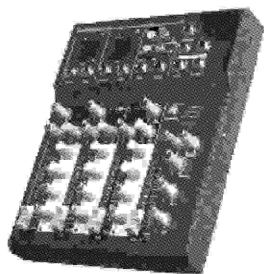
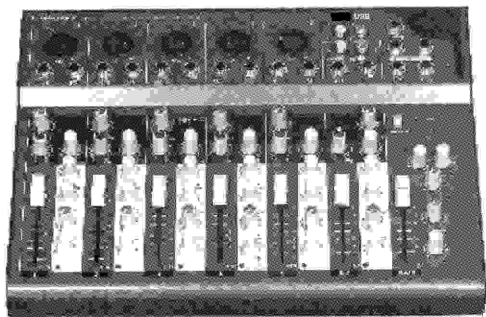




SERIES



Professional Series Live Mixers

F-7

7 Channel Mixer 5 XLR Balanced Mic / Line -1 Stereo Line with Digital Echo and Phantom

F-4

4 Channel Mixer 2 XLR Balanced Mic / Line -1 Stereo Line with Digital Echo and Phantom

Operating Manual



Congratulations on your purchase of a F Series Compact Professional Live Mixer by Proton Audio. Please take some time to carefully read the below instructions to get the optimum of your mixer.

- ♪ 7 Channel Mixer 5 XLR Balanced Mic / Line -1 Stereo Line **(F-7)**
- ♪ 4 Channel Mixer 2 XLR Balanced Mic / Line -1 Stereo Line **(F-4)**
- ♪ Individual Gain, Bass, Mid, High, Aux, Pan Controls
- ♪ Built in Effect Processor
- ♪ Stereo RCA Outputs for Recording
- ♪ TRS Jack Outs
- ♪ Main Slide Control (L+R), Phones
- ♪ Individual Echo, Peak LEDs on each inputs
- ♪ Phantom with LED for condenser mics
- ♪ Channel Slides for smooth operation
- ♪ 5 inserts for Microphones **(F-7)**
- ♪ 2 inserts for Microphones **(F-4)**
- ♪ 6 x 2 Segment LED Level meter
- ♪ Delay, repeat, Effect Send & AUX Controls

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions before operating this apparatus.
2. Keep these instructions for future references.
3. Heed all warnings to ensure safe operations.
4. Follow all instructions provided in this document. Do not use this apparatus near water or in locations where consideration may occur.
6. Clean only with dry cloth. Do not use aerosol or liquid cleaners. Unplug this apparatus before cleaning
7. Do not block any of the ventilations openings. Install in accordance with manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachment / accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long period of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects has fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

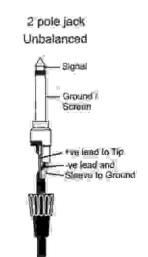
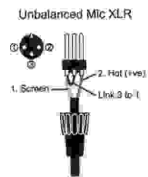
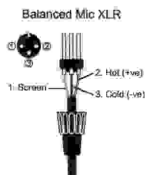
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliances.

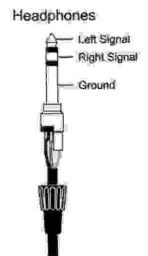
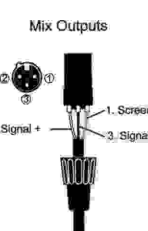
WARNING: To reduce risk of fire or electric shock, do not expose this apparatus to rain or moisture.

CAUTION: Use of controls or adjustments or performances of procedures other than those specified may result in hazardous radiation exposure.

INPUTS



OUTPUTS



MIC INPUT

The MIC input accepts XLR-type connectors and is designed to suit a wide range of BALANCED or UNBALANCED low-level signals. If you turn the PHANTOM POWER on, the socket provides a suitable powering voltage for professional condenser mics.



DO NOT use UNBALANCED sources with the phantom power switched on. The voltage on pins 2 & 3 of the XLR connector may cause serious damage. BALANCED dynamic mics may normally be used with phantom power switched on (contact your microphone manufacturer for guidance)

The input level is set using the input GAIN knob. The LINE input offers the same gain range as the MIC input, but at a higher input impedance, and is 20dB less sensitive. This is suitable for most line level sources.



WARNING !

Start with the input GAIN knob turned fully anticlockwise when plugging high level sources into the LINE input to avoid overloading the input channel or giving you a very loud surprise!

LINE INPUT

Accepts 2-pole mono jacks which will automatically ground the 'cold' input. Use this input for sources other than mics, such as keyboards, drum machines, synths, tape machines or guitars. Note that the ring must be grounded if the source is unbalanced. Set the input level using the GAIN knob, starting with the knob turned fully anticlockwise. Unplug any MIC connection when using the LINE input.

AUX OUTPUTS

The Aux outputs are on 3-pole 'A' gauge jack sockets, wired as shown on the left, and are balanced, allowing long cable runs to balanced amplifiers and other equipment.

HEADPHONES

The PHONES output is a 3-pole 'A' gauge jack, wired as a stereo output as shown, ideally for headphones of 200 ohms or greater. 8 ohms headphones are not recommended.

POLARITY (PHASE)

You will probably be familiar with the concept of polarity in electrical signals and this is of particular importance to balanced audio signals. Just as a balanced signal is highly effective at cancelling out unwanted interference, so two microphones picking up the same signal can cancel out, or cause serious degradation of the signal if one of the cables has the +ve and -ve wires reversed. This phase reversal can be a real problem when microphones are close together and you should therefore always take care to connect pins correctly when wiring audio cables.



WARNING! Under NO circumstances must the AC power mains earth be disconnected from the mainslead.

MONO CHANNELS

1. MIC INPUT..... The MIC input accepts XLR-type connectors and is designed to suit a wide range of BALANCED or UNBALANCED signals. If you turn the PHANTOM POWER on (top right-hand side of the mixer) the socket provides a suitable powering voltage for professional condenser mics. TAKE CARE when using unbalanced sources, which may be damaged by the phantom power voltage on pins 2 & 3 of the XLR connector. Unplug any mics if you want to use the LINE input. The input level is set using the GAIN knob.

2. LINE INPUT..... Accepts 2-pole TRS jacks. Use this input for sources such as keyboards, CD Players, Tape Decks, drum machines, synths, tape machines or D/I'd guitars. **Unplug anything in the MIC input if you want to use this socket.** Set the input level using the GAIN knob.

3. INSERT INPUT..... The unbalanced, pre-EQ insert point is a break in the channel signal path, allowing limiters, compressors, special EQ or other signal processing units to be added in the signal path. The Insert is a 3-pole 'A' gauge jack socket which is normally bypassed. When a jack is inserted, the signal path is broken, just before the EQ section. The Send may be tapped off as an alternative pre-fade, pre-EQ direct output if required, using a lead with tip and ring shorted together so that the signal path is not interrupted.

4. GAIN..... This knob sets how much of the source signal is sent to the rest of the mixer. Too high, and the signal will distort as it overloads the channel. Too low, and the level of any background hiss will be more noticeable and you may not be able to get enough signal level to the output of the mixer. Note that some sound equipment, particularly that intended for domestic use, operates at a lower level (-10dBV) than professional equipment and will therefore need a higher gain setting to give the same output level.

5. PAN..... This control sets the amount of the channel signal feeding the Left and Right MIX buses, allowing you to move the source smoothly across the stereo image. When the control is turned fully left or right you are able to route the signal at unity gain to either left or right outputs individually.

6. EQUALIZER LOW..... Turn to the right to boost low (bass) frequencies below 60Hz by up to 15dB, adding warmth to vocals or extra punch to synths, guitars and drums. Turn to the left to cut low frequencies by up to 15dB for reducing hum, stage rumble or to improve a mushy sound. Set the knob to the centre-detented position when not required.

7. EQUALIZER MID..... Turn to the right to boost mid frequencies (Vocals). Listen carefully as you use this control to find how particular characteristics of a vocal signal can be enhanced or reduced. Set the lower knob to the centre-detented position when not required.

8. EQUALIZER HIGH..... Turn to the right to boost high (treble) frequencies above 12kHz by up to 15dB, adding crispness to cymbals, vocals and electronic instruments. Turn to the left to cut by up to 15dB, reducing hiss or excessive sibilance which can occur with certain types of microphone. Set the knob in the centre-detented position when not required.

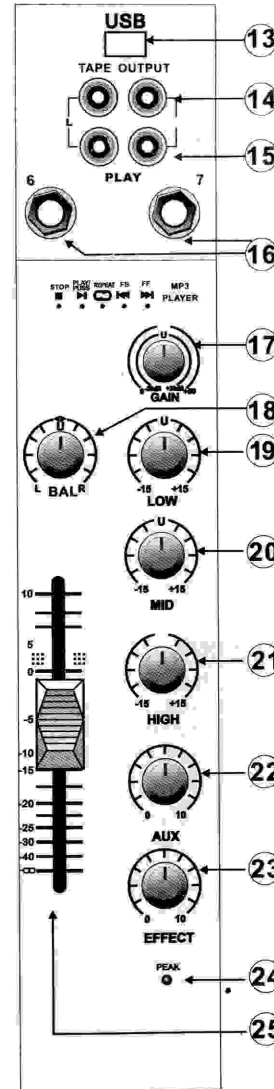
9. AUX..... You can connect an external processor on AUX SEND & RETURN and control with this knob

10. EFFECT (INTERNAL ECHO)..... This controls the volume of the internal echo effects. At 0 point you will not get any effects.

11. PEAK LED..... This LED indicator will illuminate when the channel hits high peaks, 6 dB before overload occurs. It is best to adjust the channel level control so as to allow the PEAK indicator to light up on regular intervals only.

12. FADER..... The FADER allows precise balancing of the various source signals being mixed to the Master Section. You get most control when the input GAIN is set up correctly, giving full travel on the fader.

STEREO CHANNEL



13.USB

HOST(USB2.0) Function (MAX 500 MA) used for U disk,MP3, hard Disc & flash disc reader,etc.

14. MAIN OUT (RECORDING)

Connect left and right jacks to this connection For to the Recording Deck to record your mix

15. STEREO INPUTS (RCA)

Connect left and right jacks to this connection For Stereo Line Inputs like CD Player/ Tape Deck etc You can also use Jack connectors (15)

16. STEREO INPUTS (JACKS)

Connect left and right jacks to this connection For Stereo Line Inputs like CD Player/ Tape Deck etc You can also use RCA connectors (14)

17. GAIN..... This knob sets how much of the source signal is sent to the rest of the mixer. Too high, and the signal will distort as it overloads the channel. Too low, and the level of any background hiss will be more noticeable and you may not be able to get enough signal level to the output of the mixer. Note that some sound equipment, particularly that intended for domestic use, operates at a lower level (-10dBV) than professional equipment and will therefore need a higher gain setting to give the same output level.

18. BAL ... This is a true stereo Input to transfer from Left to Right, Keep this control in the centre for sound from both the channels

19. EQUALIZER LOW..... Turn to the right to boost low (bass) frequencies below 60Hz by up to 15dB, adding warmth to vocals or extra punch to synths, guitars and drums. Turn to the left to cut low frequencies by up to 15dB for reducing hum, stage rumble or to improve a mushy sound. Set the knob to the centre-detented position when not required.

20. EQUALIZER MID..... Turn to the right to boost mid frequencies (Vocals). Listen carefully as you use this control to find how particular characteristics of a vocal signal can be enhanced or reduced. Set the lower knob to the centre-detented position when not required.

21. EQUALIZER HIGH..... Turn to the right to boost high (treble) frequencies above 12kHz by up to 15dB, adding crispness to cymbals, vocals and electronic instruments. Turn to the left to cut by up to 15dB, reducing hiss or excessive sibilance which can occur with certain types of microphone. Set the knob in the centre-detented position when not required.

22. AUX.....You can connect external auxiliary effects and Processors

23. EFFECT (INTERNAL ECHO)..... This controls the volume of the internal echo effects. At 0 point you will not get any effects.

24. PEAK LED..... This LED indicator will illuminate when the channel hits high peaks, 6 dB before overload occurs. It is best to adjust the channel level control so as to allow the PEAK indicator to light up on regular intervals only.

25. FADER..... The FADER allows precise balancing of the various source signals being mixed to the Master Section. You get most control when the input GAIN is set up correctly, giving full travel on the fader.

MASTER SECTION

26. HEADPHONE SOCKET

The PHONES output is a 3-pole 'A' gauge jack, wired as a stereo output, ideally for headphones of 200 ohms or greater. 8 ohms headphones are not recommended.

27. MAIN L+R

Connect the left and right jacks from the amplifier to this output

28. AUX

You can connect auxiliary effects in this socket

29. EFFECT

To connect an external processor or digital delay, this jack socket returns signals from the external processor.

30. POWER LED

This LED lights up when you switch on the power

31./32 PHANTOM POWER/ PHANTOM LED

Phantom Power switch providing +48V current to power the condenser microphones. Properly wired balanced dynamic microphones are not affected. The LED below it indicates the Phantom Power ON Status.

33. LEVEL METER

This segment level meter gives an accurate indication of when audio levels of the Main L/R output reach certain levels. The 0 dB indicator illuminates is approximately equal to an output level of +4 dB (balanced), and the PEAK indicator illuminates about 6 dB before the signal is dynamically clipped. It is suggested for the maximum use of audio to set the various levels controls so that it sits steadily around 0 dB to make full use of audio, while still maintaining clarity.

34. DELAY

This controls the Reverbs, you can increase or decrease the number of repeats

35. REPEAT

This controls the number of repeats, you can increase or decrease the number of repeats

36 PHONE LEVEL

This control sets the output level to the headphone outputs. If headphones are plugged into the PHONES jack, then the knob sets a comfortable headphone listening level without affecting the Monitor output levels.

37. AUX LEVEL

Volume control for Auxiliary Send.

38. EFFECT VOLUME

Volume control for Effects

39. MASTER LEFT & RIGHT SLIDE CONTROL

Individual MASTER FADERS are provided to set the final level of the MIX outputs, and separate faders are provided for each output. These should normally be set close to the '0' mark if the input GAIN settings have been correctly set, to give maximum travel on the faders for smoothest control.

40. Adapter Mains

This for connecting the mixer to the external adapter (supplied) to 230V mains

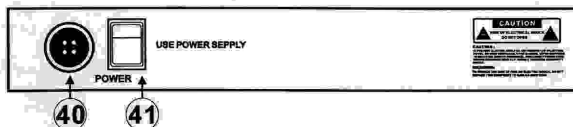
41. ON/OFF SWITCH

To switch the mixer ON/OFF

SPECIFICATIONS

F7/F4

Total Harmonic Distortion (ST OUT):	0.1 % (THD+N) @ +14dBu, 20 Hz 20 kHz, 600Ω (with gain control at maximum level)
Frequency Characteristics (ST OUT):	20 Hz ± 3 dBu, 600Ω (with gain control at minimum level)
S/N Ratio :	110dB
Max outputs :	4V
Input Gain :	MIC 35Db(20-60Db) Line 20Db(0-20Db)
EQ :	HI ± 15Db/10Khz MD ± 15Db/2.5Khz LOW ± 15Db/ 100Hz
Phantom	+48 VDC Power (Balanced input) Supplied when Phantom+48V switch is ON.
Included Accessory	Power adaptor
Power Consumption	F4: 10W F7: 15w
Max Dimensions(W X H X D)	F4: 223 x 310mm F7 : 423 x 108 x 410mm
Weight :	F4: 1.5KG F7: 2.2KG
Effect :	16 effects digital controlled



TYPICAL CONNECTION DIAGRAM

