Waves GTR
Amp User Guide

Chapter 1 – Introduction

1.1 Welcome

Thank you for choosing Waves! In order to get the most out of your Waves processor, please take the time to read through this manual.

In conjunction, we also suggest that you become familiar with www.wavesupport.net. There you will find an extensive **Answer Base**, the latest **Tech Specs**, detailed **Installation** guides, new **Software Updates**, and current information on **Authorization** and **Registration**.

By signing up at www.wavesupport.net, you will receive personalized information on your registered products, reminders when updates are available, and information on your authorization status.

1.2 Product Overview

Waves Amp is a primary component of GTR, which features an exceptional selection of virtual amplifiers, cabinets, and microphones. While GTR was designed to be used with electric guitar, it's also a powerful set of tools for processing and re-amping drum or vocal tracks.

Each amp has two main sections:

- **Amp Type** – With controls for amp selection and tone adjustment.
- **Cabinet & Mic** – With controls for cabinet selection, microphone selection, and microphone position.

1.3 Components

WaveShell technology enables us to split Waves processors into smaller plug-ins, which we call **components**. Having a choice of components for a particular processor gives you the flexibility to choose the configuration best suited to your material.

Waves GTR Amp includes Mono, Mono Dual Cabinet, Mono-to-Stereo, and Stereo configurations. The Mono Dual Cab, Mono-to-Stereo, and Stereo components can each accommodate one amplifier with two cabinets. In Mono-to-Stereo and Stereo configurations, the output of each cabinet can be panned independently.

Chapter 2 – Quickstart Guide

- When you open the Waves Amp plug-in on a track insert, it's ready to go with the default Clean amp.

- Use the Drive control to crank up the gain for more intensity without changing your output volume.

- For a more distorted tone, choose an amp with more Drive from the Amp Type menu. Amps are sorted in an escalating gain order.

- Once you've selected your amplifier, open up a post-amp PedalBoard. Reverb, Vibrolo, Delay, EQ, and Compression all work well as post-amp effects.

- Here's an example of a possible full setup:
  Stomp 6 Mono-to-Stereo PedalBoard with its default preset, followed by a Stereo Amp, followed by a Stomp 2 Stereo PedalBoard with Vibrolo and Spring Reverb Stomps.

Chapter 3 – Controls and Interface

3.1 Amp Types

Select the amp model using the Amp Types menu. Amps are sorted into groups by application or drive rating. Each group has a unique skin.

CLEAN amps are displayed with a golden panel and tweed skin.

- **Direct** Full-frequency, transparent tone
- **Clean** Based on a 1959 tweed Fender® Bassman®.
- **Warm** Based on a boutique amp from Paul Reed Smith's private collection.
- **Punchy** Based on a 100W Marshall® head
- **Sweet** Based on a 1968 Gibson® Skylark

DRIVE amps are displayed with a blue panel and gold threaded cloth skin.

- **Cream** Based on a 1966 Ampeg® Gemini II
- **Edgy** Based on a 1980 Vox® AC-30 TB-2
- **Drive** Based on a 1964 blackface Fender® Super Reverb®
- **Overdrive** Based on a 1980 Marshall® JMP
- **Scream** Based on a custom amp from Paul Reed Smith's private collection

HIGH GAIN amps are displayed with a red wine panel and treadmill skin.

- **Crunch** Based on a custom Garcia™ from Paul Reed Smith's personal collection
- **Crush** Based on a modified Marshall® MK2 50W stack head
- **Scorch** Based on a boutique amp from Paul Reed Smith's private collection
- **Inferno** A virtual model with super-high distortion and extremely fast cleanup
- **Monster** Based on a Marshall® 100W head
- **Hot** Based on a Koch® Combo
- **Modern** Based on a Mesa® Dual Rectifier® Solo head
- **Shredder** Based on a Marshall® JMP1 preamp
- **Supernatural** Based on a boutique amp from Paul Reed Smith's private collection

BASS amps are displayed with a silver panel and grill skin.

- **Directube** Based on a Countryman® DI into a V72 preamp
- **Activator** Based on a Sadowsky® preamp
- **SolidState** Based on a Hartke® 3500
- **Mo'Town** Based on a fliptop Ampeg® B15-N tube amplifier
- **SuperTube** Based on the Ampeg® SVT
- **Thunder** Based on a David Eden® World Tour 800
- **OverBass** Based on a Mesa/Boogie® 400+

3.2 Amp Controls

All Amps feature Drive, Bass, Mid, Treble, and Presence controls, whose response curves are tailored to complement the specific amp type.

DRIVE controls the drive level range of +12dB to -12dBfs, with a default of 0dB.
Range: 0 to 10
Default: 5

BASS controls low frequency equalization cut/boost.
Range: -5 to +5
Default: 0

MID controls midrange frequency equalization cut/boost.
Range: -5 to +5
Default: 0

TREBLE controls high frequency equalization cut/boost.
Range: -5 to +5
Default: 0

PRESENCE controls high frequency equalization cut/boost.
Range: -5 to +5
Default: 0

DIRECT when Bass Amp types are selected the Presence control is replaced by the Direct control, which controls the amount of direct mixed with the processed signal.
Range: 0 to 10
Default: 0

AMP controls Amp activation/bypass. When set to Bypass, input is routed directly to the cabinet and mic.
Range: On/Bypass
Default: On

TYPE controls Amp selection.
Range: Direct to OverBass
Default: Clean

3.3 Cabinets and Microphones

Cabinets and microphones are selected by using the appropriate menu selector. Toggle through them by clicking on the text bar, or click on the arrow to the right of the text bar to display a drop-down list.

Each cabinet offers a choice of 6 microphones, which may be positioned either on or off axis.

Please note: "No Cabinet" uses neither a cabinet nor microphone, and is the default choice for the Direct Amp.

CABINETS

Select from 22 speaker cabinets.

- **4 x 12" Standard** Based on a Marshall® 1960a
- **4 x 12" Vintage** Based on Marshall® 1960ax with Celestion® G12 Greenbacks
- **4 x 12" Britt** Based on an Orange® PPC412 with Celestion® Vintage30s
- **4 x 12" Inferno** Based on a virtual cabinet
- **2 x 12" ClosedBack** Based on a Marshall® 1936 cabinet with Celestion® G12 Greenbacks

- **2 x 12” OpenBack** Based on a Vox® AC-30 Celestion® Alnico Blue
- **4 x 10” OpenBack** Based on a Fender® Super Reverb® Blackface 1968 with CTS alnico magnet speakers
- **12” OpenBack** Based on a Mesa/Boogie® Mark IV with an Electro-Voice® speaker
- **15” ClosedBack** Based on a 1960’s Fender® Showman cabinet
- **Acme 12” Custom** Based on a custom cabinet by Ted Jensen of Sterling Sound
- **Acme 2 x 10” Cabinet** Based on a 1962 Vox® cabinet
- **Acme 8” OpenBack** Based on a 1968 Gibson® Skylark
- **Acme 4 x 12” Cab** Based on a 1970’s Hiwatt® cabinet
- **Acme 12” OpenBack** Based on a mid ‘60s Ampeg Gemini cabinet
- **Acme 2 x 10” OpenBack** Based on a 1965 Fender® Vibrolux® Reverb Blackface cabinet
- **Acme Case Speaker** Based on a late ‘60s Silvertone® case with built-in speaker

BASS CABINETS

- **Bass 8 x 10” Pro** Based on an Ampeg® SVT810AV
- **Bass 6 x 10”** Based on an Ampeg® SVT610HL
- **Bass 15”** Based on a late ‘60s Fender® Bassman®
- **Bass 15” Fliptop** Based on an Ampeg® B15N
- **Bass E15 15” + (4 x 10”)** Based on David Eden® cabinets
- **Bass M1516** 10” + 15” + (2 x 6”) Based on a Mesa/Boogie® 1516

MICROPHONES

Select from different microphones, recorded in different positions.

- **Dyn 409** Based on a Sennheiser® Echolette 409 (dynamic)
- **Dyn 421** Based on a Sennheiser® MD-421 II (dynamic)
- **Dyn 57** Based on a Shure® SM57 (dynamic)
- **Ribb 84** Based on a AEA® R84 (ribbon)
- **Ribb 44** Based on a RCA® 44 (ribbon)
- **Dyn RE20** Based on a Electro-Voice® RE20 (dynamic)
- **Cond VM1** Based on a Brauner VM1® (condenser)

Bass Mics

- **Coil 88** Based on a Beyer® M88 (dynamic moving coil)
- **Dyn** Based on a RE20 Electro Voice® RE20 (dynamic)
- **Dyn 57** Based on a Shure® SM57 (dynamic)
- **Cond 87** Based on a Neumann® U87 (condenser)
- **Cond GR** Based on a Manley® Gold Reference (condenser)

- **Ribb 122** Based on a Royer® 122 (ribbon)

3.4 Cabinet and Microphone Controls

VOL controls Cab/Mic volume.
Range: 0 to 10
Default: 5

PHASE controls Cab/Mic polarity (DualCabinet only).
Range: Up/Down (Up = natural phase, Down = inverted phase)
Default: Up

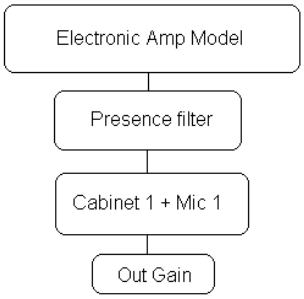
PAN controls cabinet positions within the stereo field. (Mono-to-Stereo and Stereo amps only).
Range: -100 to +100
Default: 0

DELAY controls the amount of delay applied to the cabinet's output.
Range: 0 – 100
Default: 0

MASTER VOLUME controls overall output gain. Output meter includes red light clip indicator.
Range: 0 to 10
Default: 5

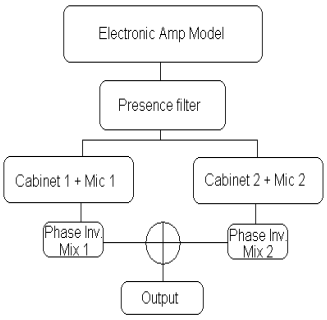
3.5 Amp Components

Mono Amp



The Mono Amp is the least CPU-intensive of the Amp components. It inputs and outputs a Mono signal, running the output through a single Amp module and then into a single cabinet/microphone filter.

Mono DualCab



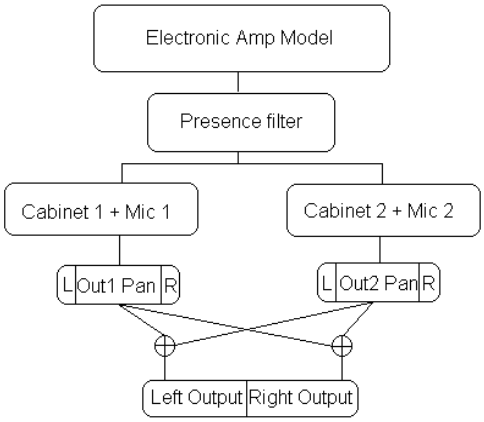
The Mono DualCab amp is similar to the Mono amp in that it inputs and outputs a Mono signal. The DualCab configuration lets you play the Amp's sound through two separate cabinets. This allows for combinations such as loading the same cabinet with different microphones or using two different cabinets with the same mic.

The outputs of the two sources are then mixed together to a single output. Each cabinet has a phase switch and a volume control.

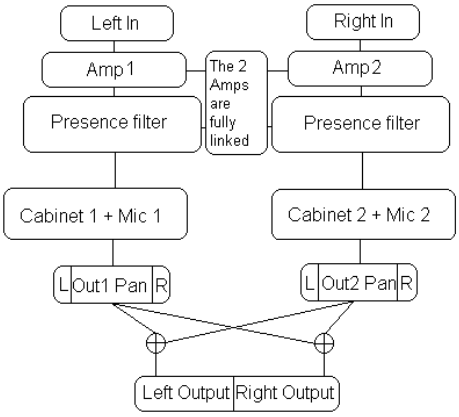
Please note: Selecting the same cabinet and microphone for both cabinets will result in a normal Mono single cabinet sound. In this case, inverting the phase of one of the two cabinets will result in a silent output.

Mono-to-Stereo and Stereo

Mono-to-Stereo



Stereo



The Mono-to-Stereo and Stereo Amps share the same controls and graphic user interface, but their input and processing specifications are different.

Mono-to-Stereo is very similar to the Mono DualCab component, but outputs a Stereo signal. Rather than adding each cabinet's output to a single path you can pan them to create a Stereo image from the Mono input.

The Stereo Amp component is actually a dual-Mono configuration which takes a Stereo input and outputs Stereo. The Left input goes through the Amp type to cabinet 1 and the Right input goes to cabinet 2. The Pan control can be used to limit the Stereo image width, collapse the Stereo input to a Mono output, or swap the channel outputs by hard panning them in opposite directions.

Chapter 4 – The WaveSystem

4.1 The WaveSystem Toolbar

All Waves processors feature the WaveSystem toolbar which takes care of most administrative functions you will encounter while working with your Waves software. The features of the WaveSystem toolbar are the same on practically all Waves processors, so familiarity with its features will be helpful whichever processor you are using.

TOOLBAR FUNCTIONS

Undo	Undoes the last 32 actions. GTR supports multiple undo levels.
Redo	Redoes the last 32 undone actions.
Setup A/B	Toggles between two presets. This is useful for close comparison of different parameter settings
Copy A->B	Copies the current settings to the second preset register
Load	Recalls presets from file
Save	Saves presets in the Waves file formats
?	Opens the manual for the processor you are using

4.2 Preset Handling

PRESET TYPES

Factory Presets are permanent presets in the Load menu. Factory presets cannot be over-written or deleted. When applicable, different component plug-ins may have different factory presets.

User Presets are your favorite settings of the plug-in saved as a preset in the Load menu, under ‘User Presets’. User Presets can be over-written and deleted.

Setup Files may contain more than one preset. For example, a single file can contain all the presets for a session. When you open a Setup File, all its setups become part of your Load pop-up menu for fast access. This can be particularly useful with multiple instances of a plug-in in a single session. By saving all the settings you create into a single Setup File, they can all be quickly available for every instance of that plug-in.

LOADING PRESETS AND SETUPS

Click-and-hold on the Load button to see the Load pop-up menu. The menu is divided into four sections. If a section is not currently available it will not appear in the Load pop-up menu.

Open Preset File…	Select to open any setup or preset file, whether from the Library or your own creations.
'Filename.xps':	Displays any currently loaded Setup File and its presets.
Factory Presets:	Displays the default Factory Presets.
User Presets:	Displays any loaded User Presets.

SAVING PRESETS AND SETUPS

Click-and-hold on the Save button to see the Save pop-up menu. Four options are available. If an option is not currently available it will be grayed out and inaccessible.

Save to New File…	Select this to start a new Setup file. There are two prompts - first for the setup filename, then for the preset name. You must provide a name for both the setup file and the preset. Click OK (ENTER) to complete the save. It is a good idea to create a folder in which to save several setup files for a project.
Save 'File Name' – "Preset Name"	Overwrites the settings of the loaded preset (whether a User Preset or a preset from a Setup File) with the current settings. If a Setup File is currently loaded, the name of the Setup File is displayed followed by the name of the preset itself. If a User Preset is loaded, its name is displayed.
Save to 'File Name' As…	Saves the current settings as a new preset into the Setup file that is open (if one is not open, the option is grayed out). You will be prompted to give the preset a name.
Put into Preset Menu As…	Save the current settings into a User Preset that will always be in your Load menu (until deleted). You will be prompted to give this

preset a name. User Presets are stored in the plug-in's preference file.

DELETING PRESETS

You may delete User Presets and presets within a Setup File. Factory Presets and Setup Library files cannot be deleted or overwritten.

1. Hold the Command (Mac)/Control (PC) key down.
2. Click-and-hold the Load button to see the pop-up menu.
3. While still holding the Command/Control key, select the preset or setup to delete.
4. A confirmation box will appear, allowing you to cancel or 'OK' the deletion.

A/B COMPARISON AND COPYING

The Setup A/Setup B button may be clicked to compare two settings. If you load a preset in the Setup B position, this will not affect the preset loaded into the Setup A position, and vice-versa.

If you want to slightly modify the settings in Setup A, you can copy them to Setup B by clicking on the Copy to B button, then alter Setup A and compare with the original Setup B.

The name of the current setup will be shown in the title bar (on platforms which support it), and will switch as you change from Setup A to Setup B.

Note: an asterisk will be added to the preset name when a change is made to the preset.

4.3 Interface Controls

Controls can be in one of three states:

- **Not Selected** where the control is not the target of any user entry
- **Selected** where the control is the target of mouse control entry only
- **Selected and Active** where the control is the target for both mouse and keyboard entry

TOGGLE BUTTONS

Toggle buttons display the state of a control, and allow switching between two or more states. **Single-click** to change the control's state. Some toggle buttons have

a text display which updates with the current setting, and others (bypass, solo, or monitoring toggles) illuminate when the control is active.

Some processors have **link buttons** between a pair of toggle buttons, allowing click-and-drag adjustment while retaining the offset between the controls.

VALUE WINDOW BUTTONS

Value windows display the value of a control and allow **click-and-drag** adjustment, or **direct control via the keyboard**.

- **Using the mouse**, click-and-drag on the value window to adjust. Some value windows support left/right, some up/down (as you hover over a button, arrows will appear to let you know which direction of movement that button supports).
- **Using the arrow keys**, click once with mouse to select the button, and then use up/down – left/right (depending on the direction supported by that button) to move in the smallest incremental steps across the button's range (holding down the arrow keys will move faster through the range).
- **Using key entry**, double click on the button to open the value window, and directly enter the value from your keyboard. If you enter an out of range number, the button stays selected but remains at the current setting.

Some processors have **link buttons** between a pair of value windows, allowing click-and-drag adjustment while retaining the offset between the controls.

SLIDERS

Click on the slider itself or anywhere within the sliders track. The numerical value of the slider settings is displayed in a hover window above the slider path.

HOVER BOX

Hovering boxes will appear and display the control value when hovering with the mouse over the control.

MULTIPLE SELECTION OF CONTROLS

One of the most powerful features of the WaveSystem is the ability to select and adjust many controls at the same time. Using the mouse, simply drag-select the desired group of button or graphic controls by clicking and holding at a point outside the controls and forming a rectangle to include the controls you wish to adjust. Alternatively, you can hold down Shift while clicking the mouse on any control you wish to link. This second method is useful when you want to select two (or more) controls that are separated on the GUI by other controls you do not wish to select.

TAB FUNCTIONS

TAB moves the ‘selected’ status to the next control, with shift-TAB moving in the reverse direction.

Additionally, the Mac has an option-TAB function for ‘down’ movement and shift-option-TAB for ‘up’ movement where applicable.

If you have several Value Window Buttons selected, TAB functions will take you through the selected controls only.

Appendix

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