



CODE-HOPPING REMOTE CONTROLS

The NOVA system incorporates code-hopping technology to offer the ultimate security in a remote control.

Centurion Systems (Pty) Ltd manufactures a range of different receivers that operate with its NOVA transmitters:

- Single channel NOVA receiver
- Multichannel NOVA receiver
- NOVA VOYAGER receiver
- SupaNOVA multi-user receiver
- Onboard NOVA receivers that are incorporated into the following products:
 - VECTOR2 swing gate operator
 - D5-Evo sliding gate operator
 - D10 sliding gate operator
 - SECTOR traffic barrier
 - MKII intercom system
 - XTrac garage door operator



It is NOT necessary to open this transmitter to code the unit as it already has a unique code.

To make this unit functional, the NOVA receiver unit must memorize the NOVA remote transmitter's unique code as described in the following procedures. Please note that each button of a multi-button transmitter transmits its own unique code and the receivers referred to above, are limited in the number of transmitter codes that can be learned. This is often referred to as "self-learning" memory capacity. Refer to the respective receiver for more details.

If you need to learn the transmitter into the SupaNOVA multi-user receiver or an onboard receiver, please refer to the installation manual of the product, or visit www.centsys.com to view or download a programming guide. The instructions are often mentioned under the "controller features", or the programming sections of these installation manuals.

1. Single and multichannel NOVA and SMART receivers

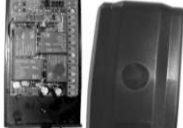
Due to the similarity in the programming procedures for the NOVA and SMART receiver ranges, both have been documented in this insert

Single channel NOVA receiver



Look for a RELAY on the board to confirm single channel Rx

Multichannel NOVA receiver



Receiver may be mounted loose or in protective housing, internal or external to the operator

Learning the transmitter(s) for pulsed operation:

1. Open the receiver unit, and with **power on**, bridge the learn/J1 pins with the jumper provided.
2. The red LED will now illuminate.
3. Press the required button on the NOVA/SMART transmitter. The **red LED will flash once**, indicating that the transmitter button has been learned.



If you need to learn further buttons or transmitters, repeat the procedure as in Step 3.

4. Once the LED has confirmed that the transmitter button has been learned, remove the jumper from the learn/J1 pins and store on one of the pins.
5. Your transmitter will now activate the receiver, and your system is ready for use.

IMPORTANT NOTICE: When learning a transmitter into a multichannel NOVA or SMART receiver, the transmitter button can only be learned if the button number matches the channel number of the receiver, i.e. button one of a transmitter (single or multi-button) can only be learned to operate channel one of a receiver. Similarly button two of a multi-button transmitter can only be learned to operate channel two of a receiver, etc.

For instructions on setting latching operation and erasing the receiver memory of a single channel or multichannel NOVA/SMART receiver, please refer to the instructions provided with the respective receiver, or visit www.centsys.com to view or download a programming guide.

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2. NOVA VOYAGER receiver

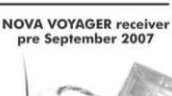
Receiver may be mounted loose or in protective housing, internal or external to the operator

NOVA VOYAGER receiver post September 2007



Make certain that there is NO relay on the board to confirm type of Rx

NOVA VOYAGER receiver pre September 2007



Receiver may be mounted loose or in protective housing, internal or external to the operator

Learning/Creating the master transmitter (applicable to new or erased* units):

1. Open the receiver unit. Ensure that the jumper is not bridging J1 or J2. Store the jumper on one of the pins.
2. The first transmitter that is learned into the NOVA VOYAGER receiver (with a completely clear or erased memory) becomes the master transmitter. With the NOVA VOYAGER plugged into or connected to the motherboard of the operator, press and hold any NOVA transmitter button down for at least five seconds.
3. The red LED will now illuminate.
4. The operator is triggered, indicating that the transmitter button has been learned.
5. This transmitter is now the master transmitter. Mark the transmitter clearly as "master transmitter" as it will be required whenever new transmitters are to be added to the receiver's memory.

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TRANSMITTERS



Established 1986

Learning additional transmitter buttons:

1. Press any button on the master transmitter for at least ten flashes of the red LED. If the receiver is not visible, count at least ten seconds. After at least ten seconds, release the master transmitter button (The receiver will not enter learn mode if this button is pressed for more than twenty seconds).
2. The receiver is now in learn mode, and will remain so for ten seconds. The red LED will remain on during this time
3. Press the required button on the NOVA transmitter during this time and it will be learned into the NOVA VOYAGER's memory. Each time a button is pressed, the learn time is extended for another ten seconds.
4. Ten seconds after the last transmitter button has been pressed, the red LED will turn off, indicating that the NOVA VOYAGER receiver has exited learn mode.

*Erasing the NOVA VOYAGER receiver memory

1. Bridge pins J1 or J2 with the jumper provided.
2. The red LED will flash eleven times. **Removing the jumper during this time will cancel the erase operation.**
3. After eleven flashes, the red LED will remain on.
4. Remove the jumper to completely erase* the receiver memory.

Procedure to create a new master transmitter

(if the existing master transmitter is mislaid):

1. The master transmitter can be identified by looking at the red LED when pressing any transmitter button on the master transmitter. The red LED will give one long flash, followed by one short flash to indicate a master transmitter.
2. If the master transmitter is lost, the only way to add more transmitters is to first erase the receiver's memory, and then learn in a new master transmitter. Unfortunately, all existing buttons will need to be re-learned.

NOVA and SMART transmitters

technical specifications

Operating frequency	433.92Mhz
Frequency stability	0.037ppm/C2/10ppm/year
Power source	GP23 12V alkaline battery
Operating voltage	12V DC
Minimum operating voltage	5V DC
Operating current	12mA
Transmit indication	Green LED
Operating temperature range	-15°C to 50°C
Dimensions (LxBxH)	59mm x 35mm x 16mm
Mass (including battery)	38 grams (when packed)

Instructions to replace the NOVA/SMART transmitters battery

1. Rotate the inner casing, as shown in Figure 1, and remove it from the outer clip (Figure 2).



Figure 1

2. Using a coin, separate the two halves of the case as shown in Figure 3.



Figure 2

2. Using a coin, separate the two halves of the case as shown in Figure 3.



Figure 3

3. Replace the battery with type GP23 or similar.

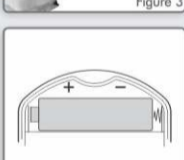


Figure 4

3. Replace the battery with type GP23 or similar.

4. Pay attention to the battery's positive and negative terminals ensuring that the new battery is correctly inserted (See Figure 4).

FCC information to users

USA and Canada only – where a FCC ID number is inscribed on the transmitter, the following information is applicable to users:

FCC Label @ FCC 15.21 and 15.105

For Class B – Unintentional radiators:

This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications, however, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help
- Warning to users @ FCC 15.21 & 15.105

Changes or modifications not expressly approved by Centurion Systems (Pty) Ltd could void the user's authority to operate the equipment.

FCC Label @ FCC 15.19

For Class B - Unintentional radiators:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.