

## Technical Data

<b>Supply Voltage</b>		9-Volt Alkaline Battery (Absolute maximum 11.0 Volts)
<b>Current Consumption</b>		65.00mA
<b>Standby Current</b>		5 uA
<b>LED</b>	<b>Flashing Red LED</b>	Replace battery, battery at 6 volts
	<b>Orange LED Flashes</b>	Encrypted code successfully programmed.
	<b>Orange LED Continuous</b>	Change of code successful
<b>Operating Frequencies</b>		915 to 928 MHz for Australia 921 to 929 MHz for New Zealand 902 to 928 for United States of America and Canada 868 to 869.2 MHz for Europe
<b>Antenna</b>	<b>Standard Version</b>	Built-in PCB proprietary track
	<b>SMA Version</b>	ANT915mini (Included with SMA version transmitter)
<b>Dual Digital Coding System</b>		12-way dip switch (4096 Codes) Encrypted coding (Over 16 million codes)
<b>Operating Temperature</b>		-20° to +70° Celsius
<b>Radiated Field Strength</b>		75dBuV/m at 3 metres
<b>EIRP</b>		80uW
<b>Spurious Emissions</b>		≥ 32dB Below carrier at 3 metres
<b>Dimensions</b>	<b>With Case</b>	130 x 67 x 27 mm
	<b>No Case, NC</b>	81 x 56 x 12 mm
<b>Weight</b>		50 g (Excluding battery)
<b>Operating Range</b>	<b>MCT91508/12/16 series</b>	Up to 150 metres
	<b>SMA version with ANT915mini</b>	More than 350 metres
<b>Compatible Receivers</b>		All MCR915 series

### 12-Way Dipswitch Setup Instructions

To program the transmitter to the receiver you simply match the transmitter and receiver dipswitches. Do not use all dipswitches in the off position. This sets the transmitter to encrypted coding. See encrypted coding instructions.

To avoid interference or jamming from other MCT series transmitters make sure that the first 8 dip switches (Dipswitch 1 to 8) are different. The first 8 dipswitches select different frequencies.

### Advanced Dipswitch Programming Features

This feature allows the user to configure very sophisticated systems by mixing and matching different MCT transmitters to MCR receivers.

Dipswitches 9, 10, 11 and 12 will determine the position of the first channel on the transmitter and receiver. Other channels are automatically sequentially placed.

Relay	DS9	DS10	DS11	DS12
Position 1	0	0	0	0
Position 2	0	0	0	1
Position 3	0	0	1	0
Position 4	0	0	1	1
Position 5	0	1	0	0
Position 6	0	1	0	1
Position 7	0	1	1	0
Position 8	0	1	1	1
Position 9	1	0	0	0
Position 10	1	0	0	1
Position 11	1	0	1	0
Position 12	1	0	1	1
Position 13	1	1	0	0
Position 14	1	1	0	1
Position 15	1	1	1	0
Position 16	1	1	1	1

1 = Dip Switch in "On" position, 0 = Dip Switch in "Off" position

**Example:**

Using a 4-channel MCR91504 receiver with a 1-channel MCT91501 transmitter.

If the MCR91504 has 0101 0100 1000 set to the 12 way dipswitch, this sets the receiver first relay (Ch.1) to position 9 i.e. 1000. The other channel addresses are sequentially placed.

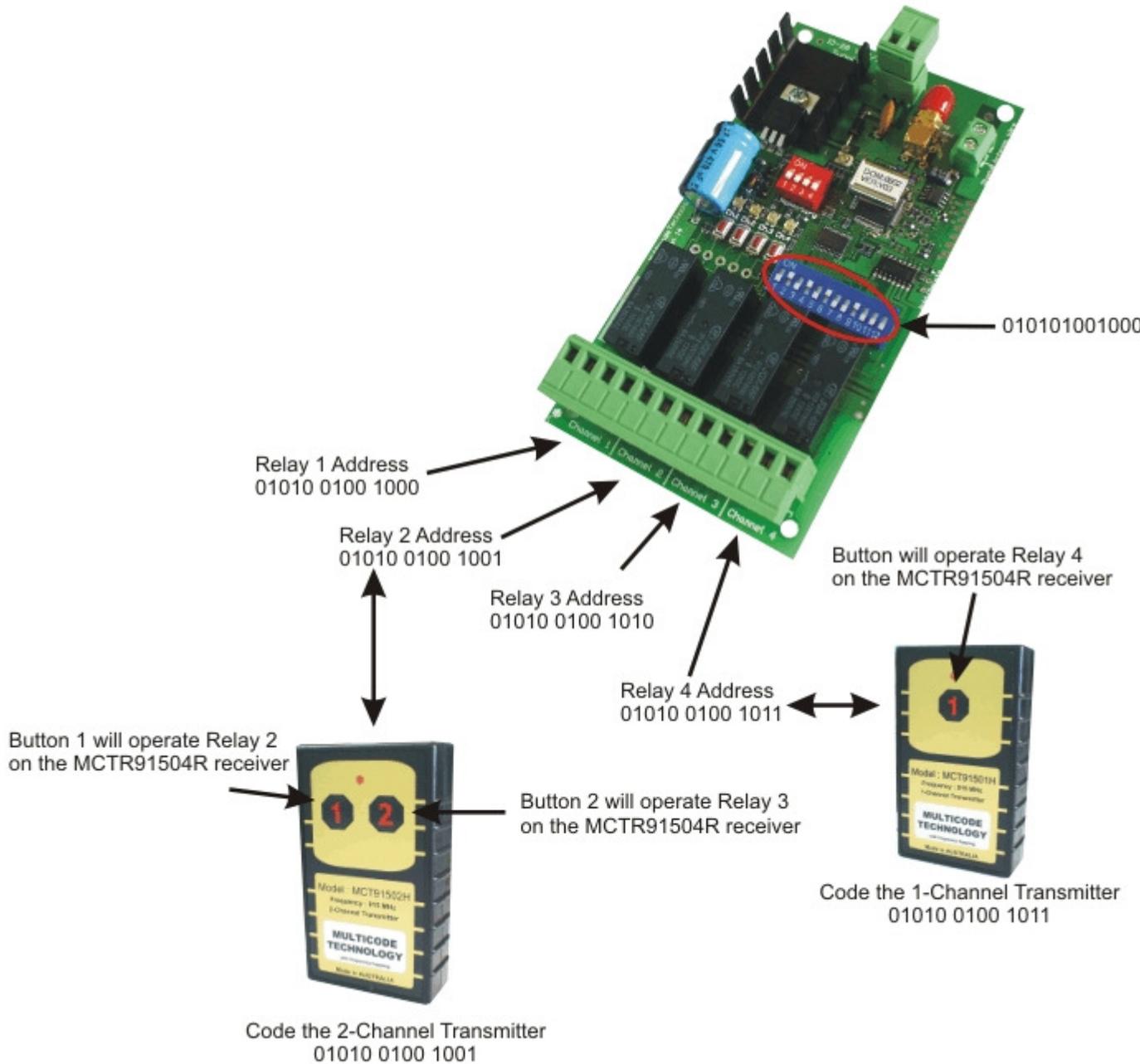
This is shown in the table below:

Relay Channel	Position	DS9	DS10	DS11	DS12
1	9	1	0	0	0
2	10	1	0	0	1
3	11	1	0	1	0
4	12	1	0	1	1
5	13	1	1	0	0
6	14	1	1	0	1
7	15	1	1	1	0
8	16	1	1	1	1

To program a 1-button MCT91501 transmitter to receiver relay channel 4 you need to set the transmitters dip switch to 0101 0100 1011.

To program a 2-button MCT91502 transmitter to receiver relay channel 2 and 3 you need to set the transmitter dip switch to 0101 0100 1001. The second button on the transmitter automatically operates relay 3

This example is shown graphically below:



### Encrypted Coding Setup Instructions

To change the transmitter and receiver to encrypted coding set all dipswitches on the 12-way dipswitch to the off position. The encrypted code is a randomly selected code out of 16 million different combinations.

The user can change the code by shorting out the Add/Delete pin on the receiver. The orange LED comes on while the Add/ Delete pins are shorted, to confirm the change of code was successful. If this is done all transmitters and receivers need to be programmed again with the new code.

Any programming combination is possible, for example transmitter to transmitter, receiver to receiver, transmitter to receiver or visa versa.

## Programming Steps

1. Make sure all dip switches are in an off position on all transmitters and receivers.
2. Make sure power is connected to the receiver and transmitter.
3. If programming from a receiver, short out the Add/Delete pin to select a random code. The receiver's orange LED comes on to confirm the change of code was successful. Do not do this step if you are adding extra transmitters to the receiver since already programmed units will be deleted.
4. Set one of the units, either receiver or transmitter, to broadcast its code. The broadcaster's code will be programmed to the other units.
  - 4a. To broadcast the receiver's code make sure all 12 dipswitches are off and then flick dip switch 12 on and then off. This is confirmed by the green LED being on for 10 seconds.
  - 4b. To broadcast the transmitter code hold down button 1 and flick dip switch 12 on and then off. This is confirmed by the green LED being on for 10 seconds. You can release button 1.
5. While broadcasting the code press button 1 on a different transmitter or receiver for 1 second and then release the button. The orange LED will flash twice to confirm successful programming.

*Broadcasting will be latched on for 10 seconds or stop if any dipswitch is turned on.*

*If orange LED did not flash twice try programming again but move closer to the broadcasting unit.*

During programming all channels are channelised programmed. That is, button 1 to relay 1, button 2 to relay 2, button 3 to relay 3, etc.

This programming method allows a user to program unlimited number of transmitters to the receiver or visa versa. You can even program a transmitter to a new transmitter. You do not need to get access to the receiver.