



MC-10 Four position Selector Switch

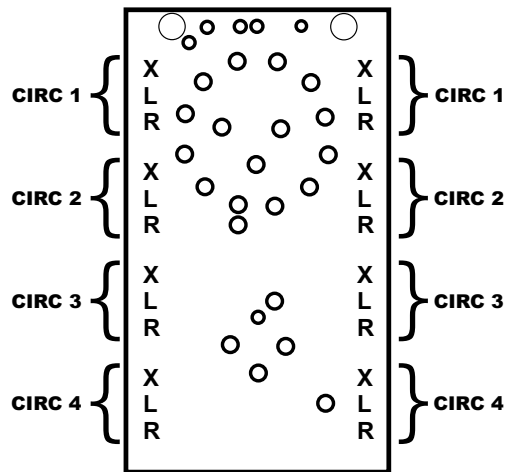
Operating Instructions

The MC-10 is the truly professional way to provide access to as many as 4 intercom circuits at a remote location. A headset station (belt pack) plugged into the 3-pin XLR on the MC-10 will be connected to the circuit chosen by rotating the selector switch. This make-before-break rotary switch connects the belt pack to the new circuit before disconnecting it from the current one - providing a smooth, squeal-free transition. A capacitor is provided to isolate the circuit ground from true ground, helping to eliminate “pop” and RF interference. The selector switch is factory set for 4 circuits but may be changed to 2 or 3 (see below).

Circuit cabling is connected to the MC-10 via 12-position screw-terminal strips on the rear of the PC board. Either side may be used to connect the circuits, with the other side then being used to cable onwards to the next location, if required. The normal configuration assumes that all connected circuits are powered by the same power supply or master station. Therefore the terminals relating to pins one and two of the XLR are common across the four circuits. In the event that the location being served needs to switch between two or more completely separately powered systems, links on the PC board may be removed with a sharp blade. The links are obvious when examining the side of the board on which the switch and XLR connector are mounted. The links are the narrow parts of the traces. One side links all the Pin 1 (X) terminals; the other links all the Pin 2 (L) terminals. Keeping the PC board small enough to fit inside a standard single-gang electrical box made a visible legend impossible, and required aiming the openings of the terminal strips inwards.

The diagram at the right illustrates the circuit connections. The MC-10 may be adjusted to allow the selection of only two or three circuits. The stop point is controlled by a keyed bushing on the switch shaft. To access the bushing, gently pry off the end cap of the knob with the edge of a sharp knife. This will expose the nut which secures the collet knob to the switch shaft. Loosen the nut and the knob will pull off the switch shaft. Remove the two Phillips screws from above the switch.

Reach inside the front of the XLR connector with a very thin screwdriver. A slot is visible above and between pins one and two. A counterclockwise turn will release the connector from its metal shell. The front plate



will now slide off revealing the large nut on the switch, which holds in place the bushing limiting the rotation of the shaft. Before proceeding further, make sure that the switch is in its 1st position. Loosen and remove the nut and lift the bushing. Insert the tab on the bushing into the hole marked 2 or 3.

Reverse the process. Important caution: The single most common cause of poor performance in this type of communications system is the accidental shorting of the shield or drain wire to true ground (as inside a grounded electrical box). In this application the shield (X) acts as: 1) a shield; 2) the 0V reference for the 24V which appears on pin 2 (L); 3) the 0V reference for the 12V which appears on pin 3 (R) when any signal button is pressed, and; 4) the return for the audio which appears on pin 3 (R). **Treat the shield as if it is a live conductor.**

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