

"Executive" PCU for Scanreco G4 systems

SERVICE MANUAL



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NOTE: This **Service Manual** is addressed to the radio remote control installer as integration of the User Manual that follows each system.

1. Characteristics

The Executive Portable Control Unit (PCU) of the Scanreco G4 remote control can be switched on and function in different operation modes described hereunder.

1.1. Switching on the transmitter

OPERATION mode

This is the usual mode for which the radio control was designed.

Rotate the emergency stop button clockwise to release it.

Press the pushbutton marked  until the red LED light on the right comes on.

The transmitter switches on in “OPERATION” mode.

A more detailed explanation of the function in this operation mode is contained in Chapter 2.

TEST mode

This is the mode in which to verify the proper functioning of the levers and pushbuttons.

Rotate the emergency stop button clockwise to release it.

Switch the transmitter on as usual and immediately after, repeatedly press the switch-on pushbutton 10 times (until the red LED light on the right switches off).

The transmitter is now on “TEST” mode.

A more detailed explanation of the function in this operation mode is contained in Chapter 2.

ASSIGN mode

This is the mode to use so that the receiver will recognize the Portable Control Unit (PCU). This is done, usually, when replacing one of the two parts.

Rotate the emergency stop button clockwise to release it.

Press the switch on pushbutton and keep pressed for about 4-5 seconds until a short BEEP is heard.

The transmitter is now in ASSIGN mode and you can release the pushbutton.

A more detailed explanation of the function in this operation mode is contained in Chapter 2.

CALIBRATION mode

This is the mode to use for adjusting the speed of the operations, the inversion of the functions and the type of ON/OFF outputs (*latched or non latched*).

Rotate the emergency stop button clockwise to release it.

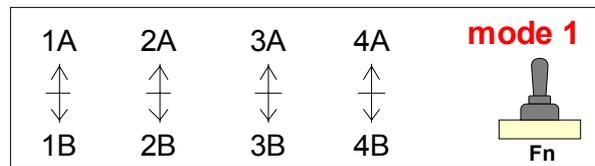
Switch the transmitter on as usual and, immediately after, quickly turn the “Fn” switch to the right repeatedly for 10 times until you hear a short BEEP. Both LED lights will remain off.

The transmitter is now on “CALIBRATION” mode

A more detailed explanation of the function in this operation mode is contained in Chapter 2.

2. Description of operation modes

2.1. Operation mode (1)

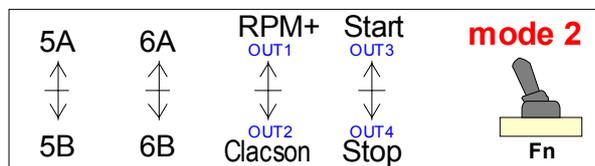


In this mode (the “Fn” switch is released) the levers from 1 to 4 (from left to right) control the first 4 proportional outputs.

The  pushbutton controls OUT2 (Horn).

By moving switch “Fn” to the left and keeping it in this position you enter OPERATION MODE 2.

2.2. Operation mode (2)



By moving switch “Fn” to the left and keeping it in this position you enter OPERATION MODE 2.

Release the “Fn” switch to return to OPERATION MODE 1.

In this mode the first two levers from the left control proportional outputs 5 and 6 (in some systems one or both controls can be disabled).

By pushing forward the 3rd lever from the left you control the on/off OUT1 output. (RPM+).

By pulling backward the 3rd lever from the left you control the on/off OUT2 output (Horn) - (this is the same as the  pushbutton control).

By pushing forward the 4th lever from the left you control the on/off OUT3 output (Start)

By pulling backward the 4th lever from the left you control the on/off OUT4 output (Stop)

WARNING: the above describes the association of proportional functions and on/off outputs relating to the standard FABER-COM radio controls. Some special systems could have functions associated in a different manner. Consult the specific diagram attached to the system for a correct correspondence.

ON/OFF outputs working

If the on/off output is configured as *non latched*, the output switches off releasing of the lever.

If the on/off output is configured as *latched*, every activation of the lever will cause the output status to change (from OFF to ON and vice versa).

The working type of each on/off output can be modified in CALIBRATION mode.

2.3. Test mode

When in TEST mode both LED lights are off.

Every time the “Fn” switch is activated or released, a short BEEP should be heard. If no acoustic signal is heard, it means that there is a malfunction or that the electronic card inside the transmitter is faulty.

Every time a control lever is activated, an acoustic signal should be heard which increases in frequency concurrently with the increase of the lever’s angle. When the lever reaches its maximum angle, the acoustic signal should be long.

If no acoustic signal is obtained when moving the lever, it means that it is faulty or else that the contacts are faulty or that the PCU electronic card is faulty.

When the transmitter is in this mode the receiver does not respond to the controls.

2.4. Assign mode

When the PCU is switched on in ASSIGN MODE, it transmits a code setting message to the receiver and the transmission will continue until it is switched off.

During this period of time, the receiver must be switched on with the special plug (called "pairing plug") screwed on to the connector.

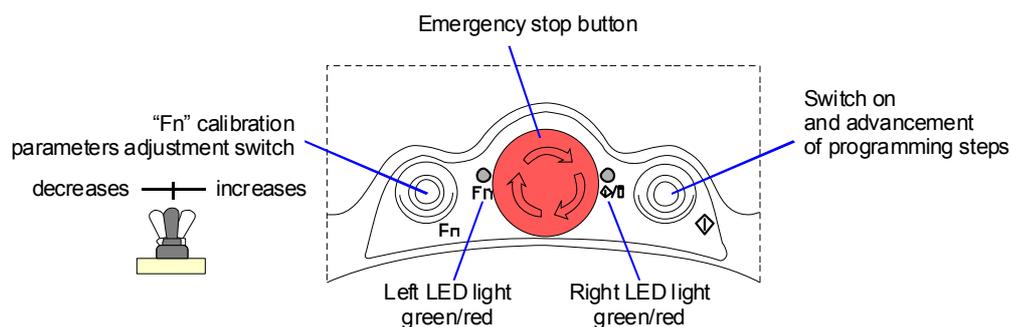
See [chapter 3](#) for a complete description of the code setting procedure.

2.5. Calibration mode

In this mode you can adjust the speed of the functions, the inversion of the functions and the type of ON/OFF outputs (*latched* or *non latched*).

AVAILABLE CONTROLS

The controls to use in calibration mode are represented in the diagram below.



To choose the function which you want to program, you must also activate the proportional levers.

CALIBRATION PROCEDURE

As soon as you enter the CALIBRATION mode, both LED lights will be off and the PCU will BEEP every 4 seconds.

Press  pushbutton once to move to the first programming step.

The  pushbutton is used to advance from one calibration step to another: every time you press the  pushbutton you move to the following step.

The programming step in which you are is identifiable by the number of BEEPs from the PCU and the status of the red LED light on the right.

Once the programming is finished, to exit programming mode and store the new configuration, switch the PCU off by pressing the emergency stop button.

Use the "Fn" switch to change the value of the parameter that you are programming.

While programming it is useful to open the receiver's lid so you can read the parameter you are changing on the display.

PROGRAMMING STEPS (summary table)

Step	n° beeps	left LED	right LED	Description
1	1	green	x	Set time for PCU automatic switch off
2	2	green	green	Chose transmission radio channel
3	3	x	x	Not used
4-A	4	x	x	Adjust minimum speed for functions 1 to 4
4-B	4	x	red	Adjust minimum speed for functions5 and 6
5-A	5	x	x	Adjust maximum speed for functions from 1 to 4
5-B	5	x	red	Adjust maximum speed for functions 5 and 6
6	6	x	x	Choose type of function on/off outputs from OUT1 to OUT4
7	7	x	x	Choose type of function on/off outputs OUT5 and OUT6
8-A	8	x	x	Invert direction for functions from 1 to 4
8-B	8	x	red	Invert direction for functions 5 and 6

NB: Steps 4, 5 and 8 are divided into two parts:

- the first part (-A) with the LED light on the right OFF (relative to functions from 1 to 4)
- the second part (-B) with the LED light on the right ON (relative to functions 5 and 6)

In these special steps, when you press the  pushbutton, the programming step advances from part -A to part -B of the same step (part -B is identifiable by the LED light on the right being on), then proceed to the next step.

When you reach the last step (8-B) by pressing the  pushbutton you will return to the first programming step.

The following page describes the programming steps in further detail.

DESCRIPTION OF THE PROGRAMMING STEPS

Step 1 – set PCU automatic switch off time

The PCU BEEPs every 4 seconds.

The green LED light on the left can be in the following configurations:

- Always on = automatic switch off disabled
- 1 flash = automatic switch off after 2 minutes
- 2 flashes = automatic switch off after 5 minutes (default)
- 3 flashes = automatic switch off after 10 minutes

Step 2 – set working frequency

The PCU BEEPs twice with a pause in between.

The radio transmission channel can be set either in variable or fixed mode.

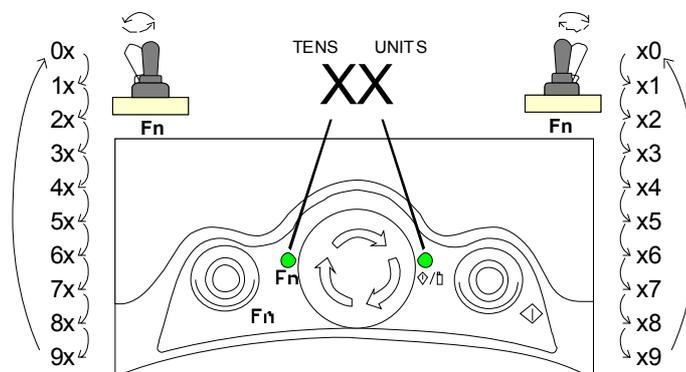
The two LED lights on the left indicate, with their status, the tens and unit digits of the radio transmission channel respectively, according to the following table:

left green LED light	Right green LED light
0 = LED always on	0 = LED always on
10 = 1 flash	1 = 1 flash
20 = 2 flashes	2 = 2 flashes
30 = 3 flashes	3 = 3 flashes
40 = 4 flashes	4 = 4 flashes
50 = 5 flashes	5 = 5 flashes
60 = 6 flashes	6 = 6 flashes
70 = 7 flashes	7 = 7 flashes
80 = 8 flashes	8 = 8 flashes
90 = 9 flashes	9 = 9 flashes

By using the "Fn" switch it is possible to modify the transmission channel in the following manner:

Every time the "Fn" switch is switched to the left, the tens digits are increased by one in a circular manner (when it reaches 9 it goes back to zero).

Every time the "Fn" switch is switched to the right, the unit digits are increased by one in a circular manner (when it reaches 9 it goes back to zero).



By setting the channel on **00** (both Led lights always on), the transmitter works on variable frequency (standard configuration). The channel number can be set from **01** to **66**.

If the working channel is changed the Code Recognition procedure must be repeated (see chap. 3)

Step 3 – setting the type of transmitter

The PCU BEEPs three times with a pause between each beep.
This programming step does not apply to this type of PCU.

Adjusting the "START" parameter

Step 4-A – adjusting the initial speed for functions from 1 to 4

The PCU BEEPs four times with a pause between each beep.
Red LED light on the right is off.

Step 4-B – adjusting the initial speed for functions 5 and 6

The PCU BEEPs four times with a pause between each beep.
Red LED light on the right is on.

- Move the operating lever that you want to adjust just outside the dead band (you need to switch on the red DV LED light on the receiver) and, keeping the lever in this position, increase or decrease the operating speed by switching the “Fn” switch to the right or to the left. By keeping the switch in the same position the speed will not change.

Adjusting the "STOP" parameter

Step 5-A – adjusting the maximum speed for functions 1 to 4

The PCU BEEPs five times with a pause between each beep.
The red LED light on the right is off.

Step 5-B – adjusting the maximum speed for functions 5 and 6

The PCU BEEPs five times with a pause between each beep.
The red LED light on the right is on.

- Move the operating lever to the limit and, keeping the lever in this position, increase or decrease the speed by switching the “Fn” switch to the right or to the left. By keeping the switch enabled the speed won't change.

Step 6 – configuration of ON/OFF outputs from OUT1 to OUT4

The PCU BEEPs six times with a pause between each beep.

Considering the levers numbered from left to right:
Push or pull the 1st lever to configure output OUT1
Push or pull the 2nd lever to configure output OUT2
Push or pull the 3rd lever to configure output OUT3
Push or pull the 4th lever to configure output OUT4

Keeping the lever engaged switch the “Fn” switch either to the left or to the right to change function mode from *latched* to *non latched* and vice versa.

Step 7 – configuration of ON/OFF outputs OUT5 and OUT6

The PCU BEEPs six times with a pause between each beep.

Considering the levers numbered from left to right:
Push or pull the 1st lever to configure output OUT5
Push or pull the 2nd lever to configure output OUT6

Keeping the lever engaged, switch the “Fn” switch just once to the right or to the left to change function mode from *latched* to *non latched* and vice versa.

Step 8-A – invert direction of proportional functions from 1 to 4

The PCU BEEPs seven times with a pause between each beep.
The red LED light on the right is off.

Step 8-B – invert direction of proportional functions 5 and 6

The PCU BEEPs eight times with a pause between each beep.
The red LED light on the right is on.

Engage the lever of the function you want to invert the direction and, keeping the lever in this position:

- Briefly switch the “Fn” switch to the left to set to normal direction (side A pushing the lever forward – side B pulling the lever backward), or
- Briefly switch the “Fn” switch to the right to set to inverted direction (side A pulling the lever backward – side B pushing the lever forward).

3. Code recognition procedure

This procedure must be followed to pair the receiver with the transmitter in case of replacement of one of the two components.

1) Start with receiver and transmitter both switched off.

2) Unscrew the protection cap and screw on the special yellow plug provided.
(Pairing Plug p/n: 48118)



3) Press the switch on pushbutton on the PCU and keep pressed for about 4-5 seconds until you hear a short BEEP.
The transmitter is now on ASSIGN mode and you can release the pushbutton.

4) Switch on the receiver on REMOTE (the transmitter must be close to the receiver: less than 3 meters apart)

5) Wait for about 5 seconds.

6) Switch off the transmitter.

7) Switch off the receiver.

8) Unscrew the yellow plug (PAIRING PLUG) and place in a safe place to use again. If you switch ON again the receiver with the Pairing Plug installed, the transmitter code id erased and the procedure must be repeated.

9) Screw the protection black cap on the connector of the receiver.

When the system is switched on again the receiver will recognize the transmitter and will function normally ("1H" will appear on the display inside the receiver and led STATUS green, on).

Repeat the procedure from the beginning in case of malfunction.