

TB7100 base station

Installation and Operation Manual



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Preface

Scope of Manual

Welcome to the TB7100 base station Installation and Operation Manual. This manual provides information on installing and operating the TB7100 hardware.

Enquiries and Comments

If you have any enquiries regarding this manual, or any comments, suggestions and notifications of errors, please contact Technical Support (refer to [“Tait Contact Information” on page 2](#)).

Updates of Manual and Equipment

In the interests of improving the performance, reliability or servicing of the equipment, Tait Electronics Ltd reserves the right to update the equipment or this manual or both without prior notice.

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Installation

This chapter describes how to install the TB7100 base station in a standard 19 inch rack or cabinet. It also provides some general information on safety precautions and site requirements. We recommend that you read the entire chapter before beginning the installation.

1.1 Personal Safety

1.1.1 Explosive Environments



Warning!! Do not operate TB7100 base station equipment near electrical blasting caps or in an explosive atmosphere. Operating the equipment in these environments is a definite safety hazard.

1.1.2 Proximity to RF Transmissions

Do not operate the transmitter when someone is standing within 90 cm (3 ft) of the antenna. Do not operate the transmitter unless you have checked that all RF connectors are secure.

1.2 Equipment Safety

1.2.1 ESD Precautions

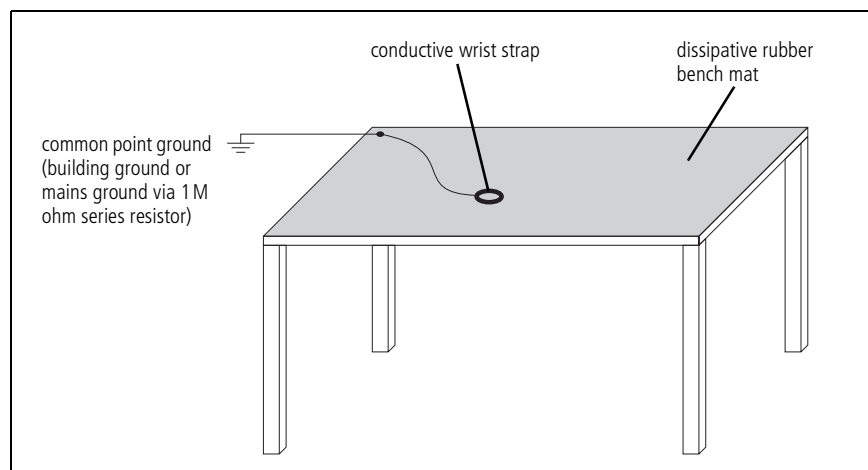


Important This equipment contains devices which are susceptible to damage from static charges. You must handle these devices carefully and according to the procedures described in the manufacturers' data books.

We recommend you purchase an antistatic bench kit from a reputable manufacturer and install and test it according to the manufacturer's instructions. [Figure 1.1](#) shows a typical antistatic bench set-up.

You can obtain further information on antistatic precautions and the dangers of electrostatic discharge (ESD) from standards such as ANSI/ESD S20.20-1999 or BS EN 100015-4 1994.

Figure 1.1 Typical antistatic bench set-up



1.2.2 Antenna Load

The TB7100 base station equipment has been designed to operate safely under a wide range of antenna 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.

1.2.3 Equipment Grounding

To ensure safe operation the TB7100 base station equipment must be correctly grounded as described in these installation instructions.

1.2.4 Installation and Servicing Personnel

The TB7100 base station should be installed and serviced only by qualified personnel.

1.3 Regulatory Information

1.3.1 Distress Frequencies

The 406 to 406.1MHz frequency range is reserved worldwide for use by Distress Beacons. Do **not** program transmitters to operate in this frequency range.

1.3.2 FCC Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

1.3.3 Unauthorised Modifications

Any modifications you make to this equipment which are not authorised by Tait Electronics Ltd may invalidate your compliance authority's approval to operate the equipment.

1.4 Environmental Conditions

1.4.1 Operating Temperature Range

The operating temperature range of the TB7100 base station is -30°C to $+60^{\circ}\text{C}$ (-22°F to $+140^{\circ}\text{F}$) ambient temperature. Ambient temperature is defined as the temperature of the air at the intake to the cooling fans.

1.4.2 Humidity

The humidity should not exceed 95% relative humidity through the specified operating temperature range.

1.4.3 Dust and Dirt

For uncontrolled environments, the level of airborne particulates must not exceed $100\mu\text{g}/\text{m}^3$.

Controls and Connections

Figure 2.1 TB7100 base station controls and connections



