ENGINEERING
TOMORROW

User Manual

Remote Control
IKORE Transmitter

www.danfoss.com

Revision history

Table of revisions

Date	Changed	Rev
January 2026	Updated Safety information	0201
January 2019	Rebranded to Danfoss Power Solutions	0101

Contents

Safety instructions

FCC rules

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

Changes or modifications not expressly approved by the manufacturer can void the user's authority to operate the equipment.

To comply with FCC RF exposure compliance requirements, this device and its antenna must not be collocated with, or operating in conjunction with, any other antenna or transmitter, may not cause harmful interference, and must accept any interference received, including interference that may cause undesired operation.

The limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning

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

IKORE General Safety

The following safety instructions must be read carefully to install and use the product properly, and to keep it in perfect working condition, and to reduce the risk of miss use.

- **Danfoss recommends the use of ESD PPEs (electrostactic discharge personal protection equipment).**
- Strictly adhere to the installation instructions contained in this document.
- Make sure that professional and competent personnel carry out the installation.
- Ensure that all on site and prevailing safety regulations are fully respected.
- The Electrical Installation where it may be connected, The receiver may be connected through an automatic magneto thermic switch (with omnipolar cut capacitance: F+N) and differential with characteristics according to the Low Voltage Recommendations.
- Make sure that this document is permanently available to the operator and maintenance personnel.
- Keep the transmitter out of reach of non-authorized personnel.
- Remove the transmitter key when the set is not in use.
- Check each working day the STOP button and other safety features. When in doubt, press the STOP button.
- Whenever several sets have been installed, make sure the transmitter is the right one. Identify the machine controlled on the label for this purpose on the transmitter or by using the display (in case it does have one).
- Service the equipment periodically.
- Avoid High Pressure water Spraying to Receivers while cleaning the machine
- When carrying out repairs, use spare parts supplied by Danfoss only.

Safety instructions

Warning

Potential damage to the operator or the product. Do not use this product on machines in potentially explosive atmospheres unless the model is ATEX/RATEX certified to work in such conditions.

IKORE Safety Warnings

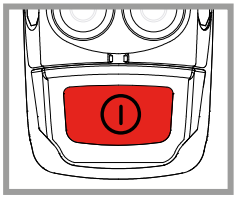
Potential damage to operator and product.
Follow the guidelines below to reduce risk of injury to the operator and the product.

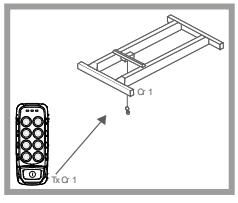
- Use the device with the manufacturer's battery and battery charger (if applicable).
- Only allow qualified personnel to operate the equipment.
- Always set the STOP button in the off position when not in use.
- Always press STOP before plugging in tether cable (if applicable).
- Remove the Tether connection on the transmitter First (if applicable).
- Do not operate product when visibility is limited.
- Make sure product is compatible with the machine.
- Avoid knocking or dropping the product.
- Do not use the product if a failure is detected.

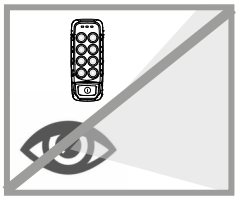
Changes or modifications not approved by Danfoss can void the user's authority to operate this product.

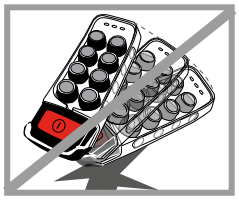
Quick reference precautions


Remove the EEPROM in order to disable the transmitter


When in doube, press the STOP button


Make sure the transmitter works with the machine to be handled


Do not use the set when visibility is limited


Avoid knocking or dropping the set

Data Encryption

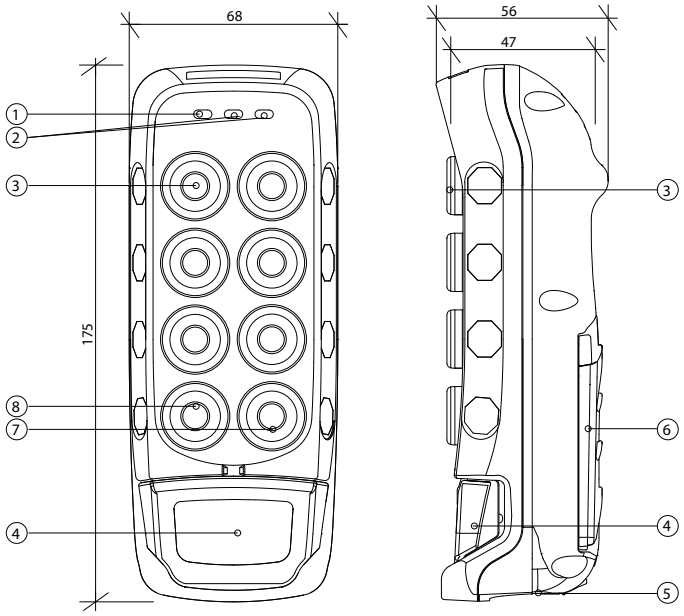
In alignment with **Commission Delegated Regulation (EU) 2022/30**, supplementing the **Radio Equipment Directive (RED) 2014/53/EU**, we are introducing **encryption for radio communication** in TM80 2.4 GHz platform. This measure is designed to:

- Protect the integrity and confidentiality of transmitted data
- Prevent unauthorized access and misuse of network resources

Technical description

IKORE dimensions and identification

Dimensions in mm



1. Status LEDs
2. Hoist selection LEDs
3. Maneuver push buttons
4. STOP button
5. External and extractable EEPROM module
6. Rechargeable Li-Ion batteries BT11K
7. START push button
8. Hoist selection push button

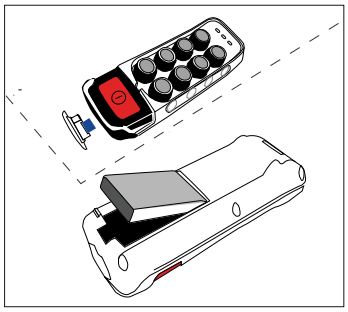
Alkaline Battery Enclosure

ATTENTION: The Alkaline Battery enclosure is not IP65. It is recommended to tight the Battery holder Screw as much as possible at the time of replacing the batteries.

Technical description

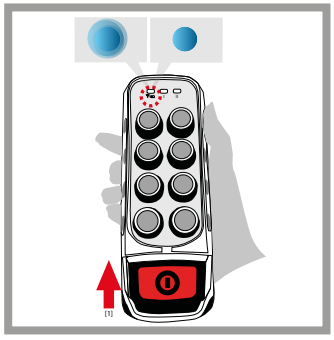
IKORE startup

1. Insert the EEPROM and fully charged rechargeable BT11K battery.



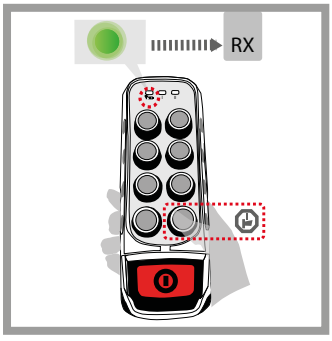
2. Push and pull out the STOP button.

   The status LED will blink in blue until it reaches the stand-by mode and then it will turn into a fixed blue.



3. Press the start button.

   The LED will blink green until the transmitter is linked with the receiver.



When the receiver confirms the link, the status LED will turn to a fixed green and the system is now fully operational.

When the system controls two hoists, there will be a push button for the selection of individual or joint control. I and II LEDs will show their selection.

Technical description

IKORE detailed description

Technical data

Description	Value
Stop function (2.4GHz)	Cat. 4-Ple EN13849-1 and SIL 3 IEC 61508 / IEC 62061
Ingress Protection rating	IP65/NEMA4 *
Anti-condensation system	N/A
Frequency band - ERP	2405MHz to 2475MHz 20dBm/100mW
Main mechanisms (maximum)	Push button (7) + START + STOP
Range Line of Sight (guaranteed)	100m
Auxiliary Mechanisms	N/A
Removable EEPROM	External
Battery model	4 x AAA Alkaline Batteries
Battery life	>70hr (100% duty cycle)
Response Time	100ms
Operating temperature range	-20 °C to 70 °C (-4 °F to 158 °F)
Storage Temperature Range (24h)	-25ºC to 75ºC (-13ºF to 167ºF)
Storage Temperature Range (long periods)	-25ºC to 55ºC (-13ºF to 131ºF)
Relative Humidity	max. 95% without condensation
Weight (with battery)	315 grams
Dimensions LxWxH mm	174.5x68x56
Harness	Hand strap/shoulder strap
Options	
Display	N/A
LED Panel	Yes (2 LEDs)
Cable connector	N/A
Range limiter	N/A
Associated receivers (2.4GHz)	R11

* The Alkaline battery enclosure is not IP65

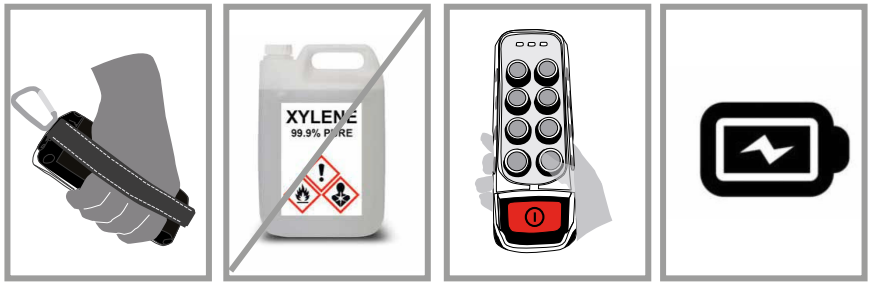
Maintenance

IKORE maintenance tips

This product is designed for use in an industrial environment that may shorten the product's lifespan. Use these tips to maximize the lifespan of the product.

- Use the hook/Shoulder strap/Belt provided with the transmitter to prevent the transmitter from falling
- Do not clean the transmitter with solvents or pressurized water; use a damp cloth or soft brush for cleaning it.
- If the Mechanisms show signs of deterioration, contact the Authorized Technical Service for repair.
- Check the battery contacts are clean and battery is inserted correctly.
- Ensure that the product is supplied with Rechargeable batteries.
- Be sure to recharge or replace battery regularly.

Maintenance tips quick reference



Maintenance

Troubleshooting 2.4GHz

Status LED (on all Transmitters)		Display Message	Description	Action
Color and frequency	**Pulse frequency**			
Blue | fast pulses		Danfoss Logo	Starting the system; establishing communications with radio and EEPROM	Wait
Blue | continuous		Label - Press start to link	Standby mode. Set up system, waiting user's action	Press START to enter operation mode
Green | fast pulses		Connecting..	Attempting to link with the receiver and waiting its answer	Wait
Green | continuous		Label or Feedback information	Working	Operate
Green | slow pulses		Blank Display	Standby; no action has been taken for some time	Press START to return to operation mode
Green | very fast pulses			Near Link Lost. The link may drop	Check Distance or RF interference
Red | slow pulses		ERROR EEPROM	EEPROM module missing or corrupt	Check EEPROM and reprogram if necessary
Red | double pulses		ERROR RADIO	Radio error; radio communications error	Replace transmitter
Red | 3 pulses		ERROR DISPLAY	Display Error. Display communication Error	Replace Display or Transmitter
Red | 4 pulses		ERROR MULTIKEY	Multikey Error. Multikey not in ON position or Broken.	Check Multikey or Replace it.
Red | 5 pulses		ERROR CAN	CAN Error	
Red | 6 pulses		FREE FALL	FREE FALL has been detected.	Reset the transmitter
Red | 7 pulses			Display and EEPROM settings do not Match	Check files and reprogram EEPROM and/or Display
Red | Long + Short pulse		ERROR RFID	RFID Signature Check Error	Use a correct RFID card and/or configuration
Red | 1 Long + 2 short pulses		ERROR PAIRING	Pairing Error	Check the Tether connection and Receiver is ON.
Red | 1 Long + 3 short pulses			User validation process aborted. More than one card or card removed before the validation process is completed.	Start the process again
Red | 1 Long + 4 short pulses			User validation invalid UID. The PLC does not accept this UID	Start the process again, with another UID card
Red | continuous		ERROR	General hardware failure	Replace transmitter
Orange | slow pulses			Critical battery signal	Replace batteries with charged ones
Orange | double pulses		LABEL	Activated Order	Release Order
Orange | 3 pulses			Hall effect interference. Some mechanisms are disabled	Wait until interference disappears
Orange | 4 pulses			Range Limiter warning. Out of Range	Check Range Limier is ON with the correct ID.
Orange | 5 pulses			Wrong Selector Position	Press Start to link in this position, or return to the original position.

Maintenance

Status LED (on all Transmitters)		Display Message	Description	Action
Color and frequency	**Pulse frequency**			
Orange | 6 pulses			Release Function: Release Button + START Pressed	The transmitter will switch off after release is done.
Orange | 7 pulses			Tilt Warning. Transmitter is tilted more than the number of degrees set up in the EEPROM configuration for Pitch and Roll axis	Bring the transmitter to normal position
Pink | 1 pulse			Display Value Settings Menu	Perform the Display settings
Pink | Continuous		EEPROM copy - Replace EEPROM	EEPROM copy mode	Press related button to perform the copy
Pink | Fast pulses		EEPROM copy - Writing EEPROM	EEPROM being copied	Wait until solid pink
Pink | 3 pulses			Saving in Pairing Mode	Wait until saved
Blue + Pink | 3 pulses			RFID User Validation Waiting UID Validation	Wait until UID approved or denied
Blue + Pink | 1 pulse			RFID User Validation waiting User	Please place UID close to RFID reader

Charger and battery

Disposal note:

This symbol on the product indicates that it may not be disposed of as household waste.

It must be handed over to the applicable take-back scheme for the recycling of electrical equipment.

- Dispose of the product through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

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