General installation

Trackunit SmartID

Mk.2

Version 1.1, September 2014

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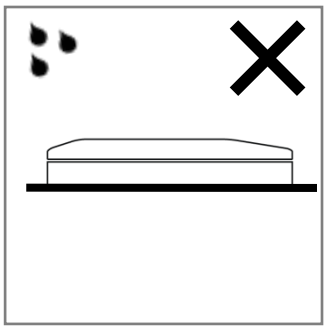
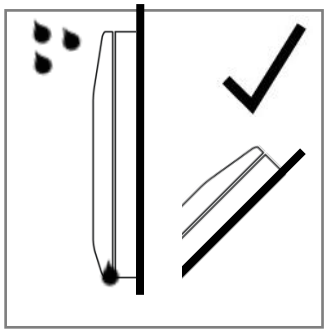
Mounting instructions

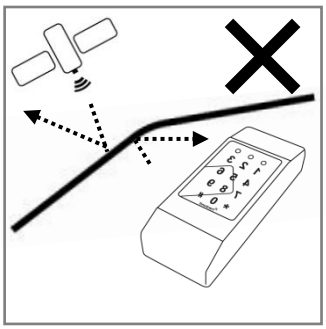
Placement of the unit on the machine



Do NOT mount the unit horizontally.

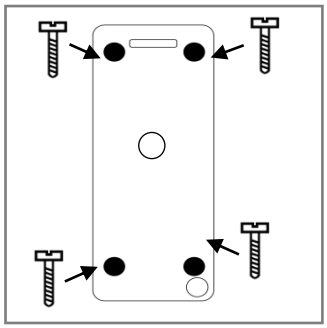


Make sure that water can run off the unit.

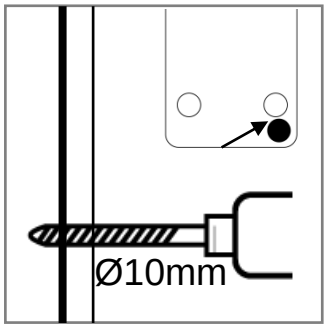


Do NOT install the unit directly under a layer of metal or next to wires.

Mounting and activating the unit

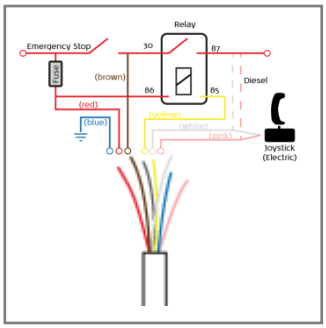


1. Mount the bracket on the machine using 4 screws.



2. Drill a hole for the unit cable and drag the cable through the hole.

3. Click the SmartID into the bracket starting at the top. A click is felt when pressing the bottom part of the SmartID firmly in place.



4.Connect the wires according to the table Control ME401 status

5. Activate key pin or RFID card online:
http://manager.trackunit.com

Installation of the SmartID in Machinery

	Analog		Digital	
	Electric	**Diesel**	**Electric**	**Diesel**
Platform / Basket mounted	Type 1	Type 3		
Base unit mounted	Type 4	Type 2		Type 5

Sensor setup

	Analog		Digital	
	Electric	**Diesel**	**Electric**	**Diesel**
Platform / Basket mounted	Boom	Boom		
Base unit mounted	Boom / ignition	Boom / ignition		Boom / ignition

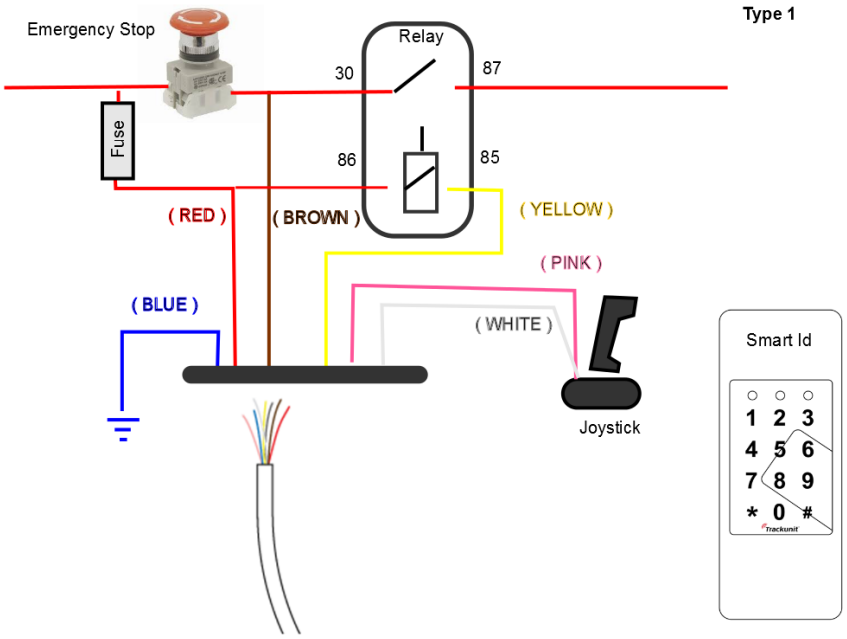
Installation type keywords

- Type 1: Fast installation (platform/basket)
- Type 2: Hour counter and starter disable only
- Type3: Emergency stop button as operations / ignition
- Type4: Fast installation (base unit)
- Type5: Diesel base install for digital hour counter

Installation types

Type 1

Example showing platform/basket installation



Guidelines for correct wiring:

Disconnect the power supply during installation.

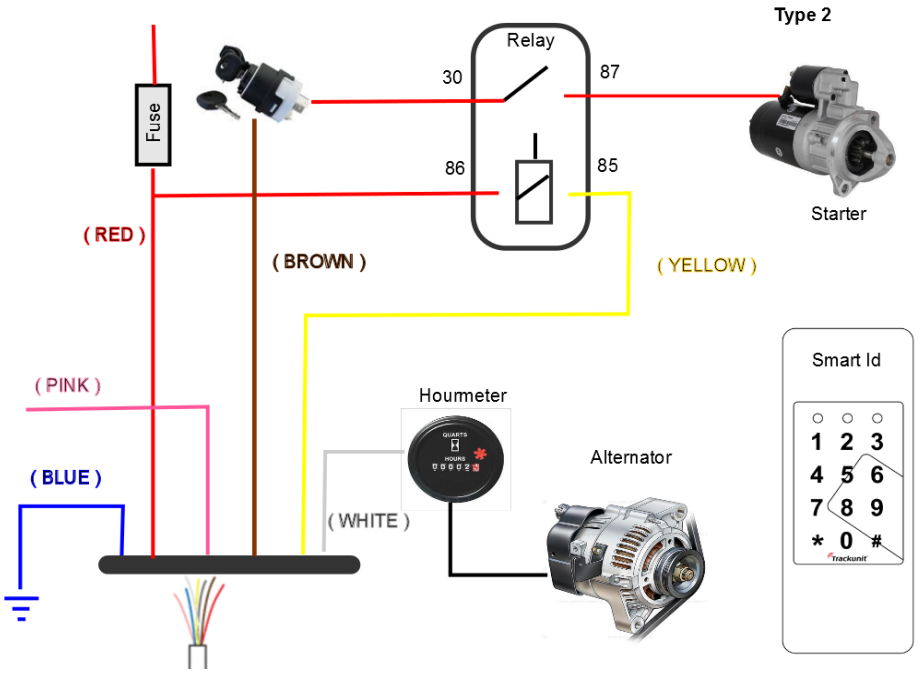
Note:

- Please check that the relay has the correct voltage specification (12V or 24V).

Wire color		Connection	Description
Blue		Ground	Ground
White		Digital input 1	Operating hours counter input • Electric lifts: Joystick (activity at joystick-button)
Brown		Digital input 2	Ignition signal input Connect to emergency switch (or Relay 30)
Grey		Digital Input 3	General input
Pink		Digital input 4	Activity resets the Key expiration timer, when using Boom sensor [1] • Electric lifts: Joystick (activity at joystick-button)
Yellow		Digital output 1	Output activates ground for relay (85)
Red		Power	Connect to permanent 12/24V supply through a 1A fuse

Type 2

Example showing base unit installation



Guidelines for correct wiring:

Disconnect the power supply during installation.

Note:

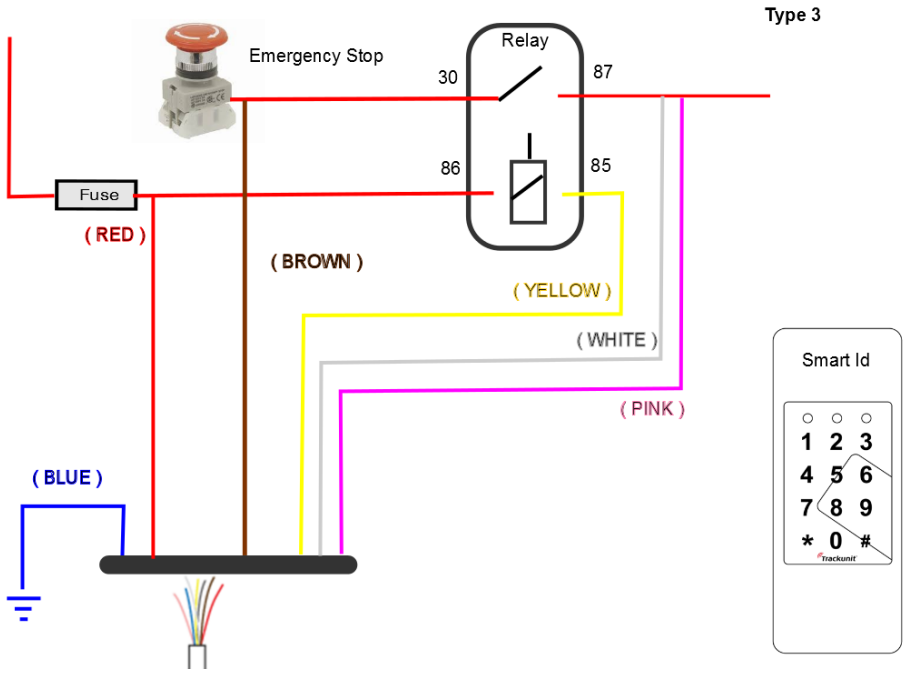
- Please check that the relay has the correct voltage specification (12V or 24V).

Wire color		Connection	Description
Blue		Ground	Ground
White		Digital input 1	Operating hours counter input • Hour meter / alternator
Brown		Digital input 2	Ignition signal input • Ignition
Grey		Digital Input 3	General input
Pink		Digital input 4	Activity resets the Key expiration timer, when using Boom sensor • Boom sensor or • Machine chassis*
Yellow		Digital output 1	Output activates ground for relay (85)
Red		Power	Connect to permanent 12/24V supply through a 1A fuse

* If Main Switch disconnects negative wire (chassis/GND) from battery, it might cause false input activity.
To avoid that, Pink wire should be connected to the chassis/GND, Blue Wire should be connected to battery minus pole and input filtering must be activated (see “Activation of input filtering”)

Type 3

Example showing platform/basket installation



Note:

- Please check that the relay has the correct voltage specification (12V or 24V).

Guidelines for correct wiring:

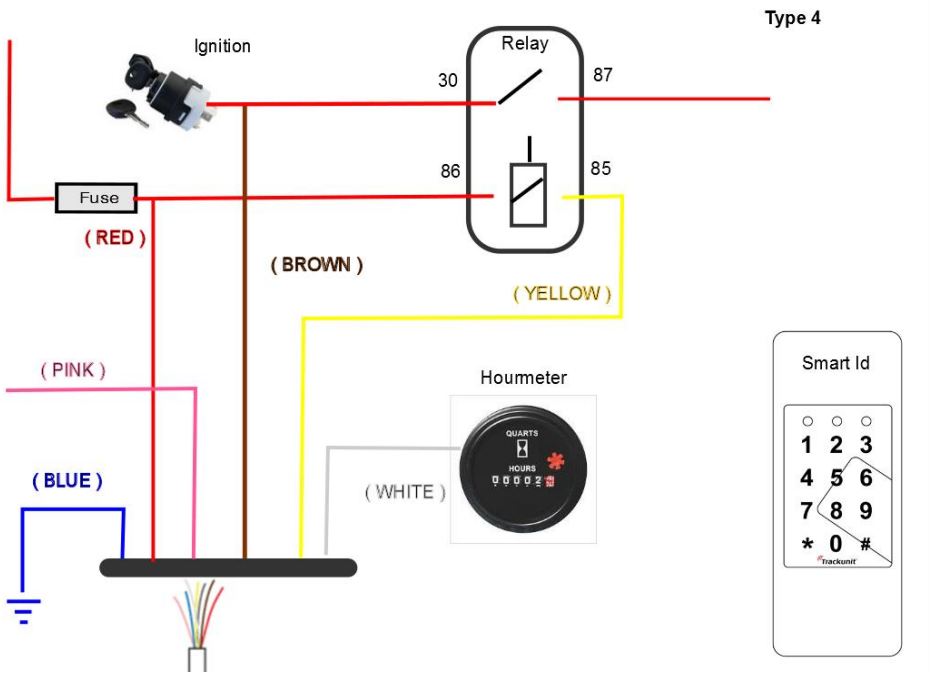
Disconnect the power supply during installation.

Wire color		Connection	Description
Blue		Ground	Ground
White		Digital input 1	Operating hours counter input • Relay 87
Brown		Digital input 2	Ignition signal input • Connect to emergency switch (or Relay 30)
Grey		Digital Input 3	General input
Pink		Digital input 4	Activity resets the Key expiration timer, when using Boom sensor • Relay 87 • Machine chassis*
Yellow		Digital output 1	Output activates ground for relay (85)
Red		Power	Connect to permanent 12/24V supply through a 1A fuse

* If Main Switch disconnects negative wire (chassis/GND) from battery, it might cause false input activity.
To avoid that, Pink wire should be connected to the chassis/GND, Blue Wire should be connected to battery minus pole and input filtering must be activated (see “Activation of input filtering”)

Type 4

Example showing base unit installation



Note:

- Please check that the relay has the correct voltage specification (12V or 24V).

Guidelines for correct wiring:

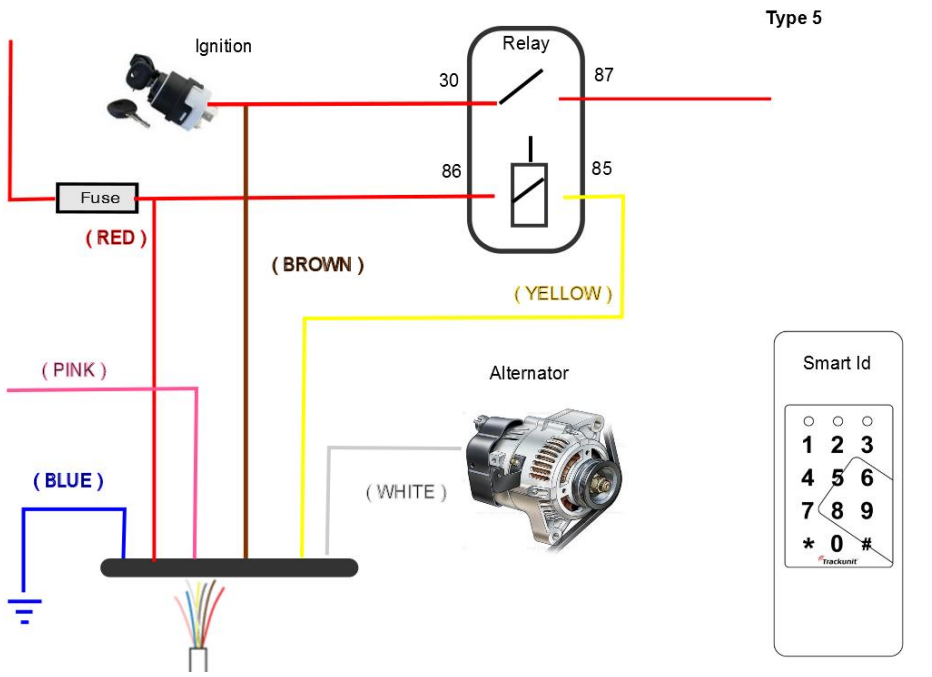
Disconnect the power supply during installation.

Wire color		Connection	Description
Blue		Ground	Ground
White		Digital input 1	Operating hours counter input • Hour meter
Brown		Digital input 2	Ignition signal input • Ignition
Grey		Digital Input 3	General input
Pink		Digital input 4	Activity resets the Key expiration timer, when using Boom sensor • Boom sensor or • Machine chassis*
Yellow		Digital output 1	Output activates ground for relay (85)
Red		Power	Connect to permanent 12/24V supply through a 1A fuse

* If Main Switch disconnects negative wire (chassis/GND) from battery, it might cause false input activity.
To avoid that, Pink wire should be connected to the chassis/GND, Blue Wire should be connected to battery minus pole and input filtering must be activated (see “Activation of input filtering”)

Type 5

Example showing base unit installation



Note:

- Please check that the relay has the correct voltage specification (12V or 24V).

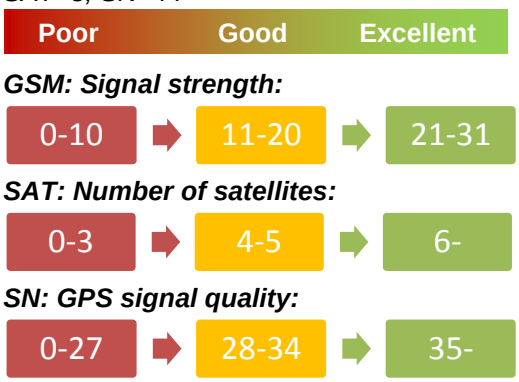
Guidelines for correct wiring:

Disconnect the power supply during installation.

Wire color		Connection	Description
Blue		Ground	Ground
White		Digital input 1	Operating hours counter input • Alternator
Brown		Digital input 2	Ignition signal input • Ignition
Grey		Digital Input 3	General input
Pink		Digital input 4	Activity resets the Key expiration timer, when using Boom sensor • Boom sensor or • Machine chassis*
Yellow		Digital output 1	Output activates ground for relay (85)
Red		Power	Connect to permanent 12/24V supply through a 1A fuse

* If Main Switch disconnects negative wire (chassis/GND) from battery, it might cause false input activity.
To avoid that, Pink wire should be connected to the chassis/GND, Blue Wire should be connected to battery minus pole and input filtering must be activated (see “Activation of input filtering”)

Verification of installation status with SMS Commands:

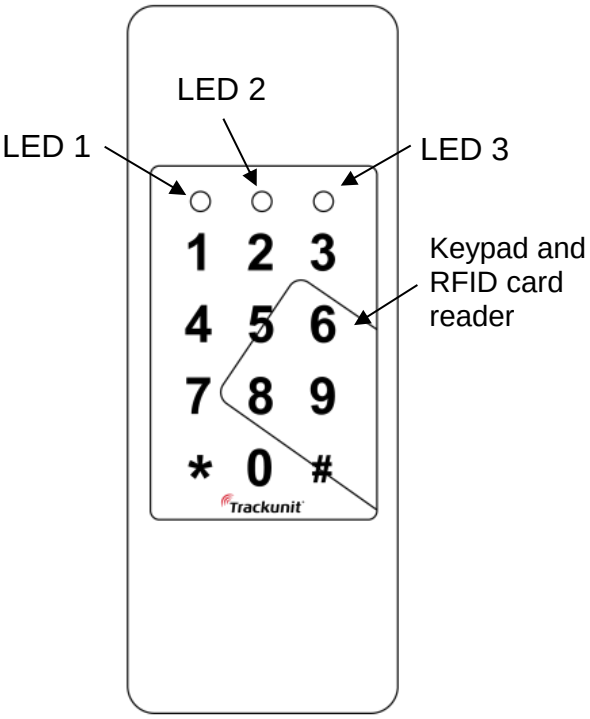
Verification	Send SMS	Return SMS from unit
GPS and GSM signal *GSM number and unit serial number is located on the carton box. Label can be peeled off and saved for later use.*	*MT SIGNAL*	*MTC ACK (SERIAL No.) SIGNAL: GSM=22, SAT=8, SN=44* 
Inputs *NOTE: This command can be sent to the unit under various operational conditions like: Machine running, ignition only or off.*	*MT STAT*	*MTC ACK (SERIAL No.) INPUT STATUS: INPUT1 LOW, INPUT2 HIGH, INPUT3 LOW, INPUT4 LOW, CHARGE VOLTAGE ON, SERIAL No.* *NOTE:* **Input LOW < 8V < input HIGH**

Activation of input filtering

Function	Send SMS	Return-SMS from the unit
Activate filter function on inputs	*MT INFILT ON*	*MTC ACK (SERIAL No.) INFILT ON*

NOTE:
Enabling the filtering function will disable the use of the alarm and boom switch function on digital input 4.

User guide



Using key pad:

1. Type pin code
2. Confirm with #
3. Green light in LED3 indicates authorized ID

Begin operation.

Using RFID card:

1. Present card in front of reader
2. A beep signal indicates card is read ok
3. Green light in LED3 indicates authorized ID

Begin operation.

Info:

- Yellow light in LED1 indicates the unit has power
- Cancel key input with * (start again)
- Red light in LED3 when input is cancelled
- There is a 10 sec. time out for pin input
- Don't use RFID card and pin simultaneously
- Bring your RFID card or pin code with you in the machine
- LED2 is not in use

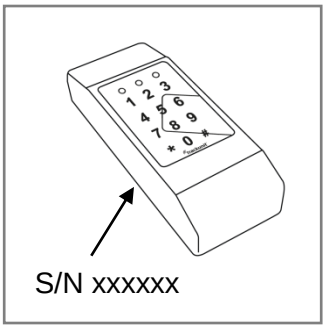
LED indications

	LED 1	LED 2	LED 3
Yellow	Power	-	-
Green	-	-	ID ok
Red	-	-	ID cancel

Important!

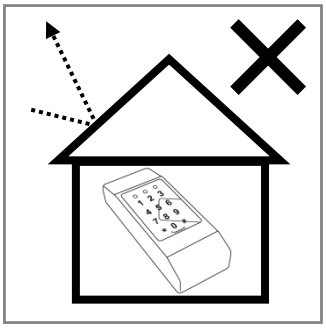
Activate your key pin and RFID card in the Trackunit Manager before operating machine or vehicle.

Practical advice

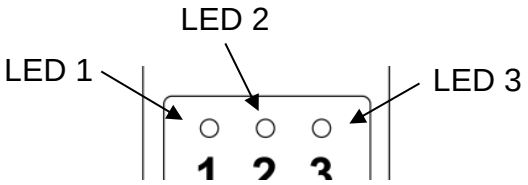


Serial number located on the back of the unit.

GSM number and unit serial number is located on the box. Label can be peeled off and saved for later use.



Do NOT perform installation inside a building.



Troubleshooting

Error description	Possible solutions
No reply on SMS command	• Verify correct GSM number
No light in LED 1	• Check if red wire and blue wire are installed correctly or if fuse is blown

Product specifications

The Trackunit 401 SmartID is a GSM/GPRS quad-band-unit with GPS, integrated antennas and backup battery.

Connections	
Operational voltage (supply voltage):	12 - 24 V DC
Absolute maximum voltage range:	8 - 50 V DC

Temperature range	
Operating	-30ºC to +60ºC
Storage	-40ºC to +70ºC

Mechanical specifications	
Environmental class	IP67

Technical Assistance

If you have a problem and cannot find the information you need in the product documentation, please contact Trackunit A/S

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DK-9490 Pandrup
Tel: +45 96 73 74 00
Fax: +45 96 73 74 07
E-mail: support@trackunit.com
Web: www.trackunit.com

Trackunit technical documentation	

NOTE: When contacting technical support, please have the unit serial number ready.