

THE SOUND THAT CREATES LEGENDS

M-80 CHORUS

Owner's Manual

P/N 040281

M-80 Chorus Owner's Manual

The Fender M-80 CHORUS amplifier is a straight ahead combination of radical new distortion sounds and time tested Classic Fender Sounds packaged together in a Solid-State configuration which is both easy to use and inherently reliable.

The M-80 CHORUS NORMAL Channel features the standard complement of VOLUME, TREBLE, MID and BASS and the DRIVE Channel features GAIN, VOLUME, and separate EQ consisting of CONTOUR and PRESENCE controls. The Fender CONTOUR control will continuously vary your sound from smooth and bluesy to a honky bite or all the way to ten for the crunchiest metal sounds around. You get searing smooth highs backed by deep punch. The PRESENCE control gives you continuous adjustment of the highs to allow the M-80 CHORUS to cut through in any playing situation without being overbearing. The extreme sensitivity of the drive channel defies comparison. With its unending sustain capability you may find that playing on ten is just too much, but it's still there if you want it. Also included is REVERB and a true STEREO CHORUS circuit utilizing two 65-watt power amplifiers giving this amp that lush stereo chorus sound. The Fender M-80 CHORUS is truly one of the most "Expressive" amplifiers ever made.

In addition to convenience features like All Front Panel Mounted Controls and Jacks, the M-80 CHORUS features a detachable footswitch for selecting the Drive Channel and for activating the stereo chorus circuitry. These functions are multiplexed over a standard 1/4 inch phone plug for ease of connection or extension of the footswitch to remote pedal boards. The versatility of the M-80 CHORUS is greatly expanded by the individual mono and true stereo EFFECTS LOOPS. These patch points allow for a wide variety of external effects connection schemes and amplifier slaving configurations. They also provide for direct connection to recording and sound reinforcement mixers. The HEADPHONE jack automatically mutes the speaker in addition to driving standard Stereo or Mono headphones and can also be used as a line out.

Last, but definitely not least, the Fender M-80 CHORUS packs a new stereo power amp section that is based on a radically underdamped design that interacts with the speakers in much the same way as a tube amplifier does, producing sparkle and punch with an increase in apparent loudness and power that defies comparison to other similarly rated units. Also included is a sophisticated, transparent protection scheme designed to completely prevent power amplifier failure. These amps are LOUD, and the Fender Special design 12 inch speakers can reliably put it out, night after night.

The selection of a Fender amplifier will reward you with years of quality music in a wide range of controlled sounds. This manual is designed to familiarize you with the equipment and to acquaint you with its many fine features. Read it carefully so that you will benefit from all the features as soon as you start using the amplifier.

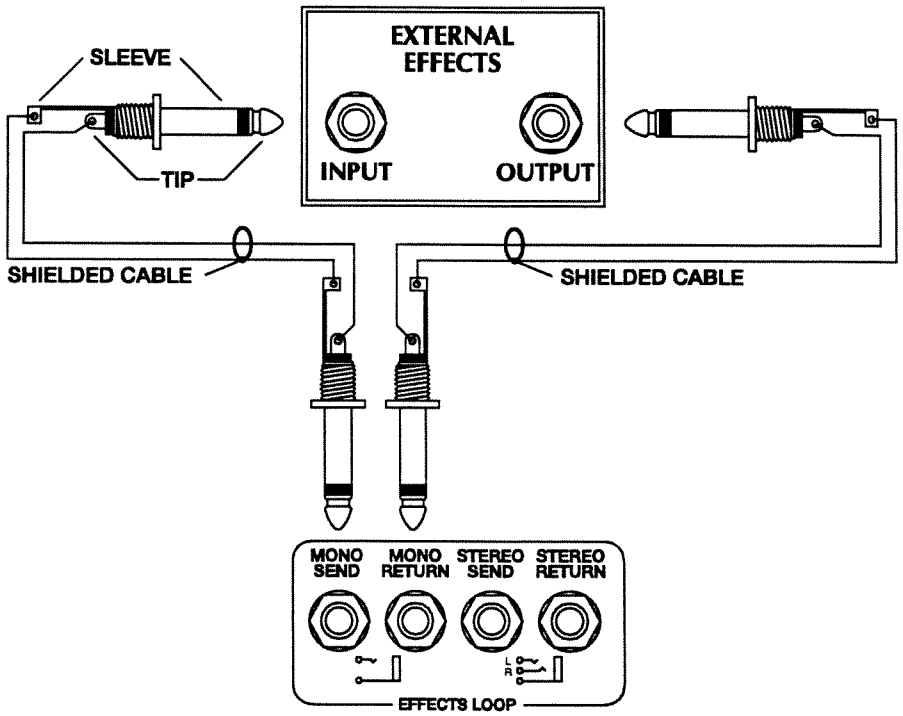
The built-in quality of a Fender amplifier is the result of over three and a half decades of dedication in the combined skills of research and development by our engineers and musicians.

That is why we proudly say, ...**FENDER**, The Sound That Creates Legends.

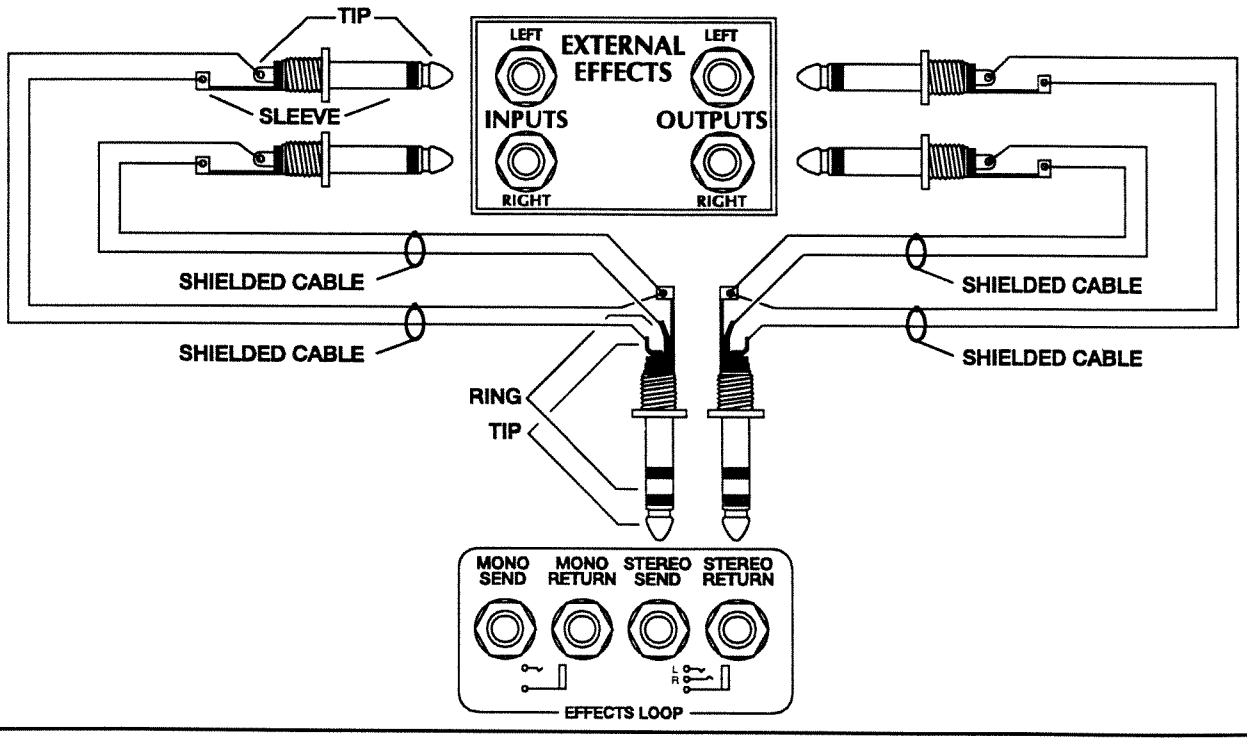
WARNING: TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE AMPLIFIER TO RAIN OR MOISTURE. NO USER SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED PERSONEL ONLY.

M-80 Chorus Effects Loop connection diagrams

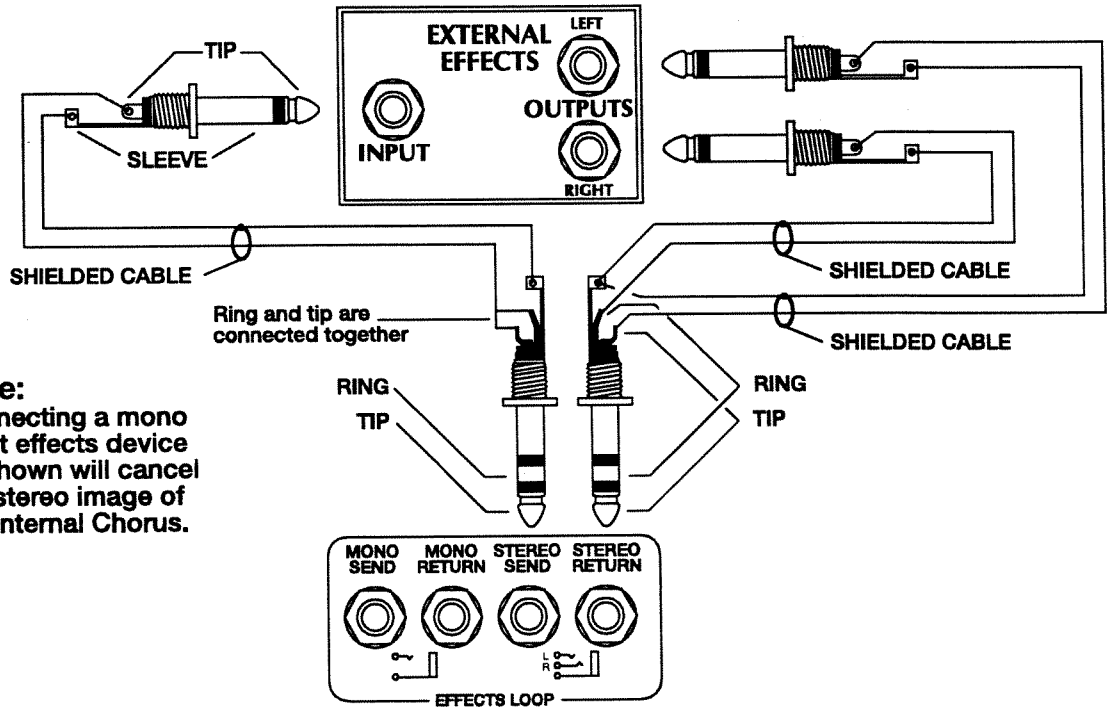
1. For mono effects devices



2. For stereo in/stereo out effects devices

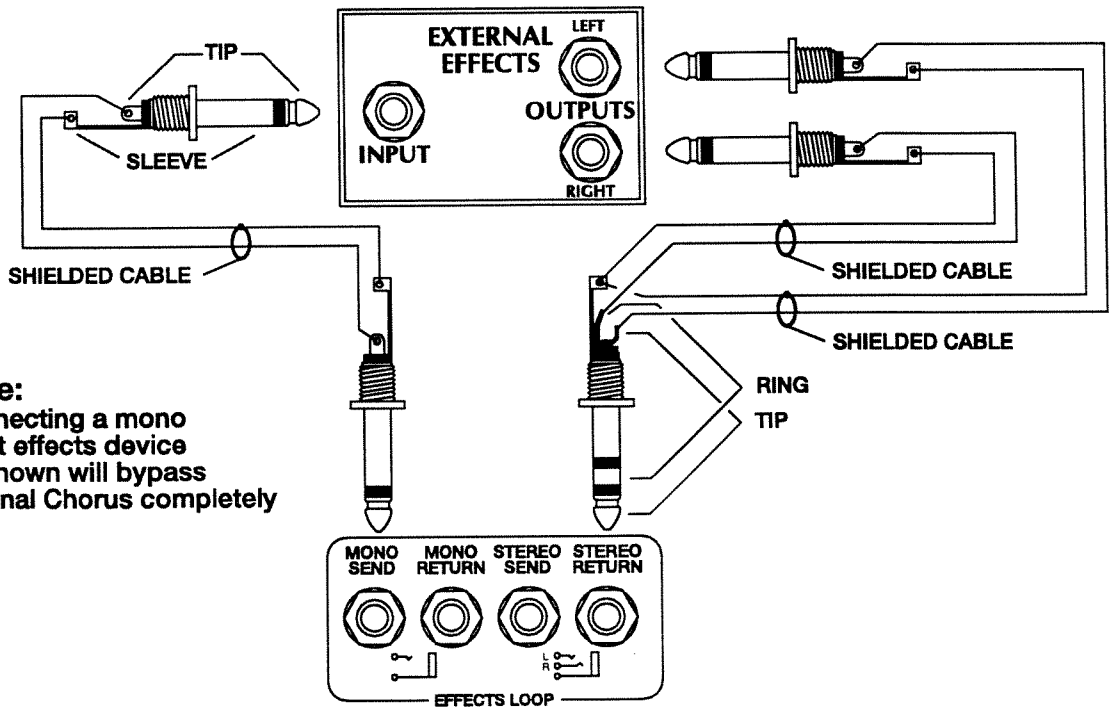


3. For mono in/stereo out effects devices

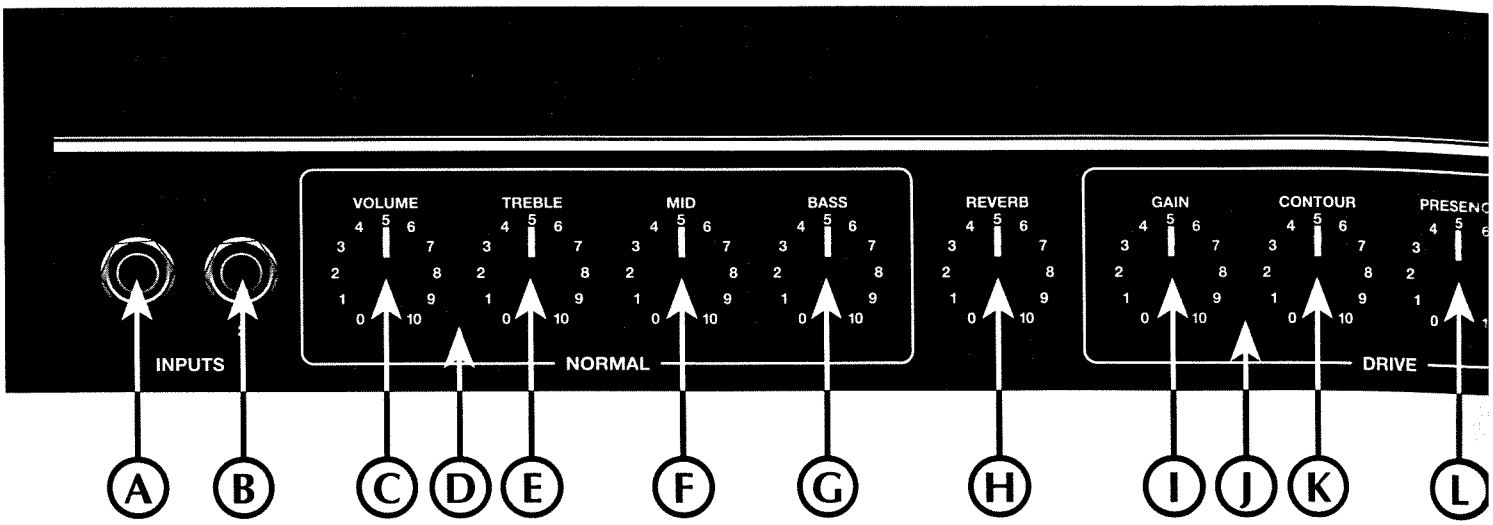


Note:
Connecting a mono input effects device as shown will cancel the stereo image of the internal Chorus.

4. For mono in/stereo out effects devices
(Alternate connection)



Note:
Connecting a mono input effects device as shown will bypass internal Chorus completely



M-80 Chorus Front Panel Functions

(The diagram above corresponds to the M-80 CHORUS combo amp. The front panel funtions are identical for the M-80 CHORUS HEAD, only the order is reversed.)

A. INPUT 1 — A high impedance, high sensitivity plug-in connection for instruments.

B. INPUT 2 — Plug-in connection for instruments. This input exhibits a lower input impedance and sensitivity than INPUT 1 and is useful with active preamp guitars, and will provide a darker tone with passive guitars. Both inputs are identical when used simultaneously.

C. VOLUME — Adjusts the overall loudness of the NORMAL channel.

D. NORMAL INDICATOR — The LED is illuminated when the NORMAL channel is selected.

E. TREBLE — Adjusts the amount of boost (accentuation) or cut (attenuation) in the high frequency range of the NORMAL channel.

F. MID — Adjusts the amount of boost or cut in the mid frequency range of the NORMAL channel.

G. BASS — Adjusts the amount of boost or cut in the bass frequency range of the NORMAL channel.

H. REVERB — Adjusts the overall amount of reverberated signal mixed with the original dry signal for both the NORMAL and DRIVE channels.

I. GAIN — Adjusts the amount of preamp amplification while in the DRIVE channel. Cleaner sound is achieved at lower gain settings, high gain settings will produce more sustain and distortion. This control works in conjunction with the DRIVE-VOLUME (item N) control to set the overall loudness at the output.

J. DRIVE INDICATOR — This LED is illuminated when the DRIVE channel is selected.

K. CONTOUR — Adjusts the overall tone quality of the DRIVE channel. Low contour setting will provide emphasis in the midrange frequencies whereas a higher setting will notch the midrange to produce a "Crunch" sound, characteristic of most Heavy Metal music.

L. PRESENCE — Adjusts the amount of boost or cut in the upper high frequency range while in the DRIVE channel. This control occurs post preamp distortion and is useful in adjusting the distortion characteristic from smooth to brash.

M. SELECT — Activates the DRIVE channel. **NOTE: This switch disables the Channel Select Footswitch.**

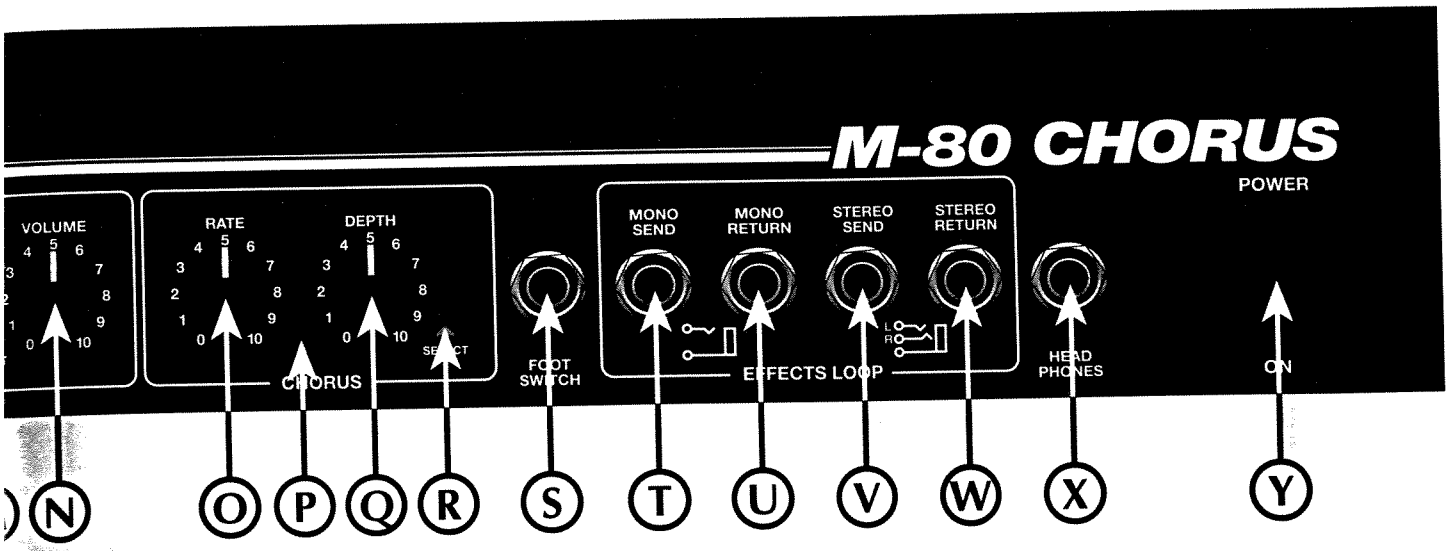
N. VOLUME —Adjusts the overall loudness while in the DRIVE channel.

O. RATE — Adjusts the sweep rate of the chorus generating circuitry. A lower number corresponds to a slower rate of sweep.

P. CHORUS INDICATOR — This LED is illuminated when the stereo chorus is active. The color of the LED is modulated by the chorus sweep LFO to give a visual indication of the sweep rate.

Q. DEPTH — Adjusts the intensity of the chorus effect. A lower setting will introduce a subtle yet distinct effect whereas a higher setting will create a more dramatic effect. With both the RATE (item O) and DEPTH controls set midway or higher, a variety of vibrato / tremolo type effects can be achieved.

R. SELECT — Activates the stereo CHORUS mode for both the NORMAL and DRIVE channels. **NOTE: This switch disables the Chorus Select Footswitch.**



S. FOOTSWITCH — Plug-in connection for remote footswitch to switch between the NORMAL and DRIVE channels and to switch the stereo CHORUS on and off. For proper operation of the footswitch, both DRIVE SELECT (item M) and CHORUS SELECT (item R) switches should be out. **NOTE: Any good quality patch cord will work with the remote footswitch, however a speaker grade cord is preferable to a coax guitar cord when it's available.**

T. EFFECTS LOOP MONO SEND — This jack provides an unbalanced mono output signal from the preamp at a point before the internal CHORUS circuits. This output can be used in conjunction with the MONO RETURN (item U) as a patch point for mono effects devices. (SEE: EFFECTS LOOP CONNECTION DIAGRAMS). The MONO SEND can also be used to feed recording and sound reinforcement mixers a dry signal. (For a signal with internal CHORUS, use the STEREO SEND (item V) jack.) Additionally this output can be used to drive another M-80 CHORUS as a slave amp. This is done by connecting a standard guitar cord from the MONO SEND jack of the master amplifier to the MONO RETURN jack of the slave.

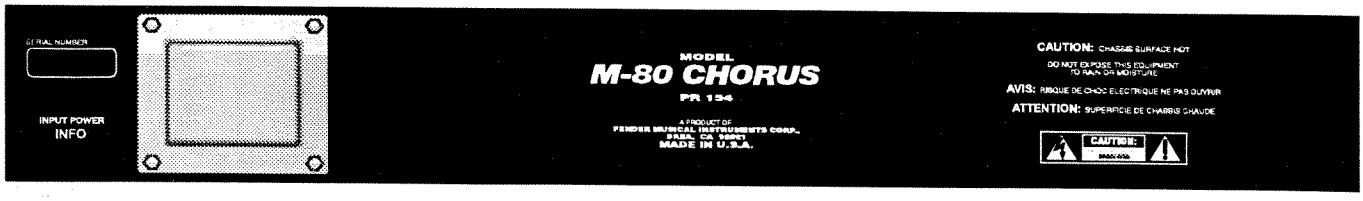
U. EFFECTS LOOP MONO RETURN — This unbalanced jack inputs signal to the stereo chorus generating circuitry, which drives the stereo power amp section. It automatically disconnects the preamp and reverb circuitry when used. This is useful when using the Mono Effects Loop option or when using the M-80 CHORUS as a slave amplifier for a **mono** signal source. The CHORUS is active in the slave so that a stereo image will be generated if it is used. **NOTE: In order to function properly, a dummy plug or an extra guitar cord must be inserted to INPUT 2(item B) of the slave amp with its VOLUME controls turned down.**

V. EFFECTS LOOP STEREO SEND — This jack provides an unbalanced stereo output from the preamp, reverb and chorus circuits of the M-80 CHORUS. This output can be used in conjunction with the STEREO RETURN (item W) as a patch point for stereo effects devices. (SEE: EFFECTS LOOP CONNECTION DIAGRAMS). The Stereo Effects Loop jacks are standard 1/4 inch Tip-Ring-Sleeve types, with the left channel signal on the tip and the right channel signal on the ring. This send can also be used to feed a stereo signal to two channels of a recording or sound reinforcement mixer. Additionally this output can be used to drive another M-80 CHORUS as a slave amp. This is done by connecting a shielded stereo cord from the STEREO SEND jack of the master amplifier to the STEREO RETURN of the slave.

W. EFFECTS LOOP STEREO RETURN — This stereo jack inputs signal directly to the left and right power amps. It automatically disconnects the preamp, reverb and chorus circuitry when used. This is useful when using the M-80 CHORUS as a slave amplifier for a **stereo** signal source.

X. HEADPHONES — This jack provides an output to standard stereo headphones for private listening. **NOTE: Use of this jack automatically disables the main speakers. CAUTION: Prolonged listening at high levels may be hazardous to your hearing!** This jack can also be used as an unbalanced stereo line output, which is post effects-loops, by using a standard Tip-Ring-Sleeve 1/4 inch phone plug connection. (Mono plugs may be used at this jack for headphones or a line out, but the sound quality of the internal CHORUS, if used, may be degraded slightly. If a mono plug must be used at this jack, it is suggested that a stereo plug with Tip and Ring connected together be inserted at the STEREO SEND (item V) jack. This will restore the lush quality of the internal CHORUS.)

Y. POWER SWITCH —Turns AC power ON and OFF. When the switch is OFF the amplifier is completely shut down.



M-80 Chorus Rear Panel

LINE CORD
This amplifier is equipped with a grounding type supply cord to reduce the possibility of shock hazard. Be sure to connect it to a grounded receptacle. **DO NOT ALTER THE AC PLUG.**

FABRIC CARE
The exclusive Fender fabric covering on your cabinet has been especially designed for years of lasting beauty. A very light soapy solution on a sponge may be used to remove dirt and residue that may accumulate on the surfaces. Be careful not to let any liquid come in contact with operating surfaces. **DO NOT** have the amplifier plugged into the power outlet when cleaning.

Trouble Shooter's Checklist

If the amp is set up but does not function, check the following items:

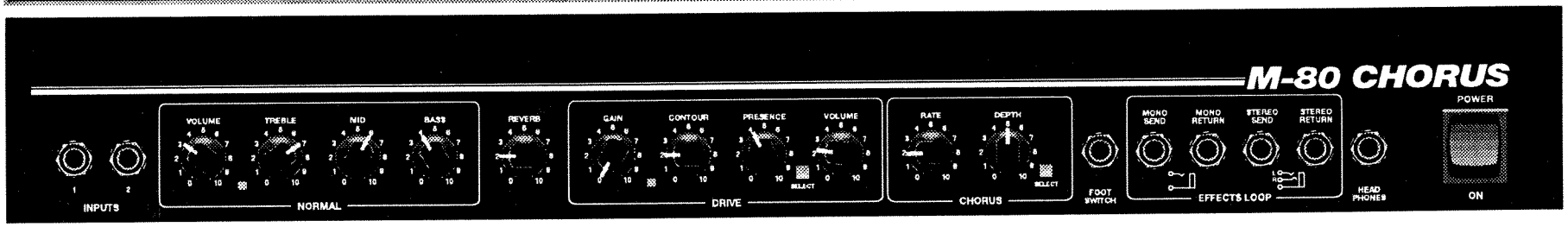
---Is the amp power cord properly plugged into an electrical outlet?
---Is there power at the outlet?
---Are the speakers properly connected to the amplifier?
---Are all the control knobs turned up above four?
---Is the volume control on the instrument turned up?
---Is your instrument properly plugged into the amplifier?
(Eliminate any effect pedals and try another guitar cord.)

If, after checking all of the above, the system is still not performing correctly, consult your Fender Service Dealer.

M-80 Chorus Specifications

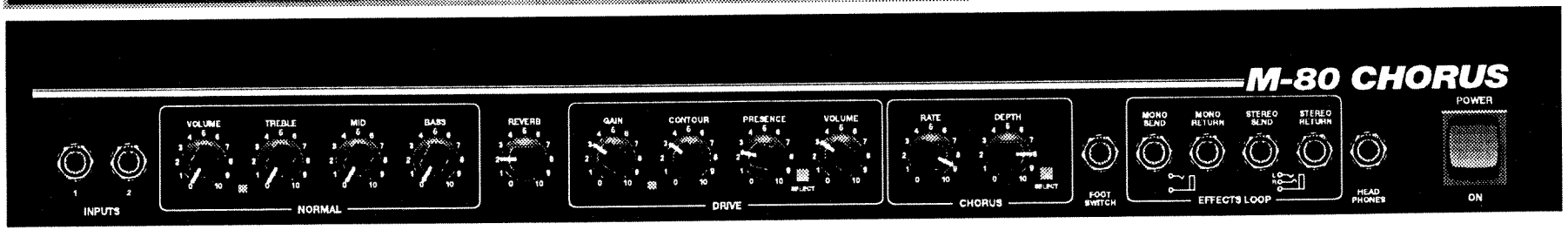
	120V VERSION	230V VERSION
PART NUMBER:	Combo 22-5905 Head 22-5908	Combo 22-5965 Head 22-5968
INPUT IMPEDANCE:	INPUT 1 only: Greater than 1 meg Ohm INPUT 2: 65k Ohm	INPUT 1 only: Greater than 1 meg Ohm INPUT 2: 65k Ohm
NOMINAL LEVEL:	INPUT 1 only: 100 mv INPUT 2: 200 mv	INPUT 1 only: 100 mv INPUT 2: 200 mv
POWER OUTPUT:	65 Watts R.M.S. per Channel = 130 Watts R.M.S.	65 Watts R.M.S. per Channel = 130 Watts R.M.S.
RATED LOAD IMPEDANCE:	8 Ohms per channel	8 Ohms per channel
MONO EFFECTS LOOP:	Nominal Level: -10dBv Send Output Impedance:1k Ohm Return Input Impedance:30k Ohm	Nominal Level: -10dBv Send Output Impedance:1k Ohm Return Input Impedance:30k Ohm
STEREO EFFECTS LOOP:	Nominal Level: -10dBv Send Output Impedance: 1k Ohm Return Input Impedance: 50k Ohm (Specifications for each channel: Left on Tip, Right on Ring)	Nominal Level: -10dBv Send Output Impedance: 1k Ohm Return Input Impedance: 50k Ohm (Specifications for each channel: Left on Tip, Right on Ring)
POWER REQUIREMENTS:	120 Volts AC 60 Hz., 3.33 Amps Max.,	230 Volts ~50 Hz., 2 Amps Max.
SPEAKER COMPLEMENT:	Two 8 Ohm Fender Special Design 12-inch (PN 025923) speakers (Combo only).	Two 8 Ohm Fender Special Design 12-inch (PN 025923) speakers (Combo only).
DIMENSIONS:	**Combo** Height: 20-1/4" (51 cm) Width: 26-1/2" (67.3cm) Depth: 12" (30.5 cm) Weight: 47 lbs. (21.3 kg) **Head** Height: 12" (30.5 cm) Width: 30" (76cm) Depth: 11-1/2" (29 cm) Weight: 29 lbs. (13.2 kg)	**Combo** Height: 20-1/4" (51 cm) Width: 27-1/2" (70cm) Depth: 12" (30.5 cm) Weight: 49 lbs. (22.3 kg) **Head** Height: 12" (30.5 cm) Width: 30" (76cm) Depth: 11-1/2" (29 cm) Weight: 29 lbs. (13.2 kg)
SOUND:	"KICKS @$$, In STEREO!"	"KICKS 230V @$$, In STEREO!"

Standard Strat / General Purpose / Any Position



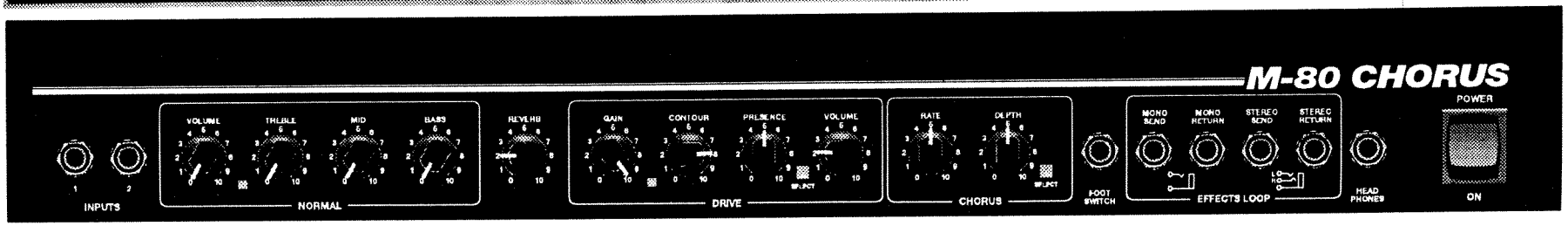
Memphis Magic / Standard Strat / Any Position

Note: This setting uses the Drive channel only.



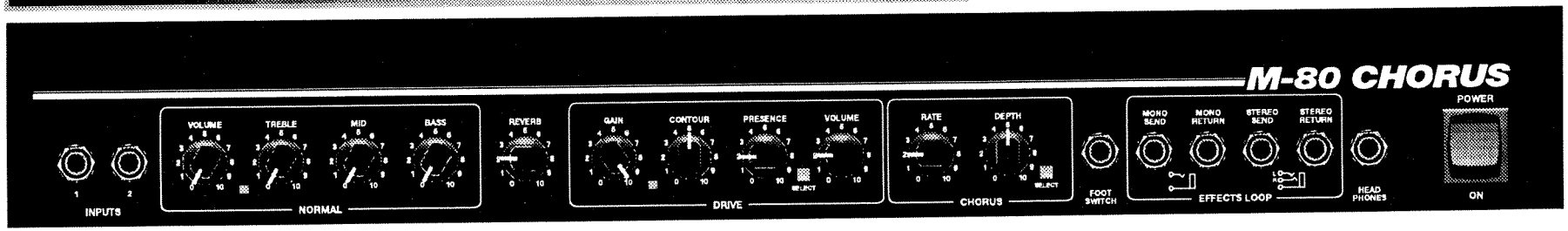
Wall of Sound / Standard Strat / 2nd Position

Note: This setting uses the Drive channel only.



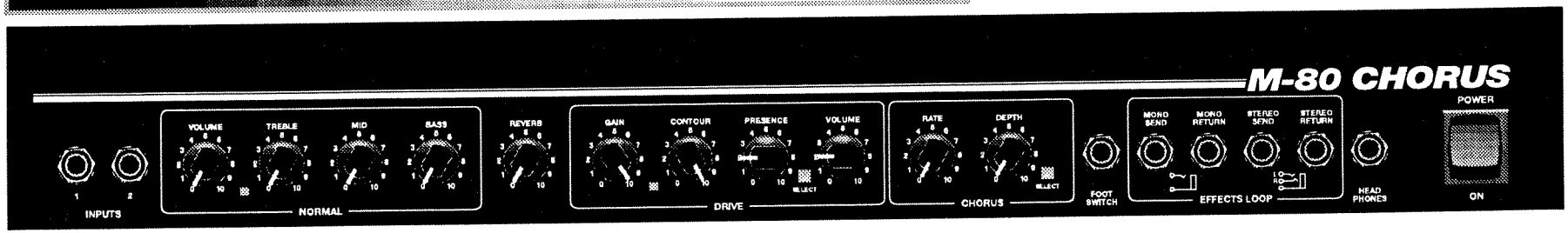
Heavy Rhythm / Humbucking Bridge Position

Note: This setting uses the Drive channel only.



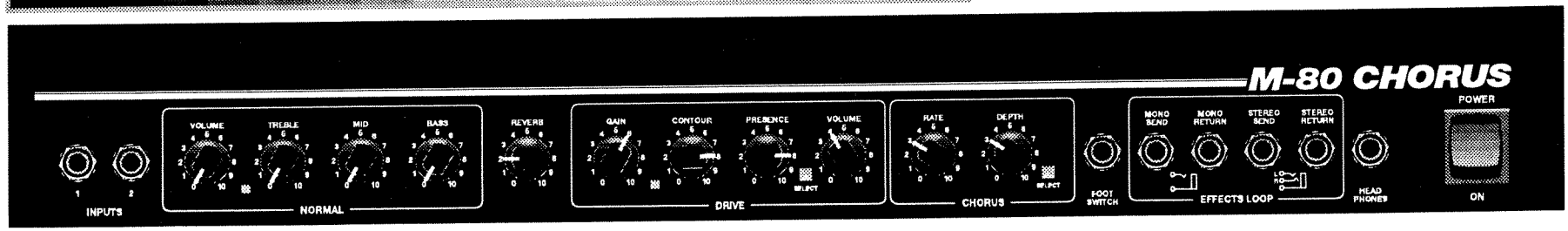
Slash-O-Matic / Humbucking Bridge Position

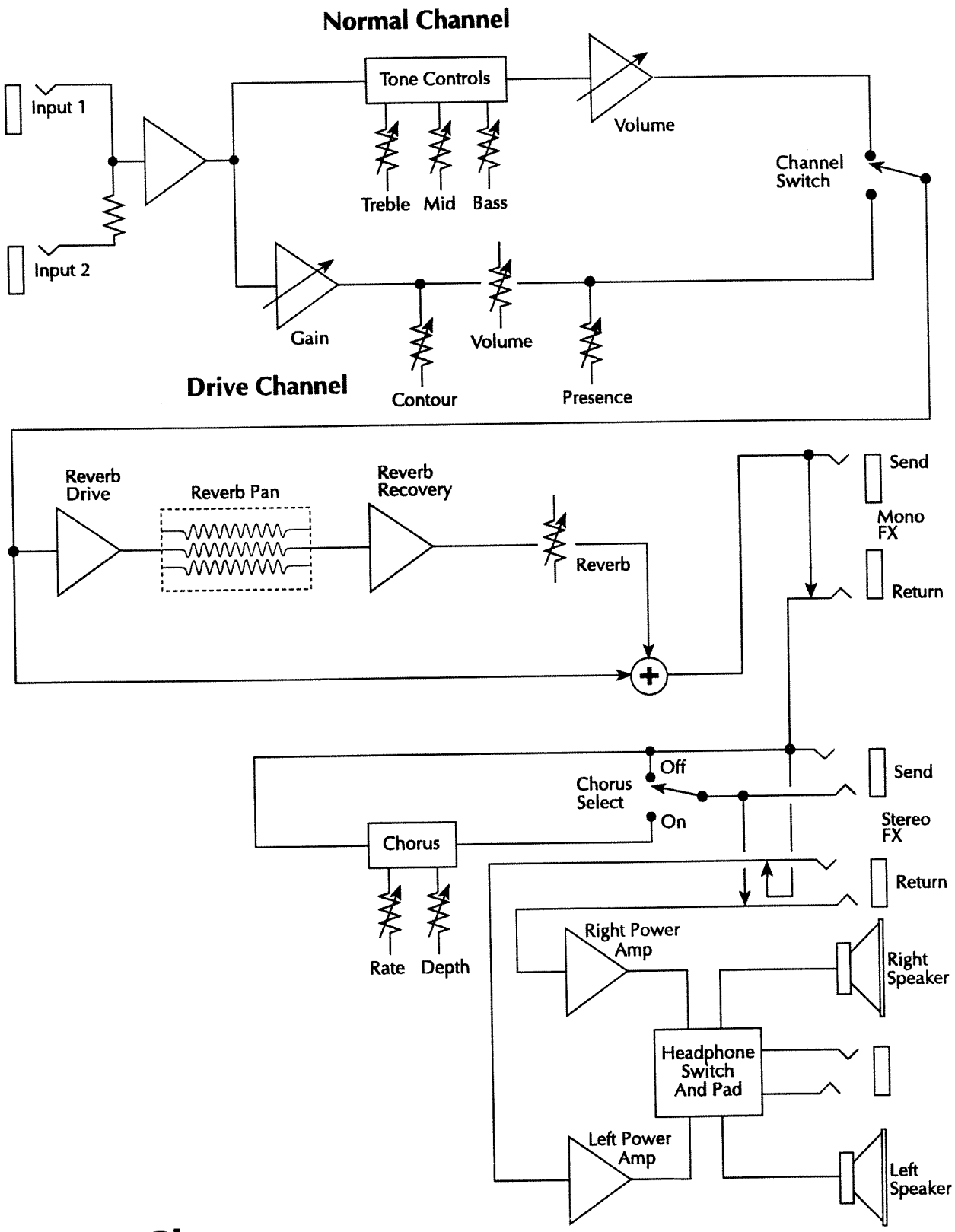
Note: This setting uses the Drive channel only.



K-Thump Rhythm or Lead / Humbucking Bridge Position

Note: This setting uses the Drive channel only.





M-80 Chorus Block Diagram

A product of:
FENDER MUSICAL INSTRUMENTS CORP.
1130 Columbia Street, Brea, California