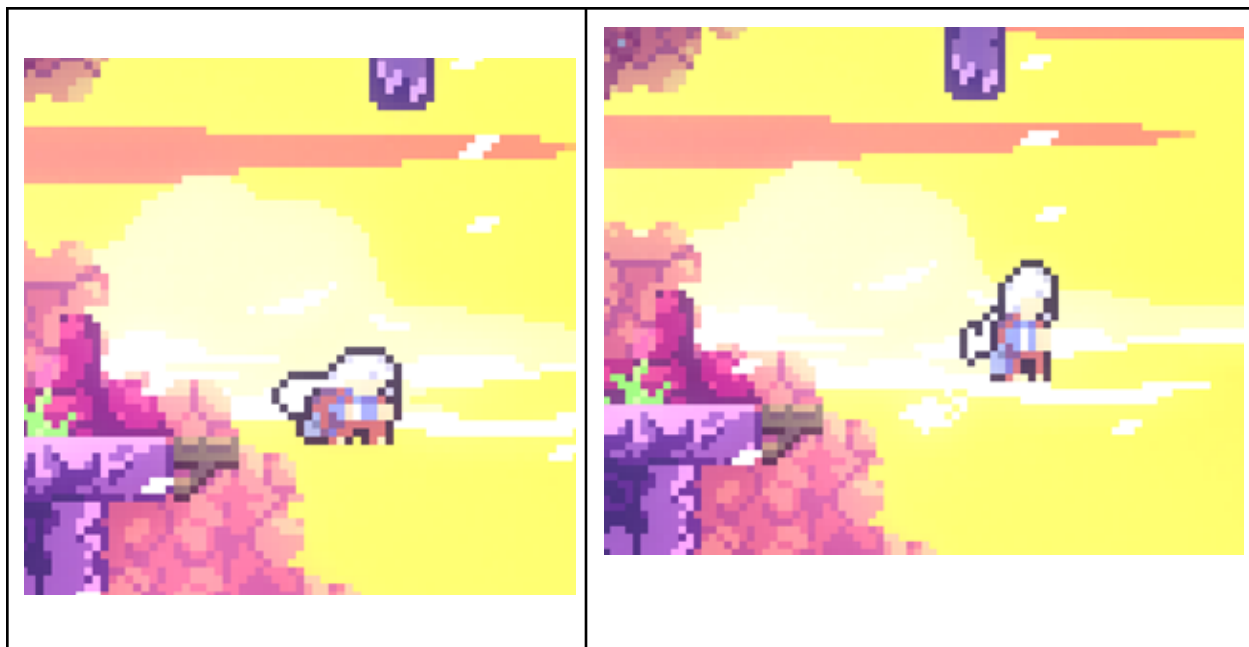
Unpause and buffer cornerboost

Climb-Up Frame Sets

Dash into the left wall of this platform to set up your subpixel and grab the wall. Press up to climb onto the platform (important that it's only up to make sure you end up on the correct pixel), then once you're on the platform, downright dash and pause. You will unpause, buffer both jump and downright dash for the ultra, and repause to jump on the below frames, which are dependent on the frame of the first pause.

Frame set 1:
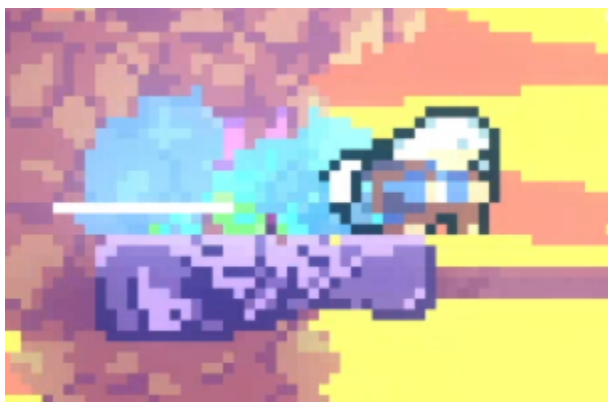
If you pause on either of these frames

Buffer ultra out of pause and keep holding down-right

Jump Here (2f jump)	Release jump here
Note: jump the first frame Madeline leaves the wood. There might be slightly more gap between Madeline and the wood depending on ultra frame	

 Unpause and buffer cornerboost

Frame set 2:

If you pause on this frame (in between the first 2)

Everything is the same except the jump frames. The jump starts 1f later, and in this frame set, you can do either a 1 frame or a 2 frame jump.

Jump Here (1 or 2f jump)

Release jump here (1f jump)	Or release jump here (2f jump)

Skipping the Ultra Pause (Both Versions)

The pause for the ultra helps to guarantee a good starting position and to allow an optimal ultra to be buffered (where the dash happens on the first possible frame after the jump, accounting for dash cooldown). However, it is possible to skip the ultra pause for both versions to save some extra time. Of course, then you have to hit the window for where to start the ultra and get the optimal ultra manually. Getting the ultra may feel easier by pressing jump and dash at the same time or using a grounded ultra (dash + jump) button if you have one.

Demohyper Version Pauseless Ultra

Skipping the ultra pause on demohyper version is simpler because there are no extra frame sets to look at. This is because no matter which of the two good frames you could've started the ultra, the bunnyhops happen in the same places. It's a little tighter though because you have 2 frames to start the ultra where there are 3 for the climb-up version.
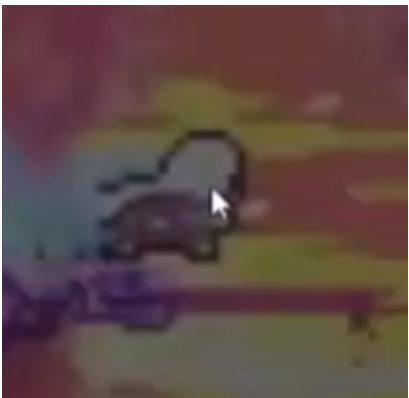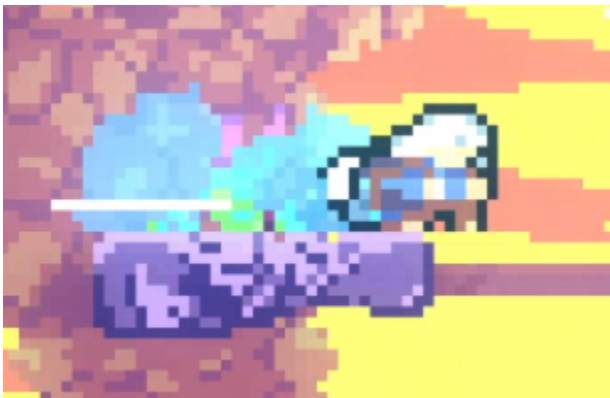
Climb-Up Version Pauseless Ultra

Since you don't know where the ultra started, you have to pause after hitting the ground and inspect the frames there closer.

1st frame ultra (frame set 1)	2nd frame ultra (frame set 2)	3rd frame ultra (frame set 1)
2 yellow pixels between the bottom of Madeline and the wood platform	1 yellow pixel between the bottom of madeline and the wood platform	No yellow pixels between the bottom of Madeline and the wood platform

As before, if you got the 1st or 3rd frame ultra, do a 2 frame jump immediately from here. If you got the 2nd frame ultra, advance 1 more frame, and then do either a 1 frame or 2 frame jump.

Credit to rb_astronomy (discord #strat_videos post, discord cues)

Note: In Chaikitty's video (https://youtu.be/WweWutH4Jac) and nero_x2's original clips, frames look a little different because of crouch dash changes in v1.4.4.0

e.g., old frame for frame set 2	new frame for frame set 2

Tips:

- It may be easier to see the frames if you have journal bound to grab and hold the grab button down so the menu overlay disappears.
- Some analog players have more consistent results holding a fastfall button to ensure the down input stays held.
- If you have a bubsdrop button bound (pause + jump), it can be used for the 1 or 2 frame jumps to reduce the number of inputs. Just make sure you have the button held down when you repause because you need jump to be held through the end of the buffer window. If the 2 frame jump is needed, you just do that twice in a row and unpause afterwards with a normal pause or cancel button.
- A dash + jump bind is good for getting optimal ultras when skipping the ultra pause, but it causes some complications if you are pausing for the ultra. This is because of the buffer window in combination with dash cooldown. Normally, when you are unpausing, you can buffer an input in a 5 frame window (6 frames if that input is another pause), and that input will happen on the first possible frame after the unpause. However, because you pause while you are in dash cooldown frames, the dash doesn't happen until dash cooldown frames expire 1-3 frames later. This can happen up to 2 frames after the jump for demohyper setup or up to 3 frames after the jump for climb setup. This means if you pressed the dash too early in the buffer window and dash cooldown ends more than 5 frames after you pressed dash, then the dash will not happen (even if the jump is successful). Usually, using separate buttons for dash and jump means you can press jump slightly before dash and it's much more likely that both actions will go off correctly. Some people still prefer to use the dash + jump button, just make sure to aim for late in the buffer window or consider not pausing for the ultra.
- Nero's and Chai's videos release down at the end of the bunnyhop and switch to just holding forward. It's okay to hold down-right the whole way for all frame sets.

Timing: Timing the room is very important to get consistent good times. It's possible to get sub 7 for the room with very aggressive pausing or a bit easier with the pause skip. Low 7 can be done consistently with some practice. Realistically the strat can save 3-4s and the times are inherently inconsistent because it depends how many pauses you need. Times provided by Fell:

Unbuffered	Pause buffered (demohyper)	Block ultra (and more typical timesave)
4.981 -2.601 PB 4.981	6.460 -0.051 PB 6.460	11.237 +3.655 PB 7.582