

3 T858/859 SII - SI Conversion

Section 3.1 describes the older design T858/859 without RF power modules, while Section 3.2 describes the newer design T858/859 with RF power modules. Figure 1.1 shows how to identify your PA design without having to remove the side cover.

3.1 T858/859 Without RF Power Modules

3.1.1 Introduction

You must make a number of modifications to enable a T850 Series II PA without RF power modules to operate in a Series I rack frame. These changes can be split into two groups, mechanical and electrical, as described below.

Mechanical	These changes involve putting on a new front panel because of the differences in height and width between a Series II and Series I panel.
Electrical	These changes involve converting the PA from rear RF input to front RF input.

This procedure assumes you have already purchased the appropriate Series I conversion kit:

- T858 - T800-70-0058
- T859 - T800-70-0059.

If not, you should purchase one from your nearest Tait Dealer or Customer Service Organisation before beginning the procedure.

It should take approximately 15-20 minutes per module to perform these steps.

3.1.2 Method

Step	Action
1	<p>Remove the Series II front panel from the PA as follows:</p> <ul style="list-style-type: none"> • remove the four screws using a Torx screwdriver; • push the LEDs from the front of the panel to remove them from their grommets.
2	Remove the side cover.
3	<p>Remove the rear panel BNC connector:</p> <ul style="list-style-type: none"> • unplug the RF input coax from the socket on the PCB; • unscrew the BNC connector from the chassis; • carefully withdraw the coax from the PA through the hole in the rear of the chassis (cutting cable ties as required); • fit the blanking plate over the hole in the chassis from which the BNC connector has been removed; • replace any cable ties previously cut and ensure the wiring is secured under the restraints provided. <p>Fit the front panel SMC connector:</p> <ul style="list-style-type: none"> • insert the coax fitted with the brass SMC connector through the hole in the front of the chassis and secure with the brass nut and washer; • connect the coax from the SMC connector into SK1, feeding it over RV63 and under the LED legs and cable restraint, as shown in Figure 3.1.
4	Refit the side cover.
5	<p>Fit all parts of the Series I front panel, following Step 1 in reverse order.</p> <p>Note: If you have difficulty refitting the LEDs, try pushing the body of the LED back into the grommet with a thin screwdriver or spike. Be very careful while doing this as the legs of the LED are very easy to break.</p>

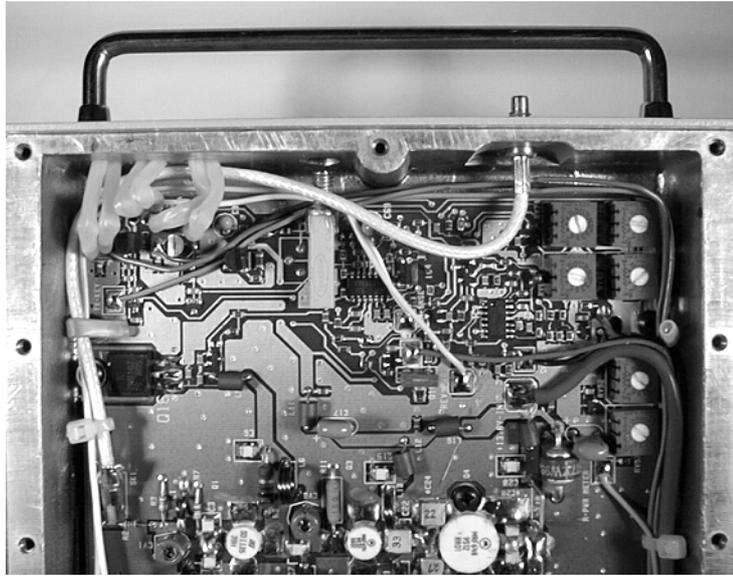


Figure 3.1 T858/859 Front RF Input Coax Routing (T859 Shown)

3.2 T858/859 With RF Power Modules

3.2.1 Introduction

You must make a number of modifications to enable a T850 Series II PA with RF power modules to operate in a Series I rack frame. These changes can be split into two groups, mechanical and electrical, as described below.

Mechanical	These changes involve putting on a new front panel because of the differences in height and width between a Series II and Series I panel.
Electrical	These changes involve converting the PA from rear RF input to front RF input, and modifying the circuitry to: <ul style="list-style-type: none"> • ensure the power alarms operate correctly in a T800 Series I system; • key the PA from the Tx-Key line; • disable cyclic keying.

This procedure assumes you have already purchased the appropriate Series I conversion kit:

- T858 - T800-70-0058
- T859 - T800-70-0059.

If not, you should purchase one from your nearest Tait Dealer or Customer Service Organisation before beginning the procedure.

It should take approximately 15-20 minutes per module to perform these steps.

3.2.2 Method

Note: Where the same component has different circuit references in the T858 and T859, in this section the T858 circuit reference is given first, followed by the T859 circuit reference in brackets, e.g. Q137 [Q128].

Step	Action
1	Remove the Series II front panel from the PA as follows: <ul style="list-style-type: none"> • remove the four screws using a Torx screwdriver; • push the LEDs from the front of the panel to remove them from their grommets.
2	Remove the side cover.
3	Remove the rear panel BNC connector: <ul style="list-style-type: none"> • disconnect the D-range PCB loom from the main PCB; • unplug the RF input coax from the socket on the PCB; • unscrew the BNC connector from the chassis; • carefully withdraw the coax from the PA through the hole in the rear of the chassis; • fit the blanking plate over the hole in the chassis from which the BNC connector has been removed; • reconnect the D-range PCB loom to the main PCB.
4	Remove %L213 to disable cyclic keying (refer to Figure 3.2).
5	Fit the following zero Ω resistors (refer to Figure 3.2): <ul style="list-style-type: none"> • %R120 [%R174] (PA is now keyed from the Tx-key line); • %R140 [%R108] • %R147 [%R110] } enables the power alarms to operate correctly in a T800 Series I system
6	Fit the front panel SMC connector: <ul style="list-style-type: none"> • insert the coax fitted with the brass SMC connector through the hole in the front of the chassis and secure with the brass nut and washer; • connect the coax from the SMC connector into SK201, as shown in Figure 3.3 and Figure 3.4.
6	Refit the side cover.
7	Fit all parts of the Series I front panel, following Step 1 in reverse order. <p>Note: If you have difficulty refitting the LEDs, try pushing the body of the LED back into the grommet with a thin screwdriver or spike. Be very careful while doing this as the legs of the LED are very easy to break.</p>

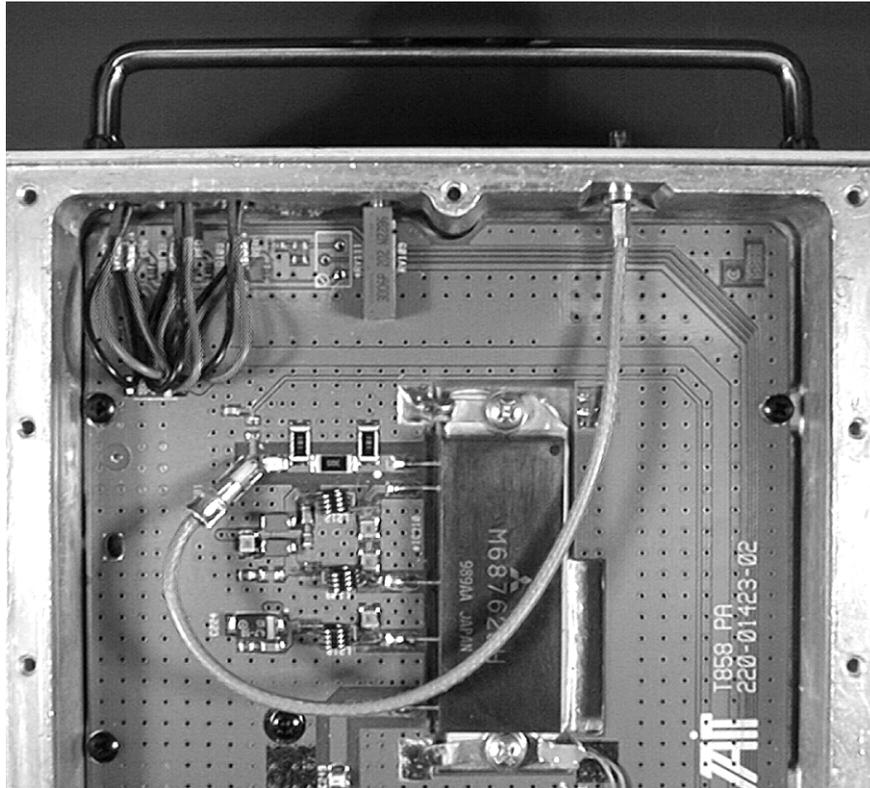


Figure 3.3 T858 Front RF Input Coax Routing



Figure 3.4 T859 Front RF Input Coax Routing