Part H   T800 Ancillary Equipment

This Part of the manual features a brief description of the major ancillaries that may be used with T800 Series II equipment. For a comprehensive list of available ancillary equipment, please contact your nearest Tait Dealer or Customer Service Organisation.

T800 Ancillary Equipment

Programming Kits

T800-01-0000

The T800-01-0000 kit is used for programming T800 Series II base station equipment using a standard IBM™ (or compatible) PC.

The kit comprises the following items:

> PGM800Win programming software user's manual
> PGM800Win Windows™ based programming software on 3½" floppy discs
> T800-01-0002 programming cable.

T800-01-0001

The T800-01-0001 kit is the same as the T800-01-0000 kit described above, but with the addition of the T800-01-0004 module programming interface.

T800-01-0002

The T800-01-0002 programming cable connects the PC directly to the programming socket on the T800 Series II rack frame speaker panel or backplane PCB, thus enabling T800 Series II modules to be read or programmed while in the rack frame. It can also connect to the programming socket on the T800-01-0004 programming module interface if the module is to be read or programmed while out of the rack frame.

T800-01-0003

The T800-01-0003 programming kit contains a T800-01-0002 programming cable and a T800-01-0004 programming module interface.

T800-01-0004

The T800-01-0004 programming module interface is designed to allow a PC to connect directly to a T800 Series II module. It comprises a small PCB on which is mounted a D-range socket, a programming socket, a Micromatch socket and a DC input connector.

The T800-01-0004 plugs directly into D-range 1 or D-range 2 (selected by a switch on the PCB), or into SK805 in the microcontroller compartment via the supplied ribbon cable loom, and is then connected to the PC with a T800-01-0002 programming cable.

Refer to the T800 Ancillary Equipment Service Manual for more information.

General Ancillaries

T004-72 RF Coaxial Relay

The T004-72 is an RF coaxial relay assembly fitted with three female N-type connectors, and comes complete with a mounting bracket and two coaxial cables terminated in male N-type connectors. It can be used, for example, in base station applications where the receiver and transmitter share the same antenna, in which case it can be driven by the T800 Series II transmitter/exciter relay driver (refer to Section 2.4 in Part G for more information).

T800-01-0010 Calibration Test Unit

The T800-01-0010 provides all inputs and outputs necessary to carry out the full tuning and adjustment procedure for T800 Series I and II receivers, exciters and transmitters. It provides a convenient method of connecting test equipment, including a PC and power supply, to a T800 Series I or II module (via D-range 1) without the need to construct custom wiring looms.

The T800-01-0010 also has a built-in speaker, a switch for selecting Series I or II modules, and uses standard BNC and "banana plug" sockets.

Refer to the T800 Ancillary Equipment Service Manual for more information.

T800-03 Auxiliary D-Range

The T800-03 is an additional D-range kit comprising one D-range plug assembly and two locating pins, nuts & washers. Although originally a T800 Series I ancillary, it can be used in T800 Series II products for special applications requiring custom internal wiring.

T800-03-0000 Auxiliary D-Range

The T800-03-0000 is an additional D-range kit (normally fitted as D-range 2) comprising one D-range plug assembly complete with connecting loom and mounting screws. The ribbon cable loom connects the D-range PCB to the Micromatch socket (SK805) in the microcontroller compartment. Typical uses of the T800-03-0000 are in paging applications and where external channel control is required. Refer to Figure 1.4 and Figure 2.4 in Part F for the T800-03-0000 pin connections.

T800-04-0000 RSSI

The T800-04 RSSI option PCB plugs directly into the main PCB (support circuitry being fitted as standard). It is fitted to the T855 and T875 whenever receiver signal strength monitoring is required, e.g. trunking or voting. Its function is to provide a DC voltage proportional to the signal level at the receiver input.

Refer to the appropriate service manual.

T800-08-0000 Ancillary Chassis

The T800-08-0000 is a general purpose chassis designed to be mechanically and electronically compatible with a T800 Series II rack frame. It comprises the following items:

- top and bottom chassis rails
- side panels
- rear panel
- PCB mounting brackets
- double D-range plug assembly (for mounting directly on a PCB)
- T800 Series II blank front panel complete with handle.

Custom designed PCBs for special applications can be mounted in several positions inside the chassis to provide a convenient, plug-in module that interfaces directly with a T800 Series II rack frame.

Refer to Technical Note TN-512 for further information.

T800-10-0000 Channel Select PCB

The T800-10-0000 is a small PCB that plugs into the Micromatch connector (SK805) in the microcontroller compartment of a T800 Series II receiver, exciter or transmitter. It is fitted with an eight-switch DIP switch which allows the manual selection of any one of the channels already programmed into the module by PGM800Win. The T800-10-0000 is also fitted with a Micromatch socket to provide access to SK805 for programming purposes.

T800-80 Local Microphone

A 600Ω microphone complete with 300mm cord terminated in a ¼" stereo plug.

T818-01-0000 Receiver/Transmitter Monitor

The T818-01-0000 (formerly T318-02) is designed to monitor the basic operational functions of one T800 receiver and transmitter. The meter and selector switches for monitoring the required functions are mounted on the front panel, as is the monitor speaker which is driven by a built-in amplifier. An optional mute circuit may be used to silence the audio when no carrier is present.

Refer to M318-02.

Paging

T800-30-0000 & T800-30-0002 DFSK Modulators

The T800-30-0000 (formerly T800-30) and T800-30-0002 (formerly T800-35) are DFSK modulators for T800 Series II transmitters, suitable for POCSAG or similar paging data formats. Analogue transmissions (e.g. tone or speech) are still possible by disabling the data path via a control line. 512 or 1200 baud data rates are link selectable. The T800-30-0002 is adapted for use with an external reference oscillator for simulcast transmission. The T800-30-0000 and T800-30-0002 are not designed for use with 66 to 88MHz equipment.

Refer to the T800 Ancillary Equipment Service Manual for more information.

T800-32-0000 & T800-32-0010 DFSK Modulators

The T800-32-0000 and T800-32-0010 are DFSK modulator PCBs which can be fitted to T800 Series II transmitters to enable them to function as low-speed paging transmitters. These new PCBs have been specifically designed for Series II transmitters and will be much easier to fit into the latest design transmitters.

Both PCBs are suitable for POCSAG or similar paging data formats, but are not designed for analogue transmissions (e.g. tone or speech). The T800-32-0010 is adapted for use with an external reference oscillator for simulcast transmission. The T800-32-0000 and T800-32-0010 are not designed for use with 66 to 88MHz equipment.

External Frequency Reference

T800-06-0000 External Frequency Reference Kit

The T800-06-0000 kit provides an additional D-range plug/PCB assembly which incorporates a miniature RF connector to carry an externally generated 12.8MHz reference signal into a T800 Series II module. This enables the use of very high stability external reference oscillators for special applications.

The D-range PCB is also fitted with a Micromatch socket which can be connected to SK805 in the microcontroller section via the supplied loom to provide access to the channel change lines.

The kit comes complete with fitting instructions and all installation hardware.

T800-06-0001 External Frequency Reference Kit

The T800-06-0001 is the same as the T800-06-0000 kit with the addition of a special coax cable for external frequency reference input. One end of this coax is terminated with a miniature RF connector which fits into the D-range socket in an appropriate backplane PCB (e.g. T800-52-0000) to connect to a T800 Series II module fitted with a T800-06-0000 kit. The other end is terminated with a BNC connector which can be mounted on the rack frame.

T801 Frequency Reference Module

The T801 frequency reference module provides a high stability frequency source to which the synthesiser within a T800 Series II base station can be locked. The master standard within the T801 is primarily intended to be rubidium, although high quality ovenised crystal oscillators can also be used in applications where more frequent readjustment of frequency is acceptable. The T801 converts the output frequency from its master standard to the 12.8MHz required by the T800 Series II base station.

Refer to M801-00.

T801-10 OCXO Module

The T801-10 OCXO module provides a high stability frequency source to which the synthesiser within a T800 Series II base station can be locked. This will provide T800 Series II transmitters with the frequency stability required for simulcast transmission. The master standard within the T801-10 is a high quality ovenised crystal oscillator (OCXO). Three outputs are provided on the rear panel, which allows up to three T800 Series II transmitters to be referenced to the source oscillator.

Refer to M801-10.

Rack Frames

T800-22-0000

The T800-22-0000 is a standard 5U high rack frame complete with wiring loom which is designed to accommodate one 25, 50 or 100W base station or repeater. It comes fully assembled with the following items:

      T800-15-0000 speaker panel with programming port
      T800-40-0001 blank panel (x2)
      T800-41-0002 double module guide
      T800-44-0000 power supply guide
      T800-45-0000 PA guide
      T800-50-0000 standard rack frame backplane PCB.

Refer to the T800 Ancillary Equipment Service Manual for more information.

T800-22-0001

The T800-22-0001 is the same as the T800-22-0000, but is supplied packed flat in disassembled form for ease of transport. The wiring loom and backplane PCB are, however, supplied complete and ready for installation.

T800-22-0002

The T800-22-0002 is a standard 5U high rack frame without wiring loom which is designed to accommodate one 25, 50 or 100W base station or repeater. It comes fully assembled with the following items:

      T800-15-0000 speaker panel with programming port
      T800-40-0001 blank panel (x2)
      T800-41-0002 double module guide
      T800-44-0000 power supply guide
      T800-45-0000 PA guide.

T800-22-0003

The T800-22-0003 is the same as the T800-22-0002, but is supplied packed flat in disassembled form for ease of transport.

T800-22-0004

The T800-22-0004 is a standard 5U high rack frame without wiring loom, guides or front panels which comes fully assembled.

T800-22-0005

The T800-22-0005 is the same as the T800-22-0004, but is supplied packed flat in disassembled form for ease of transport.

T800-23-0000 Slimline Repeater Mounting Kit

The T800-23-0000 Slimline Repeater kit enables one T800 Series II receiver and one T800 Series II transmitter to be mounted horizontally side-by-side in a standard 483mm rack frame. The kit contains a front panel complete with speaker, programming port, an options tray (for mounting a power supply, duplexer, etc.), and a wiring loom to connect the two T800 modules to the terminal blocks mounted on the rear of the options tray. The T800-23-0010 mains power supply (available separately) is designed for use with the T800-23-0000. The rack height of the assembled unit is 2U.

T800-23-0001 Slimline Repeater Mounting Kit

The T800-23-0001 Slimline Repeater kit is the same as the T800-23-0000, but is supplied with a T800-23-0010 power supply and no options tray.

Rack Frame Guides

T800-41-0001

The T800-41-0001 rack frame guide is designed to fit into a T800 Series II rack frame and will accept one T800 Series II module (except for power supplies and power amplifiers which must use their own guides). It is supplied disassembled and comprises a top and bottom rail, a rear panel, two D-range sockets and mounting screws.

T800-41-0002

The T800-41-0002 rack frame guide is designed to fit into a T800 Series II rack frame and will accept two T800 Series II modules (except for power supplies and power amplifiers which must use their own guides). It is supplied disassembled and comprises two top and bottom rails, a double width rear panel, four D-range sockets and mounting screws.

T800-41-0003

The T800-41-0003 rack frame guide is designed to fit into a T800 Series II rack frame and will accept three T800 Series II modules (except for power supplies and power amplifiers which must use their own guides). It is supplied disassembled and comprises three top and bottom rails, a triple width rear panel, six D-range sockets and mounting screws.

T800-41-0004

The T800-41-0004 rack frame guide is designed to fit into a T800 Series II rack frame and will accept four T800 Series II modules (except for power supplies and power amplifiers which must use their own guides). It is supplied disassembled and comprises four top and bottom rails, a four-module wide rear panel, eight D-range sockets and mounting screws.

T800-42-0000

The T800-42-0000 rack frame guide will allow a duplexer to be mounted in a T800 Series II rack frame. It occupies a single module space and comprises a folded metal chassis, mounting brackets and screws.

T800-42-0001

The T800-42-0001 rack frame guide is the same as the T800-42-0000 described above, but with the addition of a duplexer front panel.

T800-42-0002

The T800-42-0002 rack frame guide is the same as the T800-42-0000 described above, but with the addition of a blank front panel.

T800-43-0000

The T800-43-0000 rack frame guide is designed to fit into a T800 Series II rack frame and will accept one T300 or T1500 Series module (e.g. T318-02, T1511). It is supplied disassembled and comprises a top and bottom rail, two T300 D-range socket boxes and mounting screws. The T800-43-0000 is not compatible with the T800 Series II rack frame backplane PCB. Consult your nearest Tait Dealer or Customer Service Organisation for more details about T300/T1500 Series compatibility with T800 Series II rack frames.

T800-43-0001

The T800-43-0001 is the same as the T800-43-0000 but is supplied with only one D-range socket box.

T800-44-0000

The T800-44-0000 rack frame guide is designed to fit into a T800 Series II rack frame and will accept one T800 Series II power supply. It comprises a top and bottom rail and mounting screws.

T800-45-0000

The T800-45-0000 rack frame guide is designed to fit into a T800 Series II rack frame and will accept one T800 Series II 50W power amplifier. It comprises a top guide stop, a bottom guide rail and mounting screws.

T800-45-0001

The T800-45-0001 rack frame guide is designed to fit into a T800 Series II rack frame and will accept one T800 Series II 100W power amplifier. It comprises a top guide stop, a bottom guide rail, extra mounting brackets for the double width front panel and mounting screws.

Rack Frame PCBs

T800-50-0000

The T800-50-0000 backplane PCB is designed to allow a T800-22-0000 rack frame to be easily configured as either a base station or repeater. The PCB mounts across the rear panel of the T800-41-0002 double module rack frame guide, enabling a T800 Series II receiver and exciter/transmitter to plug directly into the D-range sockets provided on the inner side of the PCB (both D-range 1 and D-range 2 are provided for). The other side of the PCB features a programming port, D-range connectors which provide all module inputs and outputs, and two DIP switches for external channel selection.

Refer to the T800 Ancillary Equipment Service Manual for more information.

T800-50-0001

The T800-50-0001 is similar in function and design to the T800-50-0000, but is designed to allow connection of TA087 or TA387 channel select panels. It has one 25-way OEM D-range connector, but will not accept personality PCBs.

T800-52-0000

The T800-52-0000 is similar in function and design to the T800-50-0000, but is designed for use in Quasi-Sync applications. The PCB has an external reference D-range fitted and has provision for connecting TA087 or TA387 channel change/speaker panels and a TA136 alarm panel. The T800-52-0000 will not accept personality PCBs.

T800-60-0000

The T800-60-0000 personality PCB is designed to plug into the two 25-way D-range sockets on the T800-50-0000 backplane PCB. The T800-60-0000 provides channel selection for both receiver and exciter/transmitter via a single DIP switch, remote channel selection and alarm monitoring via Micromatch sockets, and receiver and exciter/transmitter inputs and outputs via a 25-way D-range socket.

Rack Frame Ancillaries

T800-13-0000 Extender Rail

The T800-13-0000 extender rail allows a T800 Series II receiver, exciter or transmitter to be operated out of the rack frame with the covers off for tuning purposes. It is fitted with two 15-way D-range connectors.

T800-14-0000 Extender Rail

The T800-14-0000 extender rail is the same as the T800-13-0000, but is intended for equipment using an external reference (e.g. Quasi-Sync). It thus has one 15-way D-range, and one 11-way D-range incorporating a miniature RF connector.

T800-19-0000 Rack Mounting Fan

The T800-19-0000 fan is designed to fit into the base of any standard 483mm rack frame without affecting its ability to house seven modules. The two mounting rails are secured to the rack frame side panels, and the fan is screwed onto the rails under the required module. The kit contains all mounting hardware.

T800-19-0010 Rack Mounting Fan

The T800-19-0010 fan is designed to fit into the base of any standard 483mm rack frame without affecting its ability to house seven modules. The fan is mounted directly onto the underside of the bottom guide rails with two mounting brackets. The kit contains all mounting hardware.

Front Panels

T800-15-0000 Speaker Panel

A 60mm speaker panel fitted with a 4Ω speaker and programming socket. It comes complete with mounting hardware and a cable to connect the programming socket to the backplane PCB.

T800-15-0001 Speaker Panel

A 60mm speaker panel fitted with a 4Ω speaker, complete with mounting hardware.

T800-17-0010 Circuit Breaker Panel

A 60mm front panel fitted with a 10A magnetic circuit breaker. The circuit breaker also functions as an on/off switch to control the supply of power to the rack frame. The T800-17-0010 is intended primarily for use with rack frames powered by batteries (or with a battery back-up supply) and comes complete with mounting hardware.

T800-17-0020 Circuit Breaker Panel

The same as the T800-17-0010, but fitted with a 20A circuit breaker.

T800-40-0000 Blank Panel Fitting Kit

The mounting brackets and screws necessary to fit a T800 Series II 60mm blank front panel into a T800 Series II rack frame.

T800-40-0001 Blank Panel

A T800 Series II 60mm blank panel complete with mounting brackets and screws.

Power Supplies

T800-23-0010 Mains Power Supply

The T800-23-0010 mains power supply is designed to power the T800-23-0000 Slimline Repeater and mounts on the front panel instead of the options tray. It requires a mains input voltage (auto range) of 85-132/170-264V AC at 47-440Hz.

Refer to the T800 Ancillary Equipment Service Manual for more information.

T807-10-0000 Mains Power Supply

The T807-10-0000 is a switching power supply capable of supplying up to 15A at 11-14V DC. It requires a mains supply of 230V/50Hz or 115V/60Hz (nominal values) which can be internally selected with a switch. The T807-10-0000 is designed to power T800 Series II 50W transmitters (plus receivers, etc.) and requires a T800-44-0000 guide to fit into a T800 Series II rack frame.

Refer to the T800 Ancillary Equipment Service Manual for more information.

T808-10-0000 Mains Power Supply

The T808-10-0000 is a switching power supply capable of supplying up to 25A at 11-14V DC. It requires a mains supply of 230V/50Hz or 115V/60Hz (nominal values) which can be internally selected with a switch. The T808-10-0000 is designed to power T800 Series II 100W transmitters (plus receivers, etc.) and requires a T800-44-0000 guide to fit into a T800 Series II rack frame.

Refer to the T800 Ancillary Equipment Service Manual for more information.