

Jay Radio Remote Control

Xpair series

Setting guideline



CONDUCTIX
wampfler

Xpair Radio Remote Control

Take control, safely!

Xpair is a Jay radio control dedicated to standard overhead crane operation.

It follows the Conductix-Wampfler tradition of bringing safety, functionality and ergonomics to industrial lifting operators. With 60 years' experience in the use of overhead travelling cranes, our technical teams have met the challenge of making Xpair a radio remote control that is safe, quick to install and easy to use!

In this document, all the instructions are provided to personalize your own settings with complete peace of mind.



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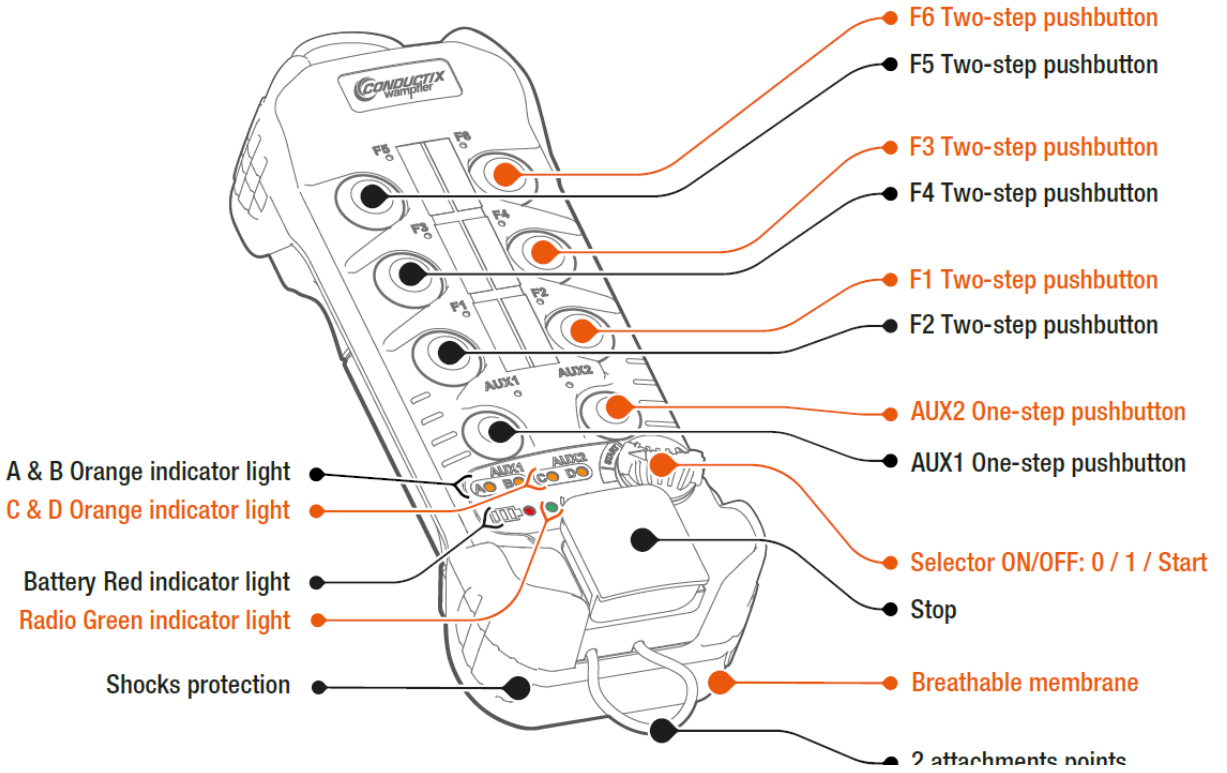
Xpair Radio Remote Control Documents.



⁽¹⁾ For safety reasons, tandem functions are inaccessible (locked) → Use JayDialog to unlock access.

1. Description

1.1 Xpair transmitter



Safety



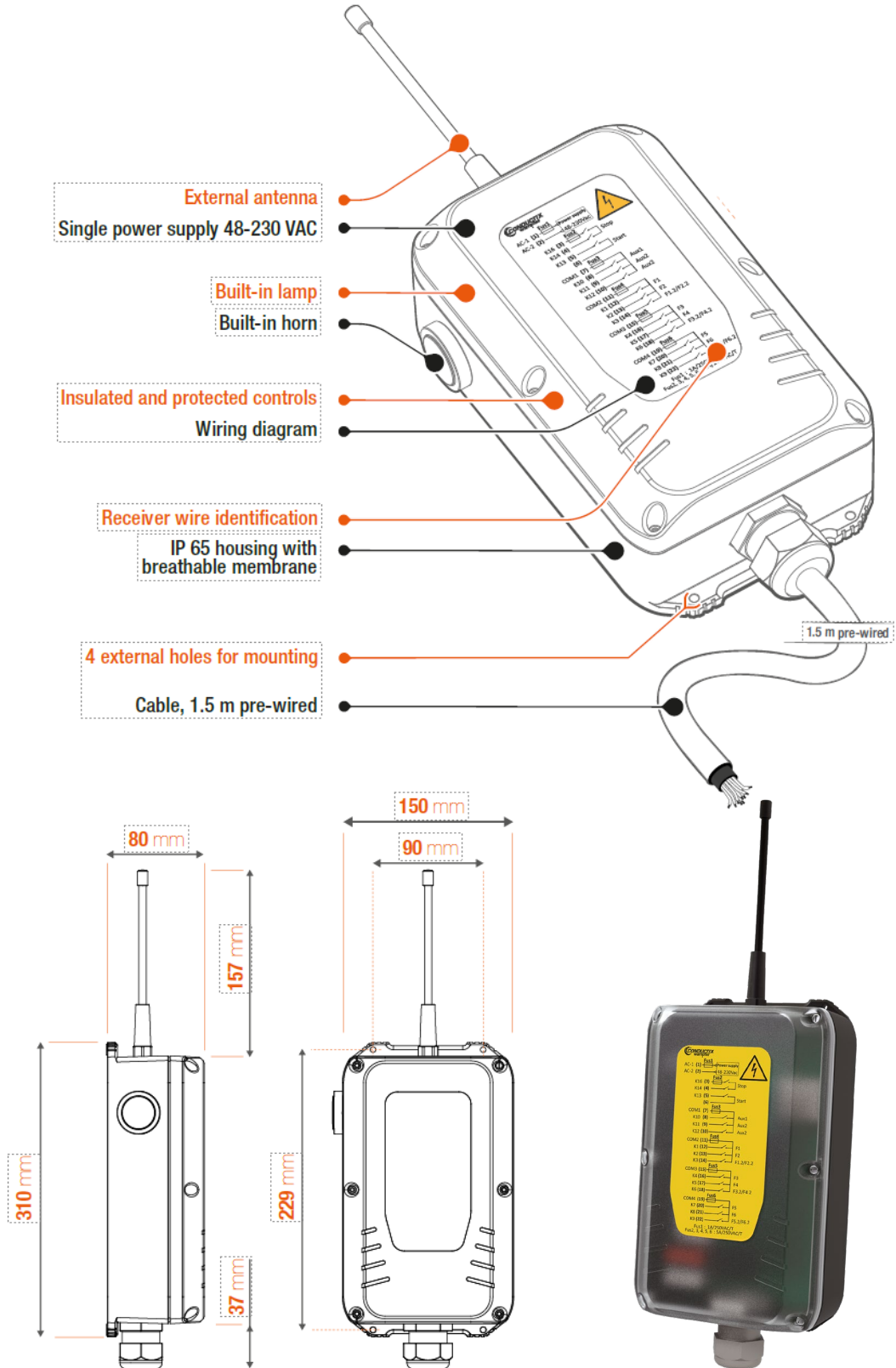
European Machinery Directive 2006/43/EC
EC-Type Examination Certificate issued by
TÜV SÜD

> Safety stop Performance level PLd cat.3
according to EN ISO 13849-1 and -2

> 6x two-steps pushbuttons
Buttons release Performance level PLC
cat.2 according to EN ISO 13849-1 and -2

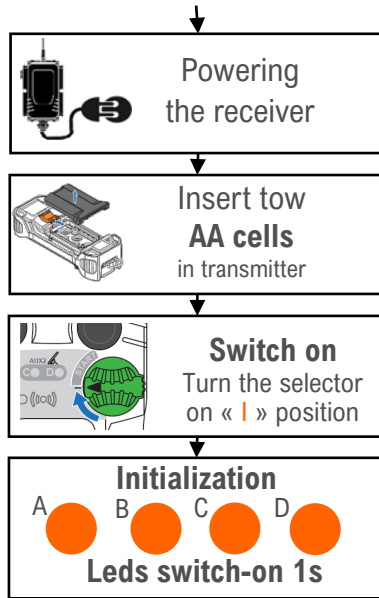
> Life signal in tandem operation
Information transmission PLC cat.2
according to EN ISO 13849-1 and -2

1.2 Xpair receiver



2. Product installation

2.1 Switch on – Start up – Set up



After switch on, two possibilities are available :

To start, turn the selector on/off in “Start” position.



To setup, look in the next pages to find the 2 pushbuttons corresponding to the desired settings menu.

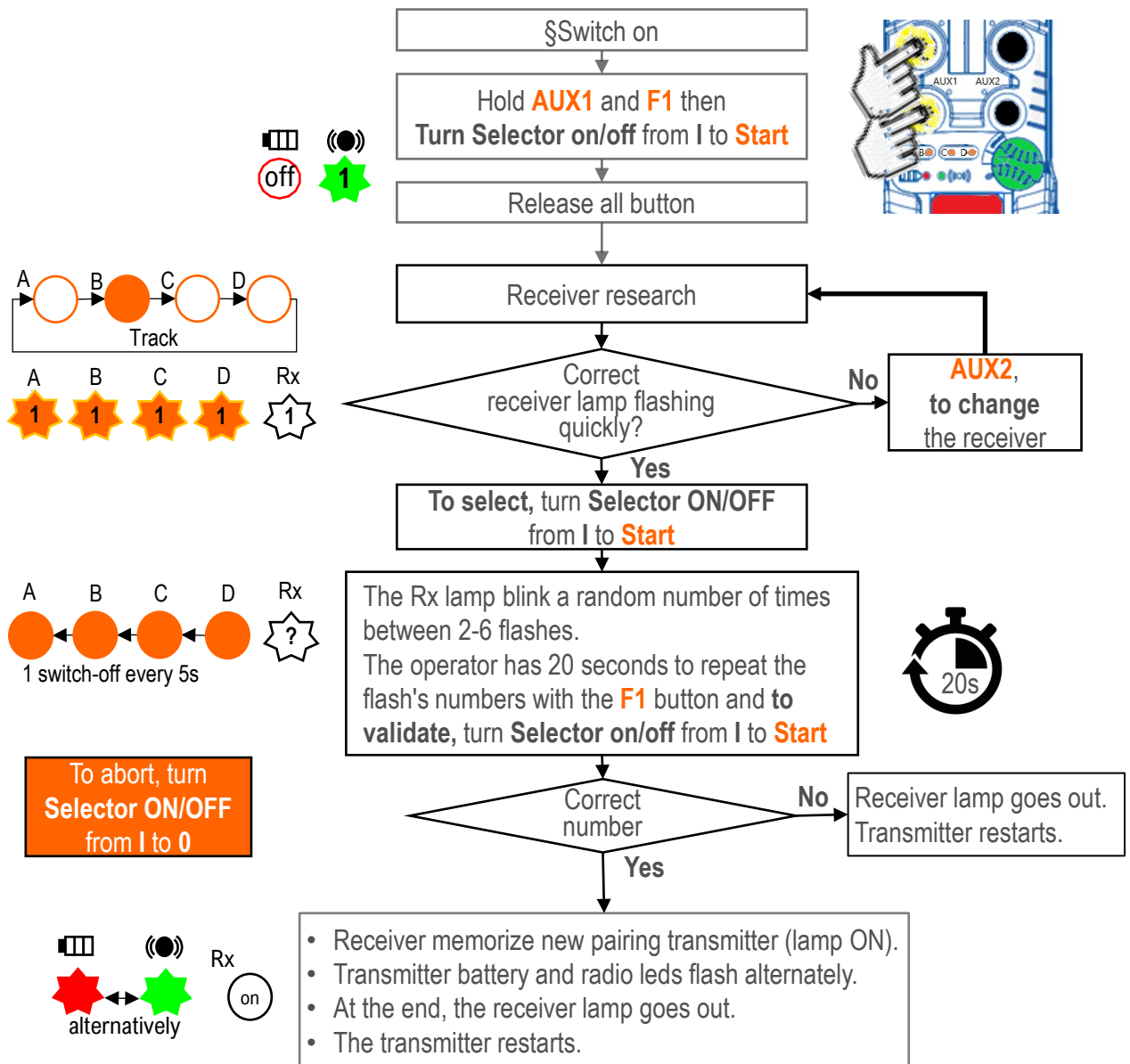


Press these **2 pushbuttons** while turn the selector on/off in “Start” position.

Informations after switch on		Defaults
	Ready to start with autonomy > 90%	A
	Ready to start with autonomy 10-90%	
	Ready to start with Autonomy < 10%	B
Aux1 A ? B ?	Aux1 (Tandem) selects the receivers A/B to be started.	
Aux2 C ? D ?	If set in selector, Aux2 selects the trolley C/D to be controlled.	All leds flashes
	Unlock stop	Product to be repaired
	Release all buttons	LED flashes rapidly
A B C D	Enter protection sequence and validate with Start.	One periodic flash
A,B,C and D LEDs flashes		On if selected

2.2 Add / Replace a transmitter – Primary pairing

- Each receiver accepted 1 or 2 (backup) primary pairing transmitters.
- If a 3rd primary pairing is made, the oldest primary used is deleted.
- During main primary pairing, the transmitter retrieves all parameters stored in the receiver.
- Only primary pairing transmitter can set up a receiver (standby, channel...)



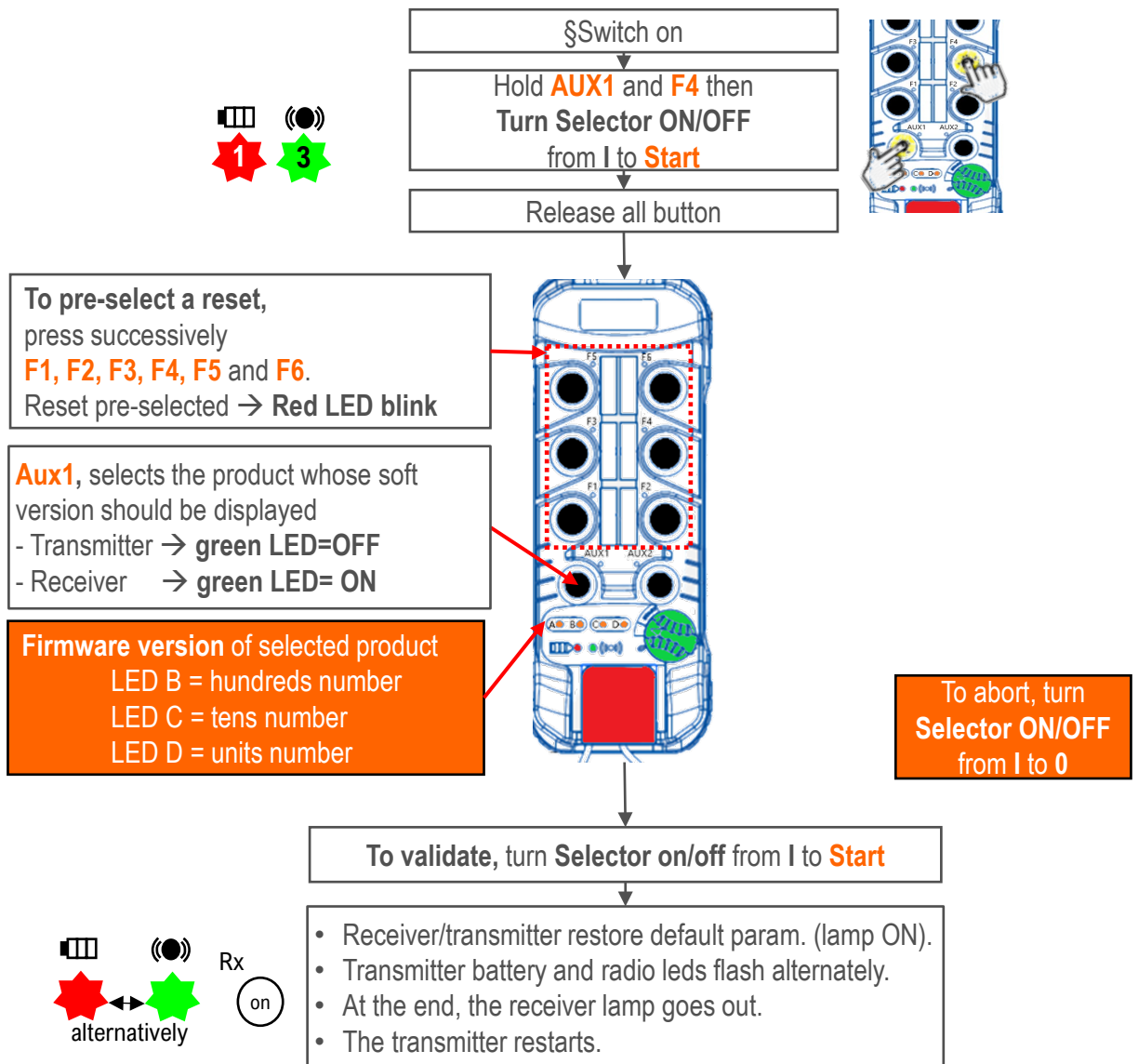
2.3 Info and reset

Reset:

- Deletes all transmitters/receiver paired except the one used for this reset.
- Restore all defaults parameters.

Defaults parameters

- | | | |
|---------------------------------|--------------------------------|----------------------------|
| • Radio channel = Fixed | • Standby = 4 min | • Tandem access = Locked |
| • Radio power = Auto adjustment | • Protected sequence = None | • Release mode = Automatic |
| • Horn level = 2 | • AUX1/AUX2 = One step command | • Sign of life = On |
| • Horn pattern = Automatic | | • Reverse A/B = No |

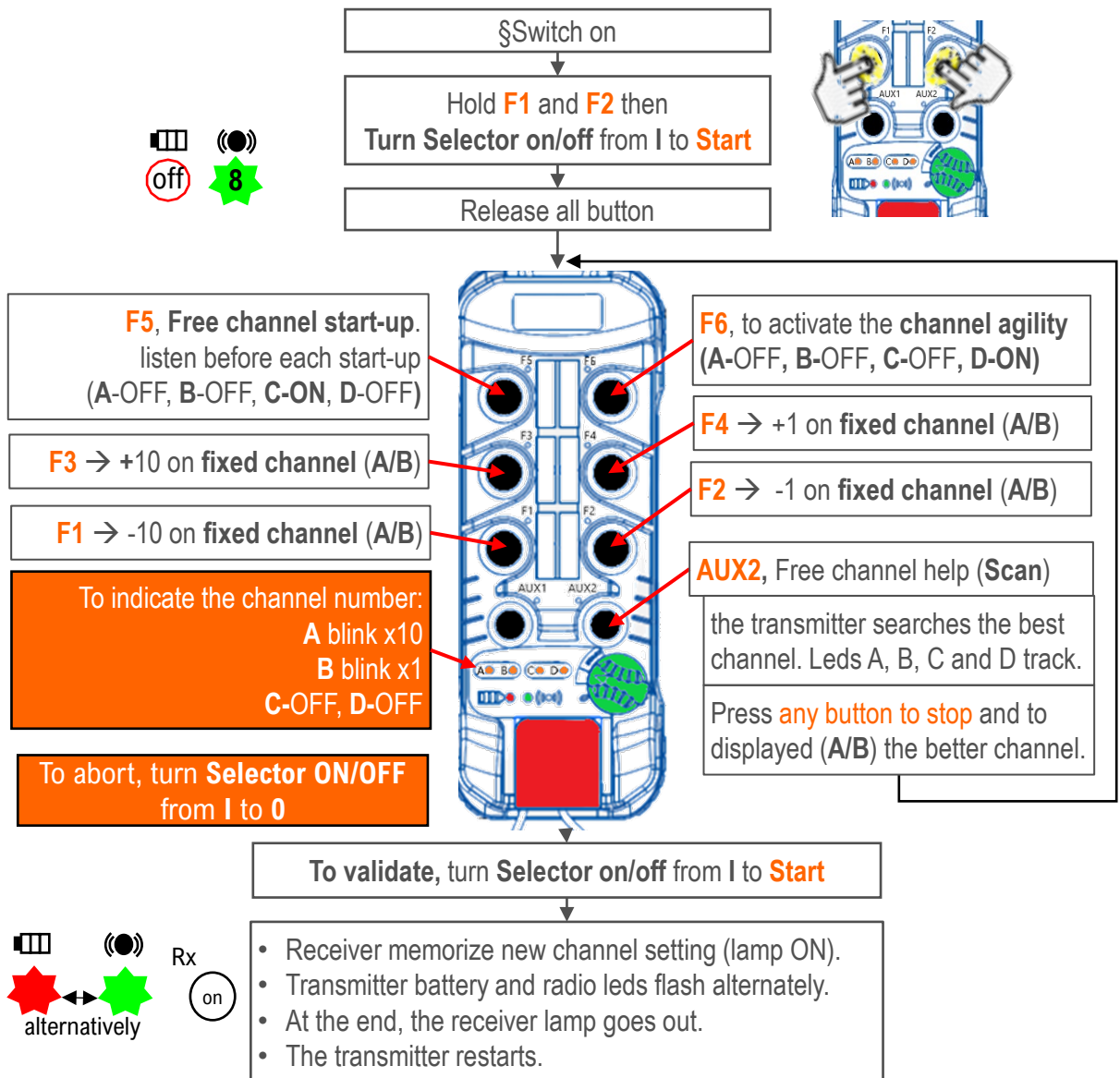


3. Site parameters

3.1 Radio channel setting

Three methods are available to manage the channel:

- **Fixed channel (F1-F4)** is to be used if all radio in a site are managed by a frequency plan.
The “Free channel help” (AUX2) can be proposed
→ The radio remote control will **stay always on fixed channel**.
- **Free channel start-up (F5)** is to be used if a lot of radio equipments are present in a small area and few are operating simultaneously.
→ The radio remote control will **choose a free channel before start**.
- **Channel agility (F6)** is to be used if unknown radio remote control arrives sometimes in the area.
→ The radio remote control will choose a free channel before start and, if disturbed, will **try to change channel without interrupting** the radio link.



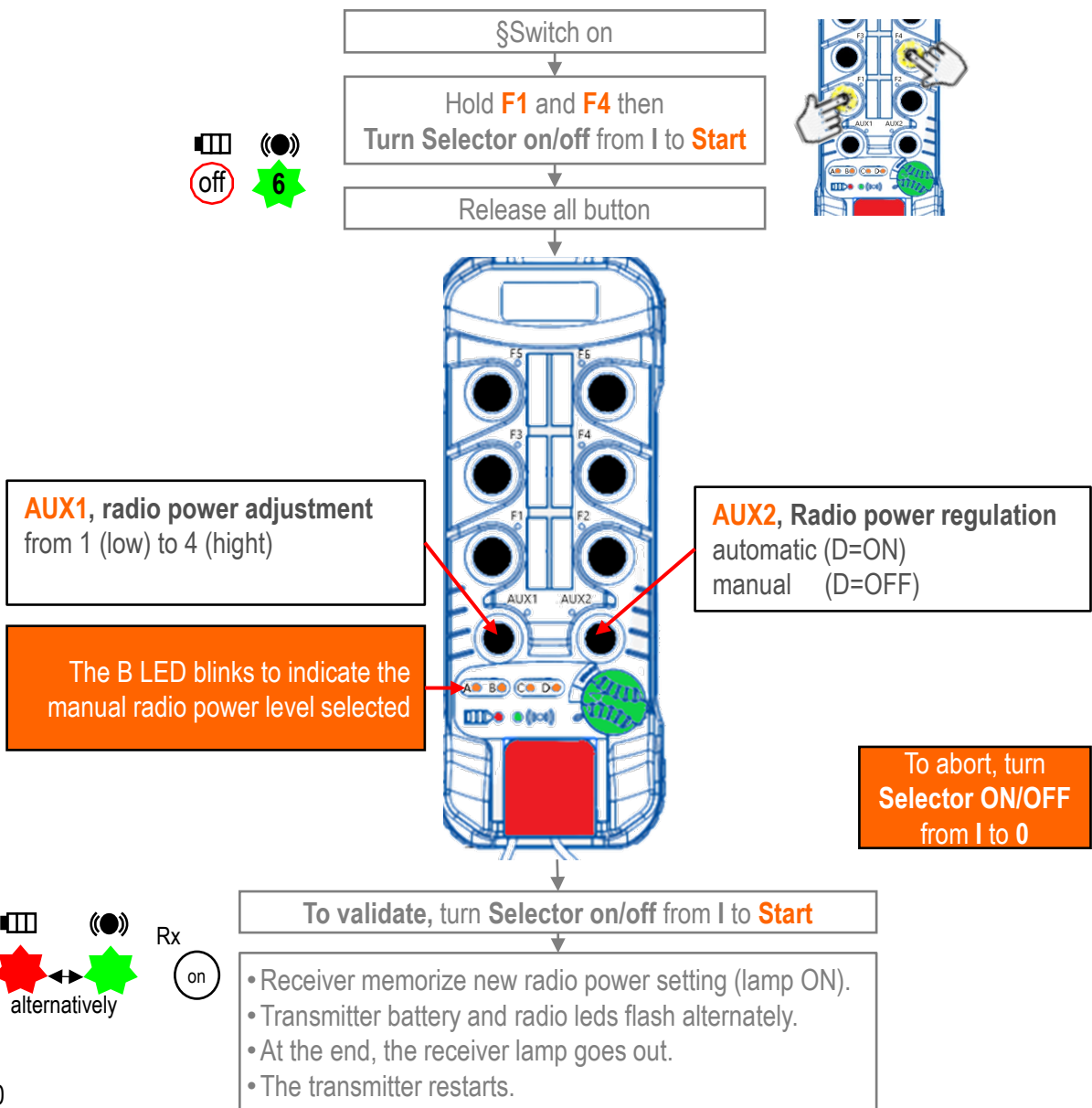
3.2 Radio power setting

The radio power regulation (AUX2)

- increases battery life.
- reduces radio emissions.
- The radio power is continuously adjusting as needed

The radio power adjustment (AUX1)

- Is to be used to limit the working area.
- Increases the number of transmitters used simultaneously in the same area.
- The radio power is fixed.



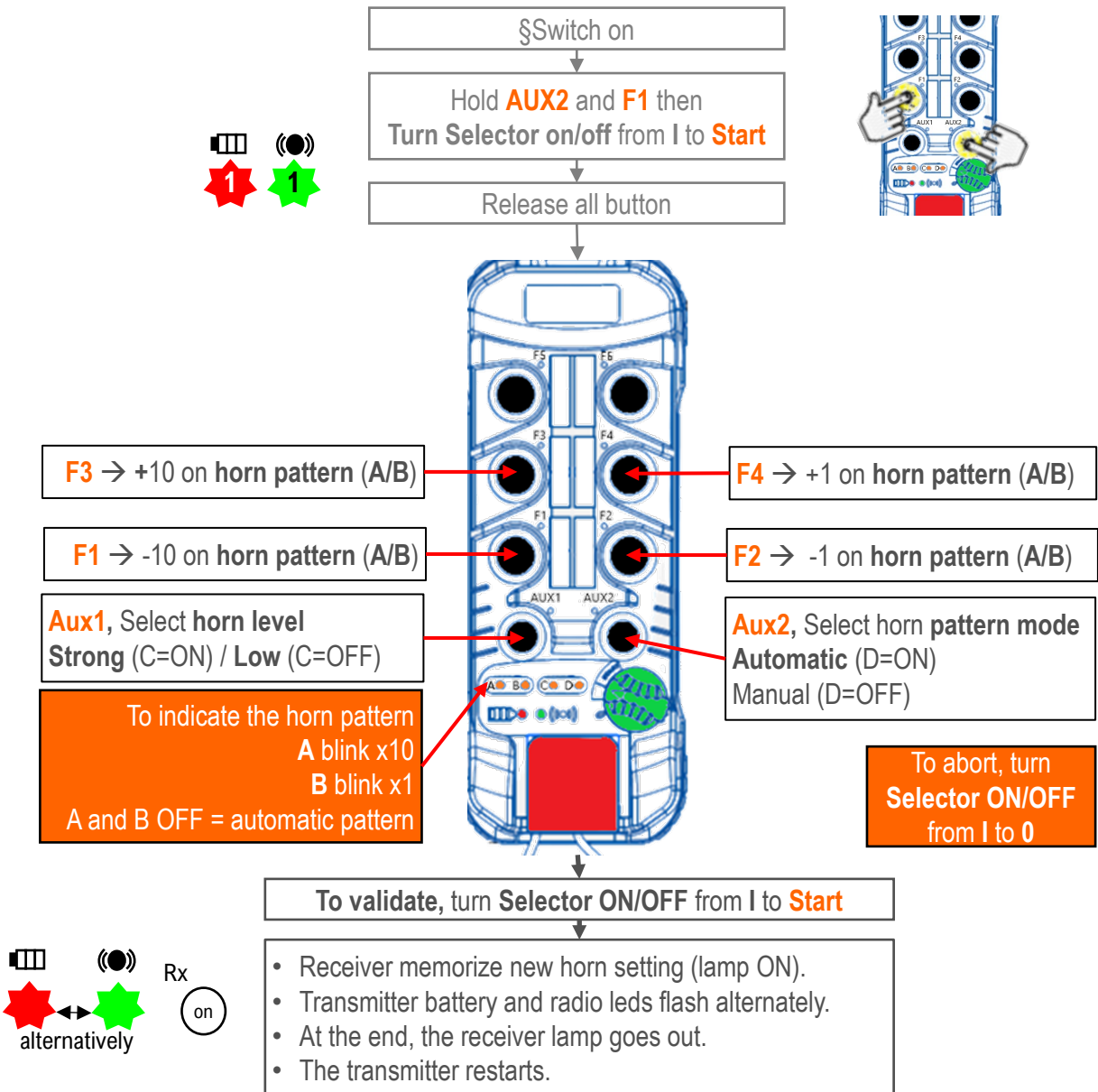
3.3 Horn setting

The pattern given to each equipment horn a unique sound (signature); A user who does not recognize the sound signature of his equipment can change the transmitter in case of error.

The horn pattern number can be:

- Selected to suit user preferences (F1,F2, F3 and F4 buttons)
 - Automatically assigned (AUX2) according to the radio channel.
- Each equipment will have its signature because each equipment is on a different channel.

The horn levels (AUX1) are available to adapt the sound level to then environment. Strong if the environment is noisy, Low if the environment is quiet.



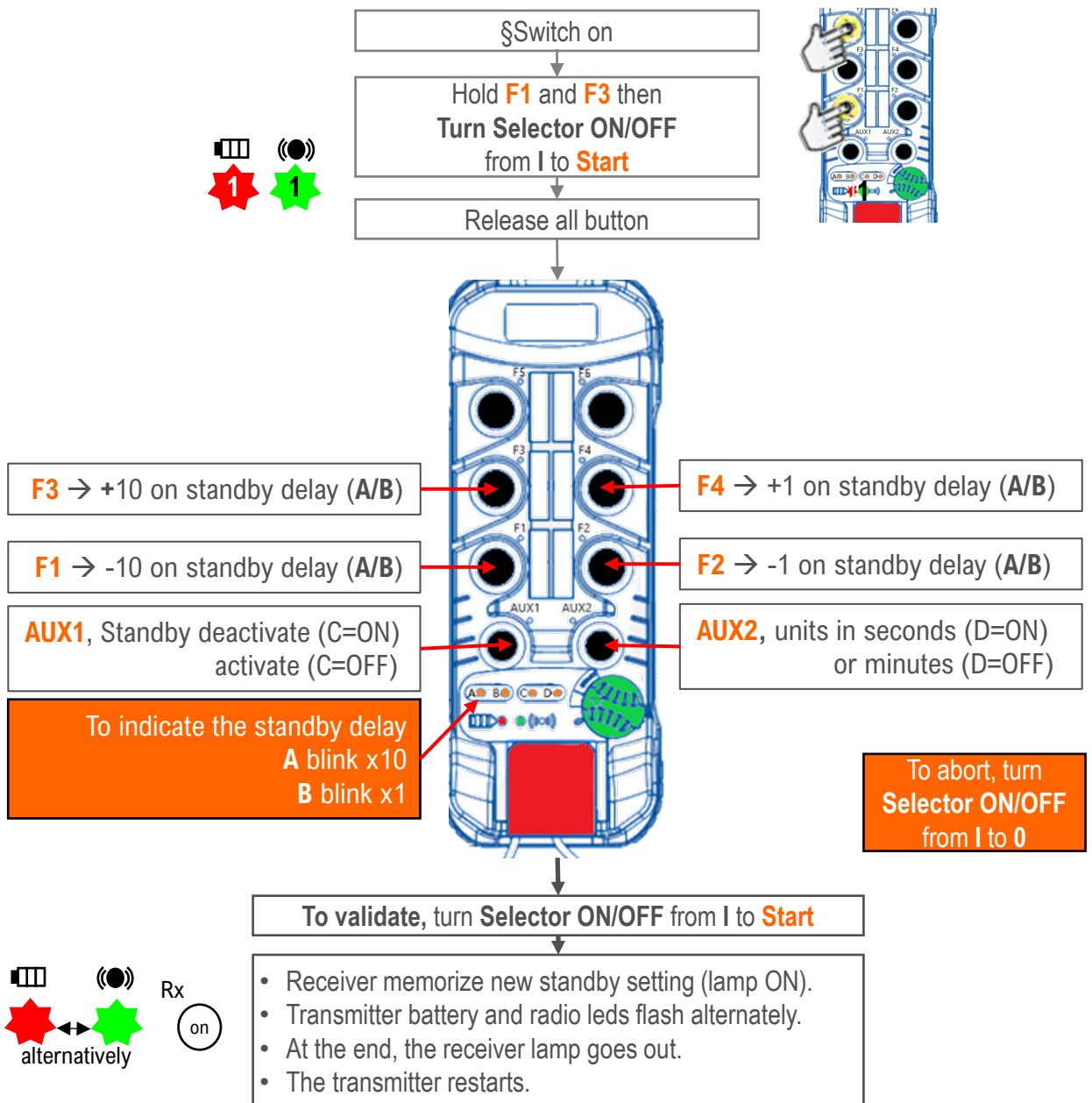
4. Application parameters

4.1 Standby setting

The transmitter will automatically turn off if no button is used within the standby delay.

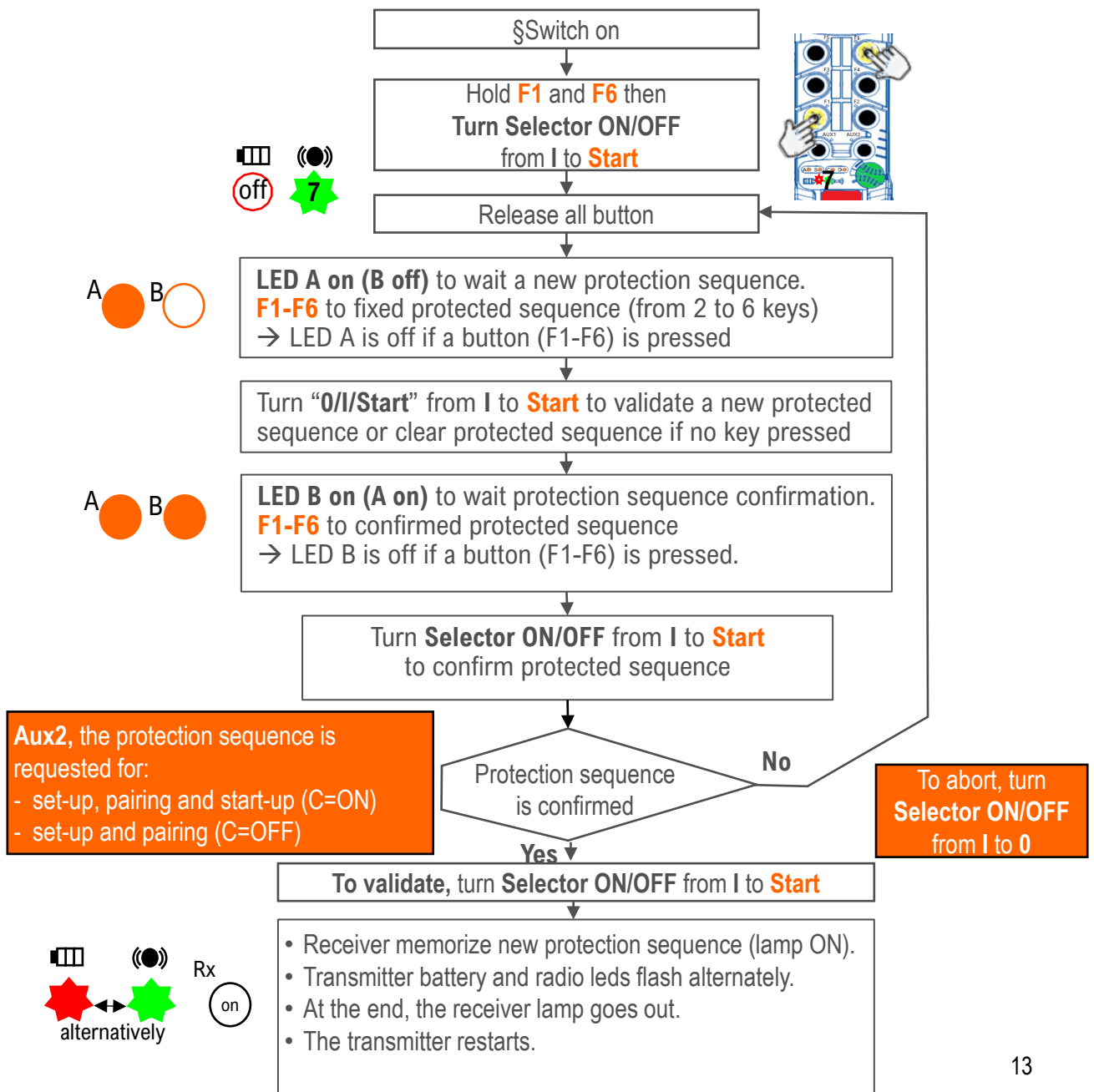
- increases battery life.
- Limits the risk of unintentional movement if the transmitter (forgotten, lost...) is picked up.

The configuration allows to activate or deactivate the standby function and to set the delay (in minutes or seconds) before transmitter switch off.



4.2 Protection sequence setting

- The protection sequence secures:
 - either the start-up, setting and pairing.
Only people who know the protection sequence can use the radio remote control.
The protected sequence is requested when the transmitter is switched on.
 - either the setting and pairing.
The user does not enter the protection sequence to start.
The protected sequence is only requested to access at the set-up or pairing menus.
- The protection sequence is composed from 2 to 6 keys (F1 to F6)
- The protection is cleared if no key is pressed to define and confirm a protection sequence.



4.3 Auxiliary pushbutton setting

The 2 auxiliary pushbuttons AUX1 and AUX2 are independents.

AUX1 one-step command

Raux is active only when AUX1 is pushed and radio link is active.

AUX1 flip-flop command

Raux switches when AUX1 is pushed and radio link is active.

AUX1, with tandem function is obligatory used to select the receiver A or B

Before start, AUX1 selects the receiver(s) to start.

After start, AUX1 selects the receivers(s) to control.

Starting AUX1 activates/deactivates Raux to perform the **Shunt function**.

AUX2 one-step command

Rsel1 is active only when AUX2 is pushed and radio link is active.

Rsel2 works in reverse of Rsel1.

AUX2 flip-flop command

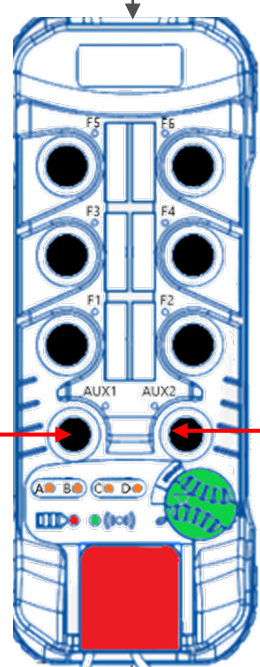
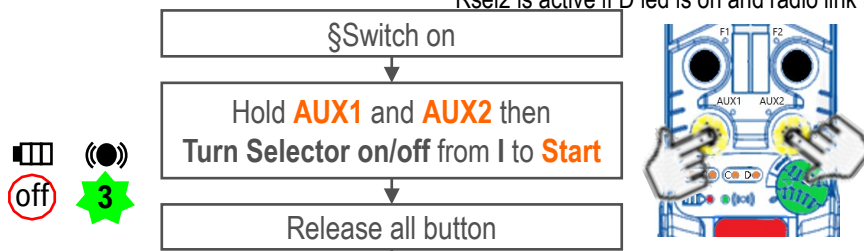
Rsel1 switches when AUX2 is pushed and radio link is active.

Rsel2 works in reverse of Rsel1.

AUX2 selection

Rsel1 is active if C led is on and radio link is active.

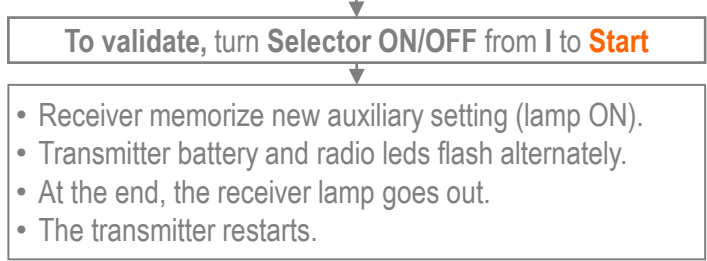
Rsel2 is active if D led is on and radio link is active.



Aux1 button	A	B
One-step command	ON	OFF
Flip-Flop command	Blink	OFF
A or B selection	Alternating	
A, B or A+B selection	A / B / A+B	
Permanent selection A	A / B stealth	
Permanent selection B	A stealth / B	
Permanent selection A+B	ON	ON

Aux2 button	C	D
One-step command	ON	OFF
Flip-Flop command	Blink	OFF
C or D selection	Alternating	
C, D or C+D selection	A / B / A+B	
C, D or no selection	C / D / 0	

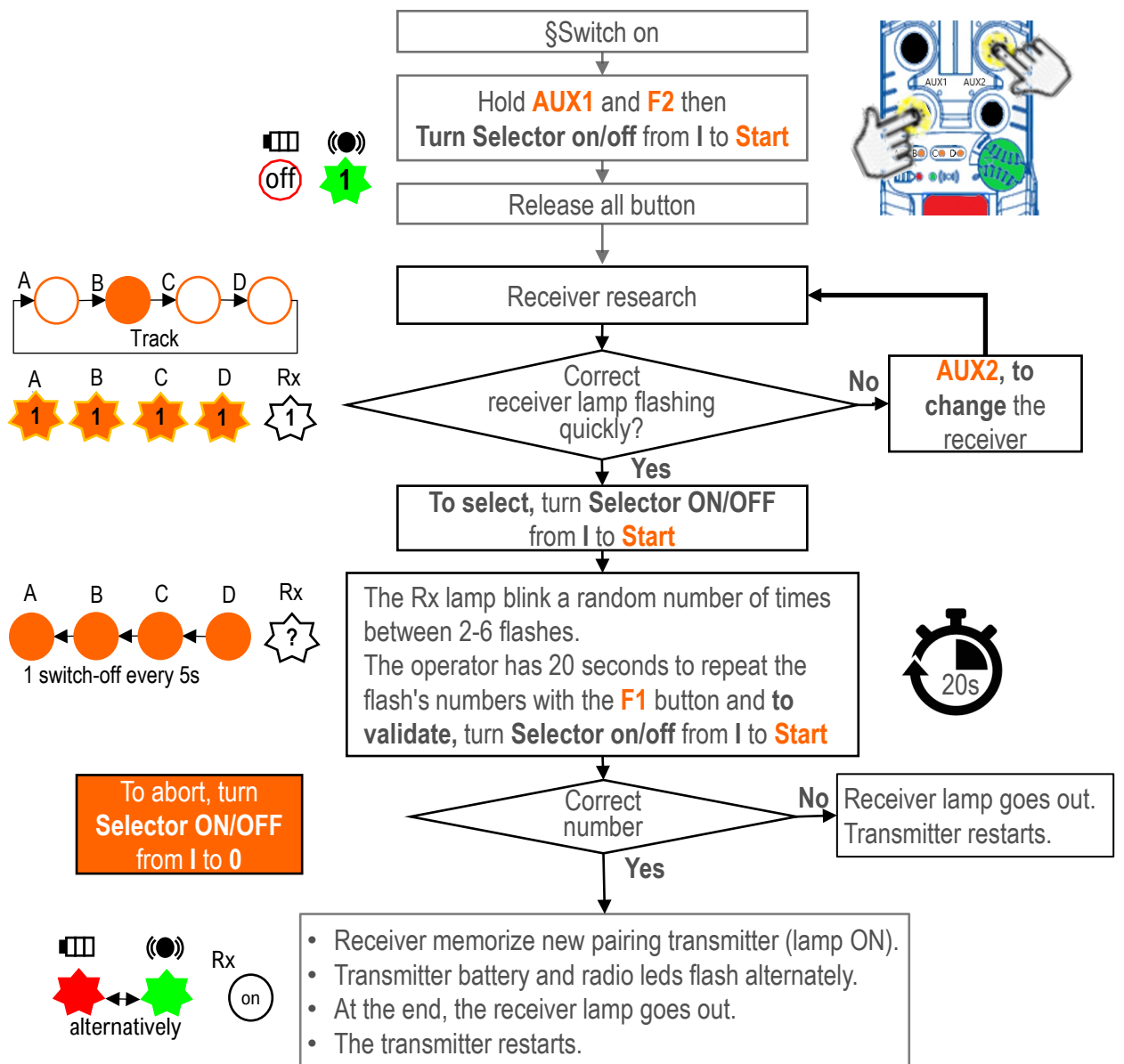
To abort, turn Selector ON/OFF from I to 0



5. Tandem parameters

5.1 Add/control a 2nd receiver (Secondary pairing)⁽¹⁾

- To control two receivers with one transmitter
- A receiver with a primary and secondary pairing, works automatically in Tandem.
- **AUX1** selected A/B/ A+B; secondary pairings are erased if AUX1 is switched in command.
- If a 3rd secondary pairing is made, the oldest secondary used is deleted.
- After secondary pairing, a first start is often necessary to synchronize the data of the 2 receivers. The system then starts after a second start.
- Secondary pairing is not possible with an Rx protected by a protection sequence. The Rx lamp flashes 2x. To unblock the situation, take a transmitter already paired to the desired receiver, enter the protection sequence and delete it.



⁽¹⁾ For safety reasons, tandem functions are inaccessible (locked) → Use JayDialog to unlock access.

5.2 Receiver release setting⁽¹⁾

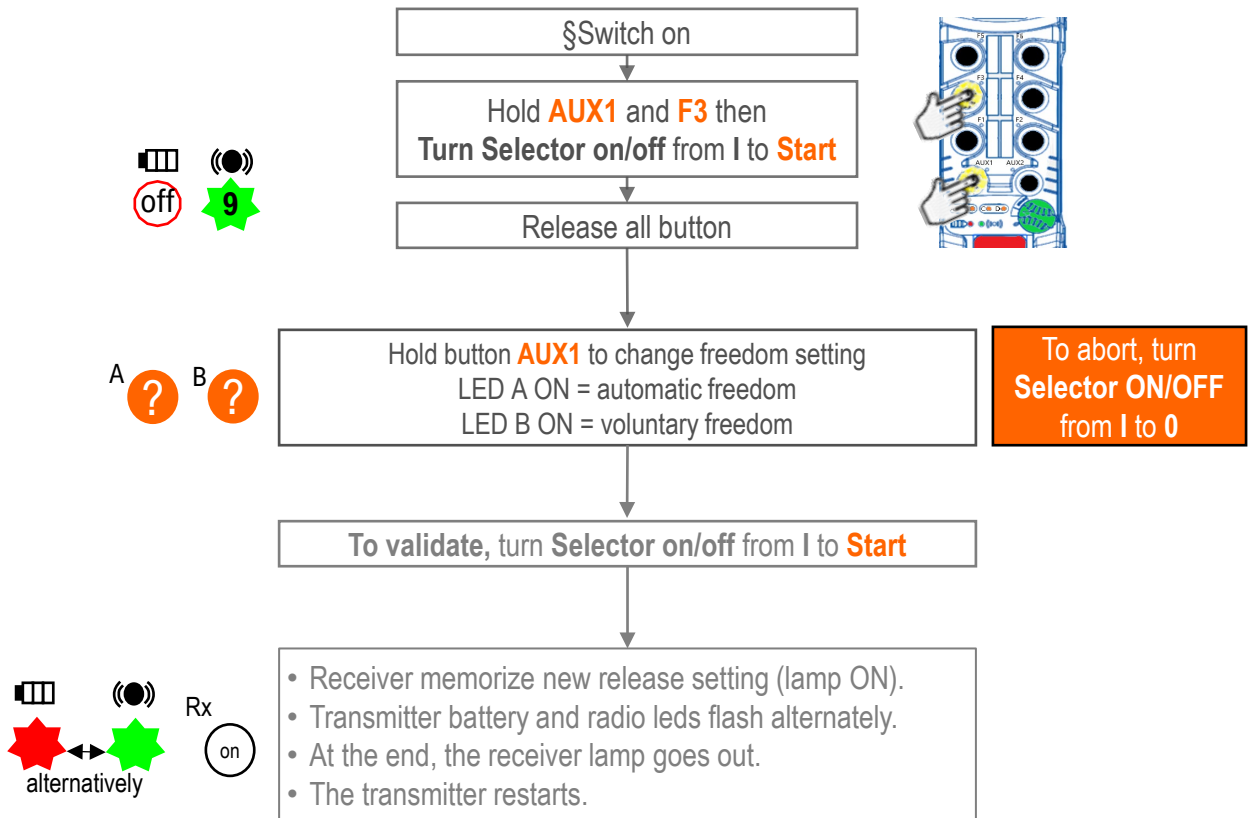
With Tandem function, several user can control the same crane.

To increase the safety, the last user can conserve the equipment until voluntary freedom (hold AUX1 4 seconds or interrupt receiver power supply).

With automatic freedom, the equipment is systematically available after:

- Transmitter standby,
- User stop
- Radio link lost
- Power supply interrupt

→ Activate the voluntary release if the equipment takeover, requires the agreement of the last user.

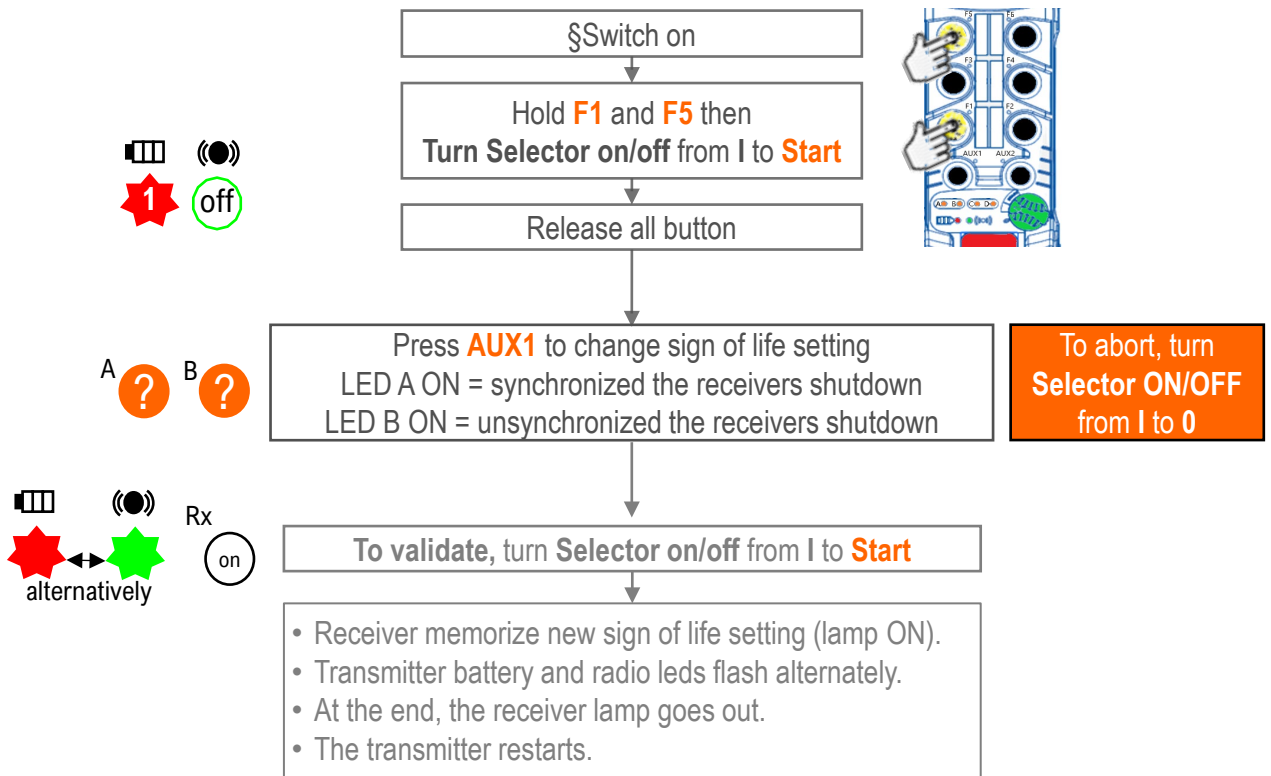


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5.3 Receiver sign of life setting⁽¹⁾

With Tandem function, if sign of life is ON, when A+B are selected, the stop of one equipment (loss of radio link) will automatically cause the stop of second.

→ Activate the life sign if the loss of radio communication with one of the 2 overhead cranes can create a dangerous situation (only in simultaneous control of both overhead cranes)

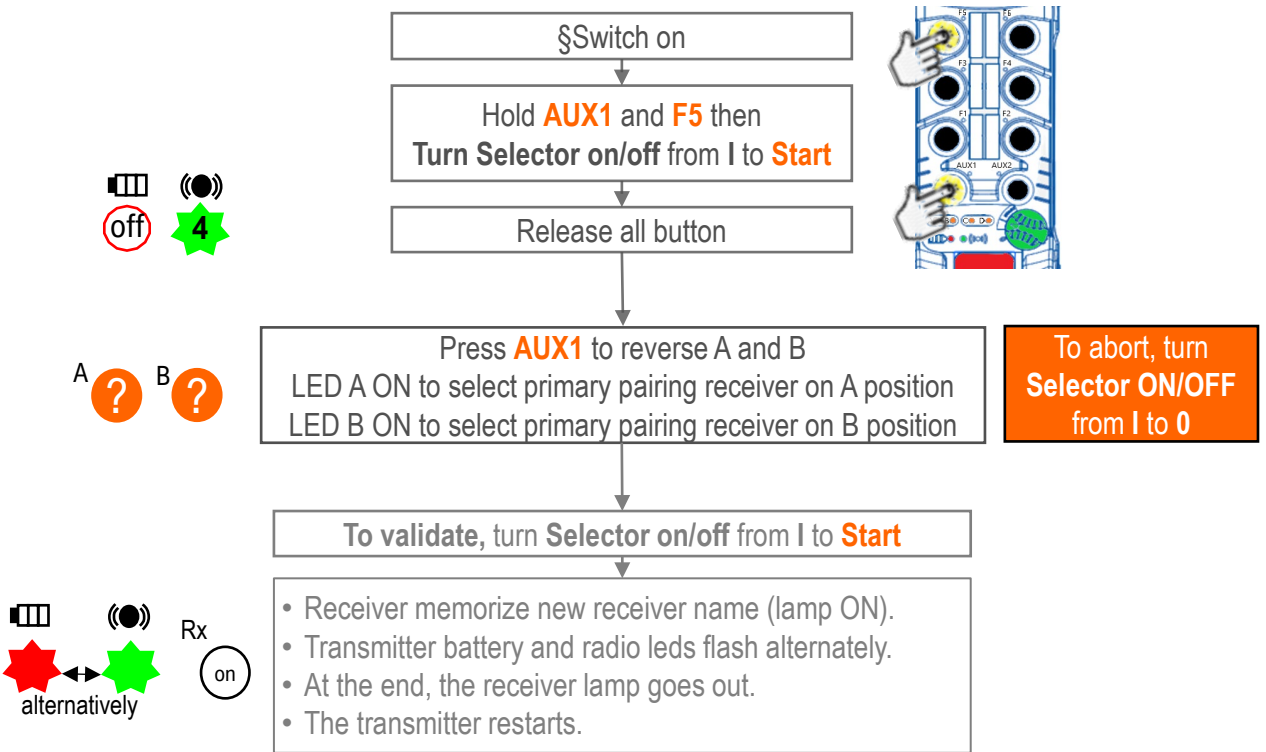


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5.4 Reverse receiver selection name A/B⁽¹⁾

The lighting of leds A and B should be reversed with this **Reverses the A and B selection** menu.

→ Reverse A/B with one of the transmitters primary paired to receiver B.



5.5 Shunt function information⁽¹⁾

Shunt function In Tandem

The A and B receivers have been started with the same transmitter. Raux relay is active:

- On A and B as soon as the selection (A+B) is made; simultaneous movements of A and B.
- Only on A* if selection A only and low-speed command and Start impulse; approach from overhead crane A to B.
- Only on B* if selection B only and low-speed command and Start impulse; approach from overhead crane B to A.

*Raux is deactivated (end of approach) as soon as a high-speed command is requested or after 30 seconds without a low-speed command.

⁽¹⁾ For safety reasons, tandem functions are inaccessible (locked) → Use JayDialog to unlock access.

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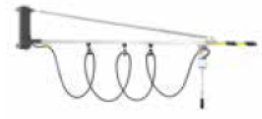
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