Introduction of the T2000-A46 Enhanced Signalling Interface for the T203X/40

5th March 2004

Applicability

This Technical Note only applies to the T2030, T2035 and the T2040 that use a logic board with the IPN 220-01344-05 to 220-01344-12.

1. Introduction

Information

In the past the ability to provide CTCSS on the conventional channels of the Tait T2000 trunking radios has been provided for by the use of the T2000-A4500 option board. The main problem was that only a single CTCSS Tx frequency and a single Rx frequency could be used which was "hard coded" onto the option board by way of solder links or zero ohm resistors.

There were also 2 or 3 operational issues that plagued the T2000-A4500 to the point where many operators would not use the board.

Tait has now released the T2000-A46 Enhanced CTCSS Signalling board. The main benefit of the new board is that CTCSS is now available on a "per channel" basis when using the Trunked Programming Application (TPA) V2.60 or later and the firmware shown on page 3 of this document.
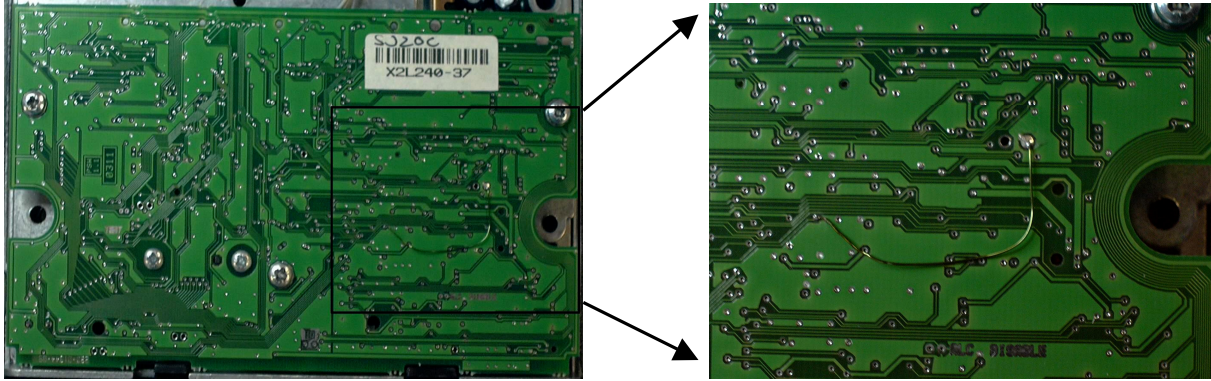
The added benefit is that the operational issues that were a problem with the T2000-A4500 are no longer applicable.

2. Instruction

The Logic board

Logic boards with the IPN 220-01344-05 to –12 will need to be modified as follows…

- A link must be fitted between TP602 and pin 17 of #T3K44 (refer to photo below).

220-01344-05 to 220-01344-12

The modifications described above **cannot** be made to Logic boards with IPNs of **220-01344-04 or earlier.**

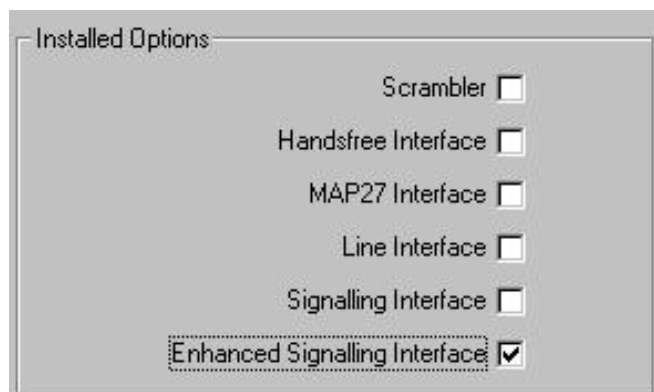- Remove the chip capacitor C516 (0603 100N). This is located near RV507.

Logic boards with the IPN of 220-01344-13 or later need no modification.
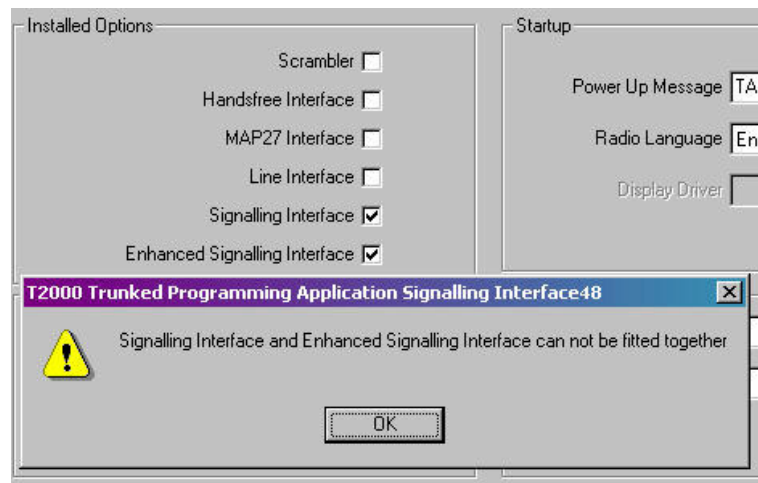
NOTE :-

The new Enhanced Signalling Board is fitted to the #T3K44 connector <u>NOT</u> the #T3K45 connector as the T2000-A4500 was.

The Programming Software

There are two changes to the Trunked Programming Application (TPA).
The first is the addition of a field with a tickbox called "Enhanced Signalling Interface" on the *Specifications* page.

The field "Signalling Interface" will still remain so users of the T2000-A4500 can still program their radios. These two fields are mutually exclusive.

The second change is the addition of "Rx Signalling" and "Tx Signalling" fields on the *Conventional Channels* page. These will be greyed out if the "Enhanced Signalling Interface" is not enabled on the *Specifications* page.
If the old signalling board is to be used then the "Signalling" field will be able to be accessed.

Firmware

The firmware versions that are needed for Enhanced Signalling Board are as follows :-

- T2030std - V3.35 or later
- T2030GPS – V4.19 or later
- T2035std - V3.59 (due for release 05/04) or later
- T2035GPS – V4.19 or later (due for release 08/04) or later
- T2040std - V5.74 or later
- T2040GPS – V6.18 (due for release 07/04) or later

What Combinations are Possible?

Option Board	Firmware	Logic PCB	Viable combination?
Old	Old	Old	YES - old std
Old	Old	New	YES - old tracks will remain intact
Old	New	n/a	NO - no firmware support
New	old	n/a	NO - no firmware support
New	New	Old	YES - but will require hardware modification described above
New	New	New	YES - new std

NOTE: - The Logic PCB described as "Old" in the table above is a Logic PCB with the IPN of **220-01344-05** through to **220-01344-12**. A "New" Logic has an IPN of 220-01344-13 or later.

Compliance Issues   None

CSO Instruction   CSO's - Please inform all technical staff, and dealers of this Technical Note.

3.   Issuing Authority

Name and Position   Paul Anderson
of Issuing Officer   Customer Support Engineer – T2000

Confidentiality   Confidential – This message or document contains proprietary information intended only for the person(s) or organisation(s) to whom it is addressed. All Recipients are legally obliged to not disclose Tait technological or business information to any persons or organisations without the written permission of Tait.

Distribution Level   Associate

Document History   Original Release   5th February 2004   PRA