

Base Station MTR2000



Stay In Touch On The Move

The MTR2000 base station radio features enhanced analogue capabilities in a compact/economical package.

The MTR2000 base station/repeater utilises cutting edge technology, providing power levels equivalent to current analogue base stations and repeaters in its class. The smaller, 3 rack units, require less maintenance.

- Integral component of any conventional or Motorola Selectacom MX, Smartnet or Smartzone trunked analogue radio system.
- Unmatched flexibility.
- Available in 25-100 Watt or 2-40 Watt UHF, (1-40 Watt VHF) variable power models.
- VHF and UHF frequencies and features 12.5 or 25/30 kHz programmable channel spacing.
- Software-based design simplifies upgrades.
- Programming and diagnostic testing through personal computer.
- Shorter maintenance time through use of field replaceable units.
- Reliable solid-state performance.
- Continuous-duty cycle operation.
- Battery revert in the event of a site power failure.
- Self testing to reduce regular maintenance schedules.
- Alternative indoor cabinet enclosures.
- Attractive packages available in 40 Watt for VHF and UHF.

Base Station MTR2000



GENERAL

Frequency Band	RF Power Output
132-174 MHz	1-40 W
132-154 MHz, 150-174 MHz	25-100 W
403-470 MHz	2-40 W (6-40 W only ETS approved)
403-435 MHz, 435-470 MHz	25-100 W
Modulation:	FM
Temperature Range:	-30°C to +60°C
Antenna Connectors:	Transmit and Receive, Type "N" Female
No. of Frequencies:	6 (Up to 32 optional)
Frequency Generation:	Synthesised
Channel Spacing:	12.5 kHz/20 kHz/25 kHz/30 kHz
Mode of Operation:	Simplex/Semi-duplex/Duplex
Input Voltage AC:	180-264 VAC, 47-63 Hz
Optional DC Only Operation:	14.2 VDC (30/40 Watt Station) 28.6 VDC (100 Watt station)

	Dimensions	Weight
All Stations and Receivers	19 x 16.5 x 5.25 in. † (483 x 419 x 133 mm)	40 lbs † (19 kg)

Alternative Cabinet Enclosures

Enclosure	Dimensions	Weight
30" Indoor Cabinet	30 x 22 x 20 in. (762 x 559 x 508 mm)	66 lbs* (30 kg)
46" Indoor Cabinet	46 x 22 x 20 in. (1168 x 559 x 508 mm)	75 lbs* (34 kg)
60" Indoor Cabinet	60 x 22 x 20 in. (1524 x 559 x 508 mm)	102 lbs* (46 kg)
70" Outdoor Cabinet	70 x 22 x 20 in. (1778 x 559 x 508 mm)	225 lbs* (103 kg)
30" Modular Rack	30 x 22 x 20 in. (762 x 559 x 508 mm)	52 lbs* (24 kg)
45" Modular Rack	45 x 22 x 20 in. (1143 x 559 x 508 mm)	59 lbs* (27 kg)
52" Modular Rack	52 x 22 x 20 in. (1321 x 559 x 508 mm)	61 lbs* (28 kg)

† Applies to standard station configuration *Enclosure Only

All specifications use the ETS 300-086 & ETS300-113 method for measurement.
All values subject to change without notice

RECEIVER

	VHF	UHF
Frequency - Wideband:	132-174 MHz	403-470 MHz
Frequency - High Performance Preselector: (Option to the station)	132-154 MHz 150-174 MHz	403-433 MHz 433-470 MHz
High Performance Preselector Bandwidth: (Receiver Bandwidth)	4.0 MHz 150-174 MHz	433-470 MHz
Adjacent Channel Rejection: (12.5 and 25/30 kHz) (Selectivity):	75 db/80 db	
Sensitivity 12 db SINAD	0.35 µV	
Signal Displacement Bandwidth: (Off Channel Acceptance): (12.5/25 kHz)	2 kHz	
Frequency Stability: (for temperature and Voltage Variation)	1.5 ppm External Ref optional	
Intermodulation Rejection: (12.5 and 25/30 kHz)	80 db / 85 db typical	
Spurious and Image Response Rejection:	85 dB	
Optional High Performance Preselector:	90 dB	
Audio Response:	+1,-3 dB from 6 dB per octave de-emphasis; 300-3000 Hz referenced to 1000 Hz at line input	
Audio Distortion:	Less than 3% at 1000 Hz; 60% RSD	
Line Output:	-20 dBm to 7 dBm @ 60% RSD, 1 kHz	
FM Hum and Noise: (750 µs de-emphasis)	1000 Hz tone @ 60% RSD	
25/30 kHz:	50 dB	
12.5 kHz:	45 dB	
RF Input Impedance:	50 Ohms	

TRANSMITTER

	VHF	UHF
Frequency - 30/40 Watt:	132-174 MHz	403-470 MHz
Frequency - 100 Watt:	132-154 MHz 150-174 MHz	403-435 MHz 435-470 MHz
Electronic Bandwidth: (Transmit Bandwidth)	Full Sub-band (reduced with the addition of a duplexer/external circulator option)	
Output Impedance:	50 Ohms	
Frequency Stability: (for temperature and Voltage Variation)	1.5 ppm External Ref	
Intermodulation attenuation: (For ref isolation):	40 dB for 40 W, 100 W 70 dB for 30 W	
Maximum Deviation:	30 (VHF)/25 kHz: +/-5 kHz 12.5 kHz: +/-2.5 kHz	
Audio Sensitivity:	-20 dBm to 0 dBm variable	
Spurious and Harmonic Emissions Attenuation: (Spurious and harmonic Emissions)	-36 dBm for frequencies smaller than 1 GHz and -30 dBm for frequencies smaller than 4 GHz	
FM Hum and Noise: (750 µs de-emphasis)	300 to 3000 Hz bandwidth, 60% RSD	
30 (VHF)/25 kHz:	50 dB	
12.5 kHz:	45 dB	
Audio Response:	+1,-3 dB from 6 dB per octave pre-emphasis; 300-3000 Hz referenced to 1000 Hz at line input	
Audio Distortion:	Less than 3% at 1000 Hz; 60% RSD	

Contact your local Authorised Motorola Dealer to find out more about how communicating with the MTR 2000 will benefit your organisation

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