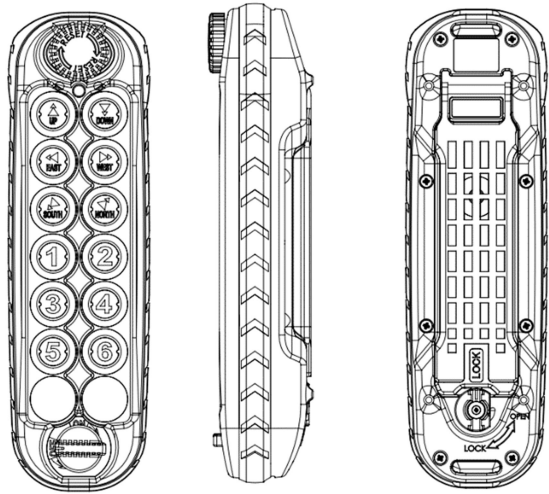


# TeleRanger®



## TR1 series

### User Manual



[www.tele-ranger.com](http://www.tele-ranger.com)

#### ATTENTION

- The manual must be read thoroughly before proceeding with installing and operating the device.
- Only properly trained persons designated by management should be permitted to operate radio controlled equipment, as the remote control pertains to the crane, hoist, lifting device or other material handling equipment being operated.
- Avoid installing in areas affected by strong vibration.
- Place the receiver well away from wind, damp and water.
- Cable glands and vent plugs must face down to prevent water from seeping in.
- Make sure that the user is not under the influence of drugs, alcohol and medicines.
- Make sure that the user always turns the remote control off when not in use.
- Make sure that the user does not leave the transmitter unsupervised.
- The crane should be equipped with main power relay, limit switch and other safety devices.
- Do not use during lightening or high electrical interference conditions.
- Make sure that the batteries are in good condition and power for receiver is correct. The LED indicator on transmitter will flash in red constantly when low battery, all the batteries must be replaced at the same time.
- The user should test the emergency stop function and all warning devices before operating; test should be done on each shift, without a load.
- Maintenance should only be done while the crane's main power is off to prevent electrical shock.
- The contents of this manual may be amended by the manufacturer without notice.
- The manufacturer may introduce new functions to the remote control as necessary; therefore, the descriptions may change.

#### Safety Considerations

This product and related documentation must be reviewed for familiarization with safety markings and instructions before operation.

High Voltage

Indicates presence of hazardous voltage. Unsafe practice could result in severe personal injury.

Warning

Denotes a hazard. Included text gives proper procedures. Failure to follow instructions could result in severe personal injury and/or property damage.



#### Transmitter LED indicator

Green Light	Full power: Batteries good
Yellow Light	Low Power: Stop operation until new batteries are replaced.
Red Light	Very Low power: An emergency stop signal will generate automatically to receiver due to very low power. Operator should avoid this situation in order to maintain a safety operation.
<b>Remark: To extend the battery life, always switch rotary key to OFF position when not in use.</b>	

#### Transmitter Spec.

Emission Power	<10 mW
ID code	32 Bits
Operating Temp	-30C ~ +85C
Enclosure	Fibre-reinforced plastic
Operating Range	Up to 100 meters
IP Rating	IP67
TR1-6 Battery	AA size battery x 2
TR1-8/12 Battery	AA size battery x 4
TR1-6 Dimension	156 x 65 x 49 mm
TR1-8/12 Dimension	222 x 65 x 49 mm
TR1-6 Weight(w/o battery)	About 235 g
TR1-8/12 Weight(w/o battery)	About 350 g

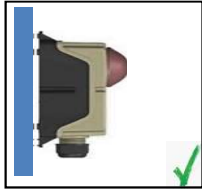
#### Receiver Spec.

Operating Temp	-30C ~ +85C
Enclosure	Fibre-reinforced plastic
IP Rating	IP66
Receiver Power	10-60 VDC 28-456 VAC
TR1-6 Receiver Dimension	241 x 90 x 70 mm
TR1-8/12 Receiver Dimension	255 x 117 x 130 mm
TR1-6 Weight(w/o cable)	About 390 g
TR1-8/12 Weight(w/o cable)	About 900 g

#### Troubleshooting

Error Message	Transmitter solid red LED	TX red LED flashing slowly	TX red LED rapid flashing	TX yellow LED three rapid flashing per 3 seconds
Inspection	1. e-Card not inserted 2. e-Card data error	1. Power too low, change new batteries.	1. TX pushbutton jammed 2. Fail to follow the standard power-on procedure.	1.e-Card version error, check e-Card status.

## Receiver Installation Guide



### Important Notice

- Make sure that receiver installed on a safe and visible location.
- Make sure all power is off before installation to avoid electric shock.
- Make sure the voltage supply that fits within receiver default setting.

## How to Start

(a) Open battery compartment and insert AA batteries in correct polarity direction. And lock the battery compartment.

(b) Release the EMS button clockwise.  
(c) Turn the Rotary KEY into "ON" position

(d) Then switch the rotary key from "ON" to "START" position for Power-On

(e) Press function button for operation.



## How to Stop

a) Press EMS button.

b) Turn the rotary key to "OFF" position and unplug the KEY (**Note: To unplug the key, turning rotary key counter-clockwise further from OFF position**)

c) Remove the batteries when the remote is not going to be used for a long period of time.

## PROCEDURES OF EMERGENCY

In case of an Emergency, please follow the steps below and ask the distributor for service immediately.

1. Press "EMS" button.
2. Turn the key to "OFF" position and remove it.
3. Switch off the main power of crane.
4. Contact the distributor for inspection and service.

## Replacing transmitter battery

TR1 transmitter accepts Alkaline/ rechargeable/ RCR-V3 batteries.

Remove battery block when using RCR-V3 batteries.



## Safety Precautions

1. Press EMS button and switch off main power of crane & receiver after operation. Then remove transmitter rotary key and keep in a safe place.
2. The following situations may cause receiver response delay and stop operation immediately when situation occurs.
  - (a) Beyond operating range
  - (b) During severe radio interference
3. Remove transmitter batteries when not in use for long period of time.
4. To extend product life, please follow the standard operating procedure and maintain system regularly.
5. Check EMS button and other system main functions before operation.
6. Press EMS button during system failure or any abnormal conditions occur.

## Limited Warranty

TELERANGER guarantees that this product meets its published specifications at the time of shipment from the factory. Under proper installation it should work as expected. However, TELERANGER cannot guarantee that operation in TELERANGER system is absolutely error-free, or without interruption.

### Excluded Items

This warranty does not include consumable parts such as batteries, fuses, buttons, and relays. Also this warranty does not cover failure or damage resulting from misuse, accident, unauthorized modification, unsuitable operating environment, natural disasters, improper software setting or improper maintenance.

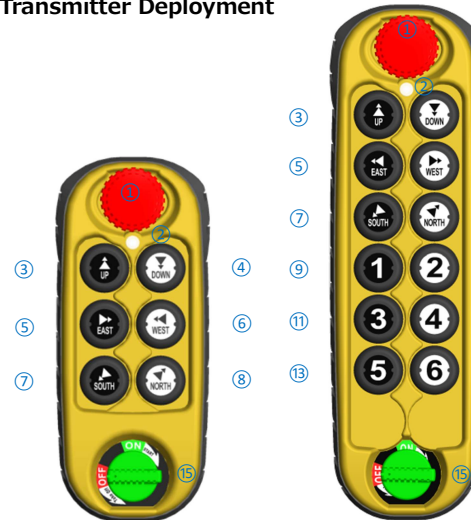
### Limitation of liability and remedy

If your TELERANGER product fails to work as warranted above, TELERANGER maximum liability under this limited warranty is expressly limited to the lesser of the price you have paid for the product. TELERANGER disclaims any liability as a result of any direct/indirect, special, incidental or consequential damages.

### Remarks

No other warranty is expressed or implied, except for the above mentioned. Any use of this remote control product would be regarded the same as agreed to all clauses within this user manual.

## Transmitter Deployment



TR1-6 Transmitter



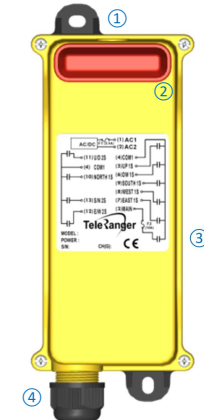
TR1-12 Transmitter

1. EMS
2. LED Indicator
3. Button UP
4. Button DOWN
5. Button East
6. Button West
7. Button South
8. Button North
9. Button R1
10. Button R2
11. Button R3
12. Button R4
13. Button R5
14. Button R6
15. Rotary Key (START)
16. Battery Cap
17. Battery Cap Lock



TR1-12 Transmitter

## Receiver Deployment



TR1-6 Receiver

1. Mounting hole
2. Power Indicator
3. Wiring Diagram
4. Cable Gland



TR1-12 Receiver