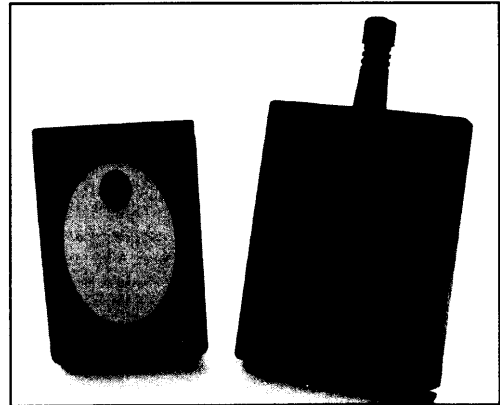


AM SYSTEM



FM SYSTEM

FEATURES

- COMPLETE REMOTE CONTROL SYSTEM
- LED INDICATION OF TRANSMISSION.
- MOMENTARY OR TOGGLED OUTPUTS.
- RECEIVER/DECODER LEARNS UP TO 8 OR 16 ENCODERS SIGNATURE CODES.
- RELAY CONTACTS 5A@ 240Vac.
- 418MHz & 433 MHz AVAILABLE
- REQUIRES NO RADIO LICENCE.

FEATURES of AM SYSTEM

- RANGE 45 – 70 METRES
- STANDARD OR HIGH SECURITY PROTOCOL AVAILABLE.
- MINIATURE TRANSMITTER KEY FOB.
- EXPANDABLE TO UP TO 3 CHANNELS

FEATURES of FM SYSTEM

- RANGE UP TO 200METRES
- HIGH SECURITY PROTOCOL.
- EXPANDABLE TO UP TO 4 CHANNELS

DESCRIPTION

The AM/FM-RCS-XXX are complete remote control systems supplied as either AM or FM and contain a Tx/Encoder and Rx/Decoder pair.

Both provide a single relay output in the decoder unit, activated by the key press on the encoder. The decoder unit is capable of up to three additional relays if so required.

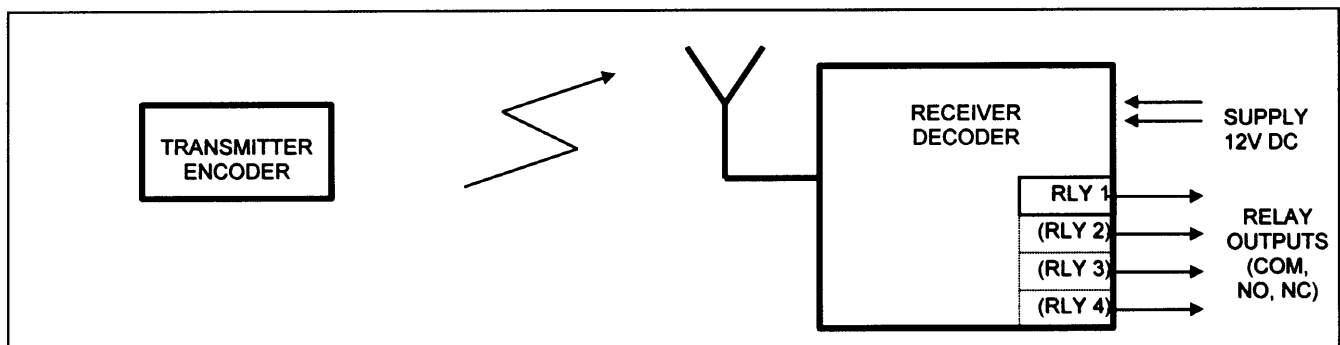
The system requires only the power and relay connections in the receiver to be made. Screw terminals are provided for this.

Each encoder contains a custom programmed microprocessor to generate a unique signature code. "High security" code hopping versions are available which generates a unique signature code on each transmission.

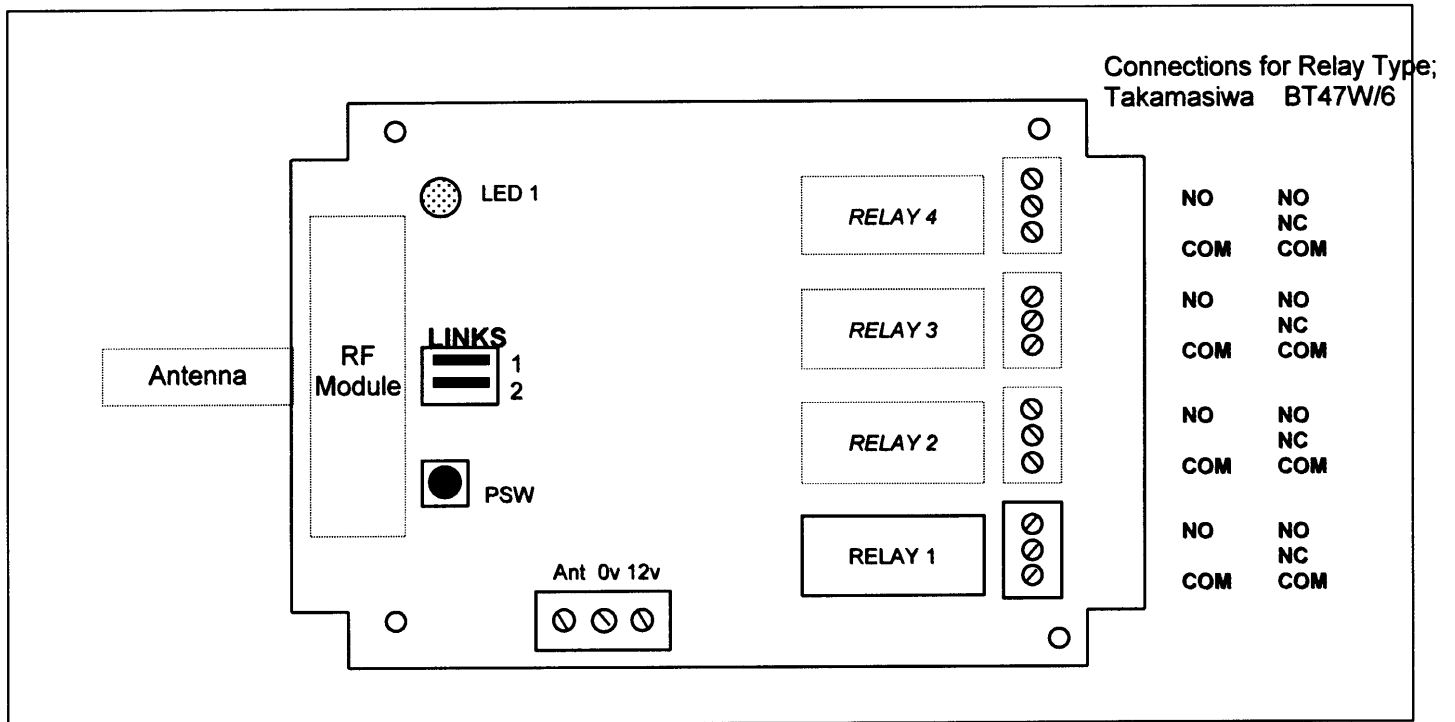
The decoder has the capacity to learn up to eight or sixteen unique encoders. These are memorised even if the power is removed.

The decoder is supplied in a black ABS plastic enclosure which may be upgraded to IP55 by fitting a rubber seal.

BLOCK DIAGRAM



DECODER CONNECTIONS



The decoder requires a single 9-12vDC supply, and is supplied with a relay '1' fitted.

The PCB has been designed to accept the following relays;

Takamasiwa type JV12 rated 240Vac @ 5A (NO, COM contacts only)
BT47W/6 rated 1A @ 50Vdc (NC, NO, COM contacts)

Provision has also been made for a transistor to be fitted (component ident TS1-4) which will connect across the NO and COM contacts.

AM SYSTEM OPERATION (TWO SWITCH KEYFOB)

LH SWITCH	RH SWITCH	BOTH SWITCHES
RELAY 1 O/P	RELAY 1 O/P	RELAY 1 O/P
RELAY 3 O/P	RELAY 2 O/P	RELAY 4 O/P

RELAY OPERATION TABLE

LINK 1	LINK2	RELAY 1 O/P	RELAY 2 O/P	RELAY 3 O/P	RELAY 4 O/P
OPEN	OPEN	MOMENTARY	MOMENTARY	MOMENTARY	MOMENTARY
OPEN	CONNECTED	MOMENTARY	MOMENTARY	LATCH	LATCH
CONNECTED	OPEN	MOMENTARY	LATCH	LATCH	LATCH
CONNECTED	CONNECTED	LATCH	LATCH	LATCH	LATCH

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

ADDITIONAL TRANSMITTER/ENCODERS

The AM 'standard' decoder has the capacity to 'learn' a total of 16 unique transmitter encoders.

The AM 'High Security' and FM decoder has the capacity to 'learn' a total of 8 unique transmitter encoders.

LEARNING A NEW TRANSMITTER

1. Hold down the programming switch (PSW).
2. Depress the transmitter once, LED on the receiver will flash. (PSW is still depressed).
3. Wait for LED to stop flashing.
4. Depress the transmitter again, LED will turn off. (PSW is still depressed).
5. Release the programming switch (PSW).
6. This transmitter will now operate the system.
7. To completely erase the transmitters, press SW five times in succession, LED will remain on for approximately 5 seconds while the transmitter(s) are being erased.

SYNCHRONISATION ('High Security' versions only)

This equipment requires the transmitter and receiver to be synchronised. If the transmitter has been pressed more than 50 times outside the range of the receiver, the receiver will lose synchronisation with the transmitter. To re-synchronise:

1. Press the transmitter key for two seconds within range of the receiver,
2. Release the key momentarily, and press the key again.

TECHNICAL SPECIFICATIONS

Storage Temperature: -10 to +70° Celsius. Operating Temperature: 0 to +55° Celsius.

Dimension	AM Transmitter	FM Transmitter	AM /FM Decoder
Length	49mm	110mm	112mm (149 inc ANT)
Width	34mm	65mm	83mm
Depth	14mm	24mm	38mm

TRANSMITTER/ENCODERS

ELECTRICAL CHARACTERISTICS	MIN	TYPICAL	MAX	DIMENSION
Supply Voltage	8.5	9	12	V
Supply Current : Quiescent		0		mA
AM Supply Current : Operating		8.5		mA
FM Supply Current : Operating		18		mA

RECEIVER / DECODER

ELECTRICAL CHARACTERISTICS	MIN	TYPICAL	MAX	DIMENSION
Supply Voltage for +12 v	9	12.0	16.0	V
AM Supply Current : Quiescent		9		mA
AM Supply Current : Relay Operating		50	70	mA
FM Supply Current : Quiescent		19		mA
FM Supply Current : Relay Operating		60	75	mA
Relay Rating (240Vac)			5	A

PART No	DESCRIPTION
AM-RCSS(S)-433	AM Remote control System Standard Format
AM-RCHS(S)-433	AM Remote control System High Security Format
FM-RCHS-433	FM Remote control System High Security Format
DX4C-SEAL-KIT	Decoder IP55 Enclosure Seal Kit

Should you require further assistance, please call;

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RF Solutions is a member of the Low Power Radio Association.

