WARDRAY PREMISE

MR5575

MR Conditional Equine Trolley



OPERATORS MANUAL

Introduction

Thank you for purchasing this MR Conditional Equine trolley. Manufactured and tested to the highest standards it is guaranteed MR Conditional to 0.5T.

Our products are manufactured by Wardray Premise Ltd at our UK based factory to BS EN ISO 13485.

To ensure that you obtain maximum benefit from your product, please take a few minutes to read the enclosed information regarding operation, service and maintenance.

If you have any problems in the meantime or would like any advice about this or any other MR products from the Wardray Premise range, please contact us at the following address:

Wardray Premise Limited
Hampton Court Estate
Summer Road
Thames Ditton
Surrey
KT7 0SP
UK

Tel: +44 (0) 20 8398 9911
Fax: +44 (0) 20 8398 8032

E-mail: sales@wardray-premise.com

Kindly note:

If you modify a Wardray Premise product you will invalidate your warranty.

Unless you have our express written permission to modify a product, we transfer all liabilities for modified products to you.

Safety Definitions for MRI as Defined by International Standard F2503

MR SAFE:



An item that poses no known hazards resulting from exposure to any MR environment. MR SAFE items are composed of materials that are electrically non-conductive, non-metallic, and non-magnetic.

MR CONDITIONAL:



An item with demonstrated safety in the MR environment within defined conditions. At a minimum, address the conditions of the static magnetic field, the switched gradient magnetic field and the radiofrequency fields. Additional conditions, including specific configurations of the item, may be required.

Supplementary marking – additional information that, in association with marking as “MR CONDITIONAL,” states via additional language the conditions in which an item can be used safely within the MR environment.

MR UNSAFE:



An item which poses unacceptable risks to the patient, medical staff or other persons within the MR environment.

Wardray Premise Ltd cannot be held responsible for the accuracy, and therefore the safety or otherwise, of the items to which these labels are attached. It is the responsibility of the person using these labels to check with the manufacturer of the product into which of the three categories that they fall. Ideally this should be filed in an MRI Safety folder. The International Standard F2503 for Marking Medical Devices and Other Items for Safety in the Magnetic Resonance Environment states MR Safe - an item which poses no known hazards resulting from exposure to any MR environment. MR Safe items are composed of materials that are electrically non-conductive, non-metallic and non-magnetic. Where MR conditional labels are used, it may be necessary to add additional information as to the conditions under which the item may be safely used. If there is any uncertainty then they should be assumed to be “UNSAFE” until information to the contrary can be obtained.

Specification

The MR5575 Equine Trolley has been designed for the transportation and positioning of equine, or other large animals within an MR environment.

The materials used within the manufacture of the trolley are widely used within the MR field, the two most common materials used within the product are stainless steel and aluminium.

The main frame and x frames are manufactured from stainless steel, while the side and head panels are manufactured from aluminium.

The trolley is fitted with 5 hydraulic cylinders, four cylinders (positioned on each corner of the trolley) are used for raising the castors off the floor, thus being used as brakes, and have the ability to allow lateral movement while positioning the animal. The fifth cylinder is positioned centrally and is used for raising and lowering the trolley top.

The hydraulics are driven via a 110v A/C motor, while the motor and ancillary items do not cause a problem with the low tesla magnet, **please note that the power should be turned off while scanning occurs.**

The trolley is fitted with six independent side panels, these can slide up and down each side of the trolley on the accessory rail, and be positioned where required. Each panel can pivot using the slide bar to select the desired angle, thus offering a cradle effect for the animal.

PLEASE NOTE THE TROLLEY CAN ONLY BE USED WITH MAGNETS UP TO 0.5T

Table top size	Max length	Max width	Low height	Top height	Max load
mm	mm	mm	mm	mm	Kg
2500 x 500	3250	1560	375	1100	1000

For UK customers a service contract package is available, and details are available upon request from our Service Department on +44 (0) 1484 718000.

For international customers please contact your local Wardray Premise representative for assistance.

MR5575 Trolley parts reference



‘L’ shaped support bar

Adjustable side panels x 6

Accessory rail / slide bar

Head panel

IV Pole holders

(Poles optional extra)

Lobe knob/screw

Locking pin

Cylinder

Control Panel:
Joysticks
and Selector Switch

Lift Cylinder

Cylinder

Extendable legs

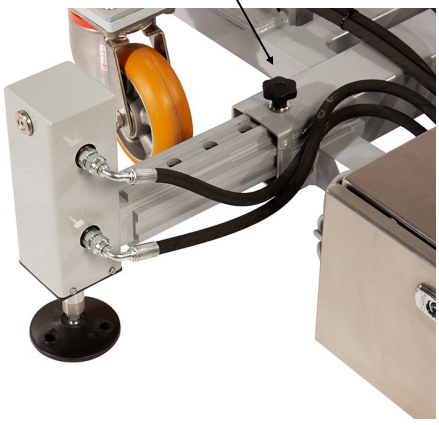
Serial No.

(on back of box)

Oil reservoir

Power plug

Locking pin



Do not attempt to operate until training has been given

Operating Instructions

The Control panel (Fig 1) is located at the head end of the trolley, the panel is fitted with 5 joysticks and a selector switch for fast or slow operation. The joysticks can be used either singularly or in any combination for maximum operator control.



Fig 1

1 2 3 4 5 6

1. Selects Fast or Slow speed, used when small or fast movements are required.
2. Raises or lowers the Left Hand Head End Corner Cylinder
3. Raises or lowers the Right Hand Head End Corner Cylinder
4. Raises or lowers the Left Hand Foot End Corner Cylinder
5. Raises or lowers the Right Hand Foot End Corner Cylinder
6. Raises or Lowers the Table Top .

The trolley is extremely robust and any part of the trolley top can be used to manoeuvre the trolley.

IMPORTANT NOTE: Do not use the IV pole holders to steer or move the trolley.

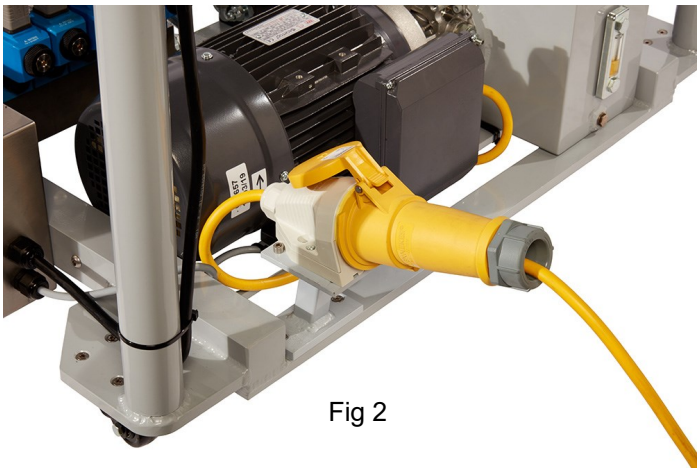


Fig 2



The trolley is powered via a 240V / 110V step down transformer which is plugged into a 240V socket, protected by a 16 Amp D rated breaker (Fig 2).

Power should be switched off during scanning to avoid artefacts.

IMPORTANT NOTE: Operators must be aware and take care of trailing cables across floors at all times.

Operating Instructions

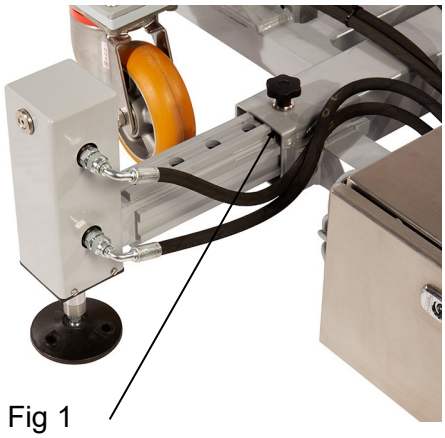


Fig 1

Each corner of the trolley is fitted with an extendable leg. The legs can be extended outwards horizontally by manually removing the securing pin (Fig 1) and pulling the leg out, remember to replace pin before operating the lift mechanism. If required, the leg can be removed completely for ease of positioning the trolley next to the scanner for example.

The 4 corner cylinders can be used for braking and for stability, by using joysticks 2 to 5 to operate. This will be demonstrated during training.

IMPORTANT NOTE: Do not move the trolley with the legs extended.

The table comes complete with six side panels and one head section (Fig 2). The side panels can be positioned on either side of the table, and are located on the accessory rail (Fig 3), they can slide into any position along the rail and can also slide on to the head section, adding width to the headrest, providing additional support for the horses head.

When the side panels are in position they can be secured by tightening the screw located in the slide block which is located on the accessory rail (Fig 4). Adding and securing side panels should be done **outside** the MR room, before the animal is fully supported by the trolley. An Allen key is provided to facilitate this.

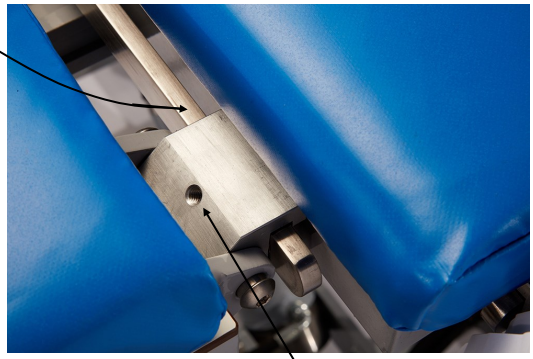
For ease of use it may require two people to position the side panels safely on to the accessory rail.

Each side panel has the facility to add a leg extension panel (Fig 5), available as an optional extra, to support the extended legs during a lateral scanning procedure. This can be done inside the MR room. These have two pins which are slotted into the two holes in the side panel and secured by tightening the lobe knob/screw underneath, as seen in the blue circles below. To remove the leg extension panel, loosen the lobe knob/screw and pull the extension panel outwards. Again, for ease of use this may require two people.

Fig 2



Fig 3



Securing Screw - Fig 4



Fig 5

IMPORTANT NOTE: The Allen key is not MR Safe and should not be taken into the MR room.

Operating Instructions

IMPORTANT NOTE: Any part of the trolley can be used to push/move it, with the exception of the IV Poles / IV Pole holders. We strongly recommend a Health & Safety Assessment is done due to the weight of the trolley (600Kg) and the weight of the horse combined.

Refer to your local rules / guidance regarding manual handling and lifting of weights.

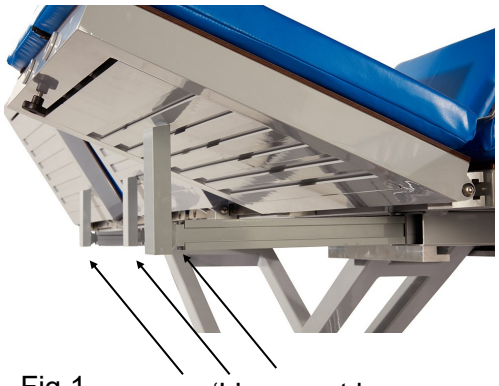


Fig 1

The side panels can be positioned at various angles, helping to support the horse or large animal.

The positions are determined by sliding out the 'L' shaped support bar (Fig 1) and locating the upright in the slots on the underside of the side panels. **Ensure support is located correctly**



Fig 2

By un-slotting the support bar and rotating it through 90 degrees to the left or right, then sliding the support bar back into its location slot, the side panel can be lowered slowly onto the support (Fig 2). **Ensure support is located correctly**

An IV Pole can be purchased as an optional extra; available with 1, 2 or 4 hooks and can be attached at the head end of the trolley on the left or the right of the head (Fig 3).

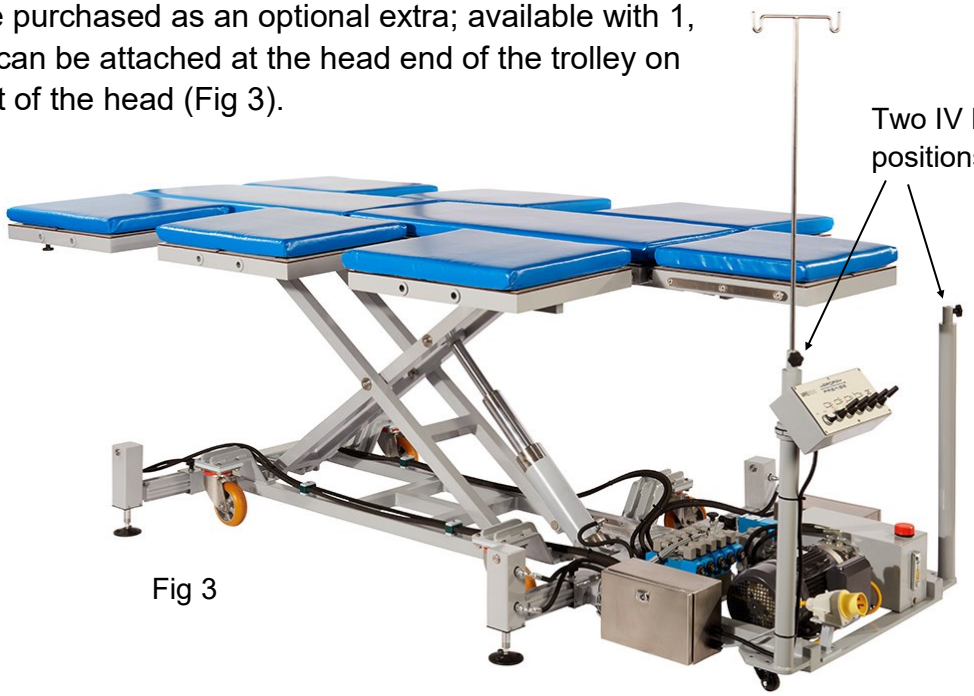


Fig 3

Maintenance

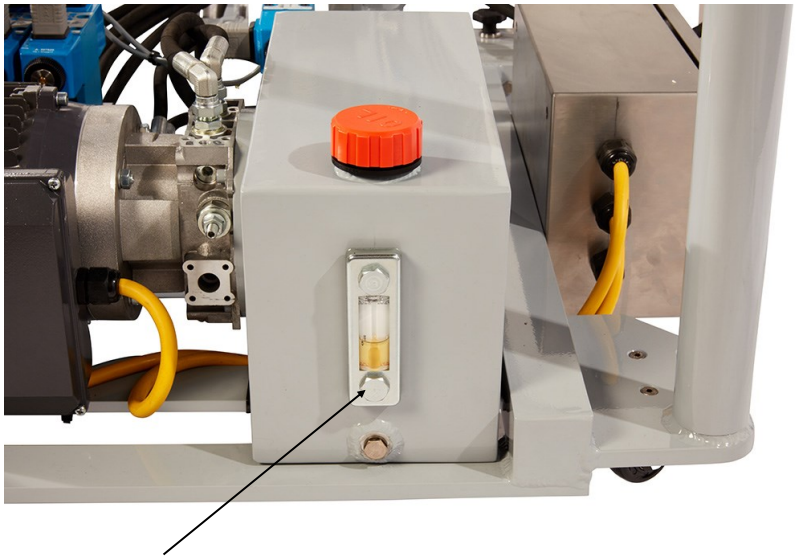


Fig 1—Eye glass

Recommended Hydraulic Oils

Mobil	EAL 32
	AW 32
MILLERS OILS	MILLWAY AS 32
Castrol	HYSPIN AWS 32
Gulf	ZF AW 32

The hydraulic system is located on the rear frame and houses the oil reservoir. The reservoir will be filled and checked during the commissioning process and also during a Service Contract visit.

In the unlikely event that the oil needs topping up, please use the recommended hydraulic oils listed.

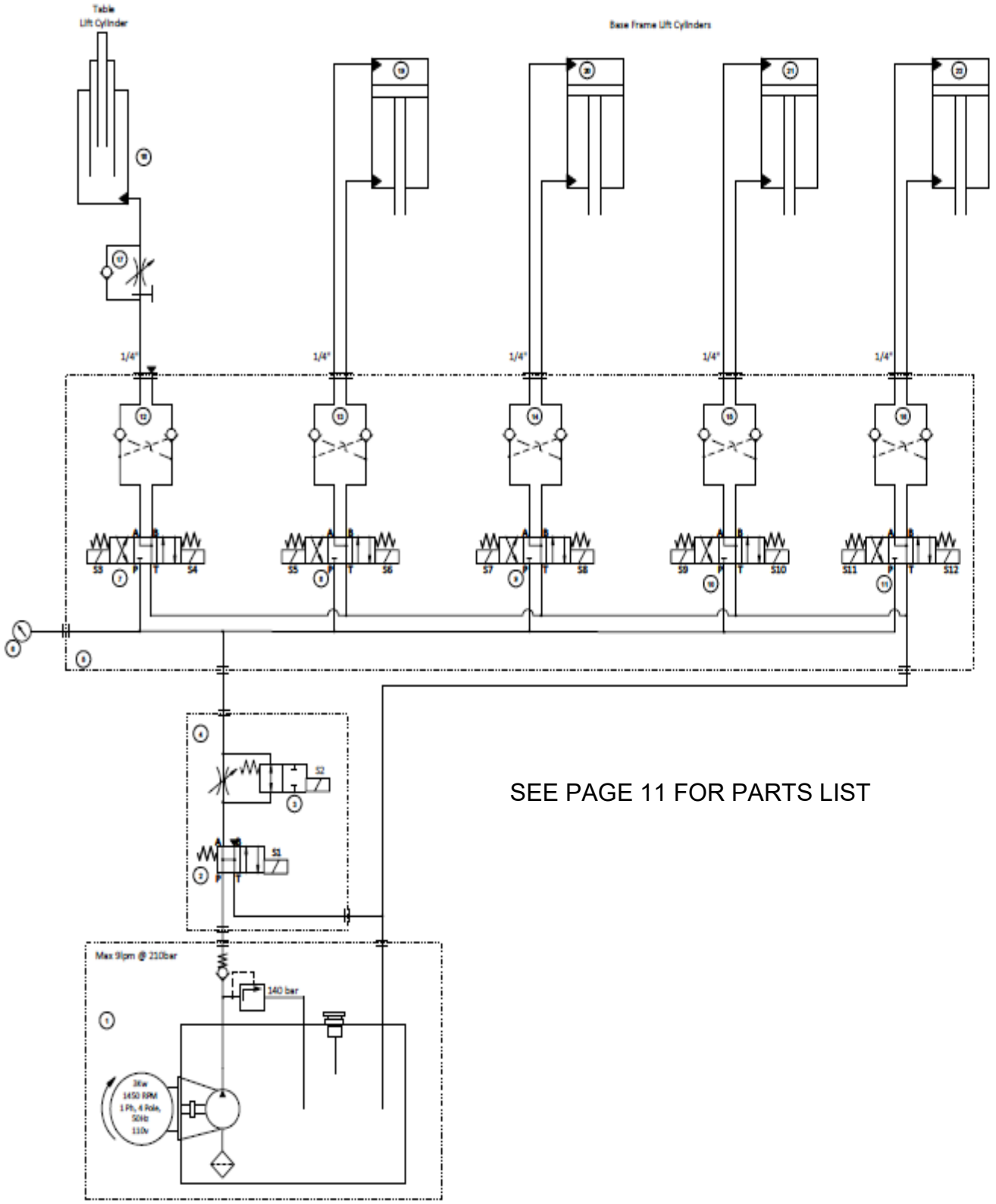
Unscrew the red filler cap and fill until the eye glass is shown half full (Fig 1).

IMPORTANT NOTE: Do not overfill the oil reservoir.

We recommend that this equipment is PAT (Portable Appliance Test) tested every 12 months to verify it's continued electrical safety.

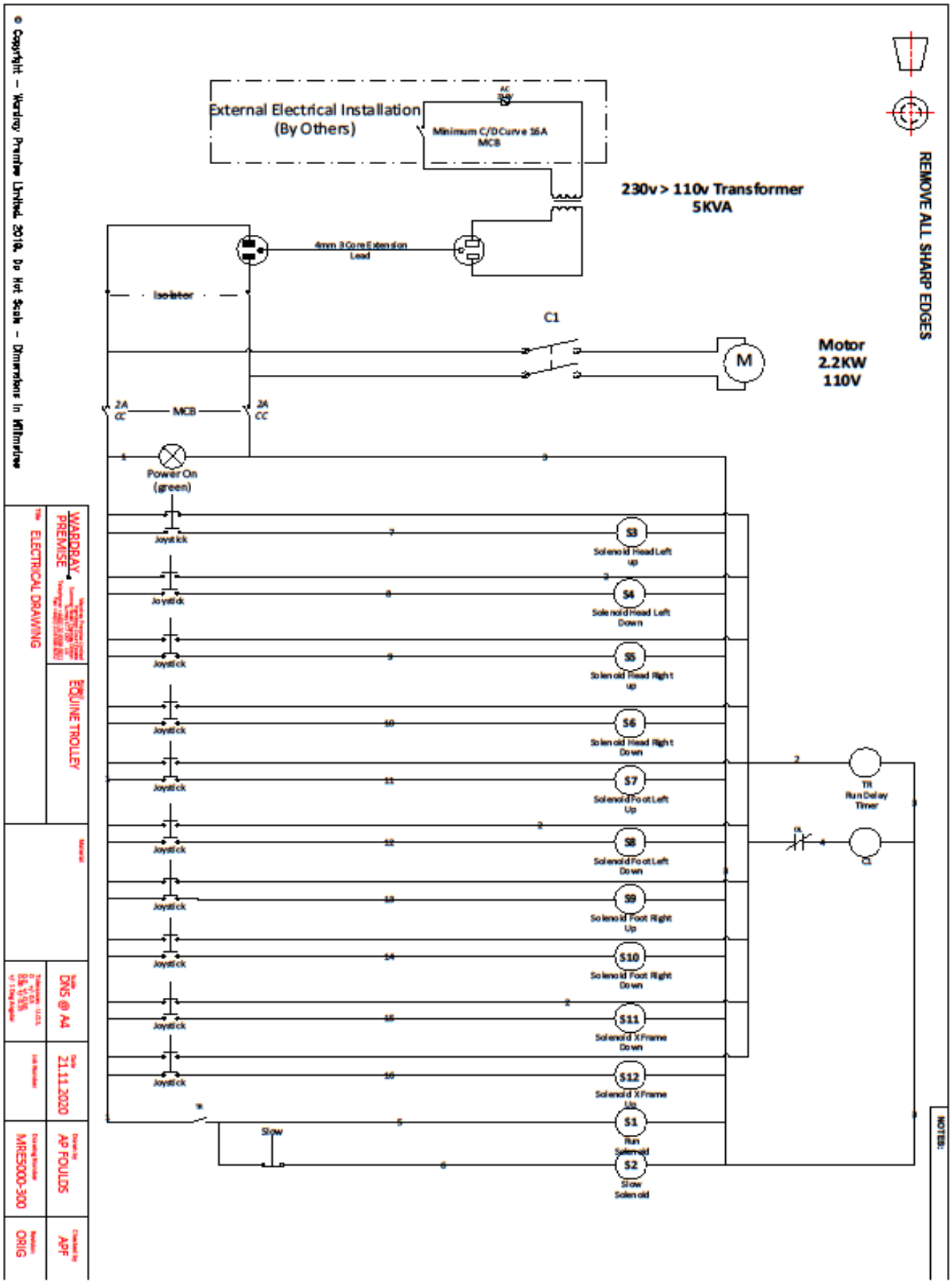
The end user must have a written programme for the inspection and testing of all its electrical equipment. A formal visual inspection of portable appliances, cables and leads should be carried out at least annually, and the Equine Trolley must be included in this programme of work

Maintenance



SEE PAGE 11 FOR PARTS LIST

MR5575 HYDRAULIC PARTS LIST	
ITEM No	DESCRIPTION
1	HYDRAULIC POWER UNIT
2	ONLOAD AND OFFLOAD VALVE
3	2-SPEED VALVE
4	SINGLE STATION MANIFOLD
5	FIVE STATION MANIFOLD
6	PRESSURE GAUGE
7	DOUBLE SOLONID DIRECTIONAL VALVE
8	DOUBLE SOLONID DIRECTIONAL VALVE
9	DOUBLE SOLONID DIRECTIONAL VALVE
10	DOUBLE SOLONID DIRECTIONAL VALVE
11	DOUBLE SOLONID DIRECTIONAL VALVE
12	DOUBLE PILOT OPERATED CHECK VALVE
13	DOUBLE PILOT OPERATED CHECK VALVE
14	DOUBLE PILOT OPERATED CHECK VALVE
15	DOUBLE PILOT OPERATED CHECK VALVE
16	DOUBLE PILOT OPERATED CHECK VALVE
17	DOUBLE PILOT OPERATED CHECK VALVE
18	PRESSURE COMPENSATED FLOW CONTROL VALVE – METERED OUT
19	TELESCOPIC TABLE LIFT CYLINDER
20	BASE FRAME CYLINDER 1
21	BASE FRAME CYLINDER 2
22	BASE FRAME CYLINDER 3
23	BASE FRAME CYLINDER 3
	SOLONOIDS – 110V
S1	ENERGISED – LOAD SYSTEM, DE-ENERGISE OFFLOAD SYSTEM
S2	ENERGISE ENABLE SPEED CONTROL, DE-ENERGISE FAST SPEED
S3	RETRACT TABLE LIFT CYLINDER
S4	EXTEND TABLE LIFT CYLINDER
S5	EXTRACT BASE FRAM CYLINDER 1
S6	EXTEND BASE FRAME CYLINDER 1
S7	EXTRACT BASE FRAME CYLINDER 2
S8	EXTEND BASE FRAME CYLINDER 2
S9	EXTRACT BASE FRAME CYLINDER 3
S10	EXTEND BASE FRAME CYLINDER 3
S11	EXTRACT BASE FRAME CYLINDER 4
S12	EXTEND BASE FRAME CYLINDER 4


© Copyright – Wardray Premise Limited 2019. Do Not Scale – Dimensions in Millimetres
External Electrical Installation
(By Others)
AC 230V
Minimum C/D Curve 16A MCB
230v > 110v Transformer
5KVA
4mm 3 Core Extension Lead
Isolator
C1
M
Motor
2.2KW
110V
2A CC
MCB
2A CC
Power On (green)
Joystick
S3 Solenoid Head Left up
S4 Solenoid Head Left Down
S5 Solenoid Head Right up
S6 Solenoid Head Right Down
S7 Solenoid Foot Left Up
S8 Solenoid Foot Left Down
S9 Solenoid Foot Right Up
S10 Solenoid Foot Right Down
S11 Solenoid X Frame Down
S12 Solenoid X Frame Up
TR Run Delay Timer
Slow
S1 Run Solenoid
S2 Slow Solenoid
REMOVE ALL SHARP EDGES
NOTES:
WARDRAY PREMISE
ELECTRICAL DRAWING
EQUINE TROLLEY
DNS @ A4
21.11.2020
AP FOULDS
MRE5000-300
ORIG
APF

Do’s and Dont’s

Do ensure the following are observed:

- The trolley should only be used by properly trained staff at all times.
- Any movement of the trolley is planned and supervised and carried out by trained and competent operators.
- The trolley must only be used for the purpose for which it was designed.

Don't:

- drop heavy or sharp objects onto the radio translucent top.
- place a weight of over the equivalent of 1000Kg onto the trolley.
- place a weight of or equivalent 300Kg on any of the side panels.
- spill oil or other liquids/chemicals on the mattress.
- attempt to rectify any faults on the trolley without contacting Wardray Premise Ltd.
- use the trolley without a mattress.
- allow staff to fix or store any items on the trolley unless you have verified the MR safety of the items.

The trolley should be serviced regularly, but only by Wardray Premise trained engineers, as they will carry the correct spares to guarantee safety and compatibility of the trolley. Failure to comply with this will invalidate your warranty and could compromise its MR compatibility and therefore safety.

General Maintenance

It is strongly recommended that the following checks are carried out on a weekly basis by trained personnel, to ensure trouble free operation of the trolley.

- Check the radio translucent top for cracks or other obvious signs of damage or contamination. Report any damage found.
- Check mattress and panels for any sign of damage or contamination. Report damage or clean where necessary with mild soap and water.
- Check castors for free movement, check and remove any debris that may have been caught between the forks and around the axles. This is a common occurrence and can lead to a shortened life expectancy of the castor if left unattended.
- Check the four corner lift cylinders for movement and leaks.
- Check the side and head panel sections for ease of movement.
- Particular attention must be made to the raise and lower function. Raise and lower the trolley a couple of times before using, check for any leaks, especially if the trolley has not been used for a long period of time.
- Check the electrical cables, plug, transformer and connections for signs of damage, breaks or signs of over-heating (eg: burn marks).
- Check the oil level (see page 9).

Please register your product with us, via the Warranty Registration Form (see page 15), for ease of contact in case of urgent upgrades or recalls.

If the unit is damaged please do not attempt to repair as this could invalidate your warranty and could compromise its MR integrity and therefore safety, please call or email Wardray Premise Limited:

T: +44 (0) 1484 718000

F: +44 (0) 20 8398 8032

E-MAIL: sales@wardray-premise.com

Please include the product code and the product's serial number when contacting Wardray Premise.

Cleaning

This product should be washed with a disposable cloth wrung out in a solution of warm water and detergent. The product should be rinsed with warm water and dried thoroughly with paper towels.

If required the product can be washed down with hand hot sodium hypochlorite solution up to 1% or 10000 parts per million chlorine combined with a detergent. Alternatively, follow your local guidelines or instructions.

IMPORTANT NOTE: If necessary, this product can be hosed down, but first ensure the trolley is not connected to the electric supply.

If any of the above give cause for concern, please contact your Wardray Premise service provider.

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Summer Road Thames Ditton
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e-mail: sales@wardray-premise.com

Website: www.wardray-premise.com

WARRANTY REGISTRATION FORM

To receive full warranty cover on your equipment, please complete and return this form at your earliest convenience

Reply e-mail: sales@wardray-premise.com
Reply Fax: +44 (0)20 8398 8032

Name:	
Job Title:	
Company:	
Address:	
Telephone:	
Fax:	
Email:	
Product Code/ Description:	
Product Serial/ Reference No:	
Please enter date Product received:	

If your department currently has any other Wardray Premise Ltd. equipment, which is not already covered under a service contract, please contact Servicing-Admin@wardray-premise.com to discuss an all-inclusive package.

If you would like any further information or would like to be contacted regarding any of our products, please add your enquiry to the box below.