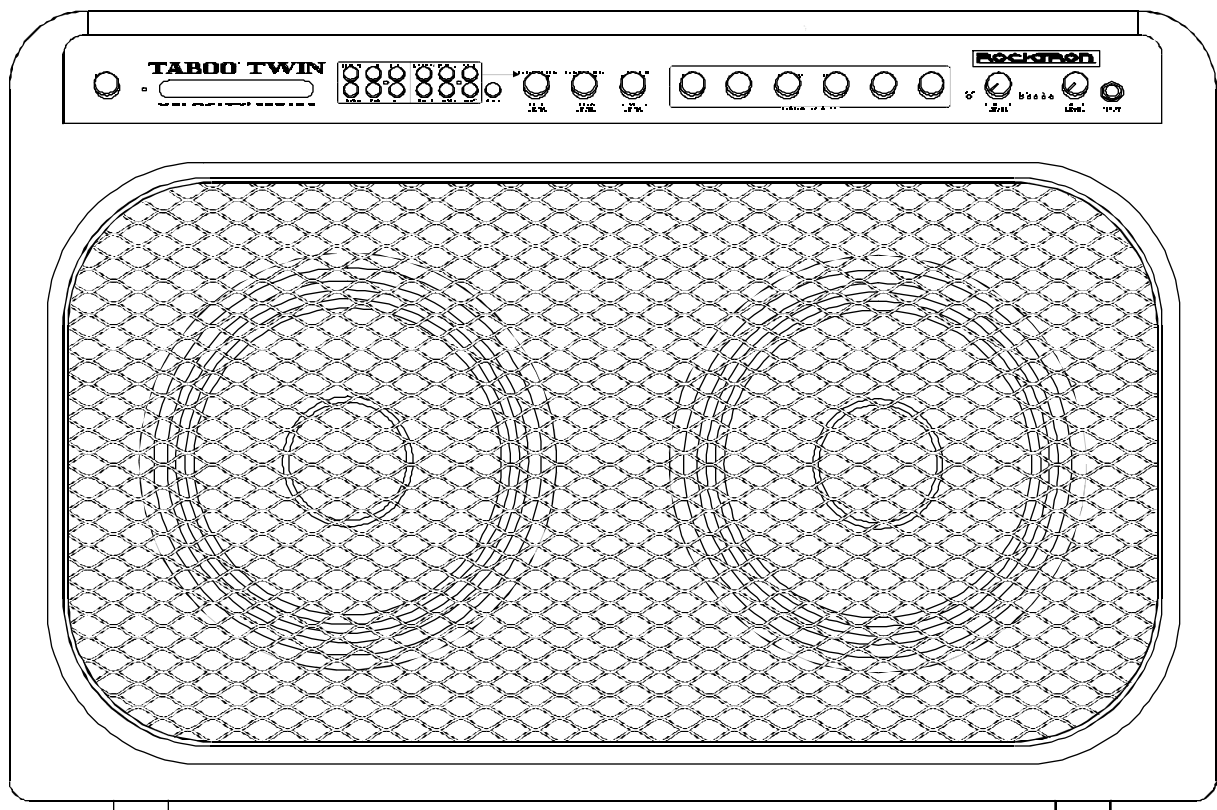


TABOO™ TWIN

TUBE-DRIVEN PROGRAMMABLE 24-BIT DSP GUITAR AMPLIFIER

User's Manual



ROCKTRON
C O R P O R A T I O N

May be covered by one or more of the following: U.S. Patents #4538297, 4647876, 4696044, 4745309, 4881047, 4893099, 5124657, 5263091, 5268527, 5319713, 5333201, 5402498, 5493617 and 5638452. Other patents pending. Foreign patents pending.

PRECAUTIONS

Note: IT IS VERY IMPORTANT THAT YOU READ THIS SECTION TO PROVIDE YEARS OF TROUBLE FREE USE. THIS UNIT REQUIRES CAREFUL HANDLING.

- All warnings on this equipment and in the operating instructions should be adhered to and all operating instructions should be followed.
- Do not use this equipment near water. Care should be taken so that objects do not fall and liquids are not spilled into the unit through any openings.
- The power cord should be unplugged from the outlet when left unused for a long period of time.

DO NOT ATTEMPT TO SERVICE THIS EQUIPMENT. THIS EQUIPMENT SHOULD BE SERVICED BY QUALIFIED PERSONNEL ONLY. DO NOT MAKE ANY INTERNAL ADJUSTMENTS OR ADDITIONS TO THIS EQUIPMENT AT ANY TIME. DO NOT TAMPER WITH INTERNAL ELECTRONIC COMPONENTS AT ANY TIME. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY VOID THE WARRANTY OF THIS EQUIPMENT, AS WELL AS CAUSING SHOCK HAZARD.

OPERATING TEMPERATURE

Do not expose this unit to excessive heat. This unit is designed to operate between 32° F and 104° F (0° C and 40° C). This unit may not function properly under extreme temperatures.



Your Taboo™ Twin has been tested and complies with the following Standards and Directives as set forth by the European Union:

Council Directive(s): 89/336/EEC Electromagnetic Compatibility

Standard(s): EN55013, EN50082-1

This means that this product has been designed to meet stringent guidelines on how much RF energy it can emit, and that it should be immune from other sources of interference when properly used. Improper use of this equipment could result in increased RF emissions, which may or may not interfere with other electronic products.

To insure against this possibility, always use good shielded cables for all audio input and output connections. Also, bundle audio cables separately from the AC power cables. These steps will help insure compliance with the Directive(s).

For more information about other Rocktron products, please see your local dealer or one of our importers closest to you (listed on the enclosed warranty sheet).

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1. Introduction

Congratulations on your purchase of the Rocktron *Taboo™ Twin*!

The Taboo Twin is a 24-bit DSP professional tube guitar amplifier providing 12 unparallelized effect algorithms and superb sound quality never before heard from a digital tube guitar amp. Complete programmability and full MIDI implementation are coupled with a user friendly operating format to ensure that designing unique and useful preset sounds is as simple as possible.

In addition, the Taboo Twin also features:

- **High-quality Digital Effects**, including:

- *Reverb*
 - *Phasing*
 - *Tremolo*
 - *Flanging*
 - *Pitch Shifting*
 - *Compression*
 - *Chorus*
 - *Delay*

- **Full parametric Pre and Post EQ** gives the user complete EQ control over each preset.

- **HUSH® Noise Reduction** reduces noise while playing and provides complete silence when not.

- **"Variac" Simulation**, like a conventional Variac, adjusts the level at which the preamp begins to distort. This provides more gain in high-gain applications, and allows for full-bodied cleaner presets which just begin to distort when the strings are attacked harder.

- **Internal Wah-Wah** allows the player to use an expression pedal for Wah-Wah effects instead of running long audio cables out to a conventional Wah-Wah pedal.

- **XLR Outputs** for direct mixer input.

- **Advanced Speaker Simulation** on the XLR outputs provides a realistic approximation of a miked speaker cabinet at line-level for direct mixer input or headphone listening.

This manual will detail the various features and functions of the Taboo Twin. After reading it, please keep it for future reference.

OPERATING PRECAUTIONS

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All warnings on this equipment and in the operating instructions should be adhered to and all operating instructions should be followed.

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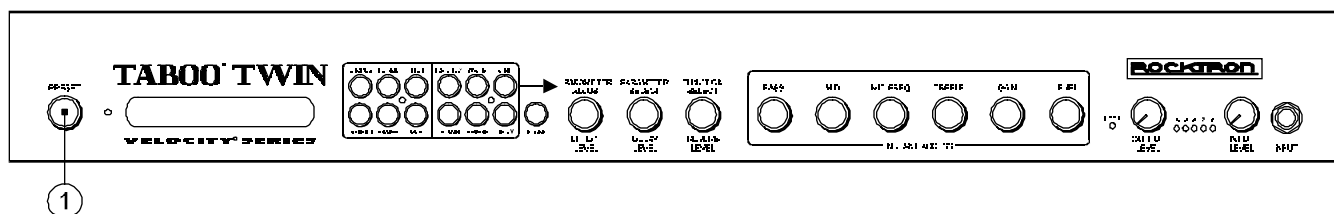
DO NOT ATTEMPT TO SERVICE THIS EQUIPMENT. THIS EQUIPMENT SHOULD BE SERVICED BY QUALIFIED PERSONNEL ONLY. DO NOT MAKE ANY INTERNAL ADJUSTMENTS OR ADDITIONS TO THIS EQUIPMENT AT ANY TIME. DO NOT TAMPER WITH INTERNAL ELECTRONIC COMPONENTS AT ANY TIME. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY VOID THE WARRANTY OF THIS EQUIPMENT, AS WELL AS CAUSING SHOCK HAZARD.

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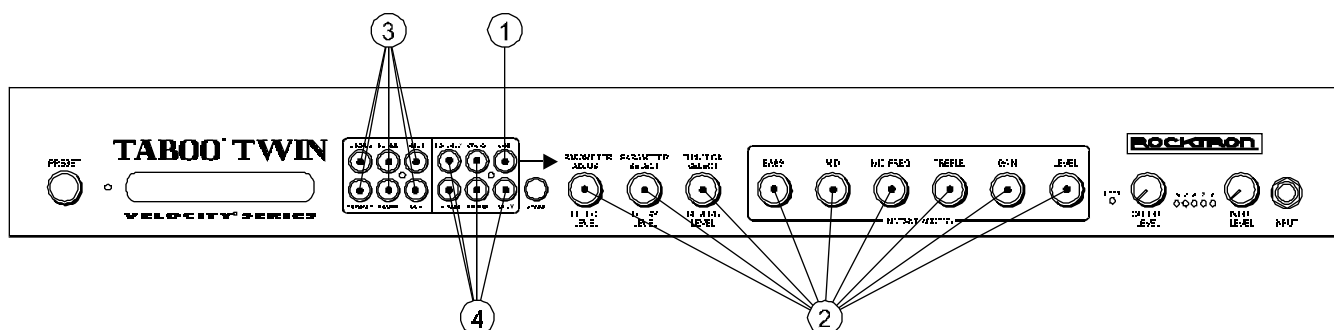
2. Quick Setup

SELECTING A PRESET



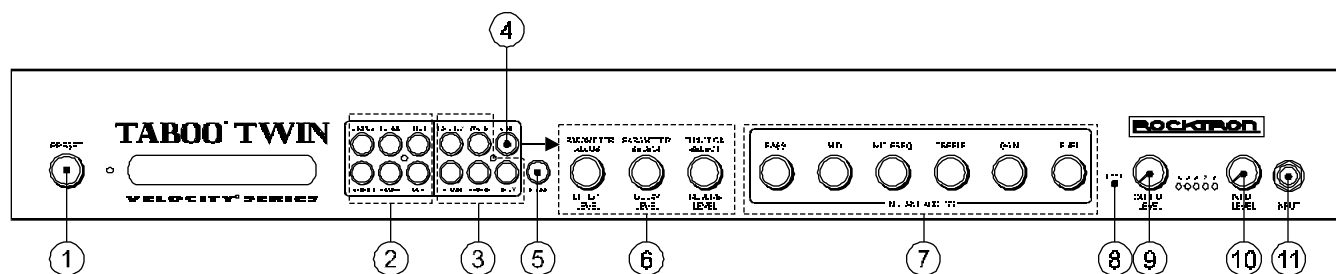
- 1 Turn the PRESET control to the desired preset. It will be recalled automatically.

QUICKLY CHANGING PRESET SOUNDS



- 1 Make sure the Menu button is *not* lit. (This allows for Taboo Twin parameters to be edited in Instant Access mode.)
- 2 Use the controls in the Instant Access control group, as well as those labeled EFFECT LEVEL, DELAY LEVEL and REVERB LEVEL to quickly edit preset sounds.
- 3 Any one of these effects may be selected at any time.
- 4 Any combination of these effects may be selected at any time.

3. Front Panel

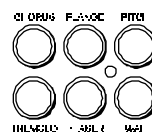


1 PRESET control



This control is used to scroll through the successive Taboo Twin presets. Each preset is automatically recalled when displayed.

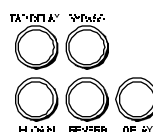
2 Effects group (one selection only)



This group of buttons provides in/out switching to six of the Taboo Twin's effects (Chorus, Flange, Pitch, Tremolo, Phaser and Wah).

Note that this group of effects is mutually-exclusive, meaning that only one of the effects in this group can be switched in at any given time. Switching in one of these effects when another in the group is already active will automatically switch out the effect that was previously selected.

3 Effects group (multiple selections allowed)



This group of buttons provides in/out switching to the remaining Taboo Twin effects (Tap Delay, High Gain, Reverb, Delay, Bypass).

Note that any of the functions within this group can be switched in or out of the signal path independent of the others (i.e., multiple selections can be made).

4 MENU button



The MENU button determines the current editing mode of the Taboo Twin. The Taboo Twin provides two modes for editing preset sounds — *Menu* mode and *Instant Access* mode.

Menu mode

Menu mode allows access to all of the functions and parameters that the Taboo Twin provides. Since this mode allows access to more parameters than Instant Access mode, it provides more control over the overall sound of a preset.

When this switch is lit, Menu mode is active and all functions and parameters can be edited via the FUNCTION SELECT, PARAMETER SELECT and PARAMETER ADJUST controls. See Section 6, *General Operating Format*, and Section 7, *Operating the Taboo Twin*, for detailed descriptions of these controls. Note that all controls included in the front panel *Instant Access* group are still enabled when Menu mode is active.

Instant Access mode

When the MENU switch is not lit, Instant Access mode is the active editing mode. In this mode, the controls located in the front panel *Instant Access* group provide immediate access to the most significant level parameters of the current preset — thus allowing the user to avoid scrolling through numerous menus and parameters to edit a desired level. These controls include BASS, MID, MID-FREQ, TREBLE, GAIN and LEVEL.

In addition, the FUNCTION SELECT, PARAMETER SELECT and PARAMETER ADJUST controls provide secondary functions in this mode to provide direct access to additional level parameters. These are REVERB LEVEL, DELAY LEVEL, and EFFECT LEVEL, respectively.



The EFFECT LEVEL control provides instant access to the level parameter of the effect selected in the mutually-exclusive group of six effects (see item 2).

5 STORE button

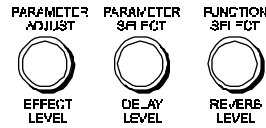


The STORE button is used to save any changes made to a preset into the Taboo Twin memory. (Changing and saving presets is discussed further in Section 7, *"Operating the Taboo Twin"*.)

6 Dual function controls



When a parameter value has been altered from its original value, the STORE button will light to indicate that the preset has changed. The STORE button will then stay lit until either the altered preset is stored, a new preset is selected, or all parameters for the current preset are returned to their original values.



The function of each of these controls is dependent upon the current status of the MENU button. The upper label denotes the function of the control when Menu mode is active, while the lower label denotes the function of the control in Instant Access mode.

PARAMETER ADJUST / EFFECT LEVEL control

When Menu mode is active (i.e., the MENU button is lit), this control is used to adjust a displayed parameter value.

When the active edit mode is Instant Access (i.e., the MENU button is not lit), this control is used to determine the level of the chorus, phaser, tremolo, wah, flange or pitch effect (whichever is currently active).

PARAMETER SELECT / DELAY LEVEL control

When the MENU button is lit, this control is used to scroll through the available parameters under the current function heading.

When in the *Title Edit* function, this control is used to scroll through the available character locations to be edited.

When the MENU button is not lit, this control is used to determine the overall delay level for the current preset. Turning this control will automatically display the Delay Level parameter.

FUNCTION SELECT / REVERB LEVEL control

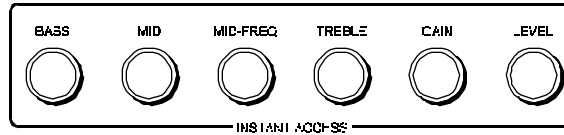
In Menu mode, this control is used to access each of the primary functions of the Taboo Twin. These functions include:

Global Mixer	Pre EQ	Phaser	Delay	Footswitch
High Gain	Post EQ	Flanger	Reverb	Program Changes
Low Gain	Compressor	Tremolo	MIDI Channels	Controller Assign
Wah-Wah	Pitch Shift	Title Edit	MIDI Dump/Load	HUSH
	Chorus	Factory Restore		

Once a function has been selected, the parameters for the function are accessible via the PARAMETER SELECT control.

When the MENU button is not lit, this control is used to determine the overall reverb level for the current preset. Turning this control will automatically display the Reverb Level parameter.

7 Instant Access control group



When the Taboo Twin is in Instant Access mode (i.e. MENU button not lit), these controls provide instant access to selected post-distortion parameters of the current preset. These include:

Bass Level Mid Level Mid-Freq Treble Level Gain Level Level Level

When the MENU button is lit, these controls are still enabled.

8 LOOP L.E.D.



When lit, indicates that the effects loop is currently active.

9 OUTPUT LEVEL control



This control is used to adjust the master output level of the unit.

10 INPUT LEVEL control and meter



The Input Level control adjusts the Taboo Twin's gain to match the signal level applied to the input of the unit. This gain can be adjusted from -12dB to +12dB.

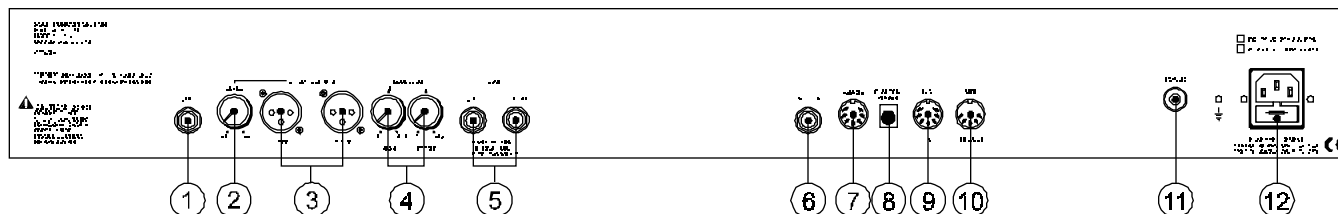
The Input Level meter provides visual indication of the peak level of the input signal. For the optimal signal-to-noise ratio, it is best to adjust the input level so that the last LED (0dB) is rarely lit. This will guard against the possibility of overdriving the unit.

10 INPUT jack



This standard unbalanced 1/4" jack provides input to the Taboo Twin.

4. Rear Panel



The signal fed to the rear panel TUNER jack is not part of the signal path. Therefore, a dead battery or other malfunction in the tuner will not affect the sound of the amplifier.

1 TUNER jack



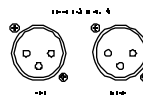
This 1/4" mono jack provides a signal tapped from the front panel input that can be fed to a guitar tuner.

2 Direct Output LEVEL control



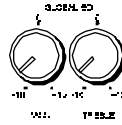
This control determines the output level of the direct signal fed through the adjacent LEFT and RIGHT Direct Outputs XLR connectors.

3 LEFT and RIGHT Direct Outputs connectors



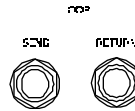
These connectors provide left and right signals that can be fed directly into a mixing console or recording device. Note that both of these outputs feature speaker simulation circuitry.

4 Global EQ BASS and TREBLE level controls



The Global EQ controls provide instant adjustment of the bass and treble frequencies of the Taboo Twin across all presets. This feature is useful when a particular venue provides acoustic characteristics which would require readjustment of the EQ parameters of all the presets. Rather than tediously changing the relevant parameters within each preset, the Global EQ controls allow for quickly increasing or decreasing the bass and treble for all presets when necessary.

5 Effects Loop SEND and RETURN jacks



*It is important to note that the effects loop **must** be used in a stereo configuration (i.e., only stereo RTS connections can be made to the rear panel SEND and RETURN jacks).*

The effects loop is provided to allow for a chain of external stereo (L/R) effects devices to be inserted in the signal path. Note that **the effects loop must be used in a stereo configuration**. This means that only stereo RTS connections can be made to the rear panel SEND and RETURN jacks. The connection of 1/4" mono plugs to these jacks will cause improper operation when the effects loop is switched in, and may damage the unit. Improper use may also void the warranty.

The 1/4" stereo RTS SEND jack provides left and right post-distortion outputs to the left and right inputs of the first device in the effects chain, while the 1/4" stereo RTS RETURN jack accepts the left and right outputs from the last device in the effects chain.

Each of the jacks are configured as follows:

Tip (T)	= Right
Ring (R)	= Left
Sleeve (S)	= GND

The effects loop can be activated or bypassed via the Loop I/O parameter.

6 TAP DELAY jack



This 1/4" mono jack allows for the connection of a momentary footswitch to control the Tap Delay feature of the Taboo Twin. The Tap Delay function allows for the current delay time to be set (or reset) by tapping the footswitch connected to the TAP DELAY jack. The new delay time will be based on the length of time between two taps.

The Tap Delay function is discussed further in Chapter 7, *Operating the Taboo Twin*.

7 REMOTE jack



This 7-pin DIN connector is provided for the connection of a Rocktron All Access® MIDI footswitch, which can be configured to act as a dedicated remote footswitch for the Taboo Twin. This feature provides access to Taboo Twin functions and parameters via the remote footswitch.

8 PHANTOM POWER jack



This 2.5mm PIN jack provides the ability to power Rocktron MIDI foot controller from a 7-pin MIDI cable which connects from the MIDI Mate to the MIDI IN jack on the rear panel of the Taboo Twin, thus eliminating the need to find an AC outlet near where the footpedal would be placed during a performance—or the need to run an extension cord out to the foot controller.

Instead of inserting the adaptor into the Rocktron foot controller's POWER jack, plug it into the PHANTOM POWER jack on the Taboo Twin. This will power the foot controller through pins 6 and 7 of the MIDI cable connecting the two units. A 7-pin MIDI cable must be used for this feature and is available through your Rocktron dealer.

9 MIDI IN jack



This 7-pin DIN connector receives MIDI information from the device which is transmitting the MIDI commands for the Taboo Twin to execute.



Inherently in MIDI there is a limit to the number of devices which can be chained together (series connected). With more than three devices, a slight distortion of the MIDI signal can occur (due to signal degradation) which can cause an error in MIDI signal transmission. Should this problem arise, a MIDI box can be used which connects directly to the MIDI device which transmits MIDI information and has multiple connectors for the multiple devices receiving MIDI. MIDI cables should not exceed 50 feet (15 meters) in length.

10 MIDI THRU/OUT jack



This standard 5-pin DIN connector passes on the MIDI information that is received at the MIDI IN jack to other MIDI-compatible devices via a MIDI cable. It also outputs MIDI data when performing a memory dump.

11 POWER switch



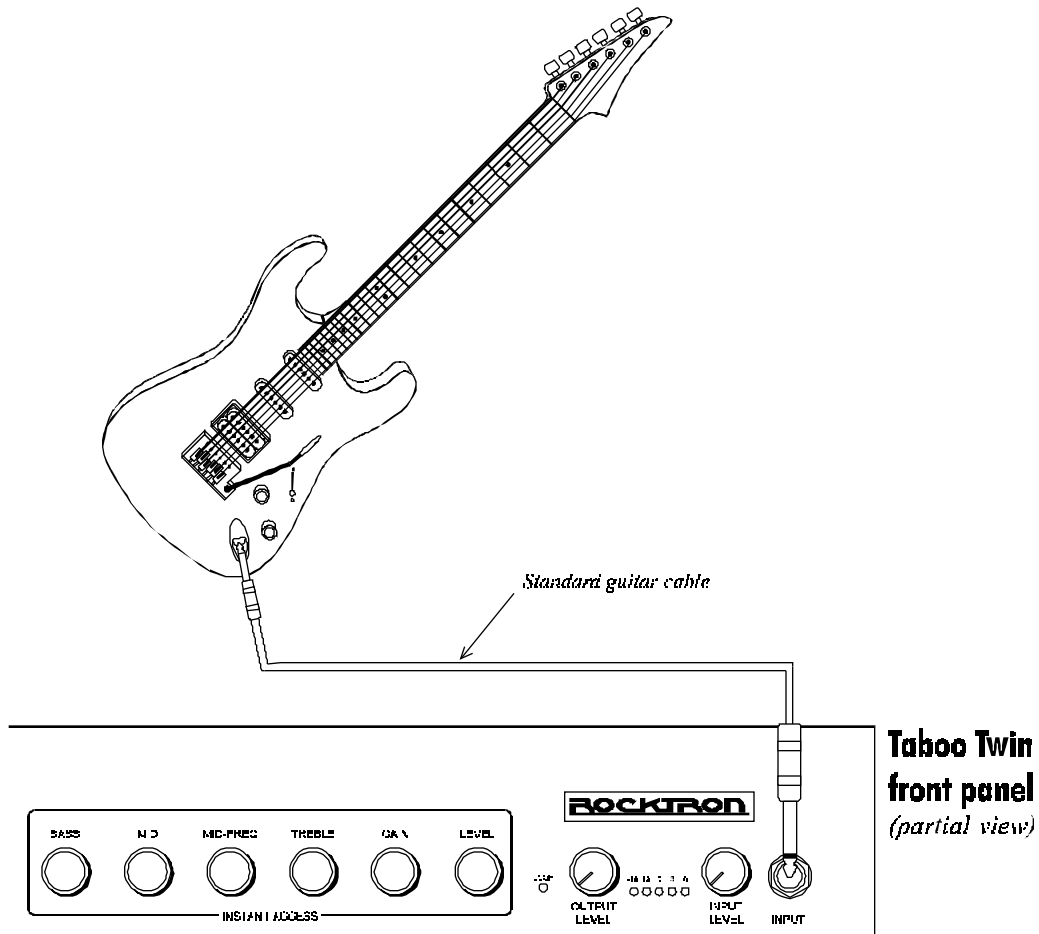
12 POWER INLET module



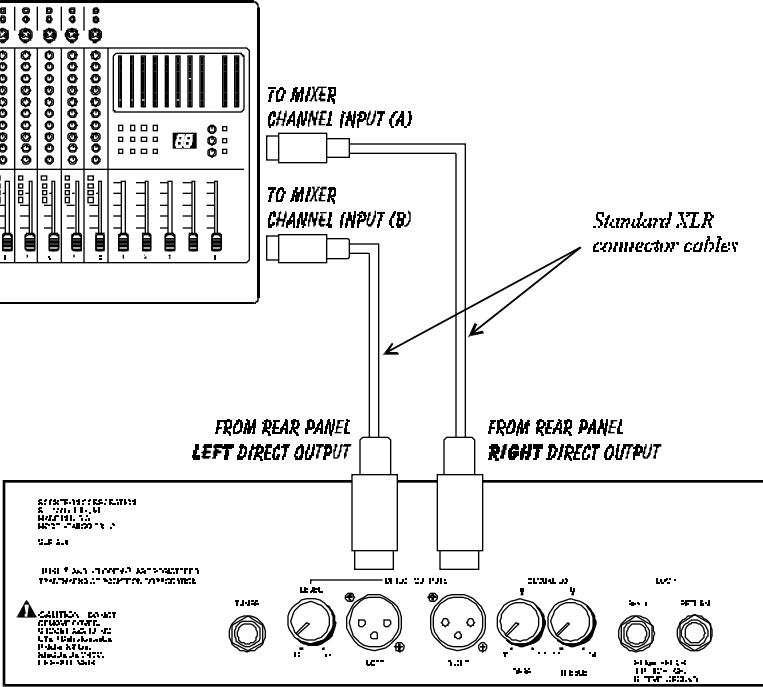
This module provides a connection for the power cord and also houses the main fuse of the unit.

5. Connections

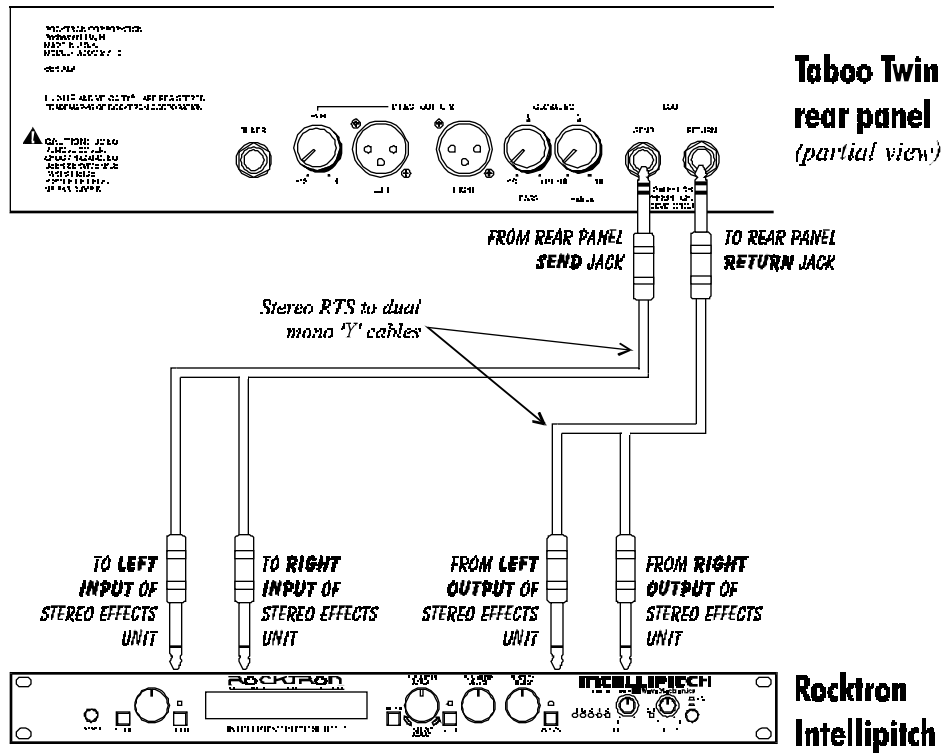
Connecting a guitar to the Taboo Twin



Using the Taboo Twin's Direct Outputs with a mixing console



Using the Effects Loop



- It is important to note that the effects loop must be used in a stereo configuration (i.e., only stereo RTS connections can be made to the rear panel **SEND** and **RETURN** jacks).

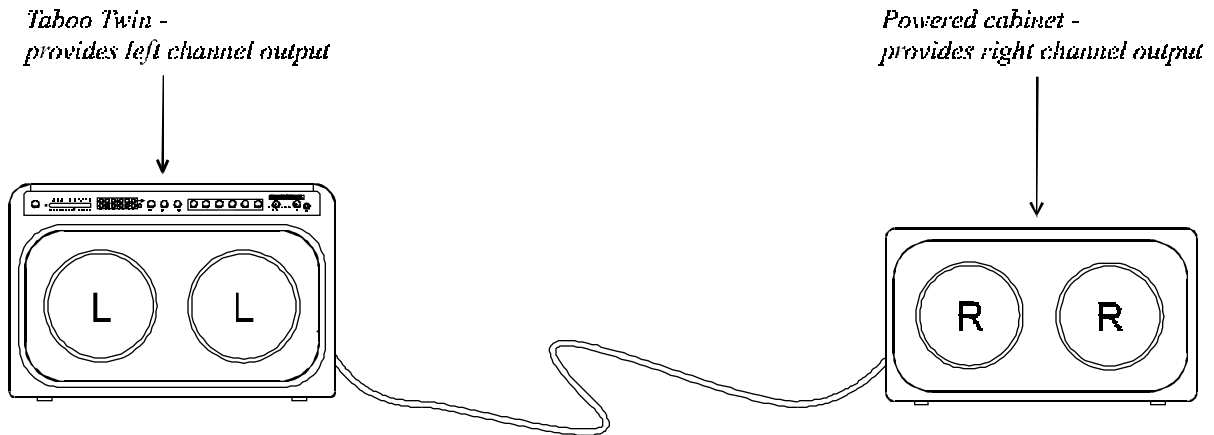
Using the Taboo Twin with a powered cabinet for wide stereo separation

The Taboo Twin can be used with a powered speaker cabinet to provide wide stereo separation. In the configuration shown below, both speakers of the Taboo Twin provide the left channel output, while both speakers of the powered cabinet provide the right channel output.



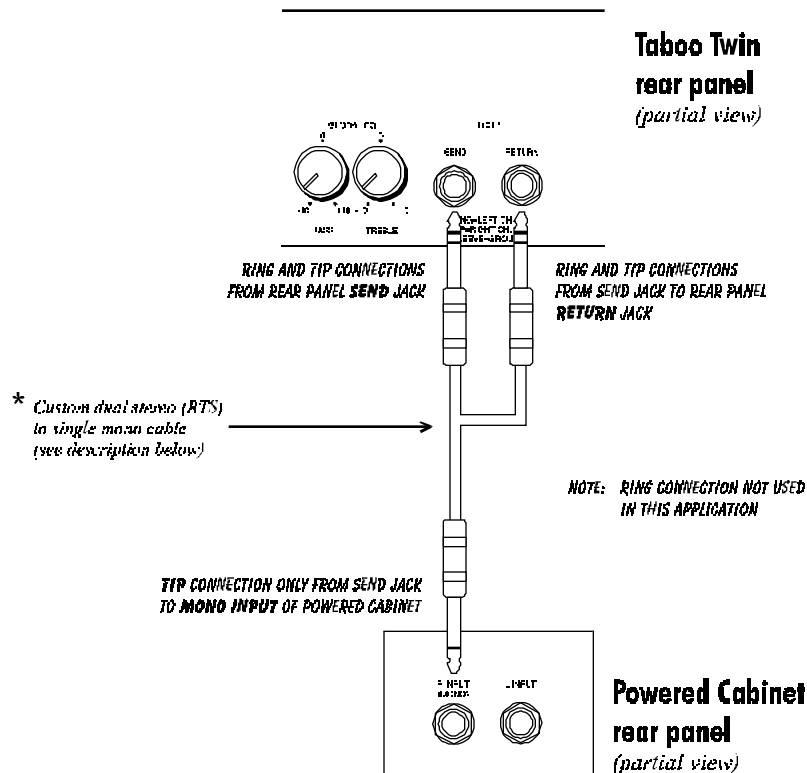
To operate in this configuration, the *Output* parameter (found in the *Global* function) must be set to "LEFT".

The necessary connections between the Taboo Twin and powered cabinet are shown on the following page.



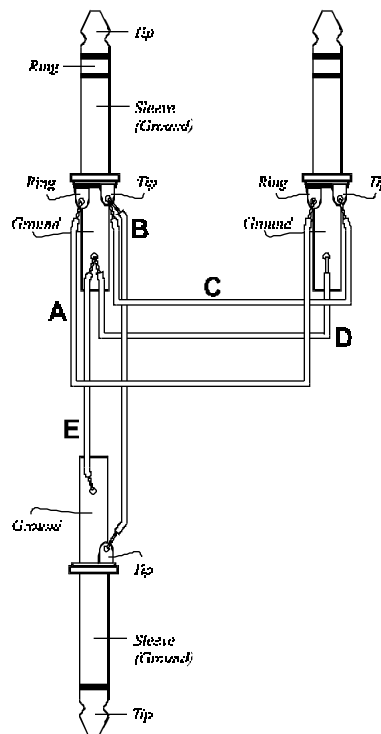
* Note that this configuration requires a specially configured cable. The wiring for this cable is described on the following page.

Taboo Twin / Powered Cabinet connections:



Cable wiring required for this configuration:

- A** Ring of stereo RTS SEND plug to Ring of stereo RTS RETURN plug
- B** Tip of stereo RTS SEND plug to Tip of mono R INPUT plug
- C** Tip of stereo RTS SEND plug to Tip of stereo RTS RETURN plug
- D** Ground of stereo RTS SEND plug to Ground of stereo RTS RETURN plug
- E** Ground of stereo RTS SEND plug to Ground of mono R INPUT plug



Using the Taboo Twin with a powered cabinet in a stacked configuration

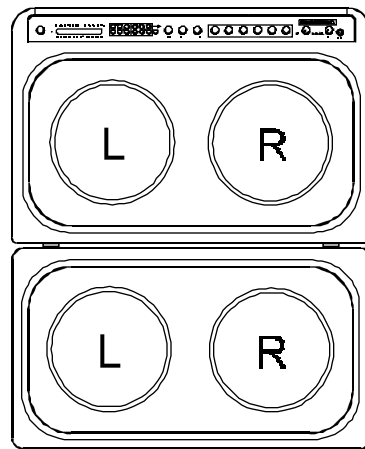
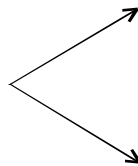
The Taboo Twin can also be used with a powered speaker cabinet in a stacked configuration. In the configuration shown below, the Taboo Twin and powered cabinet each provide left and right channel outputs.



To operate in this configuration, the *Output* parameter (found in the *Global* function) must be set to "STEREO".

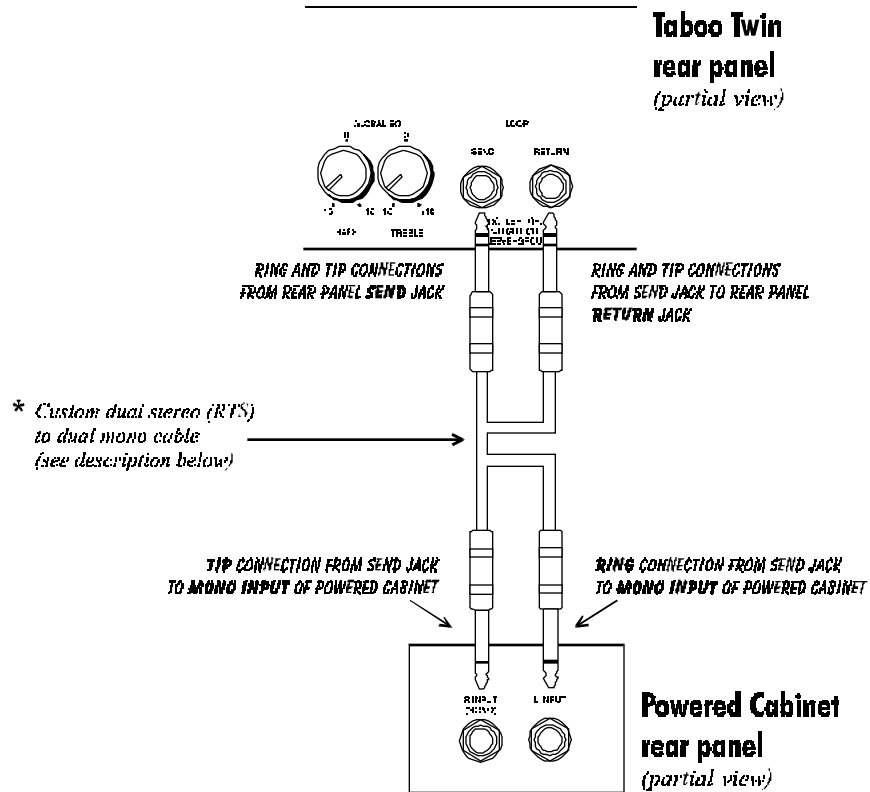
The necessary connections between the Taboo Twin and powered cabinet are shown on the following page.

Taboo Twin and powered cabinet each provide left and right channel outputs



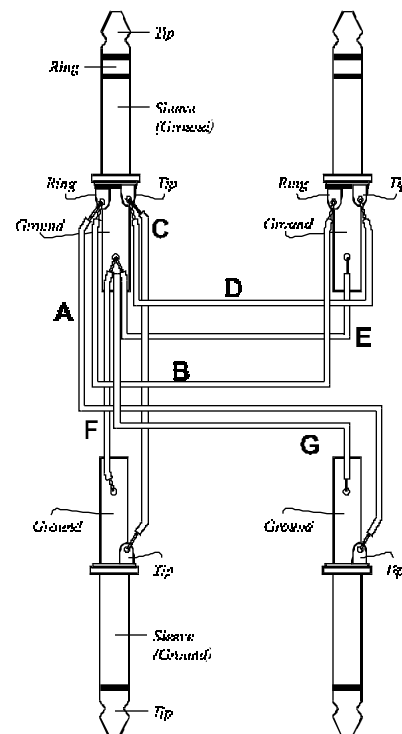
* *Note that this configuration requires a specially configured cable, and is described on the following page.*

Taboo Twin / Powered Cabinet connections:



Cable wiring required for this configuration:

- A** Ring of stereo RTS SEND plug to Tip of mono L INPUT plug.
- B** Ring of stereo RTS SEND plug to Ring of stereo RTS RETURN plug
- C** Tip of stereo RTS SEND plug to Tip of mono R INPUT plug
- D** Tip of stereo RTS SEND plug to Tip of stereo RTS RETURN plug
- E** Ground of stereo RTS SEND plug to Ground of stereo RTS RETURN plug
- F** Ground of stereo RTS SEND plug to Ground of mono R INPUT plug
- G** Ground of stereo RTS SEND plug to Ground of mono L INPUT plug



6. General Operating Format

Taboo Twin Presets

The Taboo Twin provides 128 stored sounds called **presets**. Any of the 128 presets can be called up at any time via the front panel PRESET control, or by a remote MIDI footswitch.

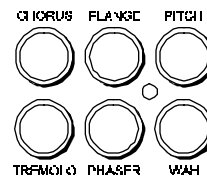
Each Taboo Twin preset is divided up into individual blocks called **functions** (such as "Mixer", "Reverb", etc.). Within each function is a set of **parameters** which allow you to manipulate various aspects of that function. It is the setting of each of the parameters which determines the overall sound of each Taboo Twin preset.

Each of the Taboo Twin's 128 preset locations can be edited, copied over and re-stored to original factory state as many times as necessary. These tasks, and many others, are described in detail in section 7, "Operating the Taboo Twin".

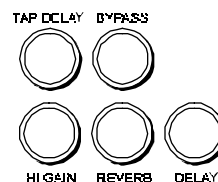
Changing the Preset Sounds

The sound of each preset is determined by the effects that are selected as well as the settings of their respective parameters. Effects are selected and deselected by pressing their relevant buttons on the front panel.

Some effects can be inserted into the audio path regardless of any others that are currently selected, while others require that some other effect is switched out before becoming active. For this reason, the effects are grouped into two separate sections on the front panel, as shown below.



Only one of the above effects may be selected at any given time...



...while any combination of these effects can be selected.

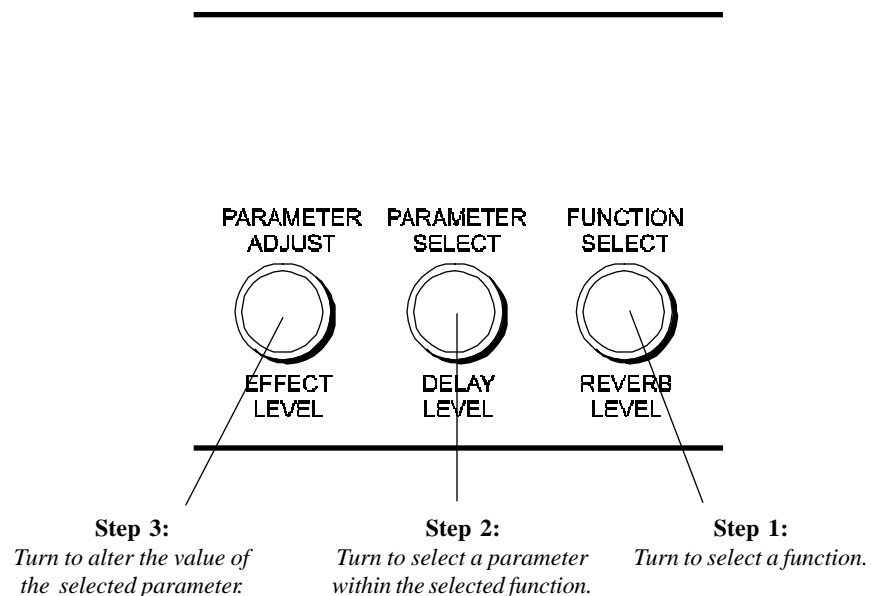
Menu and Instant Access Editing Modes

To provide widest array of sounds possible, the Taboo Twin provides *many* parameters for the various effects and functions that the amplifier provides. Occasionally, however, it is much more quick and convenient to have a set of controls that directly access specific often-edited parameters immediately, rather than paging through numerous menus, functions and parameters to find the desired parameter to edit.

For this reason, the Taboo Twin provides two modes for editing preset sounds. The currently active mode is determined by the front panel MENU button.

Menu Mode

In Menu mode (i.e. MENU button lit), the Taboo Twin is set up to allow you to first access each function (via the FUNCTION SELECT control), then the parameter list for the selected function (via the PARAMETER SELECT control) and finally the adjustable value for the displayed parameter (via the PARAMETER ADJUST control).



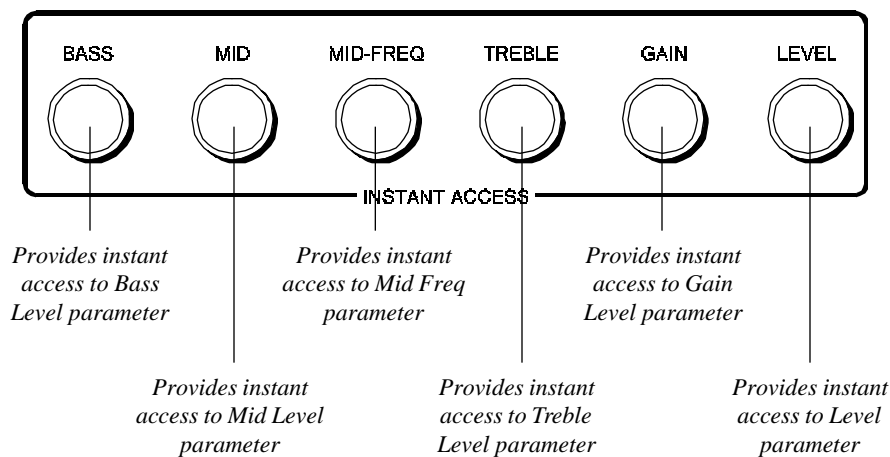
Controls used to access and edit Taboo Twin parameters in Menu mode.



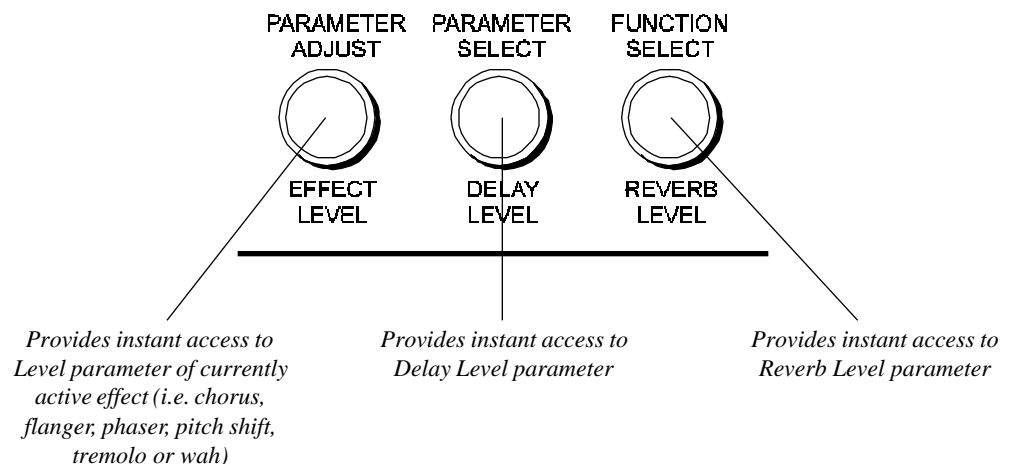
Note that all editable EQ parameters in Instant Access mode are post-distortion.

Instant Access Mode

When the MENU switch is *not* lit, the amplifier can be edited in Instant Access mode. This mode allows for immediate access to nine of the most commonly edited parameters for any preset: *Bass Level, Mid Level, Mid Frequency, Treble Level, Gain Level, Output Level, Effect Level, Delay Level* and *Reverb Level*. The first six of these parameters are immediately accessible via the Instant Access control group on the front panel (shown below).



The *Effect Level, Delay Level* and *Reverb Level* parameters are immediately accessible via the PARAMETER ADJUST, PARAMETER SELECT and FUNCTION SELECT controls.



Taboo Twin Functions and Parameter Descriptions

The remainder of this section will describe each of the effect-based functions and the adjustable parameters they each provide. Note that the functions and parameters that are available for a given preset are dependent upon which effects are currently active. Therefore, not all functions and parameters described in this section are available in every Taboo Twin preset.

The remaining functions are utility-based, and are described in Section 7, *"Operating the Taboo Twin"*.

GLOBAL Function

The first function displayed when turning the FUNCTION SELECT control is the *Global* function. The parameters provided in this function affect all presets (i.e. the settings stored for these parameters are the same for all presets).

The PARAMETER SELECT control will allow you to access the following Global parameters:

<u>Parameter</u>	<u>Description</u>
OUTPUT	<p>The OUTPUT parameter determines the output configuration of the Taboo Twin. It is important that this parameter is set correctly.</p> <p>In most situations, this parameter should be set to STEREO. When set to STEREO, one speaker of the Taboo Twin provides the left channel output, while the other speaker provides the right channel output.</p> <p>When MONO is selected, the left and right outputs of the Taboo Twin are summed together, and the same mono signal is fed through both speakers of the Taboo Twin, as well as each of the outputs.</p> <p>When using the Taboo Twin with an additional powered cabinet, it is common to set this parameter to LEFT. When set to LEFT, both speakers of the Taboo Twin provide only the left channel output, while the tip connection from the rear panel SEND jack provides the right channel signal to be fed to the separate powered cabinet (see pages 15-16 for more information). <i>Note that this configuration requires a specially configured cable.</i></p>
HUSH OFFSET	<p>The HUSH OFFSET parameter allows you to globally (all presets) adjust the HUSH® Expander Threshold. This means that if this parameter is altered from 0dB to +3dB, the Expander Threshold will be 3dB higher for all presets. This feature can be useful when switching from a quiet guitar with passive electronics to a noisy guitar with active electronics - as the active guitar would require a higher Threshold level in all presets.</p>
MUTE	<p>The MUTE parameter allows you to mute the output of the Taboo Twin. This feature is especially useful when changing guitars during a live set. If a Rocktron All Access™ is used in remote mode with the Taboo Twin, a single All Access button can be configured as a momentary switch which will mute the output when it is held down. (See "Using a Taboo Twin with a Rocktron All Access in REMOTE mode" in Chapter 7 for more information.)</p>

MIXER Function

The next function displayed after turning the **FUNCTION SELECT** control is the *Mixer* function. The Mixer function parameters are included in all presets—although the parameter values stored in this function are only for the currently recalled preset.

This digital mixer allows you to control most signal levels pertaining to each preset's effect configuration and stores these levels for each preset.

*The **PARAMETER SELECT** control will allow you to access the following Mixer parameters:*

<u>Parameter</u>	<u>Description</u>
VOLUME	The VOLUME parameter determines the overall signal level of the current preset.
LEFT OUT LVL	The LEFT OUT LEVEL parameter allows you alter the level of the left channel output of the current preset independent of the right channel.
RIGHT OUT LVL	The RIGHT OUT LEVEL parameter allows you alter the level of the right channel output of the current preset independent of the left channel.
MIX DIR/EFF	The DIR/EFF MIX parameter is used to define the ratio of direct signal level to effect (Chorus, Flange, Pitch Shift) signal level.
DIR PAN	The DIRECT PAN parameter allows you to pan the direct signal to the left or right.
DELAY LVL	The DELAY LEVEL parameter determines the overall level of the delayed signal at the output relative to the direct signal and other effect signals. This parameter can also be accessed from the Delay function parameter list.
REVERB LVL	The REVERB LEVEL parameter determines the level of the reverb signal at the output relative to the direct signal and other effect signals. This parameter can also be accessed from the Reverb function parameter list.

HIGH GAIN Function

The HIGH GAIN function is accessible whenever the H_I GAIN button is lit. The preamp stage in these presets is set up to provide high gain levels for maximum sustain and distortion.

The PARAMETER SELECT control will allow you to access the following High Gain parameters:

<u>Parameter</u>	<u>Description</u>
GAIN	The GAIN parameter determines the gain value in the distortion stage.
VARIAC ADJUST	The VARIAC ADJUST parameter adjusts the level at which the preamp stage in the Taboo Twin begins to distort. A Variac is a voltage-attenuating device that plugs into an AC wall outlet and adjusts the voltage level to any device which is plugged into it. For years, many guitarists have plugged their amplifier heads into a Variac and reduced the voltage coming into the amplifier from the AC wall outlet. This allows the amplifier tubes to reach saturation at a lower input level and increases the gain produced. The VARIAC ADJUST parameter operates in a similar manner as a conventional Variac - where lowering the parameter value lowers the level at which saturation will take place.

LOW GAIN Function

The LOW GAIN function is accessible in presets which have been stored with the HI GAIN button *not* lit. The preamp stage in these configurations provides four distortion types, and can also be used for clean tones.

The PARAMETER SELECT control will allow you to access the following Low Gain parameters:

<u>Parameter</u>	<u>Description</u>
GAIN	The GAIN parameter determines the gain value in the distortion stage.
TUBE	The TUBE parameter allows you to select between four different tube distortion types — Hard Clip, Soft Clip, Class A, Class B. The Hard Clip setting provides the hardest clipping, while the Soft Clip type provides a softer clipping and the Class A and B types provide the softest clipping. The Class A setting produces non-symmetrical clipping - therefore more even harmonics are produced. Conversely, the Class B setting produces symmetrical clipping. The differences between these types are most pronounced at moderate gain settings of about 30dB or less, where Class B produces the least amount of upper harmonics.

HUSH® Function

The HUSH® function is accessible in all presets—regardless of the preset currently recalled.

HUSH is Rocktron's patented single-ended noise reduction system. The HUSH system contained in the Taboo Twin is a fully digital implementation achieved through Digital Signal Processing (DSP).

The low level expander of the HUSH system operates like an electronic volume control. The analog version of the HUSH utilizes a voltage-controlled amplifier (VCA) circuit which can control the gain between the input and the output from unity to 30, 40 or even 50dB of gain reduction. When the input signal is above the user preset threshold point, the VCA circuit remains at unity gain. (This means that the amplitude of the output signal will be equal to that of the input signal.) As the input signal level drops below the user preset threshold point, downward expansion begins. At this point the expander acts like an electronic volume control and gradually begins to decrease the output signal level relative to the input signal level. As the input signal drops further below the threshold point, downward expansion increases. A drop in the input level by 20dB would cause the output level to drop approximately 40dB (i.e., 20dB of gain reduction). In the absence of any input signal, the expander will reduce the gain so that the noise floor becomes inaudible.

The HUSH circuit is located after the A/D converter in the signal chain to reduce any noise generated from the guitar and the A/D converter. This ensures a quiet input signal to the preamp section. Because the preamp section of the Taboo Twin is digital, it is virtually noise-free (even in the high-gain mode). Therefore, a quiet input signal to the preamp will result in a quiet output signal.

The PARAMETER SELECT control will allow you to access the following Hush® parameters:

<u>Parameter</u>	<u>Description</u>
HUSH I/O	The HUSH I/O parameter simply determines whether the HUSH® circuit is active for the current preset.
HUSH THRESH	The HUSH THRESHOLD parameter determines the level at which downward expansion begins. For example, if the HUSH THRESHOLD was set at -20dB and the input signal dropped below -20dB, downward expansion would begin.

PRE EQ (EXPERT) Function

The PRE EQ (EXPERT) function is available in all presets, and allows you to shape the tone prior to the distortion stage. Considerable tone variations can be achieved by modifying these pre-distort EQ parameters.

*The **PARAMETER SELECT** control will allow you to access the following **PRE EQ** parameters:*

<u>Parameter</u>	<u>Description</u>
<i>LF LEVEL</i>	The pre-LF (low frequency) LEVEL parameter allows you to cut or boost the low frequencies from -15dB to +6dB prior to the distortion stage. This EQ section is a shelving-type.
<i>LF FREQ</i>	The pre-LF (low frequency) FREQUENCY parameter allows you to select a frequency band with an upper frequency between 63Hz and 500Hz to be cut or boosted by the pre-LF LEVEL parameter.
<i>MID LEVEL</i>	The pre-MID LEVEL parameter allows you to cut or boost the mid-band frequencies from -15dB to +12dB prior to the distortion stage.
<i>MID FREQ</i>	The pre-MID FREQUENCY parameter allows you to select a mid-band center frequency between 500Hz and 4KHz to be cut or boosted via the pre-MID LEVEL parameter.
<i>MID BW</i>	The pre-MID BANDWIDTH parameter determines how wide or narrow the bandwidth of the selected mid-band frequency is (in octaves). A small bandwidth only boosts or cuts frequencies close to the center frequency, while a large bandwidth affects the level of frequencies up to two octaves from the center frequency.

POST EQ (EXPERT) Function

The POST EQ (EXPERT) function is available in all presets, and allows you shape the tone after it has passed through the distortion stage. These post-distortion EQ parameters have a more dramatic effect on the overall tone than the pre-distortion parameters.

*The **PARAMETER SELECT** control will allow you to access these **POST EQ** parameters:*

<u>Parameter</u>	<u>Description</u>
BASS LVL	The post-BASS LEVEL parameter allows you to cut or boost the low frequencies by 15dB after the distortion stage.
BASS FREQ	The post-BASS FREQUENCY parameter allows you to select a center frequency between 63Hz and 500Hz to be cut or boosted by the post-BASS LEVEL parameter.
BASS BW	The post-BASS BANDWIDTH parameter determines (in octaves) the width of the selected bass band.
MID LVL	The post-MID LEVEL parameter allows you to cut or boost the mid-band frequencies by 15dB after the distortion stage.
MID FREQ	The post-MID FREQUENCY parameter allows you to select a mid-band center frequency between 250Hz and 2KHz to be cut or boosted via the post-MID LEVEL parameter.
MID BW	The post-MID BANDWIDTH parameter determines (in octaves) the width of the selected mid band.
TREBLE LVL	The post-TREBLE LEVEL parameter allows you to cut or boost the high-band frequencies by 15dB after the distortion stage.
TREBLE FREQ	The post-TREBLE FREQUENCY parameter allows you to select a high-band center frequency between 1KHz and 8KHz to be cut or boosted via the post-TREBLE LEVEL parameter.
TREBLE BW	The post-TREBLE BANDWIDTH parameter determines (in octaves) the width of the selected high band.
PRESENCE LVL	The post-PRESENCE LEVEL parameter allows you to cut or boost another high-band frequency by 15dB after the distortion stage.
PRES FREQ	The post-PRESENCE FREQUENCY parameter allows you to select a high-band center frequency between 2KHz and 8KHz to be cut or boosted via the post-PRESENCE LEVEL parameter.
PRES BW	The post-PRESENCE BANDWIDTH parameter determines (in octaves) the width of the selected high band.

COMPRESSOR Function

This function allows you to compress the signal prior to the distortion stage. Compression is often used to maintain an even level when using clean tones, and also to increase sustain when using distorted tones.

*The **PARAMETER SELECT** control will allow you to access the following **COMPRESSOR** parameters:*

<u>Parameter</u>	<u>Description</u>
COMPRESSOR I/O	The COMPRESSOR IN/OUT parameter determines whether the compressor is active for the current preset.
COMP THRESH	The COMPRESSOR THRESHOLD parameter determines the input level (in dB) at which compression will begin. Lower settings of this parameter will result in more compression.
COMP ATTACK	The COMPRESSOR ATTACK parameter determines the speed (in milliseconds) in which the compressor will reach its maximum compression level after the input signal has exceeded the threshold level (set by the COMPRESSOR THRESHOLD parameter).
COMP RELEASE	The COMPRESSOR RELEASE parameter determines the speed in which compression will cease after the input signal has dropped below the threshold level.

WAH-WAH Function

The Taboo Twin has an internal wah-wah which allows for an expression pedal to be used as a wah-wah pedal through continuous control changes. Use of this feature eliminates the need to run long audio cables out to a conventional wah-wah pedal.

To use an expression pedal as a wah-wah pedal, connect it to a MIDI controller (such as a Rocktron MIDI Mate™) and set the controller's MIDI channel to correspond with the Taboo Twin's receiving MIDI channel. Then set the pedal's control number on the MIDI Mate to match the Wah Frequency parameter's control number on the Taboo Twin. This control number is set on the Taboo Twin in the "CONTROLLER ASSIG" function. (See "Controller Assignments" in Chapter 7 for more information on assigning control numbers.)

The PARAMETER SELECT control will allow you to access these WAH-WAH parameters:

<u>Parameter</u>	<u>Description</u>
WAH-WAH I/O	The WAH-WAH I/O parameter determines whether the wah-wah is active for the current preset.
WAH FREQ	The WAH FREQUENCY parameter allows you to manually sweep the frequency range of the wah-wah via the PARAMETER ADJUST control. Selecting a frequency for this parameter and storing the WAH-WAH parameter IN allows you to use the wah-wah as a fixed wah.

PHASER Function

Phase shifting involves splitting the input signal into two signals, then shifting the phase of different frequencies of one signal and mixing it back with the original signal.

*The **PARAMETER SELECT** control will allow you to access the following **PHASER** parameters:*

<u>Parameter</u>	<u>Description</u>
PHASER I/O	The PHASER I/O parameter determines whether the Phaser is active for the current preset.
DEPTH	The DEPTH parameter determines the modulation depth of the phase shift effect. Higher parameter settings result in the sweep of the filtering effect occurring over a wider frequency range.
RATE	The RATE parameter determines the speed at which the phase shifted signal is modulated.
RESONANCE	The RESONANCE parameter adds feedback to the Phaser so that it has a more pronounced effect.
STAGES	The STAGES parameter determines how many stages of phase shift are to be active. A parameter setting of "4" produces a result similar to a vintage Phase 90, while a setting of "6" emulates other phaser pedals.

FLANGER Function

Flanging involves splitting the input signal into at least two individual delayed signals (*Voice 1 and Voice 2*), then modulating these delayed signals so that, when summed back with the direct signal, phase cancellations will occur at some frequencies while peaks in the response will occur at others.

*The **PARAMETER SELECT** control will allow you to access the following **FLANGER** parameters:*

<u>Parameter</u>	<u>Description</u>
FLANGER I/O	The FLANGER I/O parameter determines whether the Flanger is active or bypassed for the current preset.
LEVEL 1	The LEVEL 1 parameter determines the volume of Voice 1 relative to Voice 2. <i>Tip: Keep the settings of these levels high and use the DIR/EFF mix parameter in the Mixer function to control the overall amount of flanged signal.</i>
PAN 1	The PAN 1 parameter allows you to pan Voice 1 to the left or right channel.
DEPTH 1	The DEPTH 1 parameter adjusts the amount of modulation of Voice 1. Lower DEPTH settings produce more subtle effects, while higher settings will result in a more drastic effect.
RATE 1	The RATE 1 parameter determines the speed at which Voice 1 is modulated.
LEVEL 2	The LEVEL 2 parameter determines the volume of Voice 2 relative to Voice 1.
PAN 2	The PAN 2 parameter allows you to pan Voice 2 to the left or right channel.
DEPTH 2	The DEPTH 2 parameter adjusts the amount of modulation of Voice 2. Lower DEPTH settings produce more subtle effects, while higher settings will result in a more drastic effect.
RATE 2	The RATE 2 parameter determines the speed at which Voice 2 is modulated.
REGEN	The REGENERATION parameter determines how much of the the delayed output signal is fed back into the input. More regeneration produces a more pronounced "jet airplane" type of effect.

TREMOLO Function

The Tremolo effect continuously varies the volume of the signal.

*The **PARAMETER SELECT** control will allow you to access the following **TREMOLO** parameters:*

<u>Parameter</u>	<u>Description</u>
TREMOLO	The TREMOLO I/O parameter determines whether the tremolo is active or bypassed for the current preset.
LOCATION	The LOCATION parameter determines whether the tremolo is located pre-reverb or post-reverb. Most vintage amplifiers configured the tremolo (or vibrato) Post-reverb.
DEPTH	The DEPTH parameter determines the amount of modulation for the tremolo signal. Lower DEPTH settings produce more subtle tremolo effects, while higher settings will result in a more extreme tremolo effect.
RATE	The RATE parameter determines the speed at which the tremolo signal modulates (or increases and decreases in volume).
SHAPE	The SHAPE parameter determines the waveshape of the tremolo signal. Selecting a different waveshape produces a different tremolo effect.

PITCH SHIFT Function

Pitch Shifting is used to change the pitch of the input signal to produce a harmony note based on the input signal. The harmony voice may be of any fixed interval—up to one octave above the input signal or up to two octaves below—and is selected in 20-cent increments. Fine adjustment can be made in one cent (1/100th semitone) increments.

*The **PARAMETER SELECT** control will allow you to access the following **PITCH SHIFT** parameters:*

<u>Parameter</u>	<u>Description</u>
PITCH SHIFT I/O	The PITCH SHIFT I/O parameter determines whether the Pitch Shifter is active or bypassed for the current preset.
LEVEL	The LEVEL parameter determines the volume of the pitch shifted signal. The DIR/EFF MIX parameter in the Mixer function also affects this volume.
PAN	The PAN parameter allows you to pan the shifted signal to the left or right channel.
PITCH	<p>The PITCH parameter selects what harmony note the Taboo Twin will produce based on the input note. The value displayed for this parameter represents the number of <i>cents</i> that the signal will be shifted (adjustable in 20-cent increments). Each 100 cents (or five 20-cent steps) above or below "0" represents the number of half-steps the shifted signal will be from the input signal.</p> <p>This parameter is adjustable from "-2400" to "+1200", where "-2400" = two octaves below the input signal, "0" = unison and "+1200" = one octave above the input signal. Refer to the table on the following page to determine the cent value for each fixed interval.</p>
FINE	The FINE parameter allows for adjustment in 1-cent steps for fine adjustment of the harmony note.
SPEED	The SPEED parameter determines the amount of time delay used in the shifting process. SLOW results in the longest delay and the highest quality shifted signal (especially at larger amounts of pitch shift). FAST results in the least delay, but the lowest quality shifted signal. This setting should only be used for slight amounts of pitch shift.

PITCH SHIFT INTERVALS

	PARAMETER VALUE	CORRESPONDING INTERVAL
<i>Voices above the input signal</i>	+1200	one octave
	+1100	Major 7th
	+1000	minor 7th
	+900	Major 6th
	+800	minor 6th
	+700	perfect 5th
	+600	diminished 5th
	+500	perfect 4th
	+400	Major 3rd
	+300	minor 3rd
	+200	Major 2nd
<i>Voices below the input signal</i>	+100	minor 2nd
	0	Unison
	-100	Major 7th
	-200	minor 7th
	-300	Major 6th
	-400	minor 6th
	-500	perfect 5th
	-600	diminished 5th
	-700	perfect 4th
	-800	Major 3rd
	-900	minor 3rd
	-1000	Major 2nd
	-1100	minor 2nd
	-1200	1 Octave
	-1300	One octave plus a Major 7th
	-1400	One octave plus a minor 7th
	-1500	One octave plus a Major 6th
	-1600	One octave plus a minor 6th
	-1700	One octave plus a perfect 5th
	-1800	One octave plus a diminished 5th
	-1900	One octave plus a perfect 4th
	-2000	One octave plus a Major 3rd
	-2100	One octave plus a minor 3rd
	-2200	One octave plus a Major 2nd
	-2300	One octave plus a minor 2nd
	-2400	2 Octaves

*Equal to
the input signal*

NOTE: There are 5 steps of the parameter adjust control between each of the intervals shown above (each step equals 20 cents). This allows for smooth pitch change when an expression controller (such as a volume pedal used with a Rocktron All Access™ or MIDI Mate™ foot controller) is assigned to the PITCH parameter to change the pitch by remote means.

CHORUS Function

The Chorus effect in the Taboo Twin is produced by using two delayed signals (Voice 1 and Voice 2), detuning these delayed signals (slightly changing their pitch), then modulating the detune effect so that the amount of pitch detune is constantly varying. Using different detune amounts, modulation rates, modulation depths and pan settings for each delayed signal will produce a greater perceived spaciousness.

*The **PARAMETER SELECT** control will allow you to access the following **CHORUS** parameters:*

<u>Parameter</u>	<u>Description</u>
CHORUS I/O	The CHORUS I/O parameter determines whether the Chorus is active or bypassed for the current preset.
LEVEL 1	The LEVEL 1 parameter determines the volume of Voice 1 in relation to Voice 2. The DIR/EFF MIX parameter in the Mixer function also determines the chorus level.
PAN 1	The PAN 1 parameter allows you to pan Voice 1 to the left or right channel.
DEPTH 1	The DEPTH 1 parameter adjusts the amount of modulation of the Voice 1 signal. A lower depth setting will produce a more subtle detune effect, while a higher setting will produce a more extreme detuning of Voice 1.
RATE 1	The RATE 1 parameter determines the sweep speed (or the speed at which Voice 1 is modulated). Lower parameter settings will result in slower speeds, while higher settings will result in faster speeds.
DELAY 1	The DELAY 1 parameter allows you to select the minimum delay time (in milliseconds) for Voice 1. This delayed signal (along with Voice 2) is detuned and modulated to produce the chorus effect. Using shorter delay times will result in a tighter sounding chorused signal, while longer delay times will produce a larger ambient effect.
LEVEL 2	The LEVEL 2 parameter determines the volume of Voice 2 in relation to Voice 1.
PAN 2	The PAN 2 parameter allows you to pan Voice 2 to the left or right channel.
DEPTH 2	The DEPTH 2 parameter adjusts the amount of modulation of the Voice 2 signal. A lower depth setting will produce a more subtle detune effect, while a higher setting will produce a more extreme detuning of Voice 2.
RATE 2	The RATE 2 parameter determines the sweep speed (or the speed at which Voice 2 is modulated). Lower parameter settings will result in slower speeds, while higher settings will result in faster speeds.
DELAY 2	The DELAY 2 parameter allows you to select the minimum delay time (in milliseconds) for Voice 2. It is this delayed signal (along with Voice 1) that is detuned and modulated to produce the chorus effect. Using shorter delay times will result in a tighter sounding chorused signal, while longer delay times will produce a larger ambient effect.

DELAY Function

Delay is a reproduction of the input signal, occurring at a prescribed time (usually expressed in milliseconds) following the input signal. The Taboo Twin provides two discrete delays (Delay 1 and Delay 2), each of which has its own parameters to determine its particular characteristics.

*The **PARAMETER SELECT** control will allow you to access the following **DELAY** parameters:*

<u>Parameter</u>	<u>Description</u>
DELAY	The DELAY parameter determines whether the Delay is active or muted for the current preset.
MUTE TYPE	<p>The MUTE TYPE parameter allows for muting the delay at its input (PRE), its output (POST) or BOTH.</p> <p>Muting the input (PRE) of the delay will not allow any signal to enter the delay section until the delay is switched in. When using a moderate amount of regeneration, switching out the delay with the input muted will allow you to generate a non-delayed signal which will play over the decaying regenerated signal which continues on after the delay is switched out.</p> <p>Muting the output (POST) of the delay will result in the delayed signal being immediately turned off when the delay is switched out. This means that delays and regeneration will not continue when the delay is switched out. If the output were not muted, signals that were input before the delay was switched out would be allowed to regenerate, even after switching out the delay.</p> <p>It is also possible to mute both the input and the output (BOTH) so that no signal enters or exits the Delay section when it is not switched in.</p>
DELAY LVL	The DELAY LEVEL parameter determines the overall level of the delayed signal at the output relative to the direct signal and other effect signals. This parameter can also be accessed from the mixer function parameter list.
MIX	<p>The MIX parameter is used to define the ratio of Source 1 signal to Source 2 signal to be input to the delay section. Source 1 is the Voice 1 output from the previous effect in the signal chain (chorus, flanger, etc.), while Source 2 may be the Voice 2 output from the previous effect in the signal chain or the direct signal (selectable via the SOURCE 2 parameter).</p> <p>In configurations where there is no effect immediately preceding the delay, Source 1 and Source 2 will be the preamp output (direct) signal.</p>

<i>SOURCE 2</i>	The SOURCE 2 parameter is used to select whether the Source 2 input will be the VOICE 2 output from the previous effect in the signal chain or the direct signal (DIR).
<i>DLY HF DAMP</i>	The DELAY HIGH FREQUENCY DAMPING parameter controls the amount of high frequency content in the delayed and regenerated signals. Higher amounts of damping will result in less high frequency information in the delayed signal.
<i>OUT LEVEL 1</i>	The OUTPUT LEVEL 1 parameter determines the volume of Delay 1 in relation to Delay 2.
<i>PAN 1</i>	The PAN 1 parameter allows you to pan the Delay 1 signal to the left or right channel.
<i>DLY TIME 1</i>	The DELAY TIME 1 parameter determines the length of time (in milliseconds) after the input signal that the Delay 1 signal will begin. The DELAY TIME can be adjusted via the ADJUST control, MIDI controller changes or via the Tap Delay feature (<i>see "Operating the Taboo Twin" for detailed descriptions of each</i>).

REVERB Function

The REVERB function is available in all presets.

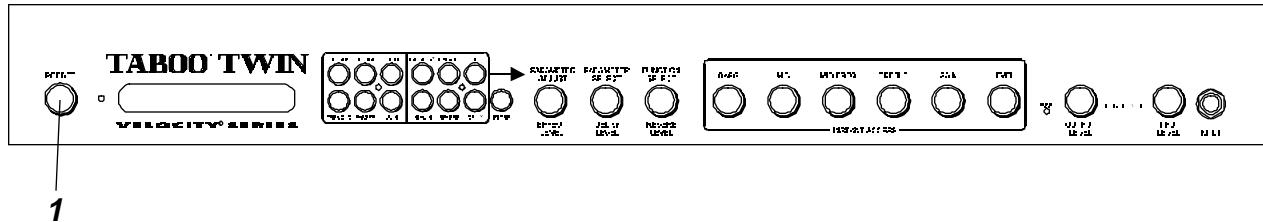
Reverb is a multitude of echos spaced so close together that, to the human ear, seem as a single continuous sound. These echos gradually decrease in intensity until they are ultimately absorbed by the boundaries and obstacles within a room. As the sound waves from the sound source strike the boundaries of a room, a portion of the energy is reflected away from the obstacle while another portion is absorbed into it—thereby causing both the continuance of sound as well as the decaying or “dying out” of the sound.

*The **PARAMETER SELECT** control will allow you to access the following **REVERB** parameters:*

<u>Parameter</u>	<u>Description</u>
REV INPUT	The REVERB INPUT parameter determines whether the input to the Reverb section is ACTIVE (passing a signal) or MUTED (will not pass a signal).
MIX DIR/DLY	The MIX DIRECT/DELAY parameter is used to define the ratio of direct signal to delayed signal to be input to the reverb section.
REVERB LVL	The REVERB LEVEL parameter determines the level of the reverb signal at the output relative to the direct signal and other effect signals. This parameter can also be accessed from the Mixer function parameter list.
REV DECAY	The REVERB DECAY parameter determines the length of time that the reverb will sound before it has completely died out.
REV HF DAMP	The REVERB HIGH FREQUENCY DAMPING parameter is used to control the decay rate of high frequency information in the reverb signal. Higher parameter settings will result in a faster decay of high frequency information.

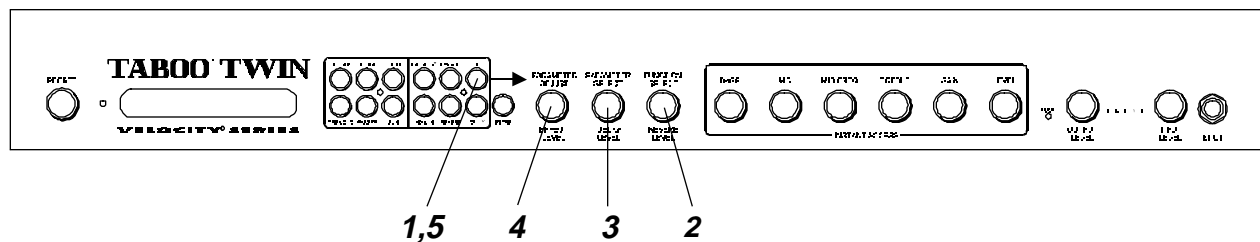
7. Operating the Taboo Twin

Selecting a preset

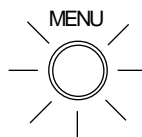


- Step 1** Turn the PRESET control to the desired preset you wish to recall. The Taboo Twin will recall the displayed preset automatically.

Changing preset parameters not provided by Instant Access controls



Step 1 Enter the Menu edit mode by pressing the MENU button. The Menu button will be lit at this time.



Step 2 With the MENU button lit, turn the FUNCTION SELECT control to select the function heading which contains the parameter(s) you wish to change.



Step 3 Turn the PARAMETER SELECT control to the specific parameter you wish to change.

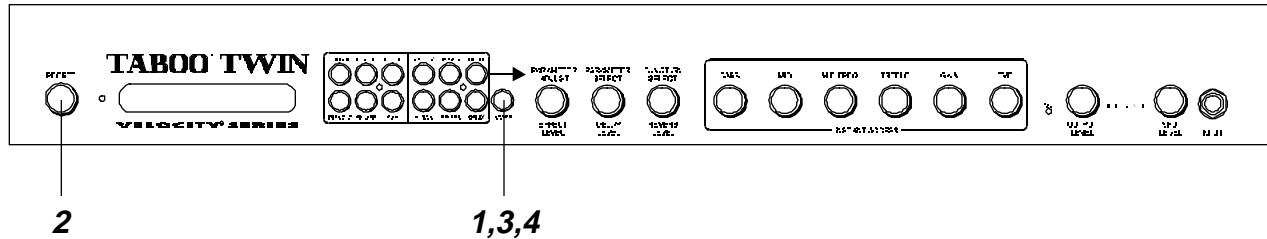


Step 4 Turn the PARAMETER ADJUST control to alter the parameter value. The LED above the STORE button will light, indicating that the preset has had a parameter altered from its stored value.

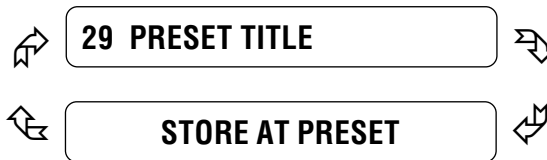


Step 5 After the desired parameters have been edited, the preset can be stored into memory as described in the next section. Otherwise, the Menu edit mode can be exited by pressing the MENU button.

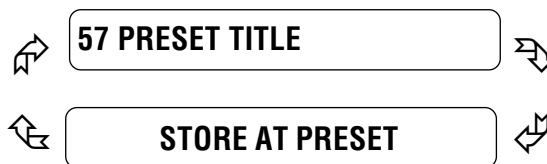
Storing changed preset parameters



Step 1 While viewing a function or parameter title, press the STORE button to initiate the store procedure. The display will now alternate between the current destination preset number and title and "STORE AT PRESET".



Step 2 Turn the PRESET control to select the desired preset number to store the new parameter values into. (If you wish to store the new parameter values into the current preset number, this step is not necessary.) The display will now alternate between the new preset number and "STORE AT PRESET".



Note: Turning the FUNCTION SELECT control at this time will cancel the store procedure.

Step 3 Press the STORE button a second time to store the new values into the selected preset number. The display will briefly flash "STORED" before displaying the new preset number and title. (Note: Turning either the FUNCTION SELECT or PARAMETER SELECT controls before completing this step will cancel the store procedure.)



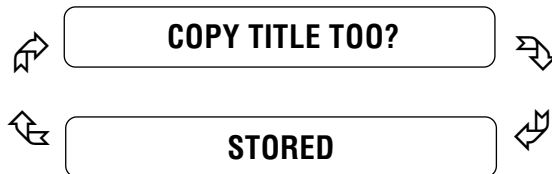
Note

If the store procedure is exited before completing Step 3 (by pressing the Menu button), all edited parameter values will still remain active until another preset has been selected. When saving altered parameters, make sure the display flashed "STORED" before exiting the store procedure.

Step 4

After the parameter values have been stored, the Taboo Twin will display "COPY TITLE TOO?". This message is displayed only when storing into a *new* preset number and allows you to copy the title from the original altered preset into the new preset location.

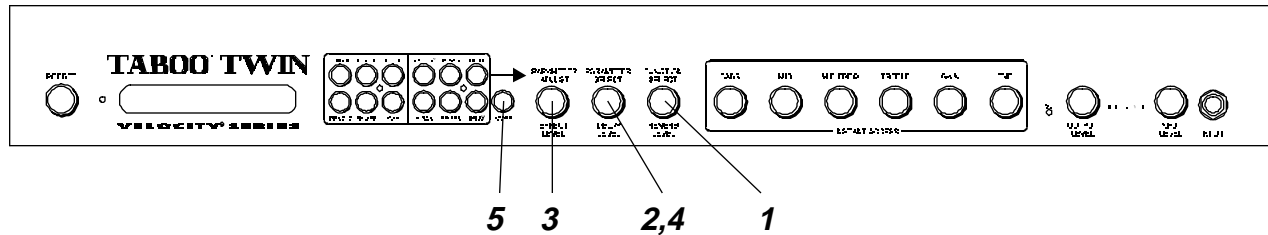
To copy the title from the altered preset, press the STORE button a third time and the display will again flash "STORED".



Note!

- *If you do not wish to copy the title from the original altered preset, skip Step 4 and press the MENU button to exit the store procedure.*
- *The MENU button can also be pressed to cancel the store procedure when parameters have been edited in Instant Access mode (even though it isn't lit).*
- *Menu mode will automatically be exited when the store procedure is completed.*

Editing a preset title



- Step 1** With the MENU button lit, turn the FUNCTION SELECT control clockwise until the Taboo Twin displays "TITLE EDIT".

**** TITLE EDIT ****

- Step 2** Turn the PARAMETER SELECT control clockwise to initiate the Title Edit mode. Turning this control will also select the character location to be edited. A flashing decimal will follow the character currently selected.

57 P.RESET TITLE

flashing decimal

- Step 3** Use the PARAMETER ADJUST control to select the desired character for the current position (indicated by the flashing decimal).

57 M.RESET TITLE

- Step 4** To edit the character in the next position, turn the PARAMETER SELECT control one step clockwise. The flashing decimal will move to the next character.

57 MR.ESET TITLE

flashing decimal

Step 5

After all the desired characters have been edited, press the **STORE** button to save the new title into memory. The Taboo Twin will flash "STORED" briefly.

STORED



- *The **STORE** button must be pressed to save the new title. Exiting the Title Edit function before pressing the **STORE** button will erase any editing that was done in Title Edit.*

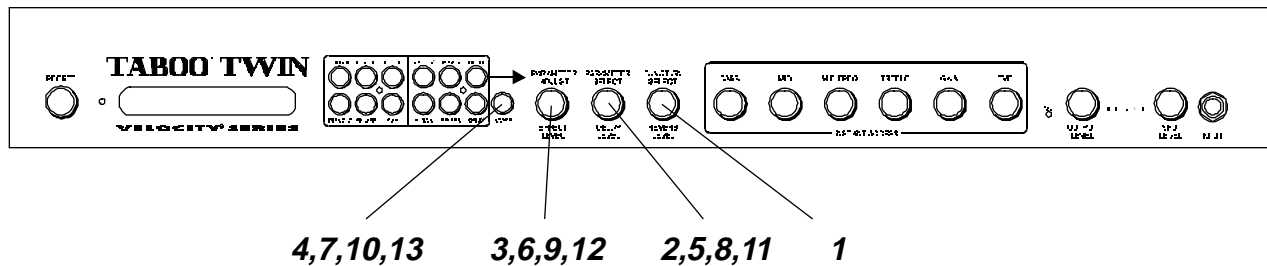
Note!

- *Also, after flashing "STORED", the Taboo Twin will remain in the Title Edit mode. At this time, you may either (a) turn the **PRESET** control to display and edit other preset titles without exiting and re-entering Title Edit, or (b) press the **MENU** button to exit the Title Edit mode.*

Controller Assignments

The Controller Assignment function allows for specific Taboo Twin adjustable parameters to be mapped (or assigned) to a MIDI controller for real-time control by an expression pedal.

The Controller Assignment option also lets you store an upper and lower parameter value limit which the controller cannot exceed. For example, when using an expression pedal with a Rocktron All Access® to send continuous control changes to control the "PITCH" parameter, an upper limit of +300 can be set and a lower limit of -200 can be set—even though the actual parameter range is from +1200 to -2400. When the expression pedal is at its heel position in this example, the "PITCH" parameter will be at -200, while at its toe position it will be at +300. Up to eight controllers can be assigned for each individual preset.



Step 1 With the MENU button lit, turn the FUNCTION SELECT control clockwise to "CONTROLLER ASSIGN".

CONTROLLER ASSIG

Step 2 Turn the PARAMETER SELECT control for the first parameter of the Controller Assign function. This parameter allows you to select a controller number for the NUMB 1 parameter to respond to.

NUMB 1 XXX



Tip!

This parameter (NUMB 1 only) also gives you the option of selecting "ADJ". When "ADJ" is selected, the parameter assigned to the first controller (PARA 1) can be instantly accessed by turning the PARAMETER ADJUST control when the preset title is displayed. This allows you to access a parameter that you adjust frequently without paging through function headings and parameters.

-
- Step 3** Use the **PARAMETER ADJUST** control to select the controller number to be assigned to the **PARA 1** parameter. Any number from 0 to 120 may be selected, as well as **OFF** (*will not respond to MIDI control changes*). Match the number selected for this parameter with the controller number on the MIDI transmitter.

NUMB 1 **7**

- Step 4** After selecting the desired controller number, press the **STORE** button to save the number for the **NUMB 1** parameter. "STORED" will flash briefly on the display.

STORED

- Step 5** Turn the **PARAMETER SELECT** control one step clockwise to display the parameter that is currently mapped to the **NUMB 1** control number.

PARA1 **OUTPUT**

- Step 6** Turn the **PARAMETER ADJUST** control to scroll through the available parameters for the current configuration.

PARA1 **REVERB LVL**

- Step 7** After selecting the parameter that you wish to assign to a controller, press the **STORE** button to save it. The Taboo Twin will flash "STORED" briefly.

STORED

The Taboo Twin allows you to select an upper and lower value limit which the parameter cannot exceed. For example, if a parameter has a value range from $-\infty$ to 0dB, yet you would like the range of the parameter to vary from only -12dB to -2dB, you may set a lower limit of -12 and an upper limit of -2 via the Upper and Lower Limit parameters. When a parameter is stored in the Controller Assign function (Step 7), the maximum parameter value is automatically stored as the upper limit, while the minimum value is stored as the lower limit.

Step 8 Turn the **PARAMETER SELECT** control one step clockwise to display the Upper Limit parameter (for PARA1).

ULIM C1 **XXX**

Step 9 Use the **PARAMETER ADJUST** control to choose the highest value that the parameter is not to exceed through MIDI control changes.

ULIM C1 **-2**

Step 10 After selecting a value for the upper limit, press the **STORE** button to save it. "STORED" will flash briefly on the display.

STORED

Step 11 Turn the **PARAMETER SELECT** control one step clockwise to access the Lower Limit parameter (for PARA1).

LLIM C1 **-∞**

Step 12 Use the **PARAMETER ADJUST** control to select the lowest value which the parameter is not to fall below through MIDI control changes.

LLIM C1 **-12**

Step 13 After selecting a value for the lower limit, press the **STORE** button to save it. "STORED" will flash briefly on the display.

STORED



Notes

- *Selecting a lower limit value that is greater than the upper limit value will invert the response of the controller—i.e. the toe position of the expression controller will provide the minimum value, while the heel position will provide the maximum value.*
- *Steps 1-13 are repeated seven times for a total of eight controllers. To exit Controller Assign at any time, press the **MENU** button. Only changes that have been stored will be saved after exiting the Controller Assign function.*

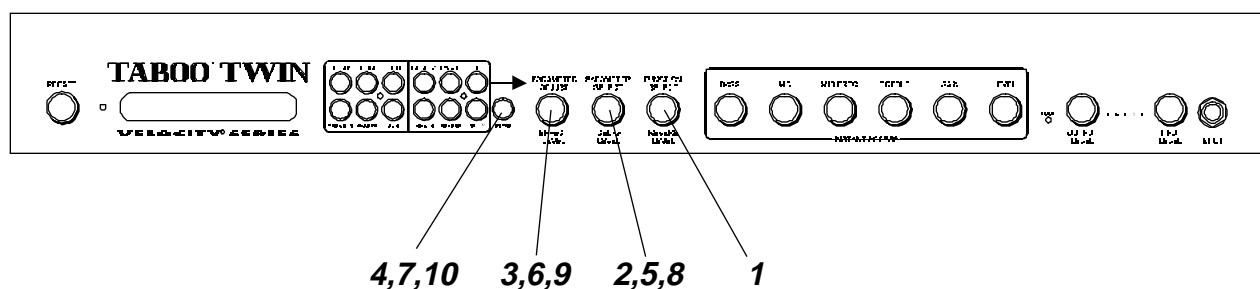
Tap Delay

The Taboo Twin allows you to change the current delay time settings for the Delay 1 and Delay 2 parameters while you are playing by connecting a *momentary* footswitch to the rear panel FOOTSWITCH jack. When the Footswitch function is activated, tapping the footswitch will change the current delay time based on the amount of time that passes between taps. The Taboo Twin will detect the amount of time between any two taps that are less than one second apart (*i.e., if more than one second passes after the first tap, two more taps — less than one second apart — will be required to change the delay time again*).

After the Taboo Twin detects the length of time between each tap, it then multiplies or divides that time based on the type of note stored in each of the DELAY 1 and DELAY 2 parameters of the Footswitch function. The resulting delay time can be:

- one-fourth of the time between taps (SIXTEEN)
- one-half of the time between taps (EIGHTH)
- two-thirds of the time between taps (TRIPLET)
- equal to the time between taps (QUARTER)
- two times the amount of time between taps (HALF), or
- four times the amount of time between taps (WHOLE)

The maximum delay time the Taboo Twin provides is 1000ms, therefore the Tap Delay feature will default to a lower parameter value when the time between taps requires a delay time over 1000ms. For example, if the WHOLE setting is stored for the Delay 1 parameter and the time between taps is 300ms, a delay time of 1200ms would be required (*i.e.* 300ms x 4). Because the maximum delay time is 1000ms, the Taboo Twin will default to the next lower multiplier (HALF) and provide a delay time two-times the delay time detected (600ms). If the delay time was over 1000ms again, the unit would then provide the QUARTER note equivalent. NONE can also be selected for the Delay 1 and Delay 2 parameters so that they will not respond to taps on the footswitch.



Step 1 With the MENU button lit, turn the FUNCTION SELECT control to "FOOTSWITCH".

**** FOOTSWITCH ****

Step 2 Turn the PARAMETER SELECT control one step clockwise to display the current momentary footswitch "TYPE" (normally open or normally closed).

TYPE NORM OPEN

The Footswitch TYPE parameter setting is global (i.e. the same for all presets).

- Step 3** Turn the **PARAMETER ADJUST** control to select the footswitch type that you will be using (normally "OPEN" or "CLOSED").

TYPE NORM CLOSED

- Step 4** Press the **STORE** button to save the altered Footswitch Type setting. "STORED" will flash briefly on the display.

STORED

- Step 5** Turn the **PARAMETER SELECT** control to one step further clockwise to access the current status for "DELAY 1".

DELAY 1 QUARTER

- Step 6** The **PARAMETER ADJUST** control can be used to change the current DELAY 1 status.

DELAY 1 HALF

- Step 7** Press the **STORE** button to save the altered Delay 1 setting. "STORED" will flash briefly on the display.

STORED

- Step 8** Turn the **PARAMETER SELECT** control one step further clockwise to access the current status for "DELAY 2".

DELAY 2 QUARTER

Step 9 Turn the **PARAMETER ADJUST** control to change the current **DELAY 2** status.

DELAY 2 **NONE**

Step 10 Press the **STORE** button to save the altered Delay 2 setting. "STORED" will flash briefly on the display.

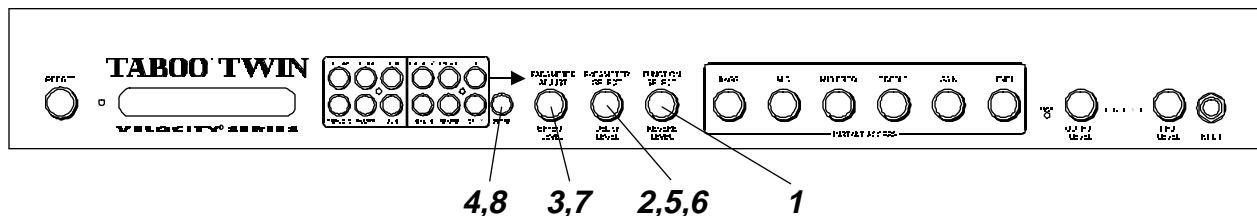
STORED

*The **DELAY 1** and **DELAY 2** parameters can be stored differently for each preset.*

Program Changes

Program Changes allow for different MIDI program numbers to be assigned to Taboo Twin preset numbers. For example, MIDI program #58 can be mapped to Taboo Twin preset #34. Then, when program #58 is selected from a MIDI transmitting device (such as a Rocktron *All Access* foot controller), preset #34 will be recalled on the Taboo Twin.

The Program Changes map table is shipped from Rocktron at a one-to-one correspondance (i.e. MIDI program #1 is mapped to Taboo Twin preset #1, 2 to 2, 3 to 3, etc.).



Step 1 With the MENU button lit, turn the FUNCTION SELECT control clockwise until the Taboo Twin displays "PROGRAM CHANGES".

PROGRAM CHANGES

Step 2 Turn the PARAMETER SELECT control one step clockwise to display the current Program Change On/Map/Off status.

PROG CHANGES

ON

Program Changes status options

ON - Execute MIDI program changes as received by a MIDI controller

MAP - Use mapping table when a program change is received

OFF - Do not execute MIDI program changes

Step 3 Turn the PARAMETER ADJUST control to select the desired Program Changes status setting.

PROG CHANGES

MAP

Step 4 Press the STORE button to save the status selection. "STORED" will flash briefly on the display.

STORED

Step 5 Turn the **PARAMETER SELECT** control one step clockwise to display the current Program Changes mapping assignments.

MAP **XXX TO XXX**

Step 6 The number on the left of the display is the MIDI program number (or the number sent via a MIDI footswitch or other MIDI transmitter). Turn the **PARAMETER SELECT** control to select the MIDI program number to map to a preset.

MAP **58 TO 58**

MIDI Program Number

Step 7 The number on the right of the display is the preset number to map to (or the preset number that will be recalled when the MIDI program number on the left is received). Turn the **PARAMETER ADJUST** control to select the preset number to map to.

MAP **58 TO 58**

Taboo Twin Preset Number

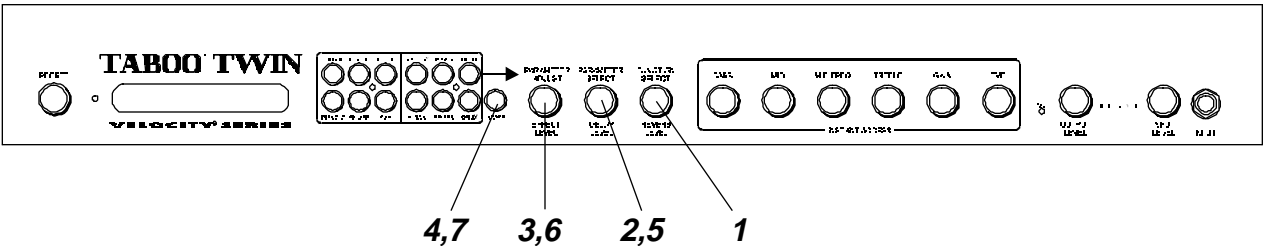
* *The preset number to map to can also be set to "OFF"—thereby not responding to that program change command.*

Step 8 After selecting both the MIDI program number and the preset number, press the **STORE** button to save the change for each altered mapping. "STORED" will flash briefly on the display.

STORED

MIDI Channels

The Taboo Twin can receive MIDI commands from other MIDI transmitting devices, as well as transmit MIDI program changes to other MIDI-based equipment when a preset is recalled on the Taboo Twin. The MIDI Channels function allows you to select the MIDI channels that the Taboo Twin will receive and transmit MIDI information on.



Step 1 With the MENU button lit, turn the FUNCTION SELECT control clockwise until the Taboo Twin displays "MIDI CHANNELS".



Step 2 Turn the PARAMETER SELECT control one step clockwise to display the current MIDI Receive channel.



Step 3 Turn the PARAMETER ADJUST control to select the desired MIDI channel. You may select channels 1-16, OMNI (all channels) or OFF (will not receive MIDI commands).



Step 4 Press the STORE button to save the new MIDI Receive channel. "STORED" will flash briefly on the display.



Step 5 Turn the PARAMETER SELECT control one step further to access the MIDI Transmit Channel status.



Step 6 Turn the **PARAMETER ADJUST** control to select the channel that the Taboo Twin will transmit a MIDI program change on. You may select channels 1-16 or OFF (will not transmit a MIDI program change).

TRANS CHANL 1

Step 6 Press the **STORE** button to save the new MIDI Transmit channel. "STORED" will flash briefly on the display.

STORED

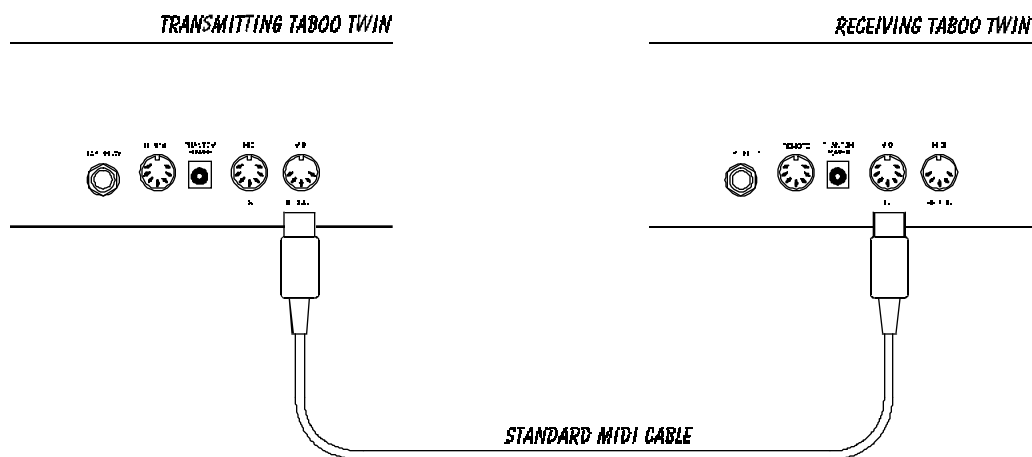
MIDI Dump/Load

Any or all of the Taboo Twin presets may be dumped to a sequencer or another Taboo Twin via system exclusive messages. The information exchanged when performing a MIDI Dump consists of parameter values, title characters and controller assignment/limit information. When dumping a single preset into another Taboo Twin, the dumped preset may be loaded into any preset location on the receiving Taboo Twin.

To dump a single Taboo Twin preset into another Taboo Twin:

Step 1 Connect a standard MIDI cable from the MIDI OUT of the transmitting Taboo Twin to the MIDI IN on the receiving Taboo Twin.

IMPORTANT ⇒ Do not allow a looping connection from the MIDI OUT/THRU of the receiving Taboo Twin back to the MIDI IN of the transmitting Taboo Twin.



Step 2 With the MENU button lit, turn the FUNCTION SELECT controls on both the transmitting and receiving Taboo Twins until "MIDI DUMP/LOAD" is displayed on each.



Step 3 Turn the PARAMETER SELECT control on each unit one step clockwise to "PR DUMP/LOAD".



Step 4

Turn the PRESET control on the transmitting Taboo Twin to the preset that is to be dumped into the receiving Taboo Twin. As the PRESET control is turned, the preset number will be displayed in the first three characters of the display.

32 PR DUMP/LOAD

Transmitting Taboo Twin

Step 5

Use the PRESET control on the receiving Taboo Twin to select the preset location to store the received preset. The preset currently stored at the selected location will be lost when the new preset is received, therefore caution should be used when selecting a preset location.

122 PR DUMP/LOAD

Receiving Taboo Twin

Step 6

To initiate the dump, press the STORE button on the transmitting Taboo Twin. The transmitting Taboo Twin will display the preset number being dumped and "DUMPED". The receiving Taboo Twin will display the preset location being stored to and "RECEIVING..." while it receives and stores the preset parameters and title.

32 DUMPED

Transmitting Taboo Twin

122 RECEIVING...

Receiving Taboo Twin

After all the information for the dumped preset is stored, the receiving Taboo Twin will display "LOADED". The receiving Taboo Twin also recalls the loaded preset at this time so that it may be verified.

122 LOADED

Receiving Taboo Twin

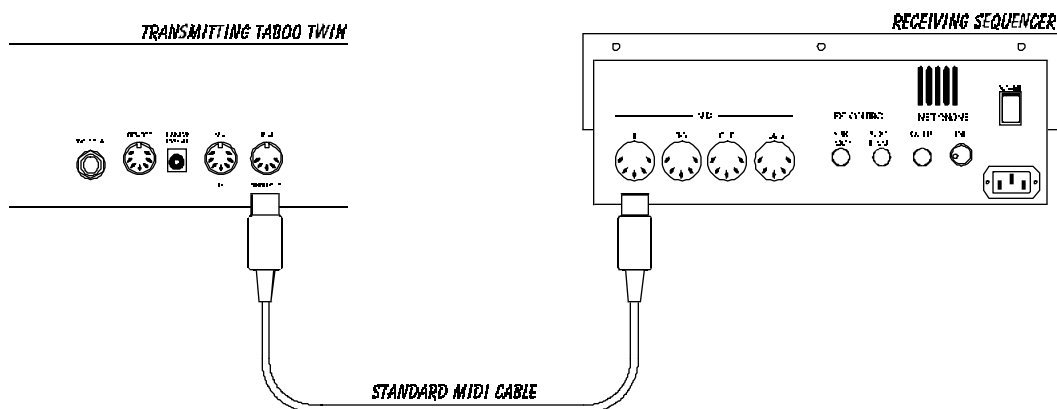


Note

If there is an error in transmission, the unit will display "RECEIVE ERROR". Should this occur, check connections and try again. If other errors occur, check the Error Messages chart in the Appendix.

To dump a single Taboo Twin preset into a sequencer:

- Step 1** Connect a standard MIDI cable from the MIDI OUT of the transmitting Taboo Twin to the MIDI In on the receiving sequencer.



- Step 2** With the MENU button lit, turn the FUNCTION SELECT controls on the transmitting Taboo Twin until "MIDI DUMP/LOAD" is displayed.

MIDI DUMP/LOAD

Transmitting Taboo Twin

- Step 3** Turn the PARAMETER SELECT control on the transmitting Taboo Twin until "BULK DUMP/LOAD" is displayed.

BULK DUMP/LOAD

Transmitting Taboo Twin

- Step 4** Start the sequencer recording.

RECORD

Step 5

Press the **STORE** button on the Taboo Twin to initiate the data dump. As the Taboo Twin performs the dump, it will display "XXX DUMPED" - where "XXX" = the number of the data string currently transmitting (i.e. strings 1-254 are presets, titles, controller information and 2-tap delay information; string 255 contains program mapping information; and string 256 contains miscellaneous information. Contact Rocktron Corporation for information on how to receive a detailed MIDI spec).

XXX DUMPED

Transmitting Taboo Twin

Step 6

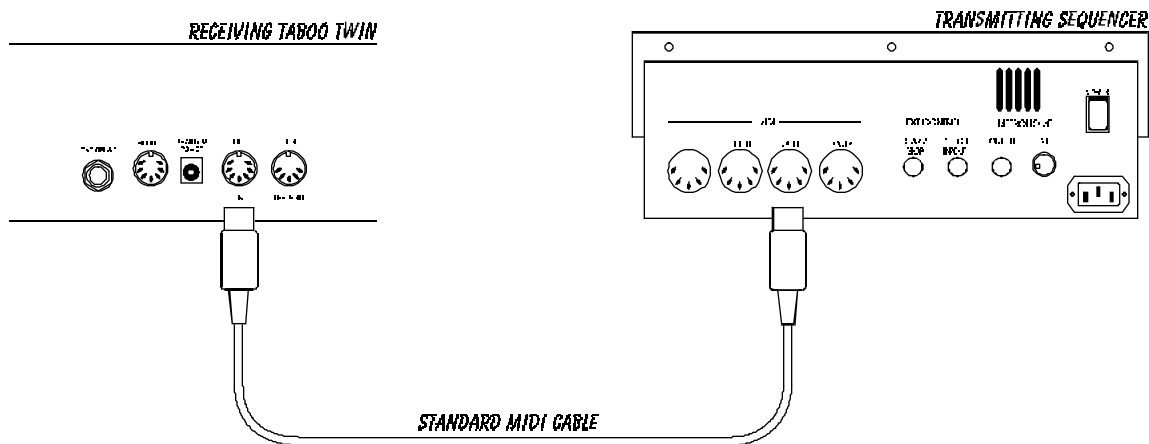
After the Taboo Twin displays "TRANS COMPLETE", stop the sequencer. The sequencer should have recorded all of the data that was dumped from the Taboo Twin. Keep this data stored on a disk in a safe place. Turn the **PARAMETER SELECT** control to continue.

STOP

To reload user data from a sequencer:

- Step 1** Connect a standard MIDI cable from the MIDI OUT of the transmitting sequencer to the MIDI IN on the receiving Taboo Twin.

IMPORTANT ⇒ Do not allow a looping connection from the MIDI OUT/THRU of the receiving Taboo Twin back to the MIDI IN of the transmitting sequencer.



- Step 2** With the MENU button lit, turn the FUNCTION SELECT control on the receiving Taboo Twin until "MIDI DUMP/LOAD" is displayed.

MIDI DUMP/LOAD

Receiving Taboo Twin

- Step 3** Turn the PARAMETER SELECT control on the receiving Taboo Twin until "BULK DUMP/LOAD" is displayed.

MIDI DUMP/LOAD

Receiving Taboo Twin

- Step 4** Play back the data stored on the sequencer. The Taboo Twin will display the data strings as it is storing them. Each data string will appear with the word "LOADED". After all the user data has been loaded, the Taboo Twin will display "LOAD COMPLETE". Do not play back the data from the sequencer faster than it was loaded, as errors may occur (errors may also occur if any knob is turned or any button is pressed before the message "LOAD COMPLETE" appears).

LOAD COMPLETE

Receiving Taboo Twin

If errors occur during transmission, the unit will display "RECEIVE ERROR" for transmission errors and "XMEM ERROR" for internal hardware errors. Errors occurring in transmission does not indicate that all of the received data is corrupted. Only the transmission string where the error occurred is corrupted.



***Important
Note***

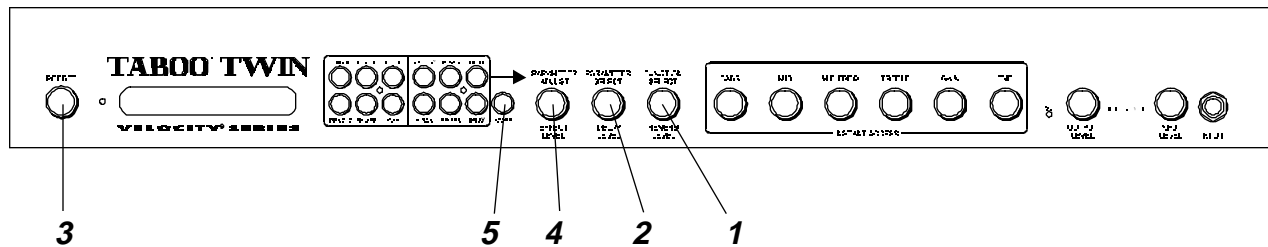
When receiving a Bulk Load, it is important that the data loaded to the Taboo Twin is not transmitted faster than it was originally dumped from the Taboo Twin. If information is sent too fast to the Taboo Twin, an error will occur.

When dumping information from a data storage device, such as an Alesis Data Disk, it is necessary to perform the dump in *sequence* mode rather than *sysx* mode. Sequence mode will dump the information back to the Taboo Twin at the same rate as it was received from the Taboo Twin. The Taboo Twin can receive a data dump at about 65Hz (or about 1 byte every 15 milliseconds).

Factory Restore

The Factory Restore function allows you to restore altered Taboo Twin presets to their original condition as shipped from the factory. Either the entire Taboo Twin memory can be restored, a single preset can be restored to any preset location, or the controller information alone can be restored.

Restoring a single factory preset:



Step 1 With the MENU button lit, turn the FUNCTION SELECT control clockwise to "FACTORY RESTORE".

FACTORY RESTORE

Step 2 Turn the PARAMETER SELECT control one step clockwise to "RESTR 1 TO 1". The number on the left is the original factory preset number to be restored. The number on the right is the preset location that the preset will be stored into.

RESTR 1 TO 1

Factory preset to be restored

Preset location to store into

Step 3 Turn the PRESET control to select the factory preset to be restored.

RESTR 98 TO 1

Step 4 Turn the PARAMETER ADJUST control to select the preset location to store the restored preset into.

RESTR 98 TO 22

!! CAUTION !!

Pressing the STORE button at this time will overwrite the current preset with the displayed factory preset.

Step 5

Press the **STORE** button to begin restoring the selected preset into the selected location. After the process is completed, the display should read "ERRORS 0". This represents the number of bytes that the Taboo Twin found did not initialize properly. Any number of errors other than "0" means that the Taboo Twin may not have initialized properly and the process should be repeated.

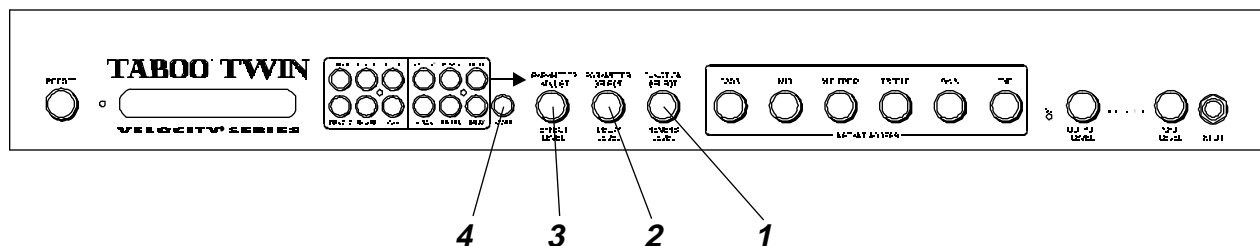
ERRORS	0
---------------	----------

*The Taboo Twin will remain in this condition until the **MENU** button is pressed to exit the Factory Restore function. The preset currently recalled will be the preset most recently restored into the current location.*

Restoring a single factory preset:

!! CAUTION !!

This procedure will permanently erase all user presets (1-254) and replace them with the original factory presets. If you have altered and stored presets which you do not want to erase, do not perform the following procedure.



Step 1 With the MENU button lit, turn the FUNCTION SELECT control clockwise to "FACTORY RE-STORE".

FACTORY RESTORE

Step 2 Turn the PARAMETER SELECT control two steps clockwise to "ALL RESTORE 0".

ALL RESTORE

0

Step 3 A specific code number must be entered to restore the Taboo Twin memory. Use the PARAMETER ADJUST control to enter the number "220".

ALL RESTORE

220

!! WARNING !!

Pressing the STORE button at this time will permanently erase all user presets and replace them with the original factory presets. If you have altered and stored presets which you do not want to erase, turn the FUNCTION SELECT control to exit this function.

Step 4

Press the STORE button at this time to initiate the All Restore procedure and erase all current Taboo Twin presets, replacing them with the original factory presets. The Taboo Twin will display "INITIALIZING" as the Taboo Twin memory is restored.

INITIALIZING

After the All Restore process is completed, the display should read "ERRORS 0". This is the number of bytes that the Taboo Twin found that did not initialize properly. Any number of errors other than "0" means that the Taboo Twin may not have initialized properly and the process should be repeated.

ERRORS

0

The Taboo Twin will remain in this condition until the MNEU button is turned to exit the Factory Restore function. The preset currently recalled will be the preset most recently restored into the current location.

Restoring the Taboo Twin controller assignments:

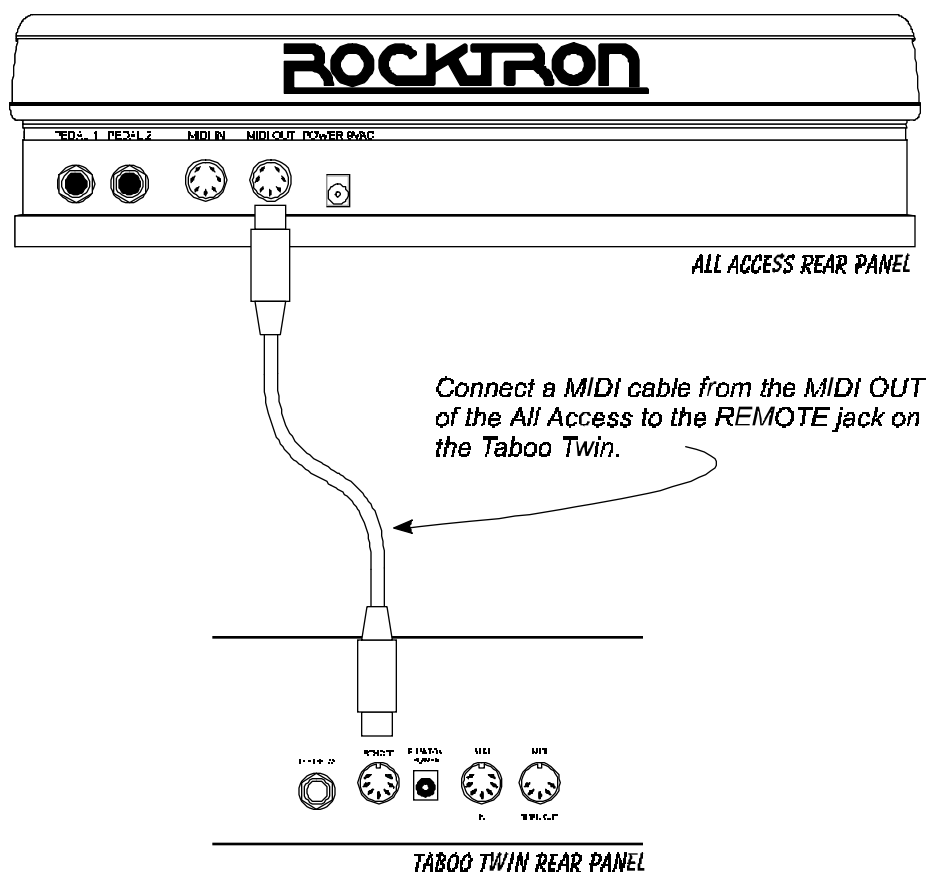
The controller assignments for the Taboo Twin can also be reinitialized without affecting presets and other stored information. Reinitialization of the controller assignments is necessary when setting up the Taboo Twin to operate in remote mode with a Rocktron All Access footswitch.

To reinitialize *only* the controller assignments, enter a code number of "221" at Step 3 on the opposite page.

Using the Taboo Twin with a Rocktron All Access® in REMOTE mode

A Rocktron All Access MIDI footswitch can act as a dedicated remote control for the Taboo Twin—allowing direct access to specific Taboo Twin features and parameters from the footswitch at any time.

- Step 1** To use an All Access footswitch as a dedicated remote, connect the MIDI OUT of the All Access to the REMOTE jack of the Taboo Twin using a 7-pin MIDI cable, as shown below.



To set up the Taboo Twin for remote operation, do the following:

- Step 2** Reinitialize the controller assignments as shown earlier in this section under the heading "Restoring the Taboo Twin Controller Assignments". This will match up the Taboo Twin's controller assignments to the All Access. A code of "221" must be entered to initialize only the controller information.

ALL RESTORE

221

Step 3 Turn the FUNCTION SELECT control clockwise to "REMOTE CONTROL".

REMOTE CONTROL

Step 4 Turn the PARAMETER SELECT control one step clockwise to display "REMOTE".

REMOTE OFF

Step 5 Turn the PARAMETER ADJUST control to select "ON".

REMOTE ON

Step 6 If the Taboo Twin titles are to be displayed on the All Access, turn the PARAMETER SELECT control to "TITLE XFER".

TITLE XFER OFF

Step 7 Turn the PARAMETER ADJUST control to "ON" to enable title transfers from the Taboo Twin to the All Access display.

TITLE XFER ON

To set up the All Access for remote operation, perform these steps from the All Access SETUP program:

(See the All Access user's manual for detailed information on editing the All Access)

Step 8 Set the Operating Mode to "REMOTE".

Step 9 Set the Bank Size to "10".

Step 10 Reinitialize only the controller information for the instant access switches and pedals using a code of "231".

Step 11 If the preset titles from the Taboo Twin are to be displayed on the All Access automatically, set the Remote Title Number to match the Unit ID Number parameter on the Taboo Twin.

When operating in Remote mode with a Taboo Twin, switches 1-10 act as normal preset switches, while switches 11-15 each perform a special function.

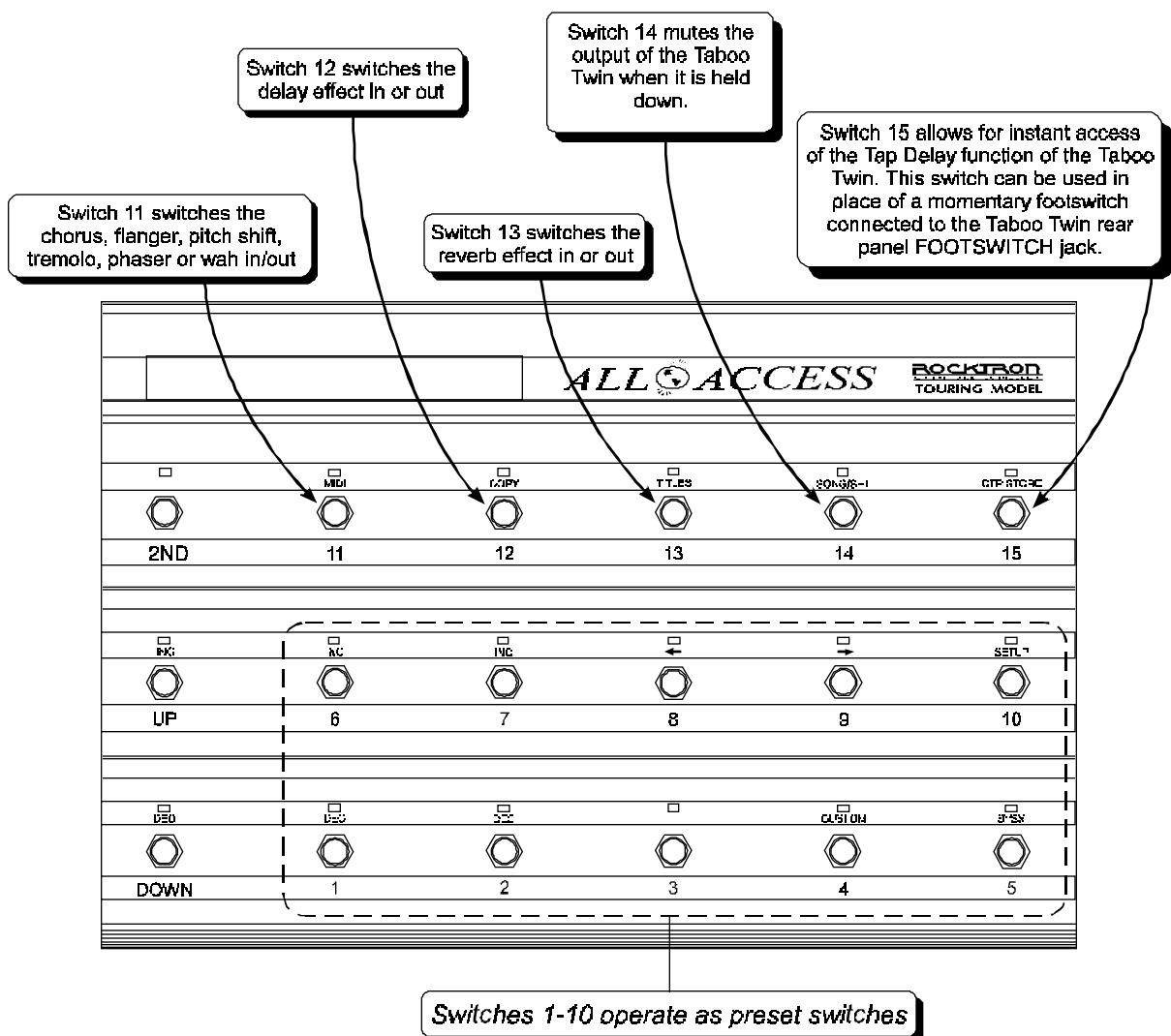
Switch 11 switches in or out the chorus, flange, tremolo, pitch shift, wah or phase shift effects (whichever is currently selected).

Switch 12 switches in or out the delay effect.

Switch 13 switches in or out the reverb effect.

Switch 14 can be pressed and held to mute the output of the Taboo Twin for as long as the switch is held down. This is especially useful when switching guitars during a live set.

Switch 15 provides instant access to the Tap Delay feature of the Taboo Twin. Switch 15 can be used instead of connecting a momentary footswitch to the FOOTSWITCH jack on the rear of the Taboo Twin. For more information on the Tap Delay feature, turn to page 51.



Upon proper setup and connection of the units, the All Access will provide the functions shown above.

9. Appendix

ERROR MESSAGES

Message	Possible Reason	Corrective Action
<i>MEMORY ERROR</i>	CODE BYTE IS NOT CORRECT IN EEPROM MEMORY.	<i>MAKE SURE EEPROM IS TIGHT IN SOCKET.</i> <i>MAKE SURE WITHIN CORRECT OPERATING TEMPERATURE.</i>
<i>DUMP ERROR</i>	MIDI INFORMATION IS BEING RECEIVED AT THE MIDI IN AT THE SAME INFORMATION IS BEING DUMPED.	<i>DISCONNECT MIDI CORD AT MIDI IN OF TRANSMITTING TABOO TWIN.</i>
<i>RECEIVE ERROR</i>	MIDI SYSTEM EXCLUSIVE INFORMATION WAS NOT RECEIVED CORRECTLY.	<i>BULK LOAD WAS TRANSMITTED TOO FAST.</i> <i>CHECK SUM BYTE WAS NOT CORRECT.</i> <i>DATA STRINGS NOT CORRECT LENGTH.</i> <i>DATA STRINGS OUT OF ORDER.</i>
<i>XMEM ERROR</i>	EEPROM MEMORY IS NOT BEING STORED TO CORRECTLY.	<i>MAKE SURE EEPROM IS TIGHT IN THE SOCKET.</i> <i>MAKE SURE WITHIN THE CORRECT OPERATING TEMPERATURE.</i>
<i>LOAD ERRORS</i>	MIDI SYSTEM EXCLUSIVE INFORMATION WAS NOT RECEIVED CORRECTLY OR STORED CORRECTLY.	<i>CHECK RECEIVE ERROR AND XMEM ERROR.</i>

MIDI IMPLEMENTATION

Taboo Twin

Date: September 17, 1997

Version: 1.0

	<u>FUNCTION</u>	<u>TRANSMITTED</u>	<u>RECOGNIZED</u>	<u>REMARKS</u>
BASIC CHANNEL	DEFAULT CHANGED	1-16 1-16	1-16 1-16	May be saved in non-volatile memory
MODE	DEFAULT MESSAGES ALTERED	X X X	X X X	
NOTE NUMBER	TRUE VOICE	X	X	
VELOCITY	NOTE ON NOTE OFF	X X	X X	
AFTER TOUCH	KEY'S CHANNEL	X X	X X	
PITCH BEND		X	X	
CONTROL CHANGE**		X	O	
PROGRAM CHANGE*	TRUE NUMBER	O	O	
SYSTEM EXCLUSIVE		O	O	For Bulk Dump/Load and Preset Dump/Load
SYSTEM COMMON	SONG POSITION SONG SELECT TRUE REQUEST	X X X	X X X	
SYSTEM REAL TIME	CLOCK COMMANDS	X X	X X	
AUXILIARY MESSAGES	LOCAL ON/OFF ALL NOTES OFF ACTIVE SENSING SYSTEM RESET	X X X X	X X X X	

O=YES
X=NO

* Actual MIDI program value sent is 0-253, corresponding to presets 1-254. Optional implementation of program mapping also available.

** The control number may be from 0-120, or OFF. An upper and lower range may also be specified for most parameters.

TECHNICAL DATA	
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INPUT IMPEDANCE	470K Ω
MAXIMUM INPUT LEVEL	+20dBu
INPUT JACK	1/4" mono
FULL RANGE OUTPUT JACKS	XLR balanced left and right; Speaker Simulator compensated
GLOBAL EQ	Bass: ± 10 dB Treble: ± 10 dB
TUBE REPLACEMENT	12AX7
FUSE REPLACEMENT	4 Amp, slow blow
SPEAKERS	12" 75 Watt custom Eminence
MIDI IN	7-pin DIN
MIDI THRU/OUT	5-pin DIN
POWER REQUIREMENTS	117VAC / 60Hz
DIMENSIONS	30 3/4" x 20 1/8" x 10 3/4"



CE Approved

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