

HYT

Intrinsically Safe

Two-way Radio



TC-700Ex PLUS



Protection
Productivity
Customizable
Safety
Quality & Reliability
HDC2400™ and HDC1200 Singalling



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THE CHOICE

for professionals in hazardous environments

ATEX-APPROVED TC-700 Ex PLUS

Intrinsically safe - Radios for use in the potentially explosive environments of oil and gas installations, such as tankers or drilling platforms, or in gas-laden atmospheres encountered by the emergency services must be designed and constructed to be totally safe.

HYT's ATEX-approved professional portable radios give team members instant access to one or many colleagues at the touch of a button, without compromising safety, and allow constant contact should a critical situation need resolving.

SUPER FEATURES

Protection

Encapsulation (Casting Compound) Prevents the ignition of the surrounding explosive atmosphere.

ATEX Dust Protection. All HYT professional series ATEX portable radios are approved to ATEX Dust Protection Class II 2D Ex tD A21 IP64 TC160°C.

Productivity

A rechargeable 1700mAh Li-Ion Ex-battery provides up to 14 hours of use, more than enough for a standard work shift.

Customizable

The intrinsically safe TC-700 are supported by a range of ATEX-approved audio accessories including, remote speaker microphone and earpieces tailored to the requirements of today's radio users.

Safety

Press the highly visible Emergency button to initiate the defined emergency communications procedure.

Providing even greater safety for employees in hazardous environments, the TC-700 Ex PLUS provides a mandown optional feature. This feature automatically summons assistance when the radio falls over for a predetermined time period.



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 then

a defined emergency procedure is activated.

Additional safety features include a specially designed structure that prevents the battery and radio unit from accidental separation, thus cause hazard results.

Quality & Reliability

HYT's voice compander audio enhancement delivers superb clear, crisp sound, no matter what environment you are in.

When discretion is key, the Whisper feature means that even the quietest message can be transmitted and understood.

HDC2400™ and HDC1200 Signalling

HYT HDC2400™ signalling system allows features including Identification, Calling Timer, Voice Storage, Retrieve Record, Individual Call, Group Call, Broadcast, Stun/Kill & Revive, Status Inquiry, Short Message and Data Transmission. (Some are features of dispatch center.)

Compatible with MDC1200, the HDC1200 Signalling allows functions including PTT ID Encode, Emergency Encode, Radio Check Decode, Stun/Kill & Revive, Individual Call, Group Call, Broadcast, etc.

MAIN FEATURES

Built-in Scrambler

The scrambler feature provides enhanced security for your important public safety and private security communications.

Channel Annunciation

The feature enables radio to report the current channel number when power on or switching channel, offering you notable convenience.

Power on Self-Test

The radio itself checks radio status automatically when power on, and emits alert if an error occurs (e.g. CPU error or EEPROM error) allows the user to early detect unit faults.

CERTIFICATION

ATEX-approved Intrinsically Safe

ZELM 06 ATEX 0321



II 2G EEx ib IIB T3

II 2D Ex tD A21 IP64 T160°C

ATEX (Atmospheres Explosibles) Directive 94/9/EC

Introduced in 2003, this is the European Union directive to which all two-way radios must conform if used in potentially explosive environments. It replaces the Cenelec classification in all European Union member states and EFTA countries. All HYT professional series ATEX portable radios are approved to ATEX Protection Classes II 2 G EEx ib IIB T3 and II 2D Ex tD A21 IP64 T160°C as interpreted in the following tables:

ATEX Gas Protection

II 2 G E Ex ib IIB T3

T3 = Device surface temperature will not exceed 200°C

IIB = Protection in gas groups up to IIB

ib = Type of intrinsic safety protection

Ex = Explosion-proof equipment

E = Certified to European ATEX Standard

G = Gas

2 = High protection (equipment of category 2 for use in i.e. Zone 1)

II = Group II "other" environments, (chemical industries, refineries, etc.)

ATEX Dust Protection

II 2D IP64 T160°C

T160°C = Maximum temperature of device surface

IP64 = Protection against dust deposits

II 2D = For use in Dust Zone 21,22 environments

ACCESSORIES



VHF Antenna



UHF Antenna



Ex Li-Ion Battery
(1700mAh) BL1703-Ex



Switch Power
(90-260V) PS1009



Rapid-rate Charger
(for Li-Ion batteries) CH10L11-Ex



Spring Belt Clip
BC08



Wrist Strap RO04



UHF Antenna



Multi-unit Charger
MCL07-Ex



Remote Speaker
Microphone SM08M1-Ex



Receive-only Earpiece
ESS01



Earbud
ESM01-Ex

**Optional
Accessories**
(ATEX-approved)

**Standard
Accessories**
(ATEX-approved)

Battery Power Indicator

Upon press the function key, the radio sounds "1", "2", "3" or "4" to indicate the current battery level of very low, low, satisfactory, or high respectively.

Embedded Message & Serial Number

The radio's memory can store messages including service and programming records, for remarkable ease of maintenance and service; the feature also makes a unit identifiable by Serial Number.

Auto Contact

The feature is especially helpful in high-demanding communication environments, such as climbing, exploration, and rescue work. When

feature enabled, the radio will automatically emit alert tone if the user is out of communication range.

Stun/Kill & Revive

Provides enhanced security to prevent unauthorized use of lost or rental units, by remote inhibition of either transmit or transmit/receive. A stunned radio will return to operational use after receiving the revive code.

2-Tone/5-Tone Encode & Decode (Signalling system is radio dependent. 5-Tone models and 2-Tone models are available.)

DTMF Encode

Applicable MIL-STD-810C/D/E/F

Applicable MIL-STD	810C		810D		810E		810F	
	Methods	Procedures	Methods	Procedures	Methods	Procedures	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	VHF: 136-174 MHz UHF: 420-470 MHz & 450-520 MHz
Channel Capacity	16
Channel Spacing	25 /20/12.5 KHz
Operating Voltage	DC7.4V
Battery	1700mAh (Li-Ion)
Battery Life(5-5-90 duty cycle)	About 14 Hours
Frequency Stability	±2.5ppm
Operating Temperature	-20℃~+50℃
Antenna Impedance	50 Ω
Dimensions (H×W×D) (with battery, without antenna)	122×55×38mm
Weight(with antenna & battery)	426g

Transmitter

RF Power Output	3.5W/1W
Modulation	16KΦ F3E/11KΦ F3E
Spurious and Harmonics	-36dBm<1GHz -30dBm>1GHz
FM Noise	45/40 dB
Audio Distortion	≤5%

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

Receiver

Sensitivity	0.25/0.35μ V
Selectivity	70/60dB
Intermodulation	65dB
Spurious Response Rejection	70dB
S/N	45/40dB
Rated Audio	0.5W
Rated Audio Distortion	≤5%



ISO9001:2000 Certificate NO:FM 61540

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