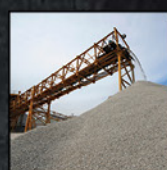
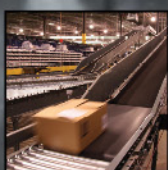


Panther

Installation instructions



Receivers

PN-RX-MN5
PN-RX-MN5E
PN-RX-MD11
PN-RX-MD11E

(PN-R8-1)
(PN-R8-10)
(PN-R8-6)
(PN-R8-11)

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CHAPTER 1: CUSTOMER INFORMATION

THANK YOU FOR PURCHASING A TELE RADIO AB PRODUCT

READ ALL INSTRUCTIONS AND WARNINGS CAREFULLY BEFORE MOUNTING, INSTALLING AND CONFIGURATING THE PRODUCTS.

These instructions are published by Tele Radio AB and are not subject to any guarantee. The instructions may be removed or revised by Tele Radio AB at any time and without further notice. Corrections and additions will be added to the latest version of the instructions.

IMPORTANT! These instructions are directed to installers. The instructions containing information about the installation and configuration of the radio remote control unit on the machine are not intended to be passed on to the end user. Only information that is needed to operate the machine correctly by radio remote control may be passed on to the end user.

Tele Radio AB products are covered by a guarantee/warranty against material, construction or manufacturing faults. During the guarantee/warranty period, Tele Radio AB may replace the product or faulty parts. Work under guarantee/warranty must be carried out by Tele Radio AB or by an authorized service center specified by Tele Radio AB. Contact your Tele Radio AB representative if you need support or service.

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WARNINGS & RESTRICTIONS

WARNING! Tele Radio AB remote controls are often built into wider applications. We recommend that the system is equipped with a wired emergency stop where necessary.

INSTALLING, CONNECTING AND MOUNTING

- Only permit licensed or qualified personnel to install the product.
- Switch off the power supply to the receiver before connecting the equipment.
- Check that the power supply is connected to the correct connection terminal.
- To utilize the safety of the system, use the stop relays in the safety circuitry of the object that you want to control.
- Do not use damaged cables. Cables must not hang loose.
- Avoid installing in areas affected by strong vibrations.
- It is advisable to place the receiver well away from wind, damp and moisture.
- Cable glands and vent plugs must face downwards to prevent water from gaining access.

THE USER

- Only permit qualified personnel to access the transmitter and operate the equipment.
- Make sure that the user follows the instructions.
- Make sure that the user satisfies the age requirements in your country for operating the equipment.
- Make sure that the user is not under the influence of drugs, alcohol or medications.
- Make sure that the user does not leave the transmitter unsupervised.
- Make sure that the user always switches the transmitter off when it is not in use.
- Make sure that the user has a clear view of the work area at all times.

MAINTENANCE

- Use the stop button to start and switch off the transmitter as often as possible.
- If error messages are shown, it is very important to find out what caused them.
- If the stop button is mechanically damaged, contact your representative for service immediately.
- Always contact your representative for service and maintenance work on the product.
- Write down the serial numbers/ID codes of the receivers and transmitters used. This information should be recorded in the "Settings document" for your product (download from our website).
- Avoid registering transmitters in receivers where they are not being used.
- Keep the safety instructions for future reference. Always download the configuration instructions from our website for the latest available version.

WEEE DIRECTIVE



This symbol means that inoperative electrical and electronic products must not be mixed with household waste. The European Union has implemented a collection and recycling system for which producers are responsible. For proper treatment, recovery and recycling, please take this product to a designated collection point.

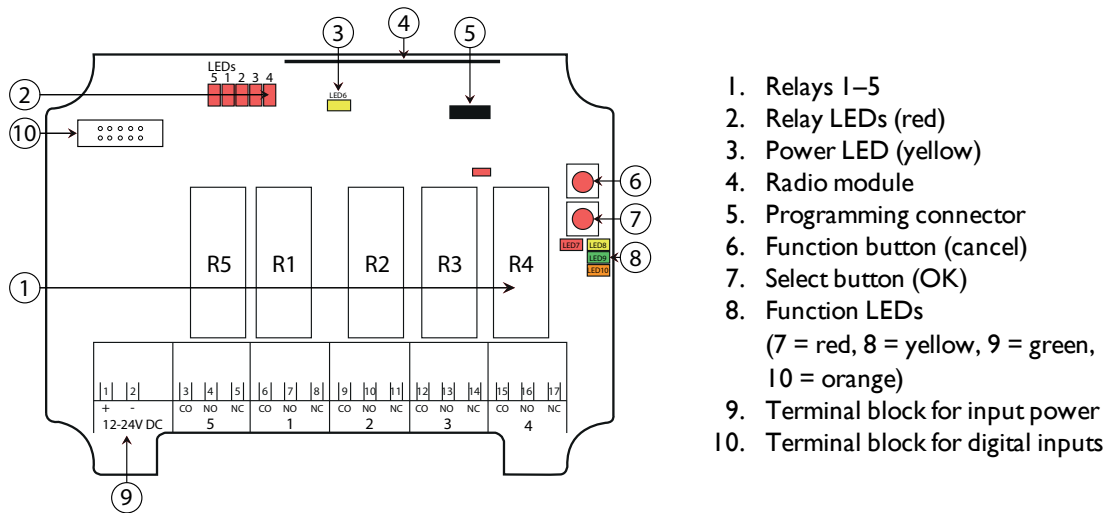
Tele Radio AB strives to minimize the use of hazardous materials, promotes reuse and recycling, and reduces emissions to air, soil and water. When a commercially viable alternative is available, Tele Radio AB strives to restrict or eliminate substances and materials that pose an environmental, health or safety risk.

CHAPTER 2: PRODUCT DESCRIPTION

WARNING! The receiver must NOT be opened by anyone other than a qualified installer. Make sure that the electricity is switched off before opening the receiver.

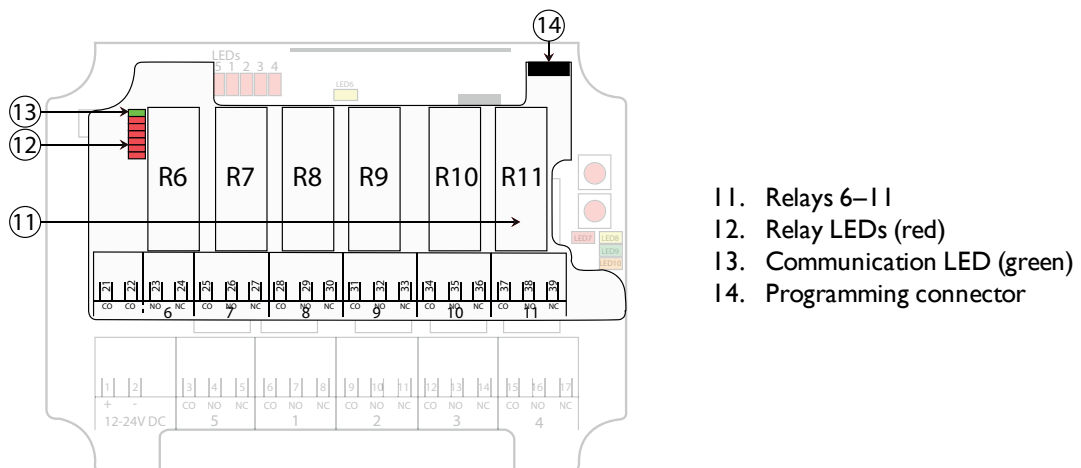
BASE BOARD

NOTE! This base board is fitted in the following receiver models:
PN-R8-1, PN-R8-6, PN-R8-10, PN-R8-11

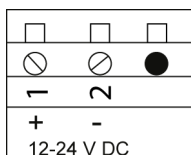


RELAY EXPANSION BOARD

NOTE! This relay expansion board is fitted in the following receiver models:
PN-R8-6, PN-R8-11



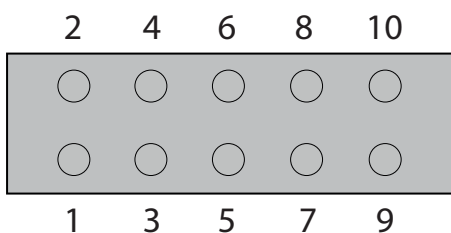
TERMINAL BLOCK FOR INPUT POWER



1. 12–24V DC
2. Negative terminal DC voltage

TERMINAL BLOCK FOR DIGITAL INPUTS

NOTE! For assistance with digital inputs, please contact your representative.



- | | |
|--------------------|--------------------|
| 1. Digital input 2 | 6. Digital input 4 |
| 2. GND | 7. Digital input 7 |
| 3. Digital input 3 | 8. Digital input 6 |
| 4. Digital input 1 | 9. Digital input 8 |
| 5. Digital input 5 | 10. GND |

FUNCTION LEDS INDICATION

LED	Colour	Off	On	Indicates
7	red	x		No transmitter is registered.
			x	Flashes once: One or more transmitters are registered. No radio transmission established.
			x	Double flash: One or more transmitters are registered and logged in. No radio transmission established.
			x	Radio transmission established.
8	yellow		x	Receiving a radio packet from a transmitter other than a Panther.
8 9	yellow green		x	Receiving a radio packet from a transmitter set to the radio mode different from that of a receiver.
8 10	yellow orange		x	Receiving a radio packet from a transmitter that is not registered.
9	green		x	Receiving a radio packet, low signal (RSSI).
10	orange		x	Receiving a radio packet, configuration ID not accepted.
9 10	green orange		x	Receiving a radio packet, custom ID not accepted.
8 9 10	yellow green orange		x	1. Receiving a radio packet from a registered transmitter. The receiver is already controlled by another registered transmitter. NOTE! "Radio link" must be activated in the receiver. 2. Load select mode is activated. Incorrect Load is selected on the transmitter.

ERROR CODES

If an error occurs that requires the attention of Tele Radio AB, all Function LEDs will flash. At the same time, one or more Relay LEDs will light up. Note the Relay LEDs that light up and contact your representative for assistance.

TECHNICAL DATA

	PN-R8-1	PN-R8-6	PN-R8-10	PN-R8-11
Number of relays	5 (potential free*, 10A, 250V AC)	11 (potential free*, 10A, 250V AC)	5 (potential free*, 10A, 250V AC)	11 (potential free*, 10A, 250V AC)
Input power	12–24V DC			
Digital inputs	8			
Radio communication	Simplex			
Max. number of registered transmitters	8			
IP code	66			
Dimensions	120 x 117 x 51 mm / 4.7 x 4.6 x 2 in			
Weight	400 g / 0.8 lbs			
Operating temperature	-20 – +55 °C / -4 – +130 °F			
Frequency band	2405–2480 MHz			
Number of channels	16 (channel 11–26)			
Antenna	Internal antenna		Prepared for external antenna (RPSMA connector in cabinet)	

*Potential free means that a supply voltage is needed to get voltage out of a relay.

CURRENT CONSUMPTION

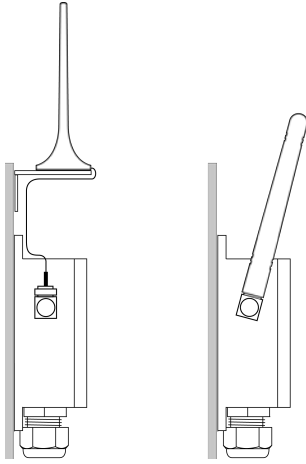
Input power	Min.*	Max.**
12V DC	0.02A	0.03A
24V DC	0.02A	0.02A
24V AC	0.02A	0.02A
48V AC	0.01A	0.05A
110V AC	0.005A	0.03A
230V AC	0.01A	0.02A

*Minimum current consumption = Receiver powered, no active relays, no radio session established.

**Maximum current consumption = Receiver powered, all relays on the receiver active, radio session established.

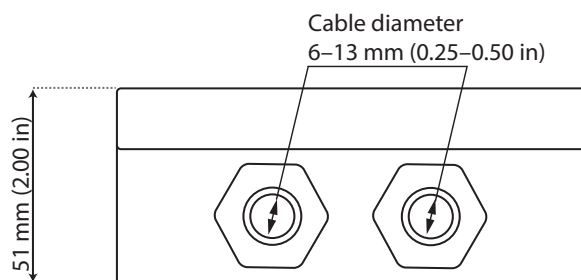
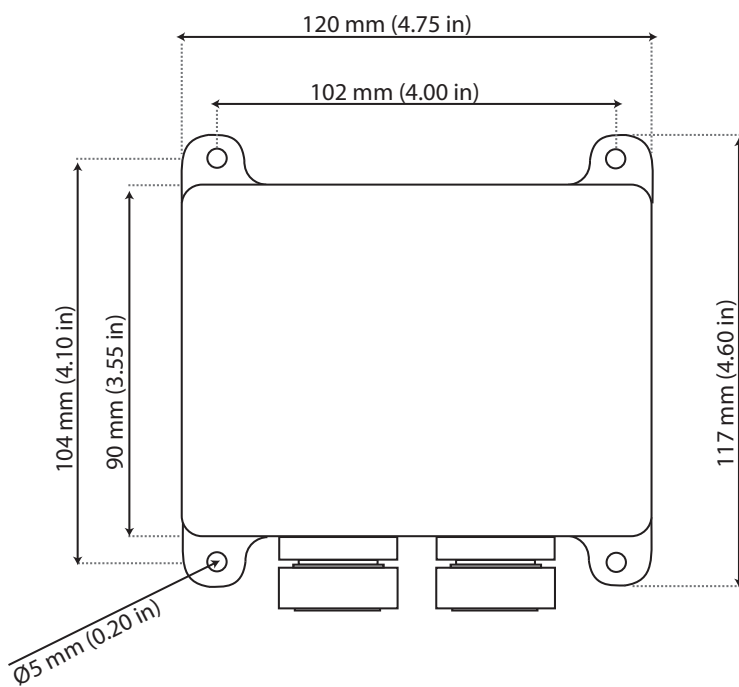
PLACEMENT OF ANTENNA

NOTE! For optimum performance, place well away from metal objects such as metal girders, high-voltage cables and other antennas.



- Antenna with cable – the cable allows the antenna to be positioned freely and high above the ground.
- Antenna without cable – if the receiver is installed on a wall, the antenna should be angled away from the wall.

MECHANICAL INSTALLATION



CHAPTER 3: INSTALLERS' GUIDE

RADIO MODE

NOTE! The radio mode is determined by the selected Operating mode. To establish a radio link between the transmitter and receiver, both units need to be set to the same radio mode.

This receiver is set to discontinuous radio mode by default.

Note that some settings can only be selected when the products are transmitting continuously. These settings are marked with the text: "Only for continuous radio mode".

LOGOUT

NOTE! You cannot activate/deactivate the logout function in the receiver. Contact your representative for assistance.

For this receiver the logout function is deactivated by default.

For this receiver the logout function is activated by default.

For the logout function to work, the receiver must be set to continuous radio mode.

RELAY FUNCTIONS

This receiver is set to momentary relay functionality by default. The relay is active while you press a button on the transmitter: when the button is released the relay deactivates. Setting a relay to latching means that the relay becomes active when you press a button and remains active until the button is pressed again.

Momentary or latching relay functions

NOTE! The settings options depend on the selected Operating mode. If Operating mode 0 is selected, you cannot apply these settings. Contact your representative for assistance.

NOTE! Before choosing these settings, make sure that the stop relays are deactivated!

-
1. Press the Function button twice.
LED 8 lights (yellow). The relay LEDs light (red).

 1. Press the Function button twice.
LED 9 lights (yellow). The relay LEDs light (red).

 2. Press the Select button to enter the settings menu for switching relay functionality.
The relay LEDs flash (red) to indicate that a latching or momentary functionality can be set to the corresponding relays.

 3. Press the Function button to set latching or momentary functionality:
LED 8 (yellow) off = momentary relay functionality
LED 8 (yellow) on = latching relay functionality

 3. Press the Function button to set latching or momentary functionality:
LED 9 (yellow) off = momentary relay functionality
LED 9 (yellow) on = latching relay functionality

 4. Press the Select button to move to the next available relay.
After moving through all available relays, the receiver exits the settings menu and restarts.

OPERATING MODES

Select Operating mode

NOTE! Go to the Operating modes pages to see the Operating modes available when transmitting in continuous/discontinuous radio mode. Operating modes do not work for both radio modes.

1. Press the Function button 4 times.
LED 10 lights (orange).
2. Press the Select button to see the Operating mode in use.
The relay LEDs light (red) according to the table below, LED 10 flashes (orange).

NOTE! The first relay in the row is relay 5. The second relay is relay 1.

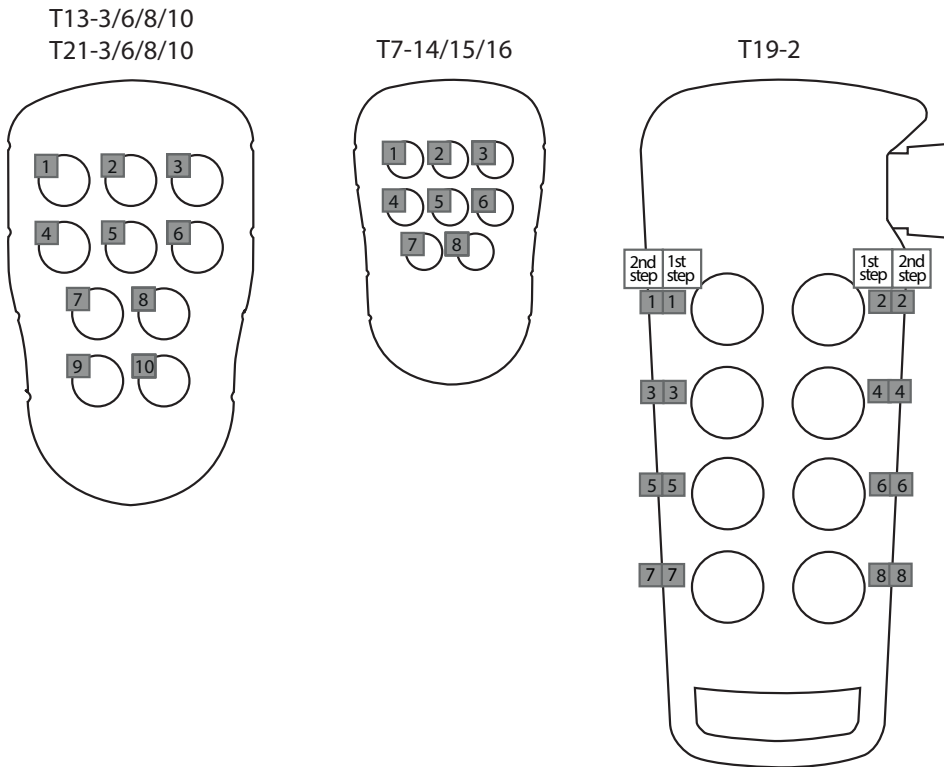
When relay LED no. lights...	the selected Operating mode is...
0	0*
1	1 (default)
ALL	255*

3. Press the Function button to move to the next available Operating mode.
4. Press the Select button to select Operating mode.
The receiver exits the Operating mode menu and restarts.

*Operating modes reserved for specific customer applications. Contact your representative for assistance.

OPERATING MODE 1

NOTE! Only for discontinuous mode.



■ Button functions

On relays	–
Work relays	Relay 11 is active when any of the relays 1–10 are active
Load select relays	–
Programmable relay functions	Relay 1–10 can be set to latching
Interlocking	–
Radio mode	Discontinuous
Zero position check	–

CHAPTER 4: GUARANTEE, SERVICE, REPAIRS AND MAINTENANCE

Tele Radio AB products are covered by a guarantee/warranty against material, construction and manufacturing faults. During the guarantee/warranty period, Tele Radio AB may replace the product or faulty parts. Work under guarantee/warranty must be carried out by Tele Radio AB or by an authorized service centre specified by Tele Radio AB.

The following are not covered by the guarantee/warranty:

- Faults resulting from normal wear and tear
- Parts of a consumable nature
- Products that have been subject to unauthorized modifications
- Faults resulting from incorrect installation and use
- Damp and water damage

Maintenance:

- Repairs and maintenance must be carried out by qualified personnel
- Use spare parts from Tele Radio AB only
- Contact your representative if you require service or other assistance
- Keep the product in a dry, clean place
- Keep contacts and antennas clean
- Wipe off dust using a slightly damp, clean cloth

WARNING! Never use cleaning solutions or high-pressure water.

CHAPTER 5: REGULATORY INFORMATION

CE MARKING

This product is in compliance with the essential requirements of directive 1995/5/EC of the European Parliament and of the Council. Latest version of the EC Declaration of Conformity can be downloaded from the Tele Radio AB website.

CHAPTER 6: FREQUENT TERMS

Configuration ID	Numerical code stored in both the transmitter and receiver unit. The receiver unit can only be controlled by a transmitter with the correct configuration ID.
Continuous radio mode	When in continuous radio mode the transmitter unit transmits continuously when it is switched on.
Custom ID	Numerical code stored in the transmitter unit, used to replace the unique ID code. One or several transmitter units can be configured with the same custom ID and the receiver will recognise them all as the same transmitter unit.
Discontinuous radio mode	When in discontinuous radio mode the transmitter unit transmits whenever it is switched on and a button is pressed. The transmission is interrupted when all buttons are released.
Function relay	Standard relay, controlled by the buttons on the transmitter unit.
Interlocking	Prevents a component from functioning when another component is functioning or operating in a particular way.
Latching relay functionality	The relay becomes active every time you press a button and remains active until the button is pressed again.
Load select mode	One or more Load select modes are stored in the transmitter unit. Activating a specific Load select mode results in a group of preselected relays on the receiver unit, which may be controlled from the transmitter unit.
Momentary relay functionality	The relay will only be active while a button is pressed on the transmitter. When the button is released, the relay will no longer be active.
On relay	Relay that is active when the receiver unit is operating and a radio link is established, regardless of whether any other relays are active.
Operating mode	One or more Operating modes are stored in the receiver unit. Each Operating mode describes which relays on the receiver unit are controlled when specific buttons on the transmitter unit are pressed.
Replace ID	Numerical code used to identify the transmitter during the Replace procedure.
Stop relay	Safety related relay controlled by the stop button on the receiver. Intended to interrupt the power supply to a safety application controlled by the receiver unit.
Work relay	Relay that is active when any other specified relay(s) on the receiver unit is/are active.
Zero position check	Security function ensuring that potentially active buttons/joysticks upon start up or lost/found radio links must be in the zero position before the system can be used to avoid unplanned movements of the controlled object.

INSTRUKTIONER
INSTRUKSJONER
INSTRUCCIONES
ANLEITUNG
JUHISED
INSTRUCTIES
说明



This installation instruction is subject to change without prior notice.
Download the latest installation instruction from www.tele-radio.com