

Operational Description of transmitting unit Type UTX97 Model RBA1.1

1 Identification of the unit

Type	UTX97
Model	RBA1.1
Equipment	remote control transmitting unit
Transmitting radio module	MTXUS06B
Used frequency band	902 - 928 MHz
Trade name	AUTEC C26 PRO PRO-M
FCC Identifier	OQA-TX97RBA1
Manufacturer	AUTEC srl Via Pomaroli, 65 I-36030 CALDOGNO (VI)

where:

TYPE: identifies type of unit (transmitting, receiving or transceiving), type of casing and used electronic modules.

MODEL: differentiates power supply, type of actuators and radio frequency band

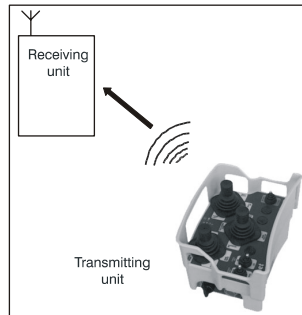
TRADE NAME: commercial reference

2 Operational description

Industrial radio remote controls are used to command machines from a distance.

Each industrial radio remote control is made up of a portable transmitting unit, from which the user can remotely control the machine, and a receiving unit installed on board the machine itself.

The AUTEC C26 PRO PRO-M transmitting unit is a waist-portable unit.



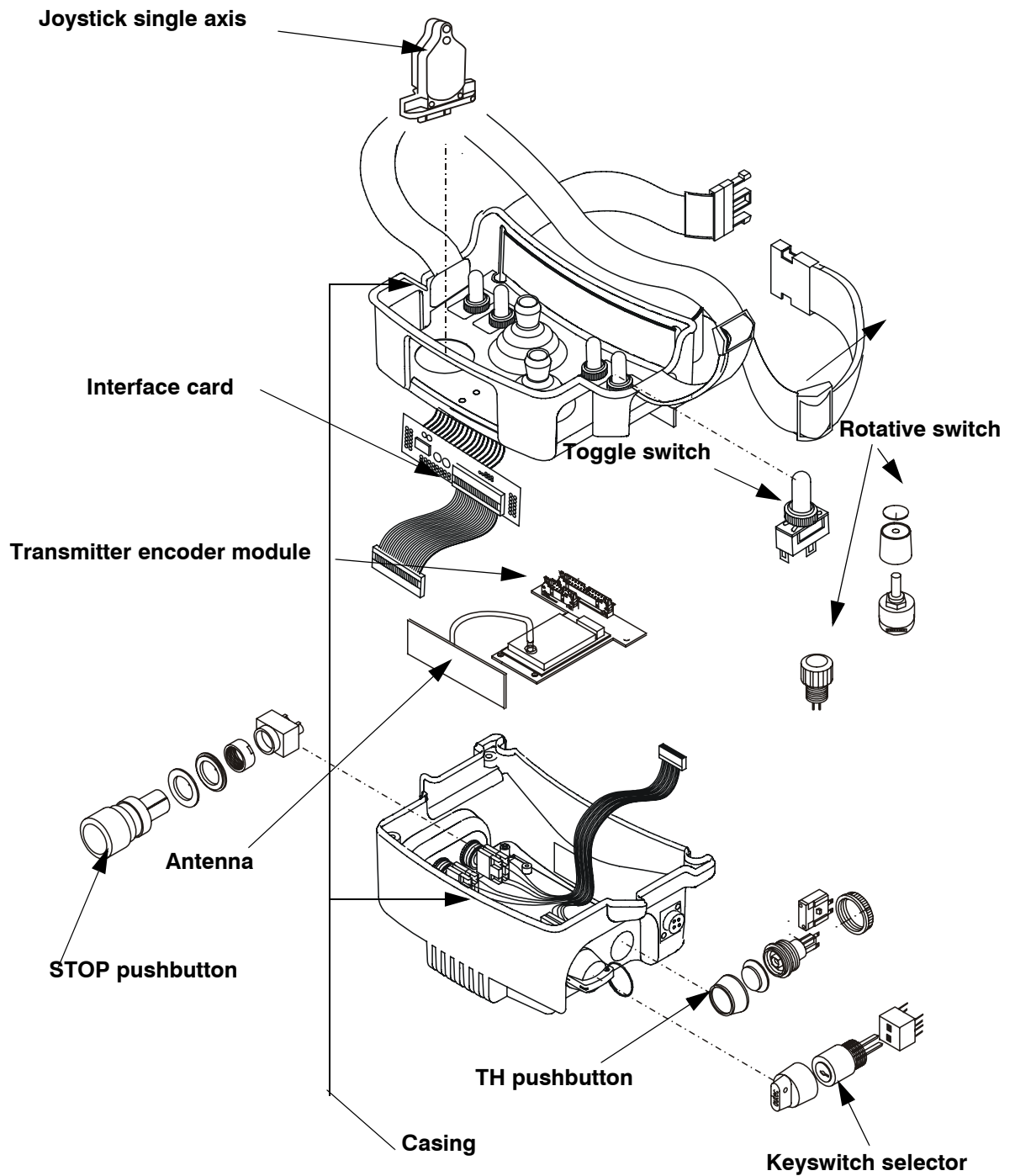
The AUTEC C26 PRO PRO-M contains MTXUS06B. It is the radio transmitting module.

A logic section collects commands coming from various actuators and combines them with an address code stored in an EEPROM memory ("address Key"); a serial data telegram at 4800 baud is so obtained. After a Gaussian spectrum shaping filter, the telegram is frequency modulated on a carrier generated by a PLL synthesizer and then transmitted over a 25kHz channel in the 902-828 MHz band divided in 8 subbands each 3.2 MHz wide; 256 different frequencies may be chosen in each subband, so as to allow coexistence of multiple units on the same location (*for details see related block diagrams*).

Transmission is continuous (100% duty cycle) even with no command activated, since the receiver is expected to monitor continuously the presence of a valid radio signal.

A receiving unit will decode only messages coming from a transmitter with the same address code. This excludes the possibility of an interference activating any function unwantedly.

3 Exploded view



4 Technical data MTXUS06B trasmitting radio module

Used frequency band	902 - 928 MHz
Type of modulation	4800 Baud GFSK
Channel spacing	25 kHz
Designation of emission (ITU code)	10K0F1D
Strenght field	see related Test Report
Duty cycle	up to 100 % (continuous duty), depends on user's need
Duplex direction	simplex
Antenna type	integrated δυιπολε
Data telegram	232 bit
Hamming distance	> 8
Probability of non-recognition of error	<10 exp-11

5 Power supply: MH0707L battery pack



number of NiMH elements	6
nominal voltage of 1 element (V)	1,2
total nominal voltage of the battery (V)	7,2
battery voltage after discharge (V)	6
voltage of the charged battery (V)	8,4
capacity (Ah)	1,3
number of cycles in average life	400
autonomy (hours)	up to 25
recharge time	about 4

MH0707L batteries must be only recharged by one of the CH26_R battery chargers.

The battery should be used until it is totally discharged (the led of the transmitting unit flashes quickly when the battery used is discharged).

