

# 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.



# Table of contents

<b>1. Description</b>		
1.1 Xpair transmitter		4
1.2 Xpair receiver		5
<b>2. Product installation</b>		
2.1 Switch on – Start up – Set up		6
2.2 Add / Replace a transmitter – Primary pairing	AUX1 + F1	7
2.3 Info and reset	AUX1 + F4	8
<b>3. Site parameters</b>		
3.1 Radio channel setting	F1 + F2	9
3.2 Radio power setting	F1 + F4	10
3.3 Horn setting	AUX2 + F1	11
<b>4. Application parameters</b>		
4.1 Standby setting	F1 + F3	12
4.2 Protection sequence setting	F1 + F6	13
4.3 Auxiliary pushbuttons setting	AUX1 + AUX2	14
<b>5. Tandem parameters<sup>(1)</sup></b>		
5.1 Add/control a 2nd Rx with the same transmitter – Secondary pairing <sup>(1)</sup>	AUX1 + F2	15
5.2 Receiver release setting <sup>(1)</sup>	AUX1 + F3	16
5.3 Receiver sign of life setting <sup>(1)</sup>	F1 + F5	17
5.4 Reverse receiver selection name A/B <sup>(1)</sup>	AUX1 + F5	18
5.5 Shunt function information <sup>(1)</sup>		18

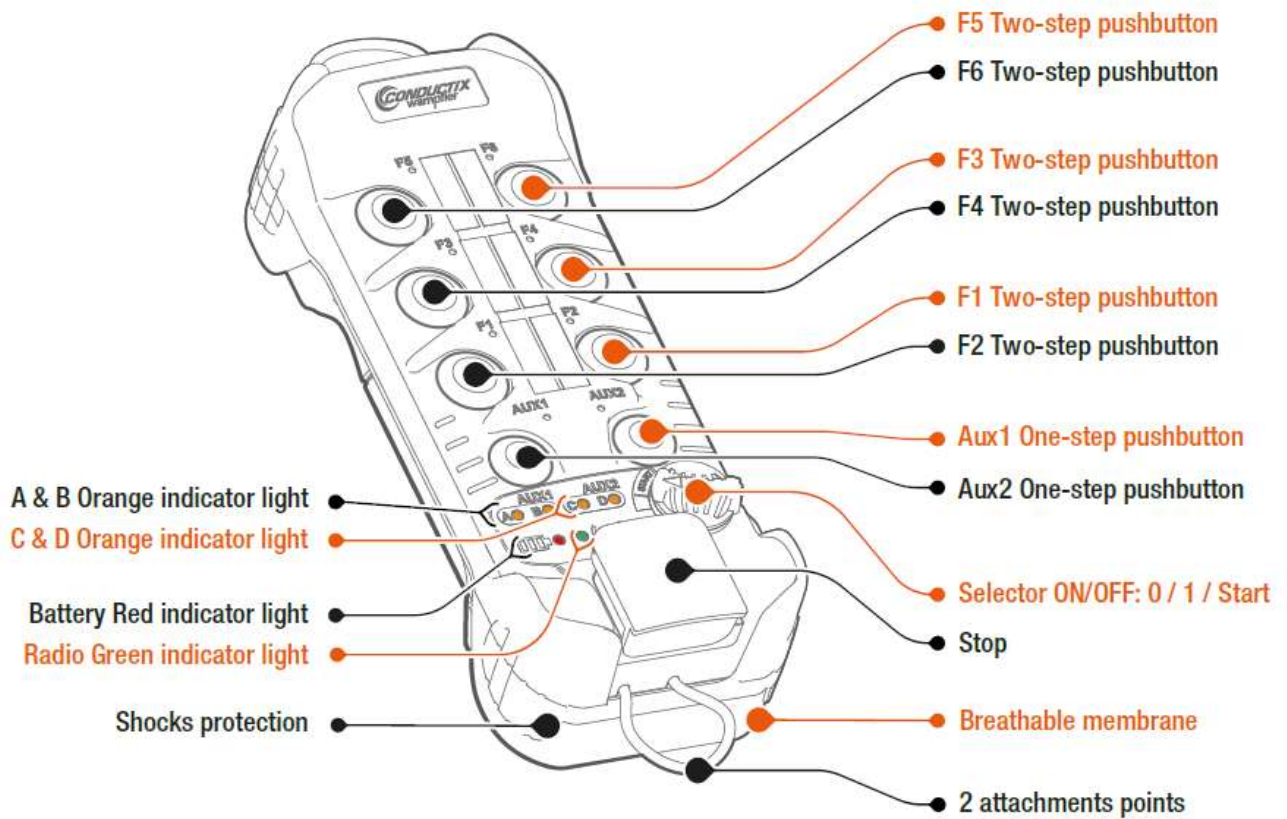
Xpair Radio Remote Control Documents.



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

# 1. Description

## 1.1 Xpair transmitter



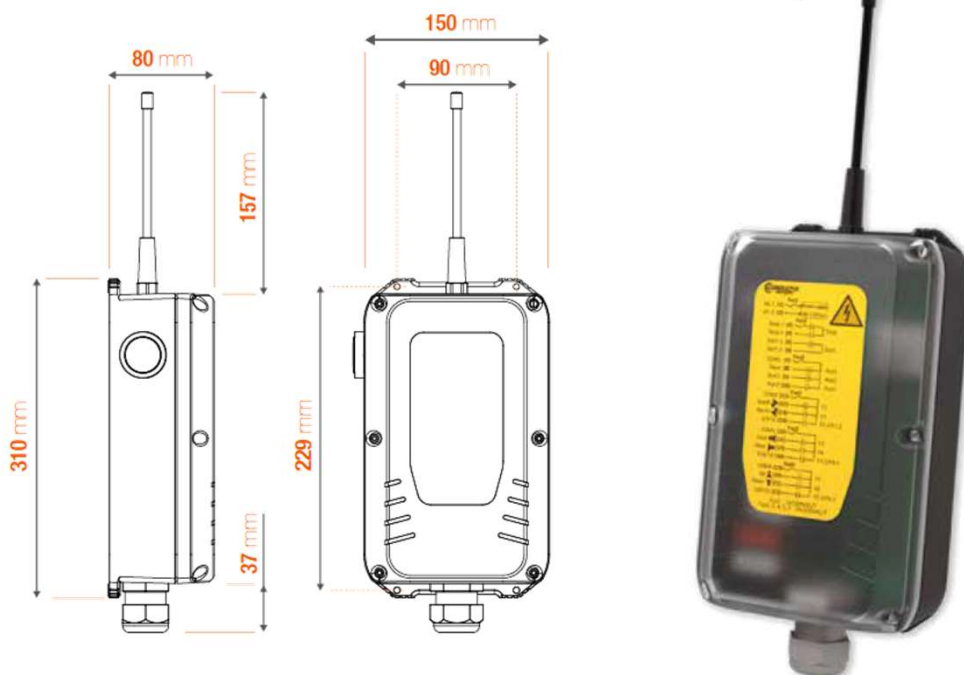
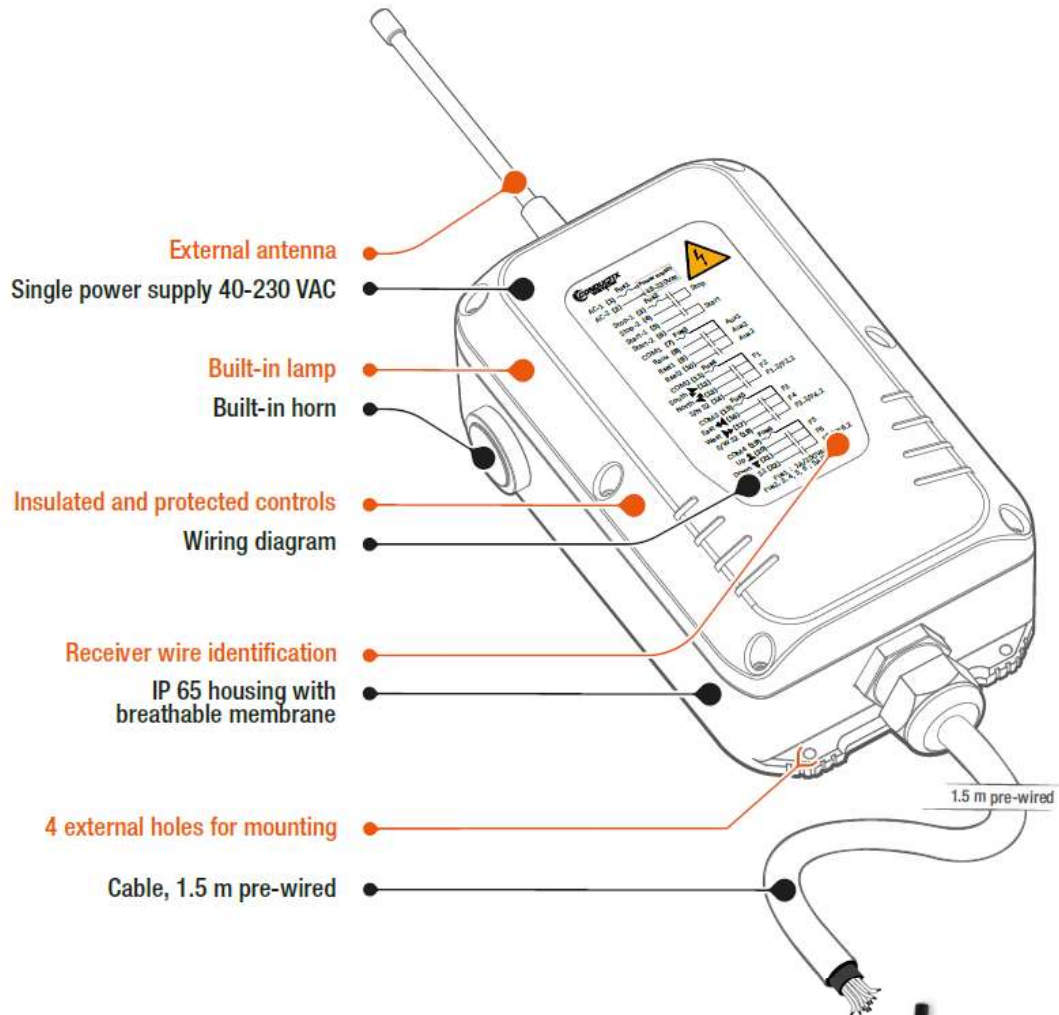
## Safety

European Machinery Directive 2006/43/EC

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

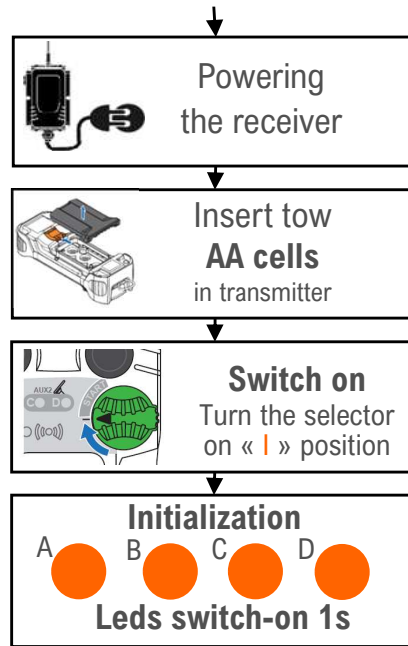
> 6x two-steps pushbuttons  
Buttons release Performance level PLc Cat.2 according to EN ISO 13849-1 and -2

## 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.

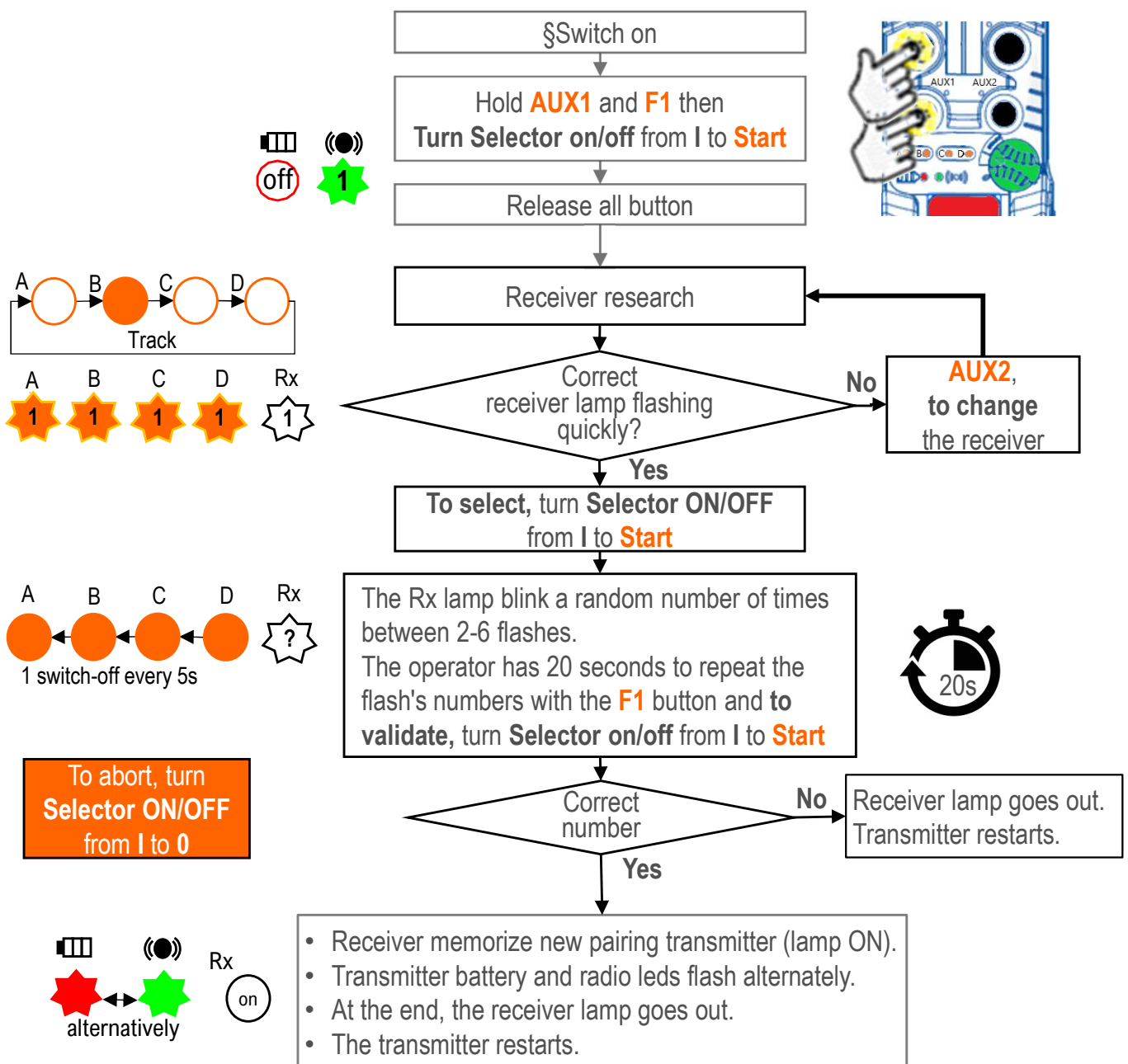
**To setup**, look in the next pages to find the 2 pushbuttons corresponding to the desired settings menu.

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

Informations after switch on		Defaults
	Ready to start with autonomy > 90%	<p>A  1- The target receiver lamp is on or flashing? --&gt; Another user has the equipment; wait for it release.</p>
	Ready to start with autonomy 10-90%	
	Ready to start with Autonomy < 10%	
<p>Aux1 A ? B ?</p> <p>Aux2 C ? D ?</p>	<p>Aux1 (Tandem) selects the receivers A/B to be started.</p> <p>If set in selector, Aux2 selects the trolley C/D to be controlled.</p>	<p>B  2- Move closer to the target receiver and restart.</p> <p>  3- Check target receiver power supply and restart.</p>
	Unlock stop	All leds flashes Product to be repaired
	Release all buttons	<p> LED flashes rapidly     One periodic flash     On if selected</p>
A  B  C  D	Enter protection sequence and validate with Start.	

## 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...)



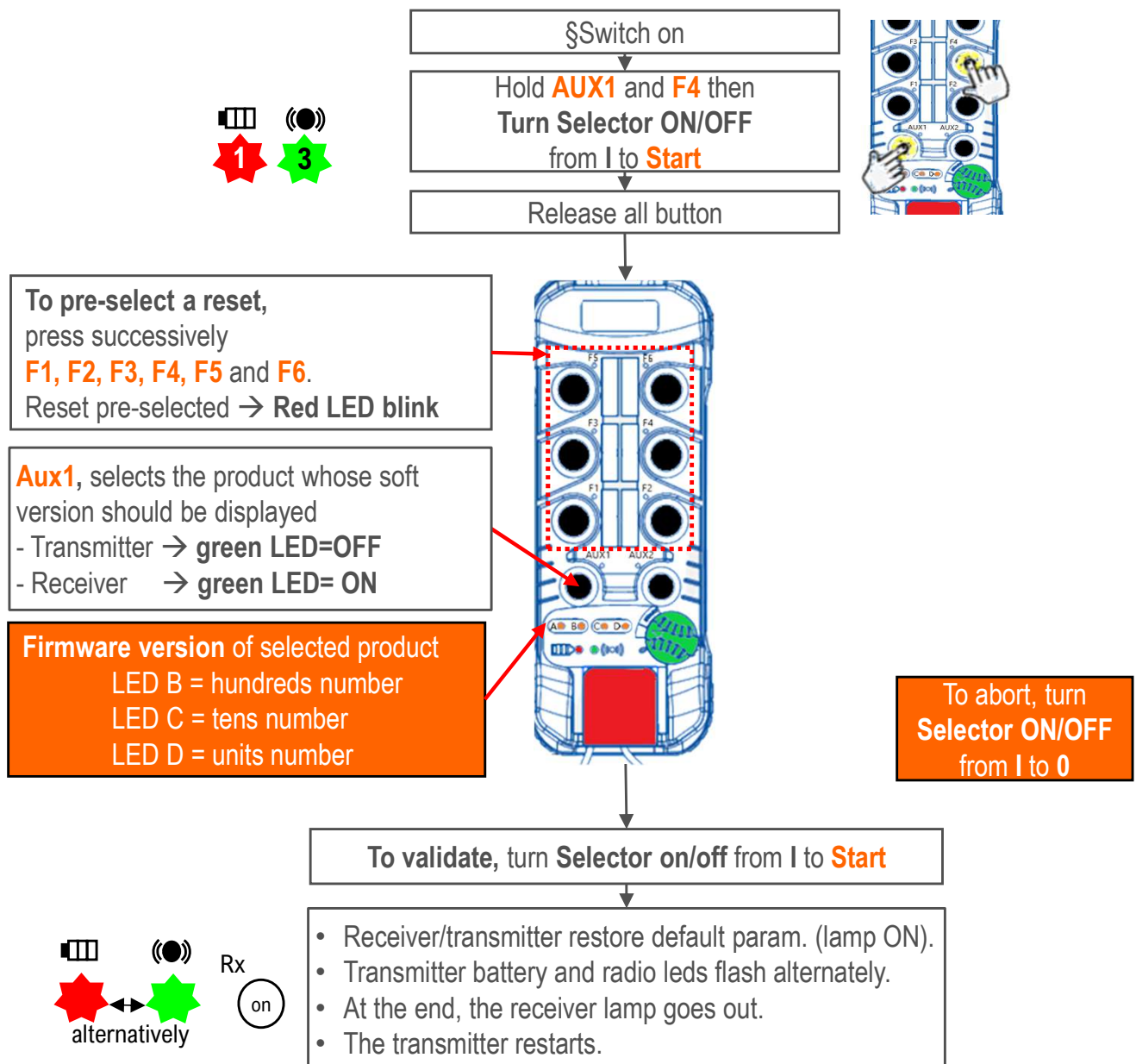
## 2.3 Info and reset

### Reset:

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

### Defaults parameters

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



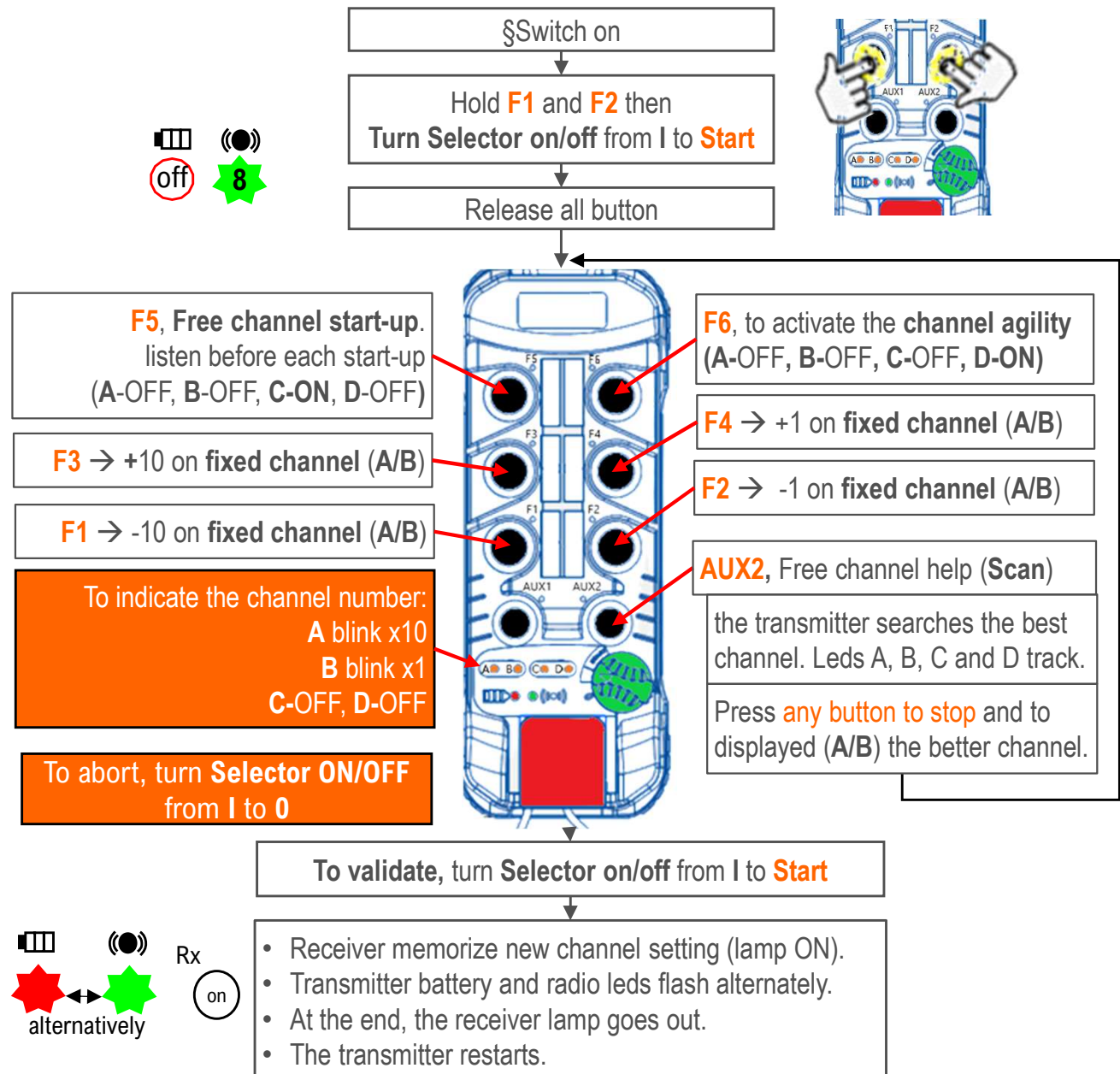


# 3. Site parameters

## 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.



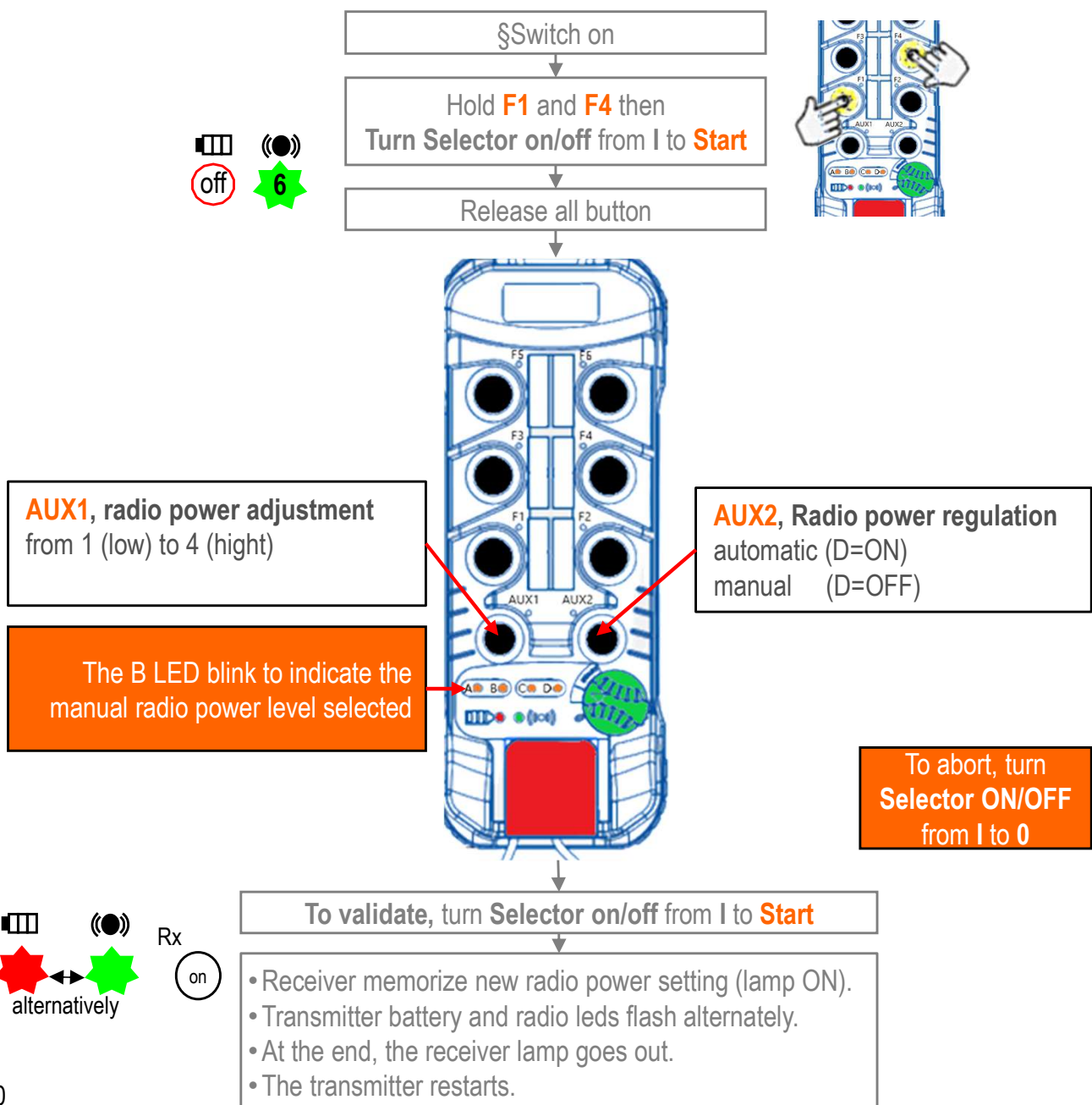
### 3.2 Radio power setting

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.



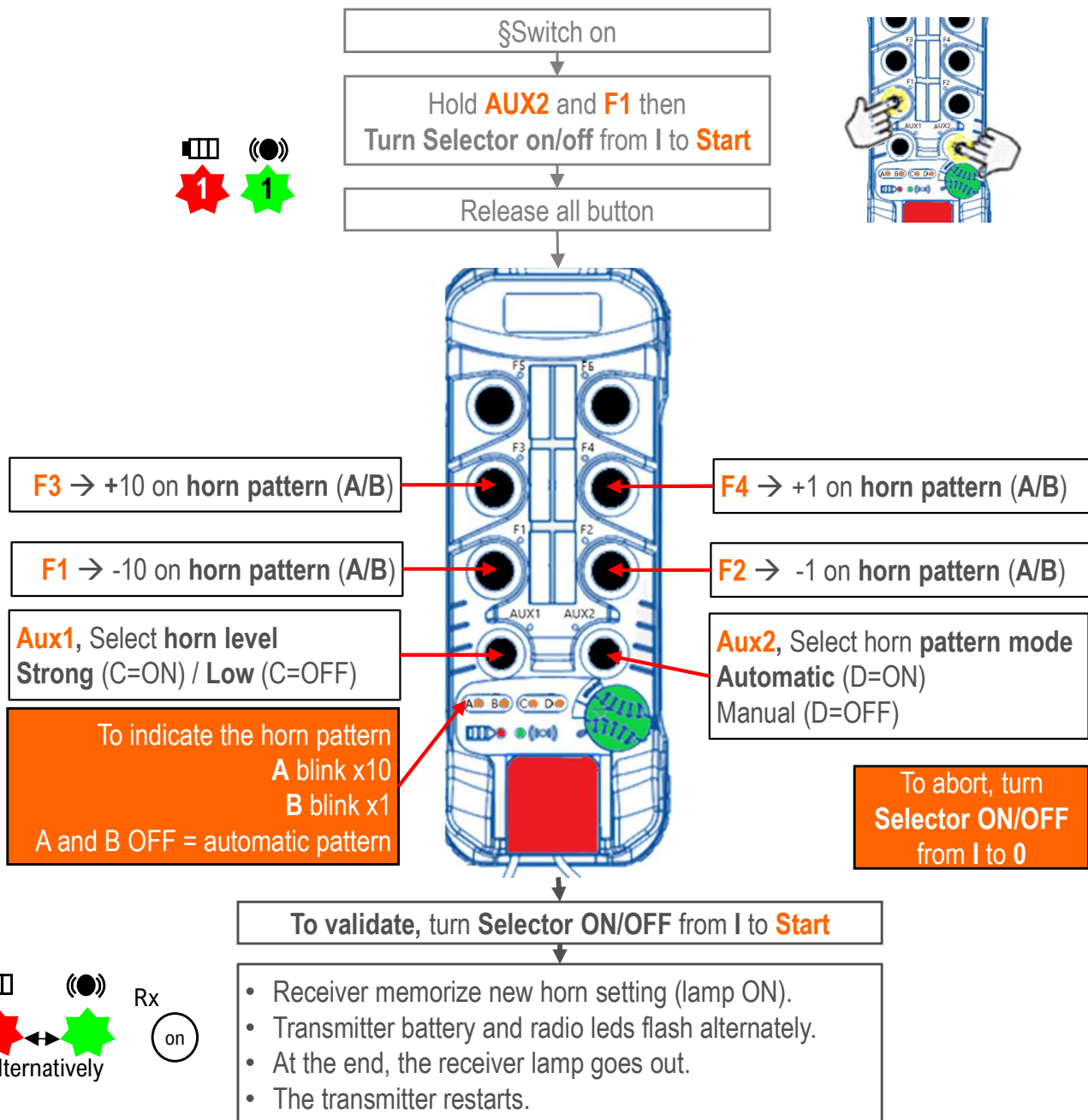
### 3.3 Horn setting

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.



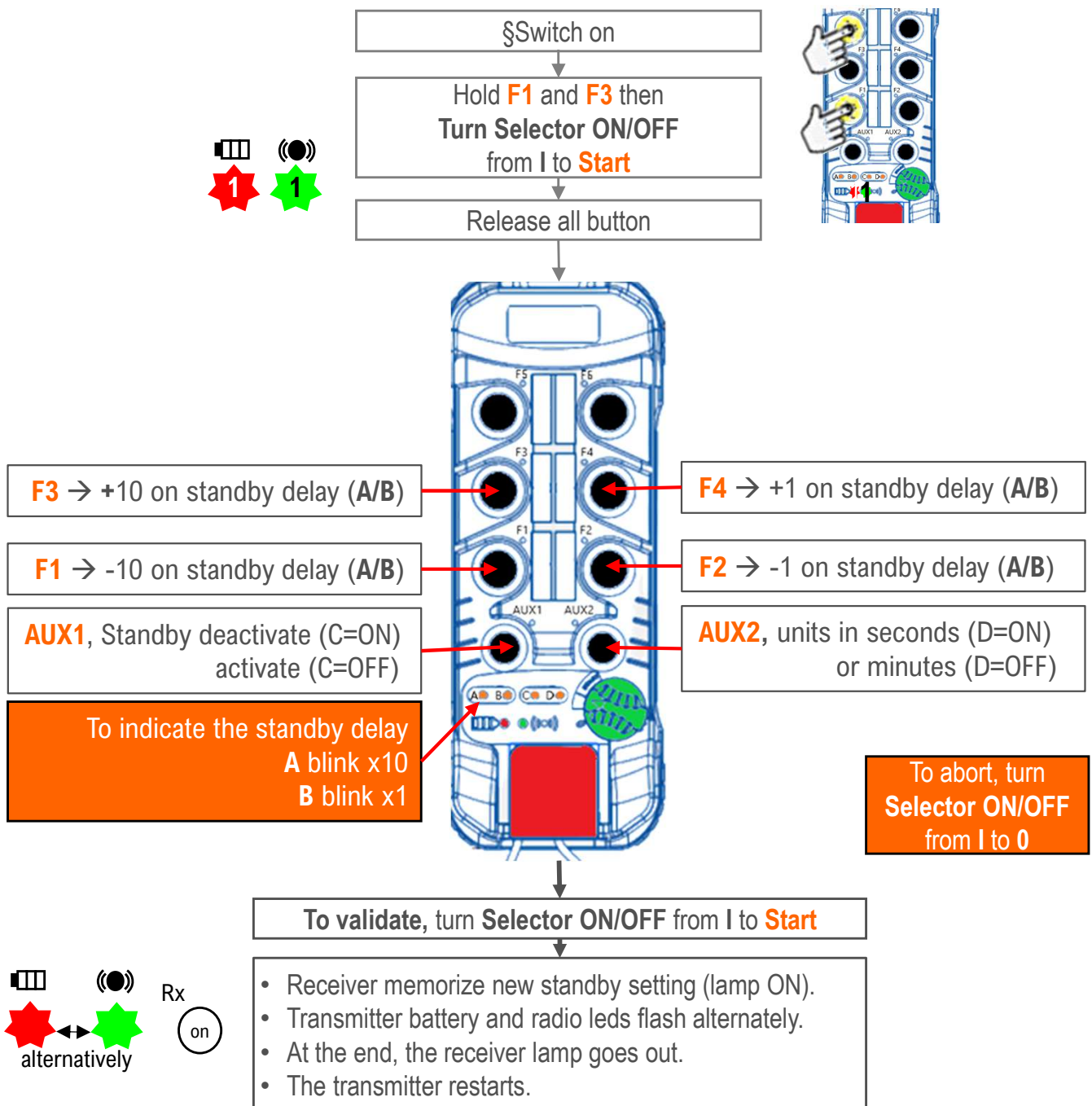
# 4. Application parameters

## 4.1 Standby setting

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

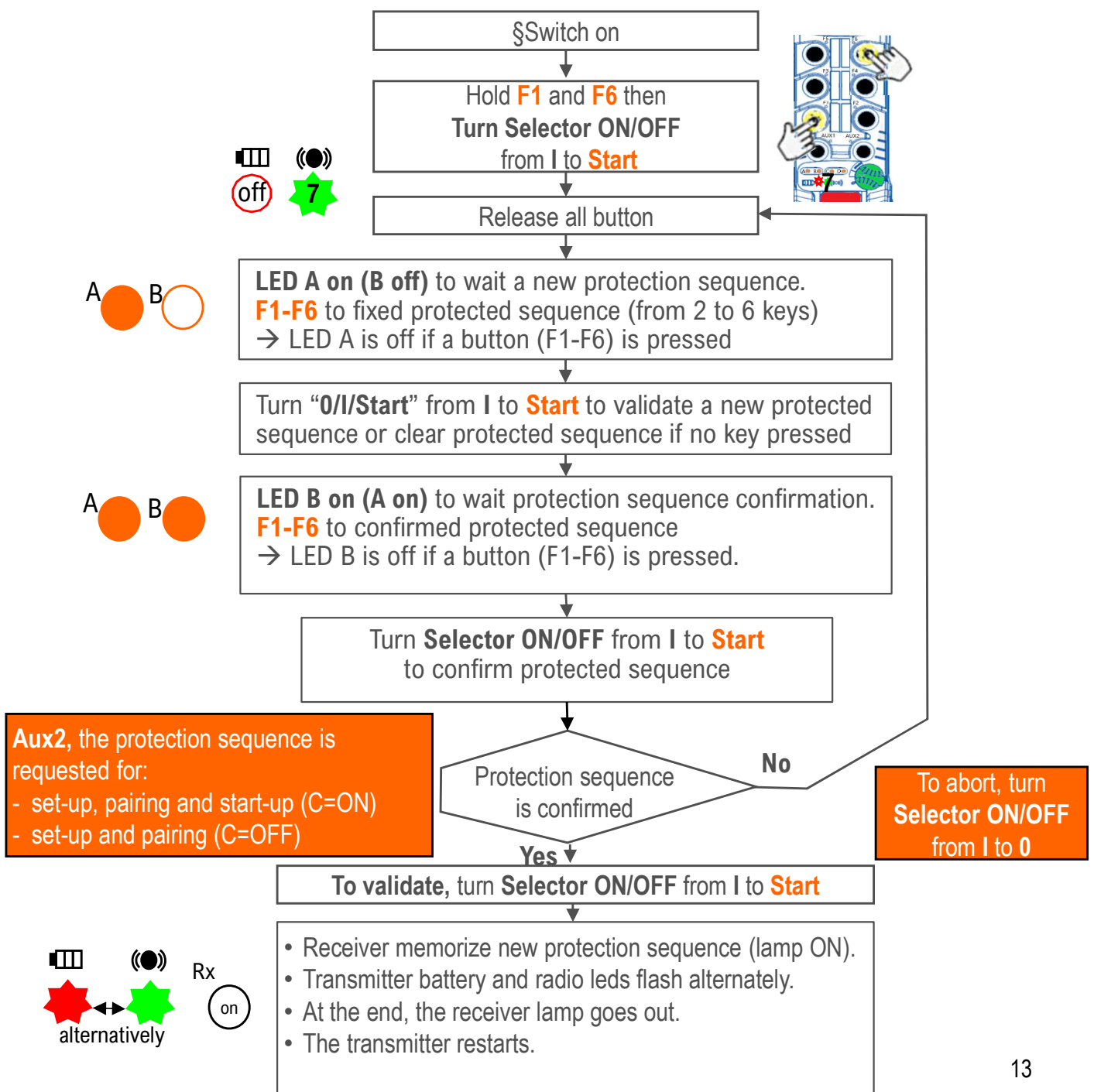
- increases battery life.
- Limits the risk of unintentional movement if the transmitter (forgotten, lost...) is picked up.

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 only active when AUX1 is push and radio link is active.

#### AUX1 flip-flop command

Raux change when AUX1 is push and radio link is active.

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

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

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

Raux is activated/deactivated to perform the **Shunt function**

#### AUX2 one-step command

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

Rsel2 works in reverse of Rsel1.

#### AUX2 flip-flop command

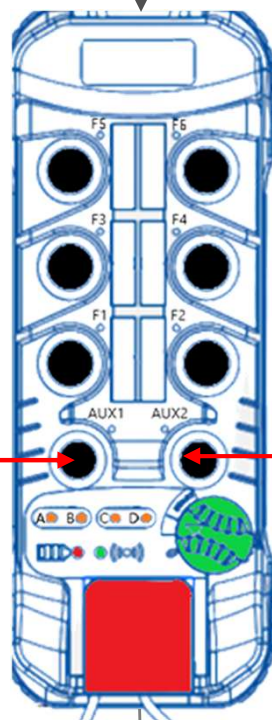
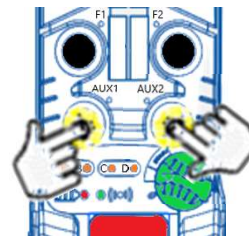
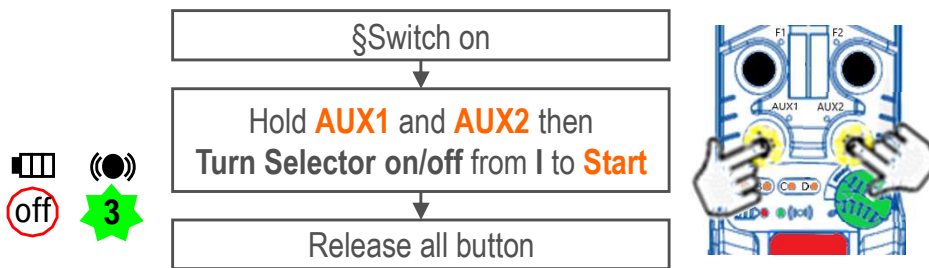
Rsel1 change when AUX2 is push and radio link is active.

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.

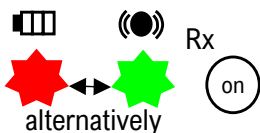


Aux1 button		
	A	B
One-step command	ON	OFF
Flip-Flop command	Blink	OFF
A or B selection	Alternating	
A, B or A+B selection	A / B / A+B	
Permanent selection A	A / B stealth	
Permanent selection B	A stealth / B	
Permanent selection A+B	ON	ON

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

To validate, turn Selector ON/OFF from I to Start

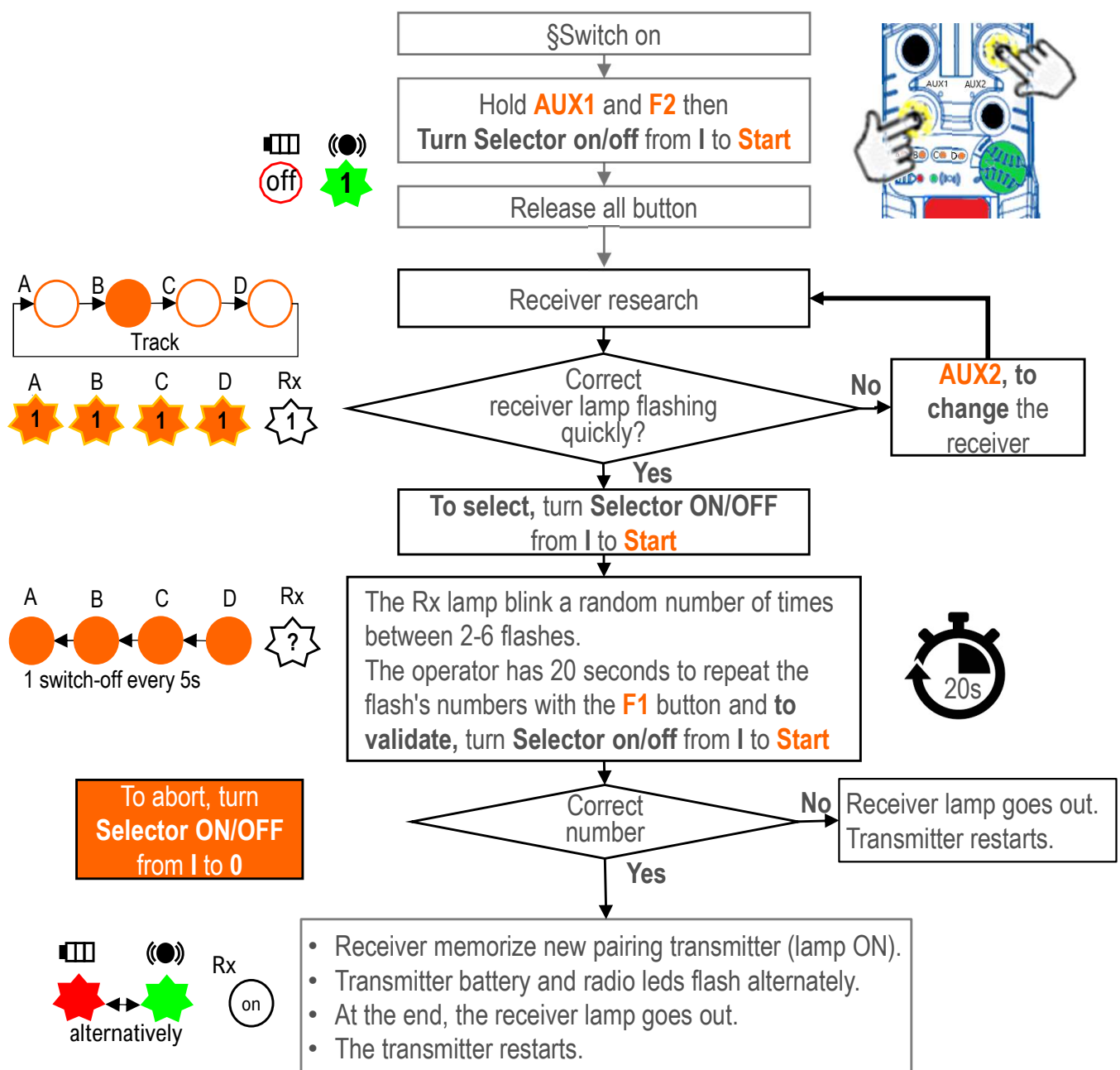


- Receiver memorize new auxiliary setting (lamp ON).
- Transmitter battery and radio leds flash alternately.
- At the end, the receiver lamp goes out.
- The transmitter restarts.

# 5. Tandem parameters

## 5.1 Add/control a 2<sup>nd</sup> receiver (Secondary pairing)<sup>(1)</sup>

- 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 3<sup>rd</sup> 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.



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

## 5.2 Receiver release setting<sup>(1)</sup>

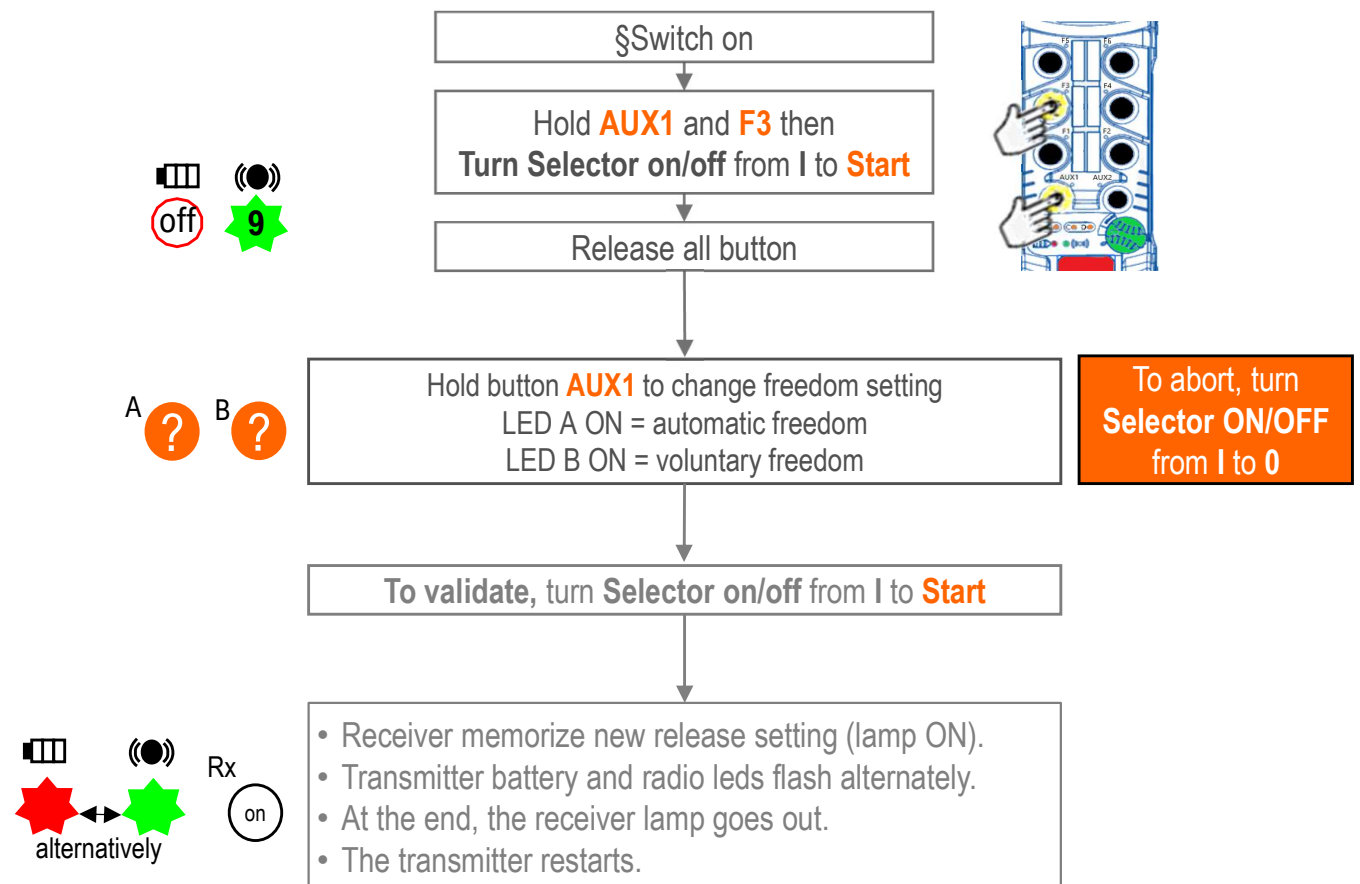
With Tandem function, several user can control the same crane.

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.



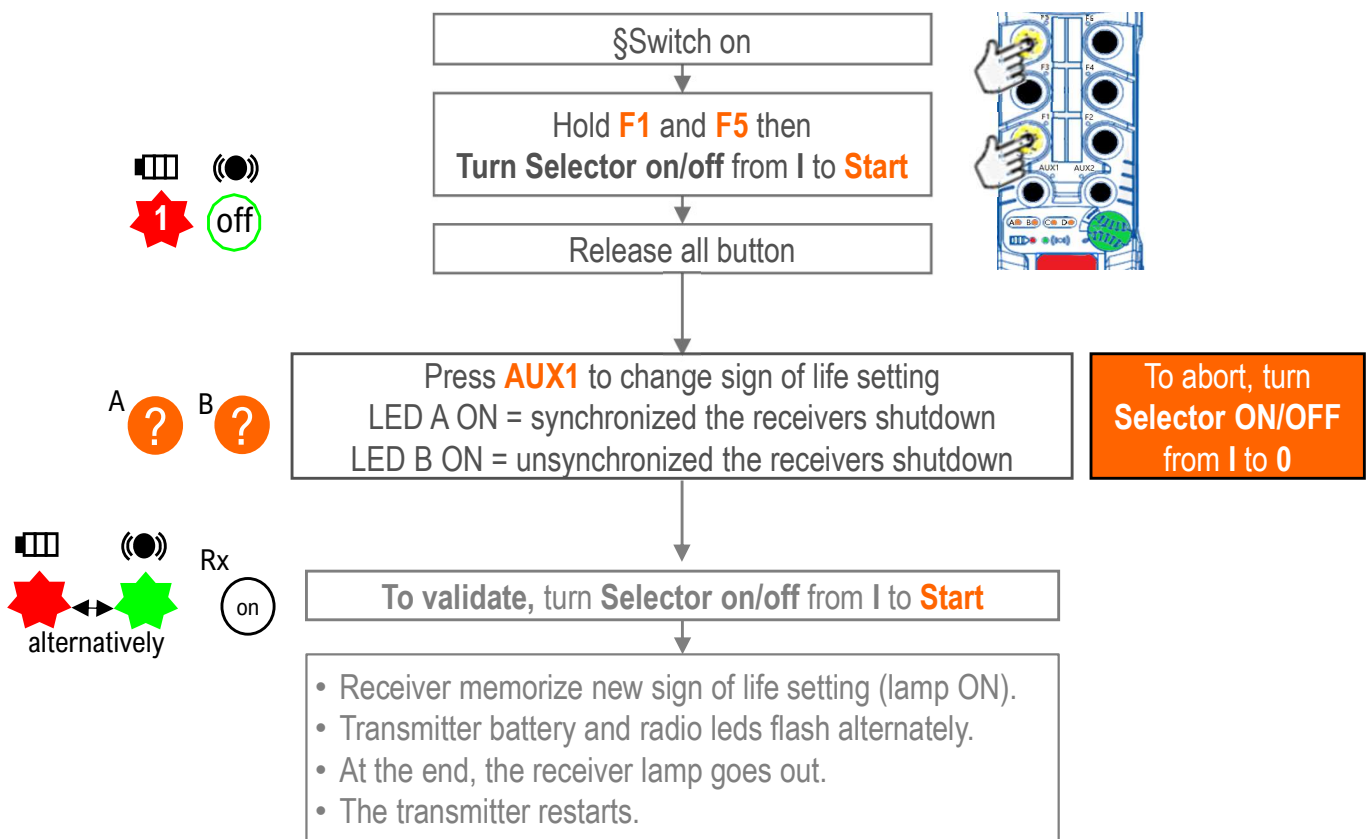
<sup>(1)</sup> For safety reasons, tandem functions are inaccessible (locked) → Use JayDialog to unlock access.



### 5.3 Receiver sign of life setting<sup>(1)</sup>

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)

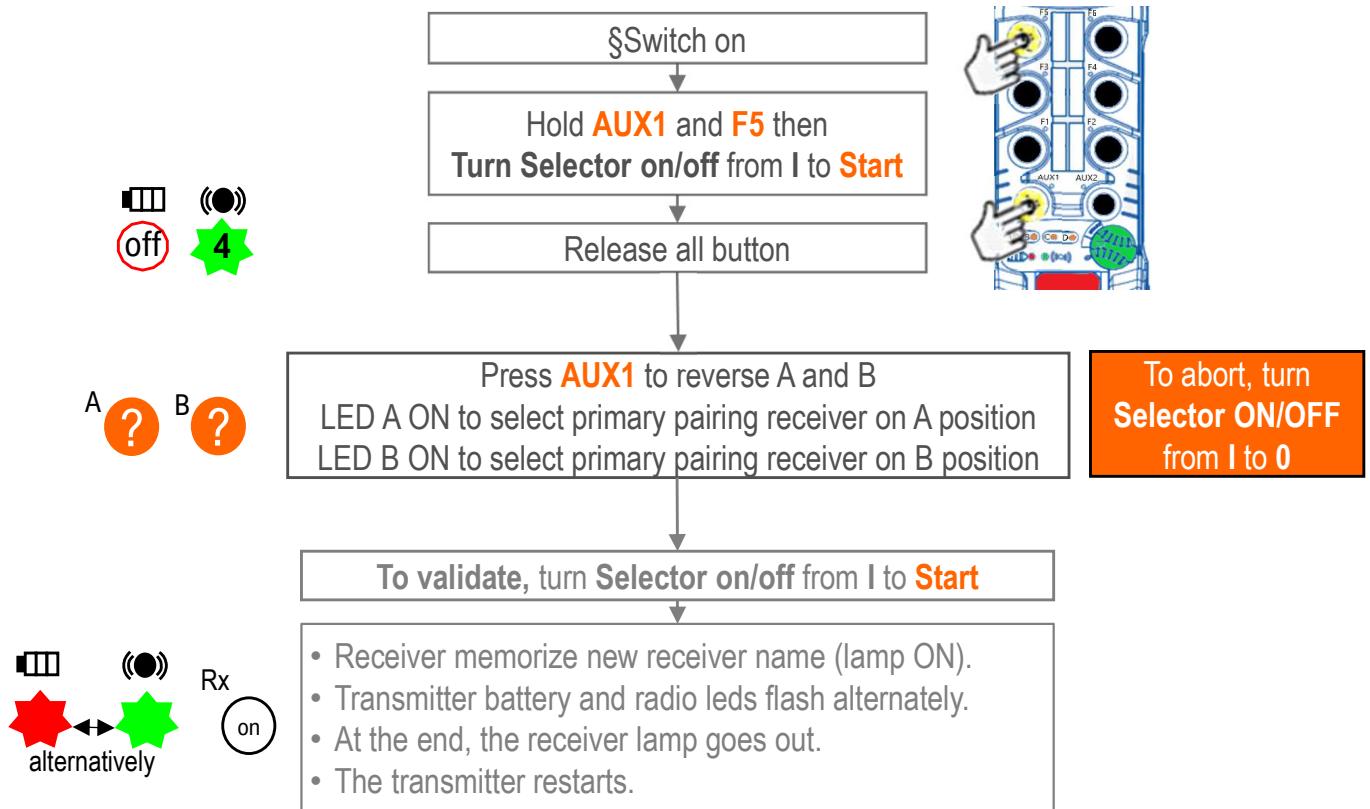


<sup>(1)</sup> For safety reasons, tandem functions are inaccessible (locked) → Use JayDialog to unlock access.

## 5.4 Reverse receiver selection name A/B<sup>(1)</sup>

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<sup>(1)</sup>

### 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 the low-speed command and Start impulse; approach from overhead crane B to A.

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

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

# Your applications – our solutions

The solutions we deliver for your applications are based on your specific requirements. In many cases, a combination of several different Conductix-Wampfler systems can prove advantageous. You can count on Conductix-Wampfler for hands-on engineering support together with the optimum solution to safely meet your needs.



### Cable and Hose Reels

Motor driven and spring driven reels by Conductix-Wampfler provide energy, data and media over a variety of distances, in all directions, fast and safe.



### Festoon Systems

Conductix-Wampfler cable trolleys can be used in virtually every industrial application. They are reliable, robust and available in an enormous variety of dimensions and designs.



### Conductor Rails

Available as enclosed, multiple or unipole systems, Conductix-Wampfler conductor rails reliably move people and material.



### Inductive Power Transfer

The no-contact system for transferring energy and data. For all tasks that depend on high speeds and absolute resistance to wear. Flexible installation when used with Automated Guided Vehicles.



### Non-insulated Conductor Rails

Robust, non-insulated aluminum conductor rails with stainless steel cap provide the ideal basis for power supply of people movers and transit networks.



### Radio Remote Controls

Safety remote control solutions customized to meet our customer needs with modern ergonomic design.



### Reels, Retractors and Balancers

Available for hoses and cables, as classical reels or high-precision positioning aids for tools, we offer a complete range of reels and spring balancers.



### Jib Booms

Complete with tool transporters, reels or an entire media supply system – safety and flexibility are key to the completion of difficult tasks.



### Slip Ring Assemblies

Whenever things are really "moving in circles", the proven slip ring assemblies by Conductix-Wampfler ensure the flawless transfer of energy and data. Here, everything revolves around flexibility and reliability!



### Mobile Control Systems

Mobile control solutions for your plant – whether straightforward or intricate. Control and communication systems from LJU have been tried and tested in the automotive industry for decades.



### ProfidAT®

This data transfer system is a compact slotted waveguide and furthermore can be used as Grounding rail (PE) as well as positioning rail at the same time.



### Charging Solutions

Whether inductive or conductive, this bundle of products offers always the perfect solution for all industrial charging tasks including matching the battery with integrated BMS.

# www.conductix.com

---

## **Conductix-Wampfler**

has just one critical mission:  
to provide you with energy and  
data transmission systems that  
will keep your operations up and  
running 24/7/365.

To contact your nearest sales  
office, please refer to:  
[www.conductix.com/contact-  
search](http://www.conductix.com/contact-search)

