

4 Function + Keypad with Standard Transmitter - Narrow Band

93 Series - FET System

SYSTEM PART NUMBER

93104K 4 Function Receiver + Keypad, with Master + 4 Function NB Standard Transmitter

SPECIAL ORDER

93105K 3 Function Receiver + Keypad + 6 Function NB Standard Transmitter

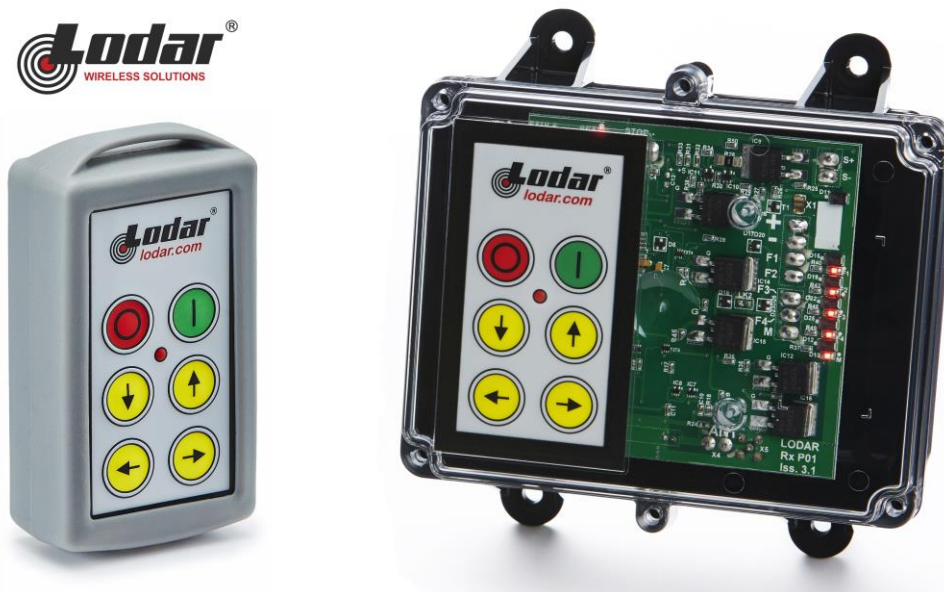
REPLACEMENT TRANSMITTERS

93104TX 4 Function Narrow Band Standard Transmitter

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 (500 ft) from the Receiver, when driving a momentary output without signal drop out
Transmitted power 1 mW Typical

COMPLIANCE

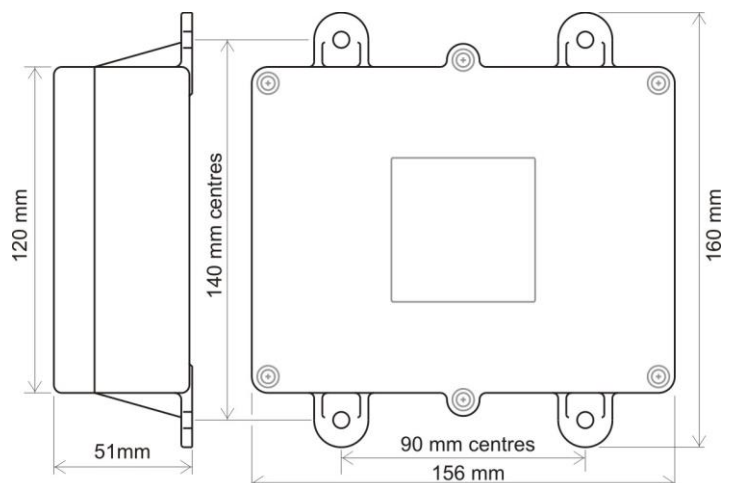
EMC Exceeds ETSI 300 220. Compliant E11 10R-037601
Modulation FM
Frequencies 418.00 MHz F1D USA (optional UK)
433.92 MHz F1D World wide (optional USA)

RECEIVER SPECIFICATION

KEYPAD		Works independently from the Transmitter
Back up Control		Security coding available as an option
SWITCH TYPE		
Output Switching		MOS Field Effect Transistor (P Channel Power MOSFET)
SUPPLY VOLTS		
Nominal		12/24 Volts DC
Absolute Maximum		40 Volts DC
Minimum		8 Volts DC
Output Switch Supply		Internal 12/24 Volts
AMPS		
FET Rating		15 Amps
System Rating		15 Amps
Quiescent Current		25 mA on Standby (Not SET)
Overload Protection		15 Amps (Auto Shutdown)
AERIAL		
Internal Antenna	Yes	Supplied and fitted
External Antenna	Optional	See Accessories.
OUTPUTS		
Master Function	1	Can be Parallel or Continuous. Not all models – see Build Specification Table.
Master (Secondary)	4/5	
	1	Continuous. Not all models, see Build Specification Table.
CONFIGURATION		
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.
PERFORMANCE		
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
DIAGNOSTICS		
LED's	Yes	Confirm 5 Volts, SET, Fault and all Outputs.
PROTECTION		
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.
WIRING		
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"

ENCLOSURE

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.

93 Series			93 0 00	93 0 02	93 0 04	93 1 00	93 1 02	93 1 04
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").

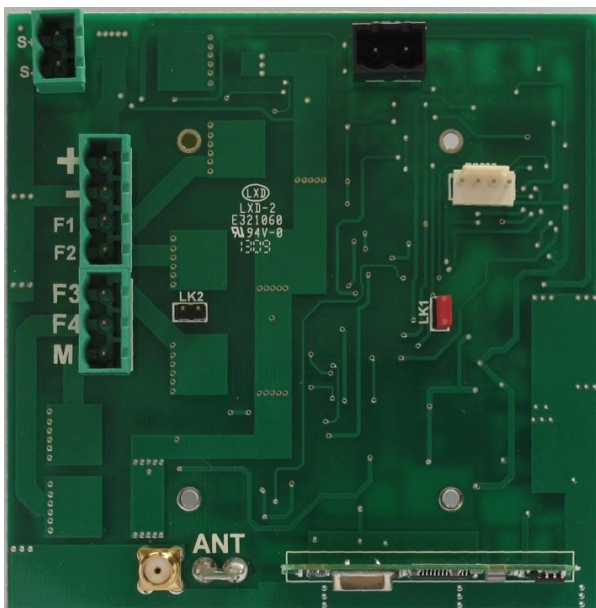
- + Positive 12/24 Volt supply
- Negative 0 Volts
- F1, F2, F3 & F4 Outputs to F1 through F4
- M Master Output

- 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

