

## **HANDHELD MOBILE REPEATER/COMMS CASE DUAL AN/PRC-148/152/152A**

The Tricom Research **TCR-HHR-02** is a fly away repeater and communications kit for use with AN/PRC-148, AN/PRC-152, or AN/PRC-152A (designated at time of order) radios. It allows an operator to rapidly set up a LOS, SATCOM, or Wideband communications link in various scenarios including military and commercial vehicles. The two radios can be operated independently or set up as a repeater by connecting with a retransmission cable (user supplied). In a repeater application, the TX side radio is amplified by a TCR-MBA-50-WB RF Power Amplifier (PA) using a custom heatsink for forced air cooling. The system consists of the PA, connections for two BA2590 style batteries (user supplied) with integrated battery chargers, and a 115/230 VAC power supply. The enclosure includes an egress panel for easy access to antenna, handset, PA remote and input power. Forced air cooling of the PA and radios allows the system to be operated with the case closed for environmental protection.



**Radio and Batteries NOT included**

**Part #: 11000-00770, TCR-HHR-02**

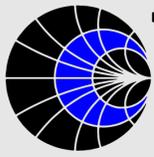
**Part #: 11000-00822, TCR-HHR-02A** (w/ KDU port, no speaker remote option)

**Part #: 11000-00848, TCR-HHR-02B** (w/ wheels and handle)

**Part #: 11000-00886, TCR-HHR-02C** (w/ KDU port, no speaker remote option, w/wheels and handle)

### **FEATURES**

- Transmit amplification for the 30-512 MHz frequency range
- Carrier Detect Keying and Automatic Frequency Detection
- Highly portable
- Automatic battery bypass with external power applied
- UPS capability when DC power is lost
- Optional, remote capable, amplified speaker w/operation up to 50'
- Backup battery status indicator (does not charge XX90 batteries)
- Integrated battery charging
- Microprocessor controlled DC power and cooling system
- Custom PA heat sink for more efficient cooling in a splash proof case (with lid closed)
- USB interfaces for PA remote and radio data
- Supports TCR-SPK-02 dual net amplified speaker (optional)



**TRANSMIT SPECIFICATIONS**

**SATCOM**

Frequency Range	290-320MHz	
Switching Speed	JITC, DAMA, and IW Compatible	
Modulation	FM or Phase Modulation	
RF Power Input	2-10 Watts (20W without damage)	
RF Power Output	BA5590 (12.7 VDC, 4.5 A max):	10, 15, 20 Watts
	BA2590 (15 VDC, 4.5 A max):	10, 15, 25 Watts
	Commercial Vehicle (13.5 VDC, 5.5 A max):	10, 15, 20 Watts
	Military Vehicle (28 VDC, 6.5 A max):	10, 15, 25, 35, 50 Watts

**LOS / WB**

Frequency Range	30-512 MHz with Automatic Frequency Detection / 225-450 MHz	
Modulation	AM/FM or Phase Modulation, AM/FM Frequency Hopping and ANW2/SRW	
RF Power Input	2-10 Watts (20W without damage)	
RF Power Output	BA5590 (12.7 VDC, 4.5 A max):	20 Watts
	BA2590 (15 VDC, 4.5 A max):	20 Watts
	Commercial Vehicle (13.5 VDC, 5.5 A max):	25 Watts
	Military Vehicle (28 VDC, 6.5 A max):	25 Watts, 50 Watts (LOS Only)

**RECEIVE SPECIFICATIONS**

**SATCOM**

Frequency Range	240-270 MHz
Noise Figure	3.75 dB typical
Receive Gain	10 dB or LNA Bypass

**LOS / WB**

Frequency Range	30-512 MHz / 225-450 MHz
Insertion Loss	< 1 dB / < 2.5 dB
VSWR	2.5:1 Max

**GENERAL SPECIFICATIONS**

LOS Antenna Connector	Type N Female
SAT Antenna Connector	Type N Female
Wide Band Connector	Type N Female
Receive Radio Connector	Type N Female
AC Connector	IEC C14
DC Connector	Amphenol 97-3102A-14-5P
USB Connectors	USB Mini Type B
Speaker Interface Connector	DB15 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°C
Cooling	Air flow cooling for PA and inside case
Indicators	DC ON/Ext DC Applied/XX90 Battery Status/Radio Battery Charge Status
Dimensions	7" H x 16" W x 13" D / 7"H x 20.5" W x 11.5" D (TCR-HHR-02B)
Weight	21 lb (without radios and batteries)