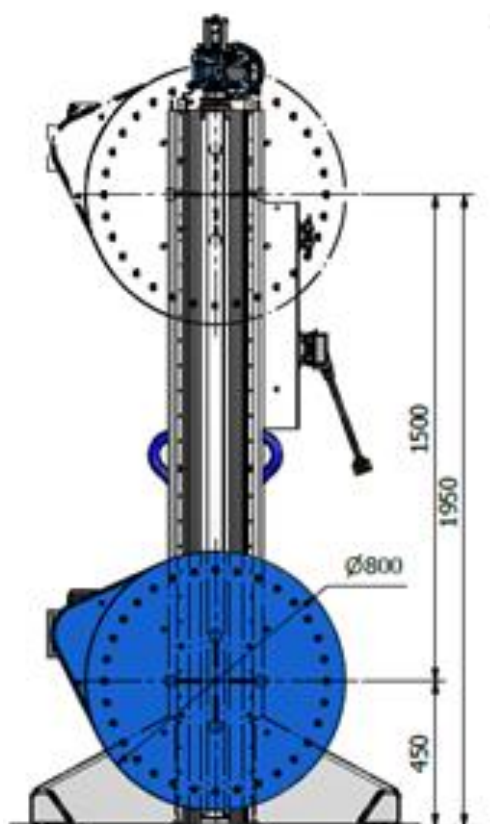


INSTRUCTIONS FOR

ENCODER CALIBRATION

ON HEAD AND TAILSTOCK POSITIONER:
SYNCROLIFT

SLC60



OPERATION TO DO IN CASE OF:

- ENCODER SUBSTITUTION
- NUTS SUBSTITUTION
- REPLACEMENT OF THE MOTORGear WITH A DIFFERENT GEAR RATIO
- REPLACEMENT OF THE MAIN SCREW

N.B BEFORE STARTING WITH THE CALIBRATION MOVE THE MACHINE IN MAXIMUM AND MINIMUM POSITION ON ITS STROKE AND TAKE NOTE OF THE DISTANCES FROM THE GROUND WITH A METER. IN THIS CASE YOU CAN DIRECTLY REFER TO FOLLOWING DATA WITHOUT MOVING COLUMN:

SLC60 standard:

- **MIN_VALUE_1: minimum height center plate-ground is 450 mm (plate is ~50 mm from ground);**
- **MAX_VALUE_2: maximum height center plate-ground is 1950 mm;**
- **STROKE_VALUE_3: stroke value is 150 cm;**

BEFORE START THE PROCEDURE PLEASE CHECK THE STROKE VALUE: switch on the electrical panel and check the HM value (*figure 1*). For the SLC60 standard the set value must be 150. If the value is different act this brief procedure: Press MENU; scroll up the list with + to “RESERVED AREA”; press ENTER and insert the password: contact Sideros for the password; then press ENTER on “CONFIGURATIONS”; scroll up the list till “MAX HEIGHT”, press ENTER and change the value to the correct one (150). Confirm with ENTER.

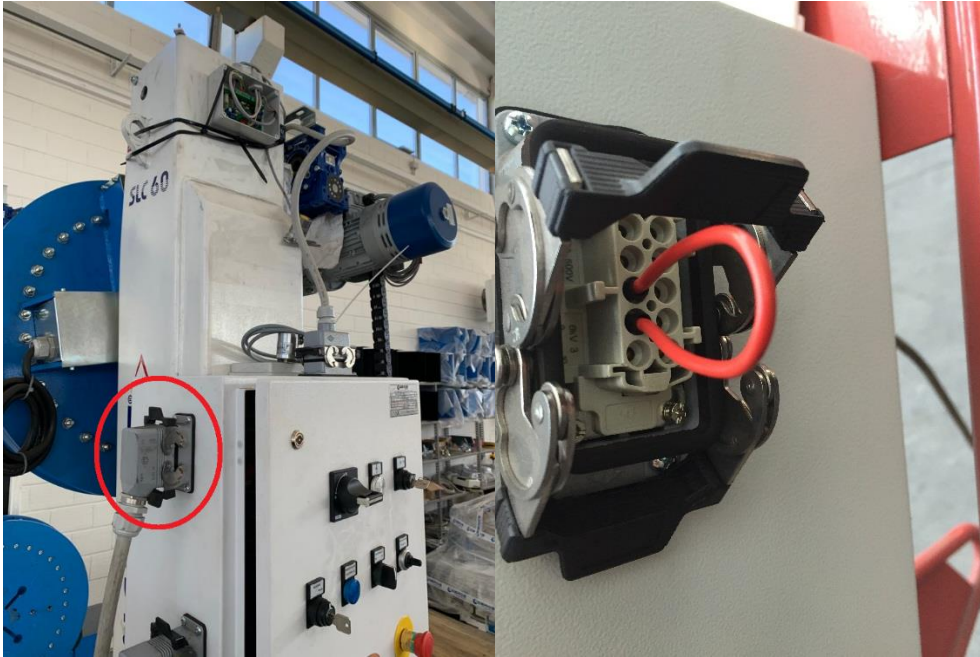
DO NOT CHANGE ANY OTHER PARAMETER AND DO NOT GIVE THESE PASSWORD TO ANY OPERATOR



Figure 1

NOW SWITCH OFF THE MACHINE AND START THE CALIBRATION PROCEDURE

N.B. FOR SAFETY REASONS, THE CALIBRATION MUST BE DONE ONLY ON ONE COLUMN AT A TIME. FOR THIS REASON IT IS NECESSARY TO REMOVE THE PIECE OR FIXTURE FROM THE ROTATION PLATES. IT IS NECESSARY TO DISCONNECT ONE COLUMN AT A TIME AND WORKING ON THE OTHER ONE USING AN ELECTRICAL BRIDGE IN THE COLUMN CONNECTOR (LIKE IN PHOTO). **DISCONNECT INTERCONNECTION CABLE AND APPLY THE BRIDGE BETWEEN 8 AND 9.**



1. Give tension to the electrical panel
2. Insert unlocking code: 2000 and press ENTER
3. With only one column connected, it will be showed a screen similar to the one below; for SLC60 HM=150;

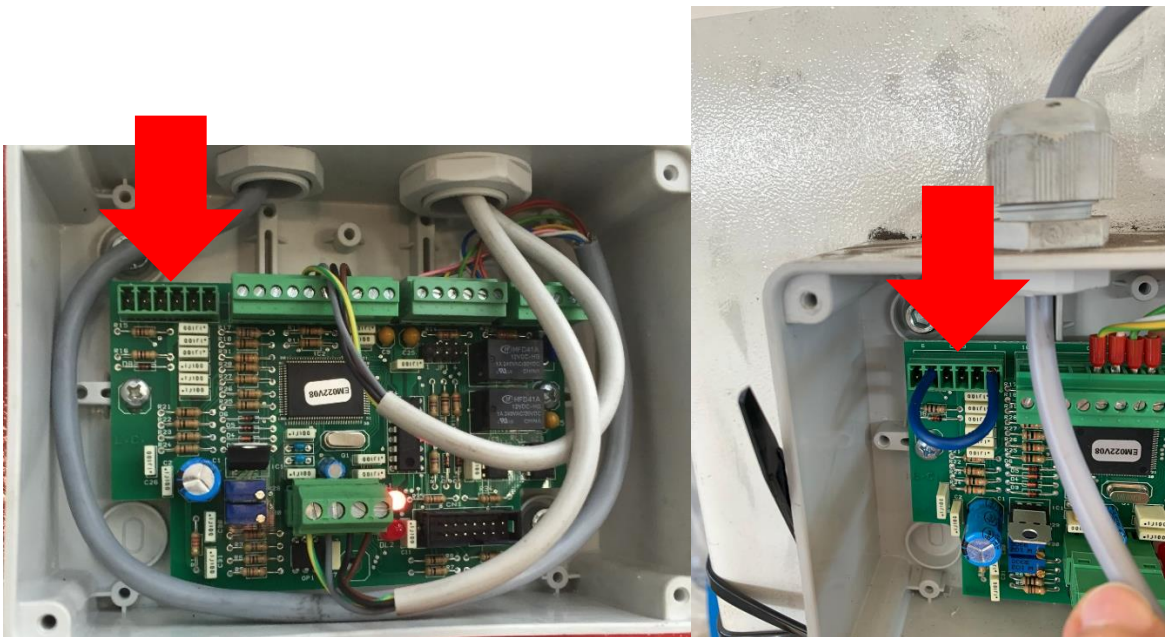


4. With buttons + and – move on “MOVEMENT WITHOUT CONTROLS” and press ENTER
(During this mode the machine beeps)

BEWARE: ALL THE SAFETY DEVICES ARE OUT OF USE IN THIS MODE, SO MOVEMENTS ARE DANGEROUS FOR OPERATOR AND PEOPLE CLOSE TO THE MACHINE. IN ORDER TO AVOID ANY DAMAGE TO PEOPLE OR THINGS, THE OPERATOR MUST BE SURE THAT THERE IS NOTHING IN THE WORKING AREA THAT CAN INTERFERES WITH THE MACHINE MOVEMENTS.

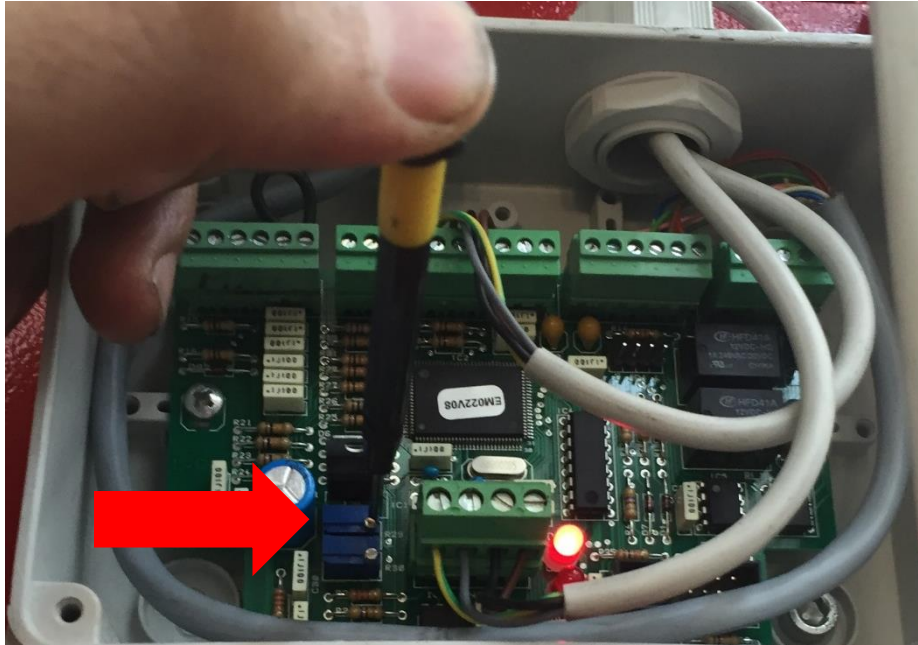
N.B. DO NOT REVEAL THE FOLLOWING CODE TO ANY OPERATOR OR CLIENT. ONLY SKILLED AND QUALIFIED PERSON CAN ACT THIS PROCEDURE.

5. Insert the unlocking code for “movement without controls”: contact Sideros for the unlocking code
6. Using command buttons on the pendant control unit, move the plate in the minimum position (450 mm from center plate to ground, ~50 mm gap from plate to ground; check the position with a meter)
7. On the transducer board (inside the small case on the top, under the motor) do a short circuit between contacts 1 e 5 in the connector CN5, until the red led flashes



8. Verify that the quote on the display is equal to 000
9. Remove the short bridge
10. Move the plate till the maximum position (1950 mm from plate center to ground) **(BEWARE: ALL THE SAFETY DEVICES ARE OUT OF USE IN THIS MODE. DO NOT EXCEED MAXIMUM HEIGHT TO AVOID DAMAGE OF THE COLUMN)**
11. Do a short circuit, for very short time, between contacts 1 e 2 on the connector CN5 until the red led flashes one time.

12. If the display shows 150 (for the SLC60) it is not required to regulate the height with a trimmer; otherwise, if the value differs, realize again a short circuit between contacts 1 e 2 and, during short circuit, with a screwdriver rotate the small screw for the trimmer regulation (photo below) until the quote “HM equal to 150” is showed on the screen.



13. Remove the short bridge and reconnect the interconnection cable;

AT THIS POINT THE MASTER COLUMN SHOULD BE CORRECTLY CALIBRATED; IF REQUIRED, CALIBRATE THE SECONDARY COLUMN TOO (SEE NEXT PAGE ‘SLAVE COLUMN CALIBRATION’); ONCE THE CALIBRATION PROCEDURE IS COMPLETED, SWITCH OFF AND, THEN, SWITCH ON THE ELECTRICAL PANEL (IN THIS WAY THE MANUAL MOVEMENT WILL BE ENABLED). AT THIS POINT THE TWO COLUMNS WILL BE AUTOMATICALLY REALIGNED: PRESSING THE LIFTING COMMAND, THE COLUMN ABOVE DOESN’T MOVE WHILE THE COLUMN BELOW RISE UNTIL IT REACHES THE ALIGNMENT WITH THE OTHER COLUMN (AND VICE VERSA). ONCE ALIGNED THE TWO PLATES WILL MOVE IN SYNCHRONY. AT THIS POINT CHECK THE CORRECT CALIBRATION OF THE MASTER AND SLAVE COLUMN (USING A METER CHECK THE DISTANCE OF THE PLATE TO GROUND) THE DISPLAY MUST SHOW 5 CM LESS RESPECT TO REAL POSITION → E.G. IF THE BOTTOM OF THE PLATE IS 50 CM FROM THE GROUND (CENTER OF THE PLATE IS 90 CM FROM THE GROUND), THE DISPLAY MUST SHOW 45 CM; CHECK THAT THE MACHINE AUTOMATICALLY STOPS AT THE MINIMUM AND MAXIMUM HEIGHTS; BEWARE TO CHECK THE STROKE LIMITS!

SLAVE COLUMN CALIBRATION

IF THE SLAVE COLUMN NEED CALIBRATION TOO, REPEAT THE SAME PROCEDURE ON THE SLAVE COLUMN; THE ONLY DIFFERENCE IS:

- REMOVE THE CONNECTOR OF THE LIFTING MOTOR OF THE MASTER COLUMN (see picture below) AND APPLY THE BRIDGE BETWEEN 8 AND 9 ON THIS CONNECTOR;



- ACT ON THE TRANSDUCER LOCATED IN THE SMALL CASE OF THE SLAVE COLUMN

