



R&M

MATERIALS HANDLING

Commissioning

Start-up

- 1) Check if the supply control voltage complies with the rated control voltage of the unit.
- 2) Check if all electrical connections are done according to the delivered electrical diagrams.
- 3) Switch the power on.
- 4) Check if the hoists control method complies with the application (inverter control or two-speed control) with parameter 4-8.
- 5) make sure there is no load in the hook. Run the hoist in directions, slow speed and full speed for at least five seconds. Check that no messages appear on the display.
- 6) Select parameter 1-2-1 "Act. Load" and make sure there is no load in the hook. Run the hoist in directions, slow speed and full speed and check the load display. The display should show "0.0t" $\pm 5\%$ (10% in slow speed in two-speed applications).
- 7) Select parameter 1-2-1 "Act. Load" and attach a known test load to the hook in the range of 80...130% of the rated load of the hoist. Set parameter 3-5 "OL protect" to "OFF", in order to temporarily by-pass the overload protection. Run the hoist in directions, slow speed and full speed and check the load display. The display should show the value of the test load $\pm 5\%$
- 8) Set parameter 3-5 to "ON", or switch off and on the power supply to the hoist-monitoring unit

When either of the measurements done under step 6 or 7 does not result in the required outcome, the load calibration procedure has to be carried out. Refer to the section **"Load calibration sequence with sensor"** of this manual for instructions.

"Load calibration sequence with motor torque" is only used in special circumstances; please contact tech support for instructions on motor torque if needed.



When local regulations require a dynamic true overload test, follow the procedure as described by the local legislation.



When local regulations require a static overload test (125...140% of rated load of the hoist), temporarily by-pass the overload function with parameter 3-5 ("OFF"). Be aware of mechanical restrictions and additional mechanical overload switches!



R&M

MATERIALS HANDLING

Functional checks


Check the function of the installed features.

Multi hoisting

- 1) Set parameter 4-11-1 to "1" and carry out the start-up procedure for the single hoist as described above in ***"Start-up"***
- 2) Set parameter 4-1-1 back to "n" (where "n" is the number of unit connected to the CAN-bus).
- 3) Check the load display of all connected hoists via one unit. Refer to section ***"Sum load / solo hoist load mode"*** of this manual for instructions.

When either of the measurements done under step 1 or 3 does not result in the required outcome, the load calibration procedure has to be carried out. Refer to the section ***"Load calibration sequence with sensor"*** of this manual for instructions.

Slack rope protection

- 1) Lower the hook carefully in slow speed onto a stable platform.
 - 2) The motion should stop.
-  **Pay attention to the rope coming from the drum. Make sure the rope does not jump out of the drum-grooves.**
- 3) Drive carefully in slow speed upwards, while guiding the rope coming from the drum by hand.
 - 4) If a slack rope by-pass switch is installed, check the function of it.

Intermediate load limits

- 1) Attach a test load (greater than the intermediate load limit(s)) to the hook.
- 2) Select the first intermediate load limit
- 3) Shift the display into actual load mode
- 4) Drive in slow speed upwards and monitor the value shown on the display
- 5) The motion should stop when the load exceeds the set limit.
- 6) In case there are more than one intermediate load limits installed, repeat step 3...5 for the second (and third) intermediate load limits.



R&M
MATERIALS HANDLING

Run time and start counter for trolley and bridge

- 1) Select parameter 1-1-8
- 2) Start to drive the trolley (or bridge) several times
- 3) Check that the value shown with the parameter increases by one after each start.
- 4) Select parameter 1-1-10
- 5) Start to drive the bridge (or trolley) several times
- 6) Check that the value shown with the parameter increases by one after each start.

Leveling function

- 1) Drive one of the hooks higher upwards than the other(s)
- 2) Select common hoisting with the selector switch on the control station
- 3) Drive all hooks upwards to the upper limit
- 4) When the highest hook stops, the other(s) should continue until the hooks are balanced

Load tare

- 1) Hang a load in the hook
- 2) check the display in tare load mode (yellow LED is illuminated)
- 3) Push the "tare load" switch on the control station
- 4) The value on the display should change to "0.0t"



R&M

MATERIALS HANDLING

10.3 Commissioning table

Read the below parameters from the display and write them down in the table



Keep this sheet in a safe place for future reference.

Hoist serial number:
 Hoist monitoring unit serial number:

Date:
 Name:

Param.	Name	Value
0-2	Hoist name	
1	Monitor 1	
1-2-4	Supply L1	
1-2-5	Supply L2	
1-2-6	Supply L3	
1-2-16	Supply f	
2	Monitor 2	
2-1	SW version	
3	Load setup	
3-2-1	Load 1	
3-2-2	Mhs1	
3-2-3	Mhf1	
3-2-4	Mls1	
3-2-5	Mlf1	
3-2-6	Load 2	
3-2-7	Mhs2	
3-2-8	Mhf2	
3-2-9	Mls2	
3-2-10	Mlf2	
3-4-1	Load 1	
3-4-2	Input 1	
3-4-3	Load 2	
3-4-4	Input 2	
4	Start-up	
4-1-1	MF11 oper.	
4-1-2	MF11 IntL	
4-1-3	MF11 2OLL	
4-1-4	MF11 CintL	
4-2-1	MF12 oper.	
4-2-2	MF12 IntL	
4-2-3	1+2 IntL	
4-2-4	MF12 2OLL	
4-2-5	MF12 CintL	
4-2-6	1+2 CintL	

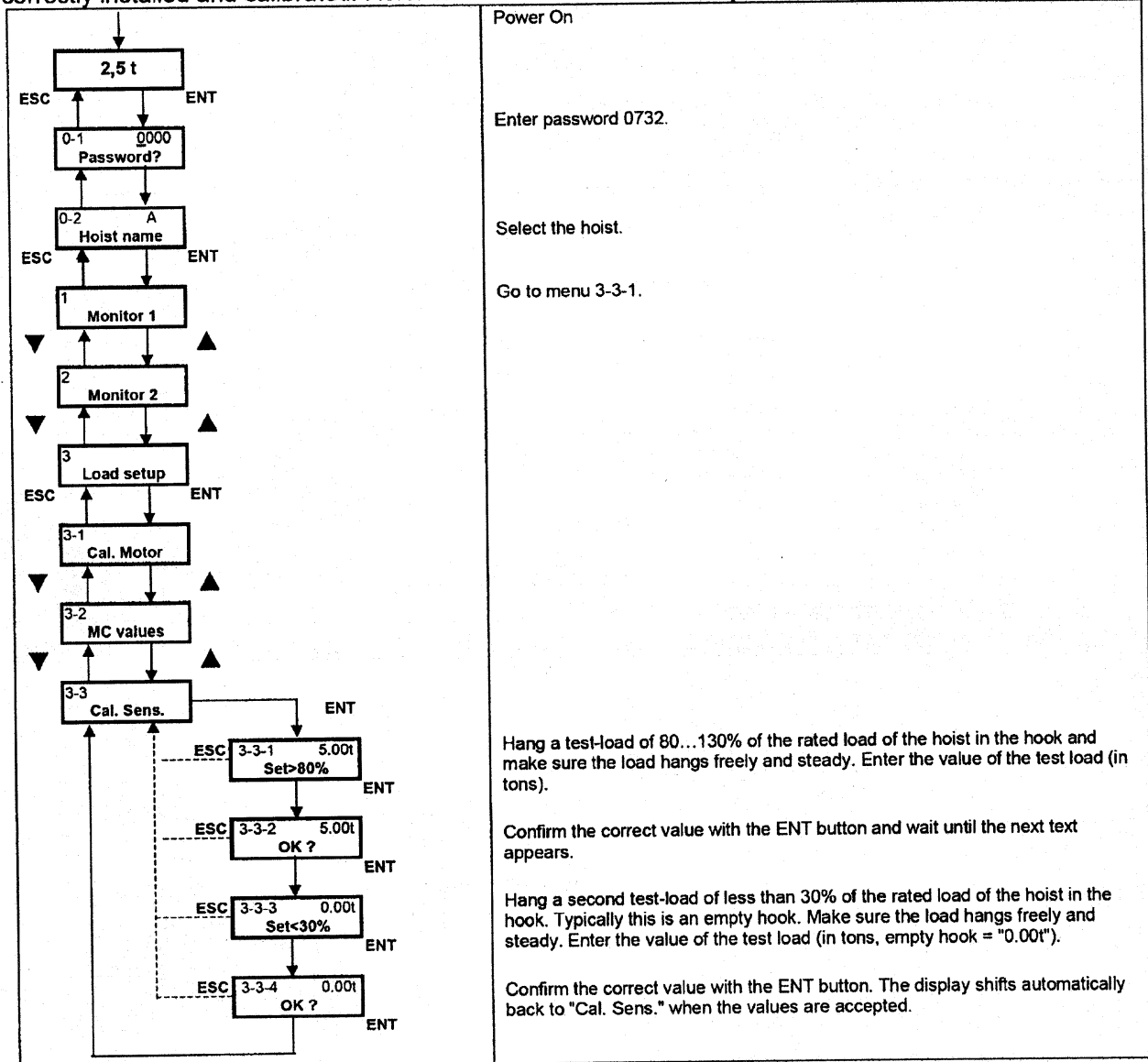
Param.	Name	Value
4	Start-up	
4-3-1	ROUT oper.	
4-3-2	ROUT logic	
4-3-3	ROUT LoadX	
4-3-4	TempX meas	
4-3-5	TempX lim	
4-4-1	T1 operat.	
4-5-1	T2 operat.	
4-6-1	AOUT oper.	
4-6-2	Zero load	
4-6-3	Nom. Load	
4-7-1	Load meas.	
4-7-2	Load rate%	
4-7-3	R0_F	
4-7-4	R0_S	
4-7-5	T0	
4-7-6	Temp_slow	
4-7-7	Temp_fast	
4-7-8	C2F	
4-7-9	C2S	
4-7-10	C1F	
4-7-11	C1S	
4-7-12	ki	
4-7-13	Acc-t slow	
4-7-14	Acc-t fast	
4-8	Hoist ctrl	
4-9-1	SR select	
4-9-2	Load limit	
4-10-1	OT run ?	
4-10-2	OT limit	
4-10-3	Supply sup	
4-11-1	Hoist cnt	
4-11-2	Run sup.	
4-11-3	B OL	
4-11-4	B nom load	

The hoist-monitoring unit has been tested and proven fully functional.



15 Load calibration sequence with sensor

Before carrying out the calibration procedure, make sure that the load sensor amplifier (if present) is correctly installed and calibrated. Refer to the section **"ESD142 amplifier"** of this manual for instructions.



Run the calibration sequence according to the display instruction.



When the calibration is done, write down the load setup values of parameters 3-4-1, 3-4-2, 3-4-3 and 3-4-4 in the commissioning table.



R&M
MATERIALS HANDLING

5/3/2010

TECHNICAL TIP - CID setup for 125% load testing

Enter password **0732**

Press enter

Text "**Load Setup**" should appear on display and a **3** should be in the upper left corner

Press enter

Press up arrow 4 times until parameter **3-5 (OL protect)** is displayed.

Press enter

Text "**ON**" is displayed

Press up arrow

Text "**OFF**" is displayed

Press esc 2 times

The overload test must be completed within 30 minutes.

After overload test repeat the above steps to turn overload protection back on or simply cycle hoist power off and on to turn protection back on.