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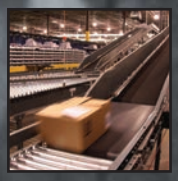
Installation instructions



Transmitters

PN-T13-3
PN-T13-4
PN-T13-6
PN-T13-8
PN-T13-10

IM-PN-TX104-A04-EN
Language: English (original)

TELE RADIO® REMOTE CONTROL

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Parkeer apparatuur.nl

CHAPTER 1: CUSTOMER INFORMATION

THANK YOU FOR PURCHASING A TELE RADIO AB PRODUCT

Read all instructions and warnings carefully before mounting, installing and configuring the products.

These instructions have been published by Tele Radio AB and are not subject to any guarantee. The instructions may be withdrawn or revised by Tele Radio AB at any time and without further notice.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. Always download the installation instructions from our website, www.tele-radio.com, for the latest available version. Keep the safety instructions for future reference.

IMPORTANT! These instructions are intended for 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 remote controls are often built into wider applications. Always refer to the applicable local regulations for installation and safety requirements relating to cranes, hoists or other material handling and/or lifting equipments using Tele Radio AB products, e.g.:

- applicable local and industrial standards and requirements,
- applicable occupational health and safety regulations,
- applicable safety rules and procedures for the factory where the equipment is being used,
- user and safety manuals or instructions of the manufacturer of the equipment where Tele Radio AB remote control systems are installed.

Tele Radio AB instructions do not include or address the specific instructions and safety warnings of the end product manufacturer.

For battery precautions, see "Battery precautions" on page 11.

Tele Radio AB products are covered by a guarantee/warranty against material, construction or manufacturing faults, see "GUARANTEE, SERVICE, REPAIRS AND MAINTENANCE" on page 13

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ABOUT THIS DOCUMENT

Every care has been taken in the preparation of this manual. Please inform Tele Radio AB of any inaccuracies or omissions.

These installation instructions cover general safety issues, main technical specifications, standard installation, configuration and operating instructions, general troubleshooting and battery information. Images shown in this document are for illustrative purposes only.

Term and symbol definitions

The capitalized terms and symbol used herein shall have the following meaning:

- WARNING! indicates a hazardous situation which, if not avoided, could result in death or serious injury.
- CAUTION! indicates a hazardous situation which, if not avoided, will result in minor or moderate injury.
- IMPORTANT! is used for information that requires special consideration.
- NOTE! is used to address practices not related to physical injury.

⚠ This symbol is used to call attention to safety messages that would be assigned the signal words "WARNING" or "CAUTION".

WARNINGS & RESTRICTIONS

⚠ **Carefully read through the following safety instructions before proceeding with the installation, configuration, operation or maintenance of the product. Failure to follow these warnings could result in serious injury and property damage.**

Installing, connecting and mounting

- This radio system must not be used in areas where there is a risk of explosion.
- Tele Radio AB remote controls are often built into wider applications. Those systems should be equipped with:
  - a wired emergency stop where necessary.
  - a brake.
  - an audible or visual warning signal.
- Always switch off all electrical power from the equipment before installation procedure.
- Only licensed or qualified personnel should be permitted to install the product.
- To utilize the safety of the system, use the stop relays in the safety circuitry of the object that you want to control.
- When the equipment controlled by the receiver's standard relays is connected via the stop relays, make sure that the maximum current through the stop relays is still within the specifications. Contact your representative for assistance.
- Avoid registering transmitters in receivers where they are not being used.

Operation

- Only qualified personnel should be permitted to access the transmitter and operate the equipment.
- 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 and medications.
- Make sure that the user knows and follows operating and maintenance instructions as well as all applicable safety procedures and requirements.
- **The user should:**
  - always test the transmitter stop button before operating it. Press the stop button then twist and pull it out. This test should be done on each shift, without a load.
  - never use a transmitter if the stop button is mechanically damaged. Contact your supervisor/representative for service immediately.
  - never let the transmitter unattended.
  - always switch the transmitter off when not in use. Store in a safe place.
  - keep a clear view of the work area at all times.

Maintenance

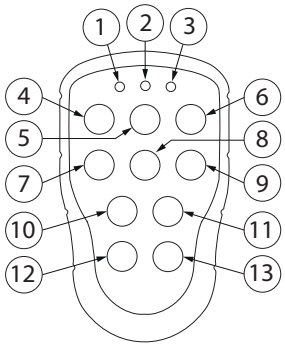
- Keep the safety instructions for future reference. Always download the configuration instructions from our website for the latest available version.
- Always contact your representative for service and maintenance work on the product.
- Write down the serial numbers/ ID codes of the receivers and transmitters used. This information should be recorded in the “Settings document” for your product (can be downloaded from www.tele-radio.com).
- If error messages are shown, it is very important to find out what caused them. Contact your representative for help.
- The functionality of the stop button should be tested at least after every 200 hours’ use. Test the stop button by pressing it and pulling it out.
- If the stop button is mechanically damaged, do not use the transmitter. Contact your representative for service immediately.
- **Before maintenance intervention on any remote controlled equipments:**
  - always remove all electrical power from the equipment.
  - always follow lockout procedures.

CHAPTER 2: PRODUCT DESCRIPTION

TRANSMITTER FRONT

NOTE! Performing a "factory reset" of the unit will return the settings to the factory defaults and all button remapping will be lost.

PN-T13-10



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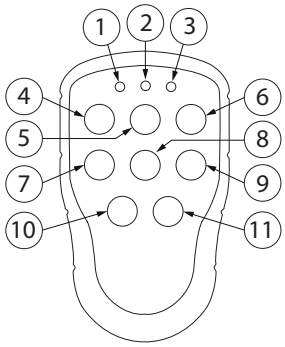

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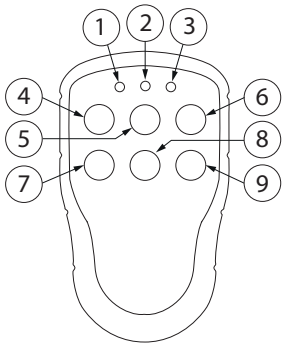
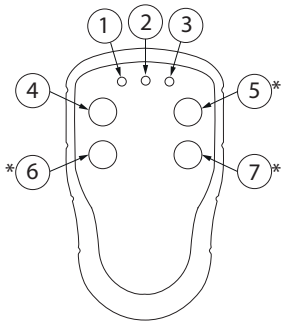
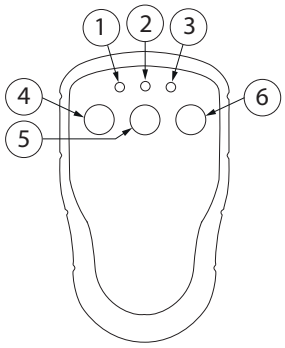


PN-T13-4



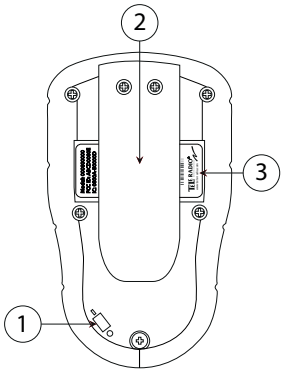
PN-T13-3



1. LED 1 (red)
2. Top LED (red, green)
3. LED 2 (red)
4. Button 1
5. Button 2
6. Button 3
7. Button 4
8. Button 5
9. Button 6
10. Button 7
11. Button 8
12. Button 9
13. Button 10

* On PN-T13-4, the default buttons 3, 4 and 6 have been remapped to work as buttons 2, 3 and 4. Contact your representative for more details.

TRANSMITTER BACK



1. I/O switch
2. Clip
3. Product label

I/O switch

The I/O switch on the back of the transmitter interrupts the power supply from the battery. When in the O/off position, the transmitter cannot be started unless the charger plug is connected.

IMPORTANT! When the transmitter is to be transported by air, the I/O switch must be in the O/off position.

NOTE! The I/O switch should not be used as an on/off button for the transmitter. To start and stop the transmitter, use the stop button.

TECHNICAL DATA

	PN-T13-10	PN-T13-8	PN-T13-6	PN-T13-4	PN-T13-3
Number of buttons	10 x 1-step button	8 x 1-step button	6 x 1-step button	4 x 1-step button	3 x 1-step button
Battery	2 x 1.5 V AAA / LR03 Alkaline				
I/O switch	Yes				
Radio communication	Simplex				
Dimensions	66 x 114 x 37.5 mm / 2.6 x 4.5 x 1.5 in				
Weight	135 g / 0.29 lbs				
Frequency band	2405–2480 MHz				
Number of channels	16 (channel 11–26)				
Radio frequency output power	<10 mW				
IP code	67				
Operating temperature	-20…+55 °C / -4…+130 °F				

FREQUENCY BAND

Channel	Frequency
11	2405 MHz
12	2410 MHz
13	2415 MHz
14	2420 MHz
15	2425 MHz
16	2430 MHz
17	2435 MHz
18	2440 MHz
19	2445 MHz
20	2450 MHz
21	2455 MHz
22	2460 MHz
23	2465 MHz
24	2470 MHz
25	2475 MHz
26	2480 MHz

CHAPTER 3: OPERATION

REGISTER THE TRANSMITTER IN THE RECEIVER

Do not perform this action when the receiver is in a session with another transmitter. The radio communication may be interrupted or broken.

NOTE! Only keep the transmitters that you intend to use registered in the receivers.

NOTE! To establish a radio link between the transmitter and the receiver, both units must be set to the same radio mode.

1. Press the receiver Function button.
   The function LED lights (red).

2. Press the receiver Select button.
   The relay LEDs light (red).

3. Press buttons 1 and 2. Keep pressed.
   The relay LEDs light (red). The relay LEDs flash (red) 2 times.

4. Release buttons 1 and 2.
   The relay LEDs flash (red) 1 time.
   The transmitter is registered.

If no transmitter is found within approximately 10 seconds, the receiver exits to normal operation.

START THE TRANSMITTER

1. Start the transmitter by pressing any button on the transmitter.
   The top LED lights (green when the battery capacity is good, red when the battery capacity is poor).

SWITCH THE TRANSMITTER OFF

1. The transmitter switches off when no transmitter button is pressed.

CHAPTER 4: CONFIGURATION SETTINGS

RADIO MODE

NOTE! You cannot change the radio mode from the transmitter. Contact your representative for assistance.

NOTE! To establish a radio link between the transmitter and the receiver, both units must be set to the same radio mode.

This transmitter is set to discontinuous radio mode by default. The transmitter starts transmitting as soon as the batteries are inserted and any transmitter button is pressed. Radio transmission ends when all transmitter buttons are released.

AUTOMATIC SHUTDOWN

NOTE! Only for continuous radio mode.

NOTE! You cannot change the automatic shutdown time from the transmitter. Contact your representative for assistance.

Automatic shutdown can save battery capacity by automatically switching the transmitter off following a preset period of inactivity.

The transmitter automatic shutdown time is set to 3 minutes by default.

ERASE ALL TRANSMITTERS FROM THE RECEIVER

1. Press the receiver Function button.
   The function LED lights (red).

2. Press the receiver Select button. Keep pressed (at least 4 seconds).
   All relay LEDs light (red). All relay LEDs go out.

3. Release the receiver Select button.
   All transmitters are erased from the receiver.

If the function LED flashes (red), one or more transmitters are still registered in the receiver.

LOAD SELECT MODE

NOTE! You cannot change the Load select mode from the transmitter. Contact your representative for assistance.

Load select mode is deactivated by default (Load select mode 0).

CHAPTER 5: BATTERY GUIDE

BATTERY PRECAUTIONS

Carefully read through the following safety instructions and warnings before using, charging or disposing of the batteries.

Batteries contain flammable substances such as lithium or other organic solvents, which may result in overheating, rupture or combustion. Failure to read and follow the below instructions may result in fire, personal injury and damage to property if charged or used improperly.

Handling and storage

- Risk of explosion if battery is replaced with a battery of an incorrect type.
- Do not short circuit, disassemble, deform or heat batteries.
- Never attempt to charge a visibly damaged or frozen battery.
- Do not use or charge the battery if it appears to be leaking, deformed or damaged in any way.
- Do not solder directly onto batteries.
- Do not leave the battery in the charger once it is fully charged.
- Store in a cool location. Keep batteries away from direct sunlight, high temperature, and high humidity.
- Immediately discontinue use of the battery if, while using, charging, or storing the battery, the battery emits an unusual smell, feels hot, changes color, changes shape, or appears abnormal in any other way.
- Keep batteries out of reach of small children. Should a child swallow a battery, consult a physician immediately.

Disposal

When discarding batteries, insulate the + and - terminals of batteries with insulating/ masking tape.

- Do not place multiple batteries in the same plastic bag.
- Do not incinerate or dispose of batteries in fire.
- Do not place used batteries in the household waste. Dispose of used batteries in accordance with the applicable regulations and legal requirements.
- Batteries that have been disposed of incorrectly may short circuit, causing them to become hot, burst or ignite.

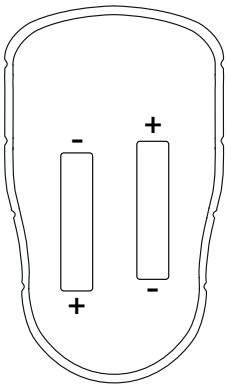
BATTERY INFORMATION

Do not recharge the batteries. Attempts to recharge may cause rupture or hazardous liquids to leak, which will corrode the equipment.

NOTE! Electronics and batteries must be physically separated before disposal. Make sure that electronics or batteries are not disposed of in household waste.

NOTE! When approximately 10 % of battery capacity remains, the top LED lights red.

CHANGE BATTERIES



Battery type: 2 x 1.5V AAA / LR03 Alkaline

1. Remove the back of the transmitter by unscrewing the 5 screws.
2. Replace the 2 x 1.5V AAA batteries. Use alkaline batteries for optimal performance.
3. Screw the back of the transmitter into place.

CHAPTER 6: 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.
- Only use spare parts from Tele Radio AB.
- Contact your representative for service or any other assistance.
- Keep the product in a clean, dry place.
- Keep contacts and antennas clean.
- Wipe off dust using a slightly damp, clean cloth.

NOTE! Never use cleaning solutions or high-pressure washer.

CHAPTER 7: REGULATORY INFORMATION

Applies to: **PN-T13-3, PN-T13-4, PN-T13-6, PN-T13-8, PN-T13-10**

CE MARKING

Hereby, Tele Radio AB, declares that the radio equipment type(s) listed above is/ are in compliance with Directive 2014/53/EU.

The latest version of the complete EU Declaration of Conformity is available on the Tele Radio AB website, www.tele-radio.com.

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.

FCC STATEMENT

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, 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 instructions, 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.

IC STATEMENT

This product complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage;
2. l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ANNEX A: 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.

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INSTRUCTIONS
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TELE RADIO®
REMOTE CONTROL

These installation instructions are subject to change without prior notice.
Download the latest installation instructions from **www.tele-radio.com**