



TETRAPOL TPM700 Mobile Radio

Ergonomic and powerful

The TPM700 is a TETRAPOL mobile radio designed for secure voice and data communications in various types of vehicles, as well as office. It is ideal for professional radio communication users who require an ergonomic and powerful radio for daily use. The TPM700 consists of a robust radio unit which is suitable for vehicle, motorbike and fixed configurations. For car and office use, the TPM700 comes with a separate user friendly control unit with colour display and keypad, and an installation kit.

Alternatively, a robust and compact control head for motorbike installation is available.

The TPM700, which is part of the latest generation of radios, has a colour display and a user friendly keypad and menu. Thanks to its size, the high resolution TFT display provides crisp, clear images and colour graphics. Even in variable light conditions, the information is clearly visible on the display.

The TPM700 user interface is adaptable to varying user needs. It has a convenient shortcut button that can be programmed for the most frequently used functions. Users no longer need to go to the main menu to send or read messages or send their GPS position, for instance. Instead, they can simply press the shortcut button. In addition, the user interface can be customised to display an organisation's name or a splash screen.

Technical Specifications

Standards

The TPM700 complies with the following standards which apply to radio equipment in the temperature range – 30 °C to + 60 °C:

- ETSI radio standards EN 300 113-1 & -2
- ETSI EMC standards EN 301 489-5 & -1
- Standard relating to electrical safety EN 60950-1: 2001

- CE marking in accordance with European directive R&TTE 1999/5/EC
- “e” motorbike marking in accordance with European directive 97/24/EC

Frequency bands

- 380-430 MHz with 10 or 12.5 kHz spacing
- 440-490 MHz with 10 or 12.5 kHz spacing
- Half-channel offset possible
- Other bands on request

RF specifications

- Maximum power at transmitter output: 10 W
- Static/dynamic sensitivity better than – 119 dBm / - 111 dBm

Environmental specifications

- Water and dust protection in accordance with IP54 classification
- Shocks, Bumps and Random vibrations (5M3), according to ETS EN 300019-2-5 class 5M2
- Humidity in accordance with ETS EN 300019-1-5 class 5.2 up to 95 %

Size

- Radio unit: 43 x 220 x 158 mm
- Control head: 58 x 188 x 39 mm
- Motorbike control head: 80 x 140 x 48 mm

Display

- Control Head: Graphic display TFT 2.2” high resolution / 160 x 120 pixels
- Motorbike Control Panel: Graphic display SNT 2.8” transfective monochrome / 128 x 64 pixels

Keypad/controls

- Control Head:
 - Alphanumeric keypad
 - 4-way navigation key
 - Shortcut button
 - 2 selection keys
 - Red key for emergency calls
 - Dual-function button for power-on and volume control
- Motorbike Control Panel:
 - 6 control keys: access to the phone book, power-on and off, red key for emergency calls, audio configuration key
 - Shortcut button
 - 2 selection keys

Call types

- Individual calls
- Multi-party calls
- PBX/PSTN calls
- Call forwarding
- Call transfer
- Calling party identification

Group communications

- Up to 20 groups
- Normal mode and trunked mode
- Open channels, talkgroups
- Broadcast call
- Emergency call
- Group merging
- Scanning, late entry
- Calling party ID

Direct mode and repeater mode

- Extended coverage in direct mode 380-430 MHz or 440-490 MHz
- Emergency call
- Repeater mode
- Calling party ID

Messaging

- Status and text messages (only with Control Head)
- TETRAPOL data exchange
- Sending of geolocation, depending on network system version, with external GPS device
- Geo-located emergency call, depending on network system version

Security

- Embedded encryption component (ASIC)
- Mutual authentication
- End-to-end encryption of voice and data
- Key renewal over the air interface
- Remote disabling (stun)
- Encryption (customer option)

Data transmission

- Connection to a PC or PDA through serial port with TETRAPOL drivers in Windows CE and XPTM