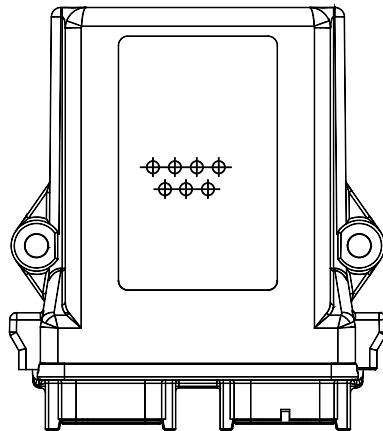


User Manual

# Remote Control MP08A Receiver



**Revision history**

*Table of revisions*

<b>Date</b>	<b>Changed</b>	<b>Rev</b>
January 2019	Rebranded to Danfoss Power Solutions	0101

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## Safety instructions

### MP08A general safety

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

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Potential damage to operator and product.

Do not use this product on machines in potentially explosive atmospheres unless the model is ATEX/RATEX certified to do so.

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- Strictly adhere to the installation instructions contained in this document.
- Make sure that professional and competent personnel carry out the installation.
- Ensure that all site and prevailing safety regulations are fully respected.
- Make sure that this document is permanently available to the operator and maintenance personnel.
- Keep the transmission key when the set is not in use.
- On starting each working day, check to make sure that the STOP button and other safety measures are working.
- 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 has one).
- Service the equipment periodically.
- When carrying out repairs, only use spare parts from Danfoss.

### MP08A safety warnings

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Potential damage to operator and product.

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

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- 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).
- 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.

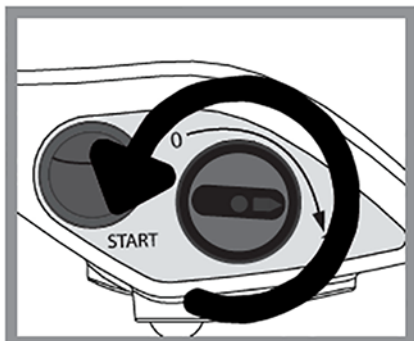
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Changes or modifications not approved by Danfoss can void the user's authority to operate this product.

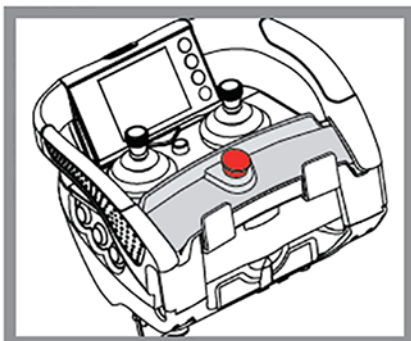
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**Safety instructions**

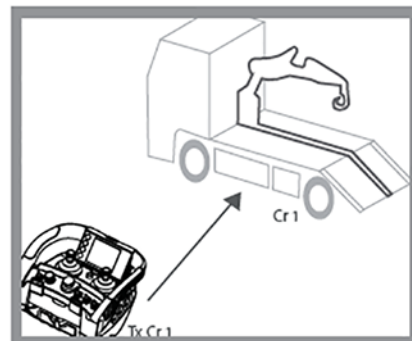
*Quick reference precautions*



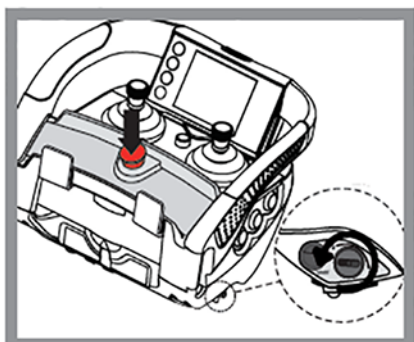
Remove the transmission key only when the set is not in use or to deny the access



When in doubt, press the STOP button



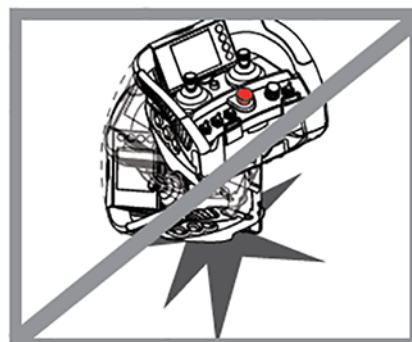
Make sure the transmitter works with the machine to be handled



After use set the contact key and the STOP button



Do not use the set when visibility is limited

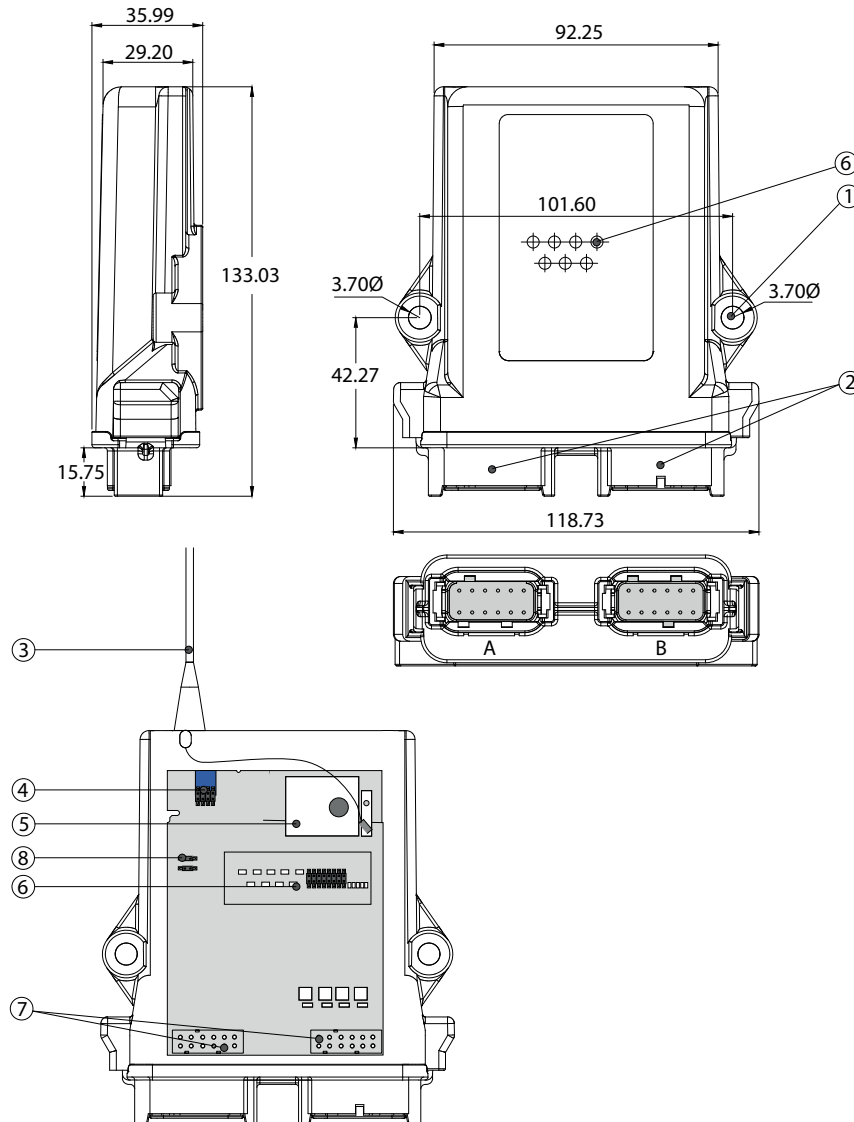


Avoid knocking or dropping the set

## Technical description

### MP 08A dimensions and identification

*Dimensions in mm*



1. Fixing slots (fixed assembly or anti-vibration)
2. DEUTSCH connector
3. External antenna A60 (433) or A70 (870)
4. Removable internal EEPROM
5. TR800-CE MCX Radio
6. External signaling LEDs
7. DEUTSCH connector pinout
8. Analog input configuration jumpers

## Installation

### MP08A receiver installation

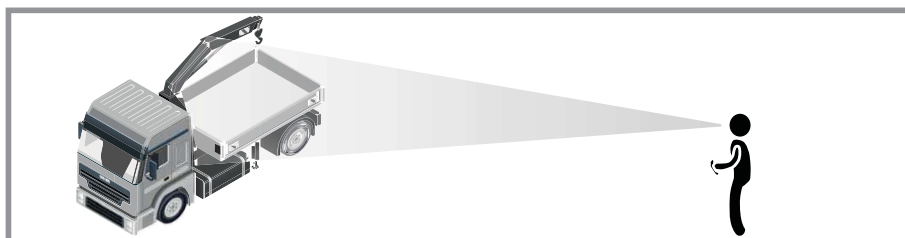
The below information describes hazards to be aware of during installation and steps to locate the receiver.

#### Risk of shock

Completely shut down the machine when installing the receiver.

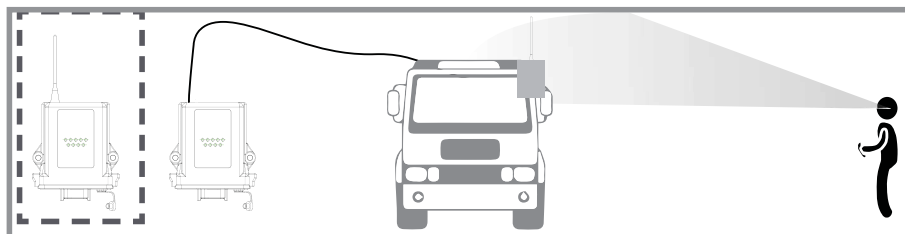
Check the power supply and shut off the main switch to disconnect the interface cable between the receiver and the machine's electrical box.

1. Find an easily accessible and clear location with a direct vision between the receiver's antenna and the transmitter's working area.

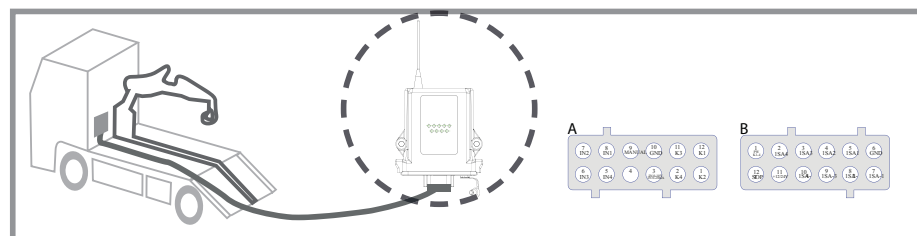


2. Optional: If it is difficult to achieve direct vision between the receiver's antenna and the transmitter's working area, it is recommended to use an extended antenna in a clear location (only for models that allow an antenna).

In areas of high vibration, the use of dampers is advised.



3. Proceed to connect the power supply. Use the connection block diagram provided with the system, where the correspondence between the transmitter maneuvers and the receiver's outputs are detailed.



4. Check if the electrical installation and verify if there's an option to connect the neutral or the ground cable. In that case, don't forget to connect the ground cable.

The use of fireproof or flame retardant cables are recommended for the connection.

## Installation

### MP08 input and output configuration

This receiver has one analog input IN 0-10V (without isolation) or IN 0-20mA (without isolation). These inputs share the same hardware/pins and each one is selected by an internal jumper.

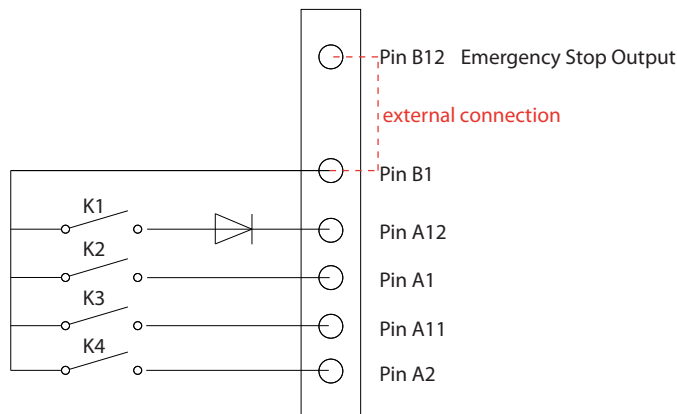
The two inputs cannot be live together at the same time.

The MP08 includes a 7.5A internal fuse.

### MP08A digital outputs

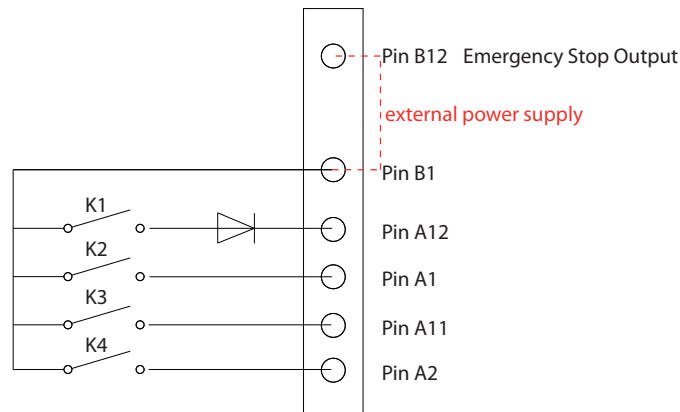
The digital output group K1-K4 have a common contact at pin B1 of the connector. This pin is connected to pin B12 (stop) for powering up the group of outputs. Maximum of 2A per output.

*DEUTSCH connector*



As an alternative, this group of outputs (K1-K4) can be connected directly to the external general power supply in order to provide a higher capacity of current.

*DEUTSCH connector*



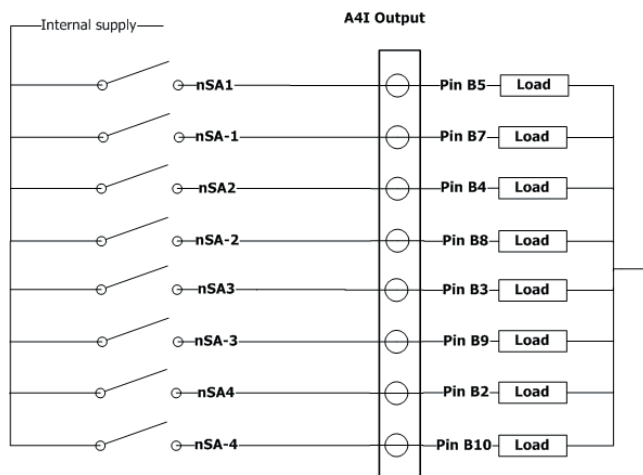


## Installation

### MP08A analog outputs

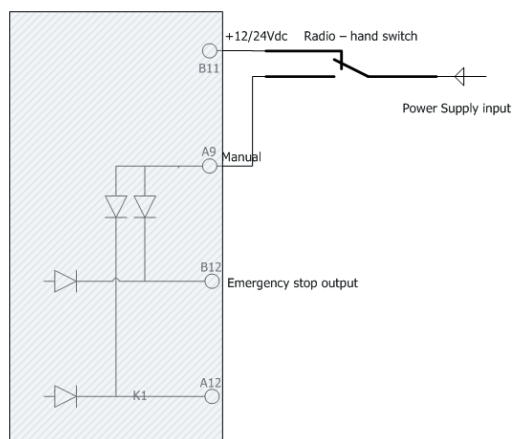
The illustration below shows the pinout information for outputs 1-4. Maximum of 2A per output.

*DEUTSCH connector*



### MP08A radio/manual option

The receiver has the possibility to connect to an external switch for changing from Radio mode to Manual mode if needed. Thus, all inputs and outputs of the receiver will be voided, except from the emergency stop output.

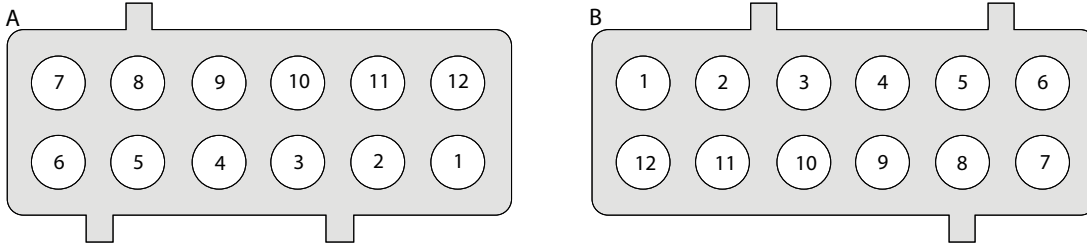


This option is exclusive to MP08A.

## Installation

### MP08A pinout information

Below is a description of each pin in the connector.



Connector A

Pin	Description
1	K2
2	K4
3	IN 0-10V / IN 0-20mA
4	N/A
5	IN4
6	IN3
7	IN2
8	IN1
9	Manual
10	GND
11	K3
12	K1

Connector B

1	PW / K1-4
2	1SA4
3	1SA3
4	1SA2
5	1SA1
6	GND
7	1SA-1
8	1SA-2
9	1SA-3
10	1SA-4
11	+12/24V
12	STOP

## Troubleshooting

### Receiver troubleshooting

LED	Characteristic	Description	Action
POWER	Green; pulsing	Receiver is starting up	Wait until start-up process is finished
HARDOK	Green; continuous	Receiver hardware OK	Operate
	Red; pulsing	EEPROM error; data corruption; CAN bus error (if CANERR activates)	Reprogram EEPROM
	Red; other	Electronic board hardware breakdown	Replace device
SIGNAL	LED off	No radio signal detected	-
	LED on + transmitter switched off	Radio channel occupied	Change transmitter's frequency channel
	LED on + DATA switched off	Radio channel occupied by non Danfoss system	Change transmitter's frequency channel
DATA	LED off + SINGAL LED on	Radio error	Replace radio
	Green; pulse	Receiving good frames	OK
ID	LED off + DATA LED on	No valid ID; Danfoss system nearby	If channel not occupied, check chosen ID in the transmitter or reset the receiver
	LED on + SIGNAL LED on + DATA LED on	Valid frames received from the transmitter; correct link	OK
RELAY	Green	STOP relay activated	-
ORDER	Green	-	-

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