

Installation Manual for Optional Narrowband Preselector Filter Models 89/83F-02-03/06/09/14 and 89-86A-02-03/05/10/15/18

GENERAL DESCRIPTION

This manual details the installation of an optional narrowband preselector filter for the TX RX Systems Tower Top Amplifier. There are nine different filters available for use with your TTA system. Four filters operate in the 792 to 806 MHz range and five filters in the 806 to 824 MHz range. **Table 1** lists all of the narrowband filters available. The narrowband filter is designed to be added to the TTA systems RF signal path just after the distribution amplifier in the MCU. The additional filter will provide a narrower pass window for the MCU.

Figure 1 shows the basic interconnect diagram for the filter. It is recommended that the filter be mounted in the same rack and just above the MCU. The optional filter will require 2 “rack units” of space.

INSTALLATION KIT

Included in the installation kit are:

- 1) Panel-mounted narrowband preselector with mounting plates.
- 2) 24-inch BNC / N cable.
- 3) 24-inch SMA / N cable.
- 4) Required installation screws.

Filter Model	Operating Range (MHz)	Bandwidth (MHz)
89-83F-02-03	792 to 806	3
89-83F-02-06	792 to 806	6
89-83F-02-09	792 to 806	9
89-83F-02-14	792 to 806	14
89-86A-02-03	806 to 824	3
89-86A-02-05	806 to 824	5
89-86A-02-10	806 to 824	10
89-86A-02-15	806 to 824	15
89-86A-02-18	806 to 824	18

Table 1: Optional Narrowband Filters.

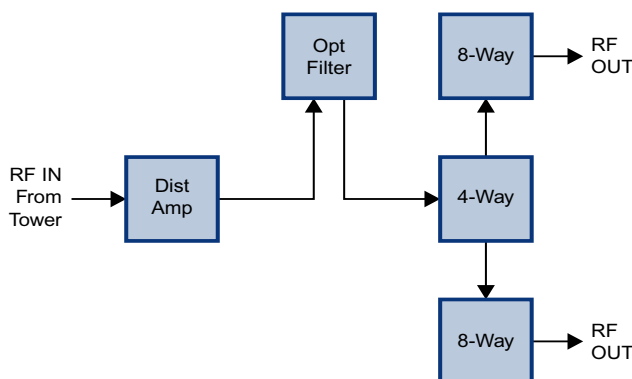


Figure 1: Basic interconnect diagram for the optional filter.

INSTALLATION

Figure 2 shows the cable interconnections that are required between the filter and the TTA. To install the optional narrowband filter in your TTA system perform the following steps;



Power to the MCU should be turned off during installation of the preselector.

- 1) On the MCU, disconnect the existing cable that runs between the output of the distribution amplifier and the input of the 4-way divider, see Figure 2. Use a 5/16" open-end wrench to loosen the SMA connector on the amplifier end of the cable. The end of the cable connected to the 4-way uses a BNC connector. You may wish

to save the cable for future re-use if you ever decide to remove the optional filter from your TTA system.

- 2) With the supplied screws, mount the preselector panel into the 19-inch rack above the MCU.
- 3) Locate a new cable assembly with "SMA" and "N" male connectors. Connect the "SMA" end of the cable to the output port of the amplifier assembly. Connect the "N" end of the cable to the output connector on the preselector.
- 4) Locate a new cable assembly with "BNC" and "N" male connectors. Connect the "BNC" end of the cable to the RF input connector on the 4-way divider. Connect the "N" end of the cable to the output connector on the preselector.

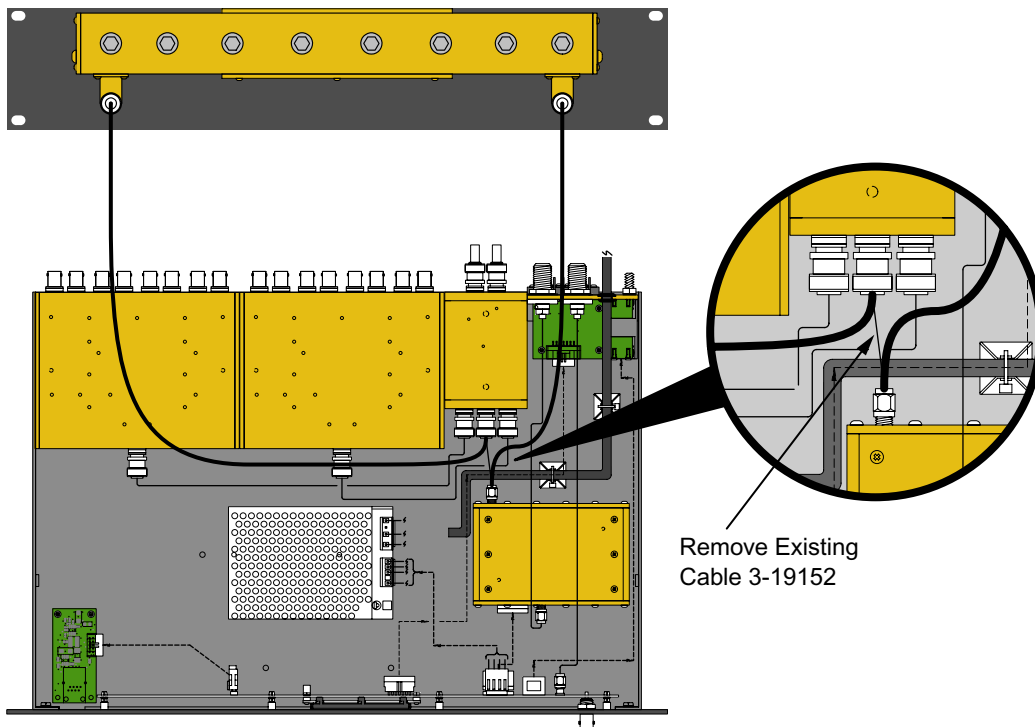


Figure 2: Connecting the narrowband preselector to the TTA.