

Tele Radio 860 Lion

INSTALLATION INSTRUCTIONS

T00003-20



LANGUAGE: ENGLISH (ORIGINAL)

ARTICLE CODE: RX1-A , RX2-A,
RX3-A, RX4-A, T00003-20

Thank you for purchasing a Tele Radio product

RX1-A, RX2-A, RX3-A, RX4-A, T00003-20

DOWNLOAD INSTALLATION INSTRUCTIONS FROM: www.tele-radio.com

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

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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. A separate End user instruction is available for download from: www.tele-radio.com

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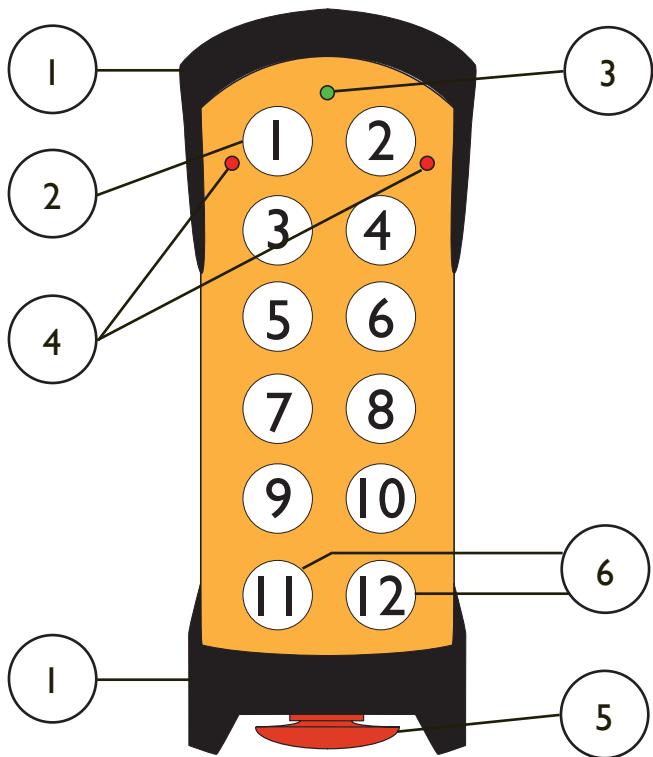
The helpdesk group can help you with questions regarding service and technical support.

helpdesk@tele-radio.com

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TECHNICAL DATA TRANSMITTER



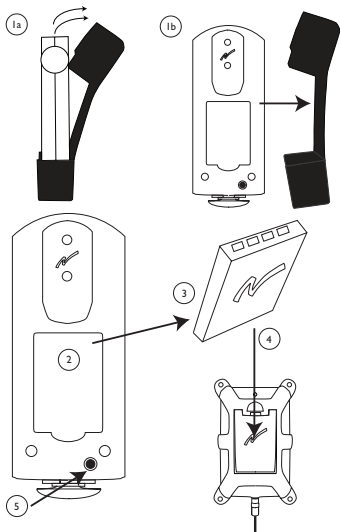
1. removable rubber cover
2. 2-step buttons 1-12
3. red/green top LED

4. red LEDs 1 + 2
5. stop button
6. buttons 11+12: start buttons

TECHNICAL DATA

DEGREE OF PROTECTION:	IP 65
OPERATING FREQUENCY:	433.075-434.775 MHz
CHANNELS:	69
SIZE:	200 x 70 x 35 mm./ 7.9 x 2.8 x 1.4 in.
WEIGHT:	400 g./ 14.1 oz.
BATTERY:	1 external, rechargeable battery (li-ion)

CHARGE THE BATTERY



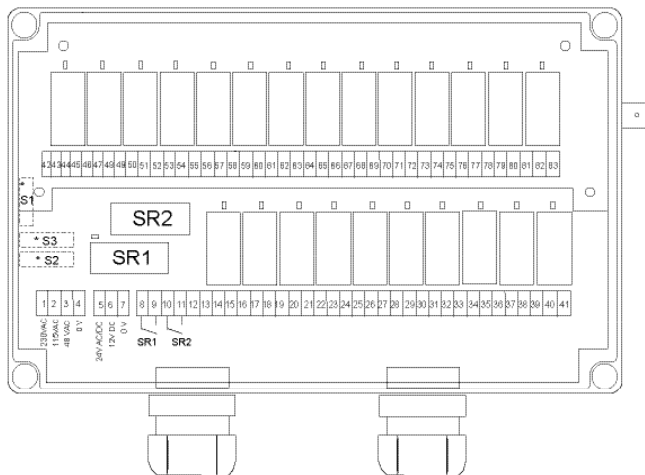
(1a+1b) Remove the rubber cover.

(2) The battery is placed in the back of the transmitter.

(3) Remove the battery to charge in the battery charger (4).

(5) or charge the battery directly in the transmitter

TECHNICAL DATA RECEIVER



* Fuse S1, S2 and S3 ceramic slow.

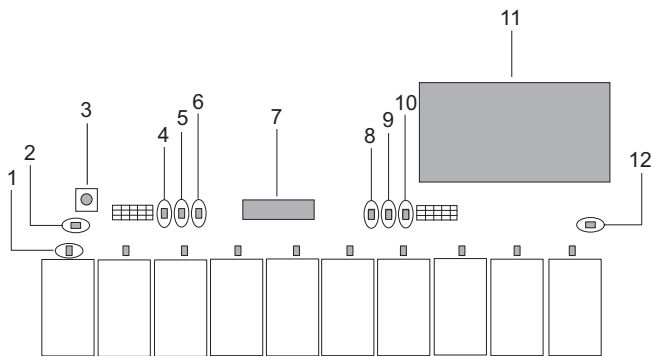
S1	200 mA
S2	300-315 mA
S3	500 mA

* Fuse S1, S2 and S3 ceramic slow

S1: 200 mA.

S2: 300-315 mA.

S3: 500 mA.



- | | |
|-----------------------------|-------------------|
| 1. Red LED 1 | 8. Green LED 8 |
| 2. Yellow LED 2 | 9. Red LED 9 |
| 3. Reset button | 10. Yellow LED 10 |
| 4. Green LED 4 | 11. Radio module |
| 5. Red LED 5 | 12. Green LED 12 |
| 6. Yellow LED 6 | |
| 7. Function selector switch | |

RELAY OUTPUTS:

Midi: 10+2 for stop function

Maxi: 24+2 for stop function

STOP RELAY:

Potential free*, makes 8A AC I

FUNCTION RELAY:

Potential free*, breaks/makes 16A AC I

RADIO:

PLL synthesizer.

CHANNELS:

69 (433.075-434.775 MHz.)

SIZE:

250 x 175 x 75 mm.

9.8 x 6.9 x 3 in.

WEIGHT:

1.900 g./4.19 lb.

ENCLOSURE CLASS:

IP 65

ANTENNA CONNECTOR:

BNC

*potential-free means that you need to supply voltage to get power out of a relay.

RECEIVER LEADS

LED 2 lights yellow when the receiver has the correct supply voltage.

LEDs 6 + 10 flash in yellow 1, 2 or 3 times, depending on how many transmitters that are registered in the receiver.

LED 12 lights green when the receiver receives radio signals (433.075 – 434.775 MHz).

LEDs 4 + 8 light green when a transmitter is logged in to the receiver.

LEDs 5 + 9 light red to indicate a fault on the receiver. Contact your representative.

Each relay has a LED that lights red when the relay is activated.

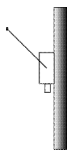
CURRENT CONSUMPTION

SUPPLY VOLTAGE	POWER CONSUMPTION:MIN.	POWER CONSUMPTION: MAX.
12V DC	150 mA	1 A
24V DC	60 mA	600 mA
24V AC	80 mA	800 mA
48V AC	100 mA	400 mA
115V AC	70 mA	200 mA
230V AC	25 mA	100 mA

CONNECT, PLACE AND INSTALL THE RECEIVER

NOTE! To utilize the safety of the system, use relays SR1, SR2 as stop relays in the safety circuitry of the object that you want to control.

If the receiver is to be placed in a hard-to-reach place, we recommend that you complete the settings in the receiver before mounting it.



1/2

Place the receiver:

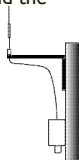
- as well away from wind, damp and water as possible.
- with cable holders and vent plugs face down to prevent water from seeping in.
- as high as possible off the ground.
- in as free position as possible.
- as well away from metal objects, such as metal girders, high-voltage cables and other antennas as possible.



1/4-433K

Place the antenna:

- check that there is a good connection between the antenna and the material on which it has been installed.
- check that the antenna aerial and any coaxial cables are undamaged and that the antenna is directed upwards.
- the 1/2-wave antenna is ground plane independent. If the receiver is installed on a wall, the antenna should be angled out from the wall
- the 1/4-433K antenna with a 3 metres coaxial cable is for high and unobstructed placement. For optimum range, install on a flat roof, free from other metal objects and antennas. When installing the antenna on a vehicle, use a vehicle bracket.
- the 5/8-wave antenna with a 3 metres coaxial cable for high and unobstructed placement. For optimum range, install on a flat roof, free from other metal objects and antennas. When installing the antenna on a wall, use a wall bracket.



5/8

START THE TRANSMITTER

1. Pull out the STOP button.
2. Press the Start-buttons I1+I2 at the same time for more than 1 second.

The transmitter top LED lights.

(With a PIN code: Enter the PIN code (4 digits).

The transmitter top LED lights.

TURN THE TRANSMITTER OFF

1. Press the Stop-button.
NOTE! All relays deactivate when the stop button is being pressed.

REGISTER THE TRANSMITTER IN THE RECEIVER

1-3 transmitters can be registered in each receiver. Each transmitter has a unique ID code. Receiver LEDs 6 + 10 flash to indicate the number of transmitters that are registered:

NO. OF FLASHES	NO. OF REGISTERED TRANSMITTERS
0	0
1	1
2	2
3	3

1. Place the receiver Function selector switch in ON position.
2. Press the receiver Reset button, and keep pressed.
Receiver LEDs 4-6, 8-10 light.
3. Release the Reset button. Receiver LEDs 4, 8, 5, 9 go out.
4. Start the transmitter.
5. Press the Start-buttons again until receiver LEDs 6 + 10 start to flash.
6. Place the receiver Function selector switch in OFF position.

ERASE THE TRANSMITTER FROM THE RECEIVER

1. Place the Function selector switch on the receiver in ON position.
2. Press the reset button on the receiver and keep pressed.
Receiver LEDs 4, 8, 5, 9 light.
3. Release the reset button. Receiver LEDs 4, 8, 5, 9 go out.
4. Place the Function selector switch on the receiver in OFF position.
5. **WITHIN 2 SECONDS:** Place the Function selector switch on the receiver in ON position. Receiver LEDs 6+10 flash.
6. Place the Function selector switch on the receiver in OFF position.

SWITCH FREQUENCY

1. Press the Start-buttons 11+12 at the same time for more than 1 second. Release button 11. Keep button 12 pressed.
2. **WITHIN 0.3 SECONDS:** Release button 12. Press button 2.
The red transmitter LED 2 lights. The transmitter top LED flashes.
3. Enter the safety code: 1, 2, 3, 4 (NOTE! Maximum 5 seconds per button).
The transmitter LED 2 goes out. The transmitter top LED flashes.
4. Select channel. E.g. for channel 02: Press button 0. Release. Press button 2.
The red transmitter LED 2 flashes 3 times to confirm the change of frequency.
5. Restart the transmitter.

FREQUENCY TABLE I (69 CHANNELS)

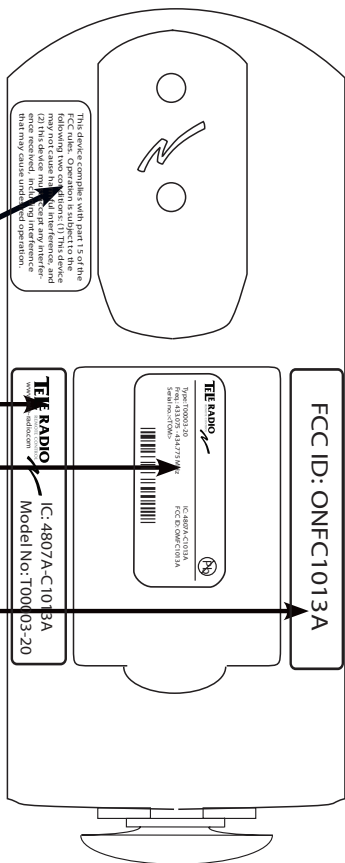
01	433,075 MHz	36	433,950 MHz
02	433,100 MHz	37	433,975 MHz
03	433,125 MHz	38	434,000 MHz
04	433,150 MHz	39	434,025 MHz
05	433,175 MHz	40	434,050 MHz
06	433,200 MHz	41	434,075 MHz
07	433,225 MHz	42	434,100 MHz
08	433,250 MHz	43	434,125 MHz
09	433,275 MHz	44	434,150 MHz
10	433,300 MHz	45	434,175 MHz
11	433,325 MHz	46	434,200 MHz
12	433,350 MHz	47	434,225 MHz
13	433,375 MHz	48	434,250 MHz
14	433,400 MHz	49	434,275 MHz
15	433,425 MHz	50	434,300 MHz
16	433,450 MHz	51	434,325 MHz
17	433,475 MHz	52	434,350 MHz
18	433,500 MHz	53	434,375 MHz
19	433,525 MHz	54	434,400 MHz
20	433,550 MHz	55	434,425 MHz
21	433,575 MHz	56	434,450 MHz
22	433,600 MHz	57	434,475 MHz
23	433,625 MHz	58	434,500 MHz
24	433,650 MHz	59	434,525 MHz
25	433,675 MHz	60	434,550 MHz
26	433,700 MHz	61	434,575 MHz
27	433,725 MHz	62	434,600 MHz
28	433,750 MHz	63	434,625 MHz
29	433,775 MHz	64	434,650 MHz
30	433,800 MHz	65	434,675 MHz
31	433,825 MHz	66	434,700 MHz
32	433,850 MHz	67	434,725 MHz
33	433,875 MHz	68	434,750 MHz
34	433,900 MHz	69	434,775 MHz
35	433,925 MHz		

NOTE! The receiver automatically switches to the new frequency.

PLACEMENT OF LABELS WITH IC AND FCC INFORMATION

1. FCC statement label
2. IC label
3. Product label
4. FCC ID label

1
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.



3. FCC ID label is placed in the battery compartment behind the battery. See page 7 for how to remove the battery.

FCC STATEMENTS

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
2. THIS DEVICE MUST ACCEPT ANY INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION. NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

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.

RADIO TRANSMISSION

The transmitter buttons have 2 steps. Both steps transmit radio continuously when being pressed. When released the radio stops transmitting within 5 seconds.

GUARANTEE, SERVICE, REPAIRS AND MAINTENANCE

The Tele Radio products are covered by a guarantee against material, construction and manufacturing faults. During the guarantee period, Tele Radio may replace the product or faulty parts. Work under guarantee must be carried out by Tele Radio or by an authorized service centre specified by Tele Radio. This is not covered by the guarantee: 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. Repairs and maintenance must be carried out by qualified personnel. Use spare parts from Tele Radio only. Contact your representative or HelpDesk 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. Never use cleaning solutions or high-pressure water.

BATTERY, ELECTRONICS, DISPOSAL AND RECYCLING



PRECAUTIONS

Observe the following warnings.

- As batteries contains flammable substances such as lithium or other organic solvents, they may cause heating, rupture or ignition.
- Risk of explosion if battery is replaced with a battery of an incorrect type.
- Do not short circuit, disassemble, deform or heat batteries.
- Never try to charge a visibly damaged or frozen battery.
- Do not charge rechargeable batteries with a higher voltage than specified.
- Keep batteries out of reach of small children. Should a child swallow a battery, consult a physician immediately.
- Avoid direct soldering to batteries.
- When discarding batteries, insulate the + and - terminals of batteries with insulating/ masking tape. Do not put multiple batteries in the same plastic bag.
- When improperly disposed, lithium batteries may short circuit, causing them to become hot, burst or ignite.
- Store in a cool location. Keep batteries away from direct sunlight, high temperature, and high humidity.
- Do not throw batteries into fire.

BATTERY DATA

BATTERY TYPE:	External and rechargeable lithium-ion
CHARGE:	In the charger unit 5V DC \pm 10% (1A)
CHARGING	
TEMPERATURE:	0°C to 45°C/32°F to 113°F
OPERATING TIME:	Approx. 24 h. with continuous usage

- Before using the transmitter for the first 3-4 times, make sure that the battery is fully charged.
- When it's time to charge the battery, the internal buzzer beeps 3 times, and the top LED turns red (when approx. 10% of the battery capacity remains).
- The top LED remains red during charging. When the top LED turns green, the battery is fully charged (approx. 4 hours).
- The battery can not be overcharged.
- We recommend that you use your battery at least once a month. If you for some reason won't use it for a longer period, store in a cool, dry and clean place. Before starting to use the battery again, make sure that it is fully charged.

NOTE! The transmitter must be on to check the battery status.

PLACEMENT OF BATTERY

The battery is placed in the back of the transmitter.

DISPOSAL OF BATTERIES AND ELECTRONICS

Batteries and electronic waste may contain toxic heavy metals. If thrown away in the trash, the toxic compounds can leach into soil and water, pollute lakes and streams, making them unfit for drinking, swimming, fishing, and wildlife. A lithium-ion battery does not contain mercury, cadmium or lead and is better for the environment than older types of batteries. Rechargeable batteries last considerably longer than single-use batteries, so using them means fewer batteries for disposal. Even rechargeable batteries have a finite life span and shall be recycled. Contact your local government's recycling or solid waste department for more information on proper disposal of batteries and electronics in your region.



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