

# INFACO<sup>®</sup>

## CONTACTLESS DSES

Ref: DSESC



ORIGINE  
**FRANCE<sup>®</sup>**  
GARANTIE

USER GUIDE - **EN**

OTHER LANGUAGES



BVcert.6152145

EN



The DSES system is an additional electronic safety system. It does not eliminate the risk of cuts in any circumstances. INFACO cannot be held liable for accidents.

Users are warned that INFACO cutting tools must be handled with maximum precautions.

Compliance with all the safety recommendations described in this manual is mandatory.

**REMINDER: keep the hand not holding the pruning shears at least 8 inches from the cutting head to avoid all risks of injury.**

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## **/ PRECAUTIONS BEFORE USE**



**Read all the safety warnings and all the instructions.** Failing to heed warnings and follow instructions may lead to an electric shock, a fire and/or serious injury.

Keep all warnings and instructions for future reference. In the warnings, the term “tool” refers to your battery powered electric tool (with power cord).

## **/ PROTECTION OF THE ENVIRONMENT**

Observe all country-specific waste disposal rules and regulations.



- > Power tools must not be disposed of with household refuse.
- > The device, accessories and packaging must be taken to a recycling centre.



- > Ask the approved INFACO dealer for up-to-date information on the eco-compatible elimination of waste.

# **KIT CONTENTS**

- 1** a standard **receiver** module (911CC) or medium (911CCM)
- 2** a **transmitter** module (912EP)
- 3** two screws (V325)
- 4** a charger (CHUSB)
- 5** a USB type C cable (CUSBC)
- 6** a tube of grease (GCONT)
- 7** an instruction manual (NOT\_DSESC\_3020)
- 8** a USB cable holder



## GENERAL PRODUCT VIEW



Must be used with a **Contactless DSES compatible glove\*** from INFACO. This glove (hand opposite the pruning shears) is used to carry the transmitter module.

\*glove sold separately.



**Only the following 3 models are compatible with Contactless DSES.**  
Gloves for Wired and Wireless DSES are not compatible with CONTACTLESS DSES and vice versa.



Ambidextrous mitt  
(ref 955A)



Mid-season glove  
(ref 956D or 956G)



Winter glove  
(ref 957D or 957G)

## SPECIFICATIONS

	TRANSMITTER MODULE	RECEIVER MODULE
<b>Power supply</b>	Lipo 3.7V battery	5V
<b>Autonomy</b>	12h	/
<b>Range</b>	<1m / 39 inches	/
<b>Configurable zone</b>	/	3
<b>Recharge</b>	USB-C in 1h30	/
<b>Dimensions L x W x D</b>	32x58x15 mm / 1" 1/4x2" / 1/4x2/3	80x96x20 mm / 3" x3" 3/4x3/4

*These specifications are given as an indication only. Under no circumstances may they be considered as contractually binding. They are subject to modification without prior notice in the interests of product development. Patented equipment.*

## OPERATING PRINCIPLE

The F3020 pruning shears can be fitted with a Supplementary Electronic Safety Device (DSES) referred to as "Contactless".

This safety system automatically reopens the blade whenever the gloved hand not holding the pruning shears gets too close to the cutting head.

To do that, the pruning shears are fitted with a rack and pinion protective cover containing a receiver. The user wears a transmitter on the hand not holding the pruning shears.

The receiver is configured to create a virtual safety zone around the cutting head.

The transmitter sends a signal to the receiver which it uses to determine the position of the hand from the pruning shears cutting head. If the hand not holding the pruning shears enters the safety zone around the cutting head, the blade opens automatically.

This system operates by anticipating danger.



The safety zone can be configured to the hand size (see section " Selecting the safety zone size ", page 16). Whenever the transmitter moves, it lights and displays its battery charge level. It switches off automatically after two minutes if it has not moved during that time (Wake'n'Shake function).



Thanks to its innovating technology, this safety system is not vulnerable to damp wood, metal stakes and wires, or cuts close to the ground.

A leather work glove can be worn, for example when pulling wood, as the system does not operate when in contact with the user (see section " INFACO carrying gloves ", page 12 for possible solutions).

## **/ CONTACTLESS DSES**

The F3020 pruning shears can be fitted with the "Contactless" safety system. It is compatible with the Standard and Medium kits.

This system, whose operation is described above, can be disabled by the user at all times.



Users must be aware that the DSES CONTACTLESS system supplements all mandatory and usual safety rules but does not replace them under any circumstances.

As a result, users must respect all the safety rules contained in this manual, as well as, more generally, the usual safety rules relating to the use of any cutting tool, in all circumstances,.

### **Safety and use**

The pruning shears are fitted with a contactless safety device.

It has two components:

- A receiver located in the removable cover on the cutting head;
- A transmitter worn on the hand not holding the tool.

Both elements must be operational for the system to guarantee its safety function.

It is **mandatory** that the **transmitter be 100% charged** before use and that it is correctly positioned in the glove.

Wearing the transmitter in the glove requires systematic visual checks as well as checking the battery charge level when in use.

INFACO declines any liability for failures due to the poor condition of the transmitter, the loss of the transmitter during use, insufficient transmitter battery charging and/or non-compliance with the procedures described in this manual.

For all other precautions to be taken when using the device, refer to the F3020 user manual.

**To reduce health risks, INFACO recommends that people wearing a pacemaker should consult a doctor and the pacemaker manufacturer before using this system.**



**Always disconnect the pruning shears from the power cord for all other operations than pruning and in particular when sharpening or lubricating.**

## First use

After manufacturing, the transmitter module is programmed in “sleep” mode. To reactivate it and ensure it is operational, simply plug it into the mains and then unplug it. **Without this operation, it will remain off.**

**This kit must be installed by an approved INFACO dealer.** Only they can configure the pruning shears to operate with this safety system.

When using for the first time, we strongly recommend that you seek the assistance of an INFACO dealer. They are authorized to provide all the advice needed for proper use and maintenance.

To guarantee optimum safety, we strongly recommend that you check the Contactless DSES safety zone (see section “ Safety system check “, page 19), it is **mandatory** to wear the transmitter in an INFACO carrying glove.

**Carrying the pruning shears:** the Contactless DSES kit does not require any modification to how the device is carried

**Wearing the transmitter:** the use of an INFACO carrying glove is necessary and MANDATORY to guarantee the correct positioning of the transmitter. However, a work glove can be worn over the transmitter module. In that case, remember to regularly check that the transmitter is working properly by removing the work glove to check the battery level, as it is no longer visible.



It is **imperative** that the **transmitter module be inserted** into the pocket of the carrying glove **with the arrow pointing towards the fingers**. It must be positioned in the glove pocket so that the battery charge level indicator is in front of the window in the glove.

### **IMPORTANT:**

The use of the INFACO carrying glove is mandatory to:

- Optimize the safety zone;
- Improve hand detection;
- Not lose the transmitter during use.

## **INFACO carrying gloves**

### **Important reminders:**

- The use of INFACO carrying gloves is **mandatory**;
- Wearing clothing cuffs under the INFACO gloves and wearing undergloves is **authorized**;
- INFACO carrying gloves are non-conductive and therefore **not compatible** with a Wireless and wired DSES safety system.

There are several possible carrying configurations:

- hand holding the pruning shears: bare hand or any type of glove;
- hand not holding the pruning shears:
  - Contactless DSES compatible glove (mitt: ref 955A / mid-season: ref 956D or 956G / winter: ref 957D or 957G);
  - Contactless DSES compatible glove + underglove;

Contactless carrying gloves are specially designed to provide continuous transmitter battery charge level indicator visibility.

The glove pocket guarantees that the box is not lost during use and is protected from bad weather.

Always insert the box into the pocket with the arrow pointing upwards. The LEDs appear in the window.



## Using the CONTACTLESS DSES

Contactless DSES is available as an option. The function must be activated by an authorized INFACO dealer when the system is installed on the pruning shears.

**This kit must be installed by an approved INFACO dealer.** Only they can configure the pruning shears to operate with this safety system.

The system must be checked frequently to make sure it is in working order.



When powering on, check that all the LEDs are in working order

During use, the DSES status LED is off  
= DSES is active

During use, the DSES status LED is red  
= DSES is inactive,  
**you are not protected.**

### To start the pruning shears:

- After the 2 trigger strokes (and the search for the stop when the pruning shear is switched on), the pruning shear waits to check the presence of the transmitter. The red DSES LED flashes;
- To unlock the pruning shears, gently move the hand wearing the switched on transmitter towards the cutting head, wait 2 seconds and then move it away again;
- The red DSES LED stops flashing;
- The pruning shears are operational.



The pruning shears remain locked until they have detected the transmitter. If the transmitter is forgotten or the battery is flat, the pruning shears can be unlocked by a long press on the settings button.

**IMPORTANT: in that case, you are no longer protected.**

During use, the DSES can be inactive with the status LED red in 2 possible cases:

- **Momentary and deliberate stop**



The DSES is inactive for a single cut and then automatically reactivates:



You are not protected during the single cut.

- **Permanent and deliberate stop**



The DSES is permanently disabled. To re-enable it, a 10s long press on the settings button is required.

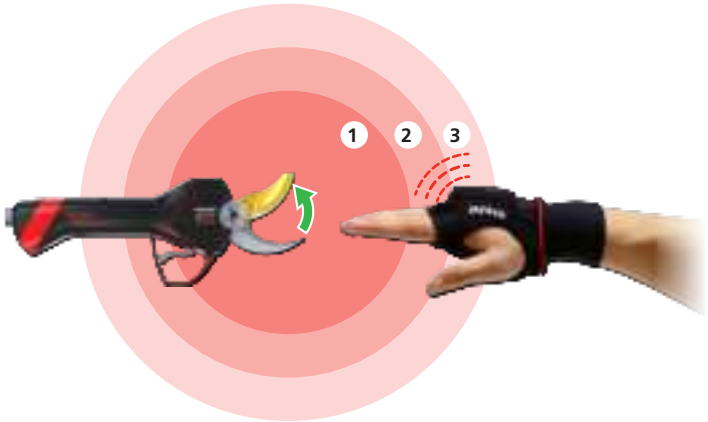


You are no longer protected.

## Selecting the safety zone size

Contactless DSES creates a virtual safety zone around the cutting head.

There are 3 safety zone dimensions configured in the pruning shears. The zone should be selected according to the required safety level **and the hand size**.



The "safety zone selection" function is used with the pruning shears in standby mode.



This selection must be made when using the pruning shears for the first time. It will then be saved for future use. Before selecting the zone, check that:

- the transmitter is charged to 100% and correctly inserted in the carrying glove;
- the Contactless DSES cover is in good condition and correctly fitted to the pruning shears.

To select and/or check a safety zone, you can contact an authorized INFACO dealer, or use the procedure below:

1. Switch the transmitter on by moving it back and forth. Check that the bar graph LEDs are lit:



2. Switch the pruning shears on, unlock them and switch them to standby:



3. Press the trigger and keep it pressed. After one second, the DSES configuration mode is activated. The DSES LED flashes, the status LED switches to steady red and the bar graph LEDs indicate which safety zone is currently selected:



4. To select the safety zone, while keeping the trigger pressed, press the "settings" button. Each time you press the button, the safety zone changes and the LEDs on the bar graph change accordingly:



**Zone 1**



**Zone 2**



**Zone 3**

Zone 1 being the closest and zone 3 the furthest from the blade.

To determine the most suitable safety zone (depending on the selected safety level AND the hand size), slowly move the hand not holding the pruning shears towards the cutting head while pressing the trigger.

## Example with level 3



When the transmitter enters the safety zone, the status LED turns green.



5. Release the trigger to confirm the selection.

## Safety system check

It is recommended to frequently check that the safety system is working properly throughout the day:

1. Check that the transmitter is switched on (green LEDs);
2. When the pruning shears are switched on and operating normally, close the blade by pressing the trigger;
3. While keeping the trigger pressed, move the transmitter (hand with closed fist) towards the cutting head.



As soon as the sensor enters the safety zone, the blade should reopen automatically and the DSES LED turn red to confirm correct operation. If that is not the case, refer to section " LED indications ", page 25.

If the pruning shears do not detect the transmitter module for several tens of seconds, the pruning shears will lock automatically. To unblock the pruning shears, move the hand wearing the switched on transmitter towards the cutting head, wait 2 seconds and then move it away again. If the pruning shears are still blocked, refer to section “ LED indications ”, page 25.



During this brief period without signal detection, the user is not protected. INFACO declines all liability for accidents during that period of time.

When the transmitter indicator starts flashing, the user must recharge it immediately. If the transmitter switches off because there is no battery, the pruning shears will automatically switch to safety mode after 5 minutes. During that time, users are fully aware that they are using a cutting tool without any additional safety system.

## RECHARGING THE TRANSMITTER BATTERY

The transmitter module is fitted with a lithium polymer battery (INFACO ref.: 912BA). This battery allows the system to be used for 12 hours. It must therefore be recharged every day using the supplied charger.

**Charge the battery before using the device for the first time or when it has not been used for some time.**



Only use batteries, chargers and USB type C cables supplied by INFACO and specially designed for the device. The use of an incompatible battery, charger or cable may cause serious injury or damage the device.

Do not short-circuit / Do not replace with incorrect battery type / Do not dispose of in fire / Do not crush battery.

Risk of explosion if mishandled.

Incorrect charger connection can seriously damage the device. **Damage resulting from incorrect use is not covered by the warranty.**

## Charging the transmitter

- Connect the compatible mains adapter to the mains supply;
- Connect the USB cable to the charger and to the transmitter;
- Connect the charger to a mains power outlet;
- When charging starts, the middle LED flashes for 5 seconds, then the LEDs scroll to indicate that charging is in progress.



To save energy, disconnect the charger when not in use. As the charger is not fitted with an "on/off" switch, it must be unplugged from the mains power outlet for the power supply to be cut.

When the battery is fully charged, the 3 bar graph LEDs are on and steady. Disconnect the charger from the device. Then disconnect the charger from the mains power outlet.

A full charge after a day's use takes about one and a half hours.

Charging after a long period without use can take up to four and a half hours.

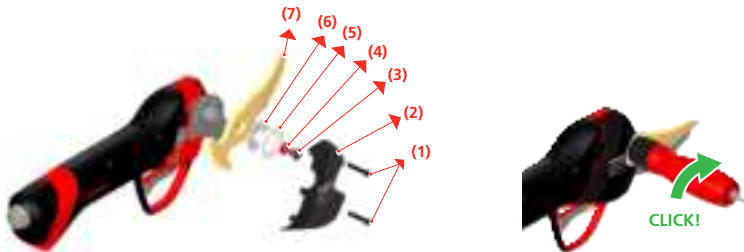
**Tip:** to make sure you remember to charge the transmitter every day, attach the USB cable to the F3020 battery charging cable using the hook-and-loop strap supplied in the kit.



**Charge the transmitter module to 100% at the end of the season or if it is not used for more than 1 month. The transmitter must be recharged at least once a year** to avoid damaging the internal battery and its functionality.

## ASSEMBLY INSTRUCTIONS

To change the blade on your pruning shears, make sure to switch them off and/or disconnect them from the battery, then proceed as follows:



1. Using the cross tip on the tool, unscrew the 2 screws (1) and remove the Contactless DSES cover(2);
2. Using the tool hex tip, remove the screw (3) and the elastomer washer (4);
3. Using the tool, remove the nut (5) and the needle stop (6).
4. Remove the blade (7);
5. If necessary, clean around the pinion (warning: do not use chemicals);
6. Fit the new blade on the pruning shears **in the closed position**;

7. Fit the needle stop (6), screw and adjust the nut (5) until the tool is triggered;
8. Fit the elastomer washer (4) on the screw (3) and screw in the screw (3);
9. If necessary, lubricate the blade teeth using graphite grease;
10. Before refitting the Contactless DSES cover, check that there is contact grease on the area where the contact pads on the Contactless DSES board are located. If that is not the case, use the tube of grease supplied in the DSESC kit to apply grease to the area;







11. Fit the cover (2) on the pruning shears and screw in the 2 screws (1);
12. Adjust the blade overlap if necessary (see "Blade overlap" section in the F3020 manual);
13. Grease as indicated in the F3020 manual.






# / LED INDICATIONS

## INDICATIONS ON THE PRUNING SHEARS

 <p>Flashing red DSES LED</p>	<p><b>Contact or unlocking problem:</b></p> <ul style="list-style-type: none"> <li>• Check that the cover is correctly fitted, that there is no dirt in the contact area and that there is grease.</li> <li>• Check that the transmitter module is switched on.</li> </ul>
 <p>DSES LED steady red</p>	<p><b>DSES inactive:</b></p> <p>The DSES system may be deactivated. Reactivate it by pressing for 10 seconds.</p>
 <p>Red LED on (not flashing)</p>	<p><b>Non-compliant safety zone:</b></p> <p>Change the safety zone according to the instructions in this manual.</p>
 <p>No safety despite normal display</p>	<p><b>The safety device does not trigger despite a display showing that it is operating correctly:</b></p> <ul style="list-style-type: none"> <li>• Check that the cover is correctly fitted;</li> <li>• Check that the transmitter module is switched on;</li> <li>• Check that the safety zone corresponds to the required triggering distance;</li> <li>• Check that the DSES function is not disabled;</li> </ul>

## TRANSMITTER MODULE

 <p>LEDs off</p>	<p><b>The module does not wake up after shaking:</b></p> <ul style="list-style-type: none"> <li>Try again, shaking harder;</li> <li>Charge the module.</li> </ul>
 <p>Middle LED flashing green</p>	<p><b>On wakeup, only the middle LED lights and flashes:</b> Contact a dealer</p>
 <p>LEDs off when charging</p>	<p><b>Nothing happens during charging:</b></p> <ul style="list-style-type: none"> <li>Check that the mains power outlet is operational;</li> <li>If possible, test the charger on a different module;</li> <li>If possible, test using a different INFACO charger.</li> </ul>

**If the problem persists, contact a dealer**



Regardless of the circumstances, **with or without the Contactless DSES safety system**, users must imperatively make sure the hand not holding the pruning shears is always **at least at a 20 cm / 8 inch safety distance** from the tool blade.

INFACO declines all liability for:

- injuries and/or material damage caused by the use of equipment containing defective parts.
- accidents resulting from use that does not comply with all the safety and maintenance instructions in the user manuals.







[www.infaco.com](http://www.infaco.com)

EN - User manual  
**CONTACTLESS** DSES

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