

# WAVERIDER OPERATIONAL INSTRUCTIONS (v4)

WaveRider is a unique and powerful AAX plugin, and it is the first of its kind.

We highly recommend that you read through this document to find out how to get the best out of WaveRider v4.

Setting up Pro Tools®:

WaveRider is a virtual fader controller, therefore it requires this simple Pro Tools configuration step:

Go to : *Setup* ---> *Peripherals* ----> and click on the *Midi Controllers* tab.

(If you don't currently have a MIDI controller configured, the choices will be empty.)

From the drop-down menu choose *HUI* as type.

## MIDI PORTS SETUP

### ON MAC:

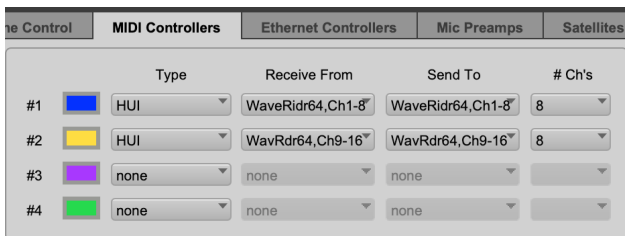
Under **Receive From** and **Send to**,  
choose --> *Pre defined*--> *WaveRider 64 Ch1-8*

### ON WINDOWS:

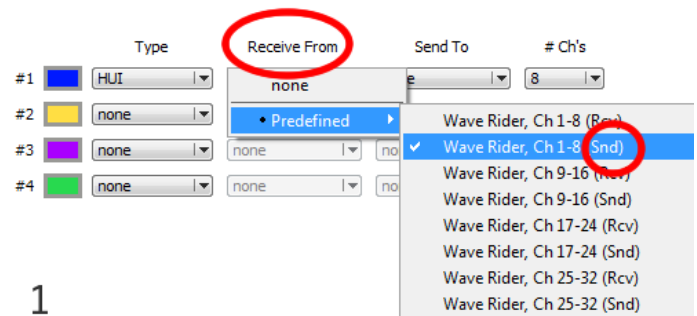
Under **Receive From**,  
choose --> *Predefined*--> *Wave Rider Ch 1-8 (Snd)*  
Under **Send To**,  
choose --> *Predefined*--> *Wave Rider Ch 1-8 (Rcv)*

If you want to control more than 8 channels select another bank of 8 for both Receive and Send To, and so forth. On systems with Eucon enabled controllers, and systems without any controllers you could simply select all 4 banks. You are limited to 8 tracks if you have Icon, Pro Control, C24, or 002/003 series controllers. See "Co-existing with other controllers" section.

## PERIPHERALS SETUP ON MAC



## PERIPHERALS SETUP ON WINDOWS



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### IF YOU DON'T SEE WAVERIDER PORTS:

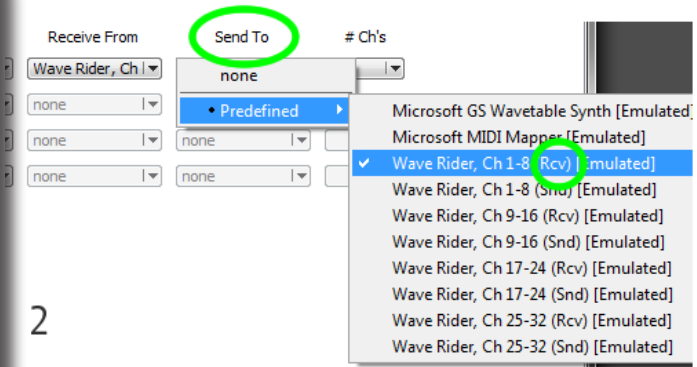
**MAKE SURE YOU RESART THE COMPUTER AFTER INSTALLATION.**



**ON WINDOWS, MAKE SURE TO RUN PRO-TOOLS AS ADMIN.**



*If you still can't see ports on Mac, go to your Mac HD/Library/Audio/MIDI Drivers And remove everything but WaveRiderDriver Log out, log back in. Then put everything back and log out/log in again.*

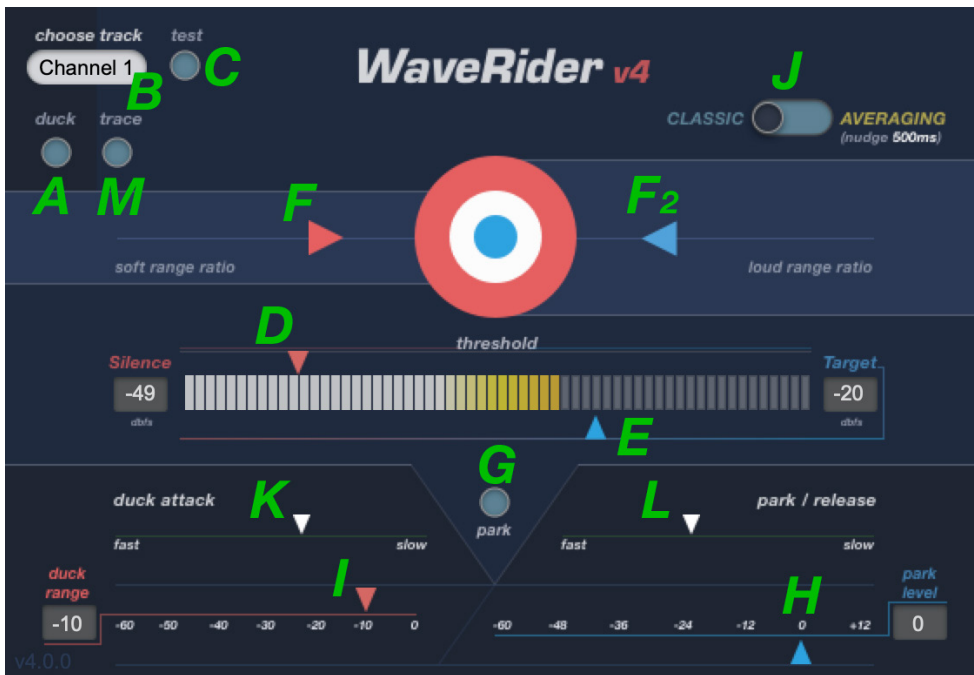


2

## FOR REALTIME ACCURACY:

RECOMMENDED PRO TOOLS PLAYBACK ENGINE: 512-1024 SAMPLES

Wave Rider is designed to perform in the LATCH automation mode!



- A : Duck mode selector
- B : Channel selector
- C : Test button
- D : Soft range threshold
- E : Target level
- F : Soft range ratio
- F2: Loud range ratio
- G : Park on silence button
- H : Park on silence level
- I : Ducking range
- J : Ride mode selector
- K : Duck attack time
- L : Duck release / park time
- M : Trace mode selector

RIDE function is the default function of WaveRider. It is designed to read the incoming level from the inserted channel and control that track's volume automation to maintain a consistent output level on that track.

(A)

----- This button toggles DUCK mode. DUCK mode is designed to attenuate the controlled track depending on the signal level of the inserted track.

(B) You have to specify which track to control. WaveRider defaults to Channel OFF. So it is crucial that you select the proper track number that you want controlled. WaveRider can control any track, it does not have to be the inserted track.

Please also read Co-existing with other controllers section below.

*To see the track numbers displayed in Pro Tools go to View, and select "Track Numbers".*

Ideally, during RIDE mode, track number should be the same as the inserted track, and during DUCK mode, the chosen track number should be different than the inserted track. In both cases different instances of WaveRider should not be set to control the same track. This will cause erratic behaviour. However, different instances on the same track can be set to control different tracks.

(C) Test button helps you identify which track WaveRider is controlling by riding it up and down momentarily.

(D)

During the RIDE mode, setting soft range does two things:

1- WaveRider considers a certain range above this silence level as "quiet" and treats it according to the "Soft range ratio"(F) slider position. Quiet levels are not boosted radically to meet 100% Target Level (E). As a result, the fader rides are more natural.

2- Signals below the "SILENCE THRESHOLD" are ignored, and fader does nothing during silence (unless park (G) is switched on). This is particularly helpful when the material has a high noise floor and you don't want to boost the noise levels in between program material.

----- If the "PARK" (G) is pressed, and if the incoming level is below "SILENCE" level then the Pro Tools fader will go to the level set by the "PARK LEVEL" slider (H) at a speed set by Park / Release (L) time.

During the DUCK mode, setting the silence level does the following:

If the inserted track's level exceeds this silence threshold (in other words, if there's detected signal), then WaveRider will bring the controlled track's fader down to the level set by "DUCKING RANGE" (I) slider at a speed set by "DUCK ATTACK" (K). If the inserted track's level remains within this silence range then WaveRider will bring the controlled track's fader to the PARK LEVEL (H) at a speed set by "PARK / RELEASE" (L)

(E) The TARGET slider does the following:

----- In the "RIDE" mode this parameter determines the target level that needs to be maintained at the output of the track (depending on TARGET RATIOS (F & F2) ). Default value is -20dbfs.

----- In the "DUCK" mode, this parameter is not functional.

(F)

During "RIDE" mode, "SOFT RANGE RATIO" slider will determine how much gain is applied to low level signals determined by setting the "SILENCE THRESHOLD" (D). Closer to the target in the middle will produce more boosting to achieve the target level.

(F2)

During "RIDE" mode, "LOUD RANGE RATIO" slider will determine how much attenuation is applied to signals above the target level determined by setting the "TARGET LEVEL" (E). Closer to the target in the middle will produce more attenuation to achieve the target level.

**TIP: THE CLOSER THE RATIO SLIDERS TO THE BLUE TARGET DOT, THE TIGHTER THE TARGET IS MET.**

(G) If "PARK" is pressed, then the fader will go to the level set by "PARK LEVEL" slider (H) during silence set by "SILENCE THRESHOLD" (D).

(H) During silence set by (D) the fader will go and park at this level.

----- In the "RIDE" mode you could set this level so that the fader attenuates. For example during -20dbfs output riding, you can set "PARK LEVEL" to -40 to achieve gating effects.

----- In the "DUCK" mode you should set this level

so that the controlled track will play at your target level during silence on the inserted track. If you are ducking a full scale music track controlled by a voiceover track that is outputting -20dbfs, you could set this level to around -10 to -15. So when the track is parked during silence it would play at acceptable levels. Experiment with it and you will find the sweet spot for your application.

(I) "DUCKING RANGE" slider determines how much attenuation will be applied to the DUCKED track.

(J) RIDE MODE SELECTOR toggles between Classic (real time) mode and the Averaging mode, which requires 500ms of volume data nudge back.

Averaging mode is designed to deliver even more smoother, and seamless gain riding, minimizing micro adjustments.

(K) DUCK ATTACK determines the speed the ducking is performed at, just like a compressor's attack time.

(L) PARK / RELEASE determines the speed the fader goes back to the PARK level during silence, either during RIDE mode when PARK is switched on, or during DUCK mode.

(M) Enable Trace. Turning this button on will put WaveRider into "Trace" mode. WaveRider will follow the RMS envelope of the signal and trace it with volume breakpoints.

This envelope trace then can be used on another track to mimic the dynamics of the original signal.

Enable this mode by choosing Trace from the Presets menu to give you a good start.



## CO-EXISTING WITH OTHER CONTROLLERS:

WaveRider utilizes Pro Tools® support for HUI, therefore it also inherits some of its limitations.

Following is the current WaveRider operability:

- Systems without any other controller chosen, WaveRider can control up to 32 tracks.
- Systems with Eucon controllers, WaveRider can control up to 32 tracks.
- WaveRider will only detect and control the firstbank of 8 tracks on a system that has a Digidesign ethernet controller configured (On Icon control surfaces, if the custom faders are loaded onto the first bank, then the second bank will be available to WaveRider.).

For instance, with a 16 fader controller configuration, if Pro Tools tracks 9 through 24 are loaded onto the banks, WaveRider will only control tracks 9 through 16 but it will still treat them as Channel 1-8. If you load different tracks onto the bank, WaveRider will start controlling these new tracks. During WaveRider operation, nudging the banks should be avoided.

-- WaveRider operation on 002, 003 series, and other HUI consoles is the opposite way to Ethernet controllers. WaveRider will not control the tracks that are loaded on the 002/003 bank, it will treat the tracks immediately after the 8 tracks that are loaded on the bank as Ch 1-8. User will be able to change the bank on the console only with the nudge button, not the bank button. Again, nudging the tracks will change the order of the tracks WaveRider is controlling, therefore should be avoided.

-- Command8 can not be chosen as a controller alongside WaveRider. It needs to be disabled during WaveRider operation.

## Suggested uses of WaveRider:

- Simply insert WaveRider to the track you want to write automation to. If the quiet parts of the track are lower than your target level by 12dBs or more, use clip gain to boost the levels before it goes to WaveRider's level sensing algorithm. (see *Defaulter plugin for automatic clip gain adjustments*: <http://www.quietart.co.nz/defaulter> )
- Ride mode can be used to maintain a dialnorm level for dialogue or voice over tracks. After your long edit session, just run WaveRider and go get some fresh air, or catch some real waves at the beach!
- Smooth out your vocal tracks without any artifacts.
- Even out that difficult bass track.
- Use Trace mode to add flavour to your signals. Apply the dynamic envelope of a signal to the heavily compressed or distorted duplicate of it, and blend them naturally.
- "Duck" mode is handy to attenuate music tracks during voice over or other dialogue. You can set up your session so that the voice over track will attenuate the music tracks as well as other dialogue sub mix tracks with different levels of attenuation, attack, and release times. You might also find ways to use the duck mode creatively during a music mix if you don't have a controller.
- For real time operation of the Averaging mode, duplicate the track you want WaveRider to reference, send its output to a dead-end bus, nudge the regions in this duplicated track back by 500ms, insert WaveRider on this duplicated track and have it control the original (un-nudged) track
- If you have a controller, WaveRider channel numbers will reference the bank you are on. Nudging tracks within the bank will change the tracks WaveRider is controlling. It's best to have break points on every track so that you don't accidentally lose your fader positions.

**PRESETS THAT ARE INSTALLED WITH  
WAVE RIDER ARE GOOD STARTING  
POINTS FOR EACH FUNCTION.  
DO USE THEM!**

*note: Presets will default to channel: off*

## Known Issues:

- WaveRider 4 will not recall some of the presets from the previous versions.
- If you are writing more than 4 tracks at the same time for a duration of 30 minutes or more (or 8 tracks for 15mins), ProTools may hang or quit unexpectedly. This is due to the amount of automation information being written. It's recommended that for long duration sessions, playback should be stopped and started every 10-15 minutes to eliminate the risk of a crash. As a workaround for unattended sessions, macro programs like Keyboard Maestro can be programmed to handle the automatic stop and start.

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