AKRX62-S Receiver Instructions

Description
The AKRX62-S is a self-contained 433.92MHz rolling key receiver designed to be directly interfaced with any devices or controllers able to utilise a dry contact relay signal. With it's 2 on-board 1 Amp (maximum resistive) 125 VAC rated dry contact relay outputs, this receiver can be connected across existing push buttons connected to various door and gate controllers or used to switch power directly to a vast number of electrical or electronic products.

Power Supply Configuration
This receiver is capable of being powered with voltages ranging from 12 – 28 volts AC or DC. To operate receiver on 12-28VAC or >=12VDC, place the power link (near the heatsink) on **HV**. To operate on a 12V battery, place the power link on **LV**. This will enable the relays to continue operating with a supply voltage down to 10V.

Channel and Relay output Setting
The AKRX62-S can learn up to 340 unique (2, 4, or 6 button) transmitters and can be used in either one or two relay output configurations. The table below shows all possible configuration options that can be set by selectively placing links across the **L1**, **L2**, **L3** and **L4** and **FF** pins.

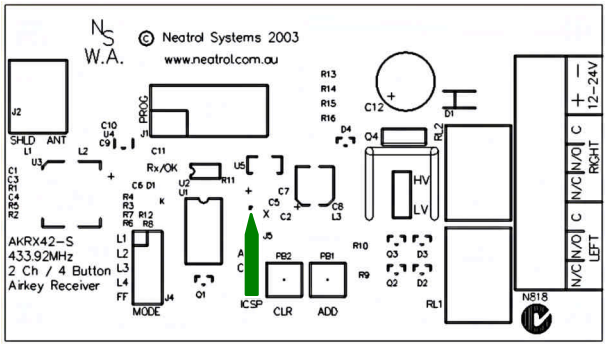
The factory default setting of the AKRX62-S with all links removed is a two relay mode with the top left hand button of an AKTX2 or AKTX4 or button 1 of an AK2TX4 or AK2TX6 activating the left hand relay and the top right hand button of an AKTX2 or AKTX4 or button 2 of an AK2TX4 or AK2TX6 activating the right hand relay.

For operations that describe a momentary output, the output relay is triggered for 300 milliseconds.
Where the output is Flip-Flop, the relay will maintain it's new state indefinitely until triggered by another button press.
For Hold modes, the relay will remain active for up to 20 seconds as long as the button of the Airkey is held on and the Airkey is transmitting.
Where a relay is timed, it will stay on until the timer has timed out - unless the same button is pressed in which case the time value will be refreshed and the time will count down from then on.

Example: If the 16th option (ON, ON, OFF, ON, OFF) were selected, then button 1 would turn on the left hand relay, while button 2 would turn off the left hand relay. Button 3 would turn on the right hand relay, while button 4 would turn off the right hand relay.

Links					Operating Function	Output	
L1	**L2**	**L3**	**L4**	**FF**		Left Relay	Right Relay
OFF	OFF	OFF	OFF	OFF	Momentary Pulse	1	2
ON	OFF	OFF	OFF	OFF		3	4
OFF	**ON**	OFF	OFF	OFF		5	6
ON	**ON**	OFF	OFF	OFF		1,2,3,4,5,6	
OFF	OFF	OFF	OFF	**ON**	Flip - Flop	1	2
ON	OFF	OFF	OFF	**ON**		3	4
OFF	**ON**	OFF	OFF	**ON**		5	6
OFF	OFF	**ON**	OFF	**ON**	Momentary & Flip-Flop	1 (Mom)	2 (FF)
ON	OFF	**ON**	OFF	**ON**		3 (Mom)	4 (FF)
OFF	**ON**	**ON**	OFF	**ON**		5 (Mom)	6 (FF)
OFF	OFF	**ON**	OFF	OFF	Hold Output	1	2
ON	OFF	**ON**	OFF	OFF	(20 sec maximum)	3	4
OFF	**ON**	**ON**	OFF	OFF		5	6
ON	**ON**	**ON**	**ON**	OFF	Momentary & Hold	1 (Mom)	2 (Hold)
ON	**ON**	**ON**	**ON**	**ON**		3 (Mom)	4 (Hold)
ON	**ON**	OFF	**ON**	OFF	ON / OFF	1 (on), 2(off)	3 (on), 4 (off)
ON	**ON**	OFF	**ON**	**ON**		3 (on), 4 (off)	5 (on), 6 (off)
ON	**ON**	**ON**	OFF	OFF	Momentary + Short Timed	1 (Mom)	2 (5 min)
ON	**ON**	**ON**	OFF	**ON**	Momentary + Long Timed	1 (Mom)	2 (10 min)
ON	**ON**	OFF	OFF	**ON**	Momentary + Duress (4sec)	1,2,3,4,5,6 (Mom)	1 & 2 (Duress)
OFF	OFF	OFF	**ON**	OFF	Short Timed	1 (1 min), 2 (off)	1 (5 min), 2 (off)
ON	OFF	OFF	**ON**	OFF	(Button press activates both relays)	3 (1min), 4 (off)	3 (5 min), 4 (off)
OFF	**ON**	OFF	**ON**	OFF		5 (1 min), 6 (off)	5 (5 min), 6 (off)
OFF	OFF	OFF	**ON**	**ON**	Long Timed	1 (15 min), 2 (off)	1 (60 min), 2 (off)
ON	OFF	OFF	**ON**	**ON**	(Button press activates both relays)	3 (15 min), 4 (off)	3 (60 min), 4 (off)
OFF	**ON**	OFF	**ON**	**ON**		5 (15 min), 6 (off)	5 (60 min), 6 (off)
OFF	OFF	**ON**	**ON**	OFF	UP / DN + Nudge + Stop	1 (R1 on, R2 off)	2 (R2 on, R1 off)
ON	OFF	**ON**	**ON**	OFF	(Short press » nudge)	3 (R1 on, R2 off)	4 (R2 on, R1 off)
OFF	**ON**	**ON**	**ON**	OFF	(Long press » 2 minutes)	5 (R1 on, R2 off)	6 (R2 on, R1 off)
OFF	OFF	**ON**	**ON**	**ON**	Alternate Latching	1 (R1 on, R2 off)	2 (R2 on, R1 off)
ON	OFF	**ON**	**ON**	**ON**		3 (R1 on, R2 off)	4 (R2 on, R1 off)
OFF	**ON**	**ON**	**ON**	**ON**		5 (R1 on, R2 off)	6 (R2 on, R1 off)

Programming
The AKRX62-S has a remote learning function allowing users to add new Airkeys into a receiver without direct access to the receiver itself. This function is invoked when the 5 pin green socket is plugged into the 5 pin ICSP header with the bevelled end pointing towards the centre of the receiver as below:



The remote learning socket must be removed before connecting an Airkey Programmer, Airkey Manager or using the manual ADD or CLEAR buttons.
The remote learning socket comes pre-fitted in the factory and can be removed at any time to either disable the remote learning feature of the Airkey receiver or when connecting other peripherals. The learning socket should be fitted when power to the receiver has been disconnected. If this is not convenient, simply press and hold the ADD button while carefully installing the remote programming socket.

Local programming with the remote learning socket removed
Before any transmitters are learnt into the receiver for the first time, press and hold the **CLR** button on the receiver for about 5 seconds. The red light on the receiver will illuminate to indicate that all memory locations have been cleared and the receiver is ready to accept transmitters.

Next press and hold the **ADD** button. The red light will illuminate for as long as the **ADD** button is depressed. To learn in transmitters, simply press one of the buttons of the transmitters to be added. If the transmitter is newly learnt, the red light will blink off for half a second to indicate a successful learn. If the transmitter has already been learnt or is faulty, the light will not blink and that transmitter will not be added. Up to 340 transmitters in total can be added if and when required. A new transmitter can be added at any time by simply pressing the **ADD** button and one of the transmitter's buttons. An alternative method of adding transmitters is to fit a jumper or dry contact switch across pins 2 and 3 (labelled **A**) on the **ICSP** connector.

Remote programming with the remote learning socket fitted
Once at least one Airkey has been learnt into the receiver by the local programming method as above, it and any other learnt Airkeys can be used to facilitate the learning-in of additional Airkeys without having to gain direct access to the receiver.
While within the operational range of the Airkey receiver, simultaneously (and briefly) press buttons 1 and 2 of an already learnt Airkey and then press any one button of a new Airkey within 2 seconds to learn the new key into the receiver. If further Airkeys need to be programmed, simply repeat the fore mentioned procedure until all the Airkeys are learned.

Antenna
An ideal antenna for this receiver is an insulated wire 160mm in length connected to the **ANT** terminal of the receiver.