

1 General

1.1 Additional Technical Information

If you have any questions about this manual or the equipment it describes, please contact your nearest Tait Dealer or Customer Service Organisation. If necessary, you can get additional technical help from Customer Support, Tait Electronics Ltd, Christchurch, New Zealand (full contact details are on page 2).

When requesting information, please quote either the manual product code (e.g. M830P-00-1TA), or the equipment product code and serial number which are printed on a label on the back of the product (as shown in [Figure 1.1](#)).

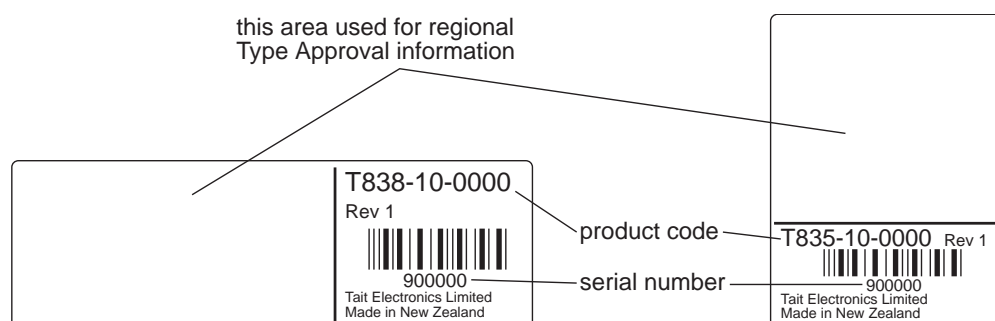


Figure 1.1 Typical Product Code & Serial Number Labels

If you require information about a particular PCB, please quote the full PCB internal part number (IPN) which is screen printed onto the top side of the board (refer to the appropriate PCB Information section in this manual for more details).



1.2 Caution: CMOS Devices

This equipment contains CMOS Devices which are susceptible to damage from static charges. Care when handling these devices is essential. For correct handling procedures refer to the manufacturers' data books, e.g. Philips data books covering CMOS devices, or Motorola CMOS data books, Section 5 'Handling', etc.

An anti-static bench kit (refer to [Figure 1.2](#)) is available from Tait Electronics Ltd under the following product codes:

- KS0001 - 1 conductive rubber bench mat
- 1 earth lead to connect the mat to ground
- KS0004 - 1 wrist strap.

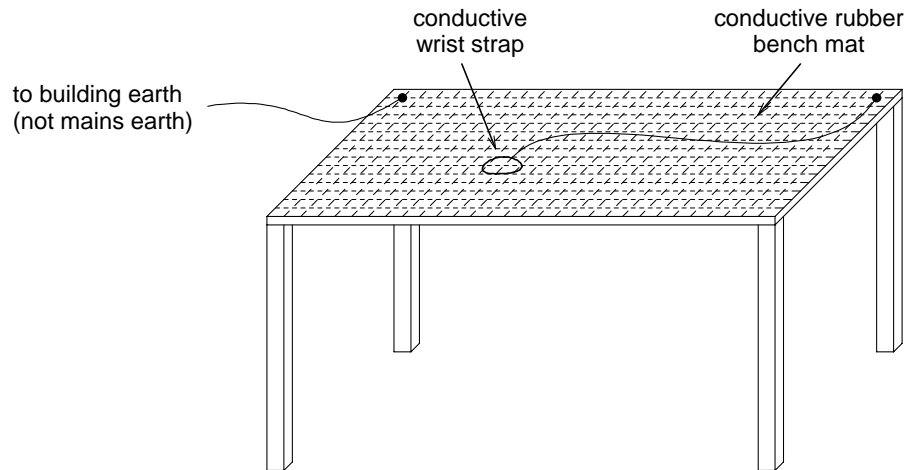


Figure 1.2 Typical Anti-static Bench Set-up

1.3 **Caution: Aerial Load**

The equipment has been designed to operate safely under a wide range of aerial loading conditions. However, we strongly recommend that the transmitter should always be operated with a suitable load to prevent damage to the transmitter output power stage.

1.4 **Caution: Beryllium Oxide & Power Transistors**

The RF power transistors in current use all contain some beryllium oxide. This substance, while perfectly harmless in its normal solid form, can become a severe health hazard when it has been reduced to dust. For this reason the RF power transistors should not be broken open, mutilated, filed, machined, or physically damaged in any way that can produce dust particles.

1.5 **USA Installations: RF Exposure Compliance, Control Guidelines and Operating Instructions**

All radio transmitter installations must comply with the FCC environmental rules (refer to CFR 47 Chapter 1, sub-part I). In addition, the FCC requires the following safety information to be provided by the radio manufacturer:

To control exposure to yourself and others and ensure compliance with the general/uncontrolled and occupational/controlled environment exposure limits always adhere to the following procedures.

Guidelines:

- User awareness instructions must accompany this device when transferred to other users.
- Do not use this device if the operational requirements described herein are not met.

Instructions:

- Transmit only when people near the antenna are at least the recommended minimum distance away, as shown in [Table 1.1](#), from a properly installed, according to installation instructions, externally-mounted antenna.

Note: [Table 1.1](#) lists the recommended minimum distance for bystanders in an uncontrolled environment from transmitting types of antennas at frequencies in the range 138-174MHz and several different ranges of rated radio power.

| Rated Power of Transmitter (Watts) | Recommended Minimum Distance ^a from Transmitting Antenna (cm) |
|------------------------------------|--------------------------------------------------------------------------|
| 5 | 20 |
| 50 | 133 |
| 100 | 266 |

a. These distances are calculated based on a 6dBi gain collinear antenna as might be used in a typical installation. For other powers and antenna types, consult the supplier. Antenna gains above 6dBi are not authorised.

Table 1.1 Rated Power and Recommended Distance

