

# 6 Function + Keypad with Standard Transmitter - Narrow Band

## 93 Series - FET System

### SYSTEM PART NUMBER

**93106K** 4 Function Receiver + Keypad with Master + 6 Function NB Standard Transmitter

### REPLACEMENT TRANSMITTERS

**93106TX** 6 Function Narrow Band Standard Transmitter

### CONTENTS

1 x Receiver + Keypad  
1 x Standard Transmitter  
1 x Lanyard  
1 x LoCover  
1 x Instructions



### STANDARD TRANSMITTER SPECIFICATION

#### SWITCH

Type Tactile Dome

#### BATTERY

Type 9V Alkaline Manganese (GP 1604A – JIS 6LF22 – IEC 6LF22 – Eveready 522 – Duracell MN1604)

#### CURRENT DRAW

Quiescent 15 micro amps  
Operating 20 milliamps

#### PROTECTION

IP Rating 55  
Registration codes Over 16 million

#### PERFORMANCE

Temp Range -10° C to + 40° C (13° F to + 104° F)  
Range Nominal 150 metres (1000 ft) from the Receiver, when driving a momentary output without signal drop out  
Transmitted power 1 mW Typical

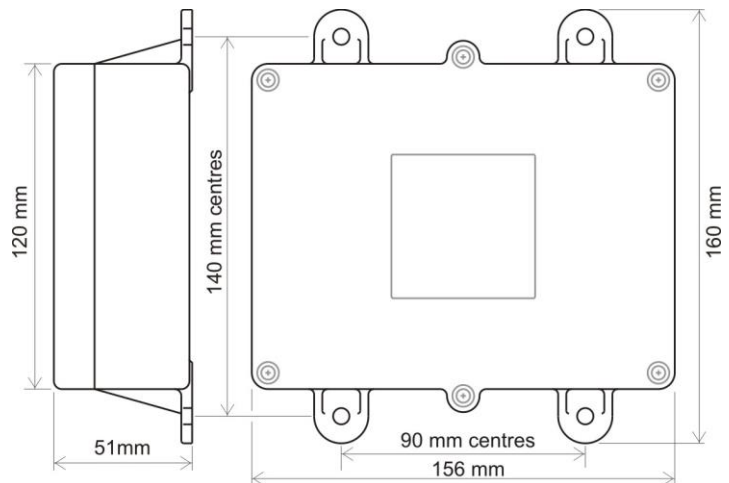
#### COMPLIANCE

EMC Exceeds ETSI 300 220. Compliant E11 10R-037601  
Modulation FM  
Frequencies 418.00 MHz F1D USA (optional UK)  
433.92 MHz F1D World wide (optional USA)

### RECEIVER SPECIFICATION

<b>KEYPAD</b>	Works independently from the Transmitter	
Back up Control	Security coding available as an option	
<b>SWITCH TYPE</b>		
Output Switching	MOS Field Effect Transistor (P Channel Power MOSFET)	
<b>SUPPLY VOLTS</b>		
Nominal	12/24 Volts DC	
Absolute Maximum	40 Volts DC	
Minimum	8 Volts DC	
Output Switch Supply	Internal 12/24 Volts	
<b>AMPS</b>		
FET Rating	15 Amps	
System Rating	15 Amps	
Quiescent Current	25 mA on Standby (Not SET)	
Overload Protection	15 Amps (Auto Shutdown)	
<b>AERIAL</b>		
Internal Antenna	Yes	Supplied and fitted
External Antenna	Optional	See Accessories.
<b>OUTPUTS</b>		
Master Function	1	Can be Parallel or Continuous. Not all models – see Build Specification Table.
Master (Secondary)	1	Continuous. Not all models, see Build Specification Table.
<b>CONFIGURATION</b>		
RS232 Programming to users' requirements	Yes	Not all models, see Build Specification Table. For programming interlocks, push/push latch, parallel master inhibit, timeout, channel timeout delay, master on delay, radio button de-latching and output allocation.
<b>PERFORMANCE</b>		
Simultaneous Outputs	Yes	With horizontal interlocks (Interlocks are programmable – see CONFIGURATION above)
Instant TX response	Yes	No perceivable delay between TX operation and RX action
<b>DIAGNOSTICS</b>		
LED's	Yes	Confirm 5 Volts, SET, Fault and all Outputs.
<b>PROTECTION</b>		
ESR Safety	Yes	See ESR Safety document.
Back EMF	Yes	Diode protected on all outputs
Registration codes	Yes	Over 16 million
STOP Connection	Yes	Internal Emergency Stop Connection. Not all models, see Build Specification Table.
<b>WIRING</b>		
Wiring Loom	Yes	3 metres (10ft) supplied and fitted
Cable Gland	Yes	Supplied and fitted
Connections		Screw terminal into plug and socket on PCB, for easy "swap out"

<b>ENCLOSURE</b>	
Weight	0.3 lbs (335gms)
Lid	Clear PVC - to view LEDs
Base	Black PVC
Breather	Gortex fitted in base
Mounting	4 external lugs
Fixings	5mm (3/16") not supplied
IP Rating	Performs to IP67 standard (0.5 metre water for 1 hour)



**ACCESSORIES** 9861, 9862, 9863 and 9869 – External Antenna with cable.

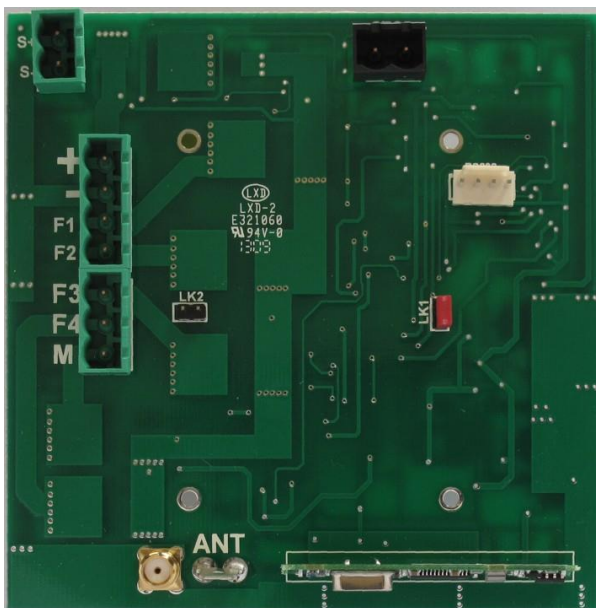
<b>93 Series</b>			<b>93 0 00</b>	<b>93 0 02</b>	<b>93 0 04</b>	<b>93 1 00</b>	<b>93 1 02</b>	<b>93 1 06</b>
BUILD SPECIFICATION TABLE FOR MODELS IN THIS RANGE								
Ident	Legend	Connection						
	+ - F1 F2	Positive, Negative, F1 and F2	S	S	S	S	S	S
	F3 F4 M	F3, F4, and Master		M	S		M	S
	ST -	STOP and -		S	S		S	S
	S+ S-	S+ S-		S	S		S	S
	ANT	Internal Antenna	S	S	S	S	S	S
	SMA	Connector (external antenna)		S	S		S	S
LK1	P	Master - Parallel		C	C		C	C
LK2	C	Master – Continuous		C	C		C	C
LK3	RS232	RS232		S	S		S	S
		3 metres 4 core	S			S		
		3 metres 7 core		S	S		S	S
		9801 Lo-Cover				S	S	S

S = Standard. M = Standard but Master only connected. C = Customer configured (see "Factory Settings").

- + Positive 12/24 Volt supply
- Negative 0 Volts
- F1, F2, F3 & F4 Outputs to F1 through F4
- M Master Output
  
- STOP - STOP, when grounded shuts down the Receiver
- S+ S- Master Secondary for Safety solenoid connections etc.
- ANT Blade connector for internal antenna
- SMA Aerial connection for optional external antenna (internal antenna must be removed)
  
- LK1 Jumper fitted to this link for continuous Master
- LK2 Jumper fitted to this link for parallel Master
- Factory Settings 418MHz configured Parallel, 433.92MHz configured Continuous
- LK3 RS232 for interface to access special programmes  
Also for connection to RS232 modules

**Photo of PCB**

**Connector Side**



**Component Side**

