



GUIDE

Remotus Jupiter

Program Option RX161

Revision History

Version	Date	Reason
A0	2023-02-27	First released version.
A1	2023-11-08	Added program option E-13 in difference for multi-crane/operator operation. Corrected Y11 N/CS for program selection 3 & 9. Added information in step 2 in chapter 3.
A2	2024-09-17	"3 Select program" on page 4.

Reference

Installation manual Jupiter FSK16 959125-000.

RX161/RX110 Configuration Tool, manual 952576-000.

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1 Introduction

This guide is an appendix to installation manual 959125-000 and describes the program selections for Jupiter and receivers with part numbers 952110-433 (RX161) and 959023-433 (RX161 with expansion card).

The installation manual must be read and understood before connecting cables and before selecting a program.

2 Configuration Tool

Settings in the configuration tool (version 3.0.0.0) that affect the features:

System configuration	
Program	Set the desired program, the tool will prompt you to set the rotary switches correctly.
Simultaneous micro	The joystick's movements are interlocking so that several movements can be operated simultaneously. Non simultaneous micro is default.
Low bat warning on signal	Gives a signal 4 times then silent for 15 seconds, this is repeated as long as there is battery left. Default.
Y14/28 remaining	A remaining function after MC off. (Y28 program 13)
X/S1.1 delayed 5 s	Function X/S1.1 delayed 5 seconds.
X/S1.1 latched	S1.1 alternating function (on-off)
J1/J2 Up/Down, Left/Right 4-step	4-step joystick, please note that the 4-step joystick must be set in the tool! As well as having RX161 expansion board.
Weight Scaling	
Internal tare on X/S1.1	Press and hold 1 second to zero the value in the display and 3 seconds to remove the zeroing/taration.

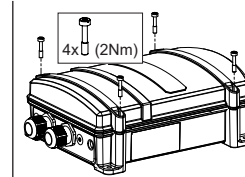
See Configuration Tool manual for RX161/RX110, 952576-000.

3 Select program

To be carried out only by qualified and trained personnel.

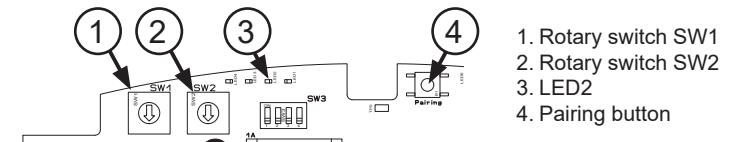


This has to be done in a clean, dry and ESD safe environment.



The cover is fastened with 4 screws and with a torque of 2 Nm.

To set a program in the receiver, two rotary switches are used, SW1 and SW2. Note that the receiver must be powered when a program is selected.



There are two options for program selection:

- Using the RX161/RX110 Configuration Tool software tool (you will be prompted to set the rotary switches in the correct position).
- Or to follow the below description:
 1. Set the rotary switches to the desired program selection, for example SW1:1 - SW2:2, for program selection 12.
 2. Press and hold the pairing button for longer than two seconds until the LED2 starts to light up. Release the button and quickly press it down again <0.8s.
 3. Repeat step 2, three times in total. After the third time, the LED2 blinks three times. Program selected.

Please note that if SW1 or SW2 changes position after a program is selected, the transmitter will not be able to activate the main contactor.

4 Program selection

Step 3 and 4 are always on the expansion board. So, for the 4-step joystick, RX161 expansion board is required and settings in the configuration tool.

J2 left/right - Only available in program 12 and 13.

Safety relays (Y0-Y5) for movements are indicated by **bold text** in the function column.

The connection for signal in the program selections is for external horn. Åkerströms horn is, if ordered, already connected at delivery (Y16).

RX161 main board: Y0-Y15, expansion board: 1-16

The "Function" column describes our base transmitter names. But you can have something other than, for example, an X on the transmitter itself on function X a lamp symbol for example. But for multi-crane/operator operation, S4.1 and S5.1 must be used!

1st	First step on button transmitter, button half pressed
2nd	Second step on button transmitter, button fully pressed
-9	Era 8B 9 Buttons mode
-10	Era 8B 10 Buttons mode
SHIFT	B8 step 2 for Era 8B 9/10 Buttons
COM MOV	Common movement
MC ON	Switch on function

Movement ↓ - "J1 Up/Down" Direction ↑ - "J1 Up"

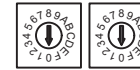
A and B are only common functions and not crane choices A and B unless the system is paired for multi-crane/operator operation, see Appendix 959125-200. See also differences in Program selection for multi-crane/operator operation below.

! Difference in Program selection for multi-crane/operator operation:

Program selection 0	Not available for multi-crane/operator operation.
Program selection 1-12	Y14 indication operator A and Y15 indication operator B
Program selection 1,2,4,6,A,B,D,E,F,10,12	Y13 interconnecting crane A & B
Program selection 3,5,7,8,9,C	Y9 interconnecting crane A & B
Program selection 13 Expansion board	Connector 9 indication operator A and 10 indication operator B Connector 11 interconnecting crane A & B

4.1 Program selection 0

12 single functions.



Terminal	Connector	Cable part	Function				
			Era 100	4B	6B	8B	10BD
P21	Y4		J2 Down	B1	B1	B1	B1
	Y5		J2 Up	B2	B2	B2	B2
	Y6		J1 Left	-	B3	B3	B3
	Y7		J1 Right	-	B4	B4	B4
P27	Y8		J1 Up	-	-	B5	B5
	Y9		J1 Down	-	-	B6	B6
P20	Y10		SW 2	-	-	-	B7
	Y11		SW 3	-	-	-	B8
	Y12		P1 -	B7	B7	B7	B9
	Y13		SW 1	B8	B8	B8	B10
P18	Y14		SW 4	-	-	-	-
	Y15		SW 5	-	-	-	-

! Please note that this program does not support multi-crane/operator operation.

4.2 Program selection 1

3 Movements 2-4 steps per Movement.

X/Y/A/B-Function.

Each movement has separate outputs for direction but common outputs for speed 2-4.

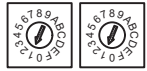
The directional output is also used as speed 1.
The output for a lower speed is active even at a higher speed.

Similar:

B (delay 1s), **4** (same Y0-Y10, MC ON),
E (Y12 COM MOV), **F** (same Y0-Y10, MC ON, COM MOV), **10** (delay 1s, same Y0-Y10)

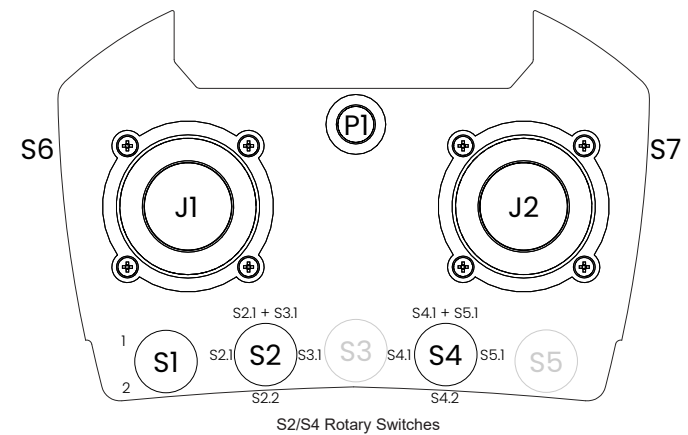
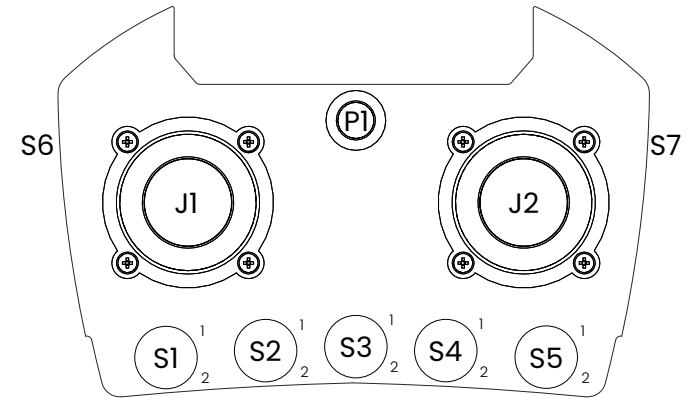


Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist speed 2	J2 Up/Down	2nd B2/B1			2nd B1/B2				
	Y11		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y12		Y	-	2nd B8	-	-	2nd B10	2nd B8	-	-	2nd B10
	Y13		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
P18	Y14		B	S5.1	-	-	SHIFT + B4	-	-	-	SHIFT + B4	-
	Y15		Signal	P1 -	1st B7			1st B9	1st B7			1st B9



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2 P3	1		Bridge speed 3	J1 Up/Down
P2 P3	2		Bridge speed 4	J1 Up/Down
P2 P3	3		Trolley speed 3	J1 Left/Right
P2 P3	4		Trolley speed 4	J1 Left/Right
P2 P3	5		Hoist speed 3	J2 Up/Down
P2 P3	6		Hoist speed 4	J2 Up/Down
P2 P3	7		Com mov	
P2 P3	8		MC ON	
P6 P8 P7	9			-
P6 P8 P7	10			S6
P6 P8 P7	11			S2.2
P6 P8 P7	12			S3.2
P6 P7	13			S4.2
P6 P7	14			S5.2
P6 P7	15			S7
P6 P7	16		Signal	P1 -



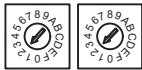
4.3 Program selection 2

3 Movements 2-4 steps per movement.
4 outputs for Hoist (2-step).

Bridge/trolley movements has separate outputs for direction but common outputs for speed 2-4. Hoist movement has separate outputs for direction and speed.

The directional output is also used as speed 1. The output for a lower speed is active even at a higher speed.

Similar:
6 (Movement similar but on other Y, MC ON)
A (delay 1s)
D (Y4/Y5 disconnects at speed 2)



Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist down speed 2	J2 Up	2nd B2			2nd B1				
	Y11		Hoist up speed 2	J2 Down	2nd B1			2nd B2				
	Y12		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y13		Signal / Y*	P1 -	2nd B8	1st B7		2nd B10	2nd B8	1st B7		2nd B10
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B / Signal**	S5.1	1st B7		SHIFT + B4	1st B9	1st B7		SHIFT + B4	1st B9

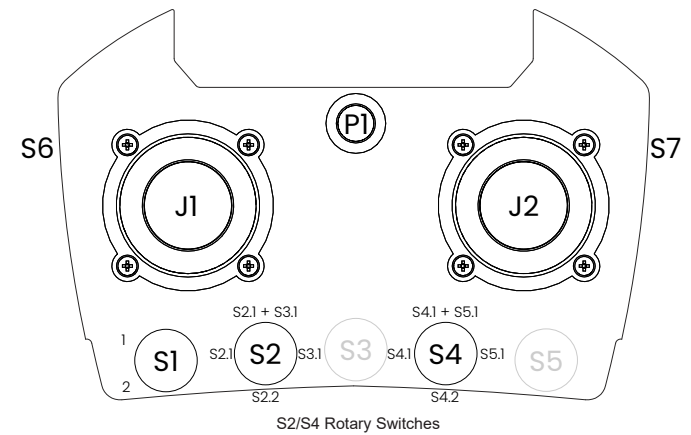
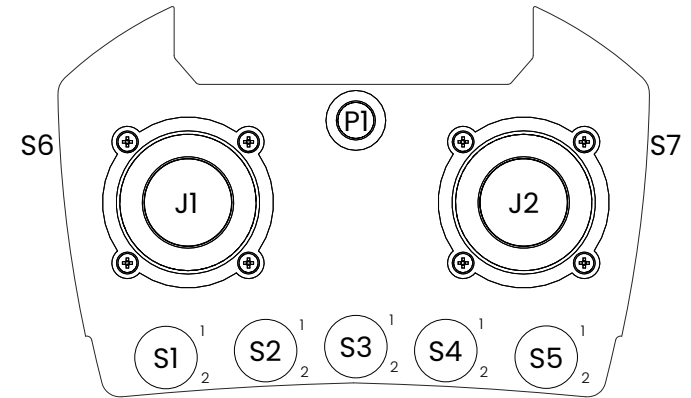
* Signal for Era 100 and Era 8B-9/-10, Function Y for Era 8B-8 and 10BD.

** B for Era 100 and Era 8B-9, signal for the other button transmitters.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		Bridge speed 3	J1 Up/Down
P3				
P2	2		Bridge speed 4	J1 Up/Down
P3				
P2	3		Trolley speed 3	J1 Left/Right
P3				
P2	4		Trolley speed 4	J1 Left/Right
P3				
P2	5		-	-
P3				
P2	6		-	-
P3				
P2	7		Com mov	
P3				
P2	8		MC ON	
P3				
P6	9		-	-
P8				
P7				
P6	10			S6
P8				
P7				
P6	11			S2.2
P8				
P7				
P6	12			S3.2
P8				
P7				
P6	13			S4.2
P7				
P6	14			S5.2
P7				
P6	15			S7
P7				
P6	16		Signal	P1 -
P7				



4.4 Program selection 3

3 Movements 2 step.
X/Y Function.

Speed 2 for all movements has
separate outputs for direction.

The directional output is also used as speed 1.
The output for a lower speed is active even at a
higher speed.

Similar:

7 (same Y0-Y13, A/B)

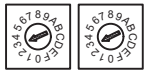
9 (separate outputs per direction, speed 1 disconnects at speed 2)

C (separate outputs per direction, speed 1 disconnects at speed 2, A/B)



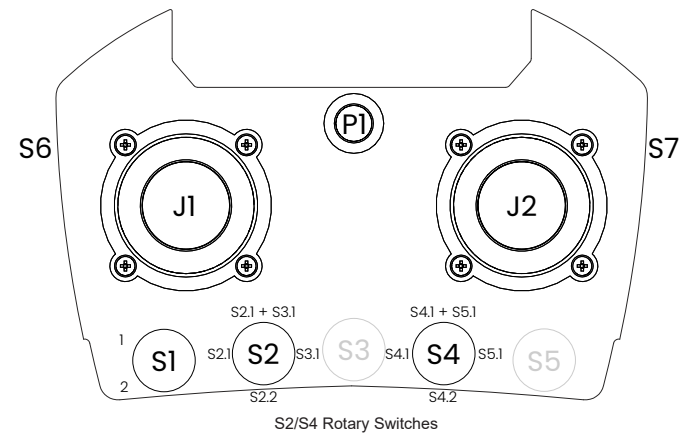
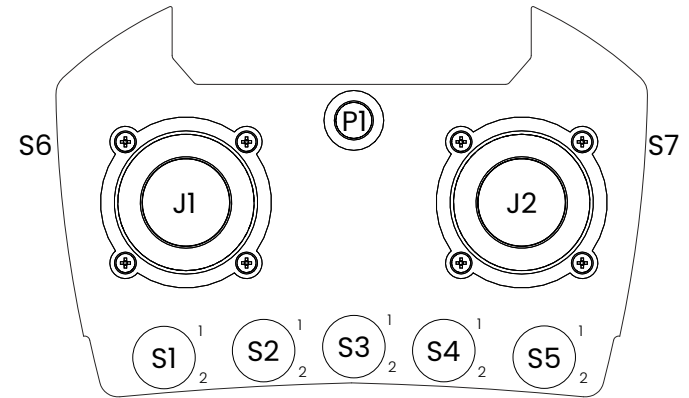
Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge forward speed 2	J1 Up	2nd B5			2nd B6				
	Y7		Bridge backward speed 2	J1 Down	2nd B6			2nd B5				
P27	Y8		Trolley 1/Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2/Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Trolley left speed 2	J1 Left	2nd B3			2nd B3				
	Y11		Trolley right speed 2	J1 Right	2nd B4			2nd B4				
	Y12		Hoist down speed 2	J2 Up	2nd B2			2nd B1				
	Y13		Hoist up speed 2	J2 Down	2nd B1			2nd B2				
P18	Y14		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y15		Signal / Y*	P1 -	2nd B8	1st B7		2nd B10	2nd B8	1st B7		2nd B10

* Signal for Era 100 and Era 8B-9/-10, Function Y for Era 8B-8 and 10BD.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1	↗	-	-
P3	1	↘	-	-
P2	2	↗	-	-
P3	2	↘	-	-
P2	3	↗	-	-
P3	3	↘	-	-
P2	4	↗	-	-
P3	4	↘	-	-
P2	5	↗	-	-
P3	5	↘	-	-
P2	6	↗	-	-
P3	6	↘	-	-
P2	7	↗	A	S4.1
P3	7	↘		
P2	8	↗	B	S5.1
P3	8	↘		
P6	9	↗	X	S1.1
P8	9	↘		
P7	9	↘		
P6	10	↗		S6
P8	10	↘		
P7	10	↘		
P6	11	↗	TR2	S3.1
P8	11	↘		
P6	12	↗		S3.2
P8	12	↘		
P7	12	↘		
P6	13	↗		S4.2
P7	13	↘		
P6	14	↗		S5.2
P7	14	↘		
P6	15	↗		S7
P7	15	↘		
P6	16	↗	Signal	P1 -
P7	16	↘		



4.5 Program selection 4

[KONECRANES]
3 Movements 2-4
steps.

MC ON

Each movement has separate outputs for direction but common outputs for speed 2-4.

The directional output is also used as speed 1.
The output for a lower speed is active even at a higher speed.

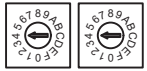
Similar:
1 (same Y0-Y10), **10** (delay 1s, same Y0-Y12),
E (same Y0-Y10, COM MOV), **F** (same Y0-Y11, COM MOV),
B (delay 1s, same Y0-Y10)



Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist speed 2	J2 Up/Down	2nd B2/B1			2nd B1/B2				
	Y11		MC ON									
	Y12		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y13		Signal / Y*	P1 -	2nd B8	1st B7		2nd B10	2nd B8	1st B7		2nd B10
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B / Signal**	S5.1	1st B7		SHIFT + B4	1st B9	1st B7		SHIFT + B4	1st B9

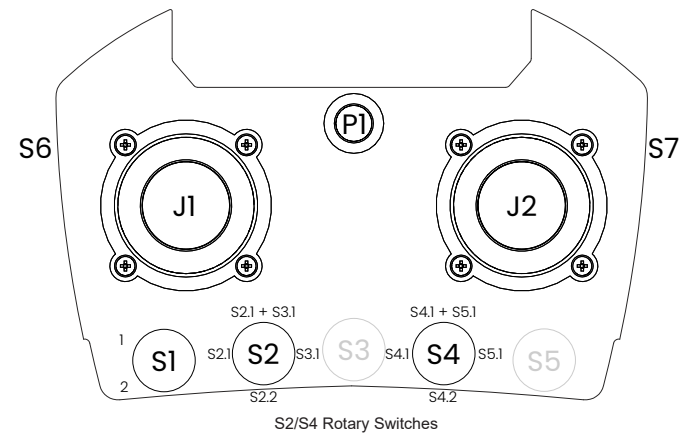
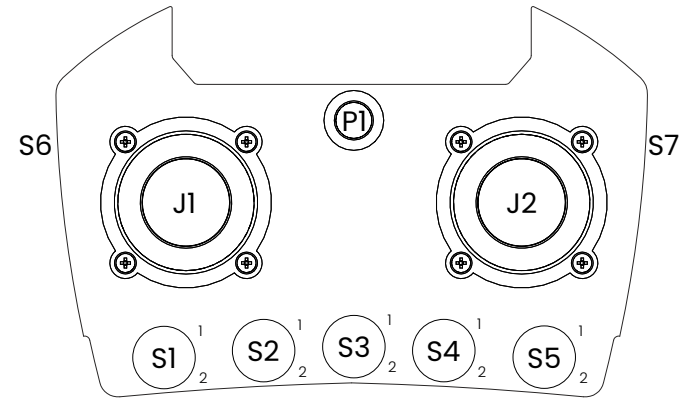
* Signal for Era 100 and Era 8B-9/-10, Function Y for Era 8B-8 and 10BD.

** B for Era 100 and Era 8B-9, signal for the other button transmitters.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2 P3	1	↗↘	Bridge speed 3	J1 Up/Down
P2 P3	2	↗↘	Bridge speed 4	J1 Up/Down
P2 P3	3	↗↘	Trolley speed 3	J1 Left/Right
P2 P3	4	↗↘	Trolley speed 4	J1 Left/Right
P2 P3	5	↗↘	Hoist speed 3	J2 Up/Down
P2 P3	6	↗↘	Hoist speed 4	J2 Up/Down
P2 P3	7	↗↘	COM MOV	
P2 P3	8	↗↘	-	
P6 P8 P7	9	↗↘	-	
P6 P8 P7	10	↗↘		S6
P6 P8 P7	11	↗↘		S2.2
P6 P8 P7	12	↗↘		S3.2
P6 P7	13	↗↘		S4.2
P6 P7	14	↗↘		S5.2
P6 P7	15	↗↘		S7
P6 P7	16	↗↘	Signal	P1 -



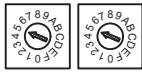
4.6 Program selection 5

3 Movements 2-4 steps. Speed 1 and Speed 2 outputs for X/Y Function

Speed 1 and Speed 2 outputs for each movement.

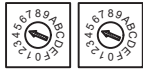
Separate outputs for direction and speed 1. It is one speed relay at a time that is active.

Similar: 8 (same Y0-Y13, A/B),



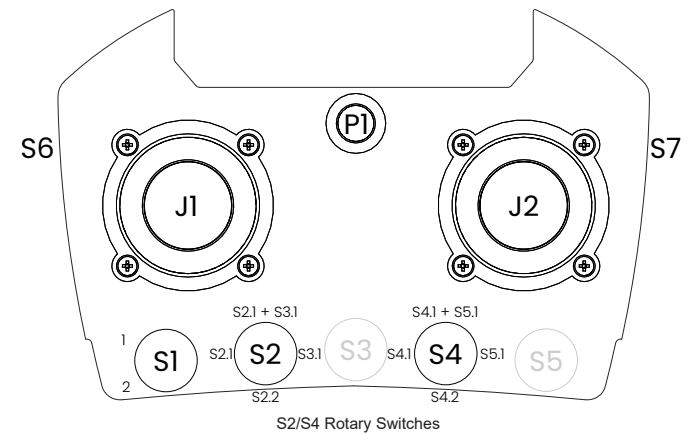
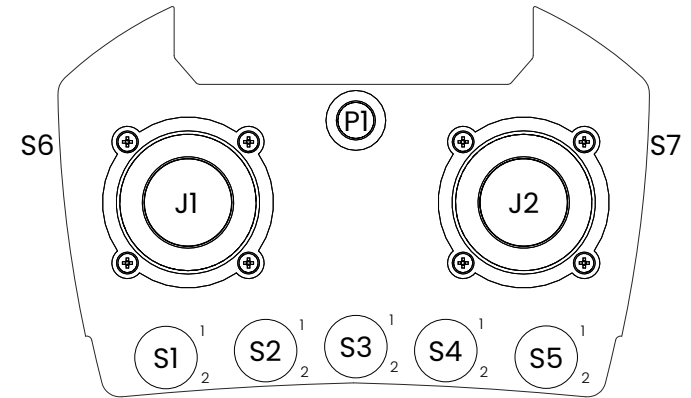
Ter- mi- nal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5				B6			
	Y1		Bridge backward	J1 Down	B6				B5			
	Y2		Trolley left	J1 Left	B3				B3			
	Y3		Trolley right	J1 Right	B4				B4			
P21	Y4		Hoist down	J2 Up	B2				B1			
	Y5		Hoist up	J2 Down	B1				B2			
	Y6		Bridge speed 1	J1 Up/Down	1st B5/B6				1st B5/B6			
	Y7		Bridge speed 2	J1 Up/Down	2nd B5/B6				2nd B5/B6			
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Trolley speed 1	J1 Left/Right	1st B3/B4				1st B3/B4			
	Y11		Trolley speed 2	J1 Left/Right	2nd B3/B4				2nd B3/B4			
	Y12		Hoist speed 1	J2 Up/Down	1st B1/B2				1st B1/B2			
	Y13		Hoist speed 2	J2 Up/Down	2nd B1/B2				2nd B1/B2			
P18	Y14		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y15		Signal / Y*	P1 -	2nd B8	1st B7		2nd B10	2nd B8	1st B7		2nd B10

* Signal for Era 100 and Era 8B-9/-10, Function Y for Era 8B-8 and 10BD.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		Bridge speed 3	J1 Up/Down
P3	1		Bridge speed 3	J1 Up/Down
P2	2		Bridge speed 4	J1 Up/Down
P3	2		Bridge speed 4	J1 Up/Down
P2	3		Trolley speed 3	J1 Left/Right
P3	3		Trolley speed 3	J1 Left/Right
P2	4		Trolley speed 4	J1 Left/Right
P3	4		Trolley speed 4	J1 Left/Right
P2	5		Hoist speed 3	J2 Up/Down
P3	5		Hoist speed 3	J2 Up/Down
P2	6		Hoist speed 4	J2 Up/Down
P3	6		Hoist speed 4	J2 Up/Down
P2	7		COM MOV	
P3	7		COM MOV	
P2	8		MC ON	
P3	8		MC ON	
P6	9		X	S1.1
P8				
P7				
P6	10			S6
P8				
P7				
P6	11		TR2	S3.1
P8				
P7				
P6	12			S3.2
P8				
P7				
P6	13			S4.2
P7				
P6	14			S5.2
P7				
P6	15			S7
P7				
P6	16		Signal	P1 -
P7				



S2/S4 Rotary Switches

4.7 Program selection 6

3 Movements 2-4 steps per movement.

4 outputs for Hoist (2-step).

Bridge/trolley movements has separate outputs for direction but common outputs for speed 2-4. Hoist movement has separate outputs for direction and speed.

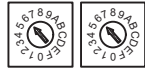
The directional output is also used as speed 1. The output for a lower speed is active even at a higher speed.

Similar:

2 (Movement similar but on other Y, Y)

A (delay 1s, Y)

D (Y4/Y5 disconnects at speed2, Y)



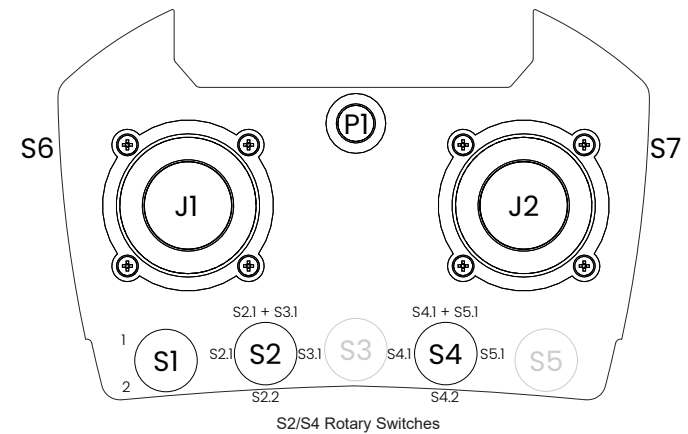
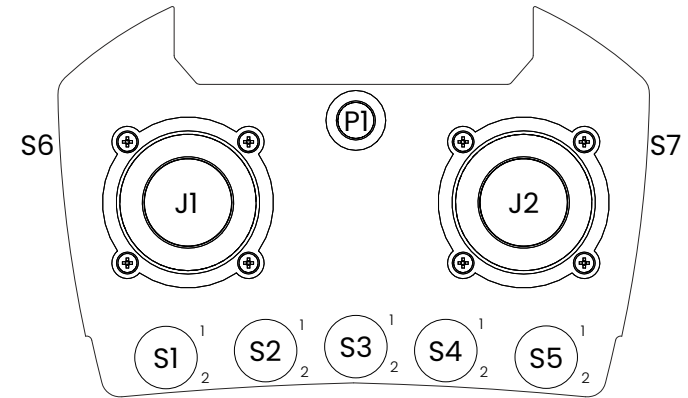
Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN				
P15	Y0		Bridge forward	J1 Up	B5			B6								
	Y1		Bridge backward	J1 Down	B6			B5								
	Y2		Trolley left	J1 Left	B3			B3								
	Y3		Trolley right	J1 Right	B4			B4								
P21	Y4		Hoist down	J2 Up	B2			B1								
	Y5		Hoist up	J2 Down	B1			B2								
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5								
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4								
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5		B7				
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6		B8				
P20	Y10		Hoist down speed 2	J2 Up	2nd B2			2nd B1								
	Y11		MC ON													
	Y12		Hoist up speed 2	J2 Down	2nd B1			2nd B2								
	Y13		A	S4.1	-	-	SHIFT + B3		-	-	SHIFT + B3		-			
P18	Y14		B / Signal**	S5.1	1st B7		SHIFT + B4		1st B9		1st B7		SHIFT + B4		1st B9	
	Y15		X	S1.1	2nd B7			2nd B9		2nd B7			2nd B9			

** B for Era 100 and Era 8B-9, signal for the other button transmitters.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2 P3	1		Bridge speed 3	J1 Up/Down
P2 P3	2		Bridge speed 4	J1 Up/Down
P2 P3	3		Trolley speed 3	J1 Left/Right
P2 P3	4		Trolley speed 4	J1 Left/Right
P2 P3	5		-	-
P2 P3	6		-	-
P2 P3	7		Com mov	
P2 P3	8		-	
P6 P8 P7	9		X	S1.1
P6 P8 P7	10			S6
P6 P8 P7	11			S2.2
P6 P8 P7	12			S3.2
P6 P7	13			S4.2
P6 P7	14			S5.2
P6 P7	15			S7
P6 P7	16		Signal	P1 -



4.8 Program selection 7

3 movements 2 step.
A/B Function

Speed 2 has separate
outputs per direction.

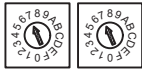
The directional output is also used as speed 1.
The output for a lower speed is active even at a
higher speed.

Similar:

3 (same Y0-Y13, X/Y)

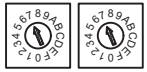
9 (separate outputs per direction, speed 1 disconnects at speed 2, X/Y)

C (separate outputs per direction, speed 1 disconnects at speed 2)



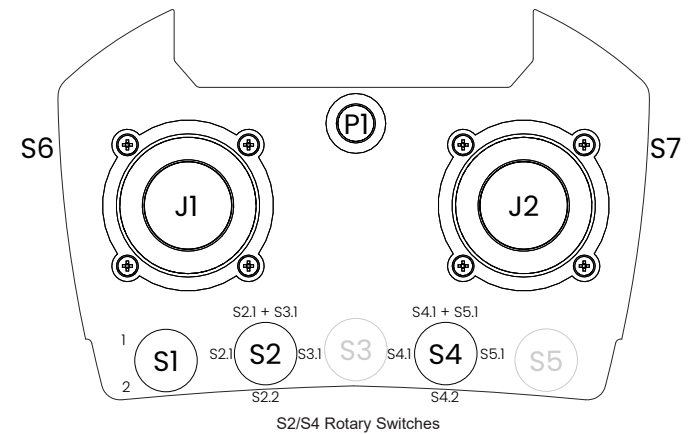
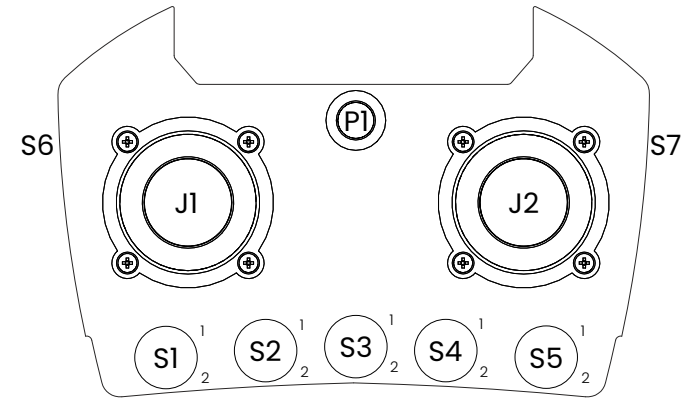
Terminal	Connector	Cable part	Function	Era 100	8B N/C/S	8B N/C/S -10	8B N/C/S -9	10 BD N/C/S	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge forward speed 2	J1 Up	2nd B5			2nd B6				
	Y7		Bridge backward speed 2	J1 Down	2nd B6			2nd B5				
P27	Y8		Trolley 1/Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2/Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Trolley left speed 2	J1 Left	2nd B3			2nd B3				
	Y11		Trolley right speed 2	J1 Right	2nd B3			2nd B4				
	Y12		Hoist down speed 2	J2 Up	2nd B2			2nd B1				
	Y13		Hoist up speed 2	J2 Down	2nd B1			2nd B2				
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B / Signal**	S5.1	1st B7		SHIFT + B4	1st B9	1st B7		SHIFT + B4	1st B9

** B for Era 100 and Era 8B-9, signal for the other button transmitters.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		-	-
P3				
P2	2		-	-
P3				
P2	3		-	-
P3				
P2	4		-	-
P3				
P2	5		-	-
P3				
P2	6		-	-
P3				
P2	7		COM MOV	
P3				
P2	8		MC ON	
P3				
P6	9		X	S1.1
P8				
P7				
P6	10			S6
P8				
P7				
P6	11		TR2	S3.1
P8				
P7				
P6	12			S3.2
P8				
P7				
P6	13			S4.2
P7				
P6	14			S5.2
P7				
P6	15			S7
P7				
P6	16		Signal	P1 -
P7				



4.9 Program selection 8

3 Movements 2-4
steps.
A/B Function

Speed 1 and Speed 2 outputs
for each movement..

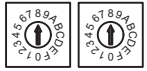
Separate outputs for direction and speed 1.
One speed relay at a time that is active.

Similar:
5 (same Y0-Y13, X/Y),



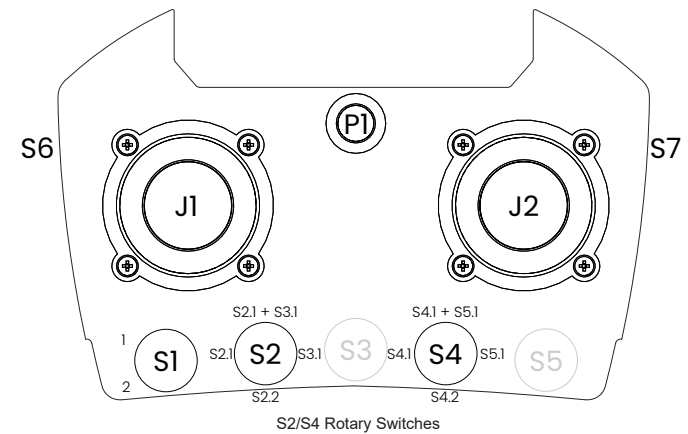
Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5				B6			
	Y1		Bridge backward	J1 Down	B6				B5			
	Y2		Trolley left	J1 Left	B3				B3			
	Y3		Trolley right	J1 Right	B4				B4			
P21	Y4		Hoist down	J2 Up	B2				B1			
	Y5		Hoist up	J2 Down	B1				B2			
	Y6		Bridge speed 1	J1 Up/Down								
	Y7		Bridge speed 2	J1 Up/Down								
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Trolley speed 1	J1 Left/Right	1st B3/B4				1st B3/B4			
	Y11		Trolley speed 2	J1 Left/Right	2nd B3/B4				2nd B3/B4			
	Y12		Hoist speed 1	J2 Up/Down	1st B1/B2				1st B1/B2			
	Y13		Hoist speed 2	J2 Up/Down	2nd B1/B2				2nd B1/B2			
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B / Signal**	S5.1	1st B7		SHIFT + B4	1st B9	1st B7		SHIFT + B4	1st B9

** B for Era 100 and Era 8B-9, signal for the other button transmitters.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2 P3	1		Bridge speed 3	J1 Up/Down
P2 P3	2		Bridge speed 4	J1 Up/Down
P2 P3	3		Trolley speed 3	J1 Left/Right
P2 P3	4		Trolley speed 4	J1 Left/Right
P2 P3	5		Hoist speed 3	J2 Up/Down
P2 P3	6		Hoist speed 4	J2 Up/Down
P2 P3	7		COM MOV	
P2 P3	8		MC ON	
P6 P8 P7	9		X	S1.1
P6 P8 P7	10			S6
P6 P8 P7	11		TR2	S3.1
P6 P8 P7	12			S3.2
P6 P7	13			S4.2
P6 P7	14			S5.2
P6 P7	15			S7
P6 P7	16		Signal	P1 -



4.10 Program selection 9

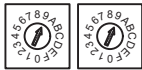
3 movements 2 step. Separate outputs per direction.

X/Y Function

The speed 1 output is disconnected at speed 2.

Similar:

3 (Direction and speed 1 on one relay, speed relay active),
7 (Direction and speed 1 on one relay, speed relay active, A/B),
C (same Y0-Y13, A/B).



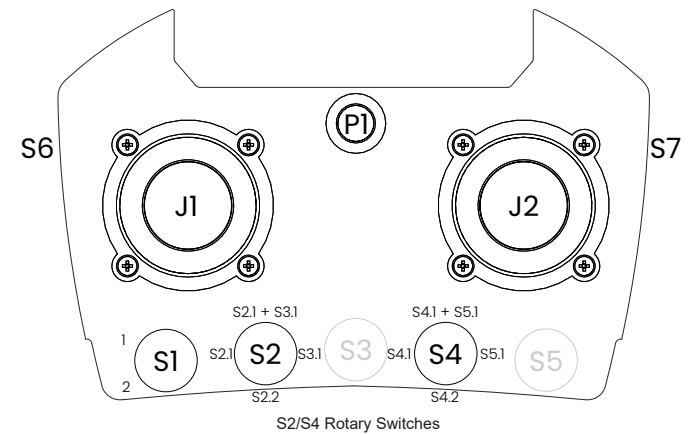
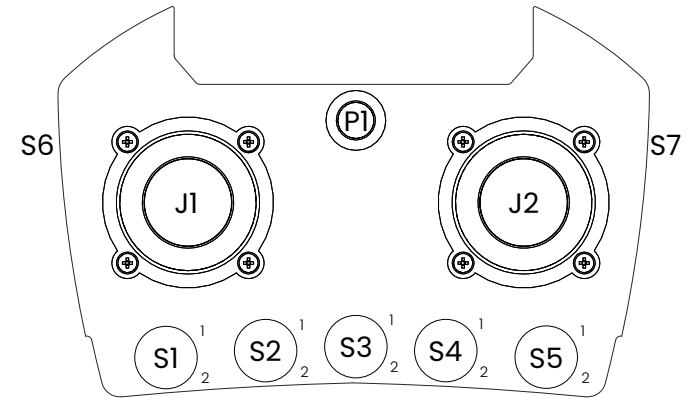
Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward speed 1	J1 Up	1st B5			1st B6				
	Y1		Bridge backward speed 1	J1 Down	1st B6			1st B5				
	Y2		Trolley left speed 1	J1 Left	1st B3			1st B3				
	Y3		Trolley right speed 1	J1 Right	1st B4			1st B4				
P21	Y4		Hoist down speed 1	J2 Up	1st B2			1st B1				
	Y5		Hoist up speed 1	J2 Down	1st B1			1st B2				
	Y6		Bridge forward speed 2	J1 Up	2nd B5			2nd B6				
	Y7		Bridge backward speed 2	J1 Down	2nd B6			2nd B5				
P27	Y8		Trolley 1/Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2/Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Trolley left speed 2	J1 Left	2nd B3			2nd B3				
	Y11		Trolley right speed 2	J1 Right	2nd B4			2nd B4				
	Y12		Hoist down speed 2	J2 Up	2nd B2			2nd B1				
	Y13		Hoist up speed 2	J2 Down	2nd B1			2nd B2				
P18	Y14		X	S1.1	2nd B7		2nd B9	2nd B7			2nd B9	
	Y15		Signal / Y*	P1 -	2nd B8	1st B7		2nd B10	2nd B8	1st B7		2nd B10

* Signal for Era 100 and Era 8B-9/-10, Function Y for Era 8B-8 and 10BD.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		-	-
P3	2		-	-
P2	3		-	-
P3	4		-	-
P2	5		-	-
P3	6		-	-
P2	7		A	S4.1
P3	8		B	S5.1
P6	9		X	S1.1
P8				
P7				
P6	10			S6
P8				
P7				
P6	11		TR2	S3.1
P8				
P7				
P6	12			S3.2
P8				
P7				
P6	13			S4.2
P7				
P7				
P6	14			S5.2
P7				
P7				
P6	15			S7
P7				
P7				
P6	16		Signal	P1 -
P7				



4.11 Program selection A

[DEMAG, Dematek]

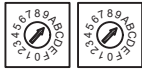
3 Movements 2 step.
A/B/X Function
Transition from speed 2 to 1 –
delayed 1 second.

The Bridge/Trolley movement has separate
outputs for direction but common outputs
for speed 2.
Hoist movement has separate outputs for
direction and speed.

The directional output is also used as speed 1.
The output for a lower speed is active even at a
higher speed.

Similar:

2 (no delay),
6 (Movement similar but on other Y, MC ON),
D (Y4/Y5 disconnects at speed 2)



Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist down speed 2	J2 Up	2nd B2			2nd B1				
	Y11		Hoist up speed 2	J2 Down	2nd B1			2nd B2				
	Y12		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y13		Signal / Y*	P1 -	2nd B8	1st B7		2nd B10	2nd B8	1st B7		2nd B10
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B / Signal**	S5.1	1st B7		SHIFT + B4	1st B9	1st B7		SHIFT + B4	1st B9

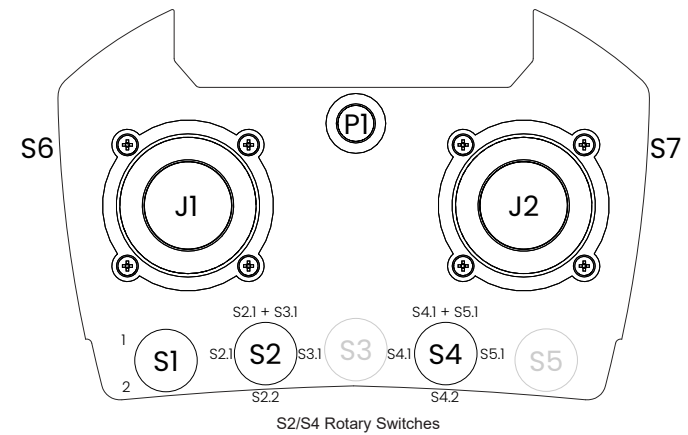
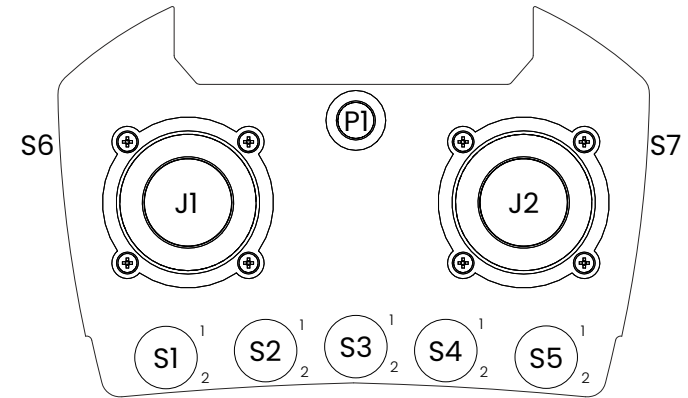
* Signal for Era 100 and Era 8B-9/-10, Function Y for Era 8B-8 and 10BD.

** B for Era 100 and Era 8B-9, signal for the other button transmitters.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		-	-
P3	1		-	-
P2	2		-	-
P3	2		-	-
P2	3		-	-
P3	3		-	-
P2	4		-	-
P3	4		-	-
P2	5		-	-
P3	5		-	-
P2	6		-	-
P3	6		-	-
P2	7		Com mov	
P3	7			
P2	8		MC ON	
P3	8			
P6	9			
P8	9			
P7	9			
P6	10			S6
P8	10			
P7	10			
P6	11			S2.2
P8	11			
P7	11			
P6	12			S3.2
P8	12			
P7	12			
P6	13			S4.2
P7	13			
P6	14			S5.2
P7	14			
P6	15			S7
P7	15			
P6	16		Signal	P1 -
P7	16			



4.12 Program selection B

[ABUS]

3 Movements 2-4 steps.

A/B/X/Y Function

1 second delay when changing direction.

Each movement has separate outputs for direction but common outputs for speed 2-4.

The directional output is also used as speed 1.
The output for a lower speed is active even at a higher speed.

Similar:

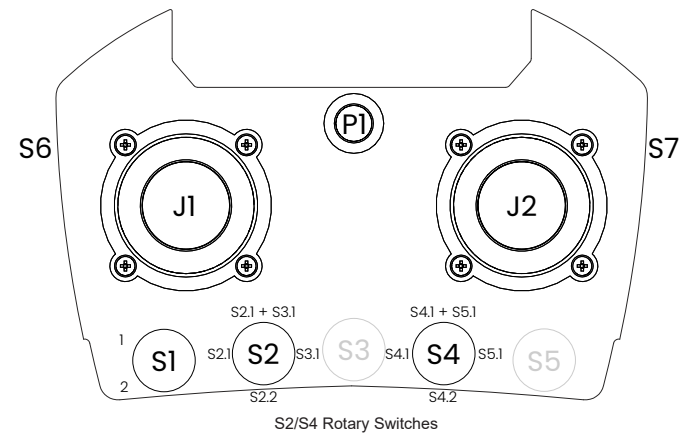
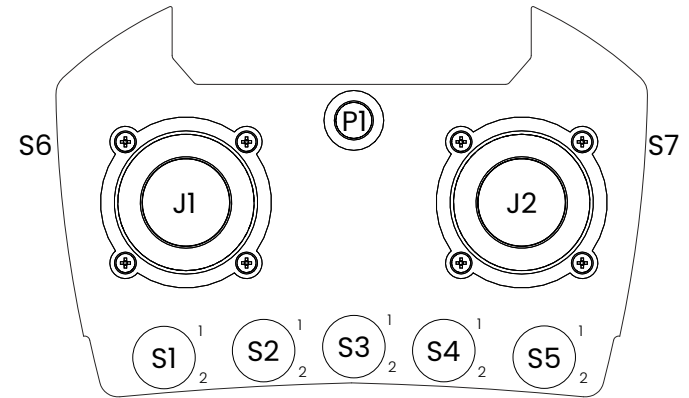
1 (no delay),**4** (no delay, same Y0-Y10, MC ON), **10** (same Y0-Y10),**E** (no delay, Y12 COM MOV),**F** (no delay, same Y0-Y10, MC ON, COM MOV)

Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist speed 2	J2 Up/Down	2nd B2/B1			2nd B1/B2				
	Y11		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y12		Y	-	2nd B8	-	-	2nd B10	2nd B8	-	-	2nd B10
	Y13		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
P18	Y14		B	S5.1	-	-	SHIFT + B4	-	-	-	SHIFT + B4	-
	Y15		Signal	P1 -	1st B7			1st B9	1st B7			1st B9



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		Bridge speed 3	J1 Up/Down
P3				
P2	2		Bridge speed 4	J1 Up/Down
P3				
P2	3		Trolley speed 3	J1 Left/Right
P3				
P2	4		Trolley speed 4	J1 Left/Right
P3				
P2	5		Hoist speed 3	J2 Up/Down
P3				
P2	6		Hoist speed 4	J2 Up/Down
P3				
P2	7		Com mov	
P3				
P2	8		MC ON	
P3				
P6	9			-
P8				
P7				
P6	10			S6
P8				
P7				
P6	11			S2.2
P8				
P7				
P6	12			S3.2
P8				
P7				
P6	13			S4.2
P7				
P6	14			S5.2
P7				
P6	15			S7
P7				
P6	16		Signal	P1 -
P7				



4.13 Program selection C

3 movements 2 step.

Separate outputs per direction.

A/B Function

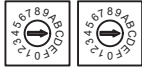
The speed 1 output is disconnected at speed 2.

Similar:

3 (Direction and speed 1 on one realy, speed relay active, X/Y)

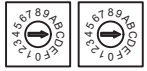
7 (separate direction speed 2, speed 1 still active, A/B)

9 (same Y0-Y13, X/Y)



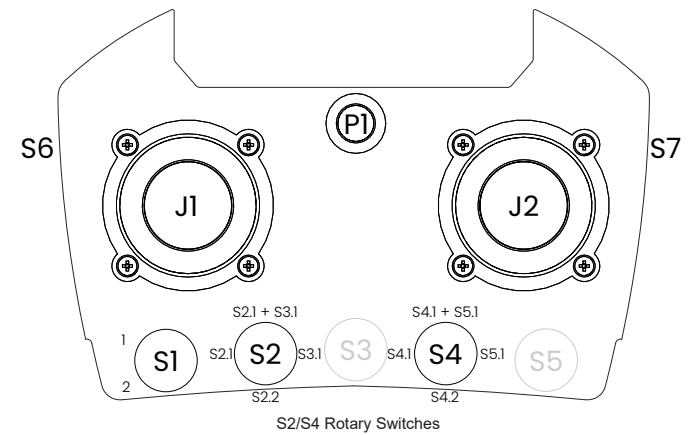
Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward speed 1	J1 Up	1st B5			1st B6				
	Y1		Bridge backward speed 1	J1 Down	1st B6			1st B5				
	Y2		Trolley left speed 1	J1 Left	1st B3			1st B3				
	Y3		Trolley right speed 1	J1 Right	1st B4			1st B4				
P21	Y4		Hoist down speed 1	J2 Up	1st B2			1st B1				
	Y5		Hoist up speed 1	J2 Down	1st B1			1st B2				
	Y6		Bridge forward speed 2	J1 Up	2nd B5			2nd B6				
	Y7		Bridge backward speed 2	J1 Down	2nd B6			2nd B5				
P27	Y8		Trolley 1/Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2/Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Trolley left speed 2	J1 Left	2nd B3			2nd B3				
	Y11		Trolley right speed 2	J1 Right	2nd B3			2nd B4				
	Y12		Hoist down speed 2	J2 Up	2nd B2			2nd B1				
	Y13		Hoist up speed 2	J2 Down	2nd B1			2nd B2				
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B / Signal**	S5.1	1st B7		SHIFT + B4	1st B9	1st B7		SHIFT + B4	1st B9

** B for Era 100 and Era 8B-9, signal for the other button transmitters.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		-	-
P3				
P2	2		-	-
P3				
P2	3		-	-
P3				
P2	4		-	-
P3				
P2	5		-	-
P3				
P2	6		-	-
P3				
P2	7		COM MOV	
P3				
P2	8		MC ON	
P3				
P6	9		X	S1.1
P8				
P7				
P6	10			S6
P8				
P7				
P6	11		TR2	S3.1
P8				
P7				
P6	12			S3.2
P8				
P7				
P6	13			S4.2
P7				
P6	14			S5.2
P7				
P6	15			S7
P7				
P6	16		Signal	P1 -
P7				



4.14 Program selection D

3 movements 2 step.
A/B/X/Y Function

Separate outputs for Hoist
down/up speed 1 and 2.

The direction output for bridge/trolley is also used as speed 1.
The bridge/trolley output for speed 1 is active even at speed 2.

Output for Hoist speed 1 disconnects at Hoist speed 2.

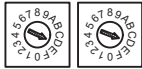
Similar:

2 (Y4/Y5 still active in speed 2)

6 (Movement similar but on other Y, Y4/Y5 still active in speed 2, MC ON)

A (delay 1s, Y4/Y5 still active in speed 2)

D (Y4/Y5 disconnects at speed 2)



Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down speed 1	J2 Up	1st B2			1st B1				
	Y5		Hoist up speed 1	J2 Down	1st B1			1st B2				
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist down speed 2	J2 Up	2nd B2			2nd B1				
	Y11		Hoist up speed 2	J2 Down	2nd B1			2nd B2				
	Y12		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y13		Signal / Y*	P1 -	2nd B8	1st B7		2nd B10	2nd B8	1st B7		2nd B10
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B / Signal**	S5.1	1st B7		SHIFT + B4	1st B9	1st B7		SHIFT + B4	1st B9

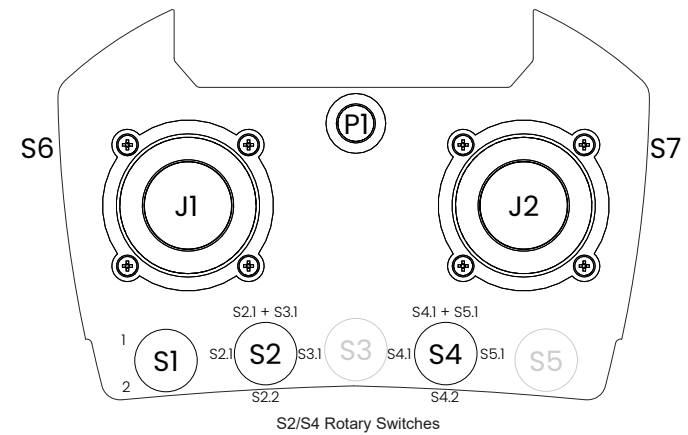
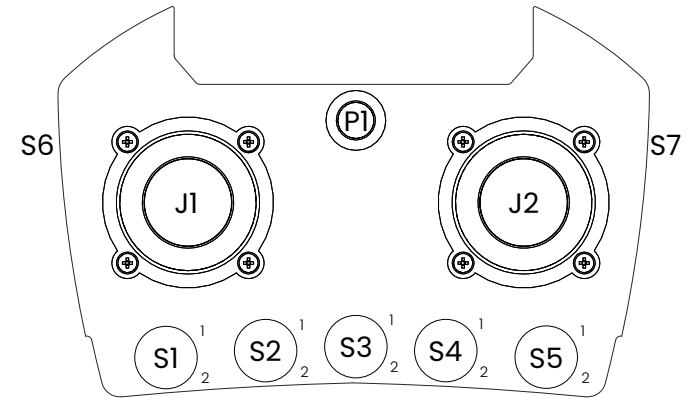
* Signal for Era 100 and Era 8B-9/-10, Function Y for Era 8B-8 and 10BD.

** B for Era 100 and Era 8B-9, signal for the other button transmitters.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		-	-
P3	2		-	-
P2	3		-	-
P3	4		-	-
P2	5		-	-
P3	6		-	-
P2	7		Com mov	
P3	8		MC ON	
P6	9		-	-
P8	10		-	S6
P7	11		-	S2.2
P6	12		-	S3.2
P7	13		-	S4.2
P6	14		-	S5.2
P7	15		-	S7
P6	16		Signal	P1 -



4.15 Program selection E

3 Movements 2-4 steps per movement.

X/A/B-Function, COM MOV.

Each movement has separate outputs for direction but common outputs for speed 2-4.

The directional output is also used as speed 1.

The output for a lower speed is active even at a higher speed.

Similar:

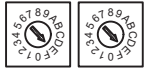
1 (Y12 Y), **4** (same Y0-Y10, MC ON),

10 (delay 1s, same Y0-Y10),

B (delay 1s, Y12 Y), **F** (same Y0-Y10, MC ON),

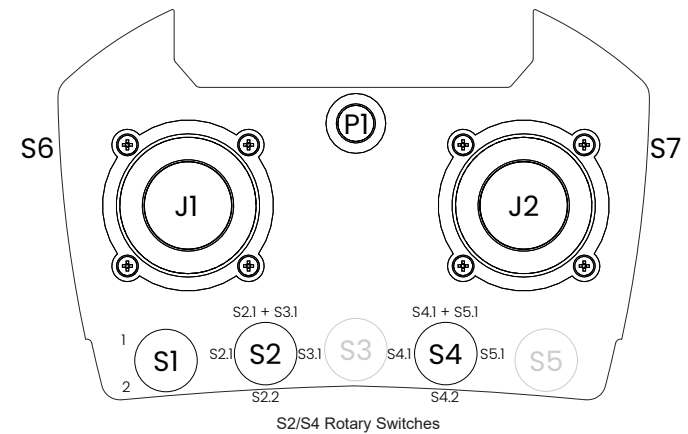
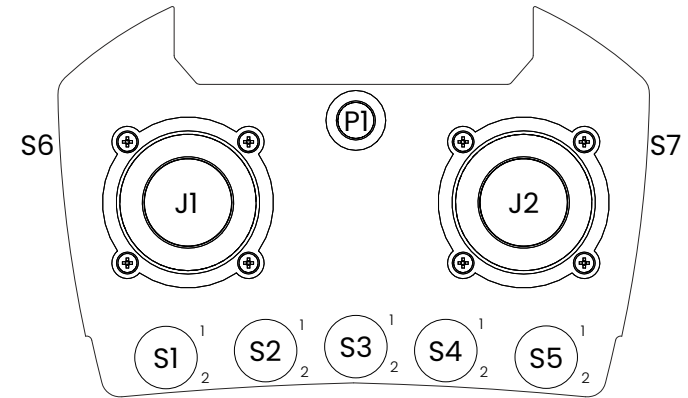


Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist speed 2	J2 Up/Down	2nd B2/B1			2nd B1/B2				
	Y11		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y12		COM MOV									
	Y13		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
P18	Y14		B	S5.1	-	-	SHIFT + B4	-	-	-	SHIFT + B4	-
	Y15		Signal	P1 -	1st B7			1st B9	1st B7			1st B9



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1	┌─┐	Bridge speed 3	J1 Up/Down
P3				
P2	2	┌─┐	Bridge speed 4	J1 Up/Down
P3				
P2	3	┌─┐	Trolley speed 3	J1 Left/Right
P3				
P2	4	┌─┐	Trolley speed 4	J1 Left/Right
P3				
P2	5	┌─┐	Hoist speed 3	J2 Up/Down
P3				
P2	6	┌─┐	Hoist speed 4	J2 Up/Down
P3				
P2	7	┌─┐	-	
P3				
P2	8	┌─┐	MC ON	
P3				
P6	9	┌─┐	-	
P8				
P7				
P6	10	┌─┐		S6
P8				
P7				
P6	11	┌─┐		S2.2
P8				
P7				
P6	12	┌─┐		S3.2
P8				
P7				
P6	13	┌─┐		S4.2
P7				
P6	14	┌─┐		S5.2
P7				
P6	15	┌─┐		S7
P7				
P6	16	┌─┐	Signal	P1 -
P7				



4.16 Program selection F

3 Movements 2-4 steps per movement.

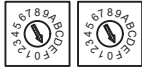
MC ON, COM MOV.
A/B-Function.

Each movement has separate outputs for direction but common outputs for speed 2-4.

The directional output is also used as speed 1. The output for a lower speed is active even at a higher speed.

Similar:

1 (same Y0-Y10, X), **4** (same Y0-Y11, X),
10 (delay 1s, same Y0-Y11, X),
B (delay 1s, same Y0-Y10, X),
E (same Y0-Y10, COM MOV)



Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist speed 2	J2 Up/Down	2nd B2/B1			2nd B1/B2				
	Y11		MC ON									
	Y12		COM MOV									
	Y13		Signal / Y*	P1 -	2nd B8	1st B7		2nd B10	2nd B8	1st B7		2nd B10
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B / Signal**	S5.1	1st B7		SHIFT + B4	1st B9	1st B7		SHIFT + B4	1st B9

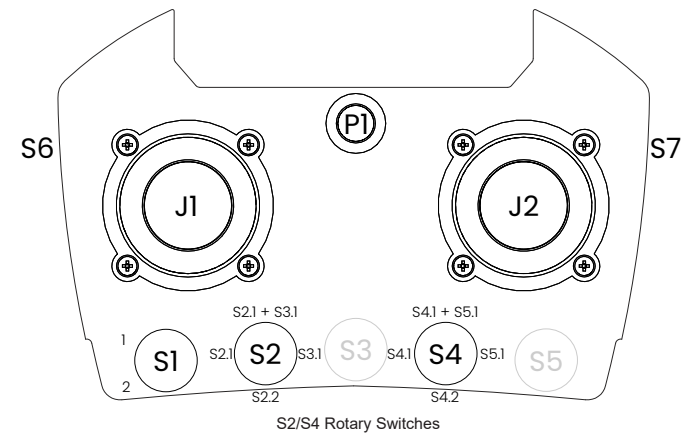
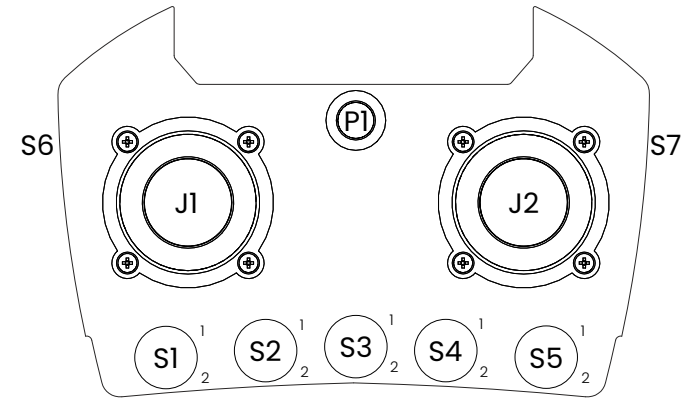
* Signal for Era 100 and Era 8B-9/-10, Function Y for Era 8B-8 and 10BD.

** B for Era 100 and Era 8B-9, signal for the other button transmitters.



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		Bridge speed 3	J1 Up/Down
P3				
P2	2		Bridge speed 4	J1 Up/Down
P3				
P2	3		Trolley speed 3	J1 Left/Right
P3				
P2	4		Trolley speed 4	J1 Left/Right
P3				
P2	5		Hoist speed 3	J2 Up/Down
P3				
P2	6		Hoist speed 4	J2 Up/Down
P3				
P2	7		-	
P3				
P2	8		-	
P3				
P6	9		X	S1.1
P8				
P7				
P6	10			S6
P8				
P7				
P6	11			S2.2
P8				
P7				
P6	12			S3.2
P8				
P7				
P6	13			S4.2
P7				
P6	14			S5.2
P7				
P6	15			S7
P7				
P6	16		Signal	P1 -
P7				



4.17 Program selection 10

3 Movements 2-4 steps. 1 second delay when changing direction.
A/B/X Function

Each movement has separate outputs for direction but common outputs for speed 2-4.

The directional output is also used as speed 1. The output for a lower speed is active even at a higher speed.

Movement Special is a relay that is active in speed 2 and 3 but not in speed 1 and 4.

Similar:

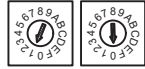
1 (no delay, same Y0-Y10, Y)

4 (no delay, same Y0-Y12)

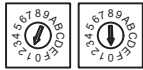
B (same Y0-Y10, Y)

E (no delay, same Y0-Y10, COM MOV)

F (no delay, same Y0-Y11, COM MOV)

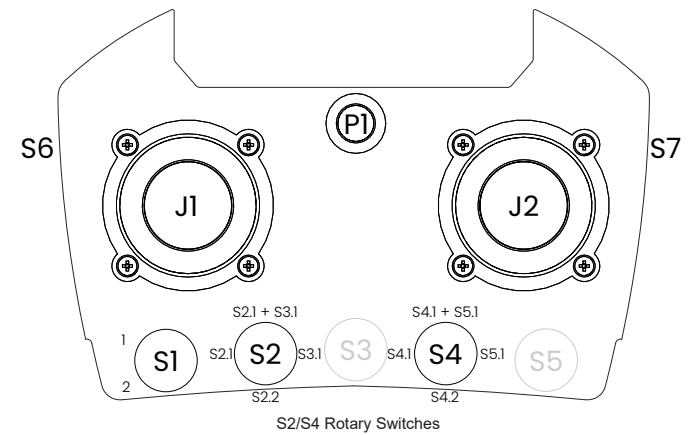


Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist down	J2 Up	B2			B1				
	Y5		Hoist up	J2 Down	B1			B2				
	Y6		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y7		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist speed 2	J2 Up/Down	2nd B2/B1			2nd B1/B2				
	Y11		MC ON									
	Y12		X	S1.1	2nd B7			2nd B9	2nd B7			2nd B9
	Y13		-									
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B	S5.1	-	-	SHIFT + B4	-	-	-	SHIFT + B4	-



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		Bridge speed 3	J1 Up/Down
P3				
P2	2		Bridge speed 4	J1 Up/Down
P3				
P2	3		Trolley speed 3	J1 Left/Right
P3				
P2	4		Trolley speed 4	J1 Left/Right
P3				
P2	5		Hoist speed 3	J2 Up/Down
P3				
P2	6		Hoist speed 4	J2 Up/Down
P3				
P2	7		Bridge special	J1 Up/Down
P3				
P2	8		Trolley special	J1 Left/Right
P3				
P6	9		Hoist special	J2 Up/Down
P8				
P7				
P6	10		COM MOV	
P8				
P7				
P6	11			S2.2
P8				
P7				
P6	12			S3.2
P8				
P7				
P6	13			S4.2
P7				
P6	14			S5.2
P7				
P6	15			S7
P7				
P6	16		Signal	P1 -
P7				



4.18 Program selection 12

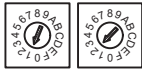
4 Movements 2-4 steps.
A/B/X Function, MC ON

Bridge/trolley movement has separate outputs for direction but
common outputs for speed 2-4.

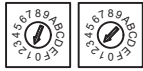
The directional output of bridge/trolley is also used as speed 1.
Separate output for hoist direction and speed 1.

Works best with 4-step joystick
and expansion board.

Hoist/Rotate movement has common outputs for direction and
for speed 2-4, separate outputs for direction for speed 1.

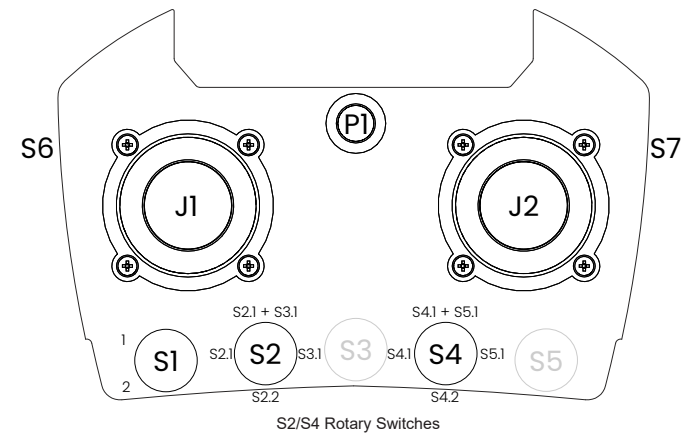
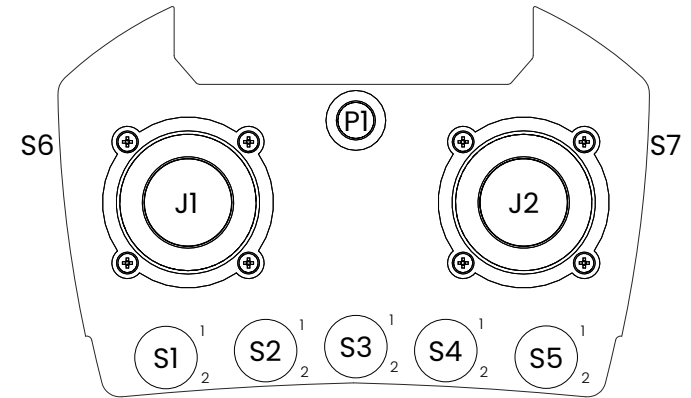


Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Hoist	J2 Up/Down	B2			B1				
	Y5		Rotate	J2 Left/Right	-			-				
	Y6		MC ON									
	Y7		X	S1.1	2nd B7		2nd B9	2nd B7			2nd B9	
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist down speed 1	J2 Up	B2			B1				
	Y11		Hoist up speed 1	J2 Down	B1			B2				
	Y12			S6								
	Y13		-									
P18	Y14		A	S4.1	-	-	SHIFT + B3	-	-	-	SHIFT + B3	-
	Y15		B	S5.1	-	-	SHIFT + B4	-	-	-	SHIFT + B4	-



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2 P3	1		Bridge speed 2	J1 Up/Down
P2 P3	2		Bridge speed 3	J1 Up/Down
P2 P3	3		Bridge speed 4	J1 Up/Down
P2 P3	4		Trolley speed 2	J1 Left/Right
P2 P3	5		Trolley speed 3	J1 Left/Right
P2 P3	6		Trolley speed 4	J1 Left/Right
P2 P3	7		Hoist speed 2	J2 Up/Down
P2 P3	8		Hoist speed 3	J2 Up/Down
P6 P8 P7	9		Hoist speed 4	J2 Up/Down
P6 P8 P7	10		Rotate CCW speed 1	J2 Left
P6 P8 P7	11		Rotate CW speed 1	J2 Right
P6 P7	12		Rotate speed 2	J2 Left/Right
P6 P7	13		Rotate speed 3	J2 Left/Right
P6 P7	14		Rotate speed 4	J2 Left/Right
P6 P7	15			S7
P6 P7	16		Signal	P1 -



4.19 Program selection 13

4 Movements 2-4 steps. Bridge/Trolley movement has separate outputs for direction. Hoist and Rotate has common outputs for direction. All movements has common outputs for speed 2-4.

The directional output of bridge/trolley is also used as speed 1. Separate output for Hoist/Rotate direction och speed 1.

The output for a lower speed is active even at a higher speed.

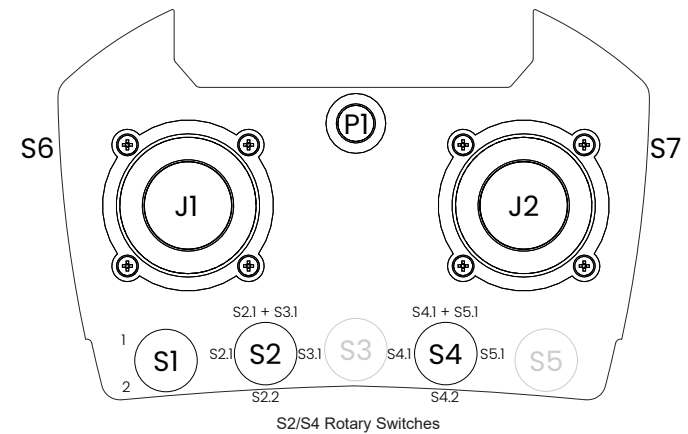
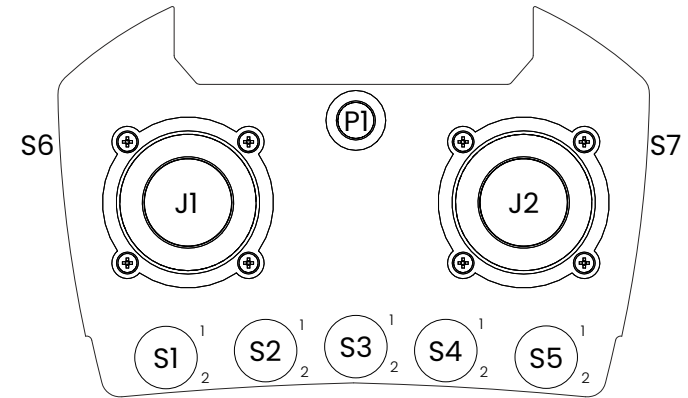


Terminal	Connector	Cable part	Function	Era 100	8B N/CS	8B N/CS -10	8B N/CS -9	10 BD N/CS	8B DIN	8B DIN -10	8B DIN -9	10BD DIN
P15	Y0		Bridge forward	J1 Up	B5			B6				
	Y1		Bridge backward	J1 Down	B6			B5				
	Y2		Trolley left	J1 Left	B3			B3				
	Y3		Trolley right	J1 Right	B4			B4				
P21	Y4		Lyft	J2 Up/Down	B2			B1				
	Y5		Rotate	J2 Left/Right	-			-				
	Y6		Rotate CCW	J2 Left	-			-				
	Y7		Rotate CW	J2 Right	-			-				
P27	Y8		Trolley 1 / Selection 1	S2.1	-	SHIFT + B5		B7	-	SHIFT + B5	SHIFT + B5	B7
	Y9		Trolley 2 / Selection 2	S3.1	-	SHIFT + B6		B8	-	SHIFT + B6	SHIFT + B6	B8
P20	Y10		Hoist down	J2 Up	B2			B1				
	Y11		Hoist up	J2 Down	B1			B2				
	Y12		Bridge speed 2	J1 Up/Down	2nd B5/B6			2nd B6/B5				
	Y13		Trolley speed 2	J1 Left/Right	2nd B3/B4			2nd B3/B4				
P18	Y14		Hoist speed 2	J2 Up/Down	2nd B2/B1			2nd B1/B2				
	Y15		Rotate speed 2	J2 Left/Right	-			-				



- RX161 Expansion board

Terminal	Connector	Cable part	Function	Joystick
P2	1		Bridge speed 3	J1 Up/Down
P3				
P2	2		Bridge speed 4	J1 Up/Down
P3				
P2	3		Trolley speed 3	J1 Left/Right
P3				
P2	4		Trolley speed 4	J1 Left/Right
P3				
P2	5		Hoist speed 3	J2 Up/Down
P3				
P2	6		Hoist speed 4	J2 Up/Down
P3				
P2	7		Rotate speed 3	J2 Left/Right
P3				
P2	8		Rotate speed 4	J2 Left/Right
P3				
P6	9		A	S4.1
P8				
P7				
P6	10		B	S5.1
P8				
P7				
P6	11			S2.2
P8				
P7				
P6	12		X	S1.1
P8				
P7				
P6	13			S4.2
P7				
P6	14			S5.2
P7				
P6	15			S7
P7				
P6	16		Signal	P1 -
P7				



5 Overview transmitter

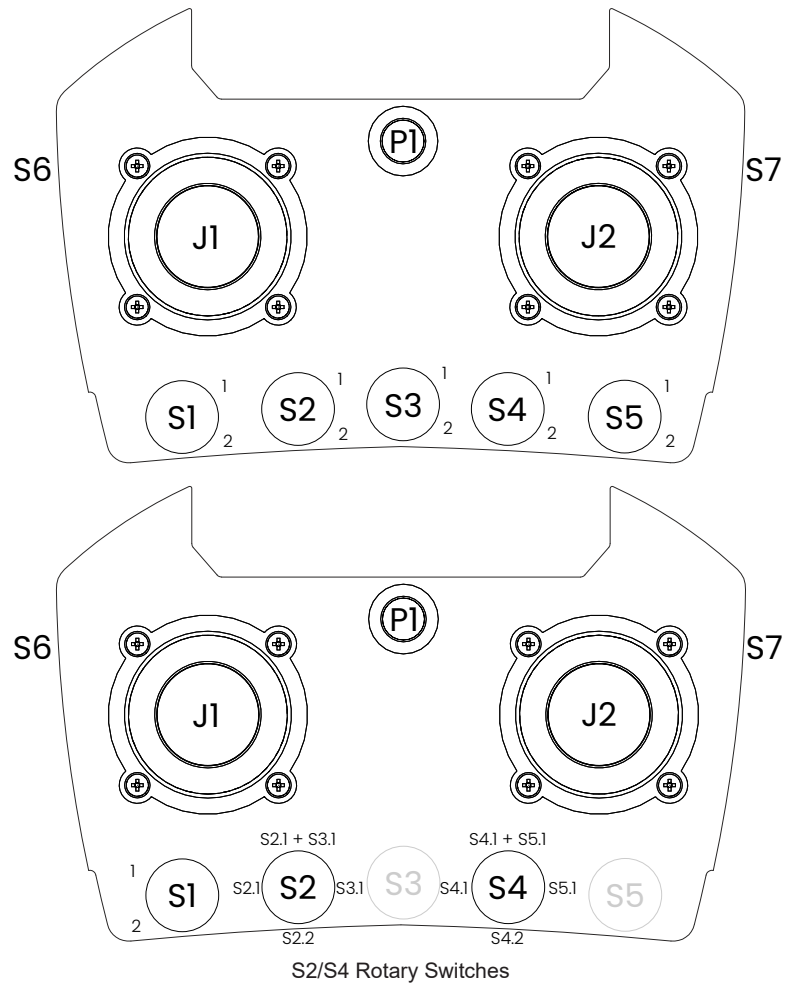


Figure 1. Numbering and positions of switches Era 100

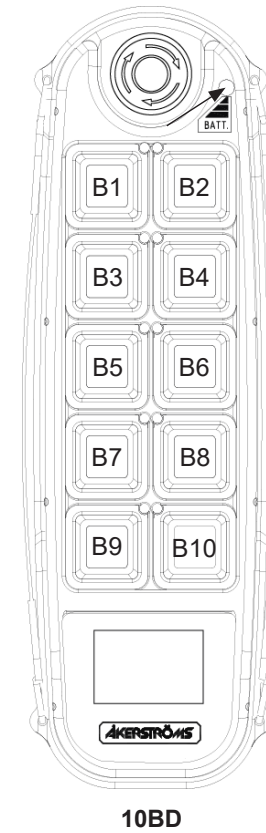


Figure 2. Numbering buttons 10BD

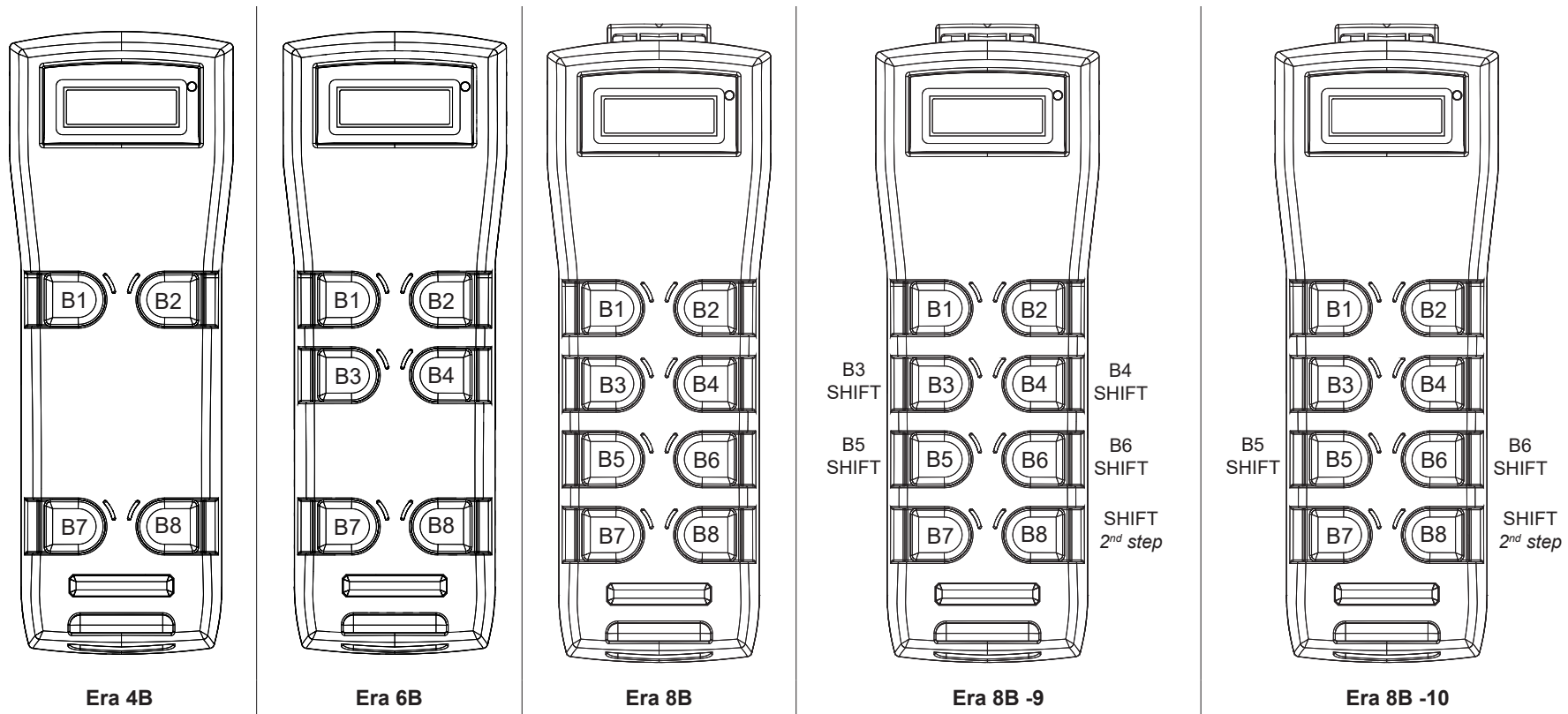


Figure 3. Numbering buttons Era 4B/6B/8B/8B-9/8B-10



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