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Project: Control unit „105; 105A; i105; 205A; i205; i305“

Project leader:

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Programming



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1 General

With the control unit you can operate hinged lip and telescopic lip levelers. With this short description you are able to configure the control unit.

Use for the programming the service tool article- nr.: DS0290020

2 Programming control unit

2.1 Start programming

For starting the programming mode you have to close the door. The control unit needs a feedback on the terminal X05.

2.1.1 Open programming menu

- Switch off control unit or lock emergency stop push button
- Press programming button „2“
- Switch on control unit or unlock emergency stop button with pressed programming button „2“
- Approx. 5s later P00 appears on the display
- Now the control unit is ready for programming

2.1.2 Select program no.

- Press programming button „1“ as often as necessary until the wished no. Of the program is indicated, counting upwards from **P00 to P99**.
- By actuating the programming button „3“ it is possible to scroll backwards

2.1.3 Confirm program no.

- If the wished program no. Is indicated, press the programming button „2“ once. The subprogram of the selected program no. flashes

2.1.4 Select subprogram no.

- Press programming button „1“ as often as necessary until the wished subprogram no. Of the program is indicated, counting upwards from **U00 to U99**.
- By actuating the programming button „3“ it is possible to scroll backwards

2.1.5 Confirm subprogram no.

- If the wished subprogram no. Is indicated, press programming button „2“ once. The selected program no. is indicated
- The selected subprogram no is stored

either

Select new program no. and change subprogram no. accordingly

or

2.2 Finish programming by

- Press Programming button „2“ for 5s
- The display shows the actual operation condition

Note!

If in the programming mode no push button is pressed anymore for 60s, the changed settings will be reset and the control unit will leave the programming mode automatically.

3 Error messages

3.1 Reading error messages

This part describes how to start the reading of the last 10 error messages of the control unit

3.1.1 Start reading

- Switch off control unit or lock the emergency Stop button, close door
- Press programming button „2“
- Switch on control unit with pressed programming button „2“ or unlock the emergency stop button
- Approx. 5s later **P00** appears on the display
- The control unit is ready for programming

3.1.2 Select program no.

- Press programming button „1“ as often as necessary until the wished no. of the program is indicated, counting upwards in this case **P50**
- By actuating the programming button „3“ it is possible to scroll backwards

3.1.3 Confirm subprogram no.

- If the wished subprogram no. is indicated, press programming button „2“ once. The last error message appears (for example F01), after the error message appears the storage space **U01**
- The control unit is in the program mode error message
- You can scroll with the programming „1“ through the error list from the beginning to the end. At the end **U10** appears
- The last error is indicated first
- A free error space without an error message the display shows --

3.1.4 Finish reading

- When **PXX** is indicated, press programming button „2“ once
- The pre selected program no. **P50** appears

either

Select a new program no. and change the subprogram no. according to it.

or

3.2 Finish programming

- Press programming button „2“ for 5s
- In the display the operation condition is shown accordingly

Note!

If in the programming mode no push button is pressed for 60s, the changed settings will be reset and the control unit will leave the programming mode automatically.

4 Operating cycles

4.1 Reading operating cycles

This part describes how to start the reading of the operating cycles of the control unit

4.1.1 Start reading

- Switch off control unit or lock the emergency Stop button, close door
- Press programming button „3“
- Switch on control unit with pressed programming button „3“ or unlock the emergency stop button
- Approx. 5s later **S10** appears on the display
- The control unit is ready for reading operating cycles

4.1.2 Select operating cycles

- Press the programming button „1“ as often as necessary until the wished operating cycles is indicated, counting upwards
- **S11** - operating cycles dock leveler
- **S12** - operating cycles door
- **S13** - operating cycles inflatable shelter

4.1.3 Select operating cycles

- If the wished operating cycle is indicated, press programming button „3“ once. The display shows flashing --
- Press programming button „1“ once, the number starts automatically from left to right. A number with 8 digits will follow
- At the end of the number the display shows --
- By pressing the programming button „1“ once again, the number starts a second time
- By pressing the programming button „3“ the display shows the pre selected operating cycles no.

4.2 Finish operating cycles

- Select **S10**
- Press programming button „3“ 5s
- the display shows the operating cycles accordingly

Note!

If in the programming mode no push button is pressed for 60s, the changed settings will be reset and the control unit will leave the programming mode automatically.

5 Select inflatable shelter On/ Off

This part describes how to choose the function inflatable shelter on/ off . This function is only for the control unit „i305“. For this the service tool is not necessary.

5.1 Function inflatable shelter On

- Dock leveler in resting position and door closed
- Press push button door „STOP“ 5s
- The two LED´s on the control units are flashing at the same time
- Release push button door „STOP“
- Press push button „AUTO“
- On the display appears **S00**

- Release push button „AUTO“
- The function inflatable shelter On is stored

5.2 Function inflatable shelter Off

- Dock leveler in resting position and door closed
- Press push button door „STOP“ 5s
- The two LED´s on the control units are flashing at the same time
- Release push button door „STOP“
- Press push button „AUTO“
- On the display appears **S01**
- Release push button „AUTO“
- The function inflatable shelter Off is stored

6 Choose interlocking door

This part describes how to choose the function interlocking door. The function of interlocking door has two possibilities. It is possible to use a limit switch or a photocell for the interlocking.

The description is only for control units “105”, “105A” and “205A”.

6.1 Choose limit switch

- Replace the cable bridge on terminal X13 on pin 4 and 5



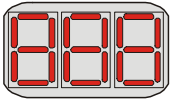
6.2 Choose photocell

- Insert a cable bridge on terminal X13 pin 4 and 5

Note!

The programming in the programming mode P05 has no influence on this.

7 Indication on display

description	Function	symbol
Error and maintenance indication	Maintenance: Symbol lights if the control units reach the adjusted maintenance cycles. Error message: Symbol flashes if an error appears.	
Error and maintenance indication	Function: The symbol light if the dock leveler is not ready for use. Error message: Symbol flashes if an error appears.	
Error and maintenance indication	Function: The display shows the actual status of the loading bay. Error message: The display shows the actual error code.	

8 Index program number/ subprogram

Program menu	Subprogram	Description
P00	U00	Dock leveler hinged lip
	U01	Dock leveler telescopic lip
P01	U00	Push button door not active
	U01	Push button door active
P02	U00	Door function hold to run
	U01	Door function impulse
P03	U00	Inflatable shelter not active
	U01	Inflatable shelter active
	U02	Inflatable shelter with Rollo active
P04	U00	Interlocking door/ leveler by limit switch
	U01	Interlocking door leveler by photocell
P05	U00	Motor power 2,6A
	U01	Motor power 3,2A
	U02	Motor power 3,8A
	U03	Motor power 4,4A
	U04	Motor power 5,0A
	U05	Motor power 5,6A
	U06	Motor power 6,2A
	U07	Motor power 6,8A
	U08	Motor power 7,4A
	U09	Motor power 8,0A
	U10	Motor power 8,6A
	U11	Motor power 9,2A
P06	U00	Maintenance cycle 1000
	U01	Maintenance cycle 1500
	U02	Maintenance cycle 2000
	U03	Maintenance cycle 2500
	U04	Maintenance cycle 3000
	U05	Maintenance cycle 3500
	U06	Maintenance cycle 4000
	U07	Maintenance cycle 4500
	U08	Maintenance cycle 5000
	U09	Maintenance cycle 5500
	U10	Maintenance cycle 6000
P10	U00	Lift/ lip out 5,0s
	U01	Lift/ lip out 7,0s
	U02	Lift/ lip out 9,0s
	U03	Lift/ lip out 11,0s
	U04	Lift/ lip out 13,0s

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	U05	Lift/ lip out 15,0s
	U06	Lift/ lip out 17,0s
	U07	Lift/ lip out 19,0s
P11	U00	Lip in 5,0s
	U01	Lip in 8,0s
	U02	Lip in 11,0s
	U03	Lip in 14,0s
	U04	Lip in 17,0s
	U05	Lip in 20,0s
P12	U00	Automatic time 3,0s
	U01	Automatic time 5,0s
	U02	Automatic time 7,0s
	U03	Automatic time 9,0s
	U04	Automatic time 11,0s
	U05	Automatic time 13,0s
	U06	Automatic time 15,0s
	U07	Automatic time 20,0s
	U08	Automatic time 25,0s.
	U09	Automatic time 30,0s
P13	U00	Automatic retraction 0,0s
	U01	Automatic retraction 0,2s
	U02	Automatic retraction 0,4s
	U03	Automatic retraction 0,6s
	U04	Automatic retraction 0,8s
	U05	Automatic retraction 1,0s
	U06	Automatic retraction 1,2s
	U07	Automatic retraction 1,4s
	U08	Automatic retraction 1,6s
	U09	Automatic retraction 1,8s
	U10	Automatic retraction 2,0s
P14	U00	Delay door opens 0,0s
	U01	Delay door opens 5,0s
	U02	Delay door opens 10,0s
	U03	Delay door opens 15,0s
	U04	Delay door opens 20,0s
	U05	Delay door opens 25,0s
	U06	Delay door opens 30,0s
P15	U00	Delay inflatable shelter „OFF“ 0,0s
	U01	Delay inflatable shelter „OFF“ 5,0s
	U02	Delay inflatable shelter „OFF“ 10,0s
	U03	Delay inflatable shelter „OFF“ 15,0s
	U04	Delay inflatable shelter „OFF“ 20,0s
	U05	Delay inflatable shelter „OFF“ 25,0s
	U06	Delay inflatable shelter „OFF“ 30,0s

Programming

P20	001	Address 001 control unit communication
	002	Address 002 control unit communication
	:	:
	256	Address 256 control unit communication
P50	U01	F01 – over current hydraulic motor L1
	U02	F02 – over current hydraulic motor L2
	U03	F03 – over current hydraulic motor L3
	U04	F04 – phase sequence/ feedback signal contactor
	U05	F05 – error Y1 defect
	U06	F06 – error Y2 defect
	U07	F07 – error Y1 is missing
	U08	F08 – error Y2 is missing
	U09	F09 – error RAM test
	U10	F10 – error Flash Test
		F11 – error push button
		F12 – motor current detection defect
		F13 – control voltage 24 V/ DC defect
P99	U00	Factory settings hinged lip
	U01	Factory settings telescopic lip