

FEATURES

- RADIO TELEMETRY SWITCH
- INVISIBLE TELEMETRY LINK
- SCREW TERMINAL CONNECTIONS
- BACKGROUND WATCHDOG
- RANGE
 - FM UP TO 500 METRES RANGE.
 - AM UP TO 100 METRES RANGE.
- MOMENTARY OR LATCHING OUTPUTS
- LED INDICATION OF DATA Tx, Rx, Low Battery, Link Fail.
- SINGLE SUPPLY 9 - 16V DC.
- REQUIRES NO RADIO LICENCE TO OPERATE.
- IP65 RATED ENCLOSURES



DESCRIPTION

The R.F. Solutions Remote telemetry link provides a reliable one channel switching link that can be used for many telemetry applications. Designed to save the cost or hard wiring, the system is easy to install with screw terminal provided at both ends.

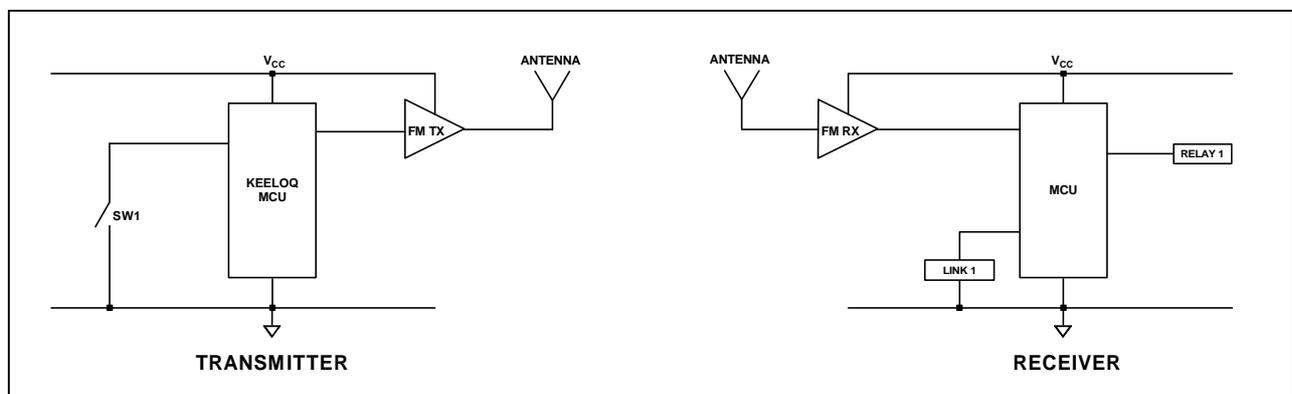
Design to replace a simple wired switch the transmitter can receive a switch input with the receiver unit providing relay outputs rated at 10A @ 240Vac.

Operation is simple, when a valid input signal is detected on the transmitter input, an encrypted message is sent to the receiver which reads the message and operates the relevant output. The system is highly secure using one in 10,000 billion possible encrypted codes.

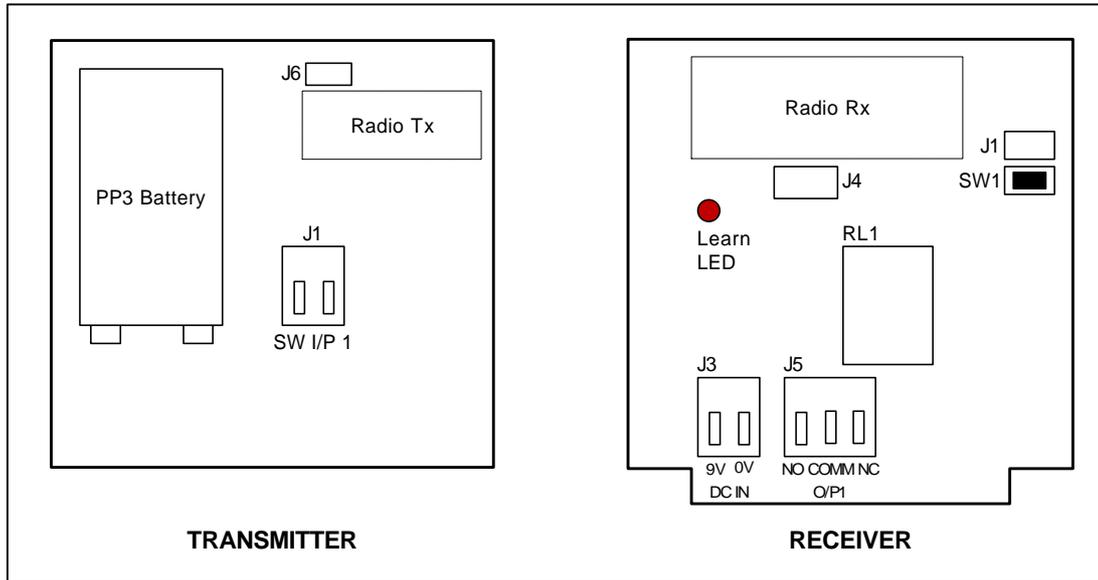
The system is made reliable by the automatic watchdog signal sent intermittently by the transmitter. If the watchdog signal is not received by the receiver within 24hours then an LED indicates that the link has been lost. An additional "Low battery" LED is also provided to indicate that the transmitter battery voltage is low.

Minimal configuration is required, once set to 'learn' mode, the receiver stores the transmitter identity code in non-volatile memory (remembers the code even when the power is removed) and the system is ready to operate. The receiver has the capacity to learn up to 50 transmitters identity thus enabling one to many and many to one transmitters and receivers

BLOCK DIAGRAM



CONNECTIONS



CONNECTION LOST FEATURE

The transmitter will automatically transmit a signal to the receiver once every 24 hours. If the receiver does not receive this signal then the “Transmitter Connection Lost” LED will illuminate. This will continue to operate until the receiver receives a valid transmission from the transmitter. If the receiver has been taught more than one transmitter then this feature is disabled.

LOW BATTERY

The low battery feature informs the user that the transmitter used has a low voltage battery. The “Transmitter Battery Low” LED illuminates if the receiver has received a transmitted signal with low voltage signal present. This will continue to operate until a transmitted signal without the low voltage signal has been received. If the receiver has been taught more than one transmitter then this feature is disabled.

RELAY OPERATION TABLE

LINK 1 (J1)	RELAY 1 O/P
OPEN	MOMENTARY
CONNECTED	LATCH

Note : In momentary mode the relay will operate for as long as the transmitter switch input is held on.

LEARNING A NEW TRANSMITTER

1. Press the programming switch on the receiver once (SW1)
2. The learn LED will illuminate
3. Make the switch input on the transmitter once, learn LED on the receiver will extinguish
4. Make the switch input on the transmitter again, learn LED will flash
5. When the learn LED has stopped flashing this transmitter will now operate the system

ERASING TRANSMITTER(S) FROM MEMORY

1. To completely erase all transmitter, press SW1 on the receiver for 10 seconds.
2. The learn LED will turn off after the 10 seconds to indicate the transmitter(s) have been erased

Note : Individual transmitters can not be erased.

TECHNICAL SPECIFICATIONS:

Storage Temperature; -10 to +70° Celsius.
 Operating Temperature; 0 to +55° Celsius.
 Enclosure dimensions: Length : 110mm, Width : 85mm, Height :35mm

TRANSMITTER

ELECTRICAL CHARACTERISTICS	MIN	TYPICAL	MAX	DIMENSION
Supply Voltage	8	9	12	V
Supply Current	11	14	21	mA
Frequency	432.90	433.920	434.100	MHz
RF Output Power (ERP)	-		10	mW
Overall Frequency Accuracy	-100	0	+100	KHz

RECEIVER

ELECTRICAL CHARACTERISTICS	MIN	TYPICAL	MAX	DIMENSION
Supply Voltage for +12 v	9	12.0	16.0	V
Supply Current :				
Quiescent		15		mA
All relays operating		80	100	mA
Relay Rating @ 240VAC			10	A

PART NUMBERING

PART No	DESCRIPTION
AM-113C-433	Transmitter Telemetry Unit AM Version
AM-112C-433	Receiver Telemetry Unit AM Version
FM-113C-433	Transmitter Telemetry Unit FM Version
FM-112C-433	Receiver Telemetry Unit FM Version

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