



Husqvarna[®]



Husqvarna Fleet Services[™] Machine Sensor

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Introduction

Introduction

This manual is a digital operator's manual for the Husqvarna Fleet Services™ Machine Sensor. For more information, refer to the operator's manual included in the product carton. More information about Husqvarna Fleet Services™ is also available on <https://fleetservices.husqvarna.com>.

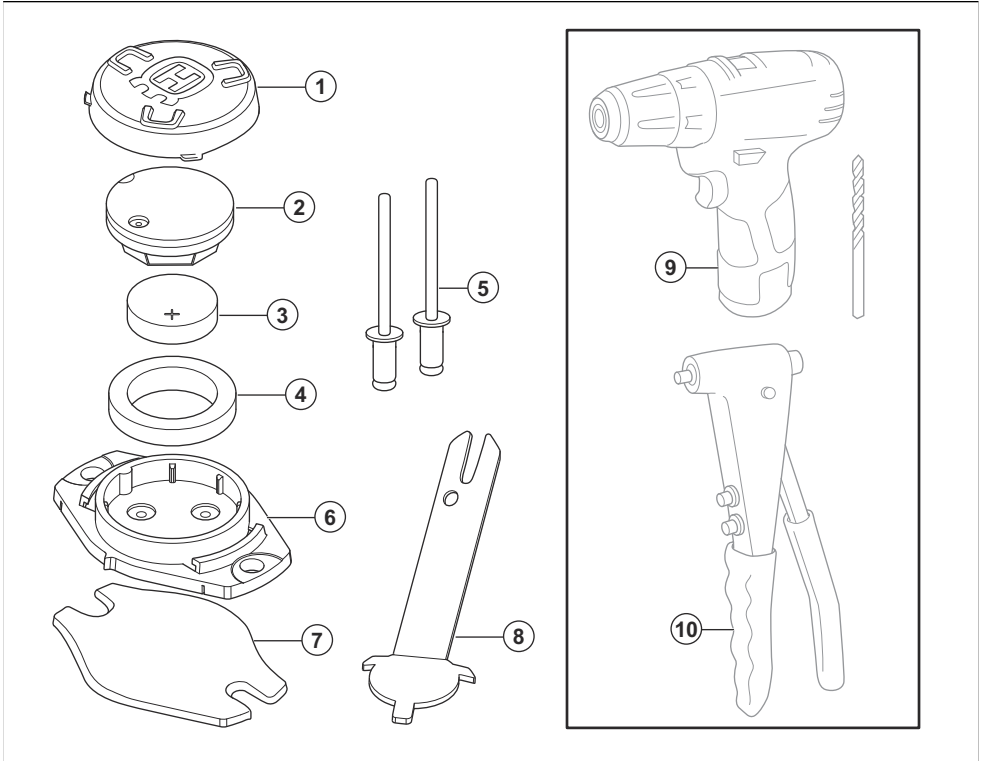
Support

For support about the product, speak to your Husqvarna servicing dealer.

Product description

The Husqvarna Fleet Services™ Machine Sensor collects and saves data from your Husqvarna product. The Husqvarna Fleet Services™ Machine Sensor can be attached on all Husqvarna handheld products and lawn mowers. The data is saved and transmitted with Bluetooth® wireless technology to the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app. The uploaded data shows the last known location of the product, operation statistics and servicing history.

Product overview



1. Sensor top cover
2. Sensor circuit
3. Battery
4. Foam gasket
5. Rivet
6. Sensor bottom cover
7. Adhesive tape
8. Maintenance tool
9. Drill¹
10. Rivet gun²

Symbols on the product



WARNING: Read and understand the operator instructions before you operate the product.



This product complies with the applicable EU Directives.



This product complies with the applicable UK Directives.



It is not permitted to dispose the product as usual domestic waste. Obey national regulations and use the local recycling system.



The product agrees with applicable UkrSEPRO directives.

¹ Not included.
² Not included.



The product agrees with applicable RCM directives. Applies to AU/NZ only.

Safety

Safety definitions

Warnings, cautions and notes are used to point out specially important parts of the manual.



WARNING: Used if there is a risk of injury or death for the operator or bystanders if the instructions in the manual are not obeyed.



CAUTION: Used if there is a risk of damage to the product, other materials or the adjacent area if the instructions in the manual are not obeyed.

Note: Used to give more information that is necessary in a given situation.

Safety instructions for operation



WARNING: Read the warning instructions that follow before you use the product.

- Follow the instructions about how to operate the product. Refer to *Operation on page 6*.
- Use the product with the compatible Husqvarna products. Speak to your Husqvarna representative for more information.
- Do not make modifications on the product.
- Do not use the product in dangerous environments or near flammable material.
- Do not use the product if it is damaged. If the product is damaged, it can become too hot and increase the risk of fire.

Safety instructions for maintenance



WARNING: Read the warning instructions that follow before you use the product.

- Water leakage can cause electrical shock or fire. Make sure that you do maintenance on the product in a dry area.
- Follow the instructions about how to do maintenance on the product. Refer to *Maintenance on page 7*.

Battery safety



WARNING: Read the warning instructions that follow before you use the product.

- Only use original batteries that Husqvarna recommends for your product. Refer to *Technical data on page 10*.
- Keep the battery away from children.
- Keep the battery away from sunlight, heat or open flame. The battery can cause an explosion and cause burns and/or chemical burns.
- Keep the battery away from rain and wet conditions.
- Do not try to disassemble or break the battery.
- Do not do modifications to the battery.
- Do not use a damaged battery.
- Do not keep the battery in ambient temperatures that are more than 65°C/149°F.
- Do not use the product if the battery compartment does not close tightly.

Installation

To prepare for the installation of the Husqvarna Fleet Services™ Machine Sensor

1. Install the battery. Refer to *To replace the battery on page 7*.
2. Download the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app on your mobile device.
3. Log on to the app.

4. Do a pairing operation. Refer to *To do a pairing operation with a product on page 4*.

To do a pairing operation with a product

1. Make sure that your mobile device has Wi-Fi connection and that Bluetooth® wireless technology is enabled on your mobile device.
2. Open the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app on your mobile device.

3. Select *Layers*.
4. Select the product that is to be used with the Husqvarna Fleet Services™ Machine Sensor.
5. Select *Install sensor > Scan QR code > Approve*.
6. Scan the QR code on the sensor circuit with your mobile device.

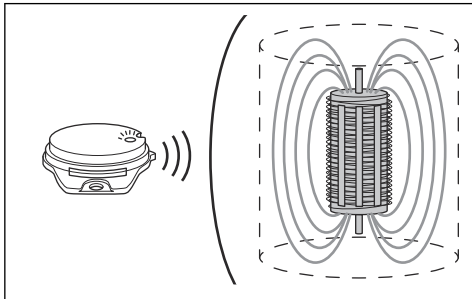
To examine where to install the Husqvarna Fleet Services™ Machine Sensor



CAUTION: Do not install the Husqvarna Fleet Services™ Machine Sensor on the product where it prevents the product to operate correctly.

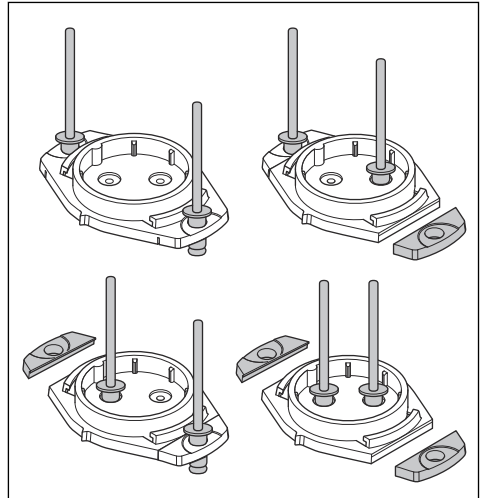
Note: For battery operated products, the LED indicator on the sensor circuit must flash when the product operates on full and low clutch.

1. Do a pairing operation. Refer to *To do a pairing operation with a product on page 4*.
2. Start the product.
3. Hold the Husqvarna Fleet Services™ Machine Sensor near the product to find the electromagnetic field. Make sure that the LED indicator on the sensor circuit flashes one time each second.



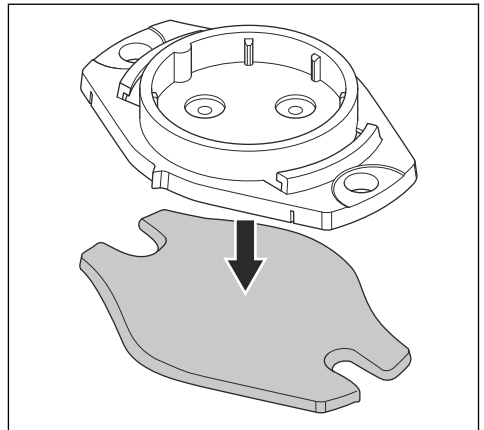
CAUTION: Do not put your hands on the antenna of the sensor. Hold the sensor by the bottom cover.

4. Examine that there is sufficient space to install the sensor bottom cover on the product. Use a pair of pliers to remove the outer holes on the sensor bottom cover if it is necessary.



To install the Husqvarna Fleet Services™ Machine Sensor on a product

1. Examine where to install the Husqvarna Fleet Services™ Machine Sensor. Refer to *To examine where to install the Husqvarna Fleet Services™ Machine Sensor on page 5*.
2. Attach the adhesive tape on the sensor bottom cover.

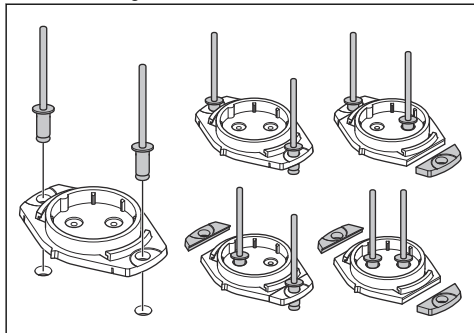


3. Attach the sensor bottom cover on a flat and clean surface on the product.
4. Drill 2 holes that are 4 mm/0.2 in. in diameter.

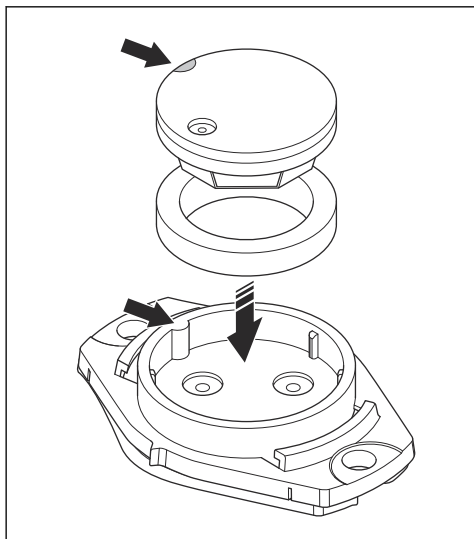


CAUTION: Use a drill stop or disassemble the product to prevent damage to the product.

5. Put the 2 rivets into the 2 holes and install the rivets with a rivet gun.



6. Put the sensor circuit with the foam gasket into the sensor bottom cover. Align the white mark on the sensor with the mark on the sensor bottom cover.

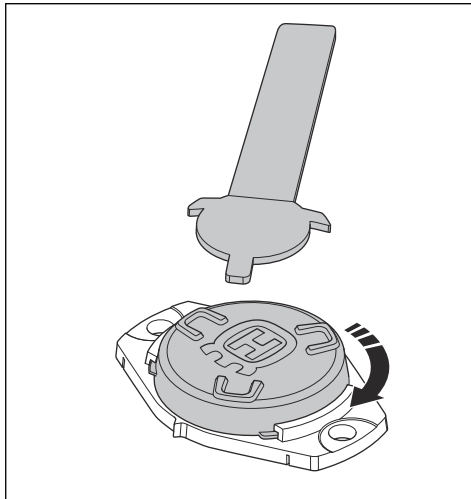


7. Use the point of the maintenance tool to carefully push the foam gasket into position in the sensor bottom cover.



CAUTION: Do not push the center of the sensor circuit.

8. Attach the sensor top cover on the sensor bottom cover clockwise with the maintenance tool.



Note: Husqvarna recommends you to attach a decal on the product with the name of the product. This makes it easier to identify the product in the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app.

Note: You can find more information about how to install the Husqvarna Fleet Services™ Machine Sensor in the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app.

Operation

LED indicator of the sensor

LED	Operation
LED is on for 1 second.	The Husqvarna Fleet Services™ Machine Sensor restarts before it connects to the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app.
LED flashes 2 times each second.	The Husqvarna Fleet Services™ Machine Sensor is connected to the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app.

LED	Operation
LED flashes 1 time each 5 seconds.	The Husqvarna Fleet Services™ Machine Sensor is enabled and has up-loaded all available data.
LED flashes 2 times each 5 seconds.	The Husqvarna Fleet Services™ Machine Sensor is enabled and uploads data.
LED flashes 1 time each second.	The sensor has found an electromagnetic field from a battery operated product or electric component.
LED flashes regularly. The amount of flashes from the LED changes with the speed of the engine.	The sensor senses the speed of the petrol operated product.
LED is on for 1 second, then it goes off and comes on again.	Firmware updates.
LED is on for 1 second, then it goes off for 5 seconds and comes on again.	The sensor has found the engine/motor of the product and the configuration is set.

Operation of the product

- The Husqvarna Fleet Services™ Machine Sensor connects to the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app automatically. The Husqvarna Fleet Services™ Machine Sensor connects to the app with Bluetooth® wireless technology.
- The Husqvarna Fleet Services™ app automatically collects data from the Husqvarna Fleet Services™ Machine Sensor.

- The data update shows in the Husqvarna Fleet Services™ app approximately 15 minutes after the product is set to off.
- The Husqvarna Fleet Services™ Machine Sensor can save data for maximum 3 weeks of operation time.
- Husqvarna recommends to upload the data minimum 1 time each week for products that are in operation regularly.

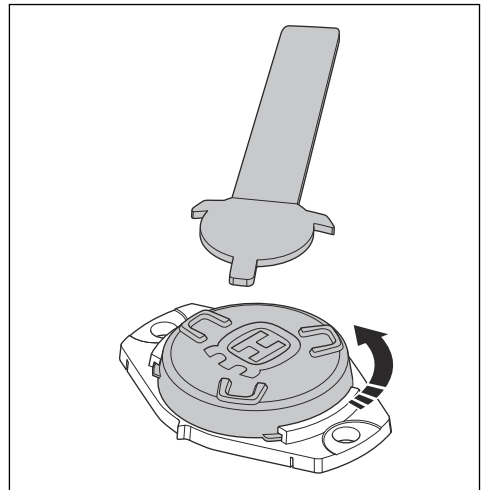
Maintenance

To replace the battery

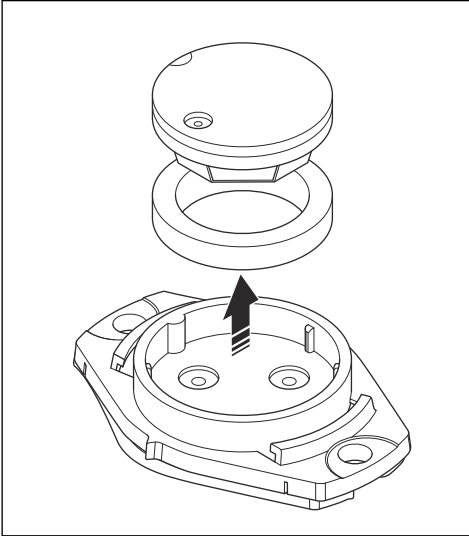


WARNING: Read and understand the battery safety before you install the battery. Refer to *Battery safety* on page 4.

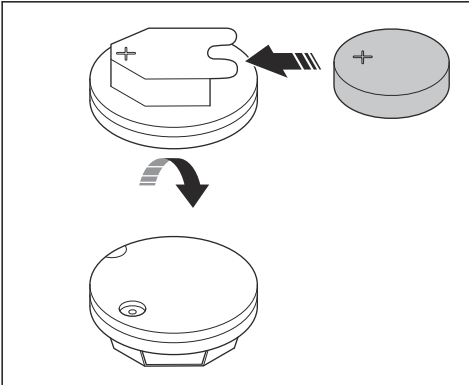
1. Remove the sensor top cover from the sensor bottom cover counterclockwise with the maintenance tool.



2. Remove the sensor circuit from the sensor bottom cover.

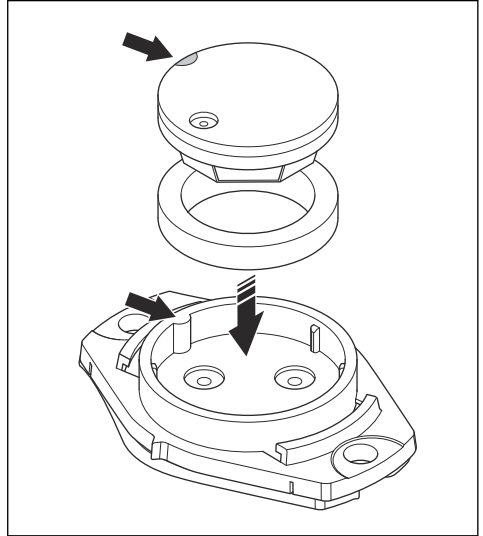


3. Remove the battery from the sensor circuit and recycle it.
4. Install a new battery. Make sure that the "+" sign of the battery is put on the "+" sign in the sensor circuit.



5. Make sure that the indicator on the sensor circuit flashes green.
6. Put the sensor circuit in the foam gasket.

7. Put the sensor circuit with the foam gasket into the sensor bottom cover.

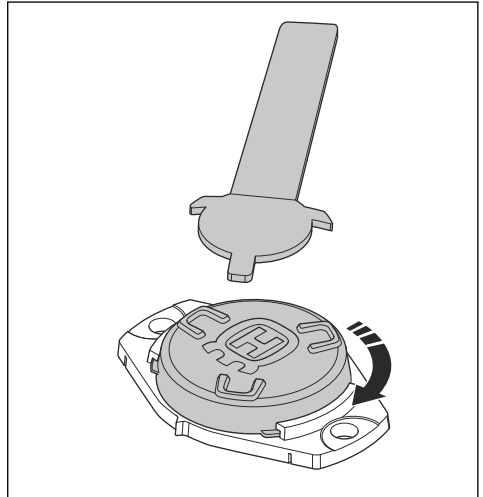


8. Use the point of the maintenance tool to carefully push the foam gasket into position in the sensor bottom cover.



CAUTION: Do not push the center of the sensor circuit.

9. Attach the sensor top cover on the sensor bottom cover clockwise with the maintenance tool.



Troubleshooting

Troubleshooting

If the Husqvarna Fleet Services™ Machine Sensor does not operate as usual, follow the table below. Speak to your Husqvarna servicing dealer if you cannot find the cause of the fault.

Symptom	Cause	Solution
The LED of the Husqvarna Fleet Services™ Machine Sensor is not on.	The light is too low for the light sensor.	Put the Husqvarna Fleet Services™ Machine Sensor in an area that has good light.
	The battery is empty.	Replace the battery. Refer to <i>To replace the battery on page 7</i> .
	The data of the Husqvarna Fleet Services™ Machine Sensor updates.	Wait approximately 15 minutes for the data to update.
	The Husqvarna Fleet Services™ Machine Sensor has not found an electrical field.	Move the Husqvarna Fleet Services™ Machine Sensor near the product until the light comes on.
The LED of the Husqvarna Fleet Services™ Machine Sensor flashes 3 times each 3 seconds. The Husqvarna Fleet Services™ Machine Sensor does not collect data.	The internal clock of Husqvarna Fleet Services™ Machine Sensor is not set.	Hold the mobile device with the Husqvarna Fleet Services™ app near the Husqvarna Fleet Services™ Machine Sensor to update the time.
No data is received from the Husqvarna Fleet Services™ Machine Sensor.	The data of the Husqvarna Fleet Services™ Machine Sensor updates.	Restart the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app. Wait approximately 15 minutes for the data to update.
"Status unknown" is shown in the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app.	The Husqvarna Fleet Services™ Machine Sensor is not reset correctly.	Reset the Husqvarna Fleet Services™ Machine Sensor. Refer to <i>To reset the Husqvarna Fleet Services™ Machine Sensor on page 9</i> .

To reset the Husqvarna Fleet Services™ Machine Sensor

1. Make sure that the correct product is selected in the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app.
2. Remove the battery and wait 30 seconds before you install the battery again. Refer to *To replace the battery on page 7*.
3. Make sure that the Husqvarna Fleet Services™ Machine Sensor is connected to the Husqvarna Fleet Services™ app or the Husqvarna Fleet Gateway app.
4. Operate the product for a minimum of 30 seconds.

Storage and disposal

To put the product in storage

- Put the product in storage in a dry, closed and frost-free area where the temperature is between 5°C/ 41°F and 25°C/77°F.

Disposal

- Obey national regulations.
- Use the local recycling system.

- The product and battery are not domestic waste. For more information, speak to your Husqvarna dealer.

Technical data

Technical data

	Husqvarna Fleet Services™ Machine Sensor
Modulation	MSK
Nominal input V	3.0
Max. input V	3.4
Min. input V	2.6
Internal operation maximum temperature °C/°F	55/131
Internal operation minimum temperature °C/°F	-10/14
Absolute maximum temperature °C/°F	60/140
Absolute minimum temperature °C/°F	-20/-4
Nominal RF range m/ft	20/66
Receiver type	Category 2
Transmitter type	Category 2
Nominal RF output power dBm	0
Frequency range MHz	2402-2480
Max. current consumption mA	24
Battery	VARTA CR2450
Functionality	Petrol: Pulse engine tachometer (500-15K rpm) nominal sensitivity of 10 cm/4 in. in line of sight from source.
	Battery: Motor-on chronometer nominal sensitivity of 10 cm/ 4 in. in line of sight from source.
	Offline data storage of 100 operated hours.
	Nearby operator tag detection.
	Nominal 120 KB of data each operated hour.
Sensors	rpm tachometer
	Internal temperature ($\pm 4^{\circ}\text{C}/39^{\circ}\text{F}$)
	Battery status

Declaration of Conformity

Declaration of conformity

Refer to www.husqvarna.com/doc for the declaration of conformity.



www.husqvarna.com

Original instructions



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