

# TP8000EX *Atlantis*

## Hand-Portable Radio

- for safe operation in hazardous areas



- Intrinsically Safe - Ex
- Programmable from key-board or from PC through an infrared connection
- Channel related Power Output 0,2 - 2 Watt
- Channel related CTCSS pilot-tone
- FFSK 1200 or 2400 bps
- Full RF-bandwidth with possibility for programming of up to 127 channels
- CCIR/ZVEI/EEA & DTMF signalling providing possibility for :
  - Individual call
  - Group call
  - All call
  - Emergency call
  - remotely to disable or enable the functionality of the radio by means of special codes (burglar alarm)
- Text message function (SMS)
- Graphic display
- Thermometer function
- Approved for use in T5 and T6 areas
- Waterproof (IP67 & MIL810F)



TP8000EX *Atlantis* is a unique product which combines mechanical robustness and the latest state of the art radio technology into a hand portable radio with a userfriendly design.

The programming of all user parameters can be set directly from the keyboard or from a PC through an infrared interface. The design of the portable radio is robust and the radio is waterproof (IP67), it can therefore be used as the ultimate communication tool within chemical industries, fire brigades, emergency & rescue services, airports, off-shore industries, etc.

The TP8000EX *Atlantis* is approved for use within petro / chemical environments in which gases with a very low ignition temperature are available - T5 and T6 approved.

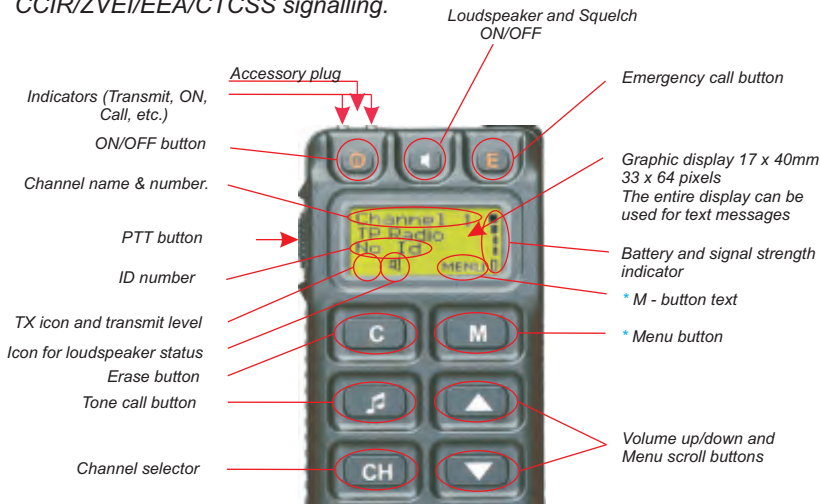
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- for safe operation in hazardous areas

**TP8000Ex Atlantis** is a radio designed for two-way voice and data communication within the VHF and UHF PMR frequency bands. The combination of a good looking design, mechanical robustness, user friendliness and the latest state of the art radio technology turns **TP8000Ex Atlantis** into a unique product.

**TP8000Ex Atlantis** is programmable with the latest types of signalling protocols and can at the same time be programmed for use in systems designed with all the more frequent types of tone signalling schemes. Besides being ATEX approved the **TP8000Ex Atlantis** is also designed according to the IP67 specifications. **The radio can therefore withstand submersion into water to a depth of 1 meter.** The compact design of the radio combined with a menu driven user interface makes the use of the radio very simple. As standard, **TP8000Ex Atlantis** contains soft- and hardware for programming of up to 127 radio channels, DTMF-tone encoder, FFSK en-/decoder (without protocol), adjustment of Transmitter Power Output in 4-steps, and Tone en-/decoder for systems using CCIR/ZVEI/EEA/CTCSS signalling.



### Special facilities :

**Waterproof :** Can be submerged to 1 meter (Ip67)

**Programing :** Changing of parameters can be accomplished from the key-board as well as through an infrared PC connection

**Graphic display :** Clearly readable display showing a.o. Channel name and text message. Graphic display showing battery- and RSSI-level (signal strength)

**Channel scanning :** Up to 127 channels. Sequential or priority channel scan. Scan stop for squelch, tone or data.

**Signalling :** The radio is compatible with all normally used tone call systems.

\* The following menu points are accessible from the key-board :  
 Telephone number bank for stored telephone numbers, data telegram, adjusting of Output Power, programming- and service menus  
 Sub-menus for the programming menu :  
 Channel name and number, frequency, modulation, squelch and own ID  
 Sub-menus for the setup and Service menu :  
 Emergency tones, bar-graph functions, control of display light, internal /external loudspeaker and microphone, as well as software versions info.

## TECHNICAL SPECIFICATIONS :

General data :	VHF	UHF I	UHF II
Frequency band	136 - 174 MHz	350 - 410 MHz	400 - 470 MHz
Max. Number of channels	127	127	127
Channel spacing		12,5 / 20 / 25 KHz	
Frequency error		± 2 ppm	
HF -bandwidth	60 MHz	70 MHz	38 MHz
Operation mode		Simplex / Semi-Duplex	(two-frequency Simplex)
Antenna Impedance		50 Ohm	
Temperature range		-25 to +55° C	
Dimensions incl. 1100 mAh battery	H = 146, B = 61, D = 37 mm		
Weight incl. 1100mAh Battery and antenna	498 g.		

### Receiver :

1. IF-frequency	45 MHz		
2. IF-frequency	450 KHz		
Sensitivity at 20 dB SINAD (EMF) (25 KHz channel spacing) at 12 dB SINAD EMF :	0,6µV typ.	0,6µV typ.	0,6µV typ.
LF output power	0,35µV typ.	0,35µV typ.	0,35 µV typ.
LF distortion	2 x 0,4 Watt		
LF frequency response	< 10 %		
Signal / noise relation	300 - 3000 Hz -6 dB / Octave		
Co-Channel attenuation	> 45 dB		
Neighbour channel selectivity	- 8 dB		
Attenuation of Spurious	> 70 dB		
Intermodulation selectivity	> 70 dB		
Blocking	> 66 dB		
Transmission of spurious (antenna and cabinet)	> 100 dB		
Squelch threshold level	2 nW equivalent to - 57 dBm	Programmable	

### Transmitter :

Output Power	Programmable 0,2 - 0,5 - 1 - 2 Watt
Transmission of spurious antenna and cabinet	< 0,25 µW or - 36 dBm
Max. Deviation	+/- 5 KHz / 25 KHz channel
Modulation distortion	< 5% @ ± 3,0 KHz
Signal / noise relation	40 dB
LF frequency response	300 - 3000 Hz + 6 dB / Octave

### Power supply :

Operational time (fully charged battery and 2 W TX-output)	5 % Tx, 5 % Rx og 90 % Standby 1100 mAh battery : 10 hours
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### Signalling :

CCIR, ZVEI, EEA & EIA	En- and decoder up to 3 sequences of each 8 tones, programmable tone length, length of first tone & pre-amp. Individual call, Group call, All call, Emergency call, Text call, "Stun call" and "Wake-up call".
CTCSS	En-/ Decoder. The channels can be programmed individually with different CTCSS tones.
DTMF	Transmitter
FFSK	Transmitter and Receiver : 1200 & 2400 bps

### Scanning :

Of up to 127 channels  
Scan stop at detection of : Carrier, squelch or tone / data

**TP8000Ex Atlantis** is approved according to the 1999/5/EF directive. The relevant specifications are : ETS 300.086, 300.113 & 300.219. The radio is approved in accordance with EC directive 89/336/EEC. Waterproof according to IP67.

CE 0539 II 2 G EEx ib IIC T5 / T6, Tamb < 40° C (ATEX)



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Dealer :