NOVA HELIX multichannel receiver pocket installation guide

NovaHelix receiver
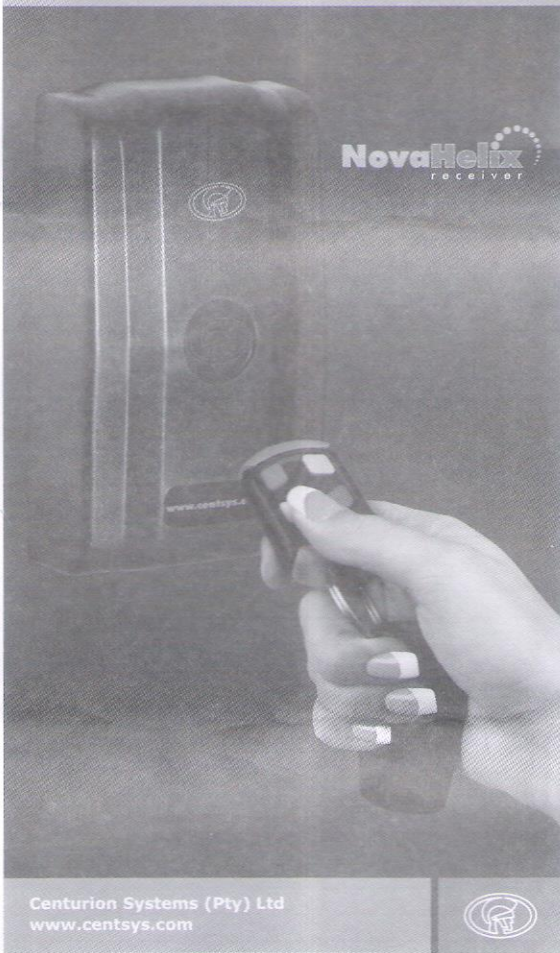
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1. Introduction

NOVA HELIX is a range of single- and multichannel radio receivers incorporating secure code-hopping technology. The **NOVA HELIX** system offers both link and master learning capabilities to provide the user with the ultimate in usability and security and the technology inherent in all **NOVA HELIX** receivers ensures that the functionality goes well beyond the scope of standard receivers, literally putting unsurpassed convenience at the user's fingertips. In addition, the system supports backward compatibility with the NOVA range of transmitters, meaning that there is no need to purchase additional equipment if presently making use of NOVA.

2. Important safety instructions

1. All installation, repair, and service work to this product must be done by a suitably qualified person.

2. Do not in any way modify the components of the system.

3. Do not install this product near sensitive electrical components.

4. Do not install the equipment in an explosive atmosphere: the presence of flammable gas or fumes is a serious danger to safety.

5. Do not leave packing materials (plastic, polystyrene, etc.) within reach of children as such materials are potential sources of danger.

6. Dispose of all waste products like packing materials, according to local regulations.

7. Centurion Systems does not accept any liability caused by improper use of the product, or for use other than that for which the automated system was intended.

8. This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the service life/operation of the product and/or be a source of danger.

9. Anything not expressly specified in these instructions is not permitted

Please do not proceed with the installation until you have read and fully understand the safety instructions included in your product packaging. The safety instructions are also available on www.centsys.com, and may also be obtained by contacting Centurion Systems on +27 860 236 887 (SA only).

3. Icons used in this guide

This icon indicates tips and other information that could be useful during the installation.

This icon denotes variations and other aspects that should be considered during installation.

This icon indicates a warning, caution or attention! Please take special note of critical aspects that MUST be adhered to in order to prevent injury.

4. General description

The operation manual describes the operation of the **NOVA HELIX** receivers.

1. The **NOVA HELIX** functionality allows for both "Master" learning and "Link" learning. Link Learning is the learning process associated with fitting a link to the J1 jumper on the receiver to learn buttons into memory. Master Learning, by contrast, uses a master button to place the receiver in Learn Mode (no links required) remotely.

2. Multichannel receivers support up to 15 unique output channels (SmartSwitch II devices act as the additional physical outputs).

3. All receivers support the ability to disable the function jumpers, J1 and J2 for additional security.

4. All receivers support SmartSwitch II interfacing capability.

5. All receivers support the new timed Autolearn feature.

6. Multichannel receivers support advanced channel mapping functionality during Autolearn.

7. Multichannel receivers support sticky latch functionality.

8. Multichannel receivers support simultaneous channel activation functionality.

9. Multichannel receivers support beep-on-activation functionality.

5. Technical specifications

Technical Data	Multichannel Receiver
Operating frequency	433.92MHz
Supply voltage	12V – 24V DC
Quiescent current @ 12V DC	11mA
Maximum current @ 12V DC	40mA
Operating temperature	-15°C - 50°C
Humidity	0 – 90% (non-condensing)
Sensitivity	-115dB
Self-learning memory	250 buttons
Receiver enclosure	UV stabilised ABS

6. Product identification
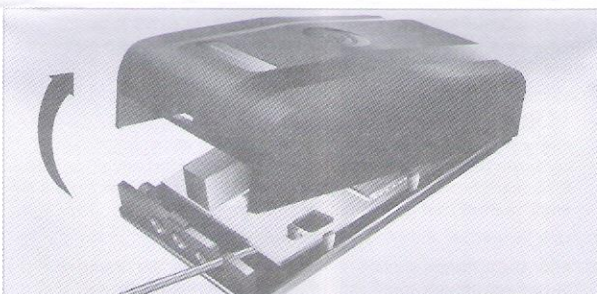
Multichannel receiver
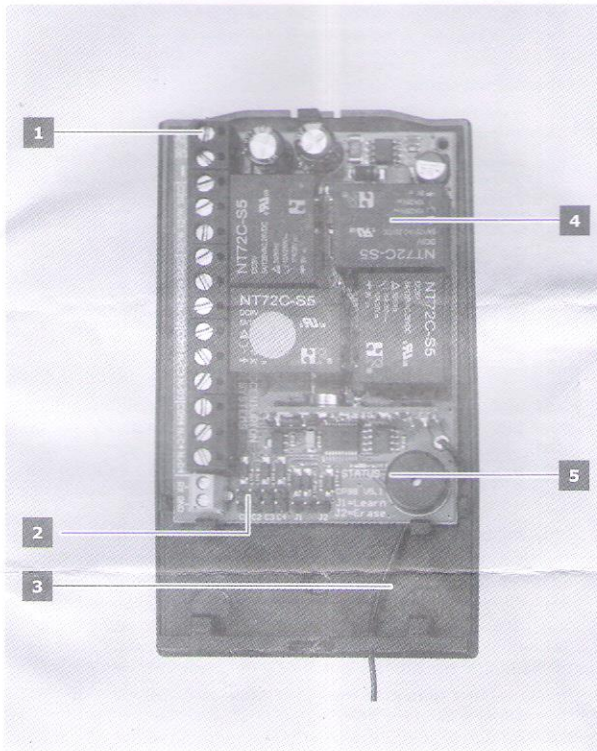
1. Terminals
2. Jumpers
3. Antenna
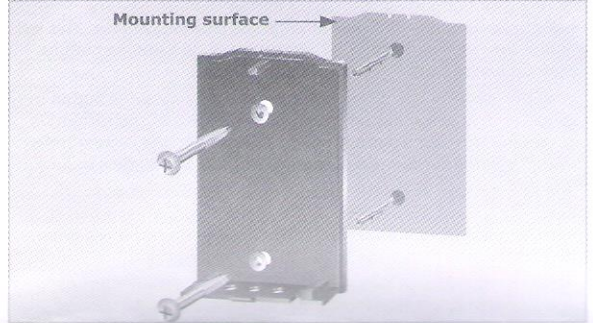4. Relays
5. Buzzer

7. Mounting the receiver

Multi-channel receiver


1. Remove the cover from the enclosure using a flat screwdriver.

2. Remove the cover and unclip the circuit board from the retaining clips


Mounting surface

3. Mark position of the unit against the mounting surface.
4. Using a 5mm masonry bit, drill a hole into mounting surface.
5. Mount the unit using suitable fasteners. Mark position of the unit against the mounting surface.

Drill bit →   Cable saddle →   Cable
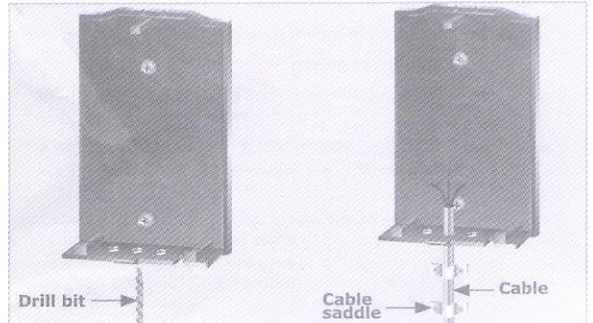
6. Use a 6mm drill bit to open the required cable entry hole.
7. Re-insert the circuit board and ensure that the retaining clips are holding it in place.
8. Fix the cable to the wall using cable saddles.
9. Seal all the holes with silicone sealant.

8. Terminal identification

Power supply 11V-30V DC only { + – }

Relay input 1

Relay input 2

Relay input 3

Relay input 4
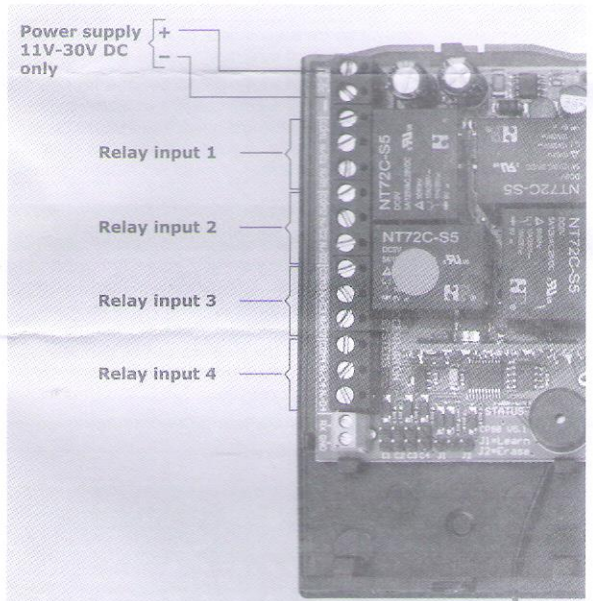
9. Learning the First Master

1. To learn the first transmitter button into the receiver, the receiver transmitter memory as well as the channel compartment related to the function being learnt, must be blank. A channel compartment is a memory space that stores all the transmitter buttons that activate the functionality associated with the channel (for example activating a gate motor).

2. In the case of multichannel receivers, if a channel other than the first channel (default channel) is to be mastered, start by placing links on the required channel jumpers to select the functionality of interest. This informs the receiver that a channel other than channel 1 is to be mastered.

C1 C2 C3 C4   J1   J2