

# Mobile Handheld Radio Box

**(PRC-148 / PRC-152)**

The **Mobile Handheld Radio Box** is a portable communications system that amplifies the power output of PRC-148 and PRC-152 radios, while also providing additional power options and user interfaces.

The Mobile Handheld Radio Box allows operators to rapidly transform any vehicle into a communications vehicle.

The Mobile Handheld Radio Box with three BA5590s and radio weighs only 20 pounds. The highly portable system can be powered by either military 5590 batteries, vehicle power adaptor or external DC power supplies

The side interface panel provides receptacles for a handset, loudspeaker, LOS antenna, SAT antenna, external DC, auxiliary 12 VDC out, and external GPS antenna (PRC-152 use only).

The Mobile Handheld Radio Box includes a magnetic-mount, dual-band whip antenna for line-of-site communications. This antenna is designed to operate in the 144 and 440 MHz range. Operating the system outside these frequencies with this antenna may result in reduced range and damage to the system.

The Mobile Handheld Radio Box may be used with any antenna designed for UHF SATCOM communications, and it may be used with any line-of-site antenna designed to operate on frequencies between 30-512 Mhz. Operators must ensure that the operating frequency is within the operational frequency range of the antenna.



Part #s: **TSE-MOB-HH-BOX** (new part #)  
**TSE-MOB-MBTR-BOX** (previous part #)

## Features

- 18-40 Watts Transmit Power
- Auto Frequency Selection
- Highly Portable
- Multi-Band 30-512Mhz
- Multiple Power Sources
- Automatic Battery Bypass with External Power

# Specifications

## Transmit

### LOS MODE

- **Frequency range:** 30-512 MHz
- **Modulation Format:** FM, Multi-Phase or AM, 5 or 25 KHz Bandwidth
- **RF Power input:** 2-5 Watts\*
- **Max. RF Power Input:** 10 Watts (6.4 Watts in AM Mode)
- **RF Power Output:** 5590 – 18 Watts; Car Cord – 24 Watts; 24-30 VDC – 40 Watts\*
- **Harmonics:** -60 dBc
- **Transmit Duty Cycle:** 4:1 RCV to TX

### SATCOM MODE

- **Frequency range:** 292-318 MHz
- **Modulation Format:** FM /Multi-Phase 5 or 25 KHz Bandwidth
- **Co-site Suppression:** 30 dB
- **Switching Speed:** J1TC Certified / DAMA Compliant
- **RF Power Input:** 2-5 Watts
- **Max Power Input:** 10 Watts
- **RF Power Output:** 5590 – 20 Watts\*; Car Cord – 24 Watts\*; 24-30 VDC – 40 Watts\*
- **Harmonics:** -60 dBc
- **Transmit Duty Cycle:** 4:1 RCV to TX

\*Note: RF output figures are average across 30-512MHz frequency spectrum. Power output may exceed 40 Watts or drop below 18 Watts, depending on actual frequency and input power.

## Receive

### LOS MODE

- Frequency range: 30-512 MHz
- Insertion Loss: 1.5 dB Max

### SATCOM MODE

- **Frequency range:** 242-268 MHz
- **Noise Figure:** 3 dB Max
- **Receive Gain:** 6 dB Typical

## General

- **Operator Controls:** SATCOM / LOS Mode Switch; Main Power; Circuit Breaker
- **Power Source Selection:** 12-28VDC, 5590 Batteries, Car Cord
- **Connectors:** LOS Antenna, SATCOM Antenna, PTT, Audio, DC Power In
- **Radio Connector:** TNC Male
- **SATCOM Connector:** BNC Female
- **LOS Connector:** BNC Female
- **Input VSWR:** 2:1
- **VSWR Mismatch:** No damage
- **High Temperature:** Power Fold Back Protection
- **Operating Temperature:** -20C to +60C
- **Cooling:** Natural Convection
- **Dimensions:** 6" H x 13.5" W x 12" D
- **Weight:** 20 Lbs. With Batteries & Radio

### Mobile Handheld Radio Box Includes:

- **External amplified speaker** (TSE-SPK-381)
- **Dual-band 144/440 MHz mag mount antenna**
- **Vehicle power cable**

### Optional Accessories

1. **AC Power Adapter** (TSE-19V-25-DC)
2. **Magnetic Mount SATCOM Antenna Kit** (TSE-RF-SAT-MP-A1)
3. **A Large Selection of Trivec Antennas**

Available on GSA Schedule **GS-35F-0039T**

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