

YAMAHA EQUALIZER 601

Owner's Manual



What are Add-On Effects?

Add-On Effects are software packages that install additional high-quality effects programs on digital consoles.



Studio Manager Equalizer601 Window

What is Equalizer601?

Equalizer601 is an Add-On Effects package.

This effect emulates the characteristics of analog equalizers used in 1970s. It adds drive to the sound by reproducing distortion typical to analog circuits.

What is VCM (Virtual Circuitry Modeling)?

VCM is a technology that enables you to model element levels in analog circuits (such as resistors and capacitors). This technology was developed by an engineering group led by Mr. Kunimoto, an engineer who developed the first physical modeling synthesizers, VL1 and VP1. Equalizer601 utilizes VCM technology.

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Installing Equalizer601

See the Add-On Effects Installation Guide for more information on installing Equalizer601.

Installing Equalizer601

As with other effects, you can recall and edit the Equalizer601 program on the console or in Studio Manager. The basic operation is as follows:

- 1 Select one of the internal effects processors.
 - 2 Patch the signal to and from the currently selected effects processor.
 - 3 Locate the Effects Library page.
 - 4 Select and recall Equalizer601.
- NOTE** When you recall the program, all effects processor outputs will be muted temporarily.
- 5 Locate the Effects Edit page.
 - 6 Set the parameters. (See the [“Part Names and Functions”](#) section for more information on Equalizer601 parameters.)

The procedure for recalling and editing Equalizer601 varies depending on the console you are using. Refer to the Owner’s Manual that came with your console for more information.

Editing Parameters in Studio Manager

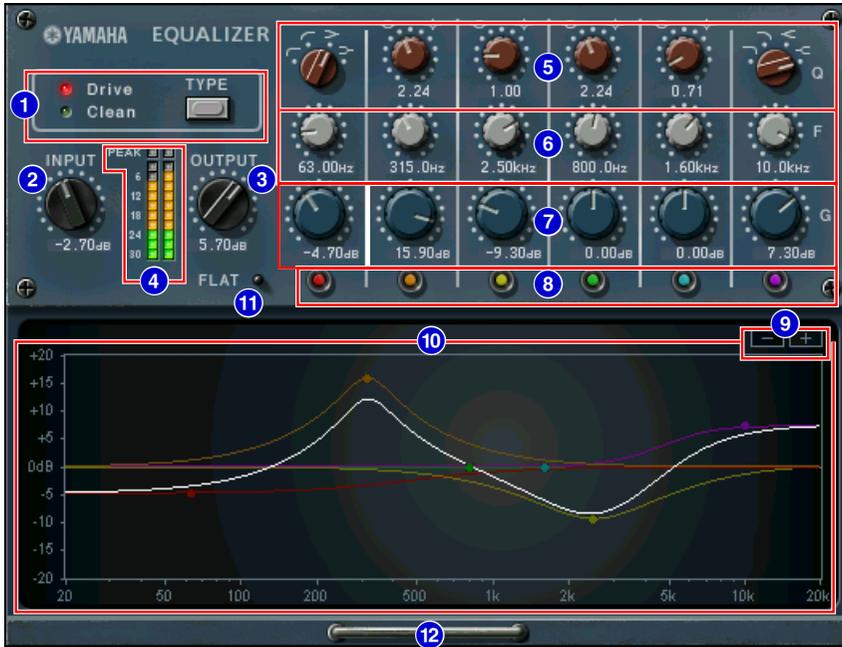
In Studio Manager, editable parameters appear in both the Equalizer601 window and the Generic Editor window. The Equalizer601 window enables you to edit Equalizer601 specific parameters, and the Generic Editor window enables you to edit parameters common to Equalizer601 and other Effects.

Refer to the Studio Manager Owner’s Manual for your console for more information on the Generic Editor window.

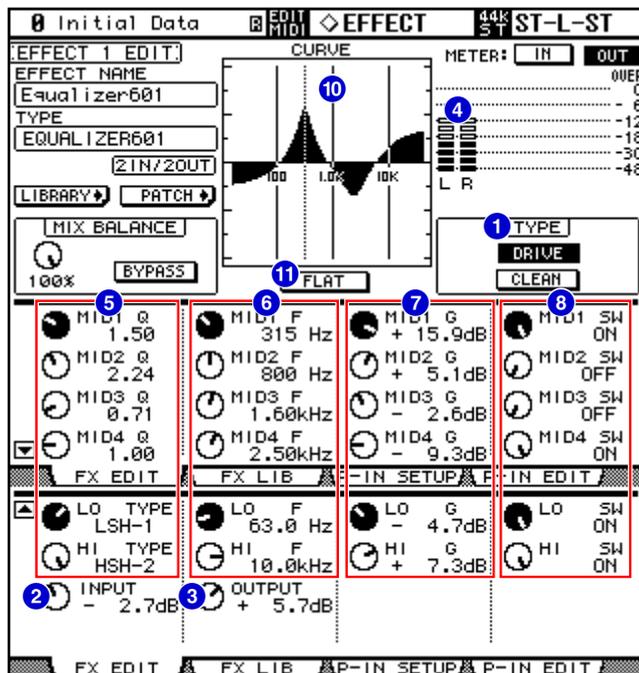


Studio Manager Generic Editor Window

Part Names and Functions



Studio Manager Equalizer601 Window

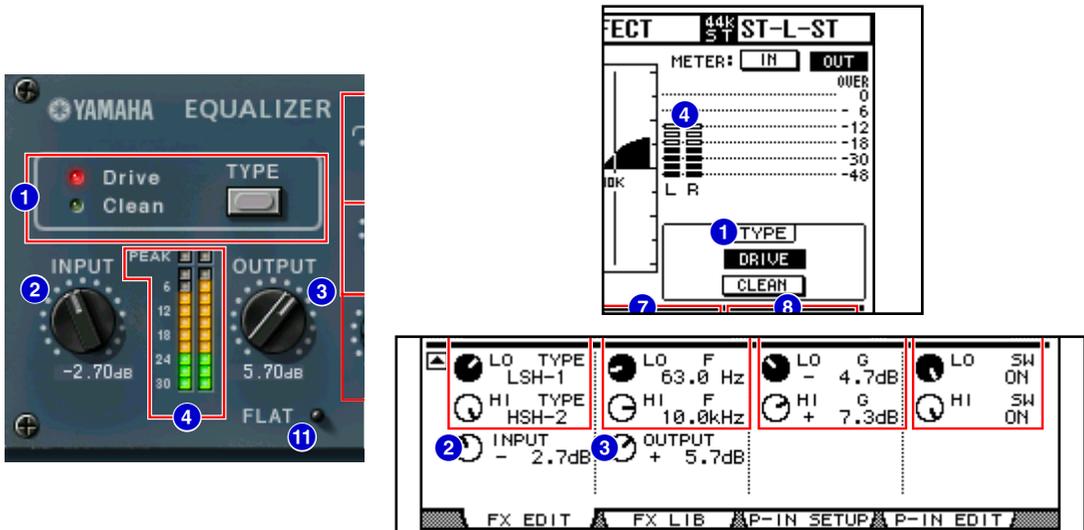


Console screen (This is a DM2000 screen.)

In the following section:

Functions marked with **Studio Manager** are available in Studio Manager.

Functions marked with **Console** are available on the console.



1 [TYPE] button **Studio Manager** **Console**

Enables you to select one of two equalizer types that feature different effects.

The **Clean** equalizer provides non-distorted, clear, typical digital sound, emulating variations in frequency response in the analog circuits.

The **Drive** equalizer provides distorted, driven sound that enhances analog flavor, emulating changes in frequency response in the analog circuits.

2 [INPUT] control **Studio Manager** **Console**

Adjusts the input level.

NOTE The range is from -18.0 through +18.0 dB.

3 [OUTPUT] control **Studio Manager** **Console**

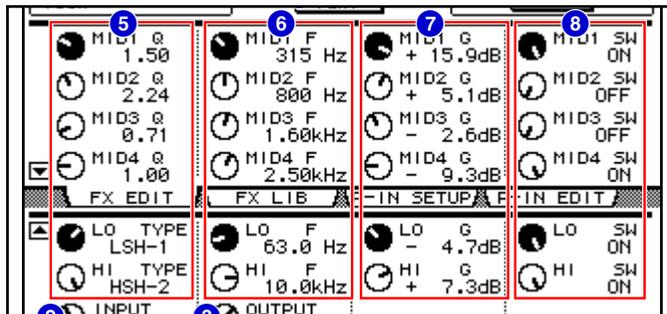
Adjusts the output gain.

NOTE The range is from -18.0 through +18.0 dB.

4 Level meters **Studio Manager** **Console**

Studio Manager displays the Effects output level.

On the console, you can select the Effects input level or output level to be displayed using the **METER: [IN]/[OUT] buttons**.



NOTE Equalizer601 is a 6-band equalizer. It consists of two shelving-type filters (LO and HI) and four peaking-type filters (MID1-4).

5 [Q]/[TYPE] Studio Manager Console

These parameters enable you to control the shape of the frequency response curve for each band filter. You can also set the sharpness (Q) of the frequency response curve for the MID1-4 filters. You can select the filter type for the LO band and HI band individually, choosing from four options.

NOTE The options are as follows:

LSH-1, LSH-2, HPF-1, and HPF-2 for LO; 0.50 through 16.00 for MID1-4; LPF-1, LPF-2, HSH-1, and HSH-2 for HI.

6 [F] Frequency Studio Manager Console

Specifies the filter center frequency.

NOTE The value range varies depending on the sampling frequency (fs) as follows:

16.0 Hz through 20.0 kHz (fs=44.1/48 kHz), or 16.0 Hz through 40.0 kHz (fs=88.2/96 kHz).

NOTE If the HI filter type is set to HSH-1 () or HSH-2 (), the range for the HI band is 1.0 kHz through 40.0 kHz.

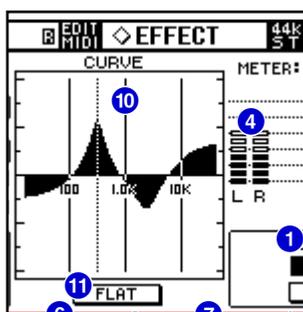
7 [G] (Gain) Studio Manager Console

Specifies the filter gain.

NOTE The range is from -18.0 dB through +18.0 dB.

8 [SW] button/[SW] control Studio Manager Console

Turns the corresponding filter on or off. The band filter that is turned off will be disabled.



9 [-]/[+] buttons Studio Manager

Zoom in or out the vertical axis of the graph.

10 Frequency Response Curve Studio Manager Console

Studio Manager displays the frequency response curves for all bands and for each band. You can change the filter frequency or gain by dragging the line in the graph. The console displays the frequency response curve for all bands.

11 [FLAT] button Studio Manager Console

Resets the gain of each band to 0 dB.

You can also reset the Q and frequency values to default by clicking and holding down the FLAT button.

NOTE If the filter type for the LO band is set to HPF-1 () or HPF-2 (), and the filter type for the HI band is set to LPF-1 () or LPF-2 (), holding down the FLAT button will turn off the corresponding band's SW button.

12 Graph display/hidden button Studio Manager

Clicking this button opens or closes the frequency response curve graph and the [-]/[+] button section.