

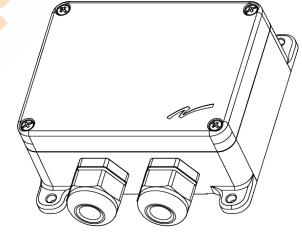
# **INSTALLATION INSTRUCTIONS**



safe

smart

strong



IM-PN-RX101-EN-v04 Language: English (original)

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# **CHAPTER 1: INTRODUCTION**

## Thank you for purchasing a Tele Radio AB product

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

These Installation instructions have been published by Tele Radio AB and are not subject to any guarantees. The Installation instructions may be withdrawn or revised by Tele Radio AB at any time and without further notice. Corrections and updates will be added to the latest version of the manual. 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 and authorized service and distribution centers. 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. This documentation is not intended to replace the determination of suitability or reliability of the product for specific user applications and should not be used for this purpose. It is the responsibility of any such users or integrators to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use. Tele Radio AB shall not be responsible or liable for misuse of the information contained herein.

Always refer to the applicable local regulations for installation and safety requirements relating to cranes, hoists, material handling applications, lifting equipment, industrial machinery, and/or mobile hydraulic applications 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 Installation instructions do not include or address the specific instructions and safety warnings of the end product manufacturer.

Tele Radio AB products are covered by a warranty against material, construction, or manufacturing faults. See "Chapter 9: Warranty, service, repairs, and maintenance".

### 1.1 About this document

Before installing or operating the product, read the corresponding documentation carefully.

Tele Radio AB's product range is composed of transmitters, receivers, and accessories intended for use together as a system.

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

Please report any error or omission in this document, as well as any improvement or amendment suggestion to td@tele-radio.com.

#### 1.1.1 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".

## 1.2 About R8 receivers

R8 receivers have simplex communication and work in either discontinuous or continuous mode.

There are four models.

	Base board	Expansion board	Ant	tenna
	12–24 V DC	6-relay	Internal	External
R8-01	•	0	•	0
R8-06	•	•	•	0
R8-10	•	0	-	•
R8-11	•	•	-	

• Standard <sup>O</sup> Optional<sup>1</sup> - Not available

<sup>1</sup>Must be purchased separately.

# **CHAPTER 2: SAFETY**

## 2.1 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 death or serious injury.

This product must not be operated without having read and understood the Installation instructions, the specific technical documentation (for customized systems), and having received the appropriate training. The purchaser of this product has been instructed how to handle the system safely. The following information is intended for use as a complement to applicable local regulations and standards.

IMPORTANT! Tele Radio AB remote controls are often built into wider applications. These systems should be equipped with:

- a wired emergency stop where necessary
- a brake
- an audible or visual warning signal

### 2.1.1 INSTALLATION AND COMMISSIONING

IMPORTANT! Only licensed or qualified personnel should be permitted to install the product.

This radio system must not be used in areas where there is a risk of explosion.



Always switch off all electrical power from the equipment before installation procedure.

To utilize the safety features of the system, use the stop relays in the safety circuitry of the object/ equipment to be controled.

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.

#### **RISK OF UNINTENDED EQUIPMENT OPERATION**

Only transmitters that are intended for use should be registered in the receiver.

Failure to follow these instructions could result in death, serious injury, or equipment damage.

**RISK OF ELECTRIC SHOCK** 

The receiver must only be opened by qualified installers or authorized personnel.

Make sure the power supply is switched off before opening the receiver. Failure to follow these instructions could result in death, serious injury, or equipment damage.

- The receiver must be securely attached and located where it will not be hit by e.g. any moving parts.
- Do not install the product in areas affected by strong vibrations
- Cable glands and vent plugs must face downwards to prevent water ingress.
- Ensure that the power supply is connected to the correct terminals.
- Ensure that flexible cords and cables are not damaged through friction or stress.
- Do not use damaged cables.
- Ensure cables and connectors do not hang loose.
- The receiver is designed to withstand normal weather conditions but should be protected from extreme conditions.
- Mount the receiver in a location where the LEDs are easily visible and the buttons accessible.
- Make sure to install available accessories inside or on the receiver before permanently installing the receiver. A permanent installation of the product

must include fuse protection of the equipment and cables against short circuits.

#### 2.1.2 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. 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 or representative for service immediately.
- Never leave 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.

#### 2.1.3 MAINTENANCE



Before maintenance intervention on any remote controlled equipments:

- always remove all electrical power from the equipment.
- always follow lockout procedures.
- Keep the safety information for future reference. Always download the Installation instructions from our website, www.tele-radio.com, for the latest available version.
- 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.
- If the stop button is mechanically damaged, do not use the transmitter. Contact your supervisor or representative for service immediately.
- Keep contacts and antennas clean.
- Wipe off dust using a clean, slightly damp cloth.
- Never use cleaning solutions.
- Check the encapsulation, foils and cable for damages. If the encapsulation or foil is damaged, moisture can cause serious damage to the electronics.

# **CHAPTER 3: TECHNICAL DATA**

# 3.1 Receiver specifications

R8-01	R8-06	R8-10	R8-11	
12-24 V DC				
5	11	5	11	
(potential fre	e*, 10A, 250V	AC or 30 V DC	:) <sup>1</sup>	
Momentary, l	atching, inter	locking (prog	rammable)	
8				
2405-2480 M	Hz			
16 (channel 11–26)				
Simplex				
8				
Internal antenna 1 RP-SMA connect		nnector for		
		external ante	enna	
IP66				
-20+55 ° <mark>C / -4+13</mark> 0 °F				
120 x 117 x 51 mm / 4.7 x 4.6 x 2 in				
400 g / 0.8 lb	)S			
	12-24 V DC 5 (potential fre Momentary, I 8 2405-2480 M 16 (channel 1 Simplex 8 Internal ante IP66 -20+55 °C / 120 x 117 x 51	12-24 V DC 5 11 (potential free*, 10A, 250V Momentary, latching, inter 8 2405-2480 MHz 16 (channel 11-26) Simplex 8 Internal antenna IP66 -20+55 °C / -4+130 °F	12-24 V DC         5       11         5       11         5       (potential free*, 10A, 250V AC or 30 V DC         Momentary, latching, interlocking (prog         8         2405-2480 MHz         16 (channel 11-26)         Simplex         8         Internal antenna         1 RP-SMA corrected external antenna         1P66         -20+55 °C / -4+130 °F         120 x 117 x 51 mm / 4.7 x 4.6 x 2 in	

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



<sup>1</sup>Maximum load is indicated for resistive load only..

## 3.2 Current consumption

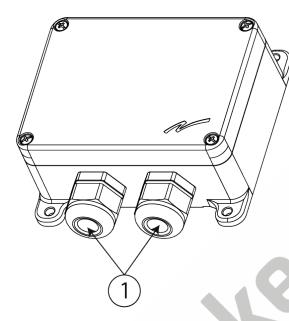
Input power	Min.*	Max.**
12 V DC	0.02 A	0.03 A
24 V DC	0.02 A	0.02 A

\*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.

# **CHAPTER 4: PRODUCT GENERAL DESCRIPTION**

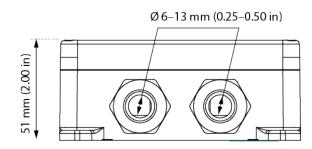
The pictures shown in this chapter are for illustrative purposes only.

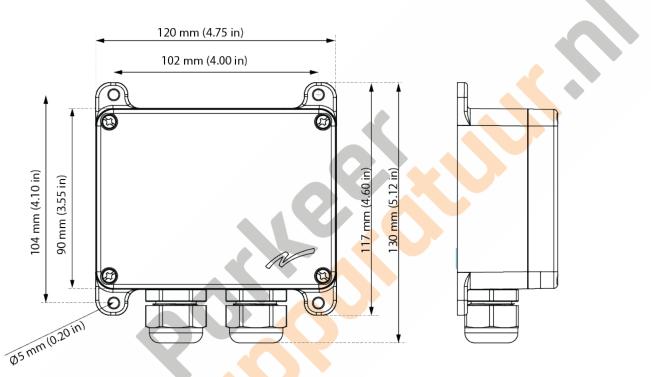


# 4.1 Receiver description

1. Cable glands (M20x1.5)

# 4.2 Mechanical installation





#### 4.2.1 INSTALLATION PRECAUTIONS

#### **RISK OF ELECTRIC SHOCK**

The receiver must only be opened by qualified installers or authorized personnel.



Make sure the power supply is switched off before opening the receiver. Failure to follow these instructions could result in death, serious injury, or equipment damage.

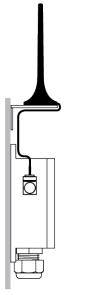
#### IMPORTANT! Only authorized personnel should install the product.

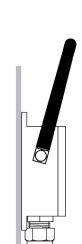
Only correct installation complies with the safety levels for the product.

- A permanent installation of the receiver must include fuses in order to protect the equipment and cables from short circuit.
- The receiver must be installed vertically, on a flat and rigid surface, with the cable at the bottom.
- Mount the receiver in a location where the LEDs are easily visible and the buttons on the receiver accessible.
- Consider the wiring limitation and the radio communication limitation to choose the receiver location.
- Ensure no obstacle is impairing the radio communication performance between the receiver and the transmitter.
- The receiver must not be installed inside closed metal containers.
- Make sure any accessories inside or on the receiver are installed before permanently installing the receiver.
- Test the equipment before installing the receiver permanently.

#### 4.3 Placement of antenna

NOTE: For optimum performance, place the receiver /antenna well away from metal objects such as metal girders, high-voltage cables and other antennas.





- Antenna with cable (fig. on the left) The cable allows the antenna to be positioned freely and high above the ground.
- Antenna without cable (fig. on the right)

If the receiver is installed on a wall, the antenna should be angled away from the wall.

## **CHAPTER 5: BOARD DESCRIPTION**

NOTE: The pictures shown in this chapter are for illustrative purposes only. Depending on the configuration, the actual product appearance may differ from the basic model used for reference.

#### **RISK OF ELECTRIC SHOCK**

The receiver must only be opened by qualified installers or authorized personnel.



Make sure the power supply is switched off before opening the receiver. Failure to follow these instructions could result in death, serious injury, or equipment damage.

IMPORTANT! Only experienced electronic technicians should add and map expansion boards and inputs/outputs.

### 5.1 Base board

NOTE: This board is integrated in the following models: R8-01, R8-06, R8-10, R8-11. 5 4 6 Ο  $\cap$ 3 D 0 00000 **0**0000 8 9 R1 R2 R3 R4 R5  $\odot \ominus$ 1 8 9 10 11 12 13 14 15 16 17 6 NО 5 NO R 12-24 VDC 0 0 1. Terminal block for input power and 6. Power LED (yellow) function relays 1-5\* 7. Programming contact 2. Function relays 1-5 (NO/NC)

- 3. Terminal block for digital inputs
- 4. Relay LEDs (red)\*\*
- 5. Radio module

- 8. Function button (Cancel)
- 9. Select button (OK)
- 10. Function LEDs (7 = red, 8 = yellow, 9 = green, 10 = orange)

\*For more information, see "5.1.1 Terminal block for input power and relays 1–5 on the base board".

\*\*For more information, see "6.1 Relay LEDs indication in normal operation".

# 5.1.1 TERMINAL BLOCK FOR INPUT POWER AND RELAYS 1-5 ON THE BASE BOARD

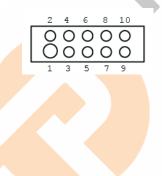
J11		J12			J13			J14			J15			J16	
$\ominus$ $\ominus$ $\bullet$	$\Theta$	$\Theta$	Θ	$\ominus$	$\bigcirc$	$\bigcirc$									
1 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
+ - 12-24 VDC	co	мо 5	NC	со	мо 1	NC	co	NО 2	NC	CO	NО З	NC	CO	NО 4	NC

Terminal block	Pin numbers	Input power	
J11	1	12–24 V DC	
	2	Negative terminal DC voltage 👝	

Terminal block	Pin numbers	Relay Relay name ers number		Contact
J12	3-5	5	Function relay 5	CO-NO/NC
J13	6-8	1	Function relay 1	CO-NO/NC
J14	9–11	2	Function relay 2	CO-NO/NC
J15	12-14	3	Function relay 3	CO-NO/NC
J16	15–17	4	Function relay 4	CO-NO/NC

## 5.1.2 TERMINAL BLOCK FOR DIGITAL INPUTS ON THE BASE BOARD

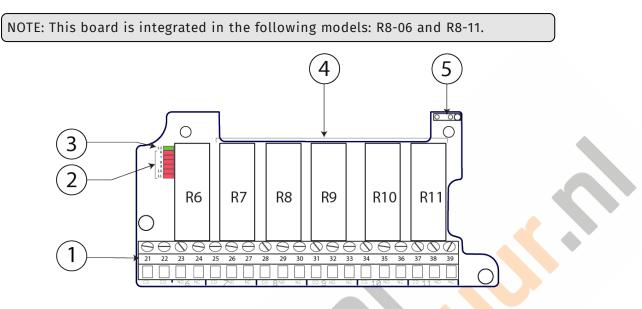
NOTE: For assistance with digital inputs, please contact your representative.



- 1. Digital input 2
- 2. GND
- 3. Digital input 3
- 4. Digital input 1
- 5. Digital input 5

- 6. Digital input 4
- 7. Digital input 7
- 8. Digital input 6
- 9. Digital input 8
- 10. GND

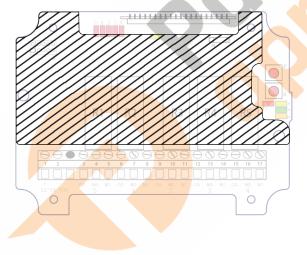
## 5.2 6-Relay expansion board



- Terminal blocks for function relays
   6-11
- 4. Function relays 6-11 (NO/NC)

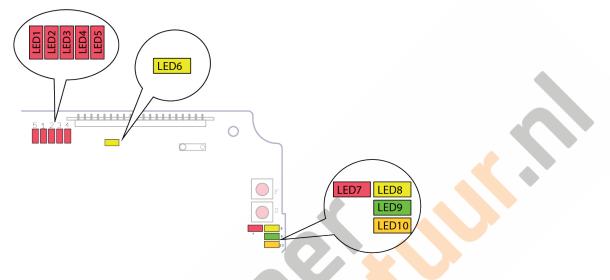
5. Programming contact

- LED indicators for function relays
   6-11 (red)
- 3. Communication LED (green)
- 5.2.1 POSITIONING OF THE 6-RELAY BOARD



## **CHAPTER 6: STATUS AND ERROR INDICATIONS**

LEDs 1–5 are called relays LEDs, LED 6 is the power indication LED and LEDs 7–10 are called function LEDs.



# 6.1 Relay LEDs indication in normal operation

The numbers above the five red leds (LED1–5) correspond to the relay numbers: 5= function relay 5; 1–4 = function relays 1–4.

LED number	LED1	LED2	LED3	LED4	LED5
Relay number	5	1	2	3	4
Function relay 5	•				
Function relay 1		•			
Function relay 2			•		
Function relay 3				•	
Function relay 4					•

# 6.2 Function LEDs indication in normal operation

LED	Color	Off	On	Flashing	Description	
7	red	0			No transmitter is registered.	
			•	Single	One or more transmitters are registered.No	
				flash	radio link.	
			•	Double	One or more transmitters are registered and	
				flash	gged in.No radio link.	
			•		Radio link established.	
8	yellow		•		Receiving a radio packet from a transmitter	
					other than a Panther.	
8	yellow		•		Receiving a radio packet from a transmitter	
9	green				set to a different radio mode (discontinuous	
0					or continuous) than the receiver.	
8	yellow				Receiving a radio packet from a transmitter that is not registered.	
10	orange					
9	green		•		Receiving a radio p <mark>ack</mark> et, low signal (RSSI).	
10	orange		•		Receiving a radio packet, configuration ID	
					not accepted.	
9	green		•		Receiving a radio packet, custom ID not	
10	orange				accepted.	
8	yellow				1. Receiving a radio packet from a registered	
9	green				transmitter. The receiver is already	
					controlled by another registered transmitter.	
10	orange				NOTE: "Radio link" must be activated in the	
					receiver.	
					2. Load select mode is activated. Incorrect	
					Load is selected on the transmitter.	

#### 6.3 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. Write down the error code and contact your representative for assistance.

# **CHAPTER 7: OPERATION**

## 7.1 General information

#### 7.1.1 RECEIVERS WITH LOGIN/LOGOUT<sup>1</sup> FUNCTION ACTIVATED

To control a receiver, the transmitter must be registered and logged in to the receiver. If another transmitter is already logged in to the receiver, it must be logged out before a different transmitter can be logged in.

If no transmitter is logged in to the receiver, the first registered transmitter to be started will automatically log in to the receiver. Once a transmitter has been logged in, it will remain logged in until it is manually logged out.

More than one transmitter can be registered in the receiver, but only one transmitter can be logged in at a time.

## 7.1.2 RECEIVERS WITHOUT LOGIN/LOGOUT FUNCTION OR WITH LOGIN/LOGOUT FUNCTION INACTIVATED

To control a receiver, the transmitter must be registered in the receiver.

If no transmitter is controlling the receiver, the first registered transmitter to be started will automatically take control of the receiver. Switching the transmitter off will free the receiver and allow any other registered transmitter that is started to control the receiver.

More than one transmitter can be registered in the receiver, but only one transmitter can control the receiver at a time.

## 7.1.3 MULTIPLE TRANSMITTERS REGISTERED IN A SAME RECEIVER

If more than one transmitter is registered in the same receiver, it is recommended to select the same frequency channel on all transmitters.

<sup>1</sup>For more information about login/logout, see "7.3 Login/logout function"

#### 7.2 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.

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

## 7.3 Login/logout function

NOTE: Only for **continuous** radio mode.

NOTE: The login/logout function cannot be activated/deactivated in the receiver. Contact your representative for assistance.

For this receiver, the login/logout function is deactivated by default.

#### 7.4 Relay functions

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

# **CHAPTER 8: CONFIGURATION MENU**

All configuration settings require access to the receiver circuit board(s).

#### RISK OF ELECTRIC SHOCK

The receiver must only be opened by qualified installers or authorized personnel.

Make sure the power supply is switched off before opening the receiver. Failure to follow these instructions could result in death, serious injury, or equipment damage.

- Remove the front cover of the receiver. Use a screwdriver to remove the screws.
- 2. Power the receiver up.
- 3. The power LED lights (yellow).
- 4. Proceed with the configuration instructions of your choice.

#### 8.1 Menu mode

To select the different menus, press the **Function** button a predefined number of times according to the following table. Press the **Select** button to enter.

The different menus are identified by the function LEDs 7–10 (see "Chapter 6: Status and error indications").

•: LED	is lit.	O: LED	is off.	
--------	---------	--------	---------	--

Menu	To select the menu,	Function LEDs light					
	press the Function	LED 7	LED 8	LED 9	LED 10		
	button	(red)	(yellow)	(green)	(orange)		
R <mark>eg</mark> ister/Erase trans <mark>mitter</mark> s	once	•	0	0	0		
Show/Change latching/	2 times	0	•	0	0		
momentary functions							
Show settings	3 times	0	0	•	0		
Show/Change <b>Operating</b>	4 times	0	0	0	•		
mode							

#### 8.2 Register a transmitter in the receiver

#### **RISK OF UNINTENDED EQUIPMENT OPERATION**

Only transmitters that are intended for use should be registered in the receiver.

Failure to follow these instructions could result in death, serious injury, or equipment damage.

#### **RISK OF UNINTENDED EQUIPMENT OPERATION**

Do not perform this action when the receiver is in a session with another transmitter. The radio communication may be interrupted or broken. Failure to follow these instructions could result in death, serious injury, or equipment damage.

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

- 1. Set the transmitter in registration mode (see relevant Tele Radio AB transmitter installation instructions).
- 2. Press the **Function** button. Function LED 7 lights (red).
- 3. Press the **Select** button. All relay LEDs light (red).
- 4. Press buttons 1 and 2 on the transmitter to be registered in the receiver.<sup>1</sup> All function LEDs and relay LEDs flash 3 times.
- Release the transmitter buttons.
   All function LEDs and relay LEDs flash 1 time. The transmitter is registered.

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

# 8.3 Register a batteryless button (BLB) transmitter

This procedure is intended for customer specific applications where a transmitter's function buttons 1–4 can be remapped (duplicated) to other buttons on the same

<sup>&</sup>lt;sup>1</sup>Button 1 and 2 are factory defaults (see relevant Tele Radio AB transmitter installation instructions).

transmitter or on a BLB transmitter.

#### **RISK OF UNINTENDED EQUIPMENT OPERATION**

Only transmitters that are intended for use should be registered in the receiver.

Failure to follow these instructions could result in death, serious injury, or equipment damage.

#### **RISK OF UNINTENDED EQUIPMENT OPERATION**

Do not perform this action when the receiver is in a session with another transmitter. The radio communication may be interrupted or broken. Failure to follow these instructions could result in death, serious injury,

or equipment damage.

IMPORTANT! For this procedure to succeed, the receiver must be set to discontinuous mode, the zero position check must be disabled and the receiver must be locked to channel 11.

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 **Function** button. Function LED 7 lights (red).
- Press the Select button. All relay LEDs light (red).
- 3. Press the Function button.
  Relay LED 1 flashes (red).
  Button remapping is now possible with the following settings as default<sup>1</sup>:
  LED 1= button 1, LED 2 = button 2, LED 3 = button 3, LED 4 = button 4 and LED 5 = button 5
- Press the Function button to move between the available "button remaps 1– 4<sup>2</sup> until the desired button remap is selected. The corresponding relay LED flashes.
- 5. Press the **Select** button to confirm.

<sup>2</sup>Button's "AND-mask"

<sup>&</sup>lt;sup>1</sup>For other settings, contact your representative for assistance.

The corresponding relay LED stops flashing and remains lit. The receiver is in BLB registration mode.

NOTE: If no BLB button is pressed within 10 seconds, the receiver will exit registration mode.

 Press the BLB button to be remapped to. All function LEDs and the selected relay LED flash 3 times. The button has been remapped.

The receiver returns to normal operation.

## 8.4 Set momentary or latching relay functions

The setting options depend on the selected **Operating mode** (see "8.5 Operating modes").

- Press the Function button twice. LED 8 lights (yellow). The relay LEDs light (red).
- Press the Select button to enter the settings mode.
   The relay LED for the first available relay flashes (red).
- 3. Press the **Function** button to change the setting for the current relay. Relays can be set to latching or momentary and the current setting is indicated by function LED 8 (yellow).

•:	LED	İS	lit.	0:	LED	İS	off.	

Function LED 8 (yellow)	Indicates
0	Momentary
•	Latching

- 4. Press the **Select** button to confirm the setting and move to the next available relay.
- 5. Repeat steps 3-4 for all available relays.

After the last relay has been programmed (depending on operating mode and hardware configuration), the receiver returns to normal operation.

## 8.5 Operating modes

This receiver is provided with one **Operating mode** as standard. For other **Operating modes**, contact your representative for assistance.

NOTE: If operating mode 255 has been selected, it is not possible to change the **Operating mode** from the receiver.

8.5.1 SHOW/ CHANGE OPERATING MODE

#### **RISK OF UNINTENDED EQUIPMENT OPERATION**

Do not perform this action when the receiver is in a session with another transmitter. The radio communication may be interrupted or broken. Failure to follow these instructions could result in death, serious injury, or equipment damage.

 Press the Function button four times. Function LED 10 lights (orange). The relay LEDs indicate the current Operating mode according to the table below:
 ED is lit. O: LED is off.

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

Relay LED 1	Relay LED 2	Relay LED 3	Relay LED 4	-	Operating mode
0	0	0	0	0	0 <sup>1</sup>
•	0	0	0	0	1 (default)
•	•	•	•	•	255 <sup>1</sup>

NOTE: If no button is pressed within approximately 10 seconds, the receiver will automatically return to normal operation.

To change **Operating mode**:

- Press the Select button.
   Function LED 10 flashes (orange).
- 3. Press the **Function** button once to move to the next available **Operating mode** (repeat until the LED combination corresponds to the desired

<sup>&</sup>lt;sup>1</sup>Operating modes reserved for specific customer applications. Contact your representative for assistance.

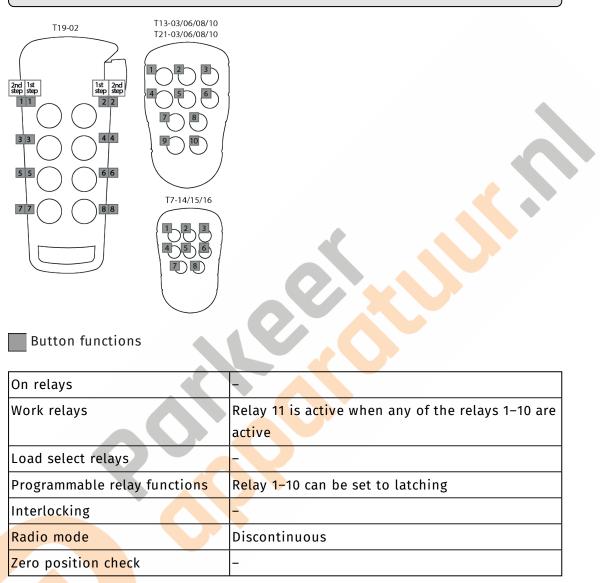
#### Operating mode).

The corresponding relay LEDs lights.

Press the Select button to confirm.
 The new configuration is saved. The receiver returns to normal operation.

#### 8.0.1 OPERATING MODE 1

#### NOTE: Only for **discontinuous** radio mode.



#### 8.1 Active Load select

NOTE: If this setting is set to 0 (status LEDs 1–4 are off), the receiver will always be activated when receiving a radio package. For all other settings, the receiver will be activated when the load select on the transmitter corresponds to one of the load select settings enabled in the receiver.

#### 8.1.1 SHOW LOAD SELECT

 Press the Function button five times and keep it pressed until function LEDs 10 (orange) and 9 (green) light.

The receiver is now in extended menu mode. Relay LEDs 1–4 show the current **Load select** setting according to the table below:

•: LED is lit. O: LED is off.

Relay LED 1 (red)	Relay LED 2 (red)	Relay LED 3 (red)	Relay LED 4 (red)	the receiver will be activated when
•	0	0	0	Load A is selected on the transmitter
0	•	0	0	Load B is selected on the transmitter
0	0	•	0	Load C is selected on the transmitter
0	0	0	•	Load D is selected on the transmitter
0	0	0	0	The receiver does not listen to any load(s) and will always be activated when receiving a radio package.

NOTE: If no button is pressed within approximately 10 seconds, the receiver will automatically return to normal operation.

#### 8.1.2 CHANGE LOAD SELECT

- 1. Press the **Select** button once. Relay LED 1 flashes. Load A can be activated.
- Press the Function button to enable/ unable the Load setting.
   Function LEDs 9 (green) and 10 (orange) light when a Load has been activated. They are off when no Load has been selected.
- Press the Select button once to move to the next available Load (repeat until the LED combination corresponds to the desired Load select).
   The corresponding status LED flashes and the Load can be activated.
- 4. Press the **Select** button to confirm. The new configuration is saved.

The receiver returns to normal operation.

#### 8.2 Log a transmitter out

NOTE: Only for **continuous** radio mode.

NOTE: The logout function cannot be activated/deactivated in the receiver. Contact your representative for assistance.

NOTE: This logout option should only be used if a lost or damaged transmitter must be logged out from the receiver and the replace procedure cannot be used.

NOTE: If a transmitter has been lost or seriously damaged, use the replace procedure on the transmitter whenever possible.

NOTE: Logout can only be performed when the transmitter is on and a radio link with one or more receivers has been established. The receiver must be poweredup for the logout procedure to be successful.

- 1. Press and hold the **Select** button for approx. 4 seconds or until
- 2. Release the **Select** button. All function LEDs light briefly.

The logged in transmitter has been logged out. The receiver returns to normal operation. Any registered transmitter can now log in.

## 8.3 Erase all registered transmitters

NOTE: The following instructions will erase all registered transmitters from the receiver.

- Press the Function button once. Function LED 7 lights (red).
- 2. Press and hold the **Select** button for approx. 4 s or until all relay LEDs go off. All registered transmitters have been erased.

The receiver returns to normal operation.

### 8.4 Master reset of the receiver

This procedure will erase all settings from the receiver and restore factory defaults.

NOTE: The erase function cannot be activated/deactivated in the receiver. Contact your representative for assistance.

#### **RISK OF UNINTENDED EQUIPMENT OPERATION**

Do not perform this action when the receiver is in a session with another transmitter. The radio communication may be interrupted or broken. Failure to follow these instructions could result in death, serious injury, or equipment damage.

- 1. Press both the **Select** and the **Function** buttons for approx. 10 seconds or until all function LEDs go off.
- 2. Release both buttons.

The receiver returns to normal operation.

# CHAPTER 9: WARRANTY, SERVICE, REPAIRS, AND MAINTENANCE

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

The following are **not** covered by the 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 performed 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 10: REGULATORY INFORMATION**

NOTE: Models including additional naming conventions:

Model	Article names	Additional naming conventions
R8	R8-01	R00008-01, R8-1, PN-R8-1, PN-R8-01
	R8-06	R00008-06, R8-6, PN-R8-6, PN-R8-06
	R8-10	R00008-10, PN-R8-10
	R8-11	R00008-11, PN-R8-11

#### 10.1 Europe

Applies to:

R8-01, R8-06, R8-10, R8-11

#### 10.1.1 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.

#### 10.1.2 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.

## 10.2 AEC

Applies to:

#### R8-01, R8-06, R8-10, R8-11

#### 10.2.1 АЕС STATEMENT (ДЕКЛАРАЦИЯ ЕАС)

This product is declared as compliant within Eurasian Economic Union (EAC). EAC declaration is available on request.

## **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 Security function ensuring that potentially active check 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.

## ANNEX B: INDEX

#### A

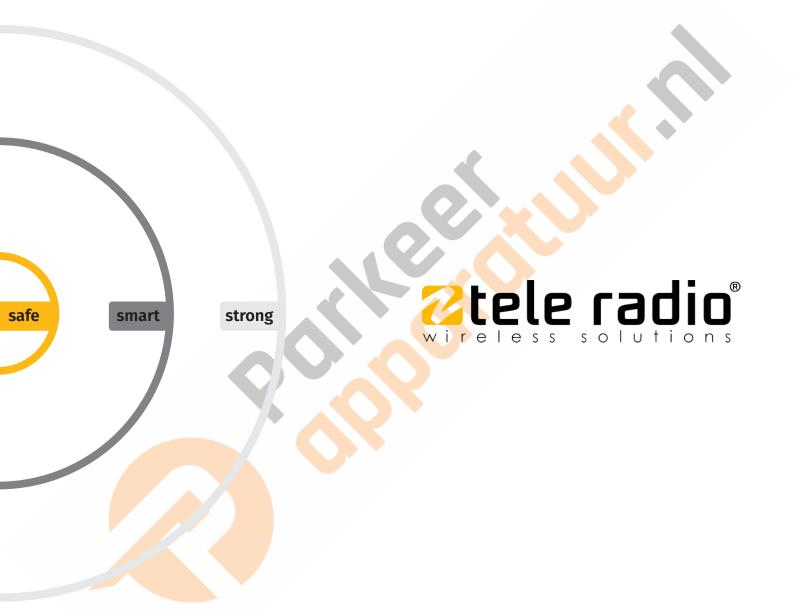
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These Installation instructions are subject to change without prior notice. Download the latest Installation instructions from www.tele-radio.com .