
 your partner for lifting solution	Hydroelite 3G-1 <b>Quick Start</b> Drive- and Control System		
		2014-10-20	Release: 10.1
IGF Link Pty Ltd	INSTALLATION	FE/LAK	Page 1/12

# Quick Start

**Veni**



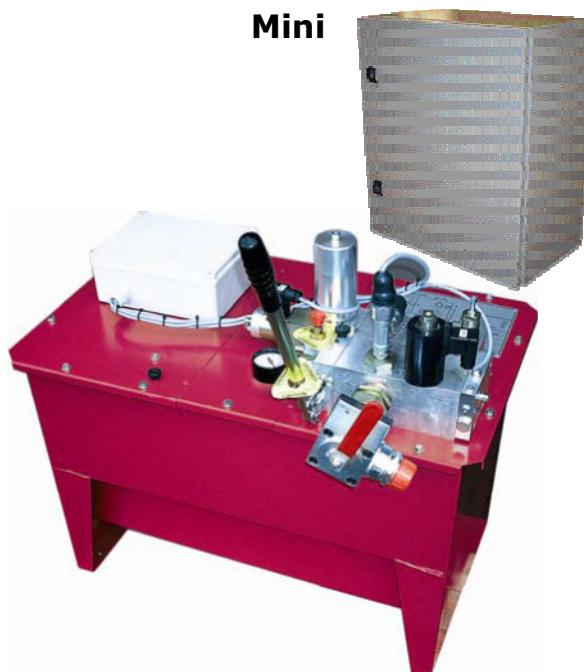
**Vidi**



**MRL**



**Mini**



### Before installation

- Verify that the correct material is delivered (quantities, dimensions etc) according to the packing list.
- Verify that the inside of the tank is clean and free from water.

If anything is missing or incorrect, contact IGF Link immediately.

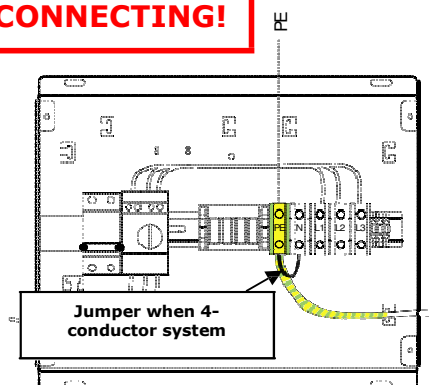
### MOUNTING ORDER

**WARNING! THERE MUST NOT BE ANY VOLTAGE WHEN CONNECTING!**

See last page for additional documents

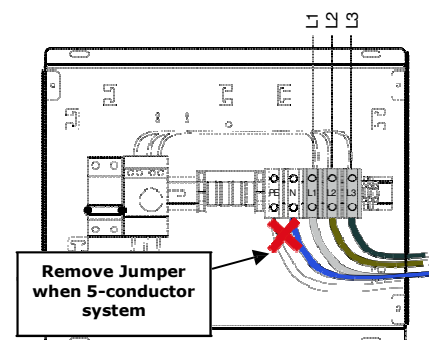
1. Place the hydraulic unit in the machine room and fill it with the supplied hydraulic oil.
2. Connect incoming ground (PE) to the Connection box (or to the Control unit if the Connection box is excluded).

Verify all ground wirings in Connection box and Control unit.



**Pic.2:** Connect incoming ground to the Connection box

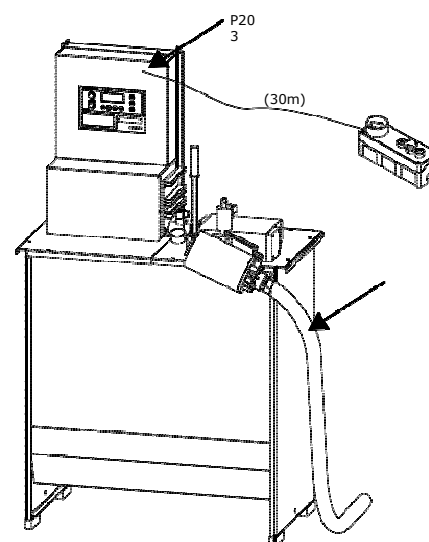
3. Connect the 3 incoming main phases.  
(+ ev. neutral but if so, remove the jumper between incoming ground (PE) and neutral (N) and measure the resistance between PE-N. It shall be less than 10Ω. If not, contact the Housekeeper before continued work.)



**Pic.3:** Connect incoming main phases

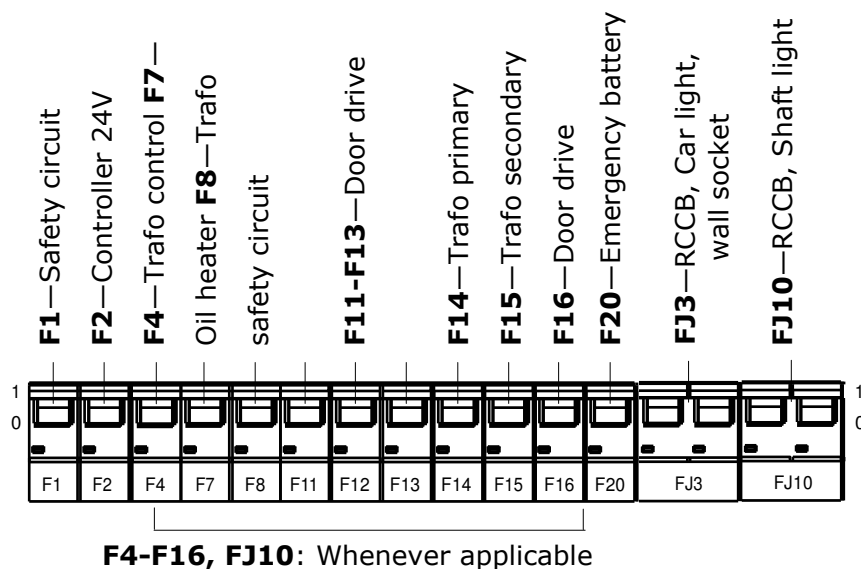
4. Connect the oilhose with the shut-off valve and connect the recall handle\* to terminal P203.

\* The recall handle is not included in the delivery, it is a installation tool. Order from Hydroware, art.nr.: 1200024  
When necessary, the handle on the Cabin node can be used.



**Pic.4:** Connect recall handle and hydraulic hose (Veni)

- 5.** Switch on the voltage for the first time.  
 (Main switch + fuses F1, F2 and F4, F8 when applicable).

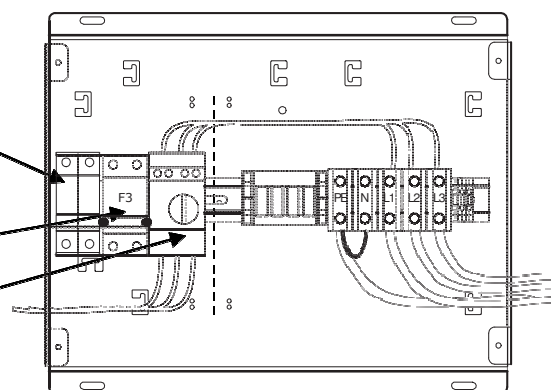


**Pic.5.1:** Fuses in Control unit

Depending on the Lift configuration variations with more fuses may occur

F3—Car light

Main switch

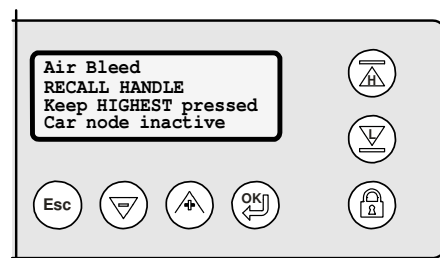


**Pic.5.2:** Fuses in Connection box

**Tip!** The tube to the Connection box is movable to the other short side. A piece of the tube may then have to be cut in order to obtain sufficient length of wiring.

- 6.** Airbleed the system (Menu 4.1).  
 (See **21.** for Control panel overview)

Loosen the airbleed screw on the lift cylinder and run with Higherst button on recall handle, until oil is coming.

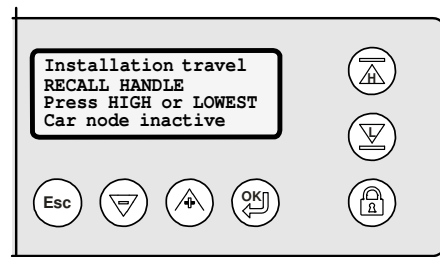


**Pic.6:** Menu 4.1 - Airbleed

- 7.** Test run the lift with the recall handle (Menu 4.2).

The speed can be set in 5.7.1.2 (for up-travels) and 5.7.2.2 (for down-travels).

(Higher value = Higher speed)  
 (Lower value = Lower speed)

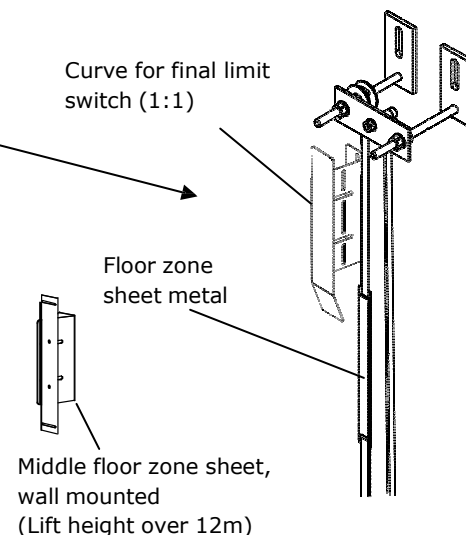


**Pic.7:** Menu 4.2 - Installation travel

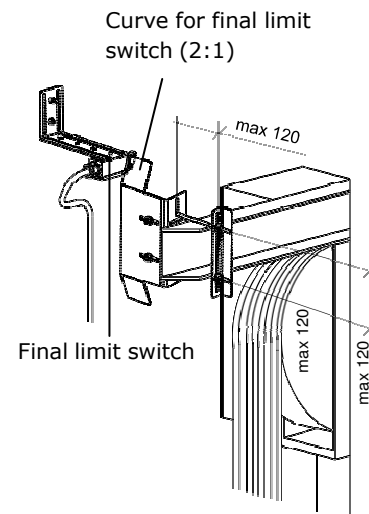
- 8.** Mount shaft wiring, shaft information, landing zones, pit control box and ev. stop button. Mount the shaft wiring so door machinery (if any) would not collide with landing zones or shaft wiring. Exchange old wiring if necessary.

See doc. **T10129** for recommended fasteners.

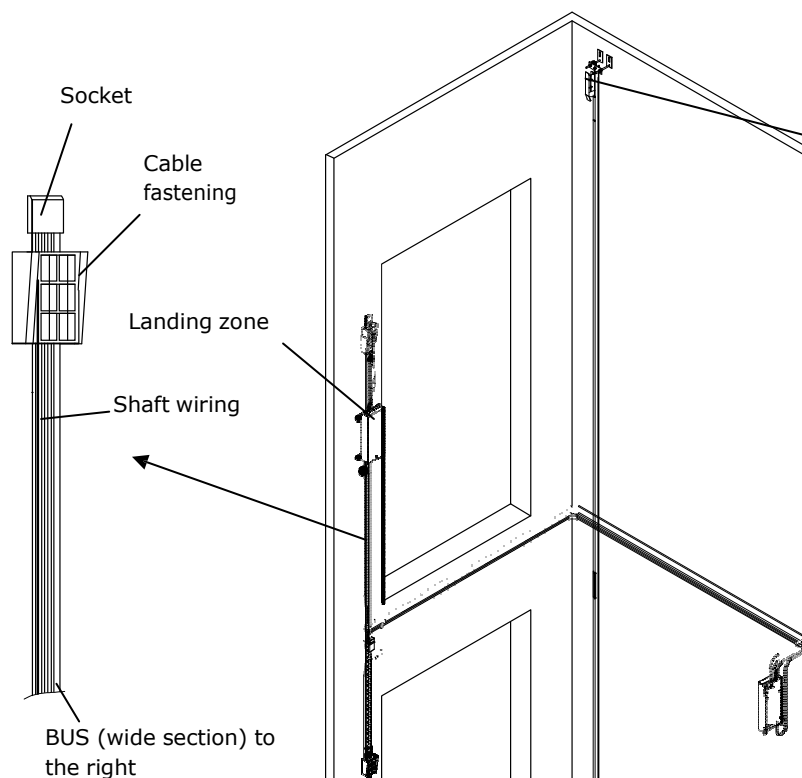
**Pic. 8.2:** Shaft information—Top fixing



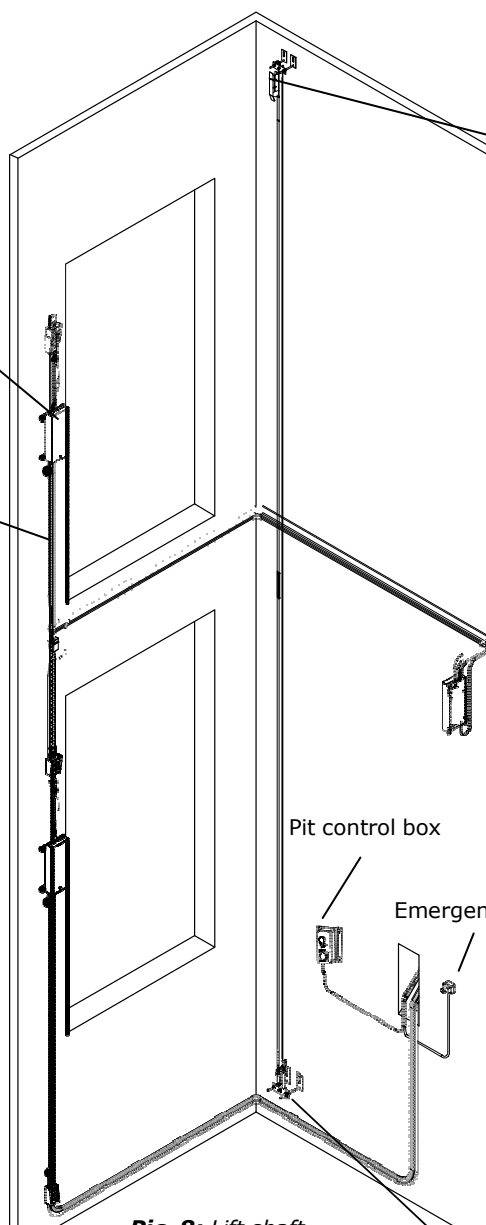
**Pic.8.2A:** Final limit switch mounted on the roof



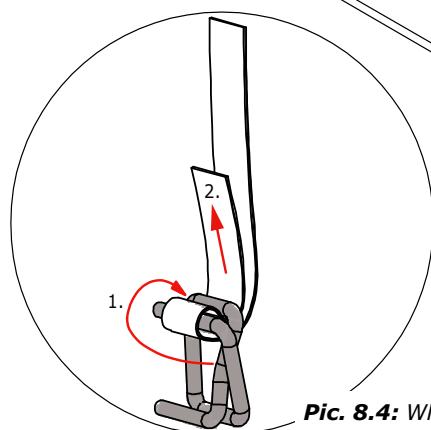
**Pic. 8.2B:** Final limit switch mounted on wall



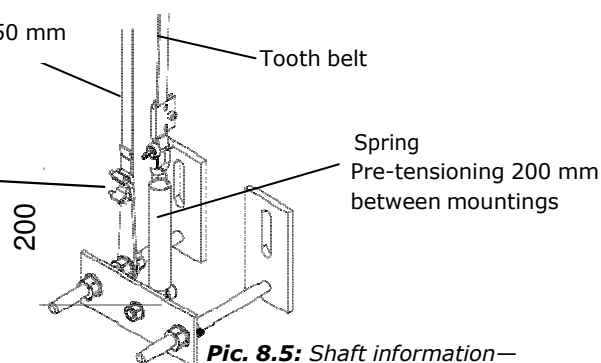
**Pic. 8.1:** Shaft wiring



**Pic. 8:** Lift shaft



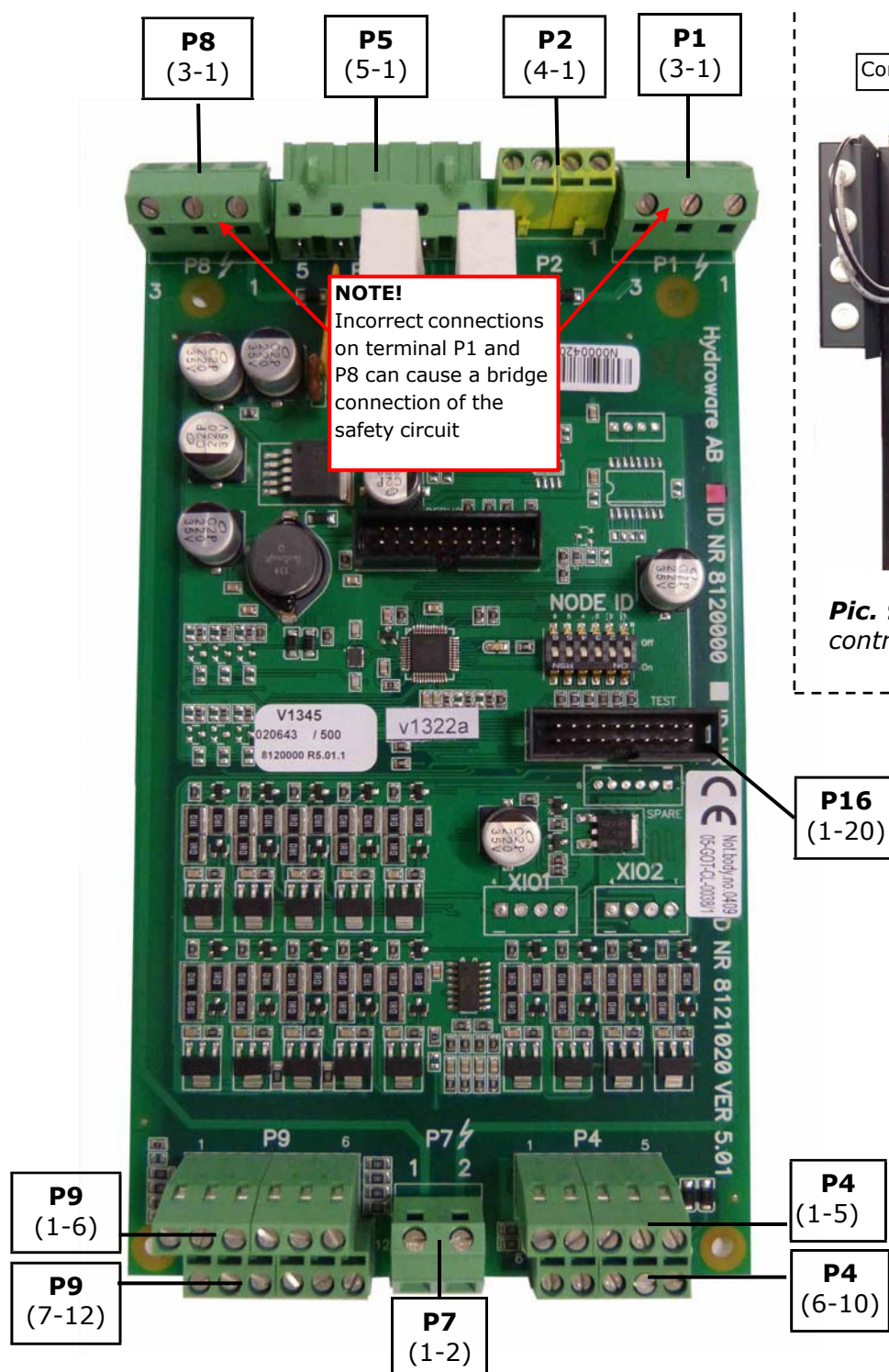
**Pic. 8.4:** White strip—Fastening



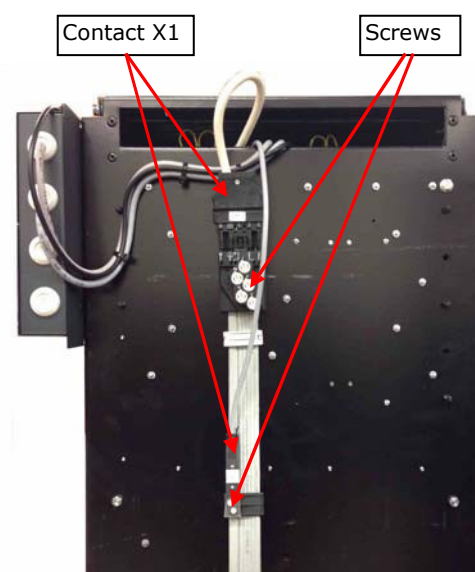
**Pic. 8.5:** Shaft information—  
Lower fixing



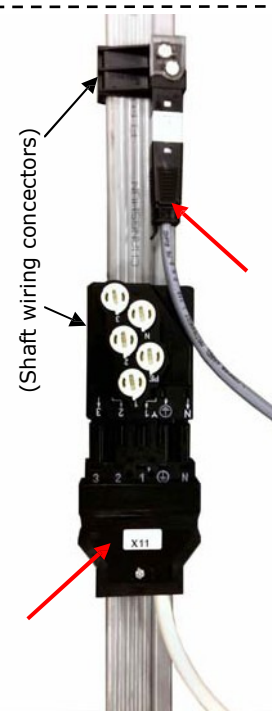
9. Connect the shaft wiring to the Control unit and tighten the screws on contact X1 (see **Pic. 9**) to ground the landing nodes.
10. From the car roof, verify that connector P5 is unplugged from the landing nodes. Mount shaft wiring connectors, tighten the screws and connect the landing nodes (see doc. **T10092** and **Pic. 10.2**). Thereafter, connect door contacts, tableaux and lock contacts. For connection of safety circuit, see installation schematic.



**Pic. 10.1:** Landing node—Overview



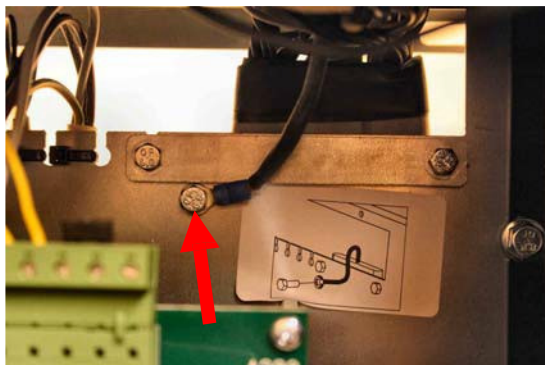
**Pic. 9:** Shaft wiring connected to control node (Photo shows Veni)



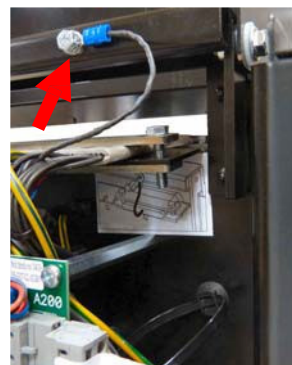
**Pic. 10.2:** Connecting the landing node

- 11.** Mount travelling cables and connect their ground wires to the Control unit. Connect shieldings to ground points (**Pic. 11.1** and **11.2**).

**NOTE!** Do not connect the travelling cable's connectors until everything else is fully assembled.

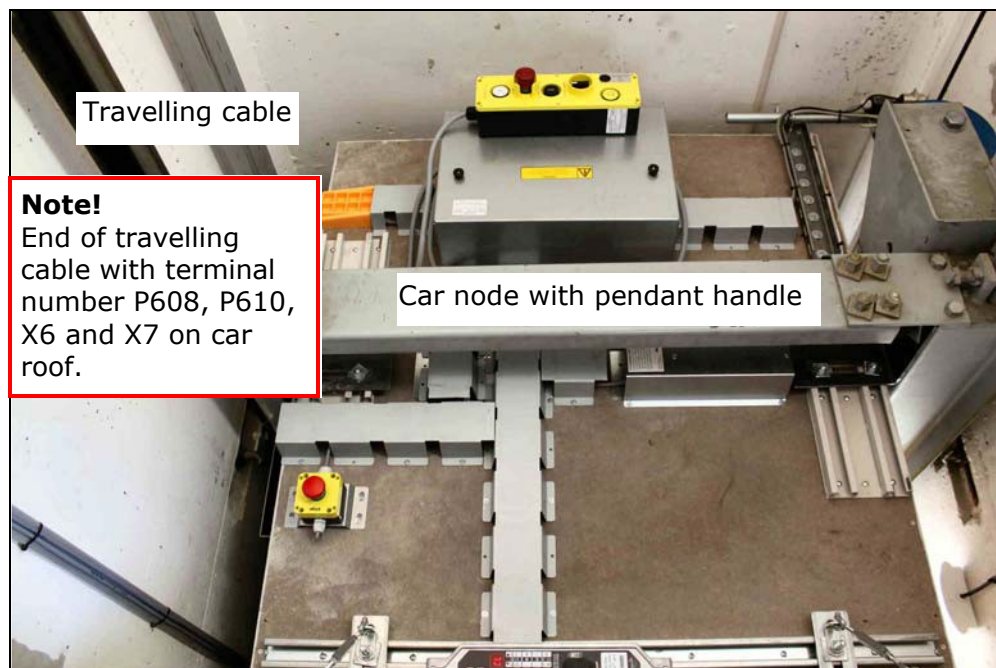


**Pic. 11.1:**  
 Shield ground point, Control unit—Vidi



**Pic. 11.2:**  
 Shield ground point, Control unit—Veni

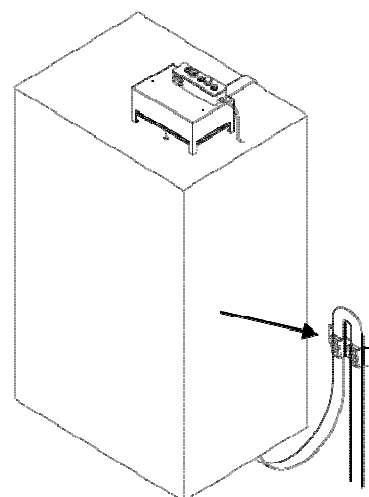
- 12.** Mount the Car node.



**Pic. 12:** Mounting of Car node

- 13.** Connect ground wires and shields from the travelling cable to the Car node.

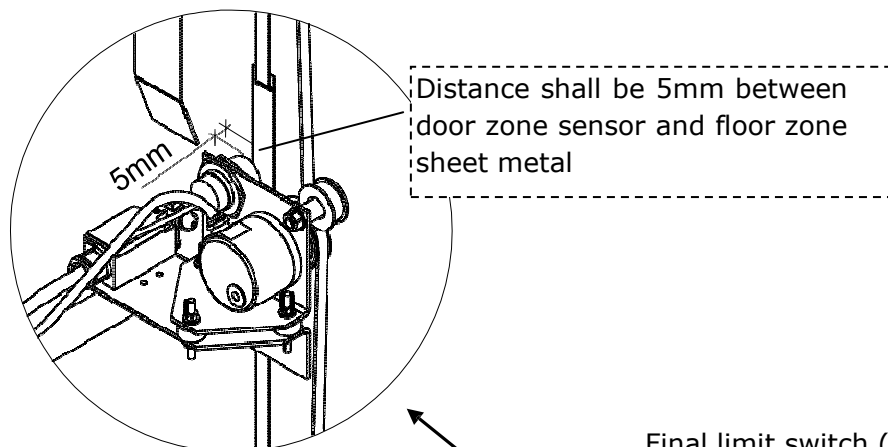
**NOTE!** Do not sever the travelling cable, instead move the cable fixing higher up on the wall to get rid of remaining cable (if any) (**Pic. 13**).



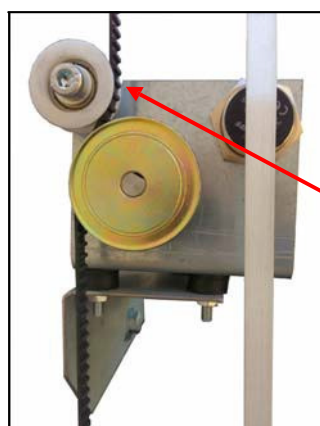
**Pic. 13:** Cable fixing



- 14.** Mount absolute encoder (see **T10106**), door zone sensor, final limit switch, emergency stop button and cover plates on the car roof.

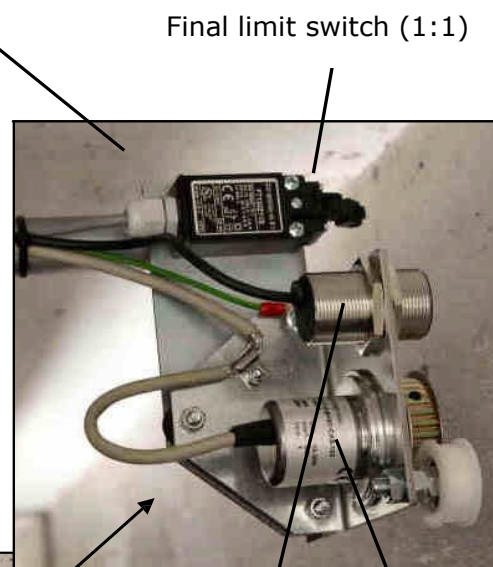


**Pic. 14.3:** Setting the distance

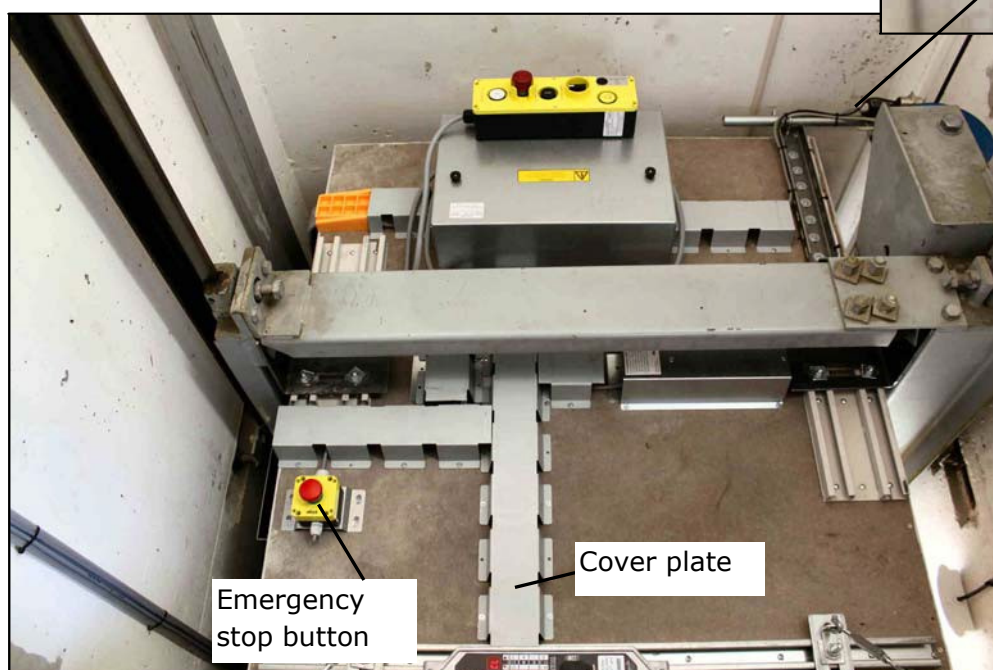


**Pic. 14.2:** Belt traction

**Note!**  
 Absolute encoder  
 belt traction



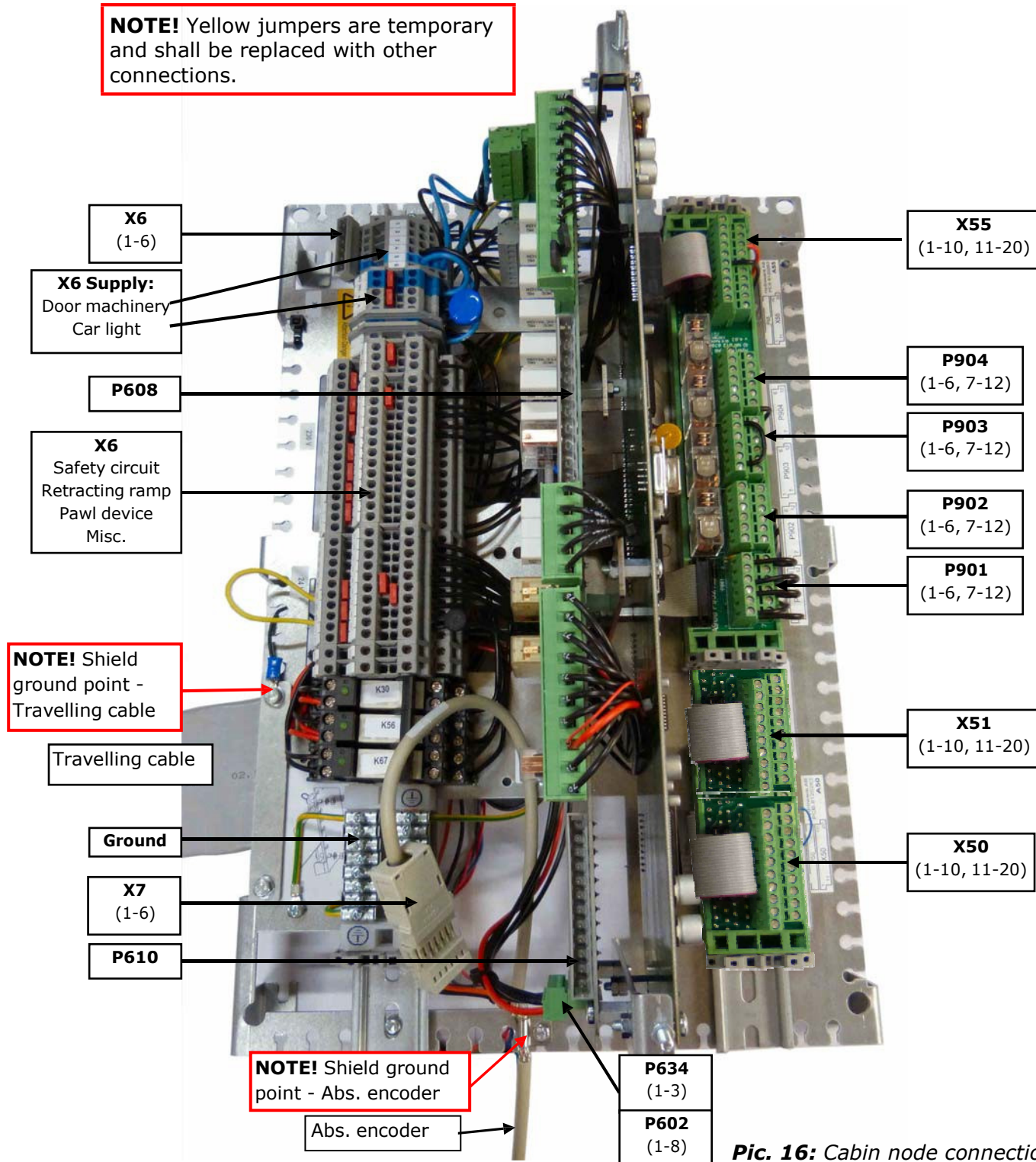
**Pic. 14.4:** Sensors and switch



**Pic. 14.1:** Car roof mounting

15. When connecting, install appropriate enclosed disturbance eliminators on magnets (retracting ramps/pawl device), see **T10060**.  
**NOTE!** Important that this is done!
16. Finalise connecting the car node (tableaux, door machinery, safety circuit).  
Verify that the travelling cable really is grounded before connecting its remaining connectors and loose unconnected conductors.

**NOTE!** Yellow jumpers are temporary and shall be replaced with other connections.



**Pic. 16:** Cabin node connections



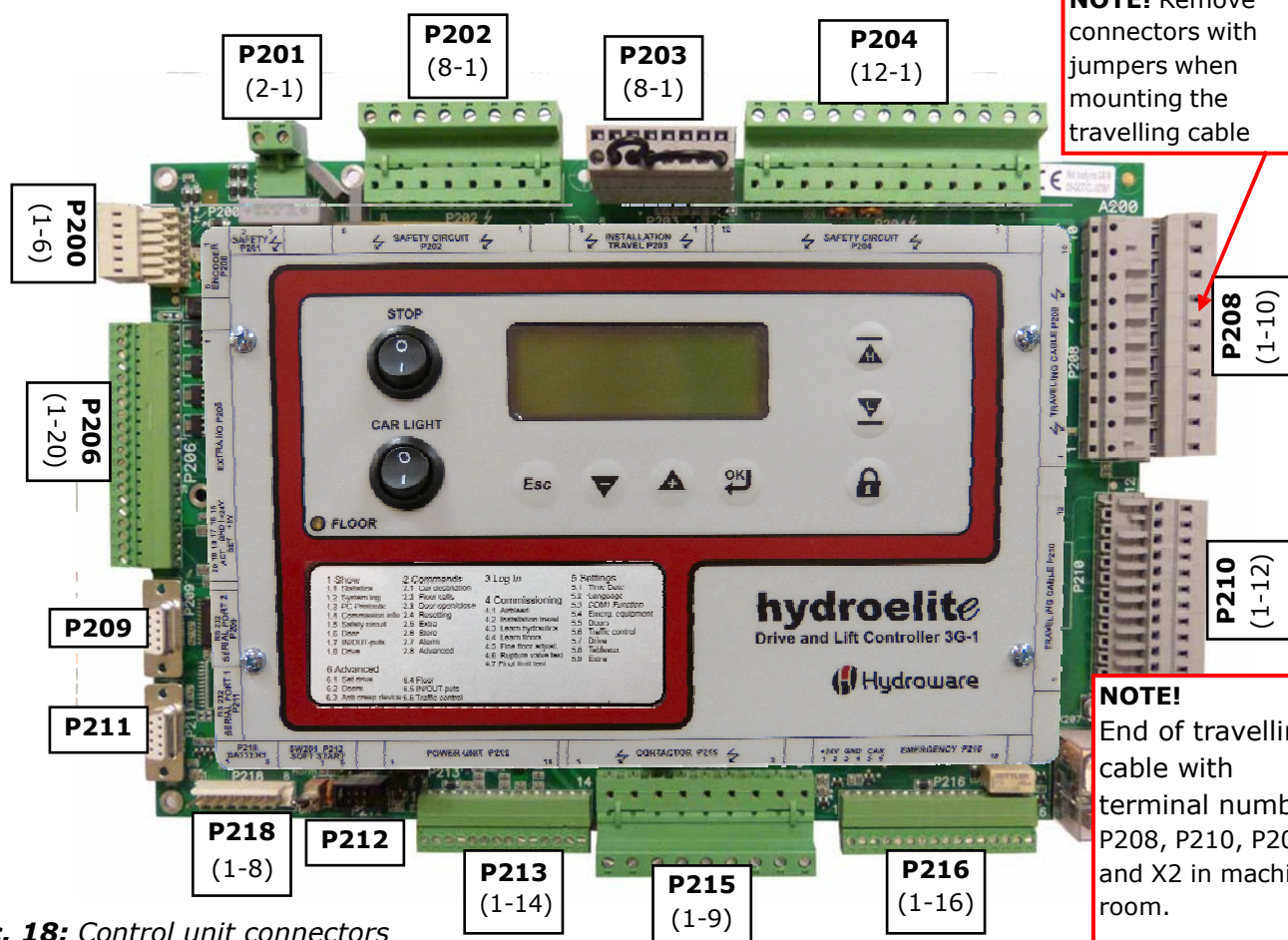
**17.** From the car roof, connect shaft wiring P5-connectors in the landing nodes.

**WARNING! THERE MUST NOT BE ANY VOLTAGE WHEN CONNECTING!**

**18.** Connect cables and the travelling cable's connectors in the control unit.  
Also connect it's loose unconnected conductors and remove yellow temporary jumpers.

**NOTE!** Remove connectors with jumpers when mounting the travelling cable

**NOTE!** End of travelling cable with terminal number P208, P210, P200 and X2 in machine room.



**Pic. 18:** Control unit connectors

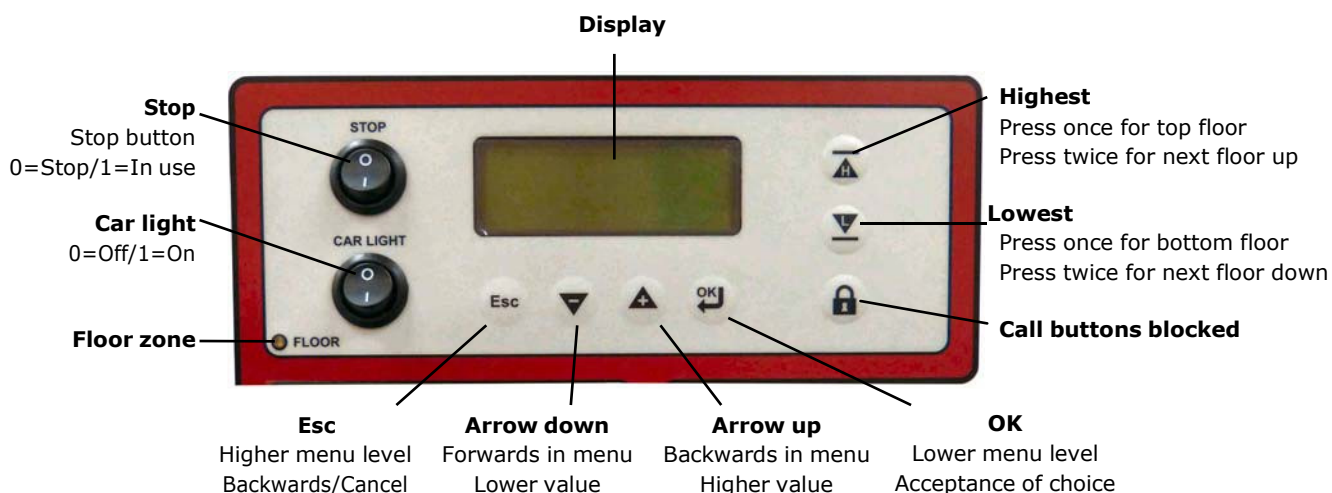
**19.**

Measure resistance or buzz the following:	Shall be (Contact = Buzz):
Safety circuit, P202:8 to P204:3	Contact or less than 10 ohm
Shaft door contacts, P204:4 to P204:5	Contact or less than 10 ohm (could be broken due to swing door locking contact)
Safety circuit to ground, P202:8 to P201:2	<u>No</u> contact or more than 200 ohm
Shaft door contacts to ground, P204:4 to P201:2	<u>No</u> contact or more than 200 ohm
Safety circuit to +24V, P202:8 to P204:10	<u>No</u> contact or more than 200 ohm
Shaft door contacts to +24V, P204:4 to P204:10	<u>No</u> contact or more than 200 ohm
BUS, P204:7 to P204:8	Approx. 60 ohm (not connected lift group approx. 120 ohm)

**20.** Turn on the power in following order:

- Main switch (on the wall or in the Control unit).
- Fuses, beginning with F2 and further upward, finish with F1.

### Overview—Control unit console



**Pic. 21:** Control unit console

- 21.** Commission the system in menu 4 on the Control unit (see **T10033** for more information).

If there is an anti-creep device, it's function must be controlled when commissioning so the lift would not get stuck on the top floor and hence can't pass by the stop lug when going down:

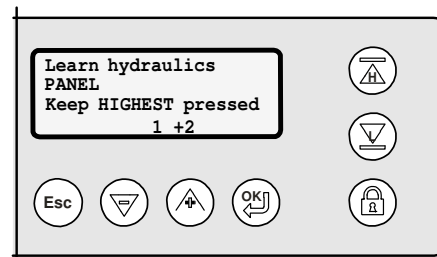
Run the lift with "H" and "L"-buttons in Installation travel (Menu 4.2) and verify that the anti-creep device retracts and passes the stop lugs.

#### **21.1.** Make a Hydraulic learn travel (Menu 4.3)

Start from bottom floor and keep pressing the "H"-button until display shows "Up travel approved".

Then start learn travel down by pressing the "L"-button until the lift stop on bottom floor.

Exit the menu and save the parameters.

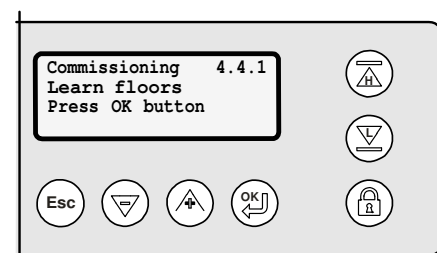


**Pic. 21.1:**  
Menu 4.3-Hydraulic learn travel

#### **21.2.** Make a Learn floor travel (Menu 4.4.1)

Start from bottom floor zone (floor-light is lit) and push OK button. The learn floor travel is performed automatically and runs to top floor and then back to bottom floor.

Exit the menu and save the parameters.



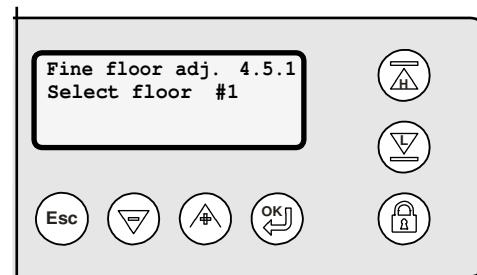
**Pic. 21.2:**  
Menu 4.4.1—Learn floor travel

### 21.3. Fine adjust each floor (Menu 4.5.1).

Start from bottom floor, go upwards to every floor and measure the deviation at each floor. Then go directly to bottom floor and make a measure. Fine adjust there-after each floor separately.

Fine adjustment shall be done immediately after the measurements have been made and before any more trips are done. If the lift has stopped exactly in level with the floor, enter 0mm for that floor.

Exit the menu and save the changes.




**Pic. 21.3:**  
Menu 4.5.1—Fine floor adjustment

22. Test the lift according to EN81-2. All the tests that shall be made are described in document **T100 73**.

23. If the lift has protection against unintended car movement, acc. to EN81-2 A3 UCM valve, test this acc. to document **T101 04**.

For trouble shooting information, see document **T100 20**.  
For error code information, see document **T101 40**.

	Hydroelite 3G-1 <b>Test av hiss enligt EN 81-2</b> Driv och styrsystem	Technical Documentation <b>T 100 73 SV</b> 2012-10-29 Utg. 2.4
INSTALLATION		BB/LAK Sida 1

**1. Inspektion och provning innan hiss tas i drift (Urval ur bilaga D.2)**

Nedan beskrivs ett urval av punkter ur EN81-2 bilaga D. Urvalet som beskrivs är de punkter där man kan få hjälp av funktioner som finns i styrningen eller där det krävs ett specifikt handhavande av styrning eller ventiler.

d) mätning av ström eller effekt samt hastigheten  
Kontrollera att strömmen till motorn vid fullast inte väsentligt överstiger maximal ström i tabellerna nedan.

Nätspänning 400V 50Hz	Dränkt motor [kW]															
Motor effekt [kW]	4.4	6	7.7	9.5	11	12	13	14.7	16	20	24	29	33	40	47	60
Maximal ström [A]	14	20	21.6	29	32	35	38	41	46	66	85	92	109	123	168	
Nominell ström* [A]	11	16	17	23	25	27	29	31	35	50	63	68	80	91	120	150

Tab. 1 Nätspänning 400V 50Hz

Nätspänning 230V 50Hz	Dränkt motor [kW]															
Motor effekt [kW]	4.4	6	7.7	9.5	11	12	13	14.7	16	20	24	29	33	40	47	60
Maximal ström [A]	24	34	39	50	58	61	66	71	80	97	113	144	160	190	214	273
Nominell ström* [A]	19	27	31	38	43	46	50	55	61	72	87	105	122	144	160	200

Tab. 2 Nätspänning 230V 50Hz

Nätspänning 400V 50Hz	Luftkyld motor [kW]															
Motor effekt [kW]	4	5.5	7.5	9	11	15	18.5	22	30	37	45	55	75			
Nominell ström [A]	7.7	10.5	14.0	17.0	20.0	27.5	32.5	38.4	51.2	67	83.1	96.9	134			
Maximal ström [A]	10	13.5	18.0	22.0	26.0	36	42.3	49.3	64.4	81.1	100	126	174.2			

Tab. 3 Nätspänning 400V 50Hz  
Eftersom driften är periodisk så är motorn godkänd för 30% högre ström vid fullast (maximal ström).  
\*Motorskyddet skall vara inställt på nominell ström.

e) elektrisk installation  
Se isolationsprovning och kortslutningstest instruktion T100 56.

f) slutgränsbrytare  
Test av avstånd mellan översta plan och till slutgränsbrytare

**Driftsättning 4.7.1**  
Test av slutgränsbrytare  
starta översta plan  
1 + 2

- Kör hissen till översta plan.
- Tryck på OK knappen.
- Hissen gör en resa i lågfart uppåt.
- Efter testen visar displayen avståndet från översta plan till slutgränsbrytaren.

**Pic. 22: T10073—Test the lift acc. to EN 81-2**



Additional documents to the Quick Start:

Document	Name	Location
<b>T100 20</b>	Troubleshooting	Doc. binder
<b>T100 33</b>	Commissioning	Doc. binder
<b>T100 60</b>	Disturbance elimination of peripheral equipment	Installation material
<b>T100 73</b>	Examinations and test acc. to EN 81-2	Doc. binder
<b>T100 92</b>	Connection box ECOBUS	Installation material
<b>T101 04</b>	Test inst. unintended car movement	Doc. binder
<b>T101 06</b>	Car roof mounted encoder	With abs. encoder
<b>T101 29</b>	Mounting instruction	Installation material
<b>T101 40</b>	Error codes	Doc. binder