

## Servicing

Refer to Section 8 in the T2000 Service Manual, issue 401 (M2000-00-401), or later.

## Introduction

The T2000-A75 (A75) conventional data modem allows a T2010 or T2015 Series II radio to be used in data applications, and also provides remote channel control via six BCD lines.

## Components Required

The T2000-A75 kit contains the following:

Qty	Part
1	T2000-A75 data modem PCB assembly
1	Data Interface Decoupling PCB assembly
1	connecting loom
2	M2.5x10mm pan Pozi Taptite screws
4	M2.5 shakeproof washer
2	M2.5 nut
2	female screw lock kit (in plastic bag)

## Fitting The T2000-A75 PCB

Refer to the diagrams on pages 1, 2 and 3.

Remove the top cover of the radio by unscrewing the four cover screws, unscrew the logic PCB and fold out.

Unclip the D-range blanking plate in the rear of the T2000 radio.

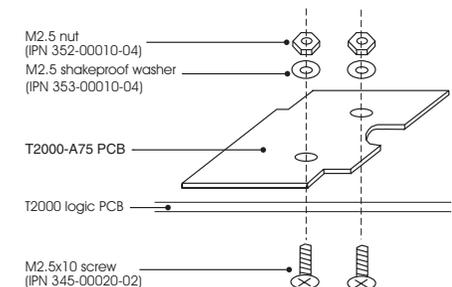
### 1. T2000-A75 PCB Mounting

Position the A75 PCB on the top side of the logic PCB, matching P3 on the bottom side of the A75 PCB to connector S3 on the logic PCB.

Use the two M2.5x10mm screws, nuts and two of the shakeproof washers to secure in place.

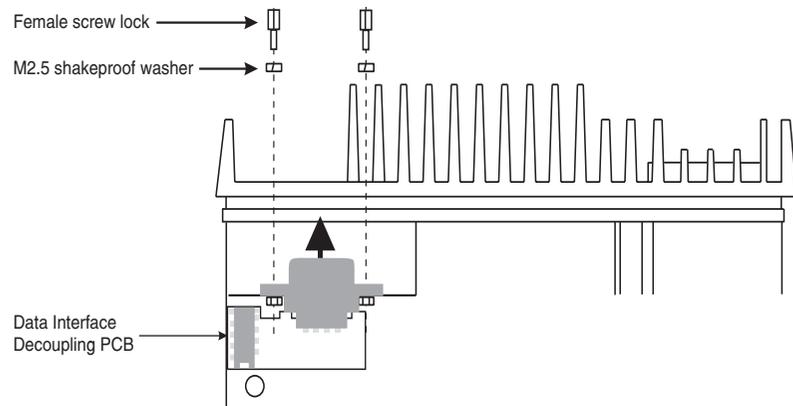
**Note:** The screws are fitted from the *bottom* of the logic PCB, and secured with the nuts and washers on the *top* side of the A75 PCB.

Torque the screws to 2.5in.lb.



**Caution:** Over-tightening the screws will cause damage to the T2000-A75 PCB, and compression of connector P3.

## 2. T2000 Data Interface Decoupling PCB Mounting

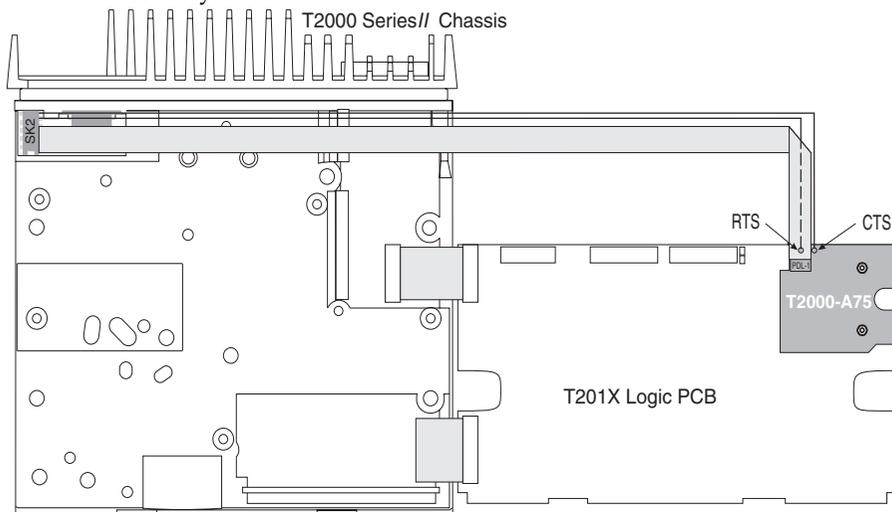


Fit the decoupling PCB to the T2000 chassis, from the inside rear of the radio, as shown.

Secure the D-range in position using the screw locks and shakeproof washers provided.

3. Fold the data modem loom as shown, then plug into SK2 on the decoupling PCB.
4. Fold the logic PCB back in position, secure using the three logic PCB retaining screws and refit the top cover.

**Note:** Check that the loom is not pinched by the cover or screws during reassembly.



T2000-A75 Data Modem PCB Mounting

## T2000-A75 Link Options

Provision has been made on the T2000-A75 data modem PCB for different operation requirements. The PCB links are either solder shorted or fitted with 0Ω SMD resistors.

The following table sets out the link selection options on the T2000-A75 data modem PCB.

Option	#R19	#R2010	#R2015
<b>Baud Rate:</b>			
1200	Fitted	-	-
2400	Not fitted	-	-
<b>Radio Type:</b>			
T2010	-	Fitted	Not fitted
T2015	-	Not fitted	Fitted

## Programming

For those wanting to write their own software, the command protocol and some test procedures are provided in Section 8 in the T2000 Service Manual, issue 401 (M2000-00-401), or later. The protocol definition is based on the T2000 CCI protocol, with specific extensions to support binary transmission and reception. Refer to the T2000-A75 CCDI Operation Manual (M2256-000-00-051) for CCDI configuration and operation details.

**Note:** For modem control of channel change, the **BCD Channel Selection** field in the **Options** page must be set to *Enabled* and **BCD Polarity** on the **Specifications** page set to *Normal* during radio programming. Economy mode may affect the integrity of data transmission. If **Economy Mode** is *Enabled*, then the Lead In Delay must be set high.

## Compatibility

This interface is only compatible with radio firmware version 2.22, or later.

If you have a Series II HC05 logic PCB (PCB IPN 220-01377-0X), with v2.05 radio firmware, contact your nearest authorised Tait dealer.

**Note:** After upgrading from v2.05 radio software, it is necessary to change the link resistors on the top side of the logic PCB. Remove link resistor #R714 and fit #R714A.