



**TRICOM**  
RESEARCH, INC.

TCR-HHR-01

## AN/PRC-152/152A Mobile Radio Communications kit

The Tricom Research Handheld radio Mobile Communications Kit is designed as a fly away communications kit for use with the Harris AN/PRC-152 and 152A Multi-Band Radios. It allows an operator to rapidly install a LOS, SATCOM, or Wideband communications link virtually anywhere to include military and commercial vehicles or "TOC in a Box" applications. The compact case holds a TCR-MBA-50 WB Wideband/Multi-Band RF amplifier with custom heatsink for air flow cooling, two BA-5590 style batteries (user supplied), a DC-DC power adapter for the radio, a radio battery charger, a temperature controlled dual fan enclosure for power amplifier cooling and an egress panel for easy access to antenna, data, PA remote and input power connections. Connections are provided for a SATCOM antenna, LOS antenna and wideband antenna.



**Radio and batteries NOT included**

### FEATURES

- Up to 50 Watts transmit power output (User selectable)
- Auto frequency selection
- Highly portable
- Multi-Band 30-512Mhz
- Wide-Band Operation 225-450Mhz
- Automatic switching, UPS capability when external DC power is lost
- Automatic battery bypass with external power applied
- Optional remote capable amplified speaker w/operation up to 50'
- Backup battery status indicator (does not charge XX90 batteries)
- Integrated radio battery charging.
- uP controlled DC power and cooling system.
- Custom PA heat sink for more efficient fan cooling operation in a splash proof case (when lid is closed)
- Automatic PA DC mode of operation based on DC voltage source (battery, commercial vehicle 12-14 VDC or military vehicle 24-28 VDC)
- USB interfaces for PA remote and radio data

## TRANSMIT SPECIFICATIONS

### SATCOM MODE

Frequency Range  
Switching Speed  
Modulation  
RF Power Input  
RF Power Output

### SATCOM PERFORMANCE

292-318 MHz  
JITC DAMA and IW compatible  
FM or Phase Modulation  
5 Watts (2-10 Watts typical)  
BA-5590 (12.7 VDC 4.5 A max): 10, 15, 20 Watts  
BB-2590 (15 VDC 4.5 A max): 10, 15, 25 Watts  
Commercial Vehicle (13.5 VDC 5.5 A max): 10, 15, 25 Watts  
Military Vehicle (28 VDC 6.5 A max): 10, 15, 25, 35, 50 Watts

### LOS/WB MODE

Frequency range  
Modulation  
RF Power Input  
RF Power Output

### LOS/WB PERFORMANCE

30-512 MHz with Automatic Frequency Detection/ **WB 225-450 MHz**  
AM, FM or Phase Modulation, AM/FM Frequency Hopping and **ANW2/SRW**  
5 Watts CW/PEP (1-10 Watts typical)  
BA-5590 (12.7 VDC 4.5 A max): 20 Watts CW/PEP/**20W Avg. WB**  
BB-2590 (15 VDC 4.5 A max): 25 Watts CW/PEP/ **25W Avg. WB**  
Commercial Vehicle (13.5 VDC 5.5 A max): 25 W CW/PEP/ **25W Avg. WB**  
Military Vehicle (28 VDC 6.5 A max): 25, 50 W CW/PEP/**25W Avg. WB**

## RECEIVE SPECIFICATIONS

### SATCOM MODE

Frequency range  
Noise Figure  
Receive Gain

### SATCOM PERFORMANCE

242-268 MHz  
3.5 dB Typical  
10 dB Typical

### LOS MODE

Frequency Range  
Insertion Loss  
VSWR

### LOS PERFORMANCE

30-512 MHz  
< 3.5 dB  
2.5:1 Max

### WB PERFORMANCE

**225-450 MHz**  
**<3.5dB**  
**2.5:1 Max**

## GENERAL SPECIFICATIONS

LOS Antenna Connector	Type N Female
SAT Antenna Connector	Type N Female
Wide Band Connector	Type N Female
DC Connector	Amphenol 97-3102A-14-5P
USB Connectors	USB Mini Type B
Speaker Interface Connector	DB9 Female
High Temperature	PA High Temperature Indication/Fold back
DC Input	12-32 VDC
DC Off	Routes Radio Connector to LOS Antenna Connector
Operating Temperature	-30 C to +60
Cooling	Air flow cooling for PA and inside the case
Indicators	DC ON/ Ext DC Applied/XX90 Battery status/Radio Battery Charge Status
Dimensions	7" H x 16" W x 13" D
Weight	35 Lbs