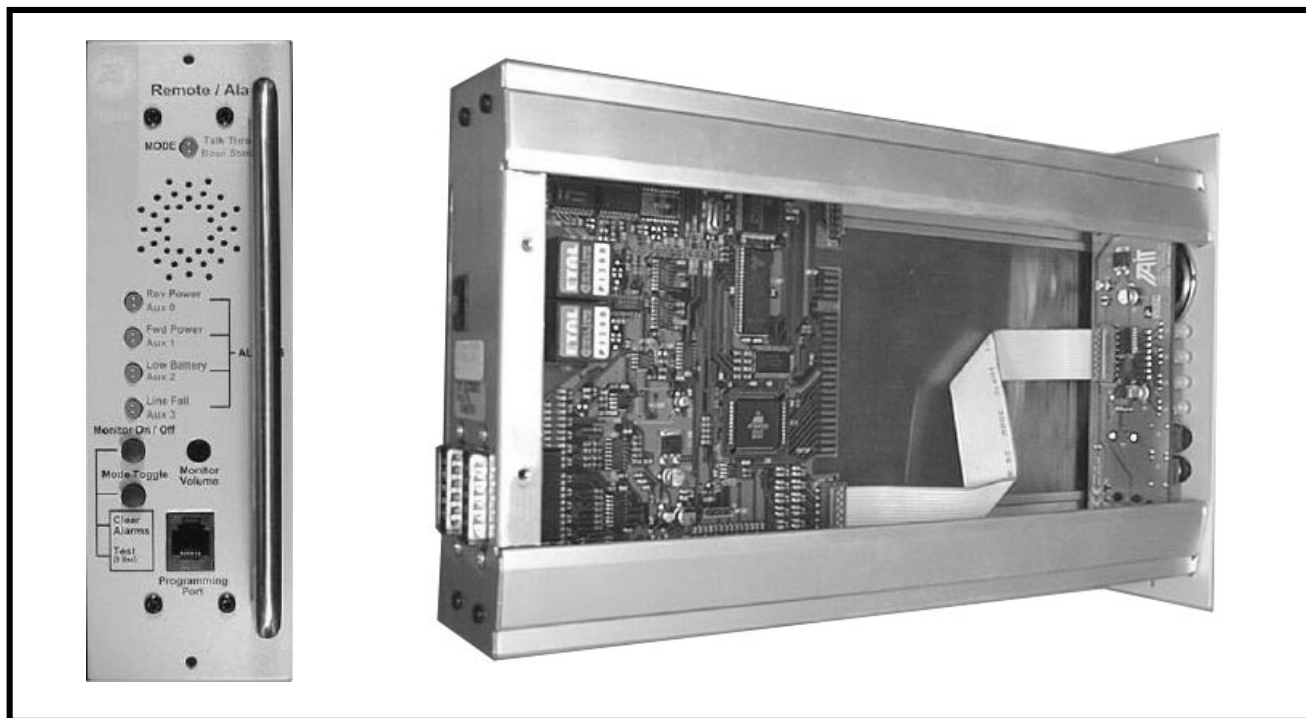




NEW PRODUCT ANNOUNCEMENT

T803-00-0000 Tone Remote Module



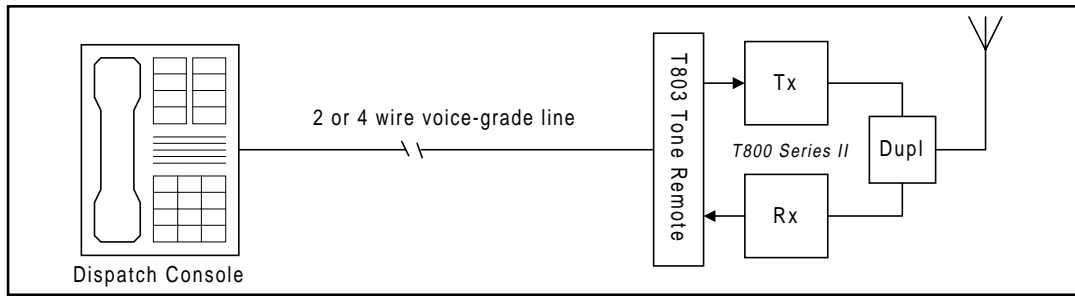
OVERVIEW

The T803-00-0000 allows a dispatcher to control and monitor a T800 *Series II* base-station over a two or four-wire voice-grade line. The T803 provides a range of industry-standard tone sets, including Motorola Guard-Tone™ and GE Secur-It™ formats. The T803 is thus fully compatible with both standard and customised communications consoles.

The T803 provides the following **standard tone-remote** functions as an integrated part of the T800 base-station range: Tx Key, Rx monitor, repeater talk-through and F1-F8 channel selection

The T803 creates extra value for the customer, providing the following **additional functionality**, depending on how it is configured:

- **Alarm monitoring:** Includes Tx forward power, reverse power, battery low and line failure. Alarm generation is selectable from common 5-tone sequences and/or a 'pip' tone down the line and/or over-the-air. Alarms can be cancelled remotely from the dispatch console or locally via the front panel
- **Simple site control:** Allows remote operation of up to four 'wildcard' open-collector outputs which are typically used for controlling site access or tower lighting
- **Voting tone generation.** Provides for three types of voting tone sequences, which are compatible with industry standard formats.



Typical System Configuration

BENEFITS

DSP-based Operation:

- No adjusting of pot's
- No frequency-drift over time
- Consistent and reliable tone detection and filtering
- Deep rejection to air of the low level guard tone (LLGT).

Flexibility: Configuration via a companion software package (PGM800win ver 3.0) allows easy configuration for operation with standard consoles or enhanced customised operation

Plug & Play: The module requires no messy rack wiring or expensive technician time. Simply plug the T803 into the T800-27-000x base station rack and configure via PGM800Win

Saves Rack Space: Integration of the speaker, programming jack and microphone socket means that the T803 module does not use up an extra module slot in the T800-27-000x rack

Extra Value-added:

- Line-fail detection initiates repeater talk-through and alarm action
- Momentary channel monitor after function tones
- Alarms or alarm pip-tone can be cancelled remotely
- Duplex operation as a standard feature

OPERATIONAL FEATURES

AC Tone Remote

- Motorola Guard-Tone™/ GE Secur-It™ mode of operation
- Single key-tone mode of operation (Choice of 8 tones)
- Channel Change (128 Channels)
- Rx CTCSS defeat (latched / momentary - time is configurable)
- Tx/Ex CTCSS defeat (either latched or momentary)
- Repeater talk-through and line-base modes set, reset and toggled remotely, or from the front panel

Alarm Monitoring

- Tx fwd power, Tx rev power, low battery, line fail (Configurable time expiry between line commands) and four auxiliary inputs
- Alarms are enabled and given an action using PGM800. The action can be the generation of a 5 tone sequence (up to 14 tones long) from commonly used tone sets. The action is encoded to line or radio or both. A pip tone can also be added to the tail of all messages
- Alarms are latched and can be reset either by a function tone sequence or from the front panel
- Alarm pip tone may be cancelled by a function tone sequence

Site Control

- Four open-collector outputs, set, reset or remotely toggled

Voting Tone Generation

- *Tone on Idle.* A tone is generated to line when the Rx is muted
- *Sliding Voting tone.* A continuously variable tone is generated to line, the frequency of which is proportional to the Rx RSSI. PGM800 will allow selection of the type of radio (T835/T855 have different RSSI curves) and frequencies at various RSSI levels
- Six different frequencies are generated to line at set Rx RSSI levels

TECHNICAL SPECIFICATIONS

Temperature Range	-30 to +70 deg C
Power Requirements	+13.8V nominal 250mA max
Line interface:	600 Ohm, 2 or 4-wire selectable, compliant with ETSI CTR15/17
Automatic Level Control:	(ALC control of line input guarantees performance)
Input Range	-30dBm to +5dBm nominal
Attack times	10msec nominal
Decay time	5 sec \pm 20%
Audio response (excluding guard tone notch)	Nominally flat, in-band ripple <1dB (companding not optional) <3% distortion measured with 1kHz @ -10dBm to line from RF carrier at 60% deviation
Guard tone notch depth & width	-40dB bandwidth approx \pm 0.5% -3dB bandwidth approx \pm 1.3% (Measured at -10dBm input level)
Frequency accuracy	Crystal derived for notch and tone decoding
LLGT detection threshold	<-26dB relative to average speech level
Standard guard tones	2100, 2175, 2325, 2500, 2600, 2800, 2970, 3000 Hz
HLGT duration:	60msec to 200msec, user configurable
Number of function tones:	0, 1 or 2
Standard function tones:	650Hz to 2050Hz in 100Hz steps
Function tone duration:	20msec to 100msec in 10msec steps
Alarm inputs	Compatible with all T800 radios where necessary: Supply voltage, RSSI, Tx fwd & Tx reverse power 4 x contact closure to 0V
Alarm Actions (outputs)	Configurable tone sequences up to 14 tones in length and/or 'pip' tones sent to line and/or channel
Auxiliary control outputs	4 open-collector, 50V 250mA (at 25°C)
Dimensions	191mm height 60mm width 320mm length
Weight	1530g
Compliance	Complies with all of the following: <ul style="list-style-type: none">• Directives on EMC, Low Voltage & Telecommunications (EU)• 47CFR15 and 47CFR68 (USA)• CS-03 (Canada)• ACA TS006 (Australia)• PTC 200 (New Zealand)

ORDERING INFORMATION

Part Number	Description
T803-00-0000	Tone Remote Module (TRM)
T800-54-0000	T800 Rackframe backplane pcb for T803-00-0000
T800-27-0000	T800 Rackframe Assembled for Dual TRM, Dual Rx, Dual Tx & Single PSU. (Includes two of T800-54-0000)
T800-27-0001	T800 Rackframe Assembled for TRM, Rx, Exciter, PA (25W, 50W and 100W) & PSU. (Includes T800-54-0000)
T800-80-0001	Test Microphone for T803-00-0000. <ul style="list-style-type: none">• Used to talk to line and radio
T1500-52-0000	Tx Alarm <u>and</u> multi-channel kit. <ul style="list-style-type: none">• Used in a Tx for where Fwd and Rev Power alarm monitoring <u>and</u> channel change capability is required. (PA's do not need this option as alarm monitoring is included)
T800-03-0000	Multi-channel kit. <ul style="list-style-type: none">• Used in Rx for monitor function or channel change capability is required• Used in Tx or Exciter when channel change capability is required, or CTCSS defeat for Morse ID transmission. (Not needed if T1500-52-0000 is ordered)
T800-04-0000	RSSI option for UHF receivers. Not needed for VHF Rx <ul style="list-style-type: none">• Used when sliding tone voting is required• Used when Philips/Simoco type (fixed tone on RSSI level) voting is required.
T800-01-0100	Full PGM800Win ver.3.0 on CD. (Not yet available). Programming cable NOT included.
T803-01-0100	PGM803. Programming software for T803 only. Programming cable NOT included.
T800-01-0002	T803 (and T800) programming cable only.
M803-00-PRELIM	T803 Tone Remote Preliminary Service Manual (Note: the T800 Ancillary Equipment Service Manual will be revised and updated for the T803 Tone Remote later this year).

Example Applications & Ordering Configuration

1. Simple tone remote and channel monitor operation on a single VHF frequency-pair 25 W base station. *Order items T803-00-0000 and T800-27-0000*
2. Tone remote and Tx alarms on a 25W base station. *Order items T803-00-0000, T800-27-0000 and specify factory fitting of T1500-52-0000*
3. Tone remote, 25W Tx channel change and alarms, UHF RX channel change and voting. *Order items T803-00-0000, T800-27-0000, specify factory fitting of T1500-52-0000, specify factory fitting of T800-03-0000 and , specify factory fitting of T800-04-0000*
4. To field retrofit a tone remote to an existing T800 series II base station. *Order T803-00-0000 and T800-54-0000 and any other required items.*

