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FRANCE

Technical Information

N° IT0045

Controller 260315 Replacement

Repair Instructions

For Kit : KR0054

Subject :

The purpose of this instruction is to install and connect controllers P/N: **260332** (with new harness) to replace controllers P/N: **260315**.

CAUTION : Use all applicable Safety precautions while working on, around or under any machinery.

Models affected :

DUO – 13MSPT – JUNIOR 6 – JUNIOR 8

Tools & Equipment Required :

Wrench width 10 mm + wrench width 13mm.
Allen key width 5mm.
Drilling-machine with drill diam.5.2mm + tap M6.

Personnel Required :

Qualified JLG equipment technician.

1/ Disconnect battery on the machine and remove lower cover.

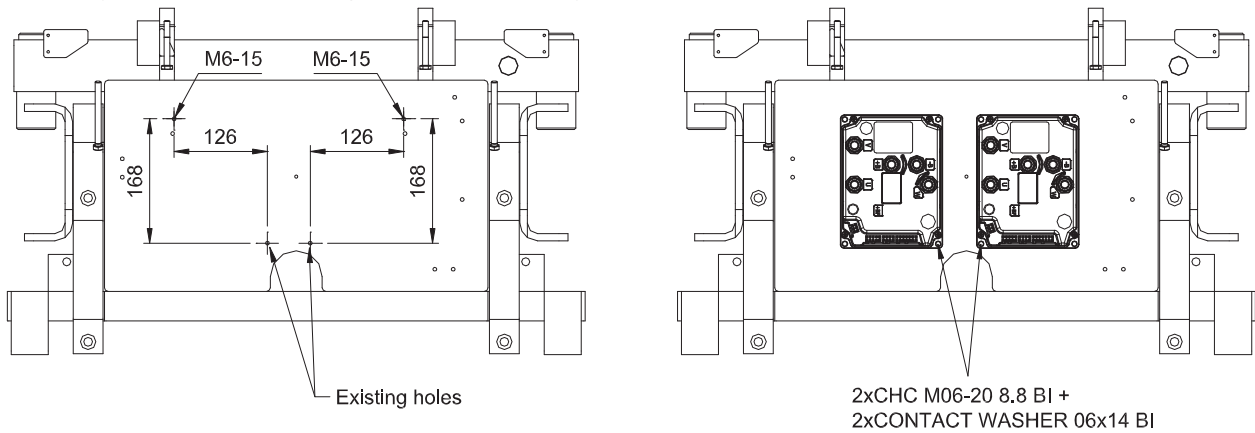
2/ Disconnect all power cables of both controllers (U,V,W, + and - battery). Take care to identify those cables for re-assembly.

3/ Disconnect 4 connectors of both controllers, then 2 wires of motors brakes (wires from controllers), then the connector (4 pins) of motor's encoder.

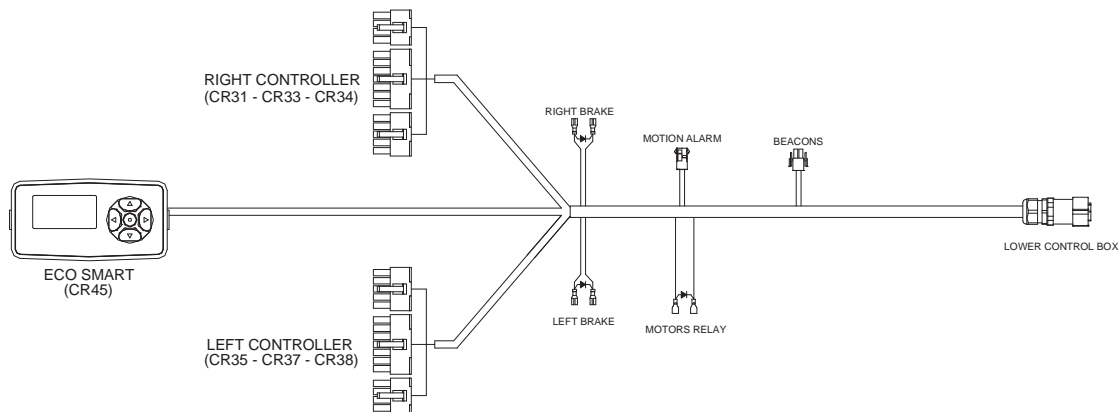
4/ Disconnect all other connectors of harness P/N PC0356 (Duo + Juniors) or P/N PC0412 (13MSPT) : beacons (2 pins connector located under the mast power unit) + motion alarm (2 pins connector located near the right controller) + motor contactor (2 terminals located near the left controller) + lower control box (18 pins connector located under the lower control box, on the left side).

5/ Remove harness P/N PC0356 (Duo + Juniors) or P/N PC0412 (13MSPT) from the machine and disassemble both controllers (do not discard screws).

6/ Drill 2 holes M6 depth 15 on the chassis shield and mount both new controllers (use existing screws), as shown below (connectors down) :



7/ Install new harness P/N PC0535 (Duo + Juniors) or P/N PC0543 (13MSPT) and plug all connectors as shown below :



8/ Plug harness P/N PC0536 (with wires rep. 65, 66, 67, 68) on right motor and right controller. Plug harness P/N PC0537 (with wires rep. 61, 62, 63, 64) on left motor and left controller.

9/ Plug harness P/N PC0540 on motor contactor and on pin +B of both controllers (use controllers screws).

10/ Plug following harnesses as shown in the following chart (use screws provided with controllers) :

Machine	S/N	Harness P/N	Connection	Harness P/N	Connection
DUO / 13MSPT	before A130005623	PC0541	Controllers (-B) → Power unit motor	PC0542	Motors (U,V,W) → Controllers (U,V,W)
	from A130005623		Controllers (-B) → Power block (-)	Replace terminals of U,V,W wires by provided terminals	
JUNIOR 6	before A1300165774		Controllers (-B) → Power unit motor	PC0542	Motors (U,V,W) → Controllers (U,V,W)
	from A1300165774 + A130016571 + A130016572		Controllers (-B) → Power block (-)	Replace terminals of U,V,W wires by provided terminals	
JUNIOR 8	before A130019256		Controllers (-B) → Power unit motor	PC0542	Motors (U,V,W) → Controllers (U,V,W)
	from A130019256		Controllers (-B) → Power block (-)	Replace terminals of U,V,W wires by provided terminals	

11/ Calibration of the steering potentiometer : accomplish procedure described in Technical Information P/N IT0044.

12/ Functional tests.

Verification of steering and rotation :

- with steering wheels straight (in line), move the machine forward : both rear wheels must rotate at the same speed, and forward. If the rotation sense is backward, invert U and V cables on both controllers.
- with steering wheels straight (in line), move the machine backward : both rear wheels must rotate at the same speed, and backward.
- while moving machine forward, steer wheels to the right. The rotation speed of the internal wheel (right) must be progressively reduced until be stopped when wheels will be steered at their maximum position. Repeat the same operation in reverse direction.
- while moving machine forward, steer wheels to the left. The rotation speed of the internal wheel (left) must be progressively reduced until be stopped when wheels will be steered at their maximum position. Repeat the same operation in reverse direction.
- raise the mast at about one meter high and move the machine forward. Both drive motors must rotate at low speed.
- press the tilt indicator. On the upper control box, a light must become on and all movements of the machine must be cut.

Verification of driving speeds :

With one person in the platform, on a flat and horizontal ground :

- check the time needed by the machine to realise 10 meters at maximum speed, forward, masts fully retracted. This time must be between 8 and 15 seconds.

- check the time needed by the machine to realise 10 meters at maximum speed, backward, masts fully retracted. This time must be between 8 and 15 seconds.

- check the time needed by the machine to realise 5 meters at slow speed, forward, masts fully extended. This time must be between 20 and 24 seconds.

- check the time needed by the machine to realise 5 meters at slow speed, backward, masts fully extended. This time must be between 20 and 24 seconds.

13/ Install lower cover and connect the battery.

14/ In the Operation and safety manual of the machine, fill in section "Inspection and repair log". Specify that controllers has been replaced, note the replacement date and the part number and serial numbers of both controllers installed.