

NRC-868-24/230



EN Installation and user manual

EN – ORIGINAL INSTRUCTION

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To improve comprehension for people whose first language is not English, we have written parts of this manual in Simplified Technical English (STE). STE is a controlled language originally developed for aerospace industry maintenance manuals. It offers a carefully limited and standardized subset of English, along with specific writing rules.

TABLE OF CONTENTS





ENGLISH		Page
Preface		3
1. Introduction		3
2. Product description		3
3. Safety instructions		4
4. Installation		4
5. Use		5
6. Maintenance		5
7. Troubleshooting		6
8. Spare parts		6
9. Disposal		6
Declarations		6

PREFACE

Using this manual

Pictograms and symbols

The following pictograms and symbols are used in this manual:

	TIP Suggestions and recommendations to simplify carrying out tasks and actions
	ATTENTION A remark with additional information for the user. A remark brings possible problems to the user's attention.
	CAUTION! Procedures, if not carried out with the necessary caution, could damage the product, the workshop or the environment.
	CAUTION Denotes risk of electric shock.

Text indicators

Listings indicated by "-" (hyphen) concern enumerations.
Listings indicated by "•" (bullet point) describe steps to perform.

Service and technical support

For information about specific adjustments, maintenance or repair jobs which are not dealt with in this manual, please contact the supplier of the product. He will always be willing to help you. Make sure you have the following specifications at hand:

- product name
- serial number

You can find these data on the identification plate.

Product indications

Unless specifically stated, the contents of this manual applies to the new remote control (NRC).

1 INTRODUCTION

1.1 Identification of the product


The identification plate contains, among other things, the following data:

- product name
- serial number
- supply voltage and frequency
- power consumption

1.2 General description

The new remote control (NRC) is designed to provide the flexibility, reliability, ruggedness and ease-of-use required for applications in demanding industrial environments like vehicle maintenance garages. With buttons that are easy to operate the product is easy to use. By utilizing a large variety of used unique codes there will never be two identical transmitters on the market, ideal for use with our MER and MHR hose reels, as well as starting/stopping fans.

1.3 Technical specifications

■ Physical dimensions and properties	
Material	<ul style="list-style-type: none">• receiver• handheld remote control
Colour	black
Weight	<ul style="list-style-type: none">• receiver• handheld remote control
Dimensions	<ul style="list-style-type: none">• receiver• handheld remote control
■ Performance	
Frequency	868 MHz
Response time	50 ms (typ.)
Number of functions / buttons	2
Number of relays	2
Working range	up to 100 m (328 ft)
Number of handheld remote controls (to be ordered separately)	max. 30
Latching possible (hold function)	yes
■ Ambient conditions	
Operating temperature	-10 to 50 °C (14 °F to 122 °F)
Storage conditions	-10 to 70 °C (14 °F to 158 °F)
■ Electrical data	
Voltage	<ul style="list-style-type: none">• receiver• handheld remote control
Current consumption	<ul style="list-style-type: none">• receiver• handheld remote control
Output power handheld remote control	3 mW
■ Approvals & certificates	
	Conformity to CE & UKCA standards
IP-68	weatherproof enclosure

2 PRODUCT DESCRIPTION

2.1 Product components

The product consists of the following main components and elements:

- receiver + antenna
- additional cable feed / cable gland

NOTE: The handheld remote needs to be ordered separately.

3 SAFETY INSTRUCTIONS

General

The manufacturer does not accept any liability for damage to the product or personal injury caused by ignoring of the safety instructions in this manual, or by negligence during installation, use, maintenance, and repair of the product mentioned on the cover of this document and any corresponding accessories. Specific working conditions or used accessories may require additional safety instructions. Immediately contact your supplier if you detect a potential danger when using the product.

The user of the product is always fully responsible for observing the local safety instructions and regulations. Observe all applicable safety instructions and regulations.

User manual

- Everyone working on or with the product, must be familiar with the contents of this manual and must strictly observe the instructions therein. The management should instruct the personnel in accordance with the manual and observe all instructions and directions given.
- Do not change the order of the steps to perform.
- Keep the manual with the product.

Users

- The use of this product is exclusively reserved to authorised, trained and qualified users. Temporary personnel and personnel in training can only use the product under supervision and responsibility of skilled engineers.
- Stay alert and keep your attention to your work. Do not use the product when you are under the influence of drugs, alcohol or medicine.
- The product is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Children must be supervised not to play with the product.

Technical specifications

Do not change the specifications given in this manual.

Modifications

Modification of (parts of) the product is not allowed.

Installation

- The installation of this product is exclusively reserved to authorised, trained and qualified engineers.
- The electric connection must be executed in accordance with the local codes and requirements. Ensure compliance with the EMC regulatory arrangements.
- During installation, always use Personal Protective Equipment (PPE) to avoid injury. This also applies to persons who enter the work area during installation.
- Use sufficient climbing gear and safety guards when working on a higher level than 2 metres (local restrictions may apply).
- Do not install the product in front of entrances and exits which must be used for emergency services.
- Mind any gas and water pipes and electric cables.
- Make sure that the workspace is well illuminated.
- Stay alert and keep your attention to your work. Do not install the product when you are under the influence of drugs, alcohol or medicine.
- Air containing particles such as chromium, nickel, beryllium, cadmium, lead etc., should never be recycled. This air must always be brought outside the working area.

Use

- Inspect the product and check it for damage. Verify the functioning of the safety features.
- Check the working environment. Do not allow unauthorised persons to enter the working environment.
- Protect the product against water and humidity.
- Make sure the room is always sufficiently ventilated; this applies especially to confined spaces.
- Make sure that the workshop, in the vicinity of the product, contains sufficient approved fire extinguishers (suitable for fire classes ABC).

Service, maintenance and repairs

- Obey the maintenance intervals given in this manual. Overdue maintenance can lead to high costs for repair and revisions and can render the guarantee null and void.
- Always use Personal Protective Equipment (PPE) to avoid injury. This also applies for persons who enter the work area.
- Make sure the room is sufficiently ventilated.
- Use tools, materials, lubricants and service techniques which have been approved by the manufacturer. Never use worn tools and do not leave any tools in or on the product.
- Use sufficient climbing gear and safety guards when working on a higher level than 2 metres (local restrictions may apply).
- Clean the area afterwards.

4 INSTALLATION

4.1 Wiring the receiver

NRC-24


For instructions on wiring the remote control to the MER, please consult the electrical drawings included in the MER-CB package. Use the additional cable feed to wire the receiver to the hose reel.


NRC-230


For instructions on wiring the remote control to the MHR, please consult the electrical drawings included in the MHR package. Use the additional cable feed to wire the receiver to the hose reel.

- Remove the PCB from the receiver enclosure by removing the two screws at the bottom.
- Connect the power supply screw terminals.
- Wire the desired connections to the relay contact outputs.

4.2 Pairing the handheld remote control

	NOTE The NRC is provided ready to operate, this step is only required when replacing or adding a new handheld remote control. The handheld remote control can be paired without opening the enclosure.
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	ATTENTION During 'learn' mode the relays operate at high speed. They should be isolated from sensitive equipment during this process.
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	CAUTION High voltage connection
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NRC-868-24

TIP
The NRC-24 can be paired using a magnet or by using the LEARN switch. With the use of a magnet you can pair together any individual transmitter switch with any receiver relay switch without opening the enclosure.

Using a magnet

- Briefly (less than 1 second) place a magnet next to the receiver in the area where the magnetic learn switch is placed and then remove it.
- The receiver will buzz once. One buzz means that the receiver is ready to allocate a transmitter button to relay output 1. To select relay output 2,3 or 4, briefly place the magnet again so that the buzzer buzzes to indicate relay output 2, 3 or 4 (2 buzzes for relay 2, 3 for relay 3 etc.)
- Press the switch on the transmitter which you wish to pair.
- The receiver will buzz twice to confirm pairing.
- Repeat for any additional transmitter switches.

Using the LEARN switch

- Unscrew the antenna. Open the enclosure and remove the PCB board.
- Briefly press the LEARN switch once.
- The receiver is ready to allocate a transmitter button to relay output 1. To select relay output 2,3 or 4, briefly press the LEARN switch again so that the buzzer buzzes to indicate relay output 2, 3 or 4 (2 buzzes for relay 2, 3 for relay 3 etc.).
- Press the switch on the transmitter which you wish to pair.
- The receiver will buzz twice to confirm pairing.
- Repeat for any additional transmitter switches.

NOTE
The handheld remote control will operate the outputs; button 1 to output 1, button 2 to output 2 etc.

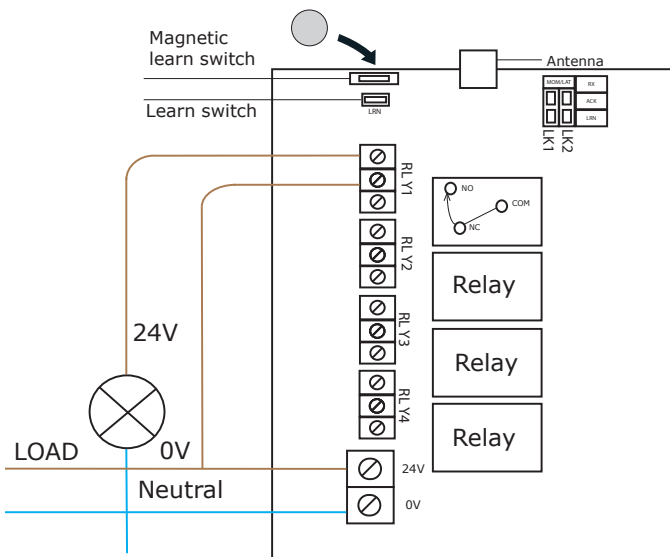


Fig. 4.2.1 PCB NRC-868-24

NRC-868-230

TIP
With the use of a magnet you can pair together any individual transmitter switch with any receiver relay switch without opening the enclosure.

- Briefly (less than 1 second) place a magnet next to the receiver in the area where the magnetic learn switch is placed and then remove it.
- The receiver will buzz once. One buzz means that the receiver is ready to allocate a transmitter button to relay output 1. To select relay output 2,3 or 4, briefly place the magnet again so that the buzzer buzzes to indicate relay output 2, 3 or 4 (2 buzzes for relay 2, 3 for relay 3 etc.)
- Press the switch on the transmitter which you wish to pair.
- The receiver will buzz twice to confirm pairing.
- Repeat for any additional transmitter switches.

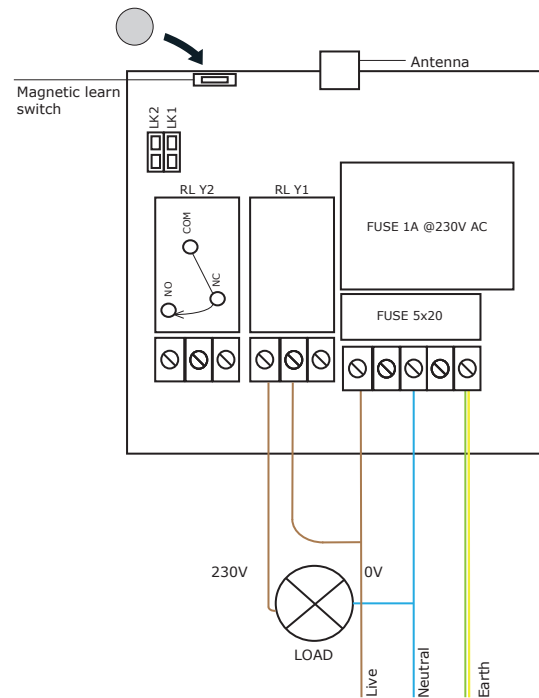


Fig. 4.2.2 PCB NRC-868-230

4.3 Configuring output relays to latching

NOTE
Only perform this step when using the NRC to operate a fan (equivalent to a PC-500).

The output of the relays are preprogrammed to momentary, so it operates as long as the transmitter is operated. To change this to latching (relay changes state each time the transmitter is pressed), perform the following steps:

The jumper links (shown as 1 & 2 in fig. 4.1.1 and fig. 4.1.2 above) control the output of the relays. Jumper link 1 controls relay 1 and jumper link 2 controls relay 2.

- Remove the PCB from the receiver enclosure by removing the two screws at the bottom.
- Push the small link 'cap' placed over the pin header (1) up.
- Do the same for small link 'cap' placed over pin header 2.
- Place the PCB back inside the receiver enclosure.

4.4 Erasing the receiver's memory



ATTENTION

During 'erase' mode the relays operate at high speed. They should be isolated from sensitive equipment during this process.

If something went wrong with pairing the transmitter(s) to the receiver, you can easily erase the memory of the receiver to start the pairing again.

- Hold a magnet near the magnetic learn switch for ~10 seconds.
- The receiver will sound a long beep to confirm that the memory has been erased.

NOTE: The memory of the NRC-24 can also be erased by pressing the LEARN switch for ~10 seconds.

5 USE

Once the pairing is completed you can easily use the transmitter to operate a hose reel or a fan.

Hose reel (momentary)

- Push the UP button to move the hose reel UP. When the hose reel has reached the desired height let go of the UP button.
- Push the DOWN button to move the hose reel down. When the hose reel has reached the desired height let go of the DOWN button.

Fan (latched)

- Push the UP button (once) to start the fan.
- Push the UP button (once) to stop the fan.

6 MAINTENANCE

6.1 Periodic maintenance

The product has been designed to function without problems for a long time. In order to guarantee this some simple, regular maintenance activities are required which are described in this chapter.

The maintenance activities in the table below can be carried out by the user.

Component	Action	Frequency: every X months	
		X=6	X=12
Receiver	Check for cracks and loose materials	X*	
Wiring cables	Check for damage		X

*) Before every use

7 TROUBLESHOOTING

Problem	Possible cause	Solution
Only one of the buttons on the transmitter works	Pairing with the receiver went wrong	Erase the memory of the receiver and pair the transmitter(s) again
The hose reel does not move up or down / the fan does not start when pushing the buttons of the transmitter	Empty battery	Replace the battery of the transmitter
	The mains cord is defective	Repair or replace the mains cord
	Wiring cables are damaged or broken	Repair or replace the wiring cables

8 SPARE PARTS

Article number	Description
0000300180	NRC-868-24 receiver
0000300179	NRC-868-230 receiver
0000119277	Handheld remote control with 4 channels

9 DISPOSAL

After life of the product, dispose it of in accordance with federal, state or local regulations.

DECLARATIONS

CE & UKCA declaration of conformity for machinery

We, Plymovent, Koraalstraat 9, 1812 RK Alkmaar, the Netherlands, herewith declare, on our own responsibility, that the product(s):

- new remote control

which this declaration refers to, is/are in accordance with the conditions of the following Directive:

- CE LVD 2014/35 EU
- UKCA The Electrical Equipment (Safety) Regulations 2016

Alkmaar, the Netherlands, December 19th 2022

Kees Janssen
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