

Chapter 7 Using the Internal Effects (VS8F-2)

The optional VS8F-2 Effect Expansion Board provides two independent, stereo effect processors. Up to two VS8F-2 expansion boards can be installed in the VS-1680. With two VS8F-2s installed, four high quality stereo effects are available for use during recording, bouncing and mixing.

Location of Effects

Each VS8F-2 effect expansion board installed in the VS-1680 is given its own section. These sections are called **EFFECT A** and **EFFECT B**. With two VS8F-2s installed, each of the effects in EFFECT A, (EFX1 and EFX2) and the effects in EFFECT B (EFX3 and EFX4) may be used. You can apply up to four effects at a time to each channel of the VS-1680's mixer.

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Procedure for using Effects

To use an effect in the VS-1680, follow these three general steps: First, select the Effect Patch to use. Second, determine whether the effect should be used as an Effect Insert or in an Effect Send and Return Loop. Third, connect the effect within the mixer. The exact methods for each of these three steps are explained below.

I. Selecting Effect Patches

An effect setting is referred to as a patch. The VS8F-2 provides 210 Preset Patches and 200 User Patches. Use the procedure below to select a Preset Patch

A. Selecting a Preset Patch

1. Press [PLAY(DISPLAY)].
2. To use EFFECT A (EFX1 and EFX2), hold [SHIFT] and press [F3(EFFECT A)]. To use EFFECT B (EFX3 and EFX4), hold [SHIFT] and press [F4(EFFECT B)].
3. Press [F1(EFX1)]. The Effect 1 screen appears in the display.
4. Press [F2(Sel)]. The effects list appears in the display.
5. Use the TIME / VALUE dial or [←], [→], [↑], and [↓] to move the cursor to the effect you wish to use. The function buttons work as shown below.

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[F1(Preset)]: Displays the Preset patch list.
[F2(User)]: Displays the User patch list.
[F4(Exec)]: Selects the effect and exits the screen.
[F6(EXIT)]: Exits the screen without selecting the effect.

6. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 1 screen appears in the display.
7. Press [PLAY(DISPLAY)] to return to the Playlist display.

If “No Effect Board” Appears in the Display

This indicates there is no VS8F-2 installed. In this case, you cannot use the internal effects. If the message appears even when a VS8F-2 is installed, it indicates the effect board is not installed recognized properly. Perform the shutdown procedure and turn the power off as described in “Turning Off the Power” (p.xx), then reinstall the VS8F-2 correctly.

* Patches using the following algorithms cannot be selected for EFX2 and EFX4. A horizontal line is drawn through the effect name in such cases. If you want to use one of the following algorithms, select them from EFX1 or EFX 3:

Reverb
Gated Reverb
Vocoder 2
Voice Transformer

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* If effects are used in combination with the Vari Pitch function (p. xx) delay times may change somewhat and there may be some change in the tone quality of distortion effects.

* With some effects, you may not want the direct sound output, or other special settings may be required. Please refer to "Algorithm List" (Appendices p. 81) when making these settings.

B. Creating and Saving User Effect Patches

A VS-1680 with one or two of the optional VS8F-2 effect boards installed will have 200 User Patches which are the same as the first 200 Preset Patches. It is possible to overwrite the User Patches to store your own custom effects. To create your own User Patch, first select the Preset Patch whose sound is closest to what you wish to create. Then alter the settings of that patch. If you do not save the changes to a preset effect, they are lost once you select another patch or recall a different Scene.

1. Using the procedure described in "Selecting Effect Patches" (p. xx), select the patch containing the effect algorithms you will base your new effect on. The following screen is displayed:

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2. Press [⇐] and [⇒] to move the cursor in the screen. When you select a patch with an section that can be turned on and off, use the TIME / VALUE dial to turn the section on and off. In the display, effect blocks that are currently activated and on are highlighted. Move the cursor to the effect block whose settings you wish to change.
3. Press [F3(Edit)] or press [YES]. A list of settings available in the effect block is displayed.
4. Press [⇐], [⇒], [↑], and [↓] to move the cursor in the screen. Use the TIME / VALUE dial to adjust settings. For more detailed information about the settings included in each effect algorithm, refer to the "Algorithm List" (Appendices p.81).

The function buttons work as shown below:

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[F1(← Bk)]: Displays the settings of the previous effect block.
[F2(Bk →)]: Displays the settings of the next effect block.
[F4(SAVE)]: Displays the Effect Save screen.
[F6(EXIT)]: Exits the screen.

5. When saving an effect settings, it is necessary to either save it to a User Patch, or save the mixer settings as a Scene. If you want to use a custom effect in a different song, save it as a User Patch. If you are only going to use it in the currently selected song, you can save it as part of a mixer Scene. At this point, save the effect using one of the two methods described below.

a. Save An Effect as a User Patch

1. Press [F4(SAVE)]. The Effect Name screen appears in the display.
2. Rotate the TIME / VALUE dial to select the destination patch number (U000 - U199).

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3. Use [⇐] and [⇒], and the TIME / VALUE dial to create the name of the User Patch. The function buttons work as shown:

[F1(Hist)]:	Press this button to take you through a list of the last 20 User Patch names entered, one at a time.
[F2(Clr)]:	Clears all the characters in the window.
[F3(Del)]:	Deletes the character where the cursor is positioned.
[F4(Ins)]:	Inserts a space where the cursor is positioned.
[F5(Write)]:	Stores the User Patch and exits the screen.
[F6(EXIT)]:	Exits the screen without storing the User Patch.

4. After entering the name, press [F5(Write)]. The User Patch is saved.
5. Press [PLAY(DISPLAY)] to return to the Playlist display.

b. **Save an Effect Patch as Part of A Mixer Scene**

For more detailed information, refer to "Storing Mixer Scenes" (p. xx).

1. Press [PLAY(DISPLAY)].
2. Press [SCENE]. The button indicator lights.
3. Press a SCENE button (1 - 8) that is not blinking. For example, if you wanted to store the settings to Scene 6, then press [6].
4. After the Scene is stored, the [SCENE] indicator goes off.
5. If you wish to clear the scene, press [SCENE] once. Then hold [CLEAR] and press the blinking SCENE button which you wish to clear.

About Algorithms

An **algorithm** determines the composition or structure of an effect. The VS8F-2 provides 34 different algorithms. The settings for the effects in each patch uses at least one, and in many cases more than one of these algorithms. Check the algorithms used in each patch in "Preset Patch List" (Appendices p. 74). For details on each algorithm, refer to "Algorithm List" (Appendices p. 81).

II. Effect Types

There are two types of effects patches in the VS8F-2 Effects Expansion Board, **Insert** effects, and **Send-And-Return Loop** effects. The effect type determines how the effect should be connected in the mixer. The two ways to connect an effect within the mixer are referred to as **Effect Inserts**, and **Effect Send and Return Loops**. The differences in these methods is explained below.

A. Effect Inserts

With Effect Inserts, the effect is added directly, either between the mixer channel's equalizer and fader, or before the master fader. Effects such as Compressors, EQs, Guitar Amp Simulators and Mic Simulators are normally patched using an Insert. If you set up an effect

as an insert on either a Track or an Input, it cannot be used on any other Tracks or Inputs. When an effect is inserted on a mixer channel, that effect cannot be used in a Send and Return Loop on another channel. For example, if you select Effect 1 as Preset Patch P067 Limiter and insert it on Track 8, no other inputs or tracks can be routed to Effect 1.

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** Depending on the effects used, when mixing with different effects inserted into each channel, or mixing channels having effects inserted with other channels having no effects, slight timing shifts between tracks may occur.*

B. Effect Send and Return Loops

With Effect Send and Return Loops, the direct sound and the effected sound are mixed together. Effects such as Reverbs and Delays are typically connected using a Send / Return Loop.

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In an Effect Send and Return Loop, a portion of the direct signal is split and sent to the effect. Later in the signal flow, the output of the effect processor is mixed back in with the direct signal. An Effect Send and Return Loop provides independent control of the direct signal (using the channel fader) and the Effect Return Level. Effect Send and Return Loops are often referred to as simply "Effect Loops". All 26 channels of the VS-1680s mixer can be routed to a single effect using a Send and Return Loop. For example, you can have up to 26 different mixer channels routed to the same reverb, with different send levels on each channel.

A mixer channel can be connected to an effect via an Effect Send and Return Loop using one of two different switch positions. These switch positions are referred to as **Pre Fader** and **Post Fader**.

1. Pre Fader

With the effect switch set to Pre Fader, the signal is sent to the effect before it passes through the channel fader. The position of the channel fader has no effect on the amount of signal going to the effect. Even if the channel fader is pulled all the way down, signal is still being sent to the effect, as set by the Effect Send Level.

2. Post Fader

With the effect switch set to Post Fader, the signal is sent to the effect after it passes through the channel fader. The position of the channel fader has a direct bearing on the amount of signal going to the effect. As the channel fader is lowered, the amount of signal going to the effect is lowered. As the channel fader is raised, the amount of signal going to the effect is raised. As a result, the direct signal and the effected signal always stay in proportion.

C. Making the Effect Connection

The VS-1680 Channel Mixer display provides two different areas to connect effects. One area is used for connecting Effect Inserts only, and is labeled "EFXIns". The other area is used for connecting Effect Send and Return Loops. This area appears at the bottom of the Mixer screen, and is labeled "EFX1", "EFX2", "EFX3", and "EFX4". To find out if an effect should be connected as an Insert or as a Send and Return Loop, see "VS8F-2 Preset Patch List" (Appendices p. 74). Look under "Type". The Type of effect determines which area of the Mixer display should be used to connect it.

III. Connecting Effects

The following section explains in detail the steps to connect Effect Inserts and Effect Send and Return Loops, and provides examples for each method.

A. Connecting Effect Inserts in the Input and Track Mixer

1. Select the channel on which the effect is to be inserted. Press the SELECT button for either an Input Channel or a Track Channel. The button indicator lights, and the Mixer Screen appears in the display.
2. Use [←], [→], [↑], and [↓] to move the cursor to “EFXIns”. Or, press [F1(Ef1In)]. If “Ef1In” does not appear above [F1], press [PAGE] a few times until you see “Ef1In”, and then press [F1(Ef1In)]. This will move the cursor directly to “EFXIns”.
3. Press [YES].
4. Use [←] and [→] to move the cursor to Effect you want to insert. Use the TIME / VALUE dial to change the Effect Insert Switch.

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EFX1(Effect Insert Switch)

This sets how the effect is connected.

- Off:** The channel is not inserted.
- Ins:** The channel is inserted into both channels of the stereo effect.
- InsL:** The channel is inserted into the left channel of the stereo effect.
- InsR:** The channel is inserted into the right channel of the stereo effect.
- InsS:** The channel is inserted into both channels of the stereo effect, in series.

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** When Ins or InsS is selected, that effect cannot be used on any other channel. When InsL or InsR is selected, that effect can be inserted only on one other mixer channel.*

Snd (Insert Send Level)

This adjusts the level of signal (-42 dB to +6 dB) sent to the Insert Effect. The default setting is 0 dB.

Rtn (Insert Return Level)

This adjusts the level of signal (-42 dB to +6 dB) returned from the Insert Effect. The default setting is 0 dB.

5. Press [PLAY(DISPLAY)] to return to the Playlist display.

Use the above steps to insert EFX2 - EFX 4.

B. Connecting Effect Inserts in the Master Block

It is possible to insert an effect into the Master Out. For example, you might want to send the entire song mix through a compressor or limiter. Use the following steps to do so.

1. Press [EDIT/SOLO]. The button indicator lights, and the Master screen appears in the display.
2. Use [←], [→], [↑], and [↓] to move the cursor to “EFXIns”. Or, press [F1(Ef1In)]. If “Ef1In” does not appear above [F1], press [PAGE] a few times until you see “Ef1In”, and then press [F1(Ef1In)].
3. Press [YES].
4. Use [←] and [→] to move the cursor to Effect you want to insert. Use the TIME / VALUE dial to change the Effect Insert Switch.

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EFX1(Effect Insert Switch)

This sets how the effect is connected.

Off: The channel is not inserted.

Ins: The channel is inserted into both channels of the stereo effect.

Snd (Insert Send Level)

This adjusts the level of signal (-42 dB to +6 dB) sent to the Insert Effect. The default setting is 0 dB.

Rtn (Insert Return Level)

This adjusts the level of signal (-42 dB to +6 dB) returned from the Insert Effect. The default setting is 0 dB.

5. Press [PLAY(DISPLAY)] to return to the Playlist display.

Insert EFX2 - EFX 4 into the Master Out using the same steps.

C. Three Effect Insert Examples

1. Example: Process a recorded guitar solo through a Guitar Amp Simulator.

General Strategy: Insert the Effect on the Track Mixer

Details for this example: Select EFX1 as patch P088, Insert on Track 3

Step One: Select The Effect

1. Press [PLAY(DISPLAY)].
2. Hold [SHIFT] and press [F3(EFFECT A)].
3. Press [F1(EFX1)]. The Effect 1 screen appears in the display.
4. Press [F2(Sel)]. The effects list appears in the display.
5. Use the TIME / VALUE dial or [⇐], [⇒], [↑], and [↓] to move the cursor to Effect Preset Patch P088 "GuitarMulti1".
6. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 1 screen appears in the display.

Step Two: Set up the Mixer

1. Press Track 3 SELECT. The button indicator lights, and the Track Mixer Screen appears in the display.
2. Use [⇐], [⇒], [↑], and [↓] to move the cursor to "EFXIns". Or, press [F1(Ef1In)]. If "Ef1In" does not appear above [F1], press [PAGE] a few times until you see "Ef1In", and then press [F1(Ef1In)]. This will move the cursor directly to "EFXIns".
3. Press [YES].
4. Use [⇐] and [⇒] to move the cursor to EFX1. Use the TIME / VALUE dial to change the Effect Insert Switch to "Ins".
5. Press [PLAY(DISPLAY)] to return to the Playlist display.

2. Example: Use a Microphone Simulator on a vocal track to be recorded.

General Strategy: Insert the Effect on the Input Mixer

Details for this example: Select EFX3 as patch P128, Insert on Input 2

Step One: Select The Effect:

1. Press [PLAY(DISPLAY)].
2. Hold [SHIFT] and press [F4(EFFECT B)].
3. Press [F1(EFX3)]. The Effect 3 screen appears in the display.
4. Press [F2(Sel)]. The effects list appears in the display.

5. Use the TIME / VALUE dial or [⇐], [⇒], [↑], and [↓] to move the cursor to Effect Preset Patch P128 "DR20→87".
6. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 3 screen appears in the display.

Step Two: Set up the Mixer

1. Press Input 2 SELECT. The button indicator lights, and the Input Mixer Screen appears in the display.
2. Use [⇐], [⇒], [↑], and [↓] to move the cursor to "EFXIns". Or, press [F3(Ef3In)]. If "Ef3In" does not appear above [F3], press [PAGE] a few times until you see "Ef3In", and then press [F3(Ef3In)]. This will move the cursor directly to "EFXIns".
3. Press [YES].
4. Use [⇐] and [⇒] to move the cursor to EFX3. Use the TIME / VALUE dial to change the Effect Insert Switch to "Ins".
5. Press [PLAY(DISPLAY)] to return to the Playlist display.

3. **Example:** Place a Limiter on the Stereo Mix Out

General Strategy: Insert the Effect on the Master Out

Details for this example: Select EFX2 as patch P067, Insert on Master Block

Step One: Select The Effect

1. Press [PLAY(DISPLAY)].
2. Hold [SHIFT] and press [F3(EFFECT A)].
3. Press [F4(EFX2)]. The Effect 2 screen appears in the display.
4. Press [F2(Sel)]. The effects list appears in the display.
5. Use the TIME / VALUE dial or [⇐], [⇒], [↑], and [↓] to move the cursor to Effect Preset Patch P067 "Limiter".
6. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 2 screen appears in the display.

Step Two: Set up the Mixer

1. Press [EDIT/SOLO]. The button indicator lights, and the Master screen appears in the display.
2. Use [⇐], [⇒], [↑], and [↓] to move the cursor to "EFXIns". Or, press [F2(Ef2In)]. If "Ef2In" does not appear above [F2], press [PAGE] a few times until you see "Ef2In", and then press [F2(Ef2In)]. This will move the cursor directly to "EFXIns".
3. Press [YES].
4. Use [⇐] and [⇒] to move the cursor to EFX2. Use the TIME / VALUE dial to change the Effect Insert Switch to "Ins".
5. Press [PLAY(DISPLAY)] to return to the Playlist display.

D. **Connecting Effect Send and Return Loops**

1. Select the channel on which the effect is to be connected. Press the SELECT button for either an Input Channel or a Track Channel. The button indicator lights, and the Mixer Screen appears in the display.
2. Use [⇐], [⇒], [↑], and [↓] to move the cursor to "EFX1". Or, press [F1(EFX1)]. If "EFX1" does not appear above [F1], press [PAGE] a few times until you see "EFX1", and then press [F1(EFX1)].

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3. Use [↑], and [↓] to move the cursor. Use the TIME / VALUE dial to change the values.

Sw (Effect Send Switch)

This selects how the signal is sent to the Effect bus.

Off: Signal is not sent to the Effect bus.

Pre: (Pre-Fader). The signal is sent based on the level before the mixer fader.

Pst: (Post-Fader). The signal is sent based on the level after the mixer fader.

Send Level

This adjusts the volume level of the signal (0 - 127) sent to the EFFECT bus. The default setting is 100.

Send Pan

This adjusts the stereo placement of the signal (L63 - R63) sent to the EFFECT bus. "L63" designates "hard Left" and R63 designates "hard right". The default value is "0" (center).

4. Press [PLAY(DISPLAY)] to return to the Playlist display.

Connect EFX2 - EFX4 using Send and Return Loops the same way.

E. Effects Return Section

When used in an Effect Loop, each of the four effects has its own Return Level. You can adjust the Return Level for each effect using the following procedure.

** The Effects Return settings for an individual effect will not function if that effect is being used as an Effect Insert in the mixer.*

1. Press the EFFECT 1/3 RTN SELECT button. The Effect Return screen appears in the display.
2. Press [F3(EFX1)], or use [←], [→], [↑], and [↓] to move the cursor to "EFX1Rtn".
3. Use [↑], and [↓] to move the cursor. Use the TIME / VALUE dial to change the values.

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Return Level

This sets the volume level (0 - 127) of the effect. The default setting is 100.

Return Balance

This adjusts the stereo placement of the effect (L63 - R63) in the Master Mix. "L63" designates "hard Left" and R63 designates "hard right". The default value is 0 (center).

Adjust the Effect Return Level using the Channel Faders

- 3.1 Press [FADER/MUTE] so "IN" is lit.
- 3.2 Use the EFFECT 1 fader to adjust the EFX1 return level.
- 3.3 Use the EFFECT 2 fader to adjust the EFX2 return level.
- 3.4 Hold [SHIFT] and use the EFFECT 1 fader to adjust the EFX3 return level.
- 3.5 Hold [SHIFT] and use the EFFECT 2 fader to adjust the EFX4 return level.
- 3.6 After you are finished adjusting the Effect Return levels, press [FADER/MUTE] so "TR" is lit.

F. Two Examples of Using Effect Send and Return Loops

1. **Example: Add a Delay to a recorded Vocal Track**

General Strategy: Connect the Effect on the Track Mixer as Post Fader
Details for this example: Select EFX2 as patch P024, Connect to Track 6

Step One: Select the effect:

1. Press [PLAY(DISPLAY)].
2. Hold [SHIFT] and press [F3(EFFECT A)].
3. Press [F4(EFX2)]. The Effect 2 screen appears in the display.
4. Press [F2(Sel)]. The effects list appears in the display.
5. Use the TIME / VALUE dial or [⇐], [⇒], [↑], and [↓] to move the cursor to Effect Preset Patch P024 "Long Delay".
6. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 2 screen appears in the display.

Step Two: Set Up the Mixer:

1. Press Track 6 SELECT. The button indicator lights, and the Track Mixer Screen appears in the display.
2. Use [⇐], [⇒], [↑], and [↓] to move the cursor to "EFX2". Or, press [F2(EFX2)]. If "EFX2" does not appear above [F2], press [PAGE] a few times until you see "EFX2", and then press [F2(EFX2)].
3. Use the TIME / VALUE dial to change the EFX Switch to "Pst".
4. Press [↓] to move the cursor to the Effect Send Level, and use the TIME / VALUE dial to change the level to "70".
5. Press [PLAY(DISPLAY)] to return to the Playlist display.

2. Example: Add Reverb to Drum Tracks

General Strategy: Connect the effect on multiple Track Mixer Channels as Post Fader.

Details for this example: Select EFX3 as patch P006, and connect on Tracks 7 - 12.

Step One: Select the effect:

1. Press [PLAY(DISPLAY)].
2. Hold [SHIFT] and press [F4(EFFECT B)].
3. Press [F1(EFX3)]. The Effect 3 screen appears in the display.
4. Press [F2(Sel)]. The effects list appears in the display.
5. Use the TIME / VALUE dial or [⇐], [⇒], [↑], and [↓] to move the cursor to Effect Preset Patch P006 "Medium Room".
6. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 3 screen appears in the display.

Step Two: Set Up the Mixer:

1. Press Track 7 SELECT. The button indicator lights, and the Track Mixer Screen appears in the display.
2. Use [⇐], [⇒], [↑], and [↓] to move the cursor to "EFX3". Or, press [F3(EFX3)]. If "EFX3" does not appear above [F3], press [PAGE] a few times until you see "EFX3", and then press [F3(EFX3)].
3. Use the TIME / VALUE dial to change EFX Switch to "Pst".
4. Press [↓] to move the cursor to the Effect Send Level, and use the TIME / VALUE dial to change the level to "70".
5. Repeat steps 1 - 4 for Track 8 - 12. Press the Track SELECT button for each of these tracks to make the effect settings. Tracks 9/10 and 11/12 are stereo tracks.
6. When you are finished setting up Effect Loops on Tracks 7 - 12, press [PLAY(DISPLAY)] to return to the Playlist display.

IV. Using Effects While Recording

It is possible to apply effects while recording such that either the effect becomes a permanent part of the recorded track, or the effect is only used during recording for monitoring purposes.

The method for applying effects while recording depends on whether you want the track recorded with the effect or not.

Here are a few recording terms you should be familiar with:

“Print”	This verb means the same as “record”.
“Wet”	Processed using an effect. A wet track has an effect on it.
“Dry”	Totally unprocessed. The track has no effects on it.
“Clean”	Same as “dry”.
“Print Wet”	Record with an effect. Use an effect while recording such that the effect becomes a permanent part of the recording. If you print a vocal track “wet” using a reverb, it is impossible to remove the reverb from the vocal track later to hear just the “dry” vocal.

This next section will explain the following four methods of using effects while recording:

1. **Hearing an Effect Insert While Recording.** This describes using an Effect Insert while recording a track, but the effect does not become a permanent part of the track.
2. **Hearing an Effect Loop While Recording.** This describes using an Effect Send and Return Loop while recording a track, but the effect does not become a permanent part of the track.
3. **Recording Insert Effects.** This describes using an Effect Insert while recording a track so the effect becomes a permanent part of the track.
4. **Recording Loop Effects.** This describes using an Effect Loop while recording a track so the effect becomes a permanent part of the track.

The most important thing to keep in mind while using effects during the recording process is deciding whether you want the effect to “print” or not. That decision will determine in which mixer the effect should be connected. In some cases, the effect will need to be placed on the Input Mixer. In other cases, the effect will need to be placed on the Track Mixer.

1 Hearing an Effect Insert While Recording

Use the following procedure when you want to record a Guitar Track dry, or without any effects or processing, but the guitar player wants to hear the guitar processed by one of the Guitar Amp Simulators in the VS-1680 as he’s recording.

General Strategy: Insert the effect on the Track Mixer.

Details for this Example: Select EFX1 as patch P088, Insert on Track Mixer Channel 8.

Step One: Select the Effect

1. Press [PLAY(DISPLAY)].
2. Hold [SHIFT] and press [F3(EFFECT A)].
3. Press [F3(EFX1)]. The Effect 1 screen appears in the display.
4. Press [F2(Sel)]. The effects list appears in the display.
5. Use the TIME / VALUE dial or [←], [→], [↑], and [↓] to move the cursor to Effect Preset Patch P088 “Guitar Multi 1”.
6. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 1 screen appears in the display.

Step Two: Set up the Track Mixer:

1. Press Track 8 SELECT. The button indicator lights, and the Track Mixer Screen appears in the display.
2. Use [←], [→], [↑], and [↓] to move the cursor to “EFXIns”. Or, press [F1(Ef1In)]. If “Ef1In” does not appear above [F1], press [PAGE] a few times until you see “Ef1In”, and then press [F1(Ef1In)]. This will move the cursor directly to “EFXIns”.
3. Press [YES].

4. Use [⇐] and [⇒] to move the cursor to EFX1. Use the TIME / VALUE dial to change the Effect Insert Switch to "Ins".
5. Press [PLAY(DISPLAY)] to return to the Playlist display.

Now you're ready to record as usual.

Later, when you play the track with the effect still inserted, you will hear the effect. This doesn't mean you've recorded the track with the effect. As soon as you turn the effect off, you'll hear the dry guitar. This is a great way to record, as it allows the flexibility to decide which effect to use after the recording has been made.

2. Hearing an Effect Send and Return Loop While Recording

Example: Lead singer wants to hear reverb in the headphones while recording, but you want to record the track "dry".

General Strategy: Connect Effect Loop on Track Mixer

Details for this Example: Select Effect 3 as patch P024, connect post fader to Track Mixer on Channel 2, record from Input 2.

Step One: Select the Effect:

1. Hold [SHIFT] and press [F4(EFFECT B)].
2. Press [F3(EFX3)]. The Effect 3 screen appears in the display.
3. Press [F2(Sel)]. The effects list appears in the display.
4. Use the TIME / VALUE dial or [⇐], [⇒], [↑], and [↓] to move the cursor to Effect Preset Patch P024 "Long Delay".
5. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 3 screen appears in the display.

Step Two: Set up the Mixer

1. Press Track 2 SELECT. The button indicator lights, and the Track Mixer Screen appears in the display.
2. Use [⇐], [⇒], [↑], and [↓] to move the cursor to "EFX3". Or, press [F3(EFX3)]. If "EFX3" does not appear above [F3], press [PAGE] a few times until you see "EFX3", and then press [F3(EFX3)].
3. Use the TIME / VALUE dial to change EFX Switch to "Pst".
4. Press [↓] to move the cursor to the Effect Send Level, and use the TIME / VALUE dial to change the level to "70".
5. Press [PLAY(DISPLAY)] to return to the Playlist display.

Even though you will hear the effect while recording, the track will be printed dry.

3. Recording an Effect Insert

Sometimes you may want an effect to become a permanent part of the track, so that after recording, the effect processor can be used on a different track. This is called recording "wet", which means recording with an effect. To record a track wet, simply insert the effect in the Input Mixer, instead of in the Track Mixer.

Example: Record a Vocalist through a Compressor

General Strategy: Insert Effect on Input Mixer

Details for this Example: Select Effect 2 as P096, insert on Input 1.

Step One: Select the Effect

1. Press [PLAY(DISPLAY)].
2. Hold [SHIFT] and press [F3(EFFECT A)].
3. Press [F4(EFX2)]. The Effect 2 screen appears in the display.
4. Press [F2(Sel)]. The effects list appears in the display.
5. Use the TIME / VALUE dial or [⇐], [⇒], [↑], and [↓] to move the cursor to Effect Preset Patch P096 "Compressor".

6. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 2 screen appears in the display.

Step Two: Set up the Mixer:

1. Press Input 2 SELECT. The button indicator lights, and the Input Mixer Screen appears in the display.
2. Use [←], [→], [↑], and [↓] to move the cursor to “EFXIns”. Or, press [F2(Ef2In)]. If “Ef2In” does not appear above [F2], press [PAGE] a few times until you see “Ef2In”, and then press [F2(Ef2In)]. This will move the cursor directly to “EFXIns”.
3. Press [YES].
4. Use [←] and [→] to move the cursor to EFX2. Use the TIME / VALUE dial to change the Effect Insert Switch to “Ins”.
5. Press [PLAY(DISPLAY)] to return to the Playlist display.

Now you're ready to record.

Important Reminder: After recording with the effect inserted on Input 2, don't forget to turn it off.

Repeat the steps above for Step Two: Setting Up The Mixer, but use the TIME / VALUE dial to turn the Effect Insert to “off”.

Summary: Using Insert Effects While Recording

To print an Effect Insert, insert it on the Input Mixer.

To hear an Effect Insert while recording, but not have it print, insert it on the Track Mixer.

4. Recording an Effect Send and Return Loop

This example explains how to use an Effect Loop while recording so the effect is recorded as a permanent part of the Track.

General Strategy: Connect an Effect Loop on the Input Mixer, assign the Input to a stereo track and assign the Effect Return to same Stereo Track.

Details for this Example: Select Effect 2 as patch P024 “Long Delay”, record Input 1 and Effect Return 2 onto Track 9/10.

Step One: Select the effect

1. Press [PLAY(DISPLAY)].
2. Hold [SHIFT] and press [F3(EFFECT A)].
3. Press [F4(EFX2)]. The Effect 2 screen appears in the display.
4. Press [F2(Sel)]. The effects list appears in the display.
5. Use the TIME / VALUE dial or [←], [→], [↑], and [↓] to move the cursor to Effect Preset Patch P024 “Long Delay”.
6. Press [F4(Exec)] or press [YES] to select the effect. The EFFECT 2 screen appears in the display.

Step Two: Set up the Mixer

1. Press Input 1 SELECT. The button indicator lights, and the Input Mixer Screen appears in the display.
2. Use [←], [→], [↑], and [↓] to move the cursor to “EFX1”. Or, press [F2(EFX2)]. If “EFX2” does not appear above [F2], press [PAGE] a few times until you see “EFX2”, and then press [F2(EFX2)].
3. Use the TIME / VALUE dial to change EFX Switch to “Pst”.
4. Press [↓] to move the cursor to the Effect Send Level, and use the TIME / VALUE dial to change the level to “75”.

Step Three: Pan Input to Center

Since input 1 is a mono source, and is being recording to a stereo track, set the Panning for Input 1 to "Center".

1. Use [⇐], [⇒], [↑], and [↓] to move the cursor to the "Pan" section.
2. Use the TIME / VALUE dial to change the panning to "0" (center).
3. Press [PLAY(DISPLAY)] to return to the Playlist display.

Step Four: Assign both Input 1 and Effects 2 Return to record on stereo tracks 9/10

1. Press and hold the [STATUS] for Tracks 9/10. Both Input 1 and Input 2 [SELECT]s are blinking.
2. Press Input 2 [SELECT] once so it does not blink.
3. Press Effect 2 [SELECT] once. Both Input 1 and Effect 2 Return are now routed to Stereo Track 9/10.

Begin recording on Track 9/10 as usual. As soon as you are done recording, reroute the Effect Return off the Track. If an effect return is assigned to a Track, you won't hear the output of the effect (unless the track happens to be in Source or Record status). To reroute the Effect Return back to the main Stereo Mix, hold the [STATUS] button for the Track and the [SELECT] button for each effect assigned to the Track.

V. Recording Stereo Effects

Most of the effects in the Effects Expansion Board are Stereo. To record stereo effect, it must be recorded onto two tracks. To do so, turn Link to "On" for both the Input and the Track. For example, to record a stereo effect using Input 8 and recording onto Tracks 7/8:

1. Press Input 8 [SELECT].
2. Use [⇐], [⇒], [↑], and [↓] to move the cursor to "Link".
3. Use the TIME / VALUE dial to turn Link "On".
4. Press Track 8 [SELECT].
5. Use [⇐], [⇒], [↑], and [↓] to move the cursor to "Link".
6. Use the TIME / VALUE dial to turn Link "On".

Now Tracks 7 and 8 are grouped as a Stereo Pair. Any stereo effect inserted on Input 8 will be recorded in stereo on Tracks 7/8.

VI. Important Reminders About Using Effects

1. If you insert an effect anywhere in the Track Mixer, Input Mixer, or Master Block, that effect cannot be used on any other tracks or inputs. The exception is when you use a two channel effect, and insert it on one channel of the mixer using "InsL", and on another channel using "InsR".
2. If you see a dashed line in the "EFXIns" display, it means that effect is already inserted on a different track or input channel. You must determine the track or input where it is inserted, and turn that switch off before you will be able to use it at a different mixer location. Keep in mind an effect might also be inserted on the Master Block.
3. If you've assigned an effect return to a track in order to print the effect, you must un-assign the effect return from the track in order to have it return to the Stereo Mix.