



Guide

Remotus Jupiter

Multi-crane and Multi-operator



Revision History

Version	Date	Reason
A0	2023-03-22	1 st released version
A1	2023-08-30	Clarification
A2	2023-09-13	Transmitter added

Reference

Installation Manual 959125-000.

Program Option, guide RX161: 959125-100.

RX16X Configuration Tool, manual 952576-000.

Table of Contents

1	Scope	4
2	Multi-crane and Multi-operator Operation	4
3	Difference in Program Selection	4
4	Before pairing	4
5	Pairing transmitter and receiver	5
5.1	Multi-operator operation	5
5.2	Multi-crane operation	6
5.3	Multi-crane & Multi-operator operation	7
5.4	Multi-crane & Multi-operator operation (Primary/Secondary)	8
6	Enter pairing mode	9
6.1	Set the receiver in pairing mode	9
6.2	Set the transmitter in pairing mode	9
6.3	Pairing indications	9

List of figures

Figure 1.	Dipswitch SW3, LED5 and pairing button in the receiver	9
-----------	--	---

List of tables

Table 1.	Receiver pairing indication	9
Table 2.	Transmitter pairing indication	9
Table 3.	Transmitter display pairing indication	9

1 Scope

This manual is an appendix to the installation manual art.no: 959125-000 and cover the settings for Multi-crane and Multi-operator Operation. The installation manual shall be read and understood.

Warning regarding installation and maintenance work see installation manual.

Read all safety instructions throughout this manual and on safety signs attached to this equipment.

The following safety alert symbols and signal words are used in this manual to inform the user of hazards.



Indicates a condition which, if not avoided, could result in damage to or poor functionality of the product.

2 Multi-crane and Multi-operator Operation

Transmitter Multi-crane and Multi-operator								
Use of Function	Era 4B	Era 8B			10BD	Era 100		
	Era 6B	"8 Buttons"	"9 Buttons"	"10 Buttons"		100	150	C
A & B	-	-	●	-	-	-	●	○
1 & 2	-	-	-	●	●	-	-	○

- Not possible, ● Possible, ○ Depending on configuration C = Configurable/Customized

Era 8B set to 9 Buttons or 10 Buttons mode (see installation manual). Preferred transmitter for Multi-crane and Multi-operator Operation is Era 100 model 150 and/or Era 8B 9 Buttons mode.

Multi-crane Operation

Multi-crane operation means that two cranes can be operated from the same transmitter, which makes it easier, for example to lift two objects simultaneously or a big object using two cranes.

A data link is needed between the two cranes. This link shall fulfil at least EN ISO 13849-1:2008 Performance Level c and category 2.

Multi-operator Operation

Multi-operator operation means that two transmitters can operate the same object. This can be beneficial, for example, when the view is blocked. The control of the object can be passed between two transmitters. Active crane selection and deselection guarantees that only one transmitter is in control of the object at a time.

3 Difference in Program Selection

Program Selection see appendix 959125-100 (RX161). Note the difference for the Multi-crane/Multi-operator operation.



Difference in program selection at Multi-crane/Multi-operator operation:

Program option 0:	Not available for multi-crane/multi-operator operation
Program option 1-F, 10, 12:	Y14 indication driver A and Y15 indication driver B
Program option 1, 2, 4, 6, A, B, D, E, F, 10, 12:	Y13 interconnection crane A & B
Program option 3, 5, 7, 8, 9, C:	Y9 interconnection crane A & B
Program option 13 (expansion board)	9 indication driver A and 10 indication driver B 11 interconnection crane A & B

4 Before pairing

- ! Set the region ("EU" or "Other") and frequency channel before pairing (see installation manual).
- ! Set the Era 8B transmitter to "9 or 10 Buttons mode" (see installation manual).

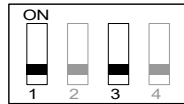
5 Pairing transmitter and receiver

5.1 Multi-operator operation

2 transmitters and 1 receiver

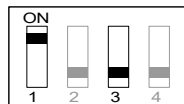
For location of dipswitch SW3 and pairing button see Figure 1 on page 9.
To set the transmitter in pairing mode, see section 6.2 on page 9.

1. Open the lid on the receiver.
2. Set the dipswitch SW3 in position.



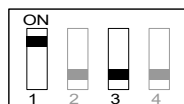
SW3:1 OFF, SW3:3 OFF

3. Power ON the receiver.
4. Press the pairing button in the receiver.
5. Set transmitter **1** in pairing mode.
6. Display shows "Pairing ready" when paired.
If the display shows "Pairing failed" restart pairing.
7. Disconnect the power source to the receiver.
8. Set the dipswitch SW3 in position.



SW3:1 ON, SW3:3 OFF

9. Power ON the receiver.
10. Press the pairing button in the receiver.
11. Set transmitter **2** in pairing mode.
12. Display shows "Pairing ready" when paired.
If the display shows "Pairing failed" restart pairing.
13. Disconnect the power source to the receiver.
14. Set the dipswitch SW3 in the position it should stand in during operation.
In this case the same as in step 8 above.



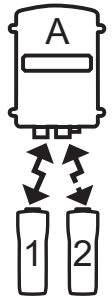
SW3:1 ON, SW3:3 OFF

15. Remount the receiver lid (2Nm).

The receiver has now learned the transmitter ID numbers and will only accept commands from those transmitters.

Transmitter **1**, primary transmitter for receiver A.

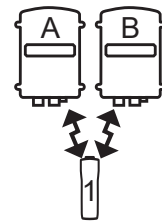
Transmitter **2**, secondary transmitter for receiver A.



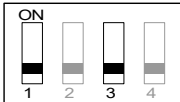
5.2 Multi-crane operation

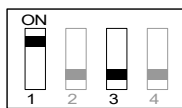
1 transmitter and 2 receivers

For location of dipswitch SW3 and pairing button see Figure 1 on page 9.
To set the transmitter in pairing mode, see section 6.2 on page 9.



Pair transmitter to receiver A

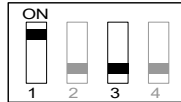
1. Open the lid on receiver A.
 2. Set the dipswitch SW3 in position.
- 
- SW3:1 OFF, SW3:3 OFF
3. Power ON the receiver.
 4. Press the pairing button in the receiver.
 5. Set transmitter **1** in pairing mode.
 6. Display shows “Pairing ready” when paired.
If the display shows “Pairing failed” restart pairing.
 7. Disconnect the power source to the receiver.
 8. Set the dipswitch SW3 in the position it should stand in during operation.

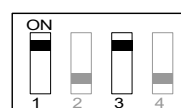


SW3:1 ON, SW3:3 OFF

9. Remount the receiver lid (2Nm).

Pair transmitter to receiver B

1. Open the lid on receiver B.
 2. Set the dipswitch SW3 in position.
- 
- SW3:1 ON, SW3:3 OFF
3. Power ON the receiver.
 4. Press the pairing button in the receiver.
 5. Set transmitter **1** in pairing mode.
 6. Display shows “Pairing ready” when paired.
If the display shows “Pairing failed” restart pairing.
 7. Disconnect the power source to the receiver.
 8. Set the dipswitch SW3 in the position it should stand in during operation.



SW3:1 ON, SW3:3 ON

9. Remount the receiver lid (2Nm).

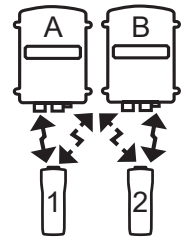
The receivers has now learned the transmitter ID number and will only accept commands from that transmitter.

Transmitter **1**, primary transmitter for receiver A and receiver B.

5.3 Multi-crane & Multi-operator operation

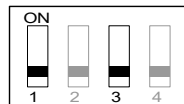
2 transmitters and 2 receivers

For location of dipswitch SW3 and pairing button see Figure 1 on page 9.
To set the transmitter in pairing mode, see section 6.2 on page 9.



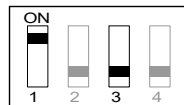
Pair transmitters to receiver A

1. Open the lid on receiver A.
2. Set the dipswitch SW3 in position.



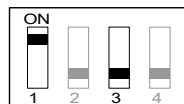
SW3:1 OFF, SW3:3 OFF

3. Power ON the receiver.
4. Press the pairing button in the receiver.
5. Set transmitter **1** in pairing mode.
6. Display shows "Pairing ready" when paired.
If the display shows "Pairing failed" restart pairing.
7. Disconnect the power source to the receiver.
8. Set the dipswitch SW3 in position.



SW3:1 ON, SW3:3 OFF

9. Power ON the receiver.
10. Press the pairing button in the receiver.
11. Set transmitter **2** in pairing mode.
12. Display shows "Pairing ready" when paired.
If the display shows "Pairing failed" restart pairing.
13. Disconnect the power source to the receiver.
14. Set the dipswitch SW3 in the position it should stand in during operation.

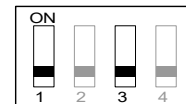


SW3:1 ON, SW3:3 OFF

15. Remount the receiver lid (2Nm).

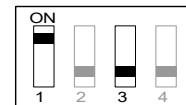
Pair transmitters to receiver B

1. Open the lid on receiver B.
2. Set the dipswitch SW3 in position.



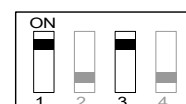
SW3:1 OFF, SW3:3 OFF

3. Power ON the receiver.
4. Press the pairing button in the receiver.
5. Set transmitter **2** in pairing mode.
6. Display shows "Pairing ready" when paired.
If the display shows "Pairing failed" restart pairing.
7. Disconnect the power source to the receiver.
8. Set the dipswitch SW3 in position.



SW3:1 ON, SW3:3 OFF

9. Power ON the receiver.
10. Press the pairing button in the receiver.
11. Set transmitter **1** in pairing mode.
12. Display shows "Pairing ready" when paired.
If the display shows "Pairing failed" restart pairing.
13. Disconnect the power source to the receiver.
14. Set the dipswitch SW3 in the position it should stand in during operation.



SW3:1 ON, SW3:3 ON

15. Remount the receiver lid (2Nm).

The receivers has now learned the transmitter ID numbers and will only accept commands from those transmitters.

Transmitter **1**, can operate both cranes, primary transmitter for receiver A and secondary for receiver B.

Transmitter **2**, can operate both cranes, primary transmitter for receiver B and secondary for receiver A.

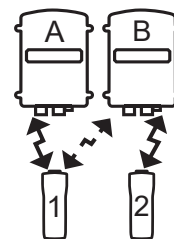
5.4 Multi-crane & Multi-operator operation (Primary/Secondary)

2 transmitters and 2 receivers

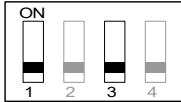
(one of the transmitters can only operate one crane)

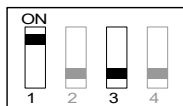
For location of dipswitch SW3 and pairing button see Figure 1 on page 9.

To set the transmitter in pairing mode, see section 6.2 on page 9.



Pair transmitter to receiver A

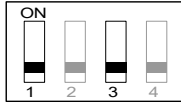
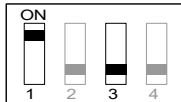
1. Open the lid on receiver A.
 2. Set the dipswitch SW3 in position.
- 
- SW3:1 OFF, SW3:3 OFF
3. Power ON the receiver.
 4. Press the pairing button in the receiver.
 5. Set transmitter **1** in pairing mode.
 6. Display shows “Pairing ready” when paired. If the display shows “Pairing failed” restart pairing.
 7. Disconnect the power source to the receiver.
 8. Set the dipswitch SW3 in the position it should stand in during operation.

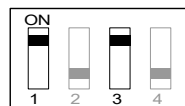


SW3:1 ON, SW3:3 OFF

9. Remount the receiver lid (2Nm).

Pair transmitters to receiver B

1. Open the lid on receiver B.
 2. Set the dipswitch SW3 in position.
- 
- SW3:1 OFF, SW3:3 OFF
3. Power ON the receiver.
 4. Press the pairing button in the receiver.
 5. Set transmitter **2** in pairing mode.
 6. Display shows “Pairing ready” when paired. If the display shows “Pairing failed” restart pairing.
 7. Disconnect the power source to the receiver.
 8. Set the dipswitch SW3 in position.
- 
- SW3:1 ON, SW3:3 OFF
9. Power ON the receiver.
 10. Press the pairing button in the receiver.
 11. Set transmitter **1** in pairing mode.
 12. Display shows “Pairing ready” when paired. If the display shows “Pairing failed” restart pairing.
 13. Disconnect the power source to the receiver.
 14. Set the dipswitch SW3 in the position it should stand in during operation.



SW3:1 ON, SW3:3 ON

15. Remount the receiver lid (2Nm).

The receivers has now learned the transmitter ID numbers and will only accept commands from those transmitters.

Transmitter **1**, can operate both cranes, primary transmitter for receiver A and secondary for receiver B.

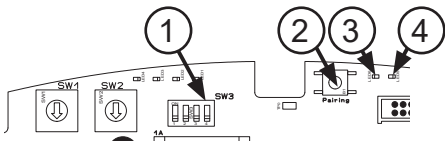
Transmitter **2**, can operate one crane, primary transmitter for receiver B.

6 Enter pairing mode

6.1 Set the receiver in pairing mode

Enter pairing mode receiver

- 1. Press pairing button (2).



- 1. Dipswitch SW3
- 2. Pairing button
- 3. LED 6
- 4. LED 5

Figure 1. Dipswitch SW3, LED5 and pairing button in the receiver

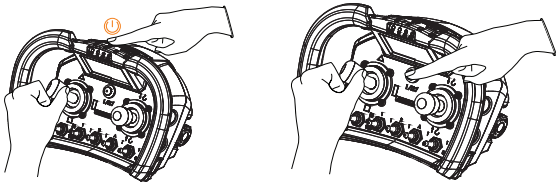
6.2 Set the transmitter in pairing mode

Enter pairing mode Era 8B

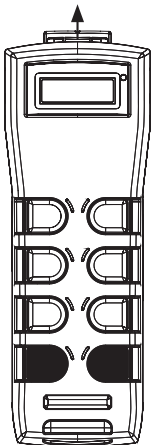
- 1. Hold down the two bottom buttons when starting the transmitter.
- 2. Continue to press the buttons for ≈5 seconds, until the display shows “Pairing mode”

Enter pairing mode Era 100

- 1. Hold out one of the transmitter joysticks and start the transmitter.
- 2. Keep holding the joystick out and press | / □ ≈10s, until the display shows “Pairing mode”.



Enter pair mode Era 100



Enter pair mode Era 8B

6.3 Pairing indications

Mode	Event	LED indication Receiver	Flash rate
Pairing	In pairing mode	LED 6 flashing fast LED 5 steady	50/50 ms
	Paired	LED 5 steady	

Table 1. Receiver pairing indication

Mode	Event	Status indicator transmitter	Flash rate
In pairing mode	Not paired	Green/yellow flashing fast	50/50 ms
	Paired	Steady green	

Table 2. Transmitter pairing indication

Pairing:	Pairing ready:	Link timeout:
<div>Pair mode Pairing...</div>	<div>Pair mode Paired!</div> <div>↓</div> <div>Restart System!</div>	<div>Pair mode Failed!</div> <div>↓</div> <div>Restart Pair mode!</div>

Table 3. Transmitter display pairing indication



Åkerströms Björbo AB | Box 7, Björbovägen 143 | SE-786 97 Björbo, Sweden
Phone +46 241 250 00 | frontoffice@akerstroms.se | www.akerstroms.com