

Jack-Hand Model AU-071205

Typical for this model;

- Fire resistant cable
- Dual Speed Travel
- Dual Speed Traverse
- Dual Speed Hoisting
- Integrated Startup



Optional accessories;

- Up/Down Lever-switch instead of push-buttons
- Multi-hoist selector
- Key-operated E-Stop



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Western Australia

SERVICE MANUAL

Jack-Hand Model **AU-071205**

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1 GENERAL SAFETY NOTES AND SAFETY REGULATIONS

Strictly observe and always adhere the respective regulations on labour safety and accident prevention when operating overhead cranes.

Only authorised and sufficiently instructed personnel who are familiar with the safety instructions and properly trained should be allowed to repair Jack-Hand control system.

1.1 Safety notes regarding maintenance and service

- Before servicing or repairing Jack-Hand control system, please read this manual completely and carefully.
- Electrical connections and service works should exclusively be carried out by skilled personnel.
- In case of a failure, immediately de-energise crane from main isolator, lock it off position and place “out of service” -tag on it before starting any work on the control unit.
- Before starting any maintenance or repairs on the control unit, ensure crane is isolated.
- Have defective control unit repaired only by an expert. Use only original replacement parts of the manufacturer for any repair.
- Always after repairs carry out complete test drive and ensure that directions given on control unit are matching with compass sign on the crane.
- Never continue to work when equipment is defective, nor leave it so someone else can use it without being aware of possible defect.

2 IDENTIFYING DIFFERENT MODELS

This manual is for Jack-Hand model AU-071205.

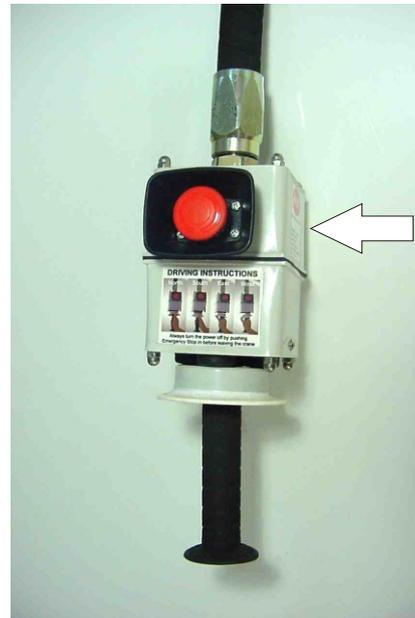
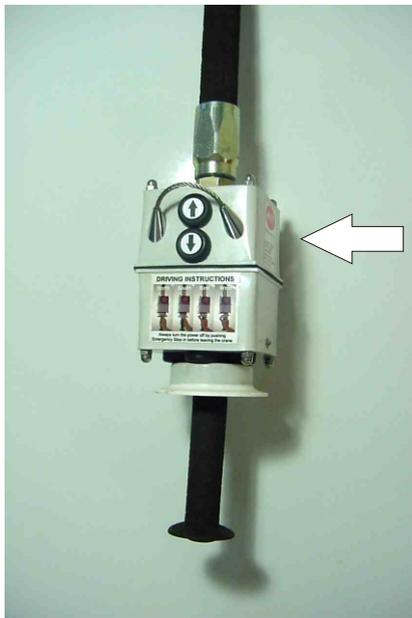
The first "AU" means that this model is manufactured in Australia, next series of numbers will tell you following;

07 - Seven station (North, South, West, East, Up, Down and Stop/Start -functions)

12 - Month of manufacturing

05 - Year of manufacturing

Model number can be found on ID-dataplates, located on both sides of Jack-Hand.



If both ID-plates are damaged, there is also backup ID-plate located inside the handset. Use Phillips screwdriver to undo locking screw underneath and pull the lock out, then pull plastic ID-plate out. Remember to replace it when done!



3 FUNCTIONAL DESCRIPTION OF THE SYSTEM

3.1 Travel controls

Travel and Traverse, commonly known as “Long and Cross travels” are corresponding with North, South, West and East directions of the crane.

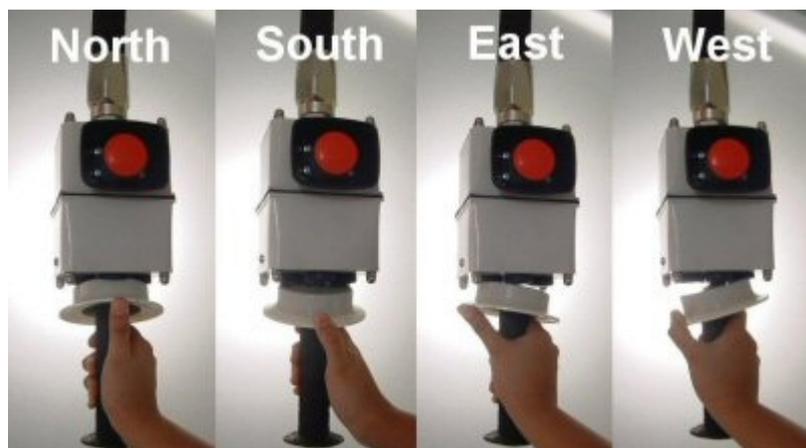
Controlling these directions is done with the “trigger”, located on top part of the handle. It is very important to ensure that directions given in Jack-Hand are corresponding with the compass sign in the crane to avoid confusion. Directions don’t need to be physically correct, another words, North doesn’t need to be physical North.

All those directions have 2 speeds.

Creep speed comes when “trigger” is pushed to the first stage, and when you push it further to the same direction, fast speed is activated.

It is also possible to drive 2 directions at the same time by turning the “trigger” just like a steering wheel while having the first direction activated.

The “trigger” is operating function swithes inside the casing via pushbuttons underneath.



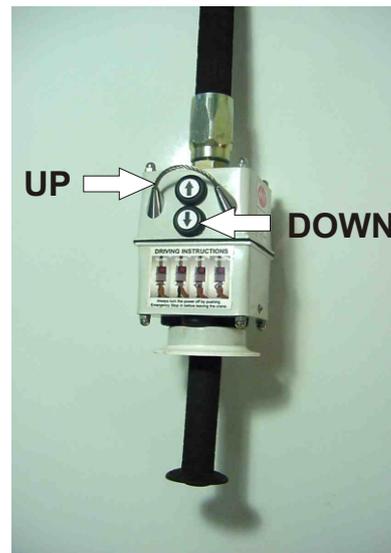
3 FUNCTIONAL DESCRIPTION OF THE SYSTEM (cont.)

3.2 Hoisting controls

Controlling hoist is made by two function buttons on the North side of the handset. Top button has the arrow pointing up (hoisting up) and lowering has been made by lower pushbutton (arrow down).

Both directions there are 2 speeds to use. First stage activates slow speed and when button is pushed deeper, the high speed will be activated.

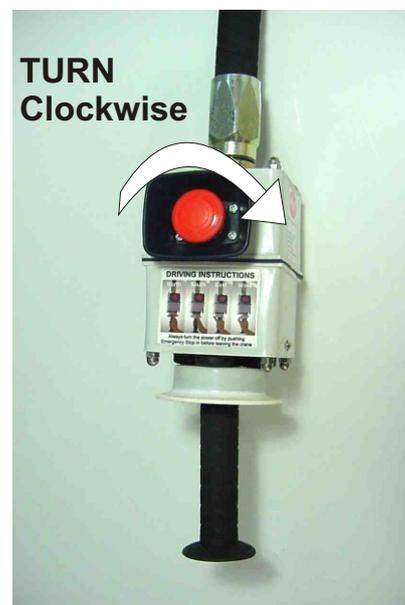
The protective wire over the buttons can be used also to give a grip while holding the buttons down.



3.3 Emergency controls

On the South side of the Jack-Hand you can find red coloured mushroom type Emergency Stop -button. This is surrounded with the protective shroud.

With this model, Emergency Stop button is also ON/OFF switch for the crane. Always push Emergency Stop button in before leaving the crane! To release Emergency Stop button, just turn it clockwise and it will pop up, activating main contactor on the crane.



4 INSTALLATION

4.1 Mounting to catenary

Jack-Hand is delivered as a complete unit; handset, suspension cable and mounting chains to the catenary trolley.

Because there are so many various type of sockets to the catenary trolleys, delivery comes only with excessive one meter of electrical cable, which then will be connected according wiring diagram on page 8.

Mounting frame (left picture) has 2 spring locked loop-hooks where mounting chain can be easily attached. Also other end of chains have 2 similar loop-hooks, which will be attached to existing catenary trolley. All you need to do, is to drill two 10mm holes as far apart as practical and lock hooks on those (right picture).



Ensure that electrical cable has room to move and it doesn't hit anything even shaken vigorously.

After mounted on the trolley, you will need to check that hoisting buttons are on North side of the handset. If not, take 36 and 43mm open end wrenches and tighten or loosen connector to the handset to turn it to the required direction (picture below). After that check that handset is not loose (not turning by hand). Remember that North doesn't need to be physical North, just install handset to match the compass sign on the crane.





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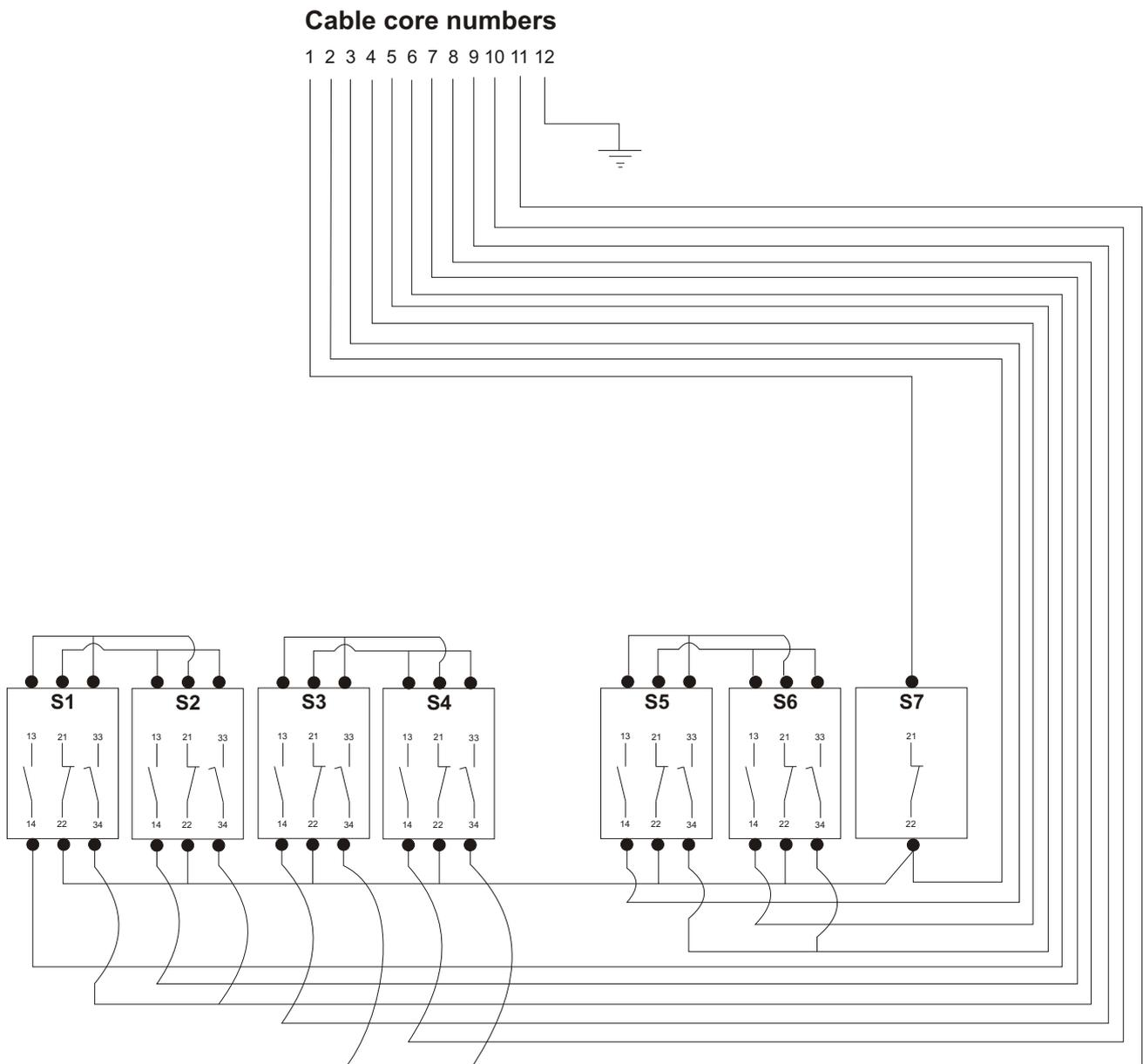
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4 INSTALLATION (cont.)

4.2 Electrical Diagram

- S1 = North
- S2 = South
- S3 = West
- S4 = East
- S5 = Hoist Up
- S6 = Hoist Down
- S7 = Emergency Stop





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4 INSTALLATION (cont.)

4.3 Testing

Jack-Hand handset is wired at the factory as per diagram on page 8. This is most typical layout on overhead cranes, but still check current layout from existing pendant and write it down in the piece of paper, so it would be easier to make changes if necessary.

After suspension cable pendant cable are connected to the catenary trolley, de-isolate crane and try if any function is working when Emergency Stop button is pushed in. Nothing should work. Then release Emergency Stop button and test all functions through. Up, Down and all directions should be working and corresponding compass sign on the crane. If not, change core order in the socket, not in the handset and record all changes you made to the diagram.

If your crane has separate start-up button, find out which core it uses from the old handset and simply bridge it with Jack-Hand core number 2 (goes to pin 2 in the socket). You can do it easier inside the catenary socket.

When you have finished testing, remember to fill in service report (page 12) and fax it to Hoover Industries (08-9022 3431) so we can update our record and ensure the best possible service to you in the future.



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5 MAINTENANCE AND SERVICE

5.1 Pre-usage check

Before putting any load on the hook, run quick check to ensure all functions are operational. Push Emergency Stop button in and go through all directions as well as up and motions. Any function should not be responding while Emergency Stop is pushed in.

Then release Emergency Stop button, go all functions through shortly and just hold the handset free to see if any movement appears in the crane.

If everything is functioning as suppose to, carry on with your work.
If not, push Emergency Stop button immediately, isolate crane properly and call service.

5.2 Periodical inspections

By the Australian Standard, every overhead crane has to be inspected 3-Monthly. Control equipment is part of that inspection and following items needs to be inspected.

- Check the mounting to the catenary trolley and cable to the socket
- See if there is any visual damage on the handset
- Check condition of rubber boots around pushbuttons
- Try all functions through and ensure they are corresponding with the compass sign
- If found possible leagage, open 4 dome nuts on the lower corners of the handset and pull the base body down to see if there is any moist inside.

5 MAINTENANCE AND SERVICE (cont.)

5.3 Spare part list

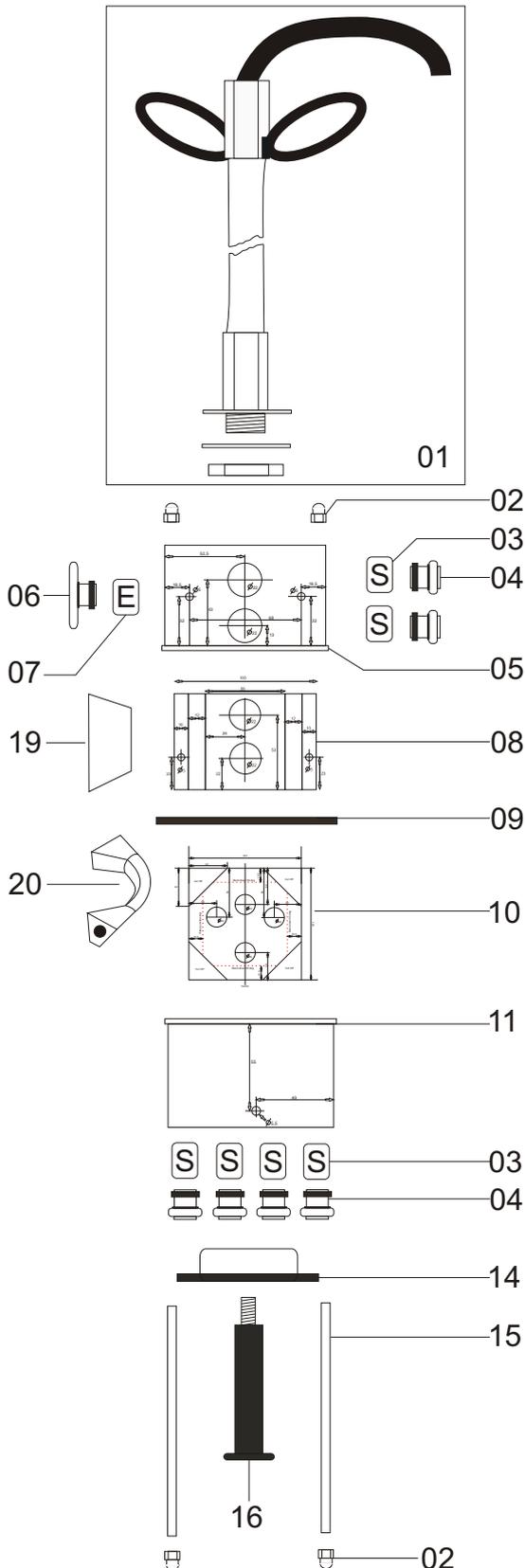


Diagram	Description	Part number
01	Suspension cable set complete	071205-0108
02	Stainless M5 lock nuts + washers	071205-0801
03	Hoisting contact block	071205-0201
04	Up / Down pushbutton	071205-0202
05	Top Body	071205-0104
06	Emergency Stop button	071205-0109
07	N/C contact block	071205-0110
08	Hoist control frame	071205-0106
09	Rubber gasket	071205-0105
10	Travelling control frame	071205-0107
11	Base body	071205-0103
12	Travelling contact block	071205-0401
13	Travelling pushbuttons	071205-0403
14	Travelling actuator	071205-0111
15	M5 galvanized threaded rods	071205-0402
16	Handle	071205-0112
17	Fastener kit	071205-0113
18	Label kit	071205-0114
19	Emergency Stop protector	071205-0115
20	Hoist button protector	071205-0116
	Optional Lever-Switch	071205-0117
	Optional multi-hoist selector switch	071205-0118
	Optional lockable Emergency Stop	071205-0119



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5 MAINTENANCE AND SERVICE (cont.)

5.4 Service report

It is important after commissioning and after every service/repair thereafter to fill in this Service Report and Email, Fax or Mail it to us, so we can have complete service history of your Jack-Hand.

This will help you to get right parts and advice in the future, as well as will help us to improve design of the Jack-Hand.

Thank you for your effort on this project!

SERVICE REPORT

Type of Service: Commissioning Periodic Service Repair

Work carried out by (First name / Surname); _____

Contact phone number; _____ Date ____/____/20____

Place: _____

Jack-Hand Model; _____

Jack-Hand Serial Number; _____

Short explanation of the work carried out; _____
