

2 T855/856/857 SII - SI Conversion

2.1 Introduction

You must make a number of modifications to enable a T850 Series II receiver, exciter or transmitter to operate in a Series I rack frame. These changes can be split into two groups, mechanical and electrical, as described below.

Mechanical	<p>These changes involve:</p> <ul style="list-style-type: none"> • putting on a new front panel because of the differences in height and width between a Series II and Series I panel; • adding D-range locating pins as the Series I rack requires them for alignment.
Electrical	<p>These changes involve:</p> <ul style="list-style-type: none"> • making sure there is pin compatibility for D-range 1 pin 7 between the Series II module and the Series I rack frame; in Series I, pin 7 is allocated to audio 1 for the transmitter/exciter, and audio 2 for the receiver; • converting the exciter from rear RF output to front RF output; • disabling cyclic keying in the exciter.

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

- T855 - T800-70-0055
- T856 - T800-70-0056
- T857 - T800-70-0057.

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.

2.2 Method

Step	Action
1	Remove the Series II front panel from the module as follows: <ul style="list-style-type: none">• remove the volume knob (T855 only);• 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 both covers from the module.
3	Remove the M3 screws, spring washers, and M3 nuts from D-range 1. Note: If you have a chassis with threaded holes, you will need to remove only the M3 screws and spring washers.
4	Replace the M3 screws with locating pins, M3 spring washers (and nuts if necessary).
5	If you are modifying a T855, follow this step; otherwise go to Step 6. Remove R808 (10 Ω), as shown in Figure 2.1 . Ensure that R160 (10 Ω) is placed, as shown in Figure 2.1 . This will convert D-range 1 pin 7 from serial com to audio 2. Go to Step 8.

Step	Action
6	<p data-bbox="363 275 1270 309">If you are modifying a T856, follow these steps (refer to Figure 2.2):</p> <ul data-bbox="443 327 1169 461" style="list-style-type: none"> <li data-bbox="443 327 730 360">• remove R808 (10Ω) <li data-bbox="443 376 730 409">• remove R160 (10Ω) <li data-bbox="443 425 730 461">• place %R150 (10Ω). <p data-bbox="778 353 1169 421">} converts D-range 1 pin 7 from serial com to audio 1</p> <p data-bbox="363 477 651 510">Continue with Step 8.</p> <p data-bbox="363 544 1270 577">If you are modifying a T857, follow these steps (refer to Figure 2.2):</p> <ul data-bbox="443 595 1305 813" style="list-style-type: none"> <li data-bbox="443 595 730 629">• remove R808 (10Ω) <li data-bbox="443 645 730 678">• remove R160 (10Ω) <li data-bbox="443 694 730 728">• place %R150 (10Ω) <li data-bbox="443 743 1305 813">• remove L314; this will disable cyclic keying to enable the T857 to work with a Series I PA. <p data-bbox="778 622 1169 689">} converts D-range 1 pin 7 from serial com to audio 1</p> <p data-bbox="363 835 651 869">Continue with Step 7.</p>

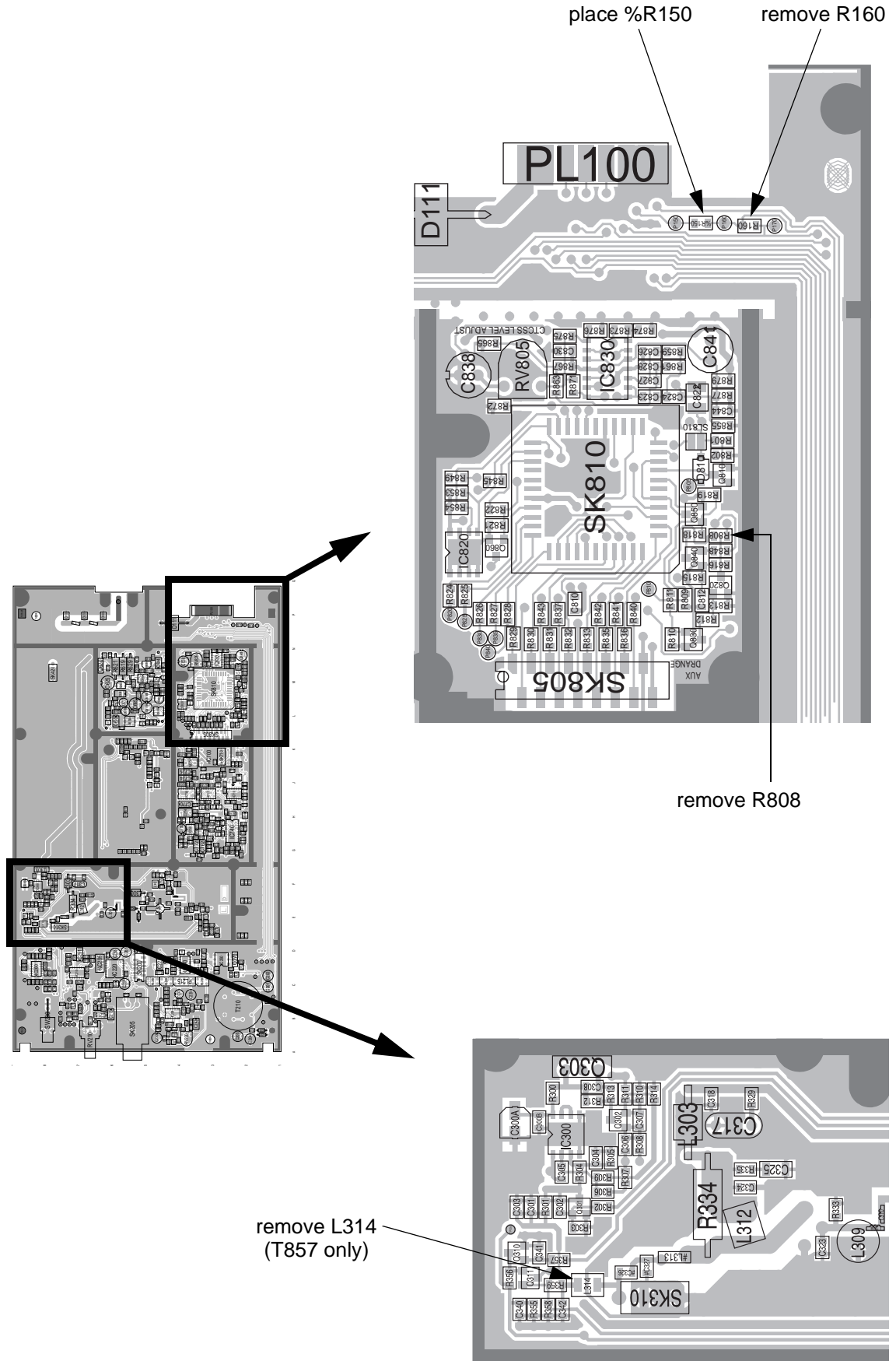


Figure 2.2 T856/857 Component Changes

Step	Action
7	<p>Converting the T857 from rear panel RF output to front panel RF output.</p> <p>Desolder, unscrew and remove the rear panel N-type connector.</p> <p>Fit the blanking plate over the hole in the chassis from which the N-type connector has been removed.</p> <p>Unplug the existing coax from SK310 and SK420, retaining the spring clip for the new coax cable.</p> <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 SK310, securing the coax in the groove provided in the chassis wall with the spring clip (refer to Figure 2.3).
8	<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>
9	<p>Replace the covers.</p>
10	<p>Programming</p> <p>Once you have carried out this conversion procedure, you will no longer be able to program the T850 Series II module via D-range 1.</p> <p>In order to program the module now, you will need to use a programming module interface, such as the T800-01-0004. This device is fitted with a programming socket and can be connected to the module via SK805 in the microcontroller section. You will have to remove the top cover (closest to the handle) to gain access to SK805.</p> <p>Note: You may still be able to program the module by connecting the T800-01-0004 to a T800-03-0000 auxiliary D-range fitted as D-range 2, but only if pins 8 (ground) and 12 (serial com) of D-range 2 are not used in the Series I configuration.</p>

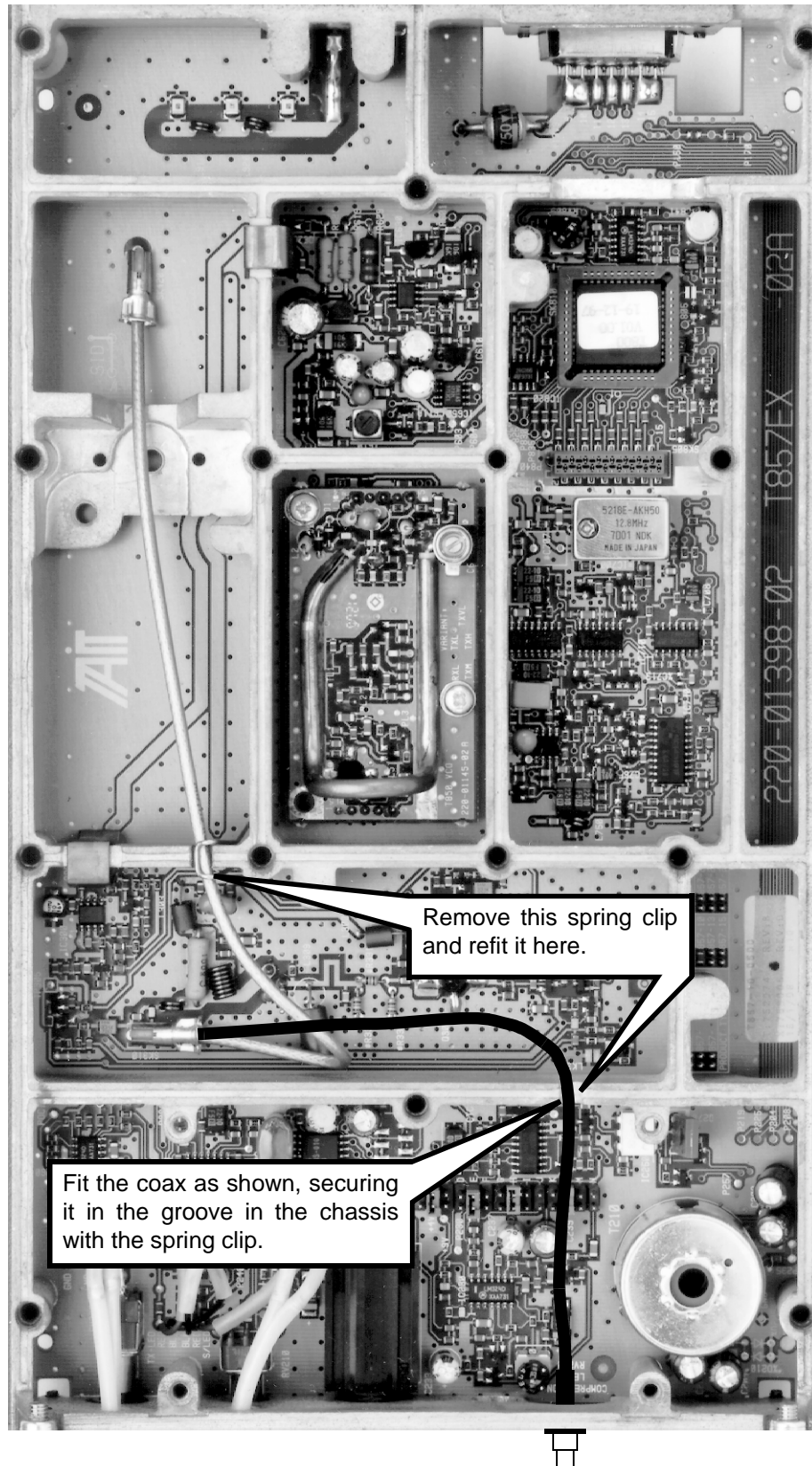


Figure 2.3 T857 RF Output Coax Routing

