

FMT-202

27MHz 2-CHANNEL REMOTE CONTROL DIGITAL TRANSMITTER

The hand controller, FMT-202 is part of a two-channel remote control system. A few of its applications could be as:

- a calling device for the elderly or handicapped.
- a personal security alarm activator for home safety or cash carrying businesses e.g. banks, shops service stations, etc.
- a remote control switching device for garage doors, lights, gates and automatic telephone dialer.

It is housed in an attractive, high impact resistant grey ABS plastic case.

Pressing the designated switch on the front positively activates the controller. Activation is confirmed by the sound of its built-in buzzer.



The battery service life approximates its shelf life. 9-Volt Carbon or Alkaline type batteries may be used. Depending on the battery type, shelf life ranges between 1 and 2 years. While the FMT-202 is not transmitting it uses no power. It will operate on as low as 4 Volts DC, however, in such cases the power and range will be reduced.

The highest possible standard of performance is achieved by employing a crystal-controlled, frequency modulated radio signal operating in the 27MHz band. This is enhanced by a specially dedicated custom-built integrated circuit. The latest "state of the art" surface-mount technology (SMD) provides maximum reliability.

A 10-way code switch (part of the digital encoding system) is used. This enables the user to select any one of the 1024 available codes and thus ensure highest security against false operations. The eleventh switch is changed by pressing either channel A or B. The twelfth switch is on if a wire link is next to the code switch, if it is removed the twelfth switch is off. This is displayed on the back of the battery cover of the FMT-202. The code can be readily changed at any time.

The maximum operating distance (in conjunction with our FMR series receivers) will average between 100 and 180 metres. The operating distance may depend upon the structure of the building in which it's used. When operating near its range limit, some improvements may be obtained by pointing the controller towards the receiver. This is due to its slightly directional properties.

In Australia, a licence issued under the "Wireless Telegraphy Act and Regulations" is not required for the operation of this transmitter.

The housing of the controller has been designed to accept Elsema's leather pockets.

The controller is also available without its front membrane label, to enable the fitting of customers own designed label.

TECHNICAL DATA ON FMT-202

POWER SOURCE :	9-Volt Battery Carbon : approximately 1 year shelf life. Alkaline : approximately 2 year shelf life.
SUPPLY VOLTAGE:	6 to 16 VDC (For constant RF-Output).
CURRENT CONSUMPTION :	Maximum 40mA at 8VDC supply (only when transmitting).
OPERATING FREQUENCY :	27.145MHz (Other frequencies available on 27.045, 27.195 and 27.455 MHz).
CARRIER FREQUENCY TOLERANCE :	Crystal controlled 30 parts per million (0 to 50° C).
RADIATED R.F. POWER OUTPUT :	76.5 dB μ V/m at 3 metres.
ANTENNA :	Built in 50mm long ferrite rod.
TYPE OF EMISSION :	Narrow-band-width Frequency Modulation (FM).
FREQUENCY DEVIATION LIMITING :	1200 - 1600 Hz non-return to zero.
MODULATION FREQUENCY :	1 kHz (0.96 ms/bit) (15% tolerance).
SPURIOUS TRANSMISSION :	At least -40dB/carrier
NECESSARY BAND WIDTH :	+ - 2.5 kHz
DIGITAL CODING SYSTEM :	On board 10-way coding switch (1024 channels) Channel "A" is equal to code-11 "on", Channel "B" is equal to code-11 "off" Wire Link is equal to code-12 "on" and No Link is equal to code-12 "off" (In receiver)
DIMENSION :	95 X 55 X 20 mm
WEIGHT :	72g excluding battery
USEABLE OPERATING RANGE :	up to 180 metres depending on building structure.

Due to its popularity, ELSEMA PTY. LTD stocks the Carbon Battery 6F22. The indicated shelf life is only approximated and can vary greatly depending on the freshness and type of brand used.

FMT-102A, FMT102MS and FMT-202DA

27MHz 2-CHANNEL REMOTE CONTROL TRANSMITTER with Options

FMT-102A : 2-channel remote control transmitter is used for remote control applications where code switch number 10 is used to address the two channels i.e. Channel 1 is code switch 10 ON and Channel 2 is code switch 10 OFF. This transmitter is used when the receiver has a 10-way code switch and code switch 11 and 12 are hard wired on the printed circuit board. This hard wiring of track results in four possible combinations, which is known as Group 1, 2, 3 and 4. This is explained below.

	Code Switch		PCB tracks	Applications	Marking
	11	12	on – or +		
Group 1	on	on	Both tracks on -	Garage Doors	White Dot
Group 2	off	on	11 on + and 12 on -		Yellow Dot
Group 3	on	off	11 on - and 12 on +	Alarm Systems	Red Dot
Group 4	off	off	Both tracks on +	Reserved	Reserved

When ordering an FMT-102A transmitter you must specify which group you want.

FMT-102MS : 2-channel remote control transmitter with Master/Slave (Dual Access) This transmitter is replaced with the FMT-202DA.

FMT-202DA : 2-channel remote control transmitter is used for remote control applications where channel 1 is for a main entry and channel 2 is for a private entry (Dual Access). When channel 1 (Main Entry) is pressed, code switch 1 to 4 is transmitted as is on the code switch and 5 to 12 is transmitted as OFF regardless to the code switch settings. When channel 2 (Private) is pressed, code switch 1 to 12 is transmitted as is on the code switch. This enables the user to have channel 1 (Main Entry) as a common code and up to 256 different channel 2 codes. An application would be a large home unit where there is a Main Entry (Channel 1) and up to 256 private garages (Channel 2) within the home unit.

All the above controllers are available without front membrane label, this is to enable the fitting of customers own designed label.

Technical data on the FMT-102A, FMT-102MS and FMT-202DA is the same as the FMT-202 transmitter, except the 12-bit code transmitted is different. Refer to above description for details on the 12-bit code transmitted.

FMT-102A



FMT-202DA

