Fender knows the importance of sound reinforcement. From the simple box-top mixer to today's professional touring concert systems, the need to communicate, to make the connection between the performer and the audience is foremost in Fender's mind.

Perhaps no other single piece of gear can make or break your band's sound. You see, your sound system is more than just a combination of dials, wires and speakers. It is an integral part of the audio chain and should be treated with special care and attention to detail.

At Fender, we know what building quality musical instruments and sound reinforcement equipment is all about. In fact, many of the world's best sounding electric musical instruments and sound reinforcement equipment proudly wear the Fender name.

Whether you need a simple box top powered mixer for your Saturday afternoon jam, or a professional full-size concert system, Fender has the sound reinforcement equipment to meet your needs. Likewise, your decision to purchase Fender pro audio gear is one you will appreciate with each performance for years to come.

Wishing you years of enjoyment and a heartfelt thank you,

Bill Schultz
Chairman
Fender Musical Instruments Corporation
The PowerStage 100: a 100 watt powered monitor and general purpose compact sound system from your friends at Fender® Pro Audio. We are sure you will find the PowerStage 100 to be both a unique and effective sound reinforcement product, providing years of trouble-free service.

Enclosed in a quasi-trapezoidal floor monitor style cabinet, the PowerStage 100 includes a 3 channel preamp, a power amp, a power supply and a full-range coaxial speaker system. With three angles of orientation, inputs for microphones and a variety of musical instruments, the PowerStage 100 is suitable for nearly every monitoring application. The PowerStage 100 also features a unique detachable wired remote control panel. All volume levels and frequency shaping can be controlled via the remote panel allowing for adjustments from the "performance position".

The versatile input panel and detachable remote control unit combined with the 100 watt power amplifier makes the PowerStage 100 the perfect general purpose compact sound system. With phantom power, 1/4 inch phone TRS and 3-Pin XLR female input connectors and a stereo RCA input connection, the PowerStage 100 can accommodate almost any input signal. By connecting a multi-effects unit through the insert jack and adding the optional PowerStage Xpander 100, you now have a PA system ready for any small club or intimate setting.

**WARNING:**
- TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.
- NO USER SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED PERSONAL ONLY.
- THIS UNIT MUST BE EARTH GROUNDED.
CONTROL PANEL FUNCTIONS

Designed for maximum flexibility, the wired remote control section is the "brain" of the PowerStage 100. Whether hand held or mounted to a mic stand, the wired remote control unit governs all volume levels, frequency shaping and features a 1/4 inch headphone jack for personal monitoring. Constructed from rugged 18 gauge electro-galvanized steel and secured in place via ball stud and Tinnerman clips, the remote unit handles the most demanding, day to day setup and performance situations.

A. MIC 1 - The Mic 1 volume control. Rotating the knob clockwise increases volume. Because the Mic 1 input and the Mic 1 output connections are "daisy chained", adjusting the volume control will not affect the Mic 1 output signal to the main mixing console.

B. MIC 2 / INST - The Mic 2 / Inst volume control. Rotating the knob clockwise increases volume. Any adjustments to this control will affect both the Mic 2 and the Inst output volume.

C. LINE - The Aux Line / Stereo Line volume control. Rotating the knob clockwise increases volume. Any adjustments to this control will affect both the Aux Line and the Stereo Line volume.

D. MASTER LEVEL - Adjusts the overall volume level of the PowerStage 100. Again, rotating the knob clockwise increases volume. If the optional PowerStage Xpander 100 is connected to the system, the master level also controls the output volume for the other unit.

E. LOW CUT - Designed to attenuate low frequency noise or "stage rumble", the LOW CUT knob is a variable corner (shelving) frequency control. By slowly rotating the knob, any undesirable low frequency noise, such as rumbling of a rocking microphone stand, can be diminished.

F. LOW NOTCH - Designed to attenuate feedback or other bothersome hums, the LOW NOTCH control is a constant Q, variable center frequency filter. The control attenuates frequencies between 200Hz and 2kHz. By slowly rotating the knob to locate the feedback frequency, it can be diminished.

G. HIGH NOTCH - Designed to attenuate feedback or other bothersome hums, the HIGH NOTCH control is a constant Q, variable center frequency filter. The control attenuates frequencies between 600Hz and 6kHz. By slowly rotating the knob to locate the feedback frequency, it can be diminished.

H. LEVEL - Adjusts the volume level of the headphone output. Caution: Prolonged listening at high volume levels may be hazardous to your hearing and could possibly cause hearing damage.

I.  - A 1/4 inch stereo output jack for use with headphones.

J. ENHANCE - Pressing this button in provides an increase in the bass and treble response of the PowerStage 100.
L. SUPPLY CORD JACK - The supply cord connects here. This is 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.

M. POWER SWITCH - Turns the AC power ON and OFF. When the switch is in the OFF position, the PowerStage 100 is completely shut down.
The PowerStage 100 utilizes a variety of connectors on its input panel. Below is a chart listing the various types of connectors on the PowerStage 100.

### WIRING AND CONNECTIONS

<table>
<thead>
<tr>
<th>Jack</th>
<th>Style</th>
<th>Connection</th>
<th>Pin Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIC 1 IN</td>
<td>XLR Female</td>
<td>Balanced Input</td>
<td>Pin 1 = GND, Pin 2 = POS, Pin 3 = NEG</td>
</tr>
<tr>
<td>MIC 1 OUT</td>
<td>XLR Male</td>
<td>Balanced Output</td>
<td>Pin 1 = GND, Pin 2 = POS, Pin 3 = NEG</td>
</tr>
<tr>
<td>MIC 2 IN</td>
<td>XLR Female</td>
<td>Balanced Input</td>
<td>Pin 1 = GND, Pin 2 = POS, Pin 3 = NEG</td>
</tr>
<tr>
<td>INST</td>
<td>1/4&quot; TS</td>
<td>Unbalanced Input</td>
<td>Tip = Input Signal, Sleeve = GND</td>
</tr>
<tr>
<td>AUX LINE</td>
<td>1/4&quot; TRS</td>
<td>Balanced Input</td>
<td>Tip = POS Signal, Ring = NEG Signal, Sleeve = GND</td>
</tr>
<tr>
<td>STEREO LINE</td>
<td>Dual RCA</td>
<td>Unbalanced Input</td>
<td>Inner Ring = Signal, Outer Shell = GND</td>
</tr>
<tr>
<td>INSERT</td>
<td>1/4&quot; TRS</td>
<td>Unbalanced Input/Output</td>
<td>Tip = Send (output), Ring = Return (input), Sleeve = GND</td>
</tr>
<tr>
<td>LINE OUTPUT</td>
<td>1/4&quot; TRS</td>
<td>Unbalanced Output</td>
<td>Tip = Signal Output, Ring = Terminated 100Ω to GND, Sleeve = GND</td>
</tr>
</tbody>
</table>

### SETTING UP THE POWERSTAGE 100

Before using the PowerStage 100, please read and follow the steps listed below:

1. Heed all safety warnings when operating the PowerStage 100.
2. Make sure the power switch is in the OFF position and all volume levels are in the Min position.
3. Plug the female end of the supply cord into the Supply Cord Jack (item L page 5) of the PowerStage 100. Next, plug the supply cord into a power source with the correct voltage.
4. Connect the cord(s) from your microphone or other signal source(s) to the PowerStage 100’s input jack(s).
5. If you have a PowerStage Xpander 100, connect it to the PowerStage 100 via the 1/4” Line Output Jack (item K).
6. First, turn all outboard gear, instruments and other equipment ON, then the PowerStage 100.
7. Adjust volume levels to the appropriate levels, listening for feedback or other ringing.
8. If feedback is encountered, rotate the appropriate (LOW or HIGH band) frequency notch filter control down to its lowest position. Next, slowly turn the frequency control knob to pinpoint the location of the problem frequency and cancel it.
9. Steps 7 and 8 may need to be performed more than once if several feedback problems occur.

For more detail on setting up your PowerStage 100, please refer to the diagrams on pages 8 thru 11.
**GROUNDING AND HUMS**

Ground loops are probably the most common cause of hum and buzz in sound reinforcement systems and other audio products. A ground loop usually occurs if the separate pieces of equipment are plugged into different AC circuits. Also, if the audio wiring is placed too close to the power cords, hums or buzzes can bleed into the system. Still, improperly maintained power and audio cables are yet another cause of bothersome noise. In order to help minimize stray hums and buzzes, here are some helpful hints.

1. Keep all electronics connected to the sound system on the same electrical circuit.
2. Keep audio signals cables away from the AC power cords.
3. Use balanced cables when applicable.
4. Always plug the PowerStage 100 into a grounded AC electrical outlet.
5. Be sure to use properly maintained cords and cables with the PowerStage 100.

**CARPET COVERING CARE**

The PowerStage 100 is covered in a tough, soil resistant synthetic indoor/outdoor carpet for long life and lasting good looks. To clean the carpeted cabinet, use a brush to wipe away any smudges or dirt. For stubborn stains, a sponge with a light soapy solution may be used. Avoid spilling liquids on the operating surface, heat sink, grille, volume and tone controls, switches and speakers. ALWAYS unplug the PowerStage 100 before cleaning it and wait until it has dried before plugging in the PowerStage 100.

**TROUBLESHOOTING**

If the PowerStage 100 is set up but does not function, please check the following items:

- Is the PowerStage 100’s power cord properly plugged into an electrical outlet?
- Is the power cord properly plugged into the Power Stage 100's Supply Cord Jack?
- Is there power at the outlet?
- Does your instrument have power?
- Are the volume control knobs on the Power Stage turned above the Min position?
- Are the volume control knobs on your instruments turned above their minimum position?
- Is the mic/instrument properly plugged into the Power Stage 100?
- Is the mic/instrument turned on?
- Are your audio cables frayed, cut or damaged?
- If using a condenser mic, is the phantom power turned on?
- If using an effects processor, is the “Y” line cord properly connected?

If after checking all of the above the PowerStage 100 is still not performing correctly, consult your authorized Fender Service Center.
SIMPLE MONITOR SET UP

1. Connect your microphone to the Mic 1 IN.

2. Next, connect a cord from the Mic 1 out jack to your main mixing console. This is a mic level signal.

3. Your PowerStage 100 monitor is a dry signal. Any reverb or other signal processing heard through the main P.A. will NOT be heard in the PowerStage 100.

4. Remember, turning up the Mic 1 Volume will NOT affect the output of the main P.A. system.
FULL MIX MONITOR SET UP

1. Connect your microphone to the Mic 1 In.

2. Connect a cord from the Mic 1 Out jack to your main mixing console. This is a mic level signal.

3. Next, connect a cord from the monitor out on your mixing console back to the Aux Line In jack on the PowerStage 100. You now have a full monitor mix with all effects from your mixing console in the PowerStage 100. To turn up the full monitor mix, turn up the Line volume (item C page 4).

4. Remember, turning up the mic 1 volume will NOT affect the output of the main P.A. system, but it will affect how much of your "dry" signal you will hear.
1. Connect your instrument to the Inst jack on the PowerStage 100 and to the line in on your mixer.

2. Connect a cord from the Instrument’s line output jack to your main mixing console.

3. Next, connect a cord from the monitor out on your mixing console back to the Aux Line in jack on the PowerStage 100. You now have a full monitor mix with all effects from your mixing console in the PowerStage 100. To turn up the full monitor mix, turn up the Line volume (item C page 4).

4. Remember, turning up the Mic 2 / Inst volume WILL NOT affect the output of the main P.A. system. It WILL determine how much of your “dry” signal you will hear.
1. Connect your microphone to the Mic 1 In jack, your instrument to the Inst jack and a tape or CD player to the Stereo Line jack.

2. Connect a cord from the line output jack to a PowerStage Xpander 100 (optional).

3. Next, an effects unit may be used by connecting a "Y" line cord to the insert jack (item E page 5).

4. Headphones out (item I page 4) on the detachable remote unit may be used for monitoring purposes.
### SPECIFICATIONS

**DESIGNATION TYPE**
PR 306

**PART NUMBER**
071-0100-000 (120 V)  
071-0100-030 (240 V) Aust  
071-0100-040 (230 V) UK  
071-0100-060 (230 V) Euro

**POWER SPECIFICATION**
120 V version: 120 VAC, 60 Hz 360 W  
230 V version: 230 VAC, 50 Hz 360 W  
240 V version: 240 VAC, 50 Hz 360 W

**PREAMP**

<table>
<thead>
<tr>
<th>Channel</th>
<th>System Gain</th>
<th>Preamp Gain</th>
<th>Input Level Nominal</th>
<th>Input Impedance</th>
<th>Phantom Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch. 1</td>
<td>Mic 1</td>
<td>Mic 1</td>
<td>Mic 1</td>
<td>Mic 1</td>
<td>Mic 1</td>
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<tr>
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<td>0 dB to +90 dB</td>
<td>0 dB to +60 dB</td>
<td>-28 dBV</td>
<td>2 kΩ</td>
<td>+15 V</td>
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<tr>
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<td>Minimum Mic 1</td>
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<td>-60 dBV</td>
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<td>0 dBV</td>
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<tr>
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<td>Mic 2</td>
<td>Mic 2</td>
<td>Mic 2</td>
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<td></td>
<td>0 dB to +90 dB</td>
<td>0 dB to +60 dB</td>
<td>-28 dBV</td>
<td>2 kΩ</td>
<td>+15 V</td>
</tr>
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<td>Minimum Mic 2</td>
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<td>-60 dBV</td>
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<td></td>
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<td>Maximum Mic 2</td>
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<tr>
<td></td>
<td>0 dB to +60 dB</td>
<td>0 dB to +28 dB</td>
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<td>20 kΩ</td>
<td>25 kΩ/side</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Minimum Aux Line</td>
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<tr>
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<td>-26 dBV/side</td>
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<tr>
<td></td>
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<td>Maximum Aux Line</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>+20 dBV</td>
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</tr>
</tbody>
</table>

**LOW CUT**
Corner Frequency: -3 dB @ 30 Hz to 270 Hz

**LOW NOTCH**
Center Frequency: 200 Hz to 2 kHz
Depth: -20 dB

**HIGH NOTCH**
Center Frequency: 600 Hz to 6 kHz
Depth: -20 dB

**ENHANCE**
Low Boost: +9 dB @ 100 Hz
High Boost: +5 dB @ 4 kHz

**HEADPHONES**
Maximum Output: 14 mW into 8 Ω, 1% THD + Noise  
Nominal Power: 165 mW into 300 Ω, 1% THD + Noise

**POWER AMP**
Nominal Power: 100 W into 8 Ω, <0.05% THD+Noise @ 1kHz  
Maximum Power: 108 W into 8 Ω, <0.1% THD+Noise @ 1 kHz
Frequency Response: +0 dB, -3 dB 20 Hz to 40 kHz @ Nominal Power
THD + Noise: <0.05% @ 1 kHz, 100 W into 8 Ω
Output Impedance: 0.2 Ω @ 1 kHz, 0.02 Ω @ 100 Hz
Input Sensitivity: 1 V RMS, 0 dBV

**DIMENSIONS**
(At 25º) Height: 18 in 45.7 cm  
Width: 23.5 in 59.7 cm  
Depth: 12 in 30.5 cm  
Weight: 45 lbs 20.4 kg

Product specifications are subject to change without notice.