

Focus

Professional Mixing Consoles

Operating Instructions

FC-802	8 Channel
FC-1202	12 Channel
FC-1602	16 Channel
FC-2402	24 Channel

Focus Professional Mixing Consoles

Thank you for choosing a *FOCUS* mixing console. We are sure that it will provide you with many years of reliable service.

OUTLINE

FOCUS mixers are available with 8,12,16 and 24 channels. Each channel offers Mic and Line Inputs, an Insert point, Gain control with peak LED, 3 bands of Equalisation, 3 Auxiliary sends, Pan control, Cue switch and a master slider.

The output section consists of Left and Right master sliders, balanced and unbalanced outputs, 2 returns, headphone socket and phantom power switches.

The use of these controls will be discussed throughout this manual.

GETTING STARTED

A correctly set up mixer is the key to a good, clear sound. This section is designed to help the you with an initial set up of all the levels and controls.

Connect the mixer to mains power and switch on. A red LED on the far right hand side will indicate power.

You will need two microphone leads (3 pin XLR) or two guitar leads (1/4" jacks) to connect the mixer to your amplifier. These leads run from the GRP/OUTPUT sockets just left of the power switch to the Left and Right (or A & B) inputs of your amplifier.

After checking that the master faders are turned down, switch on your power amplifier.

The next step is to plug all your inputs into the mixer. Microphones should be plugged into the 3 pin XLR socket, while line inputs such as CD players, tape decks, keyboards etc, should be plugged into the 1/4" line socket.

A very important section of any mixer is the gain control, which is the first knob on each channel. The idea is to set this control as high as possible without the Peak LED coming on. Adjust each channel individually while the mics or inputs are being used in their normal way. The centre position is a good starting point.

The next three controls are for Equalization. HF stands for high frequency, MID for Middle frequency, and LOW for low frequency. These controls allow you to tailor the sound

of each input. The starting point for these controls is in the centre position. The main purpose of Equalization is to improve the sound, so feel free to experiment.

The AUX 1, AUX 2 and AUX 3 controls are only needed when using effects (reverb, digital delay etc), or when using a foldback (monitor) system. Please see the separate section on Auxiliaries.

The PAN control is similar to the balance control on a home stereo. It simply sends each input to either the left or right output, or anywhere in between. The normal setting is in the centre.

The CUE button is used in conjunction with the headphone socket. When the CUE button is on, it allows you to monitor individual inputs through the headphones. When using CUE, neither the channel or master sliders need to be turned up. To use CUE, you also need to press the GRP/CUE button near the headphone socket. In GRP mode, you can monitor the entire mix, which is basically the signal that is being fed to your amplifiers. The VOL knob controls the volume of the headphones.

The slider at the bottom of each channel controls how much of each input is sent to the output section. It is simply a volume control for each channel. To get any sound from your mixer, both the channel slider and the master slider need to be turned up.

The above information is all that you need to know to set up and operate a basic system. Practice and hands-on experience will make you an expert.

The next stage of this booklet deals with the more advanced features of the mixer.

AUXILIARIES, FOLDBACK, EFFECTS

Auxiliaries are known as sends because they are used to send a signal out of the mixer. You will notice that each channel has 3 auxiliaries, and that there are 3 master Auxiliaries on the far right hand side of the mixer. There are also three 1/4" Auxiliary output sockets. Auxiliaries are normally used for foldback and/or effects, but can also be used to recording or to feed a hearing loop amplifier.

Foldback:

This term refers to a monitoring system usually comprising of another amplifier and onstage speakers. Foldback is used so that performers can hear themselves while on stage.

A foldback (monitor) system would normally be connected to AUX 1, because this is pre-fader, which means that the channel slider has no effect on the aux output.

To connect a foldback system, run a lead from the AUX 1 output to the line input of your power amplifier. As a starting point set the Aux 1 master in the centre position and slowly raise the Aux 1 control on the channel that you are using. Adjust the Aux 1 for each channel that is required for foldback so that you have a suitable mix of all the channels in the foldback speakers.

Effects:

AUX 2 and 3 are post fader which means that the position of the channel slider affects the amount of level being sent to these auxiliaries. Aux 2 and 3 would normally be used for effects.

When using effects, the Auxiliary output sends the signal out of the mixer, but the effect has to be returned and combined with the original signal. To connect an effect, run a lead from the Aux 2 or 3 output to the input of your effects units. The effects unit will have one or two outputs (2 for stereo), which need to be connected to the returns of the mixer. The *Focus* mixers have two return inputs which are positioned just below the master outputs. The Volume and Pan controls for the returns are below that master LEDs.

The return volume tells the mixer how much of the signal with effects is being returned.

The return Pan control allows you to decide if the effect is going to be mixed with both the left and right outputs or anywhere in between.

When returning a stereo effect, run the left effect output into Return 1 and Pan fully left, and return the right effect output into Return 2 and Pan fully right.

This will maintain the stereo image that is created from the effects unit.

Another method of returning effects is to use the line input of a spare channel. This allows you to EQ the return and control the return level from a slider.

If you use this method, please make sure that the Aux that you are returning is completely turned down on the channel, otherwise you will experience some loud squeals.

MONITOR CONTROL AND OUTPUT

Focus mixers have an monitor output which sends the entire mix post faders to the Left and Right 1/4" monitor outputs.

The MON control which is situated just above the headphone volume knob controls the amount of level going out the monitor outputs.

The monitor outputs would normally be used to feed another audio source such as a house PA system, or to run to a tape recorder. Please note that the monitor level is varied by both the channel and master sliders.

For foldback, it is best to use the AUX 1 send, as this provides a control on each channel, and allows you to set the levels pre-fader. Please see the Auxiliaries section.

PHANTOM POWER

Phantom Power is needed when using electret/condenser microphones. These type of mics (usually gooseneck or tie mics) require a voltage from the mixer to work.

With the Focus mixers, you can have phantom power on either the first half or second half of the mixer, or on every channel.

There are two phantom power switches just below the AUX outs. The green LED indicates when phantom power is on.

Please note that phantom power cannot be used with unbalanced microphone

TO CONNECT A STEREO CD, TAPE PLAYER OR KEYBOARD

To maintain the effect of stereo, you will need to use two channels of the mixer, one channel for left and one for right. Set the channels up identically except for the Pan controls. One pan should be set completely left and the other completely right.

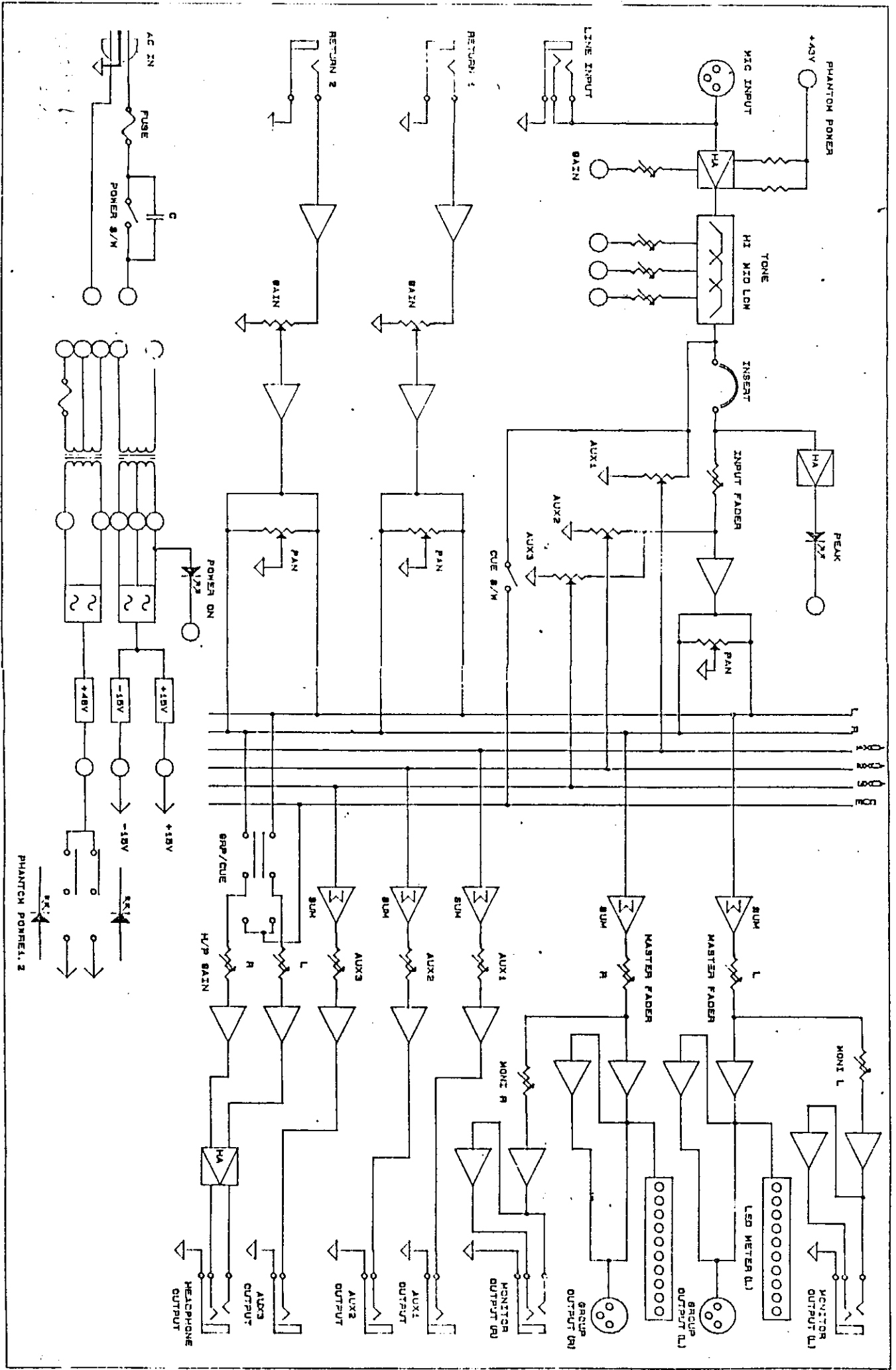
If you are not using effects, you can use the returns as inputs. This will not give you any equalisation, but it will allow you to control the volume and pan controls.

INSERT POINTS

Every channel of the Focus mixers has a 1/4" insert socket. An insert point allows you to send your signal out of the mixer and return it through the same socket. It can also be used as a direct channel output.

The insert point is normally used to place processors (Compressors, Equalizers, Noise Gates etc) across a signal channel. It therefore requires a 3 conductor (stereo) jack.

Please contact your nearest *Focus* dealer if you require any more information



PHANTOM POWER 2

INPUT MODULE FEATURES

1. MIC INPUT CONNECTORS : XLR , -60dB ~ -20dBu , 2Kohm , electronically balanced.
2. LINE INPUT CONNECTORS : PHONE JACK , -20dBu ~ +10dBu , 10Kohm , electronically balanced.
3. CHANNEL INSERT CONNECTORS : -10dBu , SEND & RETURN , TIP SEND , RING RETURN ,
SEND can be used for DIRECT OUTPUT.
4. PEAK : A peak LED will light should signal in the module exceed +17dBm.
This is at least 3dB BELOW clipping.
5. GAIN : -60dB ~ -20dB INPUT LEVEL CONTROL.(MIC)
-20dB ~ +10dB INPUT LEVEL CONTROL.(LINE)
6. EQUALIZER : HF : 15dB of cut or boost at 10KHz.
MF : 15dB of cut or boost , at 1KHz.
LF : 15dB of cut or boost at 100Hz.
7. AUXILIARIES
AUX1 : internally link PRE FADER.
AUX2 : internally link POST FADER.
AUX3 : internally link POST FADER.
8. PAN POT : PANPOT L - GROUP LEFT
PANPOT R - GROUP RIGHT
9. CUE SWITCH : In this mode, the PRE-FADER SIGNAL is routed to the CONTROL ROOM MONITOR and
headphone output without affecting the main console outputs.
10. GOMM CHANNEL FADER.

EFFECT SECTION

1. AUX 1 , 2 , 3 OUTPUT CONNECTOR : PHONE JACK , +4dBm , 600ohm unbalanced.
2. PHANTOM POWER SWITCH : +48V DC , SWITCH 1 , 2 FOR ½ CHANNEL.
3. AUX 1 , 2 , 3 OUTPUT LEVEL CONTROL.
4. MONITOR OUTPUT LEVEL CONTROL.
5. HEADPHONE VOL : HEADPHONE OUTPUT LEVEL CONTROL.
6. GRP/CUE SWITCH : GROUP/CUE HEADPHONE MONITOR.
7. HEADPHONE JACK I PHONE JACK , 8ohm 50mW +50mW.

GROUP MASTER (OUTPUT SECTION)

1. GROUP OUTPUT L/R CONNECTOR : XLR , 0dBu , 600ohm , ground compensated electronically balanced.
2. GROUP OUTPUT L/R CONNECTOR : PHONE JACK , 0dBu , 600ohm unbalanced.
3. RETURN INPUT CONNECTORS : PHONE JACK , -10dB , 10Kohm unbalanced.
4. 12 segment LED METER : GROUP LEFT/RIGHT LED meter.
5. RETURN INPUT VOL : RETURN INPUT LEVEL CONTROL.
6. RETURN PAN POT : PANPOT L - GROUP LEFT.
PANPOT R - GROUP RIGHT.
7. 60MM GROUP MASTER (LEFT/RIGHT) FADER.