HYT
AMERICA, INC.

TC-780

Professional Two-way Radio

Recommended Applications

- Police
- Security
- Logistics
- Firefighting
- Government
- Property Management

Accessories

Standard Accessories

Antenna	Strap RO04	Belt clip BC08 (compatible with BL1703)	MCU rapid-rate charger (for Li-ion/Ni-MH Batteries) CH10L07
Li-ion battery(1700mAh) BL1703	Switching Power (100-240V) PS1009 (for use with different power cords in different countries and areas)		

Optional Accessories

Earbud with in-Line PTT ESN05
Earbud with on-MIC PTT ESN06

2-wire earpiece with wireless earphone and neck loop EWN03

Earpiece with on-MIC PTT & transparent acoustic tube EAN04

Remote speaker microphone SM08N1
Received only earpiece with transparent acoustic tube (remote speaker MIC used only) ESS08
Received only earbud(remote speaker MIC used only) ESS07

Noise-Canceling Remote Speaker Microphone (440~470 MHz/350~390 MHz) SM13N4
Noise-Canceling Remote Speaker Microphone (IP56) SM13N5
GPS Remote Speaker Microphone SM13N7

Light weight, throat-vibrating earpiece ELN02
Ear canal bone induction earpiece EBN01

Heavy weight, high-quality noise-cancelling headset ECN08
Behind-the-head heavy weight high-quality noise-cancelling headset ECN09

D-earset with boom microphone & in-Line PTT EHN08
D-earset with in-Line PTT & microphone EHN07

Light-Weight, Single-Ear Headset with in-Line PTT ECN07
Light-Weight, Behind-the-Head Earset with in-Line PTT ECN06

3-wire surveillance earpiece with transparent acoustic tube EAN06 (beige)
3-wire surveillance earpiece with transparent acoustic tube EAN02 (black)
2-wire surveillance earpiece with transparent acoustic tube EAN07(black)

Six-unit switching power (for use with different power cords in different countries and areas) PS7001
Vehicle adapter for charger CHV09

MCU rapid-rate multi-unit charger for Li-ion/Ni-MH batteries MCA03

Ni-MH battery pack (1800mAh) BH1801
Li-ion battery pack (2100mAh) BL2102

Chest Pack LCBN13
Leather carrying case (swivel) LCBY22

Antenna
Belt Clip BC09 (compatible with BH1801&BL2102)
Programming Cable (COM port) PC18
Programming Cable (USB to Serial Port) PC25

Applicable Military Standards 810C/D/E/F

Applicable MIL-STD	810C Methods Procedures	810D Methods Procedures	810E Methods Procedures	810F Methods Procedures
Low Pressure	500.1 1	500.2 1,2	500.3 1,2	500.4 1
High Temperature	501.1 1,2	501.2 1,2	501.3 1,2	501.4 1,2
Low Temperature	502.1 1	502.2 1,2	502.3 1,2	502.4 1,2
Temp. Shock	503.1 1	503.2 1	503.3 1	503.4 1
Solar Radiation	505.1 1	505.2 1	505.3 1	505.4 1,2
Rain	506.1 2	506.2 2	506.3 1,2	506.4 1,2
Humidity	507.1 2	507.2 2,3	507.3 2,3	507.4 1
Salt Fog	509.1 1	509.2 1	509.3 1	509.4 1
Dust	510.1 1	510.2 1	510.3 1	510.4 1
Vibration	514.2 8,10	514.3 1	514.4 1	514.5 1
Shock	516.2 1,2,5	516.3 1,4	516.4 1,4	516.5 1,4

General

Frequency Range (MHz)	UHF: 450-520 / 400-470 / 350-390* VHF: 136-174
Channel Capacity	256
Channel Spacing (kHz)	25/20/12.5
Operating Voltage (V)	7.4V
Battery	1700mAh Li-ion Battery
Battery Life (5-5-90 Duty Cycle)	About 14 Hours
Frequency Stability (ppm)	± 2.5
Operating Temperature (°F)	-22" ~ +140"
Antenna Impedance (?)	50Ù
Dimensions (H x W x D) (w/ battery, w/o antenna) (inches)	4.98" x 2.12" x 1.38"
Weight (w/ antenna & battery) (oz.)	11.99 oz.

*Frequencies Marked with an Asterisk(*) are for Export Only

Transmitter

RF Power Output	5W/2W/1W (UHF/VHF)
Modulation	16KÔF3E/11KÔF3E
Spurious and Harmonics	-36 dBm<1GHz
	-30 dBm>1GHz
FM Noise	45/40 dB
Audio Distortion	≤5%

Receiver

Sensitivity	0.25/0.35µV
Selectivity	70/60 dB
Intermodulation	65 dB
Spurious Response Rejection	70 dB
S/N	45/40 dB
Rated Audio Power Output	1 W
Rated Audio Distortion	≤10%

All Specifications are tested according to TIA/EIA-603, and subject to change without notice due to continuous development.

FCC Approved Bands: (136-174MHz)
FCC ID Number: R74TC-780V

FCC Approved Bands: (400-470MHz)
FCC ID Number: R74TC-780U1

FCC Approved Bands: (450-520MHz)
FCC ID Number: R74TC-780U2

ISO9001:2000   Certificate   NO:**FM** 61540

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- Safety Assurance
- Selective Expansion Function
- Powerful Audio Output
- Compact & Light Weight

NA121080704A

www.hytamerica.com

HYT's TC-780 is a medium-to-high tier portable radio developed with state-of-the-art analog technology providing a variety of functions. With LCD display, numeric keypad, full frequency band, 256 channels, the radio satisfies the user's group dispatch needs and delivers powerful functions, stable performance, and high price-to-performance ratio.

TC-780

Professional Two-way Radio

Super Features

Wide Band Coverage
Allows users the flexibility to select their frequency for use in their respective work environment.

Powerful Audio Output
HYT's voice compandor audio enhancement and a powerful 1W speaker (with a diameter of 40mm) ensure superb clear, crisp sound even in noisy environments.

Safety Assurance
Safety and security are critical factors for modern organizations. The TC-780's Lone Worker, Safety Check, and Man Down (optional) features are designed to assure your safety in case of emergencies or accidents.

Built-in Scrambler
The Scrambler feature provides enhanced security for your important public safety and private security communications.

Whisper
The Whisper feature means that even the quietest message can be transmitted and understood.

Reserved Expansion Port
Expansion ports are reserved for second development: Patrol Record, Encryption, SmarTrunk™ trunking system and GPS remote speaker microphone.

HYT HDC2400™ and HDC1200 Signaling
HDC2400™ Signaling is exclusive to HYT, and enables the system to achieve features such as ANI (Automatic Number Identification), Call Timer, Record, Record Inquiry, Individual Call, Group Call, Broadcast, Status Inquiry, Safety Check, Stun/Kill/Revive, etc.

The HDC1200 Signaling is compatible with MDC1200, and allows functions including PTT ID Encode & Decode, Emergency Encode, Radio Check Encode & Decode, Kill & Revive Decode, Individual Call, Group Call, Broadcast, Status Message Encode, and Fixed Message Encode.

Firmware Upgradeable
Bulid-in Flash MCU allows the radio firmware to be upgraded to include the latest features.

Main Features

Power on Self-Test
The radio itself checks radio status automatically when powered on, and emits corresponding alert if an error occurs (e.g. CPU error or EEPROM error), allowing the user to early detect unit faults.

Soft Power Off
After the radio is powered down, it allows some circuits to continue working, and won't need to be reconfigured each time it enters the field.

Front Panel Programming
Menu operation and limited keypad access allow you to easily customize parameters and channel settings.

LCD Battery Gauge
Indicates battery strength levels for more effective power management.

2-Tone Encode & Decode
The 2-Tone Encode and Decode functions are assignable at a per channel basis. An incoming message is signaled with audio and visual alert.

High Transmit Power
5W transmit power accommodates wide communication coverage.

Embedded Message & Serial No.
The radio's memory can store messages including service and programming records, for remarkable ease of maintenance. The feature also makes a unit identifiable by Serial Number.

Short Message
Users can edit messages via keypad, or send predefined messages. Messages can be sent between radios or via the control center. A received message could be displayed on the LCD.

Lone Worker
The Lone Worker feature provides added security and safety for individuals who work remotely from their team. Should a user not respond to a regular warning tone then a defined emergency procedure is activated.

Safety Check
Should the user not respond to a safety check signal, a defined emergency procedure is activated.

Emergency
Press the Emergency key to emit an emergency alarm, or send an ENI (Emergency Number Identity) / background tone to a pre-defined person or the dispatch center (selectable via programming software).

Vibrate
The vibrate feature provides notification to users in working conditions where quiet operation is required.

Man Down (optional)
Providing even greater safety for employees in hazardous environments, the TC-780's optional Man Down feature automatically summons assistance when the radio falls over for a predetermined time period.

Patrol Record & Digital Encryption/SmarTrunk™ Trunking System (optional)
TC-780 supports patrol record. A patrol system is composed of TC-780 patrol radio, TX-90 patrol point, patrol center, patrol management software and data transmission cable. It's function is to allow the software user to monitor and control security personnel as well as send real-time information about the patrol rounds.

With digital encryption, confidential communication is available for TC-780. Also, the SmarTrunk™ option board can work hand-in-hand with a controller to realize all functions of SmarTrunk™ trunking system.

Antenna

Power&Volume Control Knob

Channel Selector Knob

Audio Accessory Jack

Function Key

PTT

Function Key

Mechanical Features

★ Reliability and Durability
  The radio uses components of famous brands, and meets strict quality tests.
★ Ergonomic Design
★ Laser-etched Nameplate
★ IP54-Rated Dust & Water Protection

Other Features

★ DTMF Encode & Decode
★ CTCSS/CDCSS
★ Voice Compandor
★ MSK Wireless Clone
★ PC Tuning
★ Dual Priority Scan
★ Battery Save
★ Low Battery Alert
★ Kill/Revive
★ Programmable Function Keys
★ Talk Around
★ Channel Alias
★ Programmable Alert Tone
★ Battery Gauge
★ Auto Acknowledgement
★ ATIS
★ VOX
★ Power-on Password and Data Password
★ RSSI (Received Signal Strength Indicator)