Tele Radio

SAFETY INSTRUCTIONS

LANGUAGE: ENGLISH (ORIGINAL)

ARTICLE CODE: R00004-03, R00004-08, T0009-12

Thank you for purchasing a Tele Radio product

R00004-03, R00004-08, T0009-12
READ ALL INSTRUCTIONS CAREFULLY BEFORE MOUNTING, INSTALLING AND CONFIGURATING THE PRODUCT.

These instructions are published by Tele Radio AB without any guarantee. These instructions are solely directed towards qualified installers. The information shall not be handed to end users. The instructions may be removed or revised by Tele radio AB at any time and without any further notice. Corrections and additions will be added to the updated versions of the instructions.

The instructions that contain information on the installation and configuration of the remote radio control unit on the machine are not intended to be passed on to the end user. Only such information may be passed on to the end user, that is needed to operate the machine correctly by radio remote control.

Tele Radio AB products are covered by a guarantee against material, construction or manufacturing faults. During the guarantee period, Tele Radio AB may replace the product or faulty parts with new. Work under guarantee must be carried out by Tele Radio AB or by an authorized service centre specified by Tele Radio AB. Make sure that repairs and maintenance are only carried out by qualified personnel. Use only spare parts from Tele Radio AB. Contact your Tele Radio representative if you need support or service.

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RECEIVER

TECHNICAL DATA

Maximum current consumption

RX MODEL	12V DC	24V DC	48V AC	230V AC
R00004-03	280 mA	140 mA	140 mA	20 mA
R00004-08	500 mA	240 mA	230 mA	50mA

RELAYS:

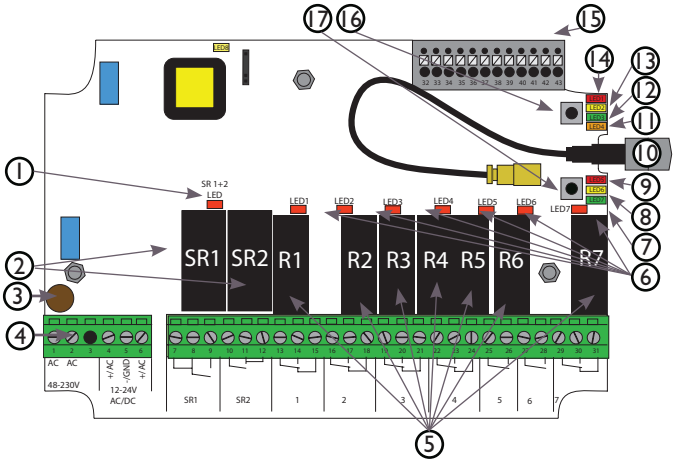
R00004-03	2 safe relays (makes/breaks 16A ACI) + 7 function relays (potential free*,makes/breaks 8A ACI).
R00004-08	2 safe relays (makes/breaks 16A ACI) + 17 function relays (potential free*,makes/breaks 8A ACI).
OPERATING FREQUENCY:	903.0125-926.9875 MHz.
FREQUENCY BANKS:	15 banks
SIZE:	75 x 126 x 176 mm./ 29.5" x 49.6" x 69.3"
WEIGHT:	1000 grams/ 2.2 lbs.
ENCAPSULATION IP CLASS:	IP65

* potential free means that you have to supply voltage to get voltage out of a relay (e.g. via a connection comb).

STOP BUTTON TEST

IMPORTANT! We recommend that the functionality of the STOP button is being tested at a regular basis: At a minimum, when used for 200 hours. Test the STOP button by pressing and pulling it out.

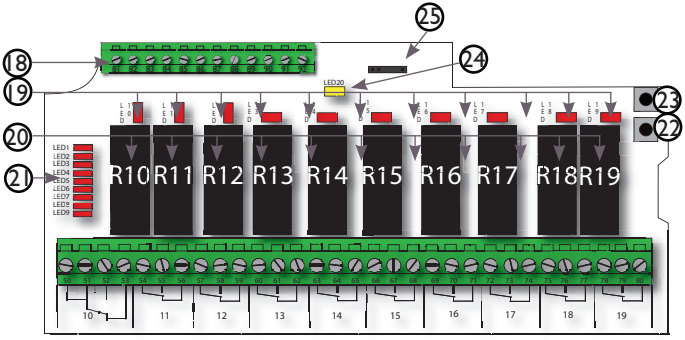
RECEIVER TG-R00004-03, TG-R00004-08
BASE BOARD



1. Stop relays 1+2 LED (red)
2. Stop relays 1+2
3. Obligatory fuse: 2A (slow), must comply with IEC691/EN60691
4. Terminal block for power supply (see next page)
5. Function relays 1-7
6. Relay LEDs1-7 (red)
7. Function LED 7 (green)
8. Function LED 6 (yellow)
9. Function LED 5 (red)
10. Antenna connector
11. Function LED 4 (orange)
12. Function LED 3 (green)
13. Function LED 2 (yellow)
14. Function LED 1 (red)
15. Terminal block for mixed I/Os
16. Function button (Cancel button)
17. Select button (OK button)

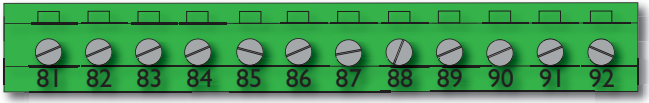
IMPORTANT!
Tele Radio remote controls are often built into wider applications. We recommend that the system is provided with a wired emergency stop where necessary.

TG-R00004-08
10 RELAYS EXPANSION BOARD



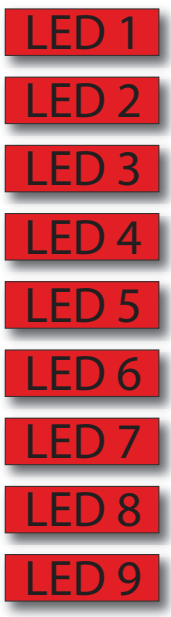
18. Terminal block for digital inputs
19. Relay LEDs 10-19
20. Function relays 10-19
21. Relay LEDs 1-9 (see next page)
22. Select button (OK)
23. Function button (Cancel)
24. Base board communication-LED (yellow)
25. Programming connector

18. Terminal block for digital inputs



81. GND
82. GND
83. GND
84. GND
85. Digital input 3
86. Digital input 4
87. Digital input 5
88. Digital input 6
89. Digital input 7
90. Digital input 8
91. Digital input 9
92. Digital input 10

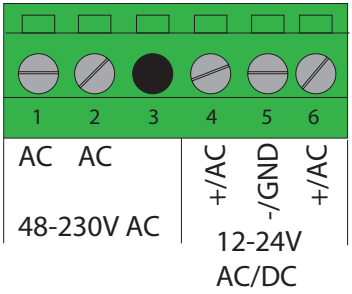
21. Relay LEDs 1-9



LED 1= function relay 1
LED 2= function relay 2
LED 3= function relay 3
LED 4= function relay 4
LED 5= function relay 5
LED 6= function relay 6
LED 7= function relay 7
LED 8= not used
LED 9= stop relay 1+2

LEDs 1-9 on the expansion board indicate the status of the relays on the base board. When one or more of these LEDs are lit, the corresponding relay on the base board is activated (see list).

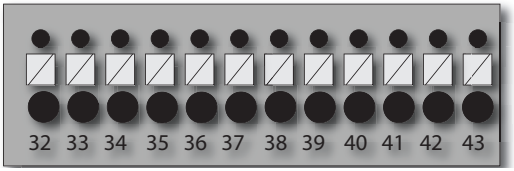
4. Input power



1. 48-230V AC
2. 48-230V AC
3. (not used)
4. 12-24V AC/DC
5. GND
6. 12-24V AC/DC

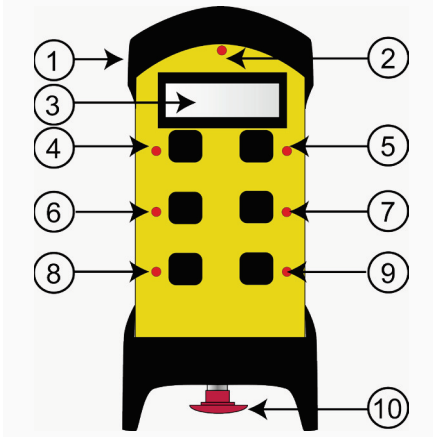
For DC voltages:
Connect positive voltage to 4 or 6. Connect negative voltage to 5.

15. Terminal block for mixed I/Os



32. +12V DC
33. +5V DC
34. GND
35. GND
36. Digital input 1
37. Buzzer
38. Digital input 2
39. GND
40. +3.3V DC
41. RS485A
42. RS485B
43. GND

TRANSMITTER T0009-12



1. Rubber cover
2. Top LED
3. Display
4. Button 1
5. Button 2
6. Button 3
7. Button 4
8. Button 5 (start button)
9. Button 6 (start button)
10. Stop button

START UP IN OPERATING MODE

1. Pull out the stop button.

   The top LED lights (green when the battery capacity is good, red when the battery capacity is poor).

2. WITHIN 3 MINUTES: Press button 5 + 6 at the same time.

   The buzzer beeps.

3. Release button 5+6.

   The buzzer stops beeping. The top LED flashes (green when the battery capacity is good, red when the battery capacity is poor).

ENTER THE TRANSMITTER CONFIGURATION MENU

1. Pull out the stop button.

   The top LED lights (green when the battery capacity is good, red when the battery capacity is poor).

2. Press button 6. Keep pressed.
3. Press the stop button.
4. Release button 6.

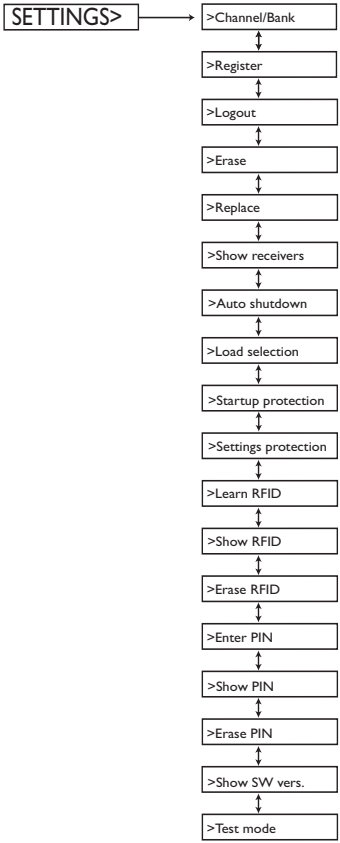
   The top LED flashes (green when the battery capacity is good, red when the battery capacity is poor).

TURN OFF

1. Press the STOP button.

   NOTE! All relays disconnect when the STOP button is pressed.

TRANSMITTER CONFIGURATION MENU MAP



NAVIGATE IN THE CONFIGURATION MENU

To navigate in the configuration menu, press:

Button 1	Step down
Button 2	Step up
Button 3	Step left/ go back
Button 4	Step right
Button 5	Select/ confirm
Button 6	Exit

REGISTER THE TRANSMITTER IN THE RECEIVER

You can register 1-15 TIGER transmitters in a TIGER receiver. Each transmitter has a unique ID code.

1. Press the receiver Function button.

   Function LED 1 flashes red.
2. Relay LEDs 1-7 light to show how many transmitters that are already registered in the receiver.
3. Press the receiver Select button for less than 4 seconds to enter registering mode. The receiver will stay in registering mode for 1 minute or until a transmitter has been registered.
4. Pull out the stop button on the transmitter.
5. Press transmitter button 6. Keep pressed.
6. Press the stop button.
7. Release button 6.

   The top LED flashes (green when the battery capacity is good, red when the battery capacity is poor).
8. Go to [Register] in the Configuration menu.
9. Select by pressing button 5.
10. Select a receiver in the list.

11. Confirm by pressing button 5.
    The display shows [Registering] while the process is ongoing.
    When the receiver has found the transmitter, all relay LEDs flash.
12. Press the receiver Select button.
    Function LEDs 1-7 flash 3 times. The relay LEDs go off.
13. The receiver restarts.
    All Function LEDs light for approx. 1 second.

IMPORTANT! For safety reasons, avoid registering transmitters in receivers where you don´t intend to use it.

ERASE THE TRANSMITTER FROM THE RECEIVER

IMPORTANT! Do not use the erase function during a running session.

NOTE ! The receiver must be powered during the erase function.

1. Pull out the stop button on the transmitter.
2. Press transmitter button 6. Keep pressed.
3. Press the stop button.
4. Release button 6.
   The top LED flashes (green when the battery capacity is good, red when the battery capacity is poor).
5. Go to [Erase] in the Configuration menu.
6. Select a receiver to erase.
7. Confirm by pressing button 5.
   The display shows [Erasing] while the process is ongoing.
   If the erasing fails, the display shows [FAILED]. If the erasing succeeds, the display shows [OK].
8. The transmitter turns off.

SWITCH FREQUENCY BANK

1. Pull out the stop button on the transmitter.
2. Press transmitter button 6. Keep pressed.
3. Press the stop button.
4. Release button 6.

   The top LED flashes (green when the battery capacity is good, red when the battery capacity is poor).
5. Go to [Channel/Bank] in the Configuration menu.
6. Select by pressing button 5.
7. The transmitter turns off.

   When you restart the transmitter after switching frequency, it will transmit on the channels included in the selected bank.

CHARGE THE TRANSMITTER BATTERY

BATTERY TYPE:	Internal, rechargeable lithium-ion
CHARGE:	With a charger plug in the back of the transmitter
CHARGING TEMPERATURE:	0°C to 45°C/ 32°F to 113°
OPERATING TIME:	Approx. 15 h. with continuous usage

FCC AND IC INFORMATION

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Industry Canada licence-exempt RSS standard(s) and 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence et la partie 15 des Règles FCC. L'exploitation est autorisée aux deux conditions suivantes :

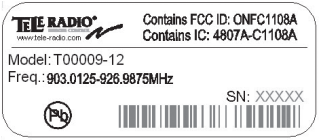
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

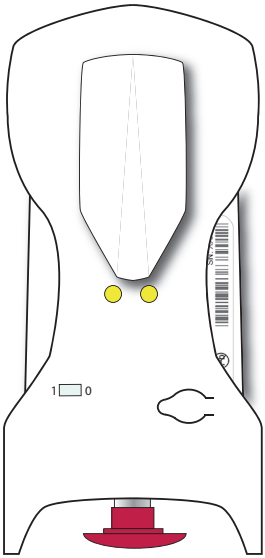
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet appareil est conforme aux limites d'exposition au rayonnement RF stipulées par la FCC et l'IC pour une utilisation dans un environnement non contrôlé. L'utilisateur final doit suivre les instructions de fonctionnement spécifiques pour le respect d'exposition aux RF. Lesémetteurs ne doivent pas être placées près d'autres antennes ou émetteurs ou fonctionner avec ceux-ci.

The radio module in this product is labelled with its own FCC ID and IC number. The FCC ID and IC is not visible when the radio module is installed inside another device. Therefore, the outside of the device into which the module is installed must also display a label referring to the radio module. The final end device must be labelled in a visible area with the following:
"Contains FCC ID: ONFC1108A"
"Contains IC: 4807A-C1108A"
or
"Contains FCC ID: ONFC1104B"
"Contains IC: 4807A-C1104B"

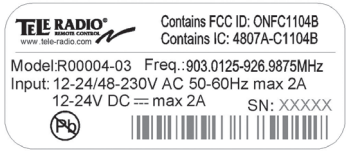
TRANSMITTER PRODUCT LABEL PLACEMENT

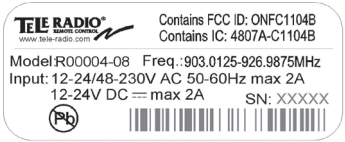


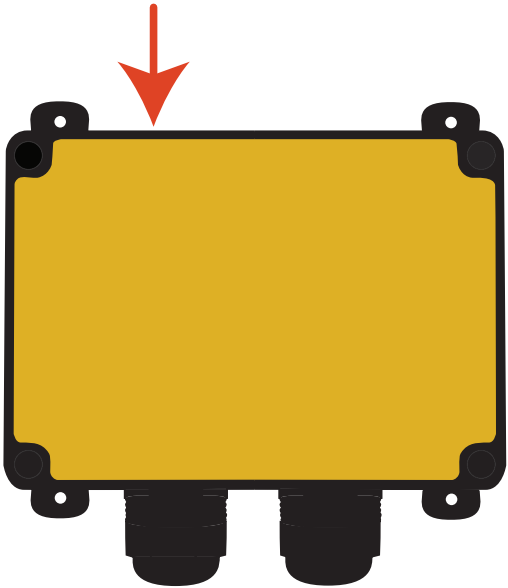


1. Remove the rubber cover by hand.
2. The product label with FCC/ IC information is placed to the right on the transmitter backside (see picture).

RECEIVER PRODUCT LABEL PLACEMENT



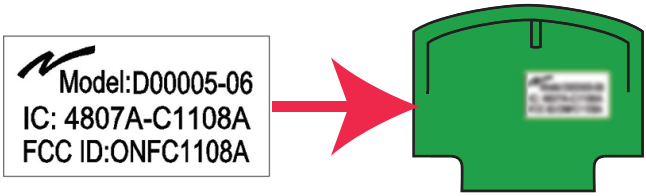




FCC/ IC LABEL PLACEMENT ON TRANSMITTER

The FCC/ IC label is placed on the radio module. The radio module is mounted inside the transmitter.

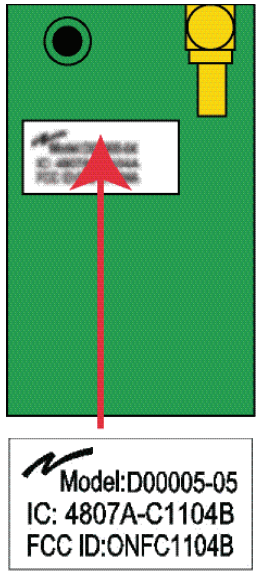
L'étiquette FCC/IC est placée sur le module radio. Le module radio est monté à l'intérieur du récepteur.



FCC/ IC LABEL PLACEMENT ON RECEIVER

The FCC/ IC label is placed on the radio module. The radio module is mounted inside the receiver.

L'étiquette FCC/IC est placée sur le module radio. Le module radio est monté à l'intérieur de l'émetteur.



THE RADIO MODULE

FUNCTION

Each receiver and transmitter unit in the Tele Radio Tiger product range, contains a radio module that is specifically designed to match a Tele Radio Tiger unit in terms of physical dimensions, connection points, voltage levels, signal interface etc. To use the radio modules in non Tele Radio products is not permitted.

The radio modules are designed to interface directly to the main board of the receiver/transmitter unit. They are power supplied by the main board and the radio circuit operates strictly according to instructions from a microprocessor on the main board. The radio circuit configuration is stored in a flash memory on the radio module.

A receiver/transmitter unit with a defective/no radio module will give an error message immediately after power up, and it will not be possible to start a radio session.

CROSS REFERENCE

Cross reference of radio modules and corresponding products:

Tiger unit Radio module:
T0009-* TR224
R0004-* TR254

INSTALLATION INSTRUCTIONS FOR TR224:
1. Make sure that the transmitter unit is turned off.
2. Open the T0009-* enclosure.
3. Assemble TR224 to the 2 x 12 pole socket connector on the bottom side of the main board.

INSTALLATION INSTRUCTIONS FOR TR254:
1. Make sure that the unit is turned off.
2. Open the R0004-* enclosure.
3. Connect the 2x12 pole socket connector of TR254 directly to the main board of R0004-*.

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