

## GENERAL INSTRUCTIONS

Using the FRS 8 is as easy as it looks, and should not present any problems. Connect the red outputs of the FRS 8 to the red input jacks on the products to be powered using the supplied 6-wire modular connector cables. The power switch controls all units powered from the FRS 8. Power is applied immediately upon power switch closure—there is no time delay power-up sequence.

## MOUNTING THE FRS 8

Normally the FRS 8 is mounted in the right-hand most two slots of the Flex rack. This allows sensitive mic level products to be mounted in the far left-hand slots to separate them from the FRS 8 hum field. If there are any blank spots, always located them next to the FRS 8 for the most hum-free performance.

Additionally, create as much ventilation space around the FRS 8 as possible. This is not critical, it is just good practice. When fully loaded, the FRS 8 requires unrestricted airflow into the bottom and out the top of the unit for proper cooling.

## POWER SUPPLY CABLES

Each FRS 8 is shipped with (8) 6-wire modular plug power supply cables. Additional power supply cables are available from the factory or your dealer. Two lengths are offered, either 24 inches (package of 4), or 6 feet (package of 3). Please specify length when ordering.

## CUSTOMIZING POWER SUPPLY CABLE LENGTHS

Rane makes available a Mod Cable Connector Kit for customizing cable lengths for each installation. This kit consists of a modular connector crimping tool (manufactured by AMP, Inc.), plus (25) 6-pin modular connectors. Cutting and crimping a new mod connector takes about 60 seconds.

**NOTE: 6-WIRE CABLE AND MODULAR CONNECTORS MUST BE USED FOR ALL INTERCONNECTION. COMMON 4-WIRE CABLE AND CONNECTORS WILL NOT WORK. DO NOT SUBSTITUTE 4-WIRE FOR 6-WIRE CABLE AND CONNECTORS.**

## NOT ENOUGH CURRENT

Each output of the FRS 8 is rated for a continuous current output of 650 mA. If more than 650 mA is required and you have an unused output the issue of paralleling arises. Paralleling of outputs *is* permitted with the FRS 8.

A cute trick that makes this easy is to use a 6-WIRE wye-adaptor (also called T-connector, duplex jack, dual modular phone coupler, etc.). Plug the single male end into the unit to be powered, and run two 6-WIRE cables from the duplex female side into two channels of the FRS 8. This doubles the available output current from 650 mA to 1.3 A.

## TOO MUCH CURRENT

Sometimes you may be tempted to try and power two units from one output of the FRS 8. If the total current demand of both units is less than the 650 mA output current, this daisy chaining (running power out of one unit into another) temptation becomes unbearable. In general, *avoid daisy chaining of power supplies*. Daisy chaining of power *only works between units interconnected by fully balanced techniques*. There can be no signal ground connecting daisy chained units. *Failure to follow this rule results in hum due to an unbreakable ground loop caused by the common power supply path*. Life is simpler if you just say no.

## RESETTING TIME

The FRS 8 is protected by solid-state current and temperature sensing devices that reset automatically. This automatic resetting takes approximately 15 minutes depending upon the nature of the overload. *If power is lost on an output, disconnect the power cable and wait at least 15 minutes before reconnecting the cable*. Meanwhile try to find out why the unit demanded excessive current (Cable short? Unit failed? Other?).

**CAUTION: THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED PERSONNEL ONLY. TO AVOID ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.**