



Congratulations on your purchase of the CARVIN FX2 Dual Engine Stereo Effects Processor. Your unit has been engineered and assembled in the U.S.A. using only high quality electronic components and uncompromising workmanship.

The FX2 24-Bit Dual Engine Stereo Effects processor is the answer to the endless requests from customers wanting a great sounding, super easy-to-use professional effects unit. The FX2 makes getting the sound you are looking for a breeze by using knobs, instead of complicated interfaces that make you scroll through endless patches searching for a good sound. With the FX2, you just dial up the effect type (Reverb, Echo, Chorus, Flange), do a quick tweak of the parameter knobs to adjust time, decay, depth, etc. and you are up and running with awesome 24-Bit effects that rival the high priced industry standards. The FX2 is just what you'd expect from Carvin - Great sound, easy to use and the best value!

- Dual Stereo Engines - for two independent stereo effects
- Built-in Power Supply – no "wall-wart"
- True Stereo In/Out – keeps signal in analog stereo for series connections
- Link Switch – Links Effects 1 & 2 for parallel operation
- Foot Switch Jack – easy on/off operation with optional FS22
- Made in USA

RECEIVING INSPECTION

INSPECT YOUR ITEM FOR ANY DAMAGE which may have occurred during shipping. If any damage is found, please notify the shipping company and CARVIN.

SAVE THE CARTON & ALL PACKING MATERIALS. In the event you have to re-ship your unit, always use the original carton and packing material. This will provide the best possible protection during shipment. CARVIN and the shipping company are not liable for any damage caused by improper packing.

SAVE YOUR INVOICE. It will be required for warranty service if needed in the future.

SHIPMENT SHORTAGE. If you find items missing, they may have been shipped separately. Please allow several days for the rest of your order to arrive before inquiring.

RECORD THE SERIAL NUMBER on the enclosed warranty card or below on this manual for your records. Keep your portion of the card and return the portion with your name and comments to us.

USA customers register online at: www.carvin.com/registration
All other countries register online at: www.carvinworld.com/registration

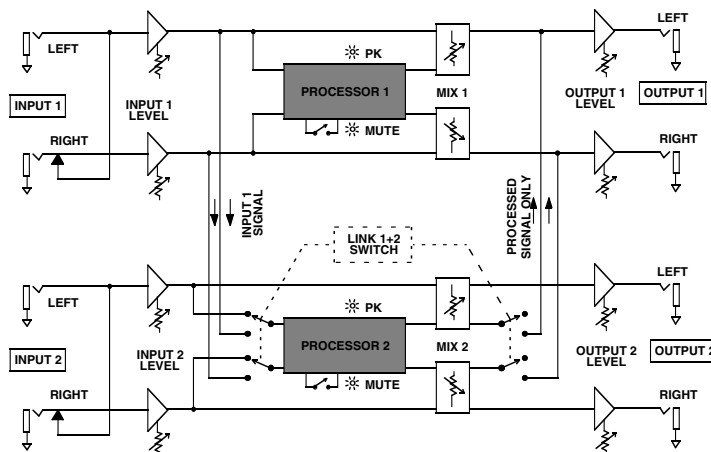
For your records, you may wish to record the following information.

Serial No. _____ Invoice Date _____

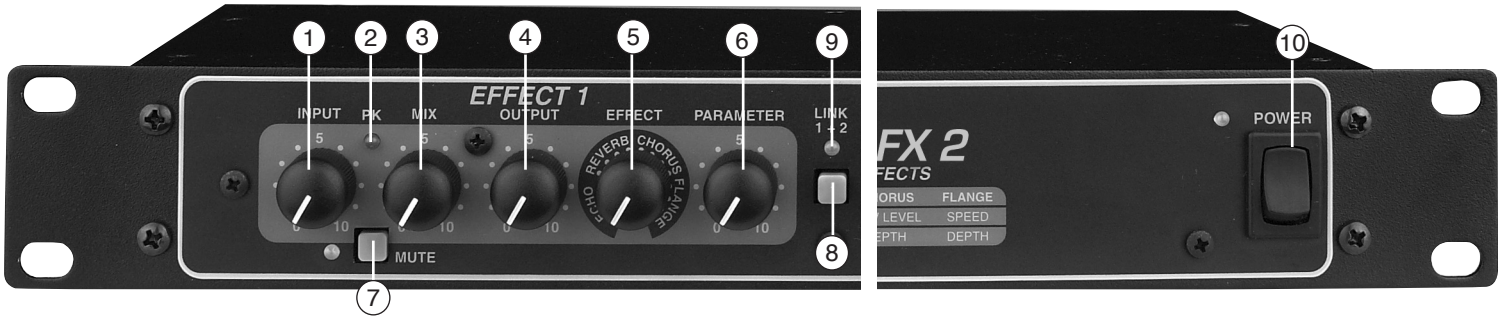
FX2 SPECIFICATIONS

- FREQUENCY RESPONSE: 10Hz TO 40kHz +/- 1dB (DIRECT SIGNAL)
- DYNAMIC RANGE: >95dB
- THD+N: 20Hz TO 20kHz,
LESS THAN 0.005%, MIX @ "0", 0dB INPUT.
LESS THAN 0.05%, MIX @ "5", 0dB INPUT.
- INPUT IMPEDANCE: 22KΩ
- CROSSTALK: <-90dB 20Hz TO 20kHz
- INPUT TO OUTPUT GAIN: -∞ TO +12dB
- INPUTS AND OUTPUTS: 1/4" UNBALANCED
GROUND LIFT SWITCH
- FOOTSWITCH JACK: 1/4" TRS FOR USE WITH FS-22
- POWER REQUIREMENTS: 4VA 90-250VAC, 50/60Hz
SWITCHING SUPPLY
- FUSE: INTERNAL 1.5A FAST BLOW
- DIMENSIONS: 1.75"H x 19"W x 5"D
- SHIPPING WEIGHT: 7 LBS

Block Diagram



FRONT PANEL



REAR PANEL

FRONT PANEL:

1. INPUT LEVEL CONTROL

Sets the incoming signal level to avoid clipping. If the "PK" LED illuminates, lower the INPUT level.

2. PEAK LED

The "PK" LED displays when the processor is being overloaded by too much input signal. The LED should stop flashing when the INPUT level control is reduced to prevent distortion.

3. MIX CONTROL

Adjust the MIX control for the amount of effect desired. "0" will have no effects present. Gradually rotating the control towards 10 increases the amount of effect while decreasing the direct signal level. When the LINK 1+2 button is "IN", the EFFECT 2 MIX control adjusts the level of EFFECT 2 heard at both EFFECT 1 and EFFECT 2 OUTPUTS.

4. OUTPUT LEVEL CONTROL

Adjusts the overall output volume of the unit.

5. EFFECT

The EFFECT control selects which effect will be used and adjusts the following parameters for the related effect:

(ECHO) REGENERATION - the number of times the echo is repeated.

(REVERB) DAMPING - How much high frequency ambience is present in the reverb.

(CHORUS) REVERB LEVEL - Amount of background reverb present.

(FLANGE) SPEED - The speed of the flange "swelling".

6. PARAMETER

The PARAMETER control adjusts the following parameters for the related effect:

(ECHO) TIME - The delay time between repeats from 50ms to 500ms.

(REVERB) DECAY - How long it takes for the reverb to die out after the original signal stops.

(CHORUS) DEPTH - How intense, or "thick" the chorus effect is.

(FLANGE) DEPTH - How intense, or "thick" the flange effect is.

7. MUTE

The MUTE switch will turn off the effects heard at the output. The direct signal remains intact. (level determined by the MIX control) The LED illuminates when the effects are muted.

8. LINK 1+2 SWITCH

This switch allows BOTH effect channels of the FX2 to process the INPUT 1 signal and combine BOTH effects at OUTPUT 1. When the LINK 1+2 button is "IN", the EFFECT 2 MIX control will also adjust the level of EFFECT 2 heard at the EFFECT 1 OUTPUT.

9. LINK LED

Lights when the LINK 1+2 function is active.

10. POWER

Push this switch to the UP position to apply power to the unit. The POWER LED will light to show the **FX2** is on.

REAR PANEL

11. LINE CORD:

The exclusive built-in auto switching power supply allows you to connect any voltage from 90 to 255v 50-60Hz. Use a 3-conductor line cord for maximum safety. If the **FX2** is to be plugged into a 2-prong outlet, use a quality 3-to-2 prong grounded adapter. Do not defeat the grounding pin of your AC line cord.

12. GROUND LIFT SWITCH:

This switch lifts the grounds on the inputs and outputs when depressed. This is useful for getting rid of ground loops.

13. 1/4" INPUTS (EFFECT 1 AND 2):

This input will accept input signals from mixer sends, amplifier effects sends, etc. The "tip" is the signal, the "sleeve" is the ground (shield). When in LINK 1+2 mode, the EFFECT1 signal will be processed by both EFFECT 1 and EFFECT 2.

14. FOOT SWITCH JACK:

Using a footswitch such as the Carvin FS-22 will allow you to mute EFFECT 1 or EFFECT 2 remotely. The "tip" on the plug mutes EFFECT 1, the "ring" mutes EFFECT 2, and the "sleeve" is the ground.

15. 1/4" OUTPUTS (EFFECT 1 AND 2):

This is the unbalanced output for the processor. Use this to return the processed signal to channel inputs or effect returns on a mixer or to the return on an amplifier effects loop. The "tip" is signal, the "sleeve" is ground (shield). When in LINK 1+2 mode, both EFFECT 1 and EFFECT 2 will be heard at the EFFECT 1 OUTPUTS. The EFFECT 2 OUTPUT will function normally.

FX2 Applications:

FIG. 1 shows a typical mixing board connection. This setup allows multiple signals to be processed by a single effect channel. The **FX2** INPUT is connected to a master EFFECT SEND of the mixer. The OUTPUTS of the **FX2** are connected to a master EFFECT RETURN of the mixer. The MIX control should be turned fully clockwise to 10, or “WET” setting for this type of setup. Complete a second hookup to the other channel of the **FX2** using a second set of SEND and RETURNS. Be sure the LINK 1+2 switch is “OUT”. Connecting the OUTPUTS of the **FX2** to mixer input channels instead of the returns of your mixer will allow even more control over signal routing and enables you to use the mixer’s channel EQ to enhance the sound of the effects.

FIG. 2 shows a typical guitar amp connection. Pushing IN the LINK 1+2 button will allow both EFFECT 1 and EFFECT 2 to be simultaneously in the same loop. The **FX2** EFFECT 1 INPUT is connected to the effect loop SEND of the amp. The **FX2** EFFECT 1 OUTPUT is connected to the effect loop RETURN. Dial in the amount of effect desired with the MIX controls for EFFECT 1 and EFFECT 2. The FS-22 can be used to remotely choose any combination of EFFECT 1 and EFFECT 2 by muting one effect at a time or both effects.

Effect Settings and Usage:

The **FX2** is capable of many effect variations. Start with the controls at moderate settings and tailor your sound from there.

REVERB is the most common effect. Reverb can add both presence and depth to a performance. A reverb with a short DECAY can make vocals and instruments sound more dense and “alive”. Longer decay times have a more dramatic effect and are best used in sparse musical atmospheres. Too much reverb, especially with long decay times, can cause your sound to be “washed out”.

ECHO is a combination of a DELAY and some REVERB. The ECHO setting gives the impression of multiple “copies” of your sound reflecting off a far away object. The TIME setting adjusts how far apart the “copies” are and REGENERATION adjust how many “copies” are made.

CHORUS can have the effect of multiple instruments playing in unison. Use the CHORUS to thicken your sound. Varying the setting of the PARAMETER control will compliment different instruments in different ways. The maximum setting won’t always sound best.

FLANGE gives a “swirling” or “tubular” sound and is great for making musical parts stand out from the rest of a song. Deep, howling type sounds often heard from an electric guitar are sometimes created with a FLANGER. To get this type of sound, set the EFFECT control to the “F” in FLANGE and set the PARAMETER control fully clockwise.

Connecting the OUTPUTS of the **FX2** to INPUT CHANNELS of your mixer enables you to use the mixer’s channel EQ to enhance the sound of the effects and will allow even more control over signal routing. For full stereo imaging, remember to PAN the stereo outputs to LEFT and RIGHT respectively. If you use mixer channels as returns, leave the CHANNEL SEND controls to the **FX2** at “0” or feedback will occur.

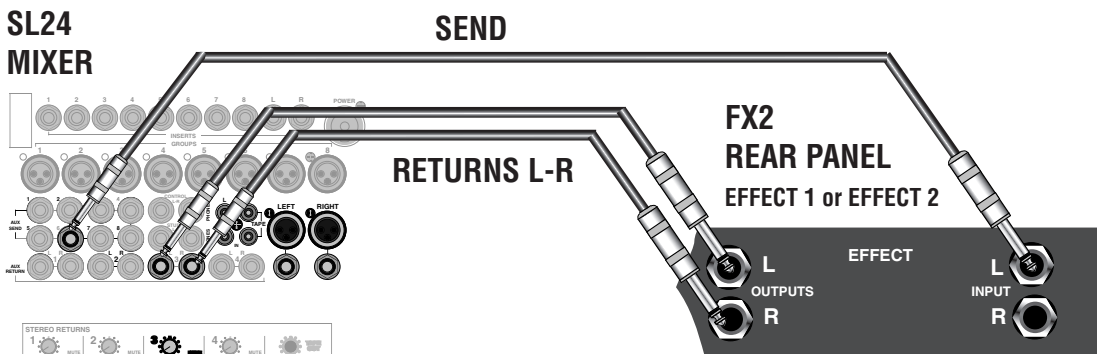


FIG. 1

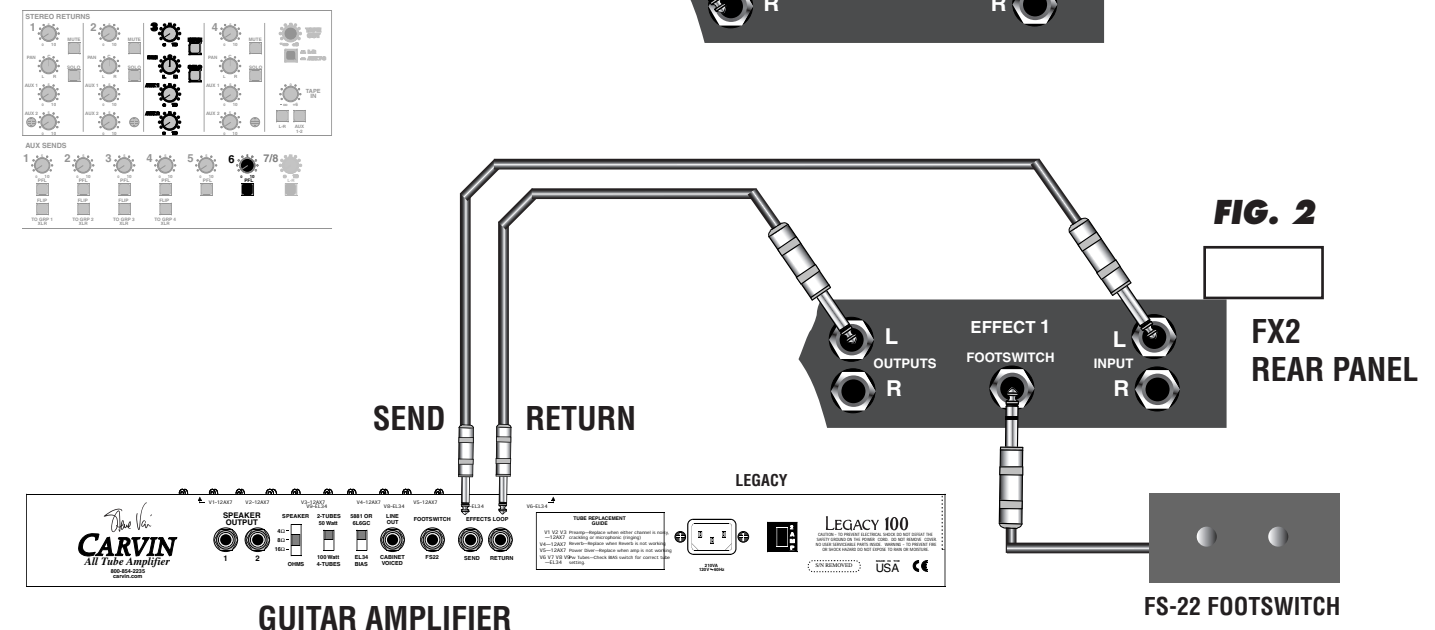


FIG. 2





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

WATER AND MOISTURE: Appliance should not be used near water (near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

POWER SOURCES: The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

POWER CORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

SERVICING: The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

FUSING: If your unit is equipped with a fuse receptacle, replace only with the same type fuse. Refer to replacement text on the unit for correct fuse type.

SAFETY INSTRUCTIONS (EUROPEAN)

The conductors in the AC power cord are colored in accordance with the following code.

GREEN & YELLOW—Earth BLUE—Neutral BROWN—Live

U.K. MAIN PLUG WARNING: A molded main plug that has been cut off from the cord is unsafe. NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAIN PLUG INTO A POWER SOCKET.



LIMITED WARRANTY

Your Carvin product is guaranteed against failure for 1 YEAR unless otherwise stated. Carvin will service and supply all parts at no charge to the customer providing the unit is under warranty. Shipping costs are the responsibility of the customer. CARVIN DOES NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY. Carvin assumes no responsibility for horn drivers or speakers damaged by this unit. This warranty does not cover, and no liability is assumed, for damage due to: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failure to follow instructions. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for Carvin any liability in connection with the sale or servicing of Carvin products. CARVIN SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

When RETURNING merchandise to the factory, you may call for a return authorization number. Describe in writing each problem. If your unit is out of warranty, you will be charged the current FLAT RATE for parts and labor to bring your unit up to factory specifications.

MAINTAINING YOUR EQUIPMENT

Avoid spilling liquids or allowing any other foreign matter inside the unit. The panel of your unit can be wiped from time to time with a dry or slightly damp cloth in order to remove dust and bring back the new look. As with all pro gear, avoid prolonged use in caustic environments (salt air). When used in such an environment, be sure the mixer is adequately protected by a cover.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL!