

# ARJOHUNTLEIGH

## **CONTOURA® BARIATRIC BEDS**

### **MODELS C1000 & C1080**

## **SERVICE MANUAL**

**Build Level 53**

**Document No. 746-129**

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## Preface

Read and understand this manual before attempting to service or repair the equipment.

This manual is intended to be used by Huntleigh Healthcare approved service technicians. The manual may be provided to a customer in response to customer requirements, but in no event will Huntleigh Healthcare be responsible for any service or repair performed by customers or third parties.

## Warnings, Cautions and Notes

**WARNINGS** given in this manual identify possible hazards in procedures or conditions which, if not correctly followed, could result in death, injury or other serious adverse reactions.

**Cautions** given in this manual identify procedures or conditions which, if not correctly followed, could result in equipment failure or damage.

Notes given in this manual are used to explain or amplify a procedure or condition.

## General Warnings

### WARNING

**Before starting any service or maintenance procedures, ensure that the equipment has been adequately decontaminated.**

**Electrical equipment can be hazardous if misused. Obey safety instructions.**

**Do not use electrically powered beds in the presence of flammable gases such as anaesthetic agents.**

**The electrical power outlet on the foot end of the model C1080 is only for use with Huntleigh Healthcare approved pumps, e.g. *Breeze*. Do not use it to supply power to any other equipment**

**The bed and its sub-assemblies are very heavy and appropriate precautions must be taken to avoid injury when lifting or moving them.**



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## 1.1 About This Manual

This manual contains information on servicing and maintenance of the Huntleigh Healthcare **Contoura™ C1000** series beds.

The manual comprises the following sections:

Section 1 - Introduction : (this section) Includes a general description of the equipment with an explanation of the function and operation of the controls.

Section 2 - Operational Maintenance : Describes routine procedures and checks to ensure correct operation during the service life of the equipment.

Section 3 - Preventive Maintenance : Gives details of regular, periodic maintenance actions to ensure correct operation of the equipment.

Section 4 - Testing : Defines a serviceability test to verify correct operation of the equipment if function is suspect or following any maintenance or servicing procedure.

Section 5 - Troubleshooting : Contains details of fault symptoms, their possible cause and suggested actions to rectify the problem.

Section 6 - Servicing Instructions : Contains illustrated procedures for removal and installation of replaceable parts and sub-assemblies.

Section 7 - Calibration : Gives calibration procedures for the electrical controls and actuators.

Section 8 - Technical Data : Contains a list of technical data for the equipment and components.

Appendix A - Assembly Spares Manual : Contains the Modification Record, together with drawings and detailed parts lists for the identification of replaceable parts.

Appendix B - Disposal of Gas Springs : Contains instructions for the safe disposal of unserviceable gas springs.

## 1.2 Product Description

The **Contoura™ C1000** series beds are designed to accommodate patients weighing up to 450 kg. The beds have multiple patient positioning functions and other features to aid patient therapy. A self contained weighing system on Models C1050 and C1080 enables continuous monitoring of patient weight and weight change.

The bed has a four section profiling mattress platform with power driven adjustment of bed height, tilt angle, backrest angle and leg elevation. Kneebreak angle is manually adjustable.

The integral folding safety sides also include width adjustment.

The mattress platform incorporates a built-in bed extension and removable (lift off) headboard and foot board. Revolving buffers are provided on all four corners.

The bed is mounted on four large diameter castors with braking and steering facility. The complete base of the bed is enclosed by a moulded and sculptured cover.

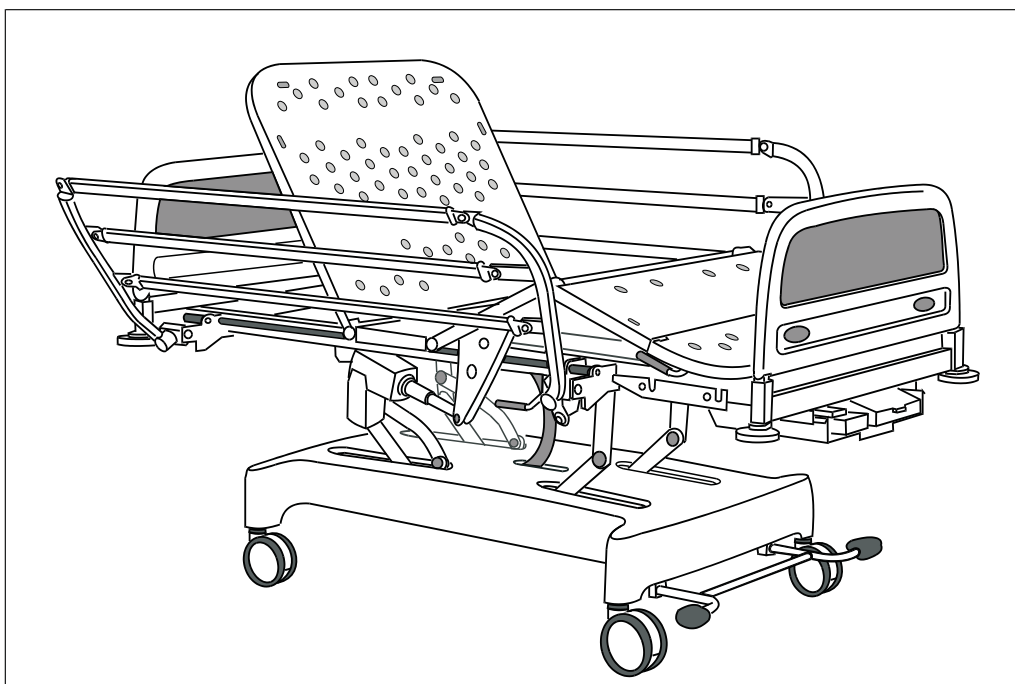


Fig. 1-1 Contoura C1000 series bed

On all models the power driven functions of height, backrest angle and leg elevation are operated by simple push button controls. The push button handset may be used by the nurse or patient. A second handset, accessible only to the nurse, incorporates additional push buttons for two-way tilt control and CPR emergency setting.

The bed also has an attendant control panel (ACP), by means of which the power driven functions can be individually disabled. Operation of the bed by the patient is thus at the discretion of the nurse.

The electrical actuators consist of a screw and nut assembly driven by a 24V d.c. motor and gearbox. Power for the actuators is derived from a mains operated d.c. power supply with emergency battery back up.

### 1.3 Operation

#### WARNING

**The bed is very heavy and at least two people are needed to move it. Use extra caution when moving on an incline.**

#### 1.3.1 Brakes and Steering

At the foot of the bed is a pair of linked brake pedals which operate on all four castors.

When the pedals are in the middle position, the brakes are free and all four castors are able to rotate and swivel.

When the pedals are pushed down, the brakes are applied on all four castors.

When the pedals are raised, both head end castors are engaged so that they cannot swivel. Always engage both castors in line and trailing. The bed can then be steered by pushing from the foot end.

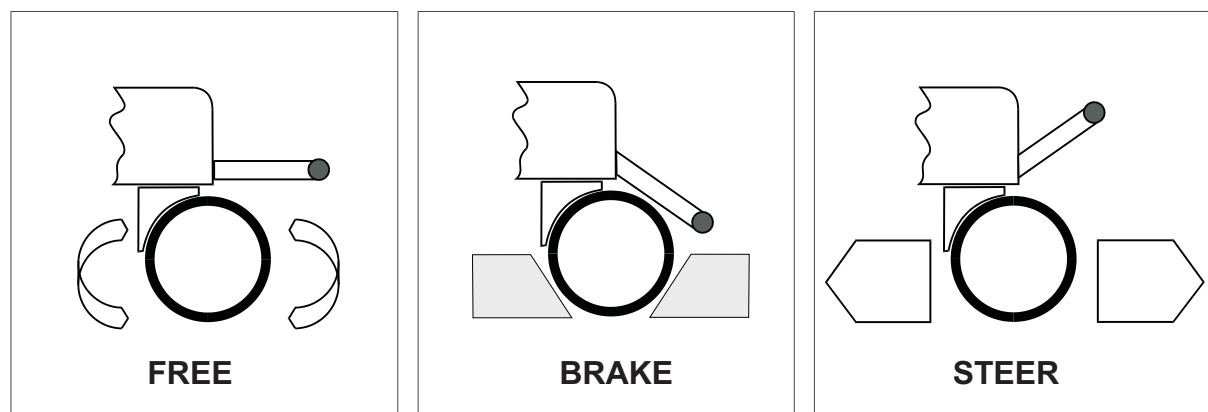


Fig. 1-2 Brakes and steering



### 1.3.2 Safety Sides

*To lower the safety side:* Press the release button (1) and lower the rails toward the foot end (2).

*To raise the safety side:* Lift the top rail up and toward the head until the latch engages at maximum height.

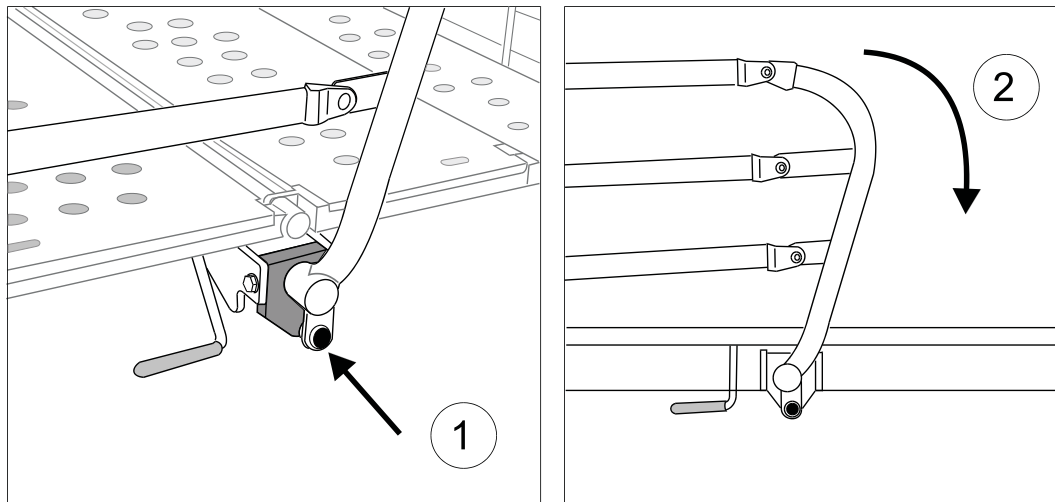


Fig. 1-3 Lowering the safety side

The safety sides can be inclined outward at the top to increase the in-bed width or moved to the upright condition for transport. When sides are upright, the bed will pass comfortably through a 120 cm opening.

*To increase in-bed width:* Lift the release handle (3) and swing the top rail outwards (4) until the mechanism locks.

*To reduce the in-bed width:* Lift the release handle (3) and swing the side up (4) until the mechanism locks in the upright position.

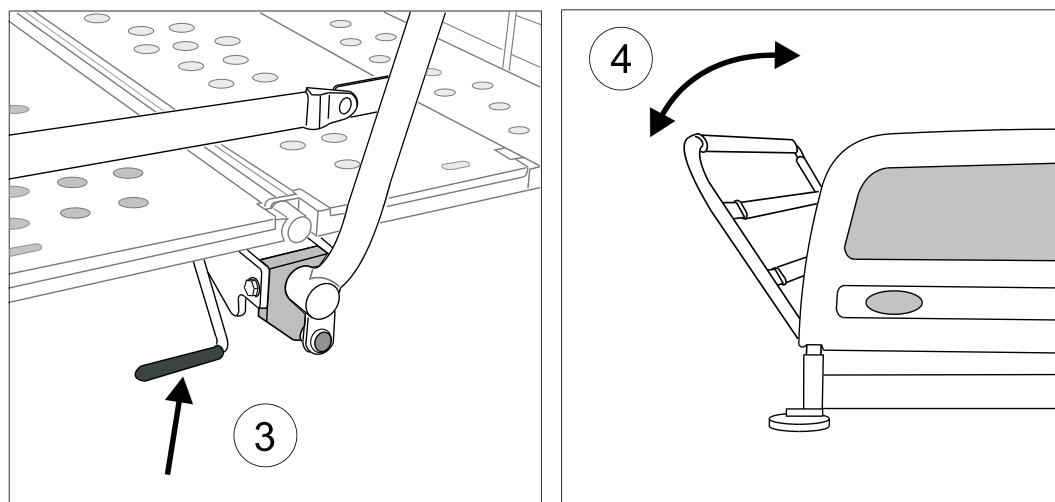


Fig. 1-4 Safety side width adjustment

### 1.3.3 Bed Extension

Before extending or shortening the calf section, ensure that the legs are lowered to the horizontal position and the foot end strut is raised (disengaged).

*To extend the bed:* Apply the brakes. Lift the locking handle (1) and pull out the foot end of the mattress deck (2). Return the handle to horizontal and re-engage the lock. Slide back and lift the locking lever (3) and pull out the foot end of the calf section (4). Re-engage the lever to lock in the extended position. Install a mattress extension squab.

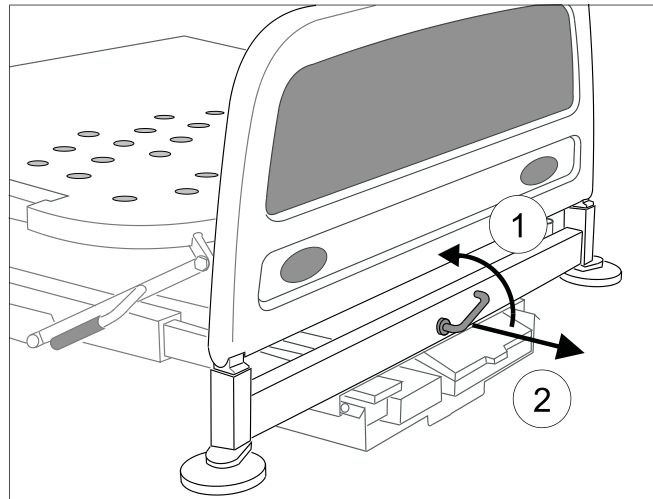


Fig. 1-5 Extending the bed

*To retract the bed:* Remove the mattress extension squab. Slide back and lift the locking lever (3) and push in the foot end of the calf section (4). Re-engage the lever to lock. Lift the locking handle (1) and push in the foot end of the mattress deck (2). Return the handle to the horizontal and re-engage the lock.

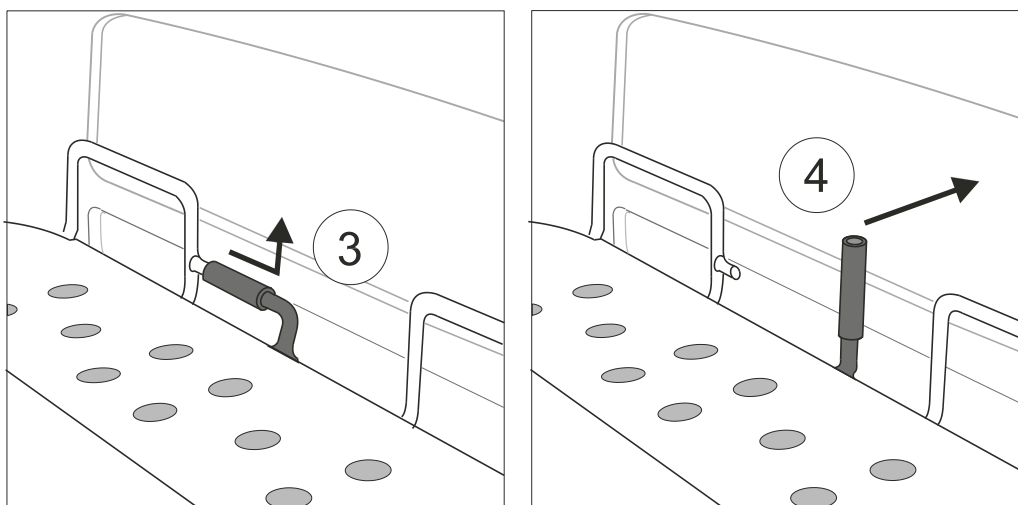


Fig. 1-6 Extending the mattress deck

### 1.3.4 Kneebreak Angle

When the legs are raised, the kneebreak angle can be adjusted using the strut at the foot end of the calf section.

*Foot up position :* With the leg sections lowered to the horizontal position, push down the handle (1) and engage the strut in the slot (2). Raise the legs to the required height.

*Foot down position :* With the leg sections lowered to the horizontal position, lift the handle (1) and disengage the strut from the slot (2). Raise the legs to the required height.

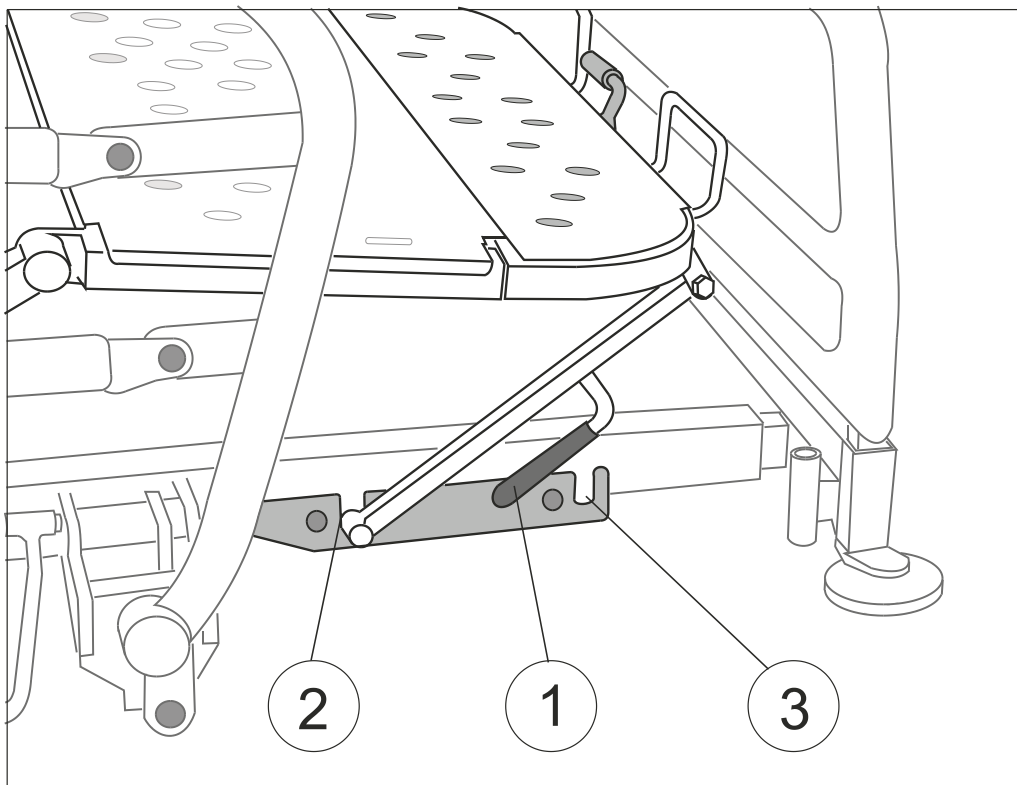


Fig. 1-7 Adjusting the kneebreak angle

The second slot (3) is used when the bed is extended.

### 1.3.5 Backrest Adjustment

The angle of the backrest is adjusted by means of push buttons. Refer to **Power Operation** later in this section.

### 1.3.6 Leg Elevation

As the legs are raised, by increasing the angle of the thigh section, the kneebreak angle will increase correspondingly.

The elevation of the leg section is adjusted by means of push buttons. Refer to **Power Operation** later in this section.

### 1.3.7 Height Adjustment

The height of the mattress platform is adjusted by means of push buttons. Refer to **Power Operation** later in this section.

### 1.3.8 Tilt Adjustment

The angle of tilt is adjusted by means of push buttons on the Nurse Handset. Refer to **Power Operation** later in this section.

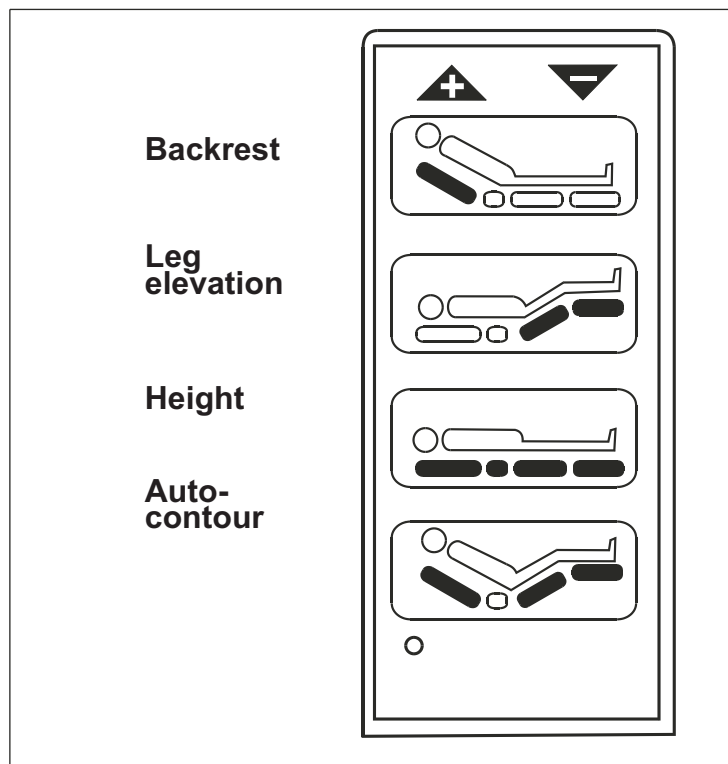


Fig. 1-8 Patient control handset

### 1.3.9 Power Operation

#### 1.3.9.1 General

The bed is provided with power driven adjustment of backrest angle, leg elevation, bed height and tilt angle.

The functions are operated from a push button handset which is connected to the bed by an extendable, flexible cable.

When a push button is pressed, the appropriate bed function will operate until the push button is released or the limit of travel is reached. The **Auto-contour** button operates both backrest and leg elevation simultaneously.

The backrest, leg and height controls are duplicated on a second handset, accessible only to the nurse, which has additional push buttons for the control of tilt angle and emergency CPR configuration.

The nurse handset is stored at the foot end of the bed.

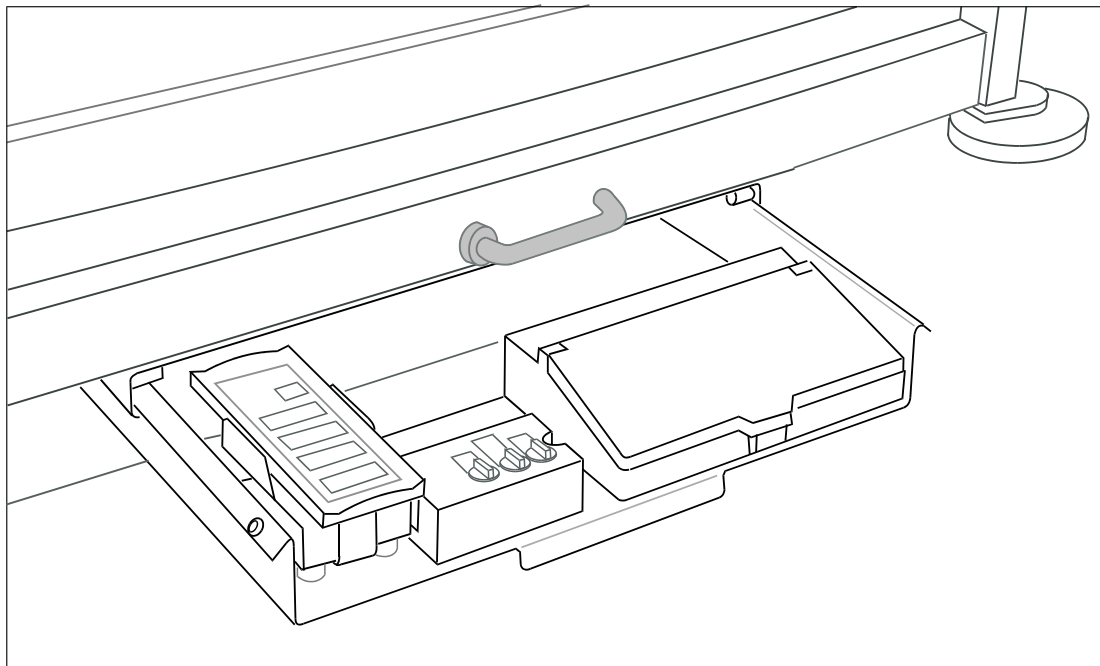


Fig. 1-9 Pull out the sliding tray

#### 1.3.9.2 Control Inhibit (using the ACP)

By using the Attendant Control Panel (ACP), the nurse or carer has the discretion to disable the push button controls and thus limit or prevent operation of the bed by the patient.

Pull out the sliding tray beneath the foot end of the mattress platform. This gives access to both the ACP and the user interface module for the weighing system if fitted. The nurse handset is also stored on this tray. (Use of the weighing system is described later in this section.)

On the ACP is a rotary ‘lock-out’ switch for each bed function. To prevent the patient from making an adjustment, disable that particular bed function by turning the lock-out switch so that the pointer is horizontal. In this condition the selected push buttons are disabled on both the patient handset and the nurse handset.

Because the bed height and tilt angle are determined by the same two actuators, both these functions are disabled by the same lock-out switch.

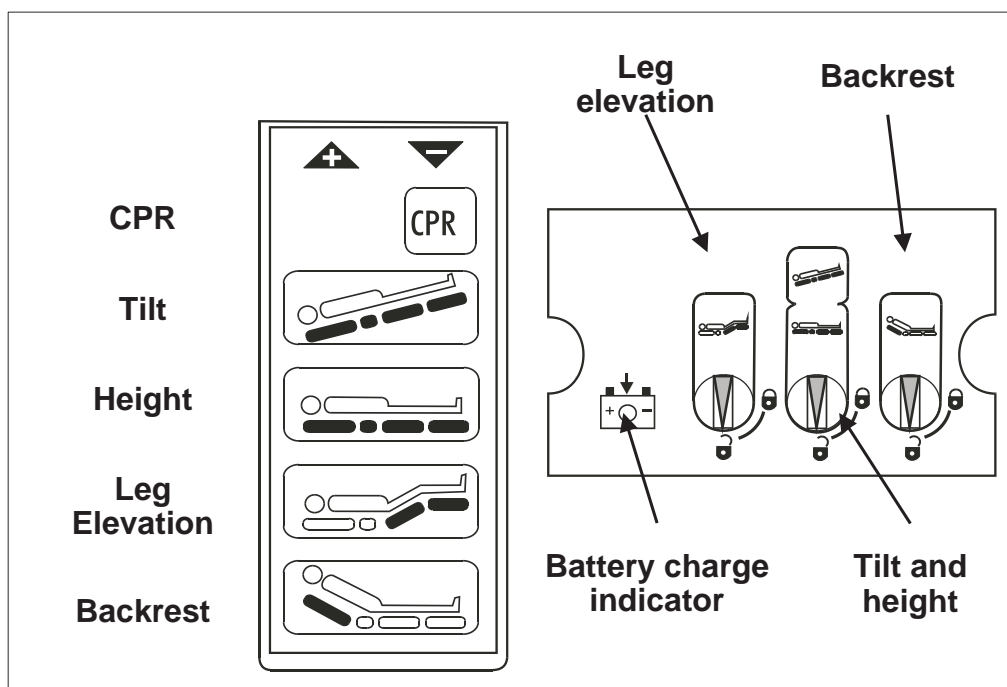


Fig. 1-10 Nurse control handset and ACP

### 1.3.9.3 *Tilt Angle Control*

The tilt angle can only be controlled from the nurse handset.

When reverting from a tilt condition, the bed will automatically stop in the horizontal position. To make a further adjustment it is necessary to briefly release the push-button.

### 1.3.9.4 *CPR Emergency*

There is a CPR button on the nurse handset.

Press and hold this button to automatically return the bed to a flat, horizontal, low height condition.

Before using the CPR button, ensure that all lock out switches on the ACP are in the vertical, unlocked position.

#### **1.3.9.5 Calibration Error**

When operating the function buttons, if a bleeping sound is heard and the function is inoperative this indicates an actuator calibration error. Refer to Section 7, Calibration.

#### **1.3.9.6 Batteries**

The emergency back-up battery is automatically switched on if the bed is disconnected from the mains supply. Battery life is limited and is intended for emergency use only. To ensure that batteries are kept in a fully charged condition, the bed must be connected to the mains power supply at all times during normal use.

If, when the bed is operated using the batteries a bleeping sound is heard, this indicates a low charge condition. The bed should be re-connected to the mains power supply, for a minimum of 24 hours, in order to recharge the batteries.

The battery charge indicator on the ACP illuminates when the batteries are being charged.

## **1.4 Patient Weighing System (Model C1050 and C1080)**

### **1.4.1 General**

Four load cells are installed in the bed frame. The electrical output signals from the load cells are integrated in a load convertor which provides a single output to the user interface. Separate displays are provided for patient weight and patient weight change.

### **1.4.2 Accuracy**

The weighing system is very sensitive and will be affected by a number of outside influences. It is therefore important that the following criteria are observed.

- a) The bed must be installed on a flat and level floor.
- b) The transport screws must be fully disengaged prior to use.
- c) The bed should be positioned clear of obstructions such as walls, furniture, trailing leads or curtains.
- d) The weighing system should be used within the normal operating ambient temperature range of 10° C to 40° C.
- e) For best results, the patient should be positioned approximately centrally on the bed.
- f) The weighing system is capable of detecting relatively small movements of the patient. It is therefore necessary for patient movement to be minimised during the few seconds required to obtain a stabilised reading and that the operator / nurse stands clear of the bed during this time.
- g) When weighing, the handsets must be replaced in position on the platform.



### 1.4.3 User Interface

Pull out the sliding tray beneath the foot end of the mattress platform. Open the lid of the UIM.

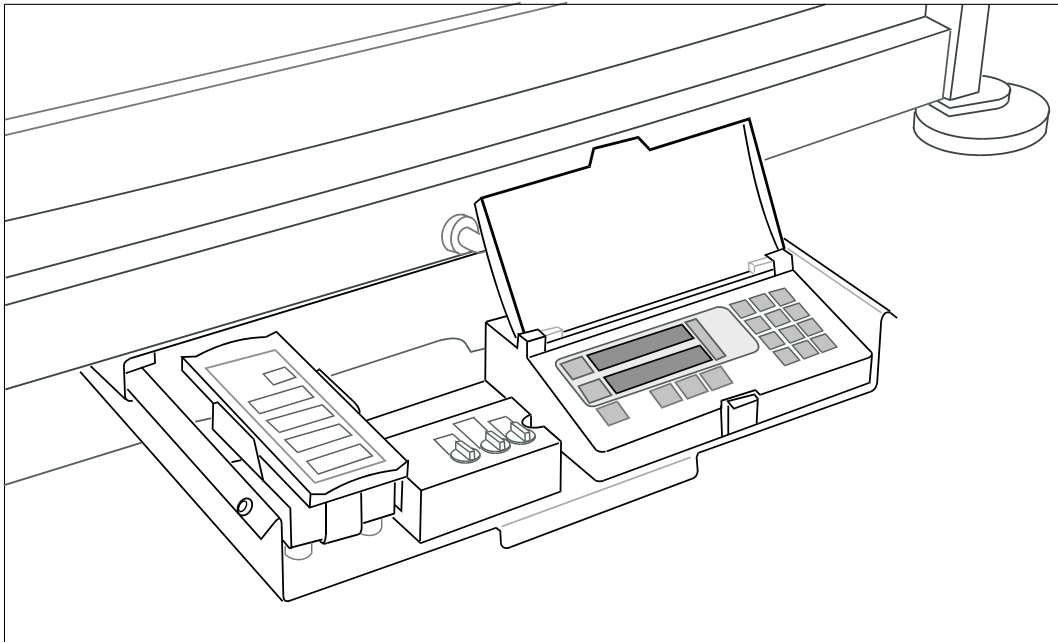


Fig. 1-11 Open the lid of the UIM

### 1.4.4 Operation of the Weighing System (NON EN45501)

Operation of the system is described in the following paragraphs. The way the features are used varies in accordance with the situation viz:

#### *Patient already on the bed*

Enter the previously known patient weight on the top display. Enter the previously known patient weight change on the bottom display. (If not known, zero the bottom display). The indicator will now display patient weight and weight change as patient weight varies, starting at the values entered.

#### *Empty bed*

Zero the top display. Place patient on the bed. Top display reads patient weight. Zero the bottom display. As patient weight varies, the change is shown on the bottom display.

#### 1.4.4.1 System Stable Indicator

After pressing buttons, a small delay occurs before the display responds. The System Stable indicator (F) will illuminate to show that display readings are valid.

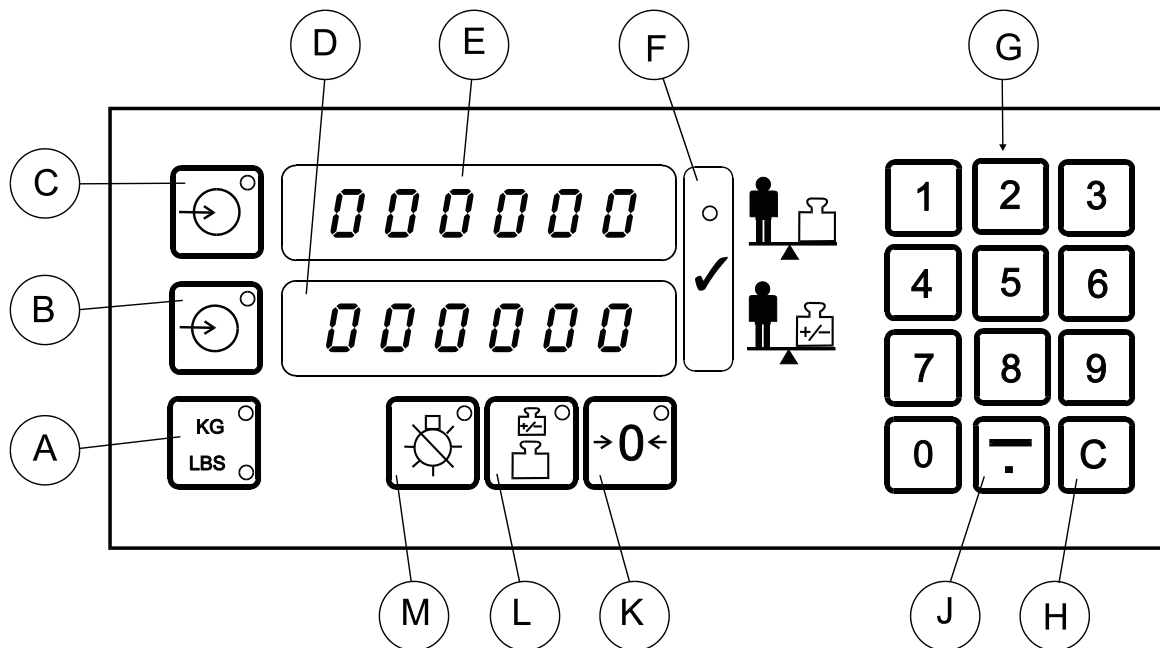


Fig. 1-12 User interface module (Non EN45501)

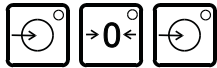
<u>Item</u>	<u>Description</u>	<u>Function</u>
A	Scaling Push Button	Changes scaling from lbs. to kg. or vice-versa. The appropriate LED indicator will be ON
B	Enter Push Button	Used to enter data on lower display (patient weight change)
C	Enter Push Button	Used to enter data on upper display (patient weight)
D	Lower Display	Shows patient weight change
E	Upper Display	Shows patient weight
F	System Stable Indicator	Confirms system is stable (OK to read display)
G	Numerical Keypad	Used for manual input of weight or weight change
H	Clear Push Button	Clears last keypad entry
J	Minus or Decimal Push Button	Enters decimal point following entry of any digit. Enters minus if no digit previously entered.
K	Set Zero Push Button	Used to zero display
L	Auto Compensation Push Button	Allows addition or removal of objects from the bed without affecting subsequent readings
M	Display ON / OFF	Turns display on or off.

#### 1.4.4.2 **Change Scaling**



When both displays are showing weight, press this push button to change the display from pounds to kilograms or vice-versa. The appropriate LED indicator on the push button will illuminate.

#### 1.4.4.3 **Zero Top or Lower Display**



Press the adjacent Enter Push Button.  
The display will read 0.

Press the Zero Push Button.  
The display will continue to read 0.

Press the Enter Push Button again.  
The display will stabilise after a few seconds and indicate 0.000.

#### 1.4.4.4 **Enter Previous Patient Weight**



Press the upper Enter Push Button.  
The display will read 0.

Enter known patient weight on the keypad.  
(e.g. 132.4). The display will read 132.4.

Press the upper Enter Push Button again.  
The display will stabilise after a few seconds and indicate 132.400.

#### 1.4.4.5 **Enter Previous Patient Weight Change**



Press the lower Enter Push Button.  
The display will read 0.

Enter known patient weight change on the keypad  
(e.g. -15.3). The display will read -15.3.

Press the lower Enter Push Button again.  
The display will stabilise after a few seconds and indicate -15.30.

#### 1.4.4.6 **Auto-Compensation**

The auto-compensation feature can be used in any weighing situation to add or remove objects from the bed (pillows, books equipment etc.) without affecting subsequent weight readings.



Press either Enter Push Button.  
The adjacent display will read 0.

Press the Auto- Comp Push Button.  
The adjacent display will continue to read 0 the other display will continue to indicate its original figures.

Press either Enter Push Button.  
The upper display will read `AUTO--COMP`  
The lower display will be blank.

Wait for the system stable indicator to illuminate.

The UIM is now in auto-compensation mode.  
Add or remove objects as required.



Repeat the above sequence of push button operations.  
Both displays will revert to continuous weight display.

#### 1.4.4.7 **Confidentiality Mode**



The display can be turned off or on by pressing the display On/Off button.

#### 1.4.4.8 **Cancelling an Error**

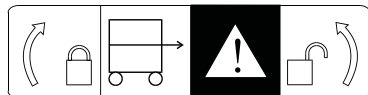


If an error is made when entering data on the keyboard, press the Clear Push Button to delete the error, then enter correct data.

If an error is made when entering a command sequence (e.g., Set Zero is pressed instead of Auto-Comp), press the button again to de-select the command then continue the sequence.

## 1.4.5 Operation of the Weighing system (EN45501 APPROVED)

### 1.4.5.1 Setting Up



Situate the bed on a flat and level floor and apply the brakes. Fully unscrew all four transport screws (anti-clockwise).

Add the mattress and bed linen to the bed. The mattress may be either foam type or an air mattress system complete with pump. Do not install any additional equipment at this stage

Connect the bed to a suitable mains power supply. When first switched on, the system will perform a self test sequence during which the upper display (E) will indicate **Cold** . After a few minutes this message will disappear and the system becomes operational.

Zero the upper and lower displays.

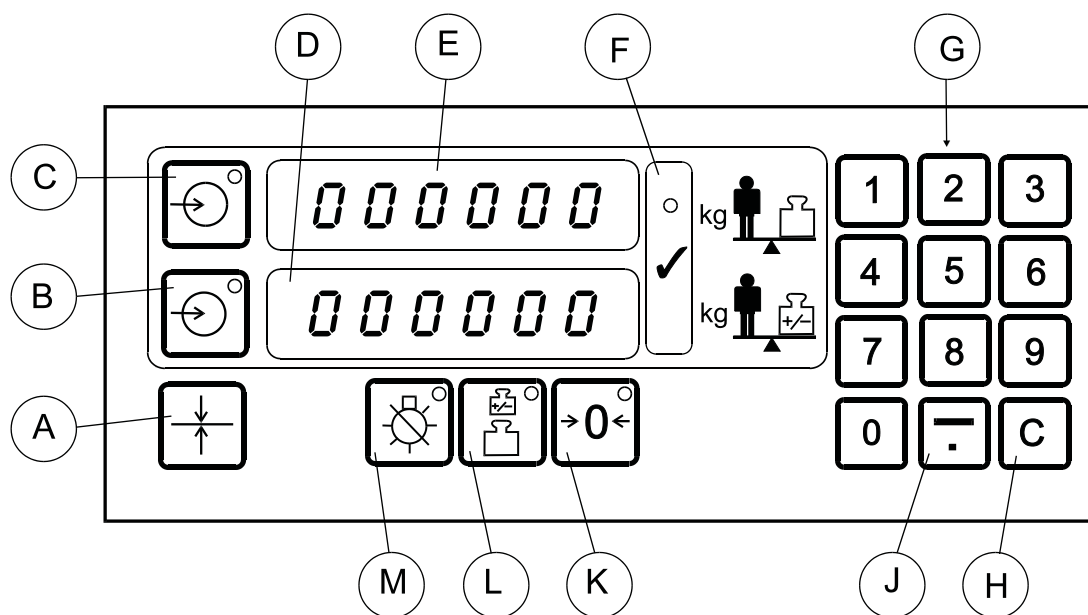
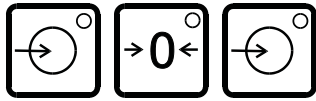


Fig. 1-13 User interface module panel (EN45501 APPROVED)

<b>Item</b>	<b>Description</b>	<b>Function</b>
A	Reset Push Button	Resets upper display to show gross weight.. Resets lower display to zero.
B	Enter Push Button	Used to enter data on lower display (patient weight change)
C	Enter Push Button	Used to enter data on upper display (patient weight)
D	Lower Display	Shows patient weight change
E	Upper Display	Shows patient weight
F	System Stable Indicator	Confirms system is stable (OK to read display)
G	Numerical Keypad	Used for manual input of weight or weight change
H	Clear Push Button	Clears last keypad entry
J	Minus or Decimal Push Button	Enters decimal point following entry of any digit. Enters minus if no digit previously entered.
K	Set Zero Push Button	Used to zero display
L	Auto Compensation Push Button	Allows addition or removal of objects from the bed without affecting subsequent readings
M	Display ON / OFF	Turns display on or off.

#### 1.4.5.2 Zero Upper or Lower Display



Press the adjacent Enter Push Button.  
The display will read zero.

Press the Zero Push Button.  
The display will continue to read zero.

Press the Enter Push Button again.  
The display will stabilise after a few seconds and indicate  $\square \square$ .

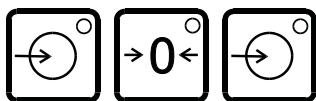
**Note:** *If the displays do not zero correctly or if a series of horizontal dashes appear in the middle of the display, refer to Error Indications (1) Zeroing Error.*

#### 1.4.5.3 Patient Weight

Place the patient on the bed. When the system stabilises, the indicator (F) will illuminate and the upper and lower displays will indicate patient weight.

**Note:** *If a series of horizontal dashes appear at the top of the display, refer to Error Indications (2) Overload Error.*

#### 1.4.5.4 Patient Weight Change



Re-zero the lower display.  
After this any change in patient weight will be indicated on the lower display.

After recording a weight change, either re-zero the lower display to monitor further change or leave the display to monitor change continuously.

#### 1.4.5.5 *Auto-Compensation*

In order to add (or remove) additional equipment, pillows, bed linen or other objects to the bed without affecting subsequent weight readings, the auto-compensation feature must be used.



Press either Enter Push Button.  
The adjacent display will read zero.

Press the Auto- Comp Push Button.  
The adjacent display will continue to read zero, the other display will continue to indicate its original figures.

Press either Enter Push Button.  
The upper display will read *AUTO--COMP*  
The lower display will be blank.

Wait until the System Stable Indicator illuminates.



The display is now in auto-compensation mode.  
Add or remove objects as required.

Repeat the above sequence of push button operations.  
Both displays will revert to continuous weight display.

**Note:** *If, after adding a number of heavy accessories, a series of horizontal dashes appear at the bottom of the display refer to Error Indications (3) Auto-Compensation Error.*



#### 1.4.5.6 **Manual Weight Input**

At any time the power supply to the bed may be lost e.g. due to power failure or if the bed has to be moved. When supply is restored, the upper display will indicate gross weight, which is the combined total for patient weight and added equipment. The lower display will indicate  $\square \square$ . In this circumstance, the last recorded patient weight can be entered manually.



Press the upper Enter Push Button.  
The display will read zero.

Enter known patient weight on the keypad.  
(e.g. 132.4). The display will read  $132.4$ .

Press the upper Enter Push Button again.  
The display will stabilise after a few seconds and indicate  $132.4$ .

After a manual input of weight, the symbol  $\square$  will appear at the left hand side of the display. This symbol indicates that a manual input has been made and it will not disappear until the bed is disconnected from the power supply or the reset button is pressed. If the reset button is pressed, the display will revert to showing gross weight.

(Refer to *Error Indications (3) Auto-Compensation Error*).

#### 1.4.5.7 **Confidentiality Mode**



The display can be turned off or on by pressing the display On/Off button.

#### 1.4.5.8 **Cancelling an Error**



If an error is made when entering data on the keyboard, press the Clear Push Button to delete the error, then enter correct data.

If an error is made when entering a command sequence (e.g., Set Zero is pressed instead of Auto-Comp), press the button again to de-select the command then continue the sequence.

## 1.5 Error Indications

### 1.5.1 (1) Zeroing Error

A series of horizontal dashes along the centre of the display indicates a zeroing error.

In order to maintain accuracy over its weighing range, the system can only be set to zero within 100 kg of the original calibrated zero. The dashes indicate that an excessive amount of equipment has been added to the bed prior to setting the initial zero. This is why it is recommended that only the mattress and bed linen are added to the bed prior to setting zero for the bed.

To clear this error, remove all equipment from the bed except mattress and bed linen. Disconnect the bed from the power supply for a few seconds. Reconnect the power supply and then re-zero the displays.

When installing additional equipment on the bed, use the auto-compensation facility.

### 1.5.2 (2) Overload Error

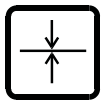
A series of horizontal dashes along the top edge of the display indicates that the safe working load of 500 kg has been exceeded.

This means either the patient is too heavy for the bed or an excessive amount of equipment has been added to the bed prior to placing the patient on the bed.

If the latter is the case, remove equipment from the bed using the auto-compensation facility.

### 1.5.3 (3) Auto-Compensation Error

A series of horizontal dashes along the lower edge of the display indicates that the allowable limit for added equipment of 100 kg has been exceeded.



To clear this error, press the Reset button. The display will revert to showing gross weight.

To proceed, remove all additional equipment from the bed, thereby returning to a display showing patient weight. Then, using the auto-compensation facility, replace all the additional equipment previously fitted.

Alternatively, remove the last piece of equipment added and manually input the patient weight.

If, when the Reset button is pressed, a series of horizontal dashes appear along the top edge of the display, this indicates an overload condition. Refer to (2) above.



## 2.1 General

The equipment has been designed to be virtually maintenance free between service intervals. The periodic cleaning and maintenance necessary will be determined by use and condition.

Examine the bed for obvious signs of damage. If found take appropriate remedial action.

## 2.2 Cleaning

### **WARNING**

**Before commencing any cleaning procedure, disconnect the bed from the electrical power supply and switch off the UPS.**

**Gloves and protective clothing should always be worn when carrying out cleaning procedures.**

Clean all surfaces with a disposable cloth soaked in hot water and a neutral detergent. Start by cleaning the upper parts of the bed and clean along all horizontal surfaces. Work methodically towards the lower sections of the bed and clean the castors last. Take extra care with areas that may trap dirt or dust and undersides that may have been splashed.

Rinse with clean water and dry with paper towels.

The mattress platform panels may be lifted off and washed separately.

After cleaning the bed as described above, wipe all surfaces with a solution of sodium dichloroisocyanurate (NaDCC) at a concentration of 1,000 ppm of available chlorine.

In the case of pooling body fluids, e.g. Blood, increase the concentration of NaDCC to 10,000 ppm available chlorine.

Allow the cleaned parts to dry before replacing the mattress.

### **Caution**

**Do not use abrasive compounds or pads as these may damage the paint finish.**

**Do not use alcohols or phenol-based cleaning solutions.**







The following preventive maintenance checks and procedures should be carried out every 12 months.

If the result of any check is unsatisfactory, take the appropriate remedial action.

**WARNING**

**Before commencing any maintenance activity, disconnect the bed from the electrical power supply and switch off the UPS.**

**Avoid skin contact with lubricants. Gloves and protective clothing should be worn when carrying out maintenance work.**

### 3.1 General

Examine the bed for obvious signs of damage. Make sure that all nuts, bolts and other fastenings are secure and not missing.

Examine the flexible cable for cuts, abrasions, kinking or other deterioration. Check the power connector plug for damage. Check that the adapter fuse is of the correct type and rating (BS 1362 - 5 amp).

If the power connector plug or cable are damaged, they must be replaced as a complete assembly. Under no circumstances should the integral moulded plug be replaced with a rewirable plug.

### 3.2 Castors and Brakes

Check the brakes for efficient operation. Apply the brakes and push the bed. If any of the castors rotate, the brake is not fully effective.

Brakes that fail to lock effectively indicate that the castor requires to be adjusted or replaced. Refer to Section 6, Maintenance Instructions.

### 3.3 Tilt Angle

Minor accumulated errors in service may result in lost position (non parallelism) of the height actuators, as a result of which the bed may not return to a true horizontal position. This may be automatically corrected by driving the bed to its lowest height. If this is not effective, the condition can be rectified by a re-calibration procedure. Refer to Section 7, Calibration.



### **3.4 Batteries**

If, when the bed is operated using the batteries a bleeping sound is heard, this indicates a low charge condition. The bed should be re-connected to the mains power supply, for a minimum of 24 hours, in order to recharge the batteries.

Every six months: The condition of the batteries should be checked using the following procedure:

1. Ensure that the bed has been connected to the mains power supply for 24 hours.
2. Disconnect the bed from the mains power supply.
3. Apply a load of 150 kg (2 x 12 st persons) to the mattress platform.
4. Raise and lower the mattress platform, from minimum to maximum height, three times.
5. If the bed does not operate satisfactorily in step 4, perform steps 1 to 4 again.

If the bed again fails to operate satisfactorily, the batteries are not holding sufficient charge and they should be replaced. Refer to Section 6, Maintenance Instructions.

### **3.5 Weighing System**

The weighing system should be calibrated every two years, or whenever weighing system components have been replaced or disturbed. Refer to Section 7 for details.

The following serviceability tests should be performed before returning the bed to use after service, or if any function is suspect.

These instructions should be read in conjunction with Section 1, Sub-section 1.3.

If the result of any test is unsatisfactory, investigate and take the appropriate remedial action. Refer to Section 5, Troubleshooting and Section 6, Servicing Instructions.

*Note:* All references to left or right of the bed are when viewed from the head end.

### **WARNING**

**If any electrical assembly or wiring has been replaced or repaired, the appropriate electrical safety checks must be made.**

**Keep clear of the bed when it is being operated. Severe injury can result from crushing by moving parts.**

#### **4.1 Preliminary**

- a) Verify that no furniture or other obstruction can impede the movements of the bed. Lift (disengage) the strut on the calf section of the mattress deck.
- b) Connect the bed to the mains power supply.
- c) Verify that the battery charge indicator (on the attendant control panel) is illuminated.
- d) Check that the rotary switches on the ACP are in the vertical (unlocked) position.
- e) Level the mattress platform (zero tilt) using the nurse's handset.

#### **4.2 Power Operated Functions**

- a) Using the patient handset, check the function of bed height, backrest angle and leg elevation. Verify satisfactory operation over the full range of movement as specified in Section 8, Technical Data. Verify that the actuators are de-energised when the push button is released or the limit of travel is reached. Verify that the enable light on the push button control panel goes off approximately 5 seconds after the push button is released.

- b) Verify that the kneebreak angle increases as the legs are elevated and returns to zero as the legs are lowered to horizontal.
- c) Check the function of the Auto-Contour button. Verify simultaneous operation of the backrest and leg elevation from any intermediate position to the limits of travel in both directions.
- d) Repeat step a) using the nurse's control handset.
- e) Verify that the lock out switches on the ACP disable the push buttons on both the push button control handsets..
- f) Use the nurse's push button control handset and check the function of the tilt control. Verify satisfactory operation over the full range of movement as specified in Section 8, Technical Data.
- g) Position the bed at near maximum height with both backrest and legs raised and apply foot down tilt. Press and hold the CPR push button on the nurse's handset. Verify that the bed reverts to flat, horizontal, low height condition.

### **4.3 Battery Operation**

- a) Disconnect the bed from the mains power supply.
- b) Check the functions of bed height, backrest angle, leg elevation and two-way tilt using the nurse's handset.
- c) Repeat step 4.2.f.
- d) Reconnect the bed to the mains power supply. Verify that the battery charge indicator on the ACP is illuminated.
- e) Test the batteries as described in sub-section 3.4.

### **4.4 Manual Functions**

#### **4.4.1 Brakes and Steering**

- a) Refer to para. 1.3.1. Check the brakes for efficient operation. Apply the brakes and push the bed. None of the castors should rotate.
- b) Set the pedal in the steering position and verify that both head end castors are engaged so that they cannot swivel.

#### **4.4.2 Safety Sides**

- a) Refer to para. 1.3.2. Check operation of both safety sides. Verify that the release and latching mechanisms are effective and that the sides are firmly locked when raised.

#### **4.4.3 Bed Extension**

- a) Refer to para 1.3.3. Check operation of the bed extension. Verify that the latching mechanisms release and lock smoothly and effectively.

#### **4.4.4 Kneebreak Angle**

- a) Refer to para. 1.3.4. Lower the leg sections to horizontal. Check operation of the strut on the calf section. Verify that when the strut is raised it is effectively retained by the spring clip. Verify that when the strut is lowered, it engages easily and fully in the slots on both sides of the bed in both the normal and extended condition.

### **4.5 Weighing System**

- a) Refer to Sub-section 1.4. and zero both displays.
- b) Place a 'patient' on the bed and make a note of the weight indicated on the upper display.
- c) Re-zero the lower display.
- d) Add a known weight to the mattress platform. Verify that this weight is shown on the lower display and the appropriate increase is indicated on the upper display.
- e) Select auto-compensation mode. Remove the additional weight and revert to continuous weight display. Verify that the weight shown on the top display is the same as was indicated in step d).
- f) Remove 'patient' and weights from the bed and zero both displays.
- g) Verify that manual data input is functioning by entering values on both upper and lower displays.
- h) If appropriate, calibrate the weighing system as described in Section 7, Calibration.



The following table identifies some fault symptoms, their possible cause and suggested remedial action.

<b>Test step</b>	<b>Symptom</b>	<b>Possible cause</b>	<b>Action</b>
4.2	None of the actuators will work	Power disconnected or batteries discharged  Fuse blown  Control panel / handset disconnected	Make sure power supply lead is connected  Check fuse in adaptor  Check that plugs are fully inserted in the control box at the head of the bed, the connectors on the deck and in the ACP at the foot of the bed
4.2	One actuator does not work	Actuator plug disconnected	Check that actuator plug is fully inserted in the control box at the head of the bed
4.2	Height/Tilt actuators will not work and bleep sound heard	Calibration error	Calibrate the actuators See Section 7.
4.3	Battery charge indicator not illuminated	Power disconnected or fuse blown  Control panel disconnected  Battery charger fault	Check and rectify  Check that plugs are fully inserted  Check by substitution of control box
4.4.1	Brakes or steering lock not effective	Wear or damage	Adjust or replace castor

If the weighing system does not function correctly:

<b>Symptom</b>	<b>Possible cause</b>	<b>Action</b>
No weight display.	Power disconnected	Make sure power supply lead is connected Check fuse in adaptor
Display message starting with FAIL	Indicator fault	Contact HNE
Display showing A-D. OR	Cable disconnected	Check cables between load cells and load convertor box. Check cables between load convertor box and indicator
Very erratic weighing or large weighing errors	Bed obstructed	Check for obstructions or tight power cables
	Transport screws not fully unlocked	Check screws are fully unlocked
No weight display but either lbs. or kg. lamp is on	Timed out	Press any push button to restore display
Slightly erratic or small weighing errors	'Patient' moving	Support with pillows or lay down
	Bed touching wall, curtains etc	Check and rectify
	System due for recalibration	Refer to Section 7

### **Weighing System Error Messages**

If the display on the User Interface Module shows an error message ERR 1 etc to ERR 4, this indicates that there is no communication between the load cell and the UIM.

Check the wiring between the load cell(s), the QLC and the UIM. If no fault found, contact Huntleigh Healthcare.

**WARNING**

**Before starting any service or maintenance procedures, ensure that the equipment has been adequately decontaminated.**

**Avoid skin contact with lubricants. Rubber gloves and protective clothing should be worn when carrying out maintenance work.**

**Heavy equipment hazard. The bed and its sub-assemblies are very heavy and could cause serious injury or death by crushing. When working beneath the platform, the equipment must be properly supported with suitable lifting devices, blocks or stands.**

**Caution**

**Before starting any service or repair work, firmly tighten the transport locking screws and leave them in this condition unless specifically instructed otherwise.**

**6.1 General**

The servicing procedures and data given in this section include instructions for:

- Replacement of specific components and sub-assemblies
- Dismantling and assembly of the main structure
- Restoration of paint finish

Procedures which are considered to be self evident have not been included.

Do not disassemble more than is necessary to replace a defective item.

Remove old Loctite and other adhesives from components before reassembly. Apply Loctite 270 to screw threads on assembly of items as specified in Appendix A. Before applying Loctite, clean and degrease both internal and external screw threads using a suitable volatile solvent e.g. methylated spirits.

Apply Rocol Sapphire grease to bushes and joints on assembly of items as specified in Appendix A.

Throughout this section, numbers given in parenthesis thus (03-5) refer to the Assembly Spares Manual (Appendix A) drawing sheet number and item number for the part.

All references to left or right of the bed are when viewed from the head end.



Before the bed is returned to use following service or repair:

- Carry out a visual inspection for signs of damage
- Perform a serviceability test as given in Section 4
- Clean the equipment using the method described in Section 2

## 6.2 Special Tools and Equipment

In addition to normal workshop tools, the special tools and equipment listed below will be required for servicing.

Item	Description	Part No.	Use
1	Hoist SWL 500 kg	-	General
2	Sling straps (2)	-	General
3	Brake cam rotating tool	745.04	Fitting castors
4	Special screwdriver	745.11	Replacing batteries
5	Clip rotating tool	745.03	Removing / installing radius arms
6	Clip removal tool	745.01	Removing / installing radius arms

### 6.2.1 Using the Hoist

When using the hoist to lift any part of the bed, always ensure that the sling straps are applied to main frame sections and do not bear upon components, wiring or minor fabrications.

When lifting the entire bed or the deck assembly, first remove any accessories and lift off the head panel and the foot panel. Pass both sling straps around main members of the deck frame.

## 6.3 Base Cover - Replacement

If the base cover is removed only for the purpose of access to base assembly components, it can be lifted and temporarily tied to the deck assembly with cords.

### 6.3.1 Removal

- a) *Weighing beds*: Hold the jack handle (02-50) and loosen the nut (02-52). Remove the jack handles. It is important that the jackscrews (02-53) are not loosened during this process. Temporarily fit a second nut (02-52), lock the two nuts together and use them to re-tighten the jackscrews (02-53) if necessary. Remove the nuts (02-52).
- b) *Non-weighing beds*: Remove four button head screws (17-59).
- c) The base cover (02-45) (17-45) can now be lifted clear of the base. Secure it to the deck with cords.

To completely remove the base cover from the bed, it is first necessary to separate the deck assembly from the base assembly and pull the cables out of the flexible conduit as described in 6.20.6.

### 6.3.2 Installation

- a) Installation of the base cover (02-45) (17-45) is the reversal of the above procedure. *Weighing beds*: Refit the nuts (02-52), Refit and tighten the jack handles (02-50). *Non-weighing beds*: Refit four button head screws (17-59).
- b) If removed, refit the deck assembly as described in 6.21.4.

## 6.4 Brake Pedals - Replacement

### 6.4.1 Removal

- a) Raise the base cover as described in 6.3.
- b) Remove the two nuts (02-17) (17-17) and washers (02-18) (17-18) which attach the brake links (02-13) (17-13) to the brake pedal fabrication (02-14) (17-14).
- c) Drive out two Spirol pins (02-16) (17-16) and slide the brake bar (02-19) (17-19) out of the brake pedal fabrication (02-14) (17-14) and the castor levers (02-9) (02-10) or (17-9) (17-10). Do not lose two nylon bushes (02-11) (17-11).
- d) Remove the brake pedal fabrication (02-14) (17-14) from the base assembly.

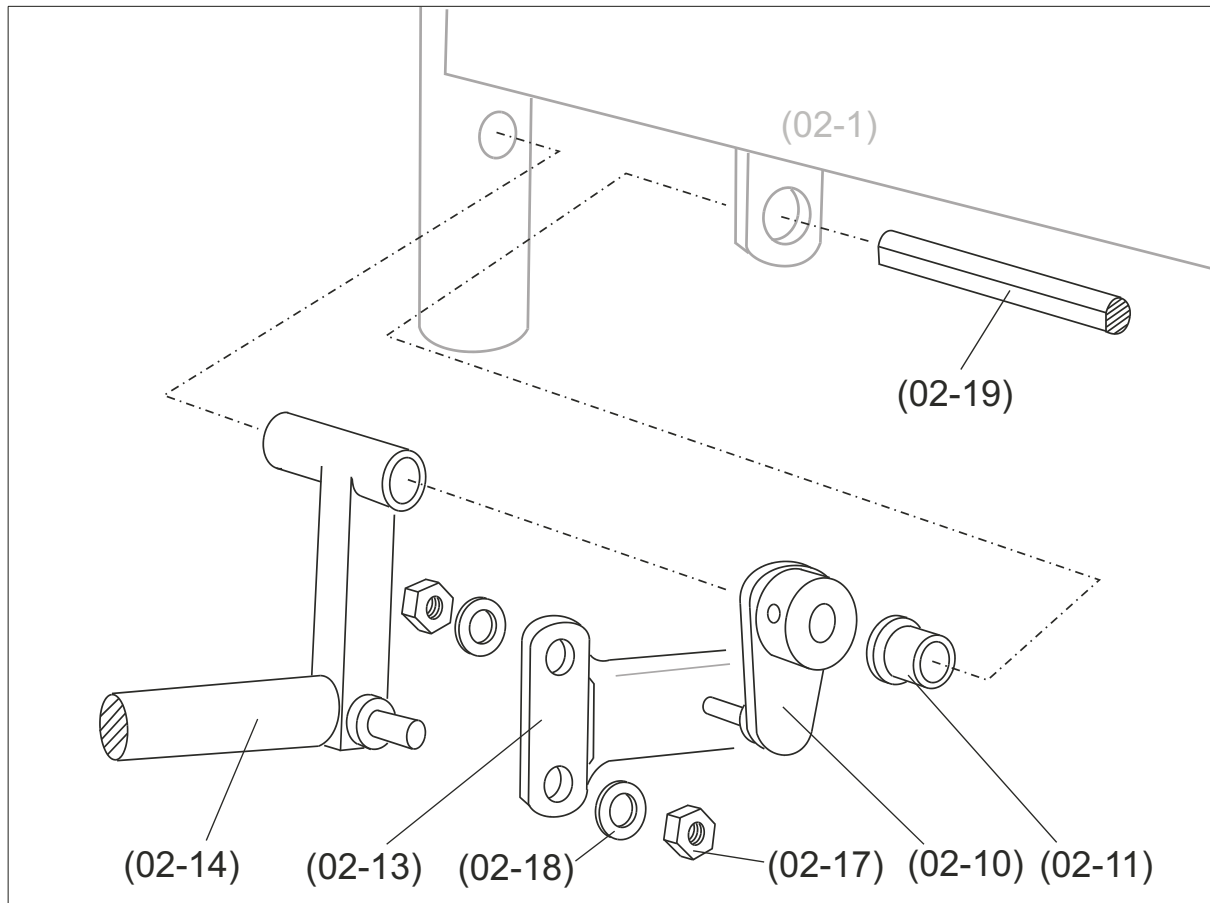


Fig. 6-1 Brake pedal assembly

#### 6.4.2 Installation

- a) Attach the brake links (02-13) (17-13) to the brake pedal fabrication (02-14) (17-14) with two nuts (02-17) (17-17) and washers (02-18) (17-18).
- b) Ensure that two nylon bushes (02-11) (17-11) are installed in the base frame. Slide the brake bar through the brake pedal fabrication (02-14) (17-14), the castor levers (02-9) (02-10) or (17-9) (17-10) and the nylon bushes (02-11) (17-11).
- c) Align the holes in the castor levers (02-9) (02-10) or (17-9) (17-10) with the holes in the brake bar (02-19) (17-19) and drive in two Spirol pins (02-16) (17-16).
- d) Refit the base cover as described in 6.3.

## 6.5 Castors - Replacement

### 6.5.1 Removal

- a) Raise the base cover as described in 6.3.
- b) Use the hoist (*Tool item 1*) to raise one end of the bed off the floor by approximately 20 cm. Support the base outer frame on suitable blocks.
- c) Drive out two Spirol pins (02-16) (17-16) and slide the brake bar (02-19) (17-19) through just far enough to clear the castor tube. Bend back the shakeproof pressing (02-22) (17-22), remove two hexagon head screws (02-21) (17-21) and withdraw the castor from the base outer frame. The castor bush (02-23) (17-23) should remain in the base outer frame.

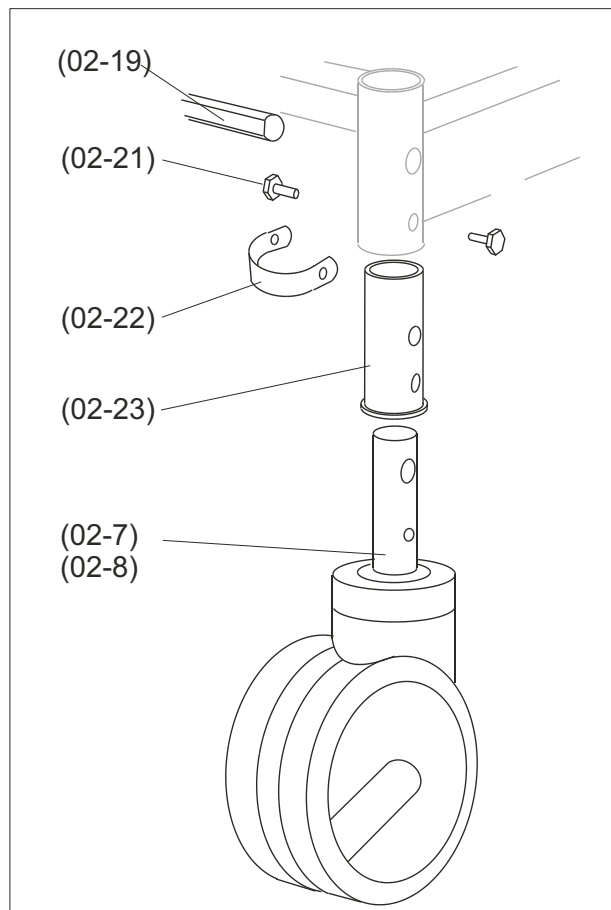


Fig. 6-2 Castors - removal

### 6.5.2 Installation

- a) Refer to the appropriate drawing sheet 02 or sheet 17 and ensure that the castor is the correct type for the location. If removed, refit the castor bush (02-23) (17-23) in the base outer frame and align the holes.

- b) Insert the stem of the castor into the castor bush (02-23) (17-23) and align the holes. Use the brake cam rotating tool (*Tool item 3*) to verify that the brake is actuated by rotation in the appropriate direction. If not, turn the stem of the castor through 180°. Slide the brake bar (02-19) (17-19) through the castor stem.
- c) Install a new or serviceable shakeproof pressing (02-22) (17-22) and two hexagon head screws (02-21) (17-21). Bend up the pressing to lock the screws.
- d) Align the holes in the castor levers (02-9) (02-10) or (17-9) (17-10) with the holes in the brake bar (02-19) (17-19) and drive in two Spirol pins (02-16) (17-16).
- e) Refit the base cover as described in 6.3.

## 6.6 Height Actuator - Replacement

### 6.6.1 Removal

- a) Remove the head end and the foot end from the bed.
- b) *If height actuators are functional:* Raise the deck to maximum height and use the hoist to support it.
- c) *If height actuators are not functional:* Use the hoist to support the deck. Reach under the base and remove 'E' ring (02-33) (17-33), washer (02-34) (17-34) and clevis pin (02-32) (17-32) to release the actuator ram from the radius arm fabrication (02-31) (17-31). Use the hoist to raise the deck to maximum height.
- d) Raise the base cover as described in 6.3. Disconnect the bed from the mains power supply.
- e) Refer to the Weighing Base Electrical Assembly, sheet 10 and the Electrical Schematic, sheet 12. Alternatively, refer to the Non-weighing Base Electrical Assembly, sheet 21 and Electrical Schematic, sheet 23. Disconnect the actuator connector(s) from the control box (03-9) (18-5).
- f) *Weighing beds:* Remove two nuts (03-4) and washers (03-5) to release the QLC box from the bracket.
- g) Remove covers from the electrical trunking (10-2) (21-2) and cut cable ties as necessary to release the actuator cable.
- h) If not already done in c) above, remove 'E' ring (02-33) (17-33), washer (02-34) (17-34) and clevis pin (02-32) (17-32) to release the actuator ram from the radius arm fabrication (02-32) (17-32).

- i) Remove 'E' ring (02-33) (17-33), washer (02-34) (17-34) and clevis pin (02-32) (17-32) to release the actuator body from the base inner frame.

### 6.6.2 Installation

- a) Position the actuator ensuring correct orientation and attach the body to the base inner frame with clevis pin (02-32) (17-32), washer (02-34) (17-34) and 'E' ring (02-33) (17-33).
- b) Use the hoist to lower or raise the deck to align the hole in the ram with the hole in the radius arm fabrication (02-31) (17-31).
- c) Attach the ram with clevis pin (02-32) (17-32), washer (02-34) (17-34) and 'E' ring (02-33) (17-33).
- d) Pass the actuator cable beneath the QLC (if fitted) and insert the connector in the appropriate socket on the control box.
- e) Install the cable in the electrical trunking (10-2) (21-2) fit new cable ties as required to secure the cable.
- f) *Weighing beds:* Attach the QLC box with two washers (03-5) and self locking nuts (03-4).
- g) Refit the base cover as described in 6.3.

## 6.7 Mains Power Supply Cable (S2619) - Replacement

### 6.7.1 Removal

- a) Raise the base cover as described in 6.3. Disconnect the bed from the mains power supply.
- b) Remove screw (10-6) (21-6), nut (10-5) (21-5), washer (10-7) (21-7) and cable clamp (10-4) (21-4). Release the mains cable and strain relief bush from the cable tidy bracket (02-47) (17-46).
- c) *Weighing beds:* Remove four screws (04-12) and washers (04-8) from the top of the transformer, remove the lid of the transformer case and disconnect the mains cable from the transformer input terminals. Remove one nut (10-12) to release the P-clip (10-15), cut and remove cable ties as necessary to release the power supply cable.
- d) *Non-weighing beds:* Remove four screws and remove the lid of the mains connection box (17-52). Disconnect the wires from the terminals. Loosen the cable gland and pull the cable out of the gland.

## 6.7.2 Installation

- a) *Weighing beds:* Connect the new mains power supply cable to the transformer input terminals. Refit the lid of the transformer case and attach with four screws (04-12) and washers (04-8). Refit the P-clip (10-15) and attach with nut (10-12). Install new cable ties as necessary.
- b) *Non-weighing beds:* Thread the new mains power cable through the cable gland on the mains connection box (17-52) and connect the wires to the terminals (see Fig. 6-4). Tighten the cable gland and refit the lid of the box.
- c) Install the cable and strain relief bush in the cable tidy bracket (02-47) (17-46). Make sure that the cable is not strained. Install cable clamp (10-4) (21-4) and attach with screw (10-6) (21-6), washer (10-7) (21-7) and nut (10-5) (21-5).
- d) Install the base cover as described in 6.3.

## 6.8 Isolating Transformer - Replacement

### 6.8.1 Removal

- a) Raise the base cover as described in 6.3. Disconnect the bed from the mains power supply.
- b) Remove four screws (04-12) and washers (04-8) from the top of the transformer, remove the lid of the transformer case. Disconnect the mains cable from the transformer input terminals. Disconnect the output cable from the transformer output terminals.
- c) The transformer can now be lifted out of the transformer / filter bracket leaving the four pillars (04-6) in-situ.

### 6.8.2 Installation

- a) If fitted, remove the screws and nuts which attach the lid of the transformer case.
- b) Position the transformer in the transformer / filter bracket (04-1).
- c) Connect the output cable to the transformer output terminals. Connect the mains supply cable to the transformer input terminals.
- d) Refit the lid of the transformer case and attach with four screws (04-12) and washers (04-8). Install the base cover as described in 6.3.

## 6.9 Mains Filter Box - Replacement

### 6.9.1 Removal

- a) Raise the base cover as described in 6.3. Disconnect the bed from the mains power supply. Remove the lid from the filter box (04-2) and disconnect the input and output cables from the terminals.
- b) Loosen the cable glands and pull the cables out of the glands. If necessary, remove the P-clip (10-15) and cable ties to make this easier. Remove nut (10-12) and toothed washer (10-11) and disconnect the earth wire assembly (10-13) from the box.
- c) Remove four screws (04-3), nuts (04-4) and washers (04-5) and remove the filter box from the transformer / filter bracket.

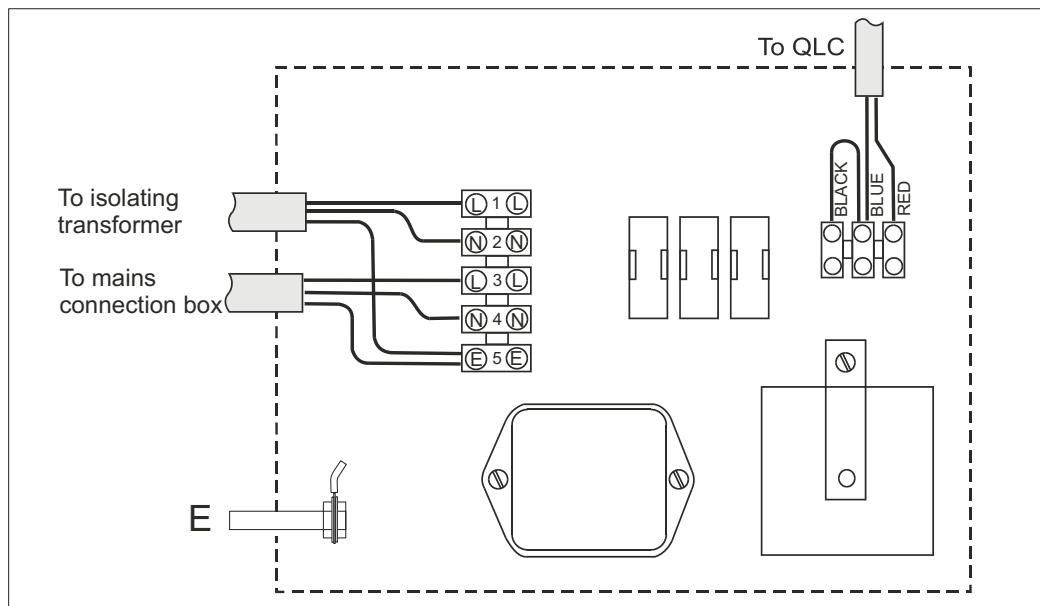


Fig. 6-3 Mains filter box connections

### 6.9.2 Installation

- a) Remove the lid from the filter box (04-2). Position the filter box on the transformer / filter bracket and attach with four screws (04-3), nuts (04-4) and washers (04-5).
- b) Connect the earth wire assembly (10-13) and secure with a toothed washer (10-11) and nut (10-12).
- c) Thread the input and output cables through the cable glands. Refer to the wiring diagram and connect the wires to the terminals. Tighten the cable glands.
- d) If removed, fit the P-clip (10-15) and new cable ties. Refit the lid on the filter box. Install the base cover as described in 6.3.



## 6.10 Mains Connection Box - Replacement

### 6.10.1 Removal

- a) Raise the base cover as described in 6.3. Disconnect the bed from the mains power supply.
- b) Remove the lid from the mains connection box (02-66) (17-52) and disconnect the wires from the terminals. Loosen the cable glands and pull the cables out of the glands.
- c) *Weighing beds:* Remove four screws (02-69), nuts (02-67) and washers (02-68) and remove the box from the bracket (02-70).
- d) *Non-weighing beds:* Remove nut (21-14) and toothed washer (21-12) and disconnect the earthing straps (21-13) and (21-15). Remove four screws (17-55), nuts (17-53) and washers (17-54) and remove the box from the bracket (17-56).

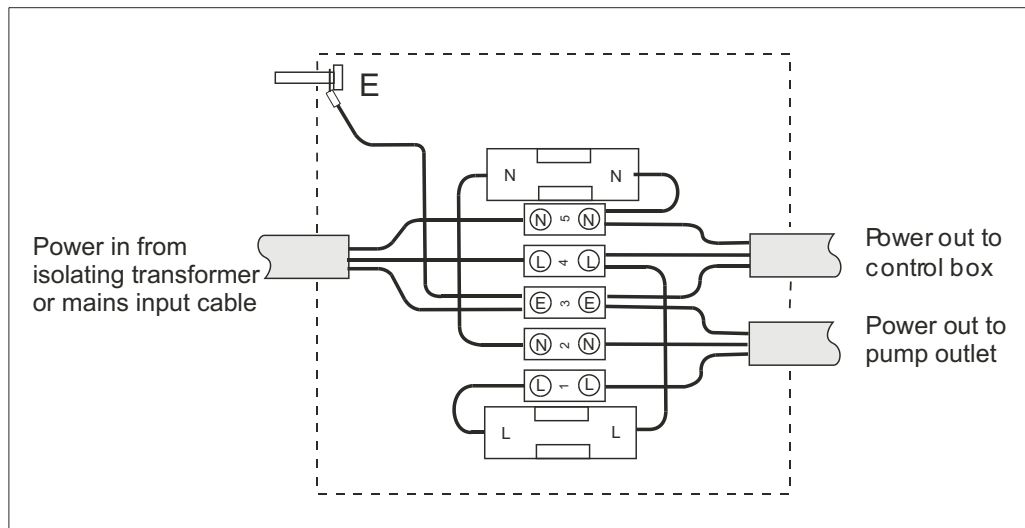


Fig. 6-4 Mains connection box connections

### 6.10.2 Installation

- a) Remove the lid from the mains connection box (02-66) (17-52). Position the box on the bracket (02-70) (17-56) and attach with four screws (02-69) (17-55), nuts (02-67) (17-53) and washers (02-68) (17-54). Thread the cable through the cable glands. Refer to the wiring diagram and connect the wires to the terminals. Tighten the cable glands. Refit the lid on the mains connection box.
- b) *Non-weighing beds:* Connect the earthing straps (21-13) and (21-15) attach with nut (21-14) and toothed washer (21-12).
- c) Install the base cover as described in 6.3.

## 6.11 QLC - Replacement

### 6.11.1 Removal

- Raise the base cover as described in 6.3. Disconnect the bed from the mains power supply. Remove the lid from the QLC box ((03-2) and disconnect the wires from the terminals. Loosen the cable glands and pull the cables out of the glands.
- Remove two nuts (03-4) and washers (03-5) and remove the QLC from the QLC bracket (03-1). Remove two screws (03-3) and spacers (03-12) from the QLC box.

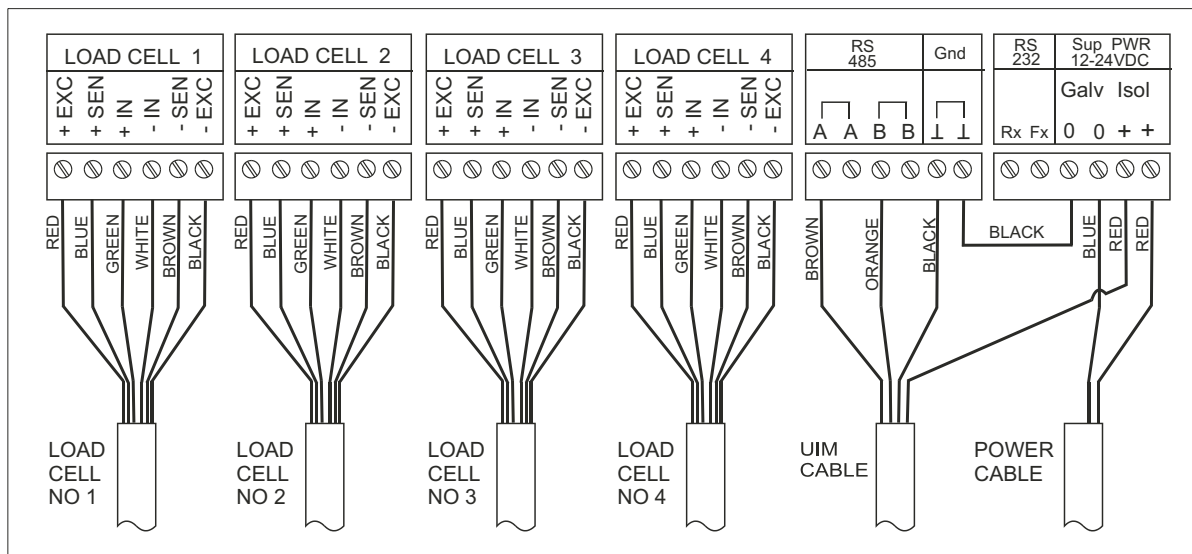


Fig. 6-5 QLC connections

### 6.11.2 Installation

- Remove the lid from the QLC box (03-2). Attach two spacers (03-12) with screws (03-3). Position the box on the QLC bracket and attach with two nuts (03-4) and washers (03-5).
- Thread the cables through the cable glands. Refer to the wiring diagram and connect the wires to the terminals. Tighten the cable glands.
- Refit the lid on the QLC box. Install the base cover as described in 6.3.

## **6.12 UIM - Replacement**

### **6.12.1 Removal**

- a) Raise the leg section of the mattress deck and pull out the sliding tray (07-22) on the deck extension assembly (09-23). Disconnect the UIM (07-10) from the socket on the QLC extension cable assembly (11-11). Remove four screws (07-14) and remove the UIM from the deck extension assembly.

### **6.12.2 Installation**

- a) Position the UIM in the tray (07-22) on the deck extension assembly and attach with four screws (07-14). Connect the UIM extension cable to the socket on the QLC extension cable assembly (11-11).

## **6.13 Load Cells - Replacement**

In order to remove the load cells it is necessary first to remove the base inner frame sub-assembly from the base outer frame. Refer to 6.20, Dismantling the Bed and 6.20.9.

## **6.14 Control Box - Replacement**

### **6.14.1 Removal**

- a) Raise the base cover as described in 6.3. Disconnect the bed from the mains power supply. Disconnect all seven connectors from the control box (03-9) (18-5).
- b) Remove four screws (03-10) (18-10), nuts (03-11) (18-11) and washers (03-8) (18-8) and remove the control box from the QLC bracket.

### **6.14.2 Installation**

- a) Position the control box (03-9) (18-5) on the QLC bracket and attach with four screws (03-10) (18-10), nuts (03-11) (18-11) and washers (03-8) (18-8).
- b) Refer to the Electrical Schematic Diagram sheet 12 or sheet 23. Connect four actuator cables, two control cables and the mains power input cable to the control box. Install the base cover as described in 6.3.

## 6.15 Batteries - Replacement

### WARNING

**Lead-acid batteries are a potential environmental and health hazard. Store batteries in accordance with manufacturers instructions. Dispose of unserviceable batteries safely in accordance with local authority regulations.**

#### 6.15.1 Removal

- a) Raise the base cover as described in 6.3. Disconnect the bed from the mains power supply.
- b) Use the special screwdriver (*Tool item 4*) and remove the (smaller) lid from the control box battery compartment. Remove the battery connections and lift the batteries out of the control box.

#### 6.15.2 Installation

- a) Refer to the battery connection diagram inside the lid of the control box. Install the new batteries in the control box observing correct orientation.
- b) Re-connect the batteries in accordance with the connection diagram.
- c) Replace the control box lid and use the special screwdriver to tighten the lid fixing screws. Install the base cover as described in 6.3.

## 6.16 Mini-ACP - Replacement

#### 6.16.1 Removal

- a) Raise the base cover as described in 6.3. Raise the backrest and legs fully to provide access. Disconnect the bed from the mains power supply. Disconnect the mini-ACP cable connector from the control box (03-9) (18-5).
- b) *Weighing beds:* Remove two nuts (03-4) and washers (03-5) to release the QLC box from the bracket.
- c) Remove the covers from the plastic trunking and cut cable ties as necessary to release the cable from both the base assembly and the deck assembly. Tie a cord to the cable and pull the cable out of the flexible conduit leaving the cord in the conduit.

- d) Pull out the tray on the deck extension. Remove two screws (07-14) (19-14) and nuts (07-15) (19-15) and remove the mini-ACP (07-20) (19-19) from the tray.

### 6.16.2 Installation

- a) Position the mini-ACP on the tray and attach with two screws (07-14) (19-14) and nuts (07-15) (19-15).
- b) Refer to the deck electrical assembly drawing, sheet 11 or 22. Thread the Mini-ACP cable through the coils of the handset cable and locate it in the plastic trunking.
- c) Tie the cord to the mini-ACP cable and use adhesive tape to secure the plug to the cord in line. Pull the cable through the flexible conduit.

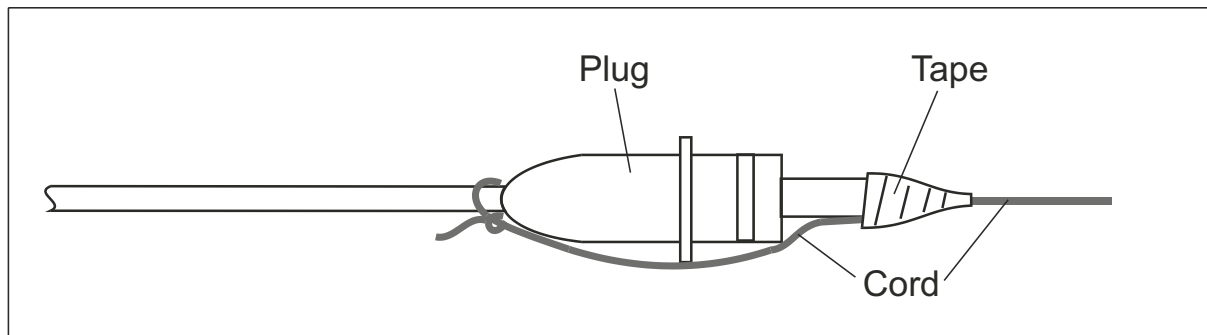


Fig. 6-6 Secure the plug to the cord in line

- d) Remove the cord, install the cable in the plastic trunking, pass it beneath the QLC (if fitted) and insert the connector in the appropriate socket on the control box (03-9) (18-5).
- e) Refit the covers on the plastic trunking and install new cable ties as required to secure the cable as shown on the appropriate electrical assembly drawings sheets 10 and 11 or sheets 21 and 22.
- f) *Weighing beds:* Attach the QLC box with two washers (03-5) and self locking nuts (03-4).
- g) Refit the base cover as described in 6.3.

## **6.17 Control Handsets - Replacement**

### **6.17.1 Removal**

- a) The patient handset (11-24) (22-21) is removed from the bed simply by disconnecting the flexible cable from the socket on the deck frame. To remove the nurse's handset (07-21) it is necessary also to cut the cable tie (11-18) (22-16) securing the cable.

### **6.17.2 Installation**

- a) Connect the handsets to the appropriate sockets on the deck frame. Refer to the deck electrical assembly drawing, sheet 11 or 22. Using a new cable tie (11-18) (22-16), secure the nurse's handset cable at a point approximately 1/3 of its length from the handset. Support the cable by winding the last 1/3 of its length around the mini-ACP cable.

## **6.18 'T' Piece cable - Replacement**

### **6.18.1 Removal**

- a) Raise the base cover as described in 6.3. Raise the backrest and legs fully to provide access. Disconnect the bed from the mains power supply. Disconnect the 'T' piece cable connector from the control box (03-9) (18-5).
- b) *Weighing beds:* Remove two nuts (03-4) and washers (03-5) to release the QLC box from the bracket.
- c) Remove the covers from the plastic trunking and cut cable ties as necessary to release the cable from both the base assembly and the deck assembly. Tie a cord to the cable and pull the cable out of the flexible conduit leaving the cord in the conduit.
- d) Disconnect both handsets from the sockets on the deck frame. Remove eight screws (11-8) (22-8), nuts (11-9) (22-9) and washers (11-10) (22-10) to release the cable sockets from the deck frame.

### **6.18.2 Installation**

- a) Position the cable sockets on the deck frame and attach with eight screws (11-8) (22-8), nuts (11-9) (22-9) and washers (11-10) (22-10).
- b) Refer to the deck electrical assembly drawing, sheet 11 or 22. Locate the 'T' piece cable in the plastic trunking.

- c) Tie the cord to the 'T' piece cable and use adhesive tape to secure the plug to the cord in line (Fig. 6-6). Pull the cable through the flexible conduit.
- d) Remove the cord, install the cable in the plastic trunking in the base, pass it beneath the QLC (if fitted) and insert the connector in the appropriate socket on the control box (03-9) (18-5).
- e) Refit the covers on the plastic trunking and install new cable ties as required to secure the cable as shown on electrical assembly drawings, sheets 10 and 11 or sheets 21 and 22.
- f) *Weighing beds:* Attach the QLC box with two washers (03-5) and self locking nuts (03-4).
- g) Re-connect the control handsets. Refit the base cover as described in 6.3.

## 6.19 Backrest and Leg Actuators- Replacement

### 6.19.1 Removal

- a) Raise the base cover as described in 6.3. Raise the backrest and legs fully to provide access. Disconnect the bed from the mains power supply. Disconnect the actuator cable connector from the control box (03-9) (18-5).
- b) *Weighing beds:* Remove two nuts (03-4) and washers (03-5) to release the QLC box from the bracket.
- c) Remove the covers from the plastic trunking and cut cable ties as necessary to release the cable from both the base assembly and the deck assembly. Tie a cord to the cable and pull the cable out of the flexible conduit leaving the cord in the conduit.
- d) Use the hoist (*Tool item 1*) to support the backrest or leg sections as appropriate.
- e) Remove the 'E' ring (09-17) (20-17), washer (09-20) (20-20), clevis pin (09-18) (20-18) and two nylon washers (09-19) (20-19) to release the actuator ram from the backrest or thigh section.
- f) Remove the 'E' ring (09-17) (20-17), washer (09-20) (20-20), clevis pin (09-21) (20-21) and single nylon washer (09-19) (20-19) to release the actuator from the deck frame.

### 6.19.2 Installation

- a) Position the actuator (09-9) (20-9) or (09-10) (20-10), ensuring correct orientation and attach the body to the deck frame with clevis pin (09-21) (20-21), single nylon washer (09-19) (20-19), washer (09-20) (20-20) and E' ring (09-17) (20-17).
- b) Use the hoist to raise or lower the section and align the hole in the ram with the hole in the moving component. Attach the ram with clevis pin (09-18) (20-18), two nylon washers (09-19) (20-19), washer (09-20) (20-20) and 'E' ring (09-17) (20-17).
- c) Refer to the deck electrical assembly drawing, sheet 11 or 22 and locate the actuator cable in the plastic trunking.
- d) Tie the cord to the actuator cable and use adhesive tape to secure the plug to the cord in line (Fig. 6-6). Pull the cable through the flexible conduit.
- e) Remove the cord, install the cable in the plastic trunking pass it beneath the QLC (if fitted) and insert the connector in the appropriate socket on the control box (03-9) (18-5).
- f) Refit the covers on the plastic trunking and install new cable ties as required to secure the cable as shown on electrical assembly drawings, sheets 10 and 11 or sheets 21 and 22.
- g) *Weighing beds:* Attach the QLC box with two washers (03-5) and self locking nuts (03-4).
- h) Refit the base cover as described in 6.3.
- i) If the leg actuator has been replaced, calibrate the actuators as described in Section 7.



## 6.20 Dismantling the Bed

This sub-section gives procedures for dismantling the main structure of the bed. It must be read in conjunction with the preceding sub-sections which describe the removal of specific components and sub-assemblies.

Dismantling of the bed is not a routine procedure and should only be carried out to the extent necessary.

**The information given is for guidance since procedures will be varied according to the purpose for which they are undertaken.** For example, it is not necessary to take off the deck sections in order to remove the deck from the base. Minor procedures which may be deemed self evident have not been included.

### 6.20.1 Deck Extension Assembly - Removal

- a) Lift off the foot end assembly (01-7) (16-7). Pull out the deck extension. Pull out the ACP tray.
- b) *Weighing beds*: Disconnect the UIM (07-10) from the socket on the deck frame.
- c) Remove two screws (07-14) (19-13) and nuts (07-15) (19-14) to release the mini-ACP from the ACP tray (07-22) (19-21). Cut and remove the cable tie (11-18) (22-16) to release the nurse's handset.
- d) To remove the ACP support sub-assembly only, remove four nuts (07-32) (19-30), washers (07-28) (19-27) and hexagon head screws (07-29) (19-28). The ACP support sub-assembly can now be removed from the extension fabrication (07-2) (19-2) leaving the mini-ACP and nurse's handset attached to the deck assembly.
- e) To remove the complete deck extension, drive out the roll pin (07-26) (19-25) and remove the extension stop (07-27) (19-26). Remove four screws (09-25) (20-25) and washers (09-26) (20-26). The deck extension assembly (09-23) (20-23), together with guides (09-24) (20-24), can now be removed from the bed. The mini-ACP and nurse's handset will remain attached to the deck assembly.
- f) Remove four bearing pads (07-1) (19-1) and two deck extension guides (09-24) (20-24).

### 6.20.2 Safety Sides - Removal

*Note: These instructions refer to the safety side right hand assembly drawing, sheet 5 but are equally applicable to the left hand assembly drawing, sheet 6.*

- a) Raise the safety side and use the hoist (*Tool item 1*) to support it.
- b) Remove two nuts (05-21) and washers (05-28) and remove the rail sub-assembly from the pivot mountings. To detach individual rail fabrications, remove two socket head screws (05-15) and pivot spacers (05-16). The release button (05-22) and spring (05-23) are retained by a pan-head screw (05-24).
- c) Remove nut caps (05-11), hexagon head screws (05-9) and washers (05-10) and remove the pivot mounting fabrication (05-12)(05-14) from the deck frame. Do not lose the bushes (05-13). The plunger (05-25) and spring (05-26) are retained in the foot end pivot mounting (05-12) by a pan-head screw (05-27).
- d) Drive out the roll pin (05-7) and remove the catch pivot bar (05-19), catch fabrication (05-18) and spring (05-8).
- e) Drive out three roll pins (05-7) and slide the release bar each way to remove the release fabrications (05-17).

### 6.20.3 Backrest - Removal

- a) Use the hoist (*Tool item 1*) to support the backrest. Remove the 'E' ring (09-17) (20-17), washer (09-20) (20-20), clevis pin (09-18) (20-18) and two nylon washers (09-19) (20-19) to release the actuator ram from the backrest.
- b) Remove self tapping screw (11-1) (22-1) and toothed washer (11-2) (22-2) to release the earthing strap (11-3) (22-3) from the backrest.
- c) Remove two hexagon head screws (09-14) (20-14) and washers (09-15) (20-15) and remove the backrest from the deck assembly. Do not lose two pivot bushes (09-16) (20-16).

#### **6.20.4 Calf Section - Removal**

- a) Use the hoist (*Tool item 1*) to support the calf section. Remove self tapping screw (11-1) (22-1) and toothed washer (11-2) (22-2) to release the earthing strap (11-3) (22-3) from the calf section.
- b) Remove two hexagon head screws (09-14) (20-14) and washers (09-15) (20-15) and remove the calf section sub-assembly from the deck assembly. Do not lose two pivot bushes (09-16) (20-16).
- c) Remove nut (08-20) and washer (08-19). Lift the lock handle (08-7) and pull the calf section extension off the calf section fabrication (08-3).

#### **6.20.5 Thigh Section - Removal**

- a) Use the hoist (*Tool item 1*) to support the thigh section. Remove the 'E' ring (09-17) (20-17), washer (09-20) (20-20), clevis pin (09-18) (20-18) and two nylon washers (09-19) (20-19) to release the actuator ram from the thigh section.
- b) Remove self tapping screw (11-1) (22-1) and toothed washer (11-2) (22-2) to release the earthing strap (11-3) (22-3) from the thigh section.
- c) Remove two hexagon head screws (09-14) (20-14) and washers (09-15) (20-15) and remove the thigh section from the deck assembly. Do not lose two pivot bushes (09-16) (20-16).

#### **6.20.6 Deck Assembly - Removal**

- a) Raise the deck to maximum height and use the hoist to support it. Raise the base cover as described in 6.3. Disconnect the bed from the mains power supply.
- b) In order to remove the deck assembly from the base assembly, it is necessary to release all the cables which pass through the flexible conduit (10-1) (21-1).
- c) *Weighing beds:* Disconnect the 'T' piece, mini-ACP, backrest actuator and leg actuator cables from the control box. Remove the lid from the QLC and disconnect the QLC extension cable, loosen the cable gland and pull the cable out of the gland. Remove two nuts (03-4) and washers (03-5) to release the QLC box from the bracket. Remove the lid from the connecting box and disconnect the pump outlet cable, loosen the cable gland and pull the cable out of the gland. Remove nut (10-12) and toothed washer (10-11) and release the deck earthing strap (10-10) from the mains filter box.

- d) *Non-weighing beds*: Disconnect the ‘T’ piece, mini-ACP, backrest actuator and leg actuator cables from the control box. Remove the lid from the connecting box and disconnect the pump outlet cable, loosen the cable gland and pull the cable out of the gland. Remove nut (21-14) and toothed washer (21-12) and release the deck earthing strap (21-15) from the connecting box.
- e) Remove the covers from the plastic trunking and cut cable ties as necessary to release the cables from the base assembly. Tie cords to the cables and pull the cables out of the flexible conduit leaving the cords in the conduit. Untie the cords from the cables and release the flexible conduit from the deck assembly.
- f) Remove four nuts (01-4) (16-4), washers (01-2) (16-2), bolts (01-1) (16-1) and pivot bushes (01-3) (16-3) and lift the deck assembly from the base. Remove the base cover together with the flexible conduit.

#### 6.20.7 Radius Arms - Removal

- a) Remove plastic caps (02-25) (17-25), nuts (02-28) (17-28), washers (02-29) (17-29), bolts (02-27) (17-27), pivot bushes (02-26) (17-26) and spacers (02-40) (17-40). Remove the stabilisers (02-30) (17-30).
- b) Remove plastic caps (02-25) (17-25), nuts (02-28) (17-28), washers (02-29) (17-29), bolts (02-27) (17-27) and pivot bushes (02-26) (17-26). Remove the leg fabrications (02-24) (17-24).
- c) Remove ‘E’ ring (02-33) (17-33), washer (02-34) (17-34) and clevis pin (02-32) (17-32) to release the actuator ram from the radius arm fabrication (02-31) (17-31).

#### **WARNING**

**Plastic clips may fracture and fly off at high velocity when removed. Use a cloth or other suitable shield to prevent possible injury.**

- d) Use special tool (*Tool item 5*) to rotate the plastic clip (02-42) (17-42) until the slot is uppermost. Use the special tool (*Tool item 6*) to push off the clip. Discard the clip, do not re-use.
- e) Remove the radius arm fabrication (02-31) (17-31) by sliding to one side and lifting it clear.

### 6.20.8 Base Inner Frame Sub-assembly - Removal

- a) Remove the deck assembly as described in 6.20.6. Remove the radius arms as described in 6.20.7.
- b) Refer to 6.6. And remove the height actuators from the base assembly.
- c) Remove screw (10-6) (21-6), nut (10-5) (21-5), washer (10-7) (21-7) and cable clamp (10-4) (21-4). Release the mains cable and strain relief bush from the cable tidy bracket (02-47) (17-46).
- d) Remove four nuts (02-52) (17-57) and unscrew four bolts (02-51) (17-49). The base inner frame sub-assembly can now be lifted vertically off the base outer frame.
- e) *Weighing beds:* Remove four load adapters (02-59), together with 'O' rings (02-61) and (02-62).
- f) *Non-weighing beds:* Remove eight spacer washers (17-58).

### 6.20.9 Load Cells - Removal

- a) Remove the lid from the QLC (03-2) and disconnect the load cell cable. Loosen the cable gland and pull the cable out of the gland. Remove the covers from the plastic trunking and cut cable ties as necessary to release the cable.
- b) Remove two high tensile screws (02-54), nuts (02-55) and washers (02-6) and remove the load cell (02-57) and the hardened plate (02-56) from the inner frame sub-assembly.

## 6.21 Assembling the Bed

### 6.21.1 Load Cells - Installation

- a) Attach the load cell (02-57) and hardened plate (02-56) to the base inner frame with two high tensile screws (02-54), washers (02-6) and nuts (02-55). Do not tighten the nuts yet.

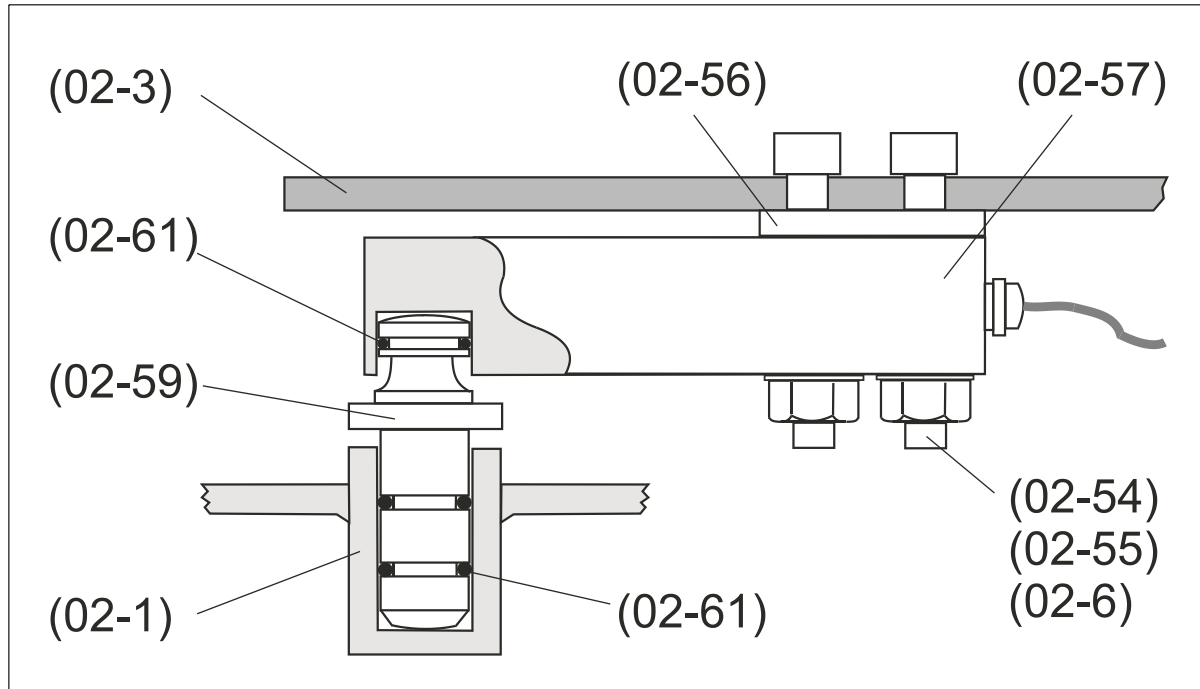


Fig. 6-7 Load cell assembly

- b) Lay the load cell cable in position in the plastic trunking and connect the cables to the terminals in the QLC (03-2). Tighten the cable gland. Replace the lid on the QLC, replace the cover on the plastic trunking. Refer to the Weighing Base Electrical Assembly, Sheet 10 and fit new cable ties as necessary.

### 6.21.2 Base Inner Sub-assembly - Installation

#### 6.21.2.1 Weighing beds:

- a) Fully unscrew the four jackscrews (02-53). Fit new 'O' rings (02-61) on four load adaptors (02-59). Lightly grease the adaptors and 'O' rings and install the adaptors in the base outer frame (02-1).
- b) Carefully lower the base inner frame assembly vertically on to the four load adaptors (02-59).

- c) Ensure that all four load cells are in line with the axis of the bed. Gradually tighten the eight high tensile bolts (02-54) and nuts (02-55) in turn, ensuring that the load cells stay in alignment. Finally tighten the bolts and torque to 136Nm.
- d) Install four bolts (02-51) and nuts (02-52), adjust the bolt to achieve a 3 mm clearance beneath the head and then tighten the nut. Fully tighten the jackscrews (02-53) again.

#### **6.21.2.2 Non-weighing beds:**

- a) Place eight spacing washers (17-58) in position on the base outer frame. Carefully lower the base inner frame assembly vertically on to the spacing washers, aligning the holes.
- b) Install four bolts (17-49) through the base inner frame and the spacing washers into the base outer frame. Tighten the bolts firmly and lock the bolts with four nuts (17-57).

#### **6.21.2.3 All beds:**

- a) Position the actuators ensuring correct orientation and attach the body to the base inner frame with clevis pin (02-32) (17-32), washer (02-34) (17-34) and 'E' ring (02-33) (17-33). Refer to 6.6 and reconnect the actuators to the control box.
- b) Install the cable and strain relief bush in the cable tidy bracket (02-47) (17-46). Make sure that the cable is not strained. Install cable clamp (10-4) (21-4) and attach with screw (10-6) (21-6), washer (10-7) (21-7) and nut (10-5) (21-5).

#### **6.21.3 Radius Arms - Installation**

- a) Refer to the drawing to ensure correct orientation. Install the radius arm (02-31) (17-31) on the base frame on the longer pivot then slide it to one side to engage the shorter pivot.

**Note:** *Installation of plastic clips will be easier if they are first warmed by immersion in hot water for a few minutes.*

- b) Install a new radius arm clip (02-42) (17-42) with a firm straight push then rotate the clip using the special tool (*Tool item 5*) until the internal spigot locates in the hole in the pivot.
- c) Install the leg fabrications (02-24) (17-24) and attach with pivot bushes (02-26) (17-26), bolts (02-27) (17-27), washers (02-29) (17-29) and nuts (02-28) (17-28). Fit plastic caps (02-25) (17-25).
- d) Install the stabilisers (02-30) (17-30) and attach with pivot bushes (02-26) (17-26), spacers (02-40) (17-40), bolts (02-27) (17-27),

washers (02-29) (17-29) and nuts (02-28) (17-28). Fit plastic caps (02-25) (17-25).

- e) Attach the height actuator ram to the radius arm fabrication with clevis pin (02-32) (17-32), washer (02-34) (17-34) and 'E' ring (02-33) (17-33).

#### **6.21.4 Deck Assembly - Installation**

- a) Position the base cover (02-45) (17-45), together with the flexible conduit (10-1) (21-1), over the base assembly. Use the hoist to position the deck assembly above the base assembly and attach with four pivot bushes (01-3) (16-3), bolts (01-1) (16-1), washers (01-2) (16-2) and nuts (01-4) (16-4).
- b) Use the cords to pull the 'T' piece cable, mini ACP cable, backrest and leg actuator cables, pump outlet cable, QLC extension cable (if fitted) and deck earthing strap through the flexible conduit.
- c) Pass the actuator, mini-ACP and 'T' piece cables beneath the QLC (if fitted) and connect them to the appropriate sockets on the control box.
- d) *Weighing beds:* Refit the QLC and attach with two washers (03-05) and nuts (03-04). Connect the QLC extension cable to the terminals in the QLC box, tighten the cable gland and refit the lid. Connect the pump outlet cable to the terminals in the connecting box, tighten the cable gland and refit the lid. Connect the deck earthing strap (10-10) to the terminal on mains filter box and secure with toothed washer (10-11) and nut (10-12).
- e) *Non-weighing beds:* Connect the pump outlet cable to the terminals in the connecting box, tighten the cable gland and refit the lid. Connect the deck earthing strap (21-15) to the terminal on the connecting box and secure with toothed washer (21-12) and nut (21-14).
- f) Lay the cables in the plastic trunking and refit the trunking lids. Refer to the base electrical assembly drawing, sheet 10 or 21 and fit new cable ties as appropriate.
- g) Install the base cover as described in 6.3.



### **6.21.5 Thigh Section - Installation**

- a) Use the hoist to position the thigh section and attach it to the deck frame with two hexagon head screws (09-14) (20-14), washers (09-15) (20-15) and pivot bushes (09-16) (20-16).
- b) Attach the earthing strap (11-3) (22-3) to the thigh section with toothed washer (11-2) (22-2) and self tapping screw (11-1) (22-1).
- c) Use the hoist to raise or lower the section and align with the hole in the actuator ram. Attach the actuator ram with clevis pin (09-18) (20-18), two nylon washers (01-19) (20-19), washer (09-20) (20-20) and 'E' ring (09-17) (20-17).

### **6.21.6 Calf Section - Installation**

- a) Use the hoist to position the calf section and attach it to the thigh section with two hexagon head screws (09-14) (20-14), washers (09-15) (20-15) and pivot bushes (09-16) (20-16).
- b) Attach the earthing strap (11-3) (22-3) between the thigh section and the calf section with toothed washer (11-2) (22-2) and self tapping screw (11-1) (22-1).
- c) Lift the locking handle (08-7) and assemble the calf section extension on to the calf section fabrication (08-3). Secure it with washer (08-19) and nut (08-20).

### **6.21.7 Backrest - Installation**

- a) Use the hoist to position the backrest and attach it to the deck frame with two hexagon head screws (09-14) (20-14), washers (09-15) (20-15) and pivot bushes (09-16) (20-16).
- b) Attach the earthing strap (11-3) (22-3) to the backrest with toothed washer (11-2) (22-2) and self tapping screw (11-1) (22-1).
- c) Use the hoist to raise or lower the backrest and align with the hole in the actuator ram. Attach the actuator ram with clevis pin (09-18) (20-18), two nylon washers (01-19) (20-19), washer (09-20) (20-20) and 'E' ring (09-17) (20-17).

### **6.21.8 Safety Sides - Installation**

- a) Assemble the catch fabrication (05-18) and spring (05-8) on the deck frame and slide the catch pivot bar (05-19) through to support them. Align the holes in the catch fabrication and pivot bar and drive in the roll pin (05-7).
- b) If removed, assemble the plunger (05-25), spring (05-26) and screw (05-27) in the foot end pivot mounting (05-12).
- c) Assemble two bushes (05-13) in the deck frame at the head end. Locate the pivot mounting fabrication (05-14) with the curved slot over the roll pin (05-20) and the catch engaged in one of the location slots. Attach the pivot mounting with two hexagon head screws (05-9) and washers (05-10).
- d) Repeat step c) at the foot end with pivot mounting fabrication (05-12).
- e) Install the release bar (05-6) through the holes in the deck frame and the release handle (05-4). Slide the release bar each way to install the release fabrications (05-17). Align the holes and drive in three roll pins (05-7) to secure the release fabrications and the handle.
- f) If removed, assemble the release button (05-22), spring (05-23) and screw (05-24) in the foot end upright fabrication (05-3). If removed, assemble rail fabrications (05-2) with pivot spacers (05-16) and button head screws (05-15).
- g) Use the hoist to position the safety side rail sub-assembly and attach it with two washers (05-28) and nuts (05-21).

### **6.21.9 Deck Extension Assembly - Installation**

- a) Install two deck extension guides (09-24) (20-24) and four bearing pads (07-1) (19-1) on the extension fabrication (07-2) (19-2).
- b) Slide the deck extension assembly on to the deck, lifting the handle (07-19) (19-18) to pass the latch positions.
- c) Install the guides (09-24) (20-24) in the deck fabrication (09-1) (20-1) and attach with four screws (09-25) (20-25) and washers (09-26) (20-26). Install the extension stop (07-27) (19-26), align the holes and drive in a roll pin (07-26) (19-25).
- d) If removed, install the ACP support sub-assembly and attach with four hexagon head screws (07-29) (19-28), washers (07-28) (19-27) and nuts (07-32) (19-30).

- e) Install the mini-ACP in the ACP tray and attach with two screws (07-14) (19-13) and nuts (07-15) (19-14).
- f) *Weighing beds*: Refer to the deck electrical assembly drawing, sheet 11 and connect the UIM (07-10) to the socket on the deck assembly.
- g) Using a new cable tie (11-18) (22-16), secure the nurse's handset cable at a point approximately 1/3 of its length from the handset. Support the cable by winding the last 1/3 of its length around the mini- ACP cable and connect it to the socket on the deck assembly.

## 6.22 Restoration of Paintwork

Damage to the paint finish on the frame or other components can be repaired by brush application of cellulose based paint obtainable from specialist paint suppliers or local distributors.

To ensure colour match, contact Huntleigh Healthcare quoting the product code and serial number, for confirmation of finish colour.

### **WARNING**

**Always use painting materials as directed by the manufacturer and obey the safety instructions.**

#### 6.22.1 Procedure

- a) Clean and degrease the damaged area by wiping with a lint free cloth moistened with a suitable volatile solvent e.g. methylated spirits.
- b) Make sure there are no loose chips of paint and use fine silicon carbide abrasive paper to abrade the area where paint is to be applied and blend to a smooth surface. Clean and degrease the area again.

Use a soft bristle brush and apply the primer paint to the damaged area. Allow to dry and then apply the colour finish paint. Use both in accordance with the manufacturer's instructions.

## 7.1 Calibration of Height / Tilt Actuators

Minor accumulated errors in service may result in lost position (non parallelism) of the height actuators, as a result of which the bed may not return to a true horizontal position. This may be automatically corrected by driving the bed to its lowest height. If this is not effective, the condition can be rectified by the re-calibration procedure described below.

### 7.1.1 Preliminary

Ensure that the bed is connected to the mains power supply. Set the rotary 'lock-out' switches on the ACP to enable the bed functions. Lower the backrest and leg sections. Adjust the deck to intermediate height.

### 7.1.2 Procedure

1. On the patient handset, press the **Backrest Up**, **Legs Up** and **Legs Down** buttons simultaneously and keep them pressed.
2. A continuous beep sound should be heard from the control box. If not, repeat step 1.
3. After approximately 5 seconds, the continuous sound should change to an intermittent beep. (This indicates that the control box is in calibration mode.) Release the push buttons.
4. Press the **Height Down** button for a few seconds. (This will drive one of the base actuators inwards.)
5. Press the **Height Up** button for a few seconds. (This will drive the other base actuator inwards.)
6. Repeat steps 4 and 5 until the deck is level at minimum height.
7. At this stage the system will recognise that calibration is complete. The beeping will stop and the system will revert back to normal operation. If this does not happen immediately, repeat the above procedure.

***Note:** If at any time during calibration there is a period of more than 5 seconds before a button is operated, the system will revert to normal operation and calibration data will not be stored.*

Calibration data will only be stored after completion of all steps 1 to 7 listed above i.e., when both base actuators are fully retracted.

## 7.2 Calibration and Setting Up of the Weighing System

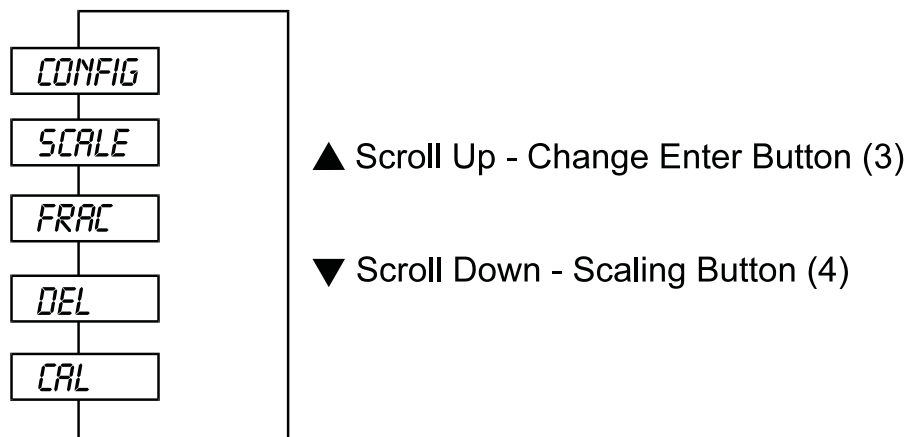
Calibration procedures should be carried out every two years, or after any component in the weighing system is replaced or disturbed.

### 7.2.1 Equipment Required

Calibrated weight 100 kg x 5.

### 7.2.2 Weighing Scale Calibration Procedure (Non EN45501)

- a) Site the bed on a flat, level floor. Raise the bed to maximum height and level the platform (zero tilt).
- b) Fully disengage the transport jackscrews. Remove the jack handles and locking nuts. The base cover can now be lifted to give access to the Quad Load Converter (QLC) located at the foot of the bed.
- c) Leave the bed for 5 minutes to allow the weighing system to attain thermal stability. Disconnect the bed from the mains power supply.
- d) Remove the cover from the QLC and switch the two DIP switches\* in the QLC to the ON position. Replace the cover loosely. Replace the base cover.
- e) Connect the bed to the mains power supply. The Upper Display (5) on the UIM should now show `CONFIG`.
- f) The following parameter headings form a circular Menu which can be scrolled up or down using the Change Enter Button (3) and the Scaling Button (4). (See Fig. 7-1).



\* On beds with serial numbers after 211787, one setup switch has replaced the two original DIP switches.

g) Assign values to the following parameters:

SCALE: 500000  
 FRAC: 1  
 DEL: 0.0001

This is achieved as follows:

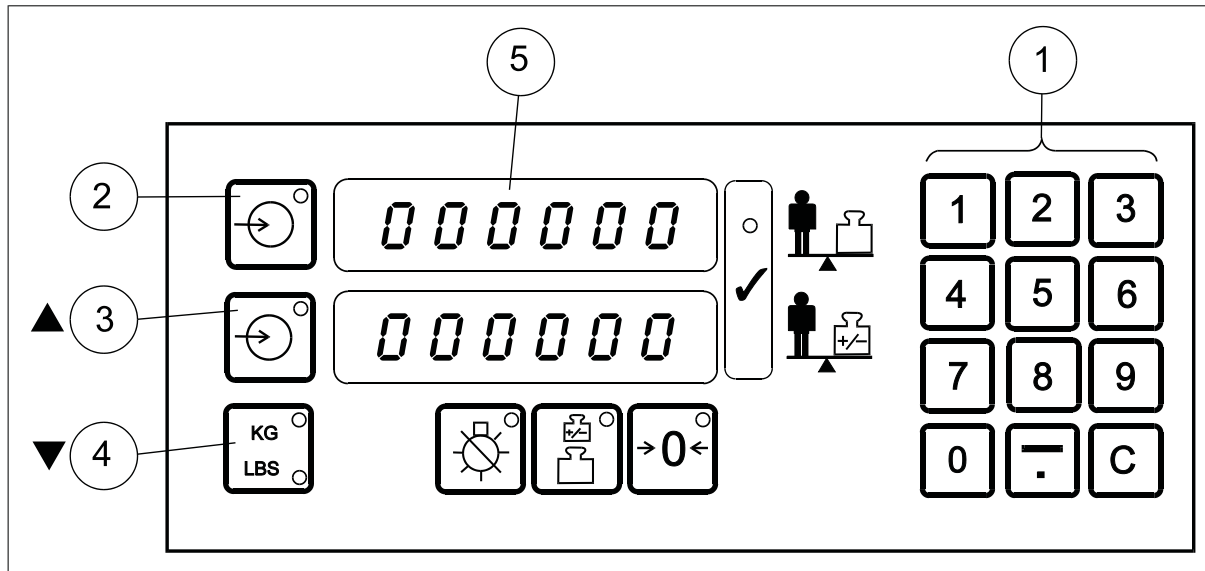


Fig. 7-1 User Interface Module (Non EN45501)

- h) Scroll through the Menu as described in f) to show the required parameter on the Upper Display (5). Press the Weight Enter Button (2). The parameter value will now be shown on the display. If the value is incorrect, press Weight Enter Button (2) again and the display will show zero. Key in the required value on the Keypad (1). When the required value is shown, press Weight Enter Button (2) again. The value has now been accepted and the display will show the parameter heading again. Repeat until all three parameters have the correct values.
- i) Scroll through the menu to select  $CFAL$  on the Upper Display (5). Press Weight Enter Button (2),  $LCFAD 0$  will now be shown on the Upper Display (5).
- j) Make sure that nothing is on or touching the bed platform, then press the Weight Enter Button (2). The Upper Display (5) will now show  $.. .. .$ .
- k) Do not touch or move the bed whilst this is displayed.
- l) Wait until a stable reading has been obtained and the system has determined the calibration data,  $LCFAD 1$  will be shown on the Upper Display (5).

- m) Place the five 100 kg weights on the bed platform above the centre of load cell 1, as shown in Fig. 7-2.

**Note:** Fig. 7-2 also shows the weight position measurements from inside the Head End Panel and from the side of the mattress support.

- n) Press the Load Enter Button (2) and wait until `LOAD 2` is shown on the Upper Display (5).

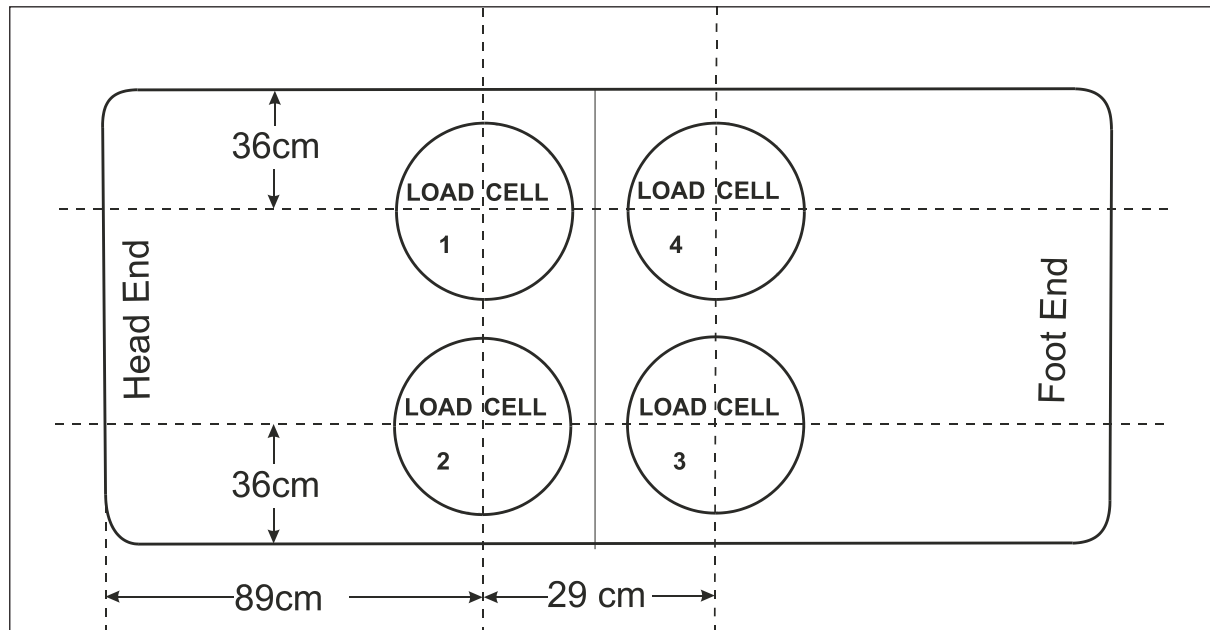


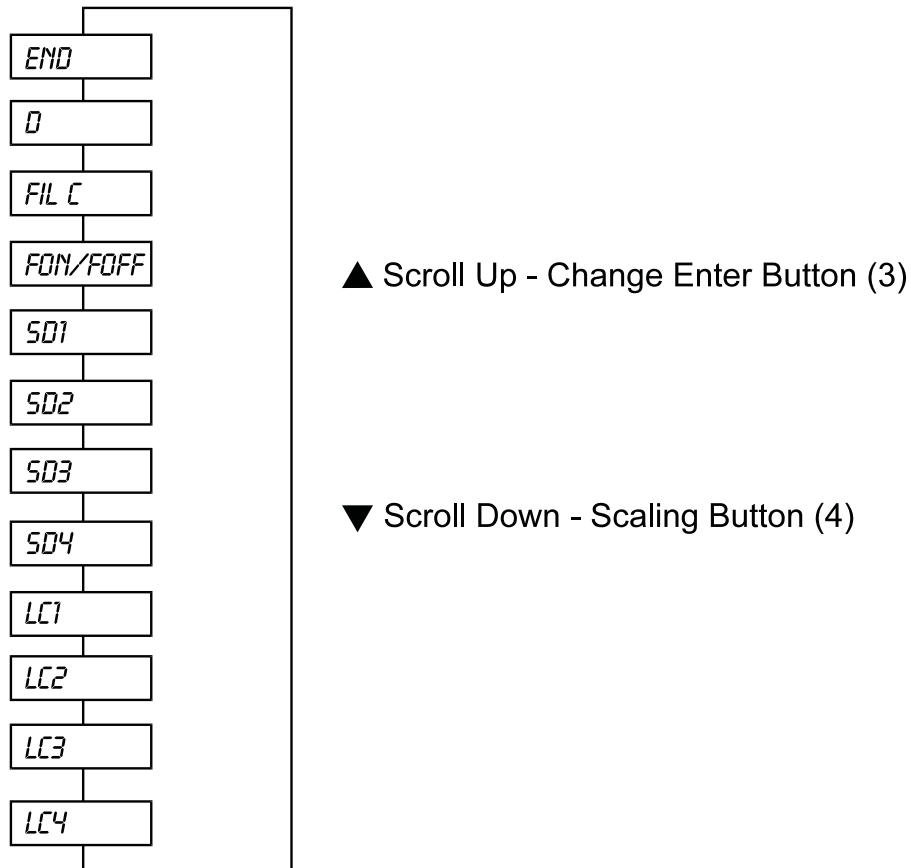
Fig. 7-2 Load Cells and Weight Positions

- o) Repeat steps m) and n) in sequence for load cells 2, 3 and 4, each time placing the five 100 kg weights above the centre of the appropriate load cell. When this has been completed, `CAL` will again be shown on the Upper Display (5).
- p) Scroll through the Menu to select `CONFIG` on the Upper Display (5). Press Weight Enter Button (2) again.
- q) Disconnect the bed from the mains power supply and return the two\* D.I.P. switches in the QLC to the OFF position. Reconnect the mains power supply. Replace the QLC cover and the base cover.
- r) Calibration is now complete but the weighing scale must be set-up prior to use. Refer to next section.

\* On beds with serial numbers after 211787, one setup switch has replaced the original two dip switches.

### 7.2.3 Weighing Scale Set-up Procedure (Non- EN45501)

- a) Use the Keypad (1) to enter 3.141593 (Pi). If done successfully, the Upper Display (5) will show *End* Set-up mode is implemented as a circular Menu as follows:



- b) Assign values to the parameters as follows:

D	200
FIL C	3
FON/FOFF	FON
SD1-SD4	Not used
LC1-LC4	Not used

- c) When the above parameters have been entered, scroll through the Menu to select *End* on the Upper Display (5) then press the Weight Enter Button (2).
- d) The UIM will now perform its power up routine, after which normal mode is resumed.
- e) Both displays should indicate zero. If not, then zero both displays as described in Section 1.

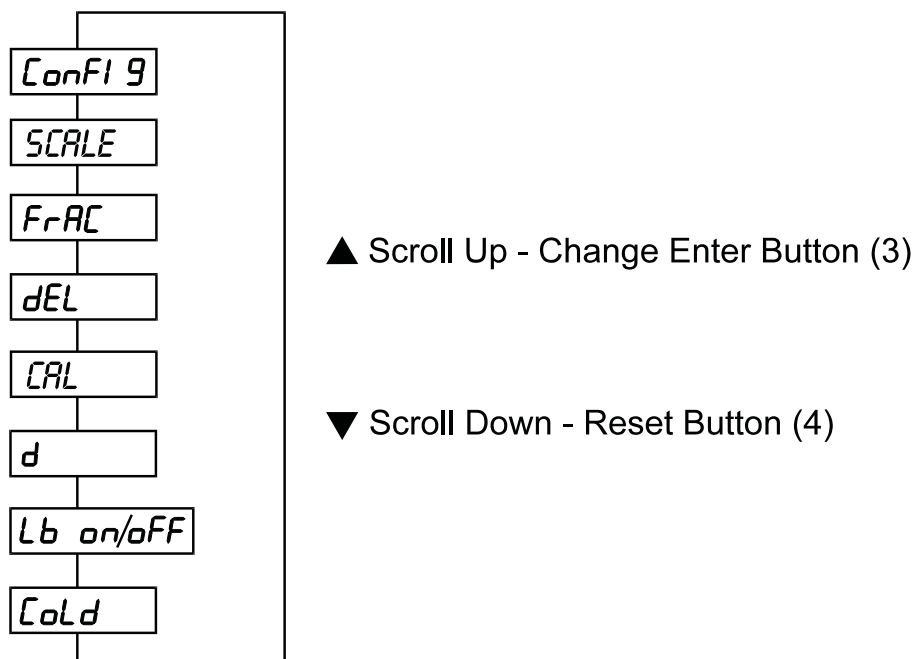


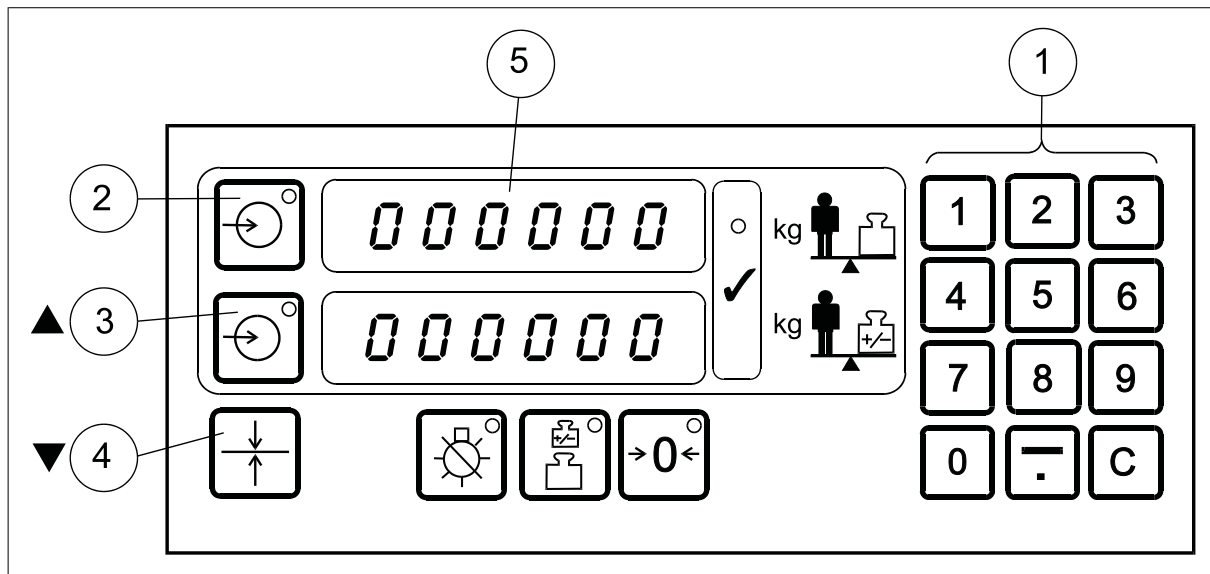
- f) Replace the jack handles and locking nuts. Re-engage the transport jack screws.

This concludes the calibration and set-up procedure.

#### 7.2.4 Weighing Scale Calibration Procedure (EN45501 APPROVED)

- a) Site the bed on a flat, level floor. Raise the bed to maximum height and level the platform (zero tilt).
- b) Fully disengage the transport jackscrews. Remove the jack handles and locking nuts. Lift the base cover to gain access to the Quad Load Converter (QLC), which is located at the foot of the bed.
- c) Disconnect the bed from the mains power supply and remove the cover from the (QLC).
- d) Connect the bed to the mains power supply and immediately, while the system is going through its self test sequence, press the 'setup' switch inside the QLC. The upper display on the UIM will now read *ConFI 9*.
- e) Relocate the base cover on the base.
- f) The following parameter headings form a circular Menu which can be scrolled up or down using the Change Enter Button (3) and the Reset Button (4). (See Fig. 7-3.)





**Fig. 7-3 User Interface Module (EN45501 APPROVED)**

- g) Assign values to the following parameters:

SCALE:	500000
FrAC:	1
dEL:	0.0001
d	100
lb on/off	lb off
CoLd	120

This is achieved as follows:

- h) Scroll through the Menu as described in (f) to show the required parameter on the Upper Display (5). Press the Weight Enter Button (2). The parameter value or status will now be shown on the display.
- i) If the value shown for SCALE, FrAC or dEL is incorrect, press the Weight Enter Button (2) again and the display will show zero. Key in the required value on the Keypad (1). When the required value is shown, press the Weight Enter Button (2) again. The value has now been accepted and the display will show the parameter heading again.
- j) If the value shown for d or CoLd is incorrect, use the Change Enter Button (3) and the Reset Button (4) to scroll through a series of preset values. When the required value is shown, press the Weight Enter Button (2) again. The value has now been accepted and the display will show the parameter heading again.
- k) If the status of lb on / lb off is incorrect use the Weight Enter Button (2) to toggle between the alternative settings.

- l) Perform steps h) to k) until all six parameters have the correct values or status.
- m) Scroll through the Menu to select  $\square$  *FAL* on the Upper Display (5). Press the Weight Enter Button (2), *LoAd 0* will now be shown on the Upper Display (5).
- n) Make sure that nothing is on or touching the bed platform, then press the Weight Enter Button (2). The Upper Display (5) will now show \_ \_ \_ \_ \_ .
- o) Do not touch or move the bed whilst this is displayed.
- p) Wait until a stable reading has been obtained and the system has determined the calibration data, *LoAd 1* will be shown on the Upper Display (5).

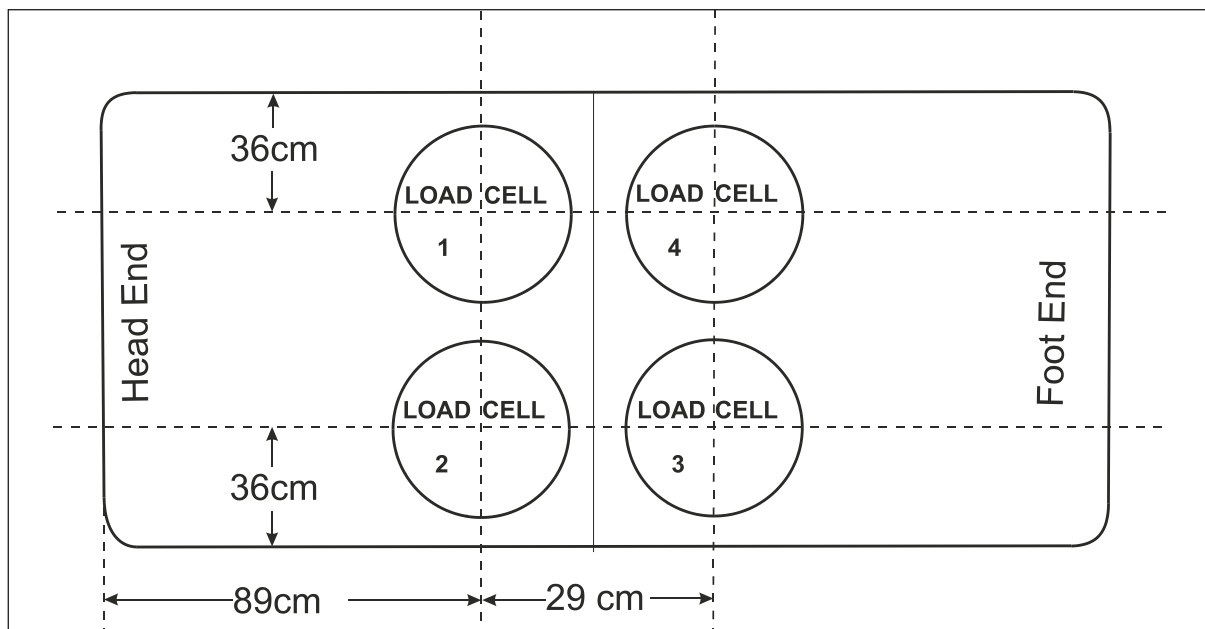


Fig. 7-4 Load Cells and Weight Positions

- q) Place the five 100 kg weights on the bed platform above the centre of load cell 1, as shown in Fig. 7-4.

**Note:** *Fig. 7-4 also shows the weight position measurements from inside the Head End Panel and from the side of the mattress support.*

- r) Press the Load Enter Button (2) and again wait until *LoAd 2* is shown on the Upper Display (5).
- s) Repeat steps q) and r) in sequence for load cells 2, 3 and 4, each time placing the five 100 kg weights above the centre of the appropriate load cell. When this has been completed,  $\square$  *FAL* will

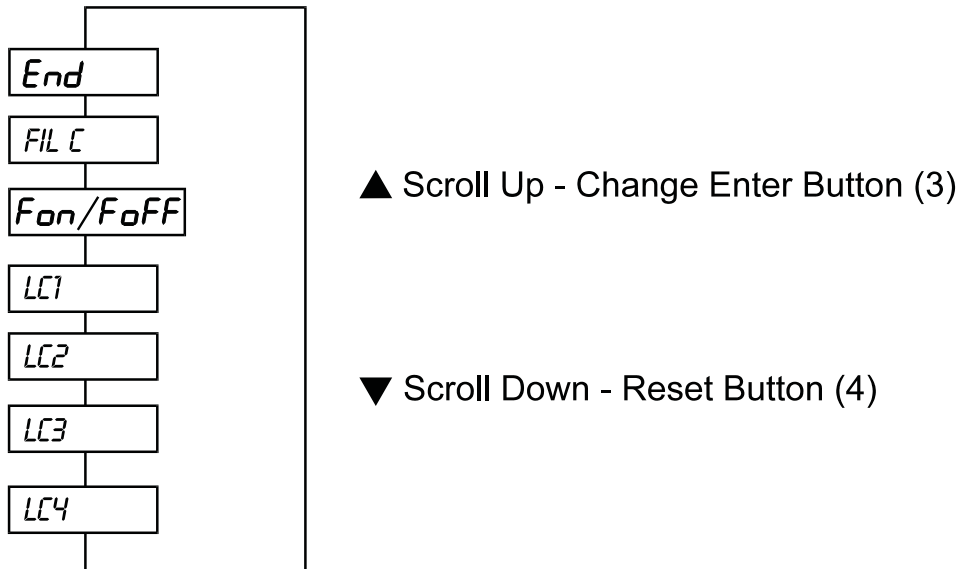
again be shown on the Upper Display (5). Remove the weights from the bed.

- t) Scroll through the Menu to select **CONF 9** on the Upper Display (5). Press the Weight Enter Button (2) again.

Calibration is now complete but the weighing scale must be set- up as follows prior to use.

### 7.2.5 Weighing Scale Set-up Procedure (EN45501 APPROVED)

- a) Turn the mains power supply off then on again. When *CoLd* disappears from the upper display, use the Keypad (1) to enter 3.141593 (Pi). If done successfully, the Upper Display (5) will show *End*. Set-up mode is implemented as a circular Menu as follows:



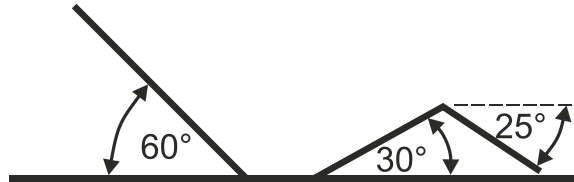
- b) Assign value or status to the parameters as follows:
- |          |          |
|----------|----------|
| FIL C    | 3        |
| Fon/FoFF | Fon      |
| LC1-LC4  | Not used |
- c) When the above parameters have been entered, scroll through the Menu to select *End* on the Upper Display (5), then press the Weight Enter Button (2).
- d) The UIM will now perform its power-up routine, after which normal mode is resumed. Both displays should indicate *CoLd*. If not, then zero both displays as described in Section 1.
- e) Disconnect the bed from the mains power supply. Replace the QLC cover and base cover.
- f) Replace the jack handles and locking nuts.
- g) Re-engage the transport jack screws.

This concludes the calibration and set-up procedure.

## Dimensions

Overall Length	(normal)	228 cm
	(extended)	248 cm
In-bed length	(normal)	210 cm
	(extended)	230 cm
Overall width	(min.)	104 cm
	(max. sides out)	156
Height of mattress deck	(min.)	49 cm
	(max.)	78 cm
Tilt angle		14° foot up to 14° foot down

Deck angles (max.)



Castors (2 brake + 2 brake/steer)

15 cm dia.

Product weight (approx.)

Model C1000

265 kg

Model C1050/ 80

285 kg

Safe working load

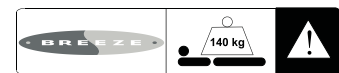
(including mattress and accessories)

500 kg



Safe working load for Breeze Mattress

140 kg



Mattress (PM6) size



206 x 92 x 17.2 cm

Mattress weight (approx.)

22 kg

(Continued overleaf)

## Electrical Data

Power in for C1000	1.5 A max. at 230V a.c. 50/60 Hz
Power in for C1080	4.0 A max. At 230V a.c. 50/60 Hz.
Power out	24 V d.c. Max. 120 VA.
Duty rating	Intermittent 10% (2 min./20 min.)
Electrical Safety Standards	Complies with EN 60601-1 (BS 5724: Part 1, IEC 601-1)
Electrical shock protection	Class I          Type B 
EMC	Complies with BS EN 60601-1-2
Equipotential terminal	Complies with IEC 601-1 
Liquid ingress protection	IP 54
Batteries	2 x12 V series connected sealed, rechargeable lead/acid gel 1.2 amp hrs.

## Transportation and Storage

Handle with care. Do not drop. Avoid shock or violent impact.

The equipment should be stored in a clean, dry and well ventilated area.

The following limits apply during transport and for a storage period of up to 15 weeks:

Ambient temperature	-25°C to +70°C
Relative humidity	10% to 75%
Air pressure	50 kPa to 106 kPa

The following limits apply to operating conditions or longer periods of storage:

Ambient temperature	+10°C to +40°C
Relative humidity	30% to 75%
Air pressure	70 kPa to 106 kPa

# APPENDIX A

## ASSEMBLY SPARES MANUAL

### A.1 General

The Assembly Spares Manual is for the identification and requisition of replaceable parts. It contains assembly drawings of the equipment and sub-assemblies. Each drawing sheet is accompanied by its related parts list.

The Assembly / Spares Manual Modification Record (ASMMR) is the configuration control document for the equipment.

The ASMMR identifies the sheet number and issue number of all drawings relevant to a particular equipment. A separate ASMMR is included for each model number covered by this manual.

### A.2 How to Use the Assembly Spares Manual

Refer to the relevant ASMMR for the equipment model number.

By reference to the equipment serial number and the ASMMR, identify the applicable drawing. Find the part on the drawing and note the item number which is given in a balloon. Refer to the related parts list for information regarding the part.

Sometimes a number of identical parts may appear in different locations but only one will be identified with a balloon. The number in the “Qty” column of the parts list indicates the total number of times that the part appears in the drawing.

When a part has optional variations, the last column of the parts list refers to a separate drawing sheet defining the choices.





**Service Manual Amendments Sheet**
**Document Ref. 746-129**

Product – Contoura® 1000 &amp; 1080 Bariatric Beds

Build Level	Mod Note	Date	Serial No.	Sheet No.	Drawing No.	Issue
39	4621	23.10.06	854926	2	795.156	13
				17	795.216	6
40	4776	12.06.07	903624	24	795.245	10
41	4939	13.03.08		24	795.245	11
42	5021	23.06.08		24	795.245	12
43	5034	05.08.08		21	795.220	4
44	5109	30.10.08		16	795.215	2
45	5139	02.12.08		24	795.245	13
46	WE05153	09.01.09		17	795.216	7
47	WE05184	02.02.09	P043520	24	795.245	14
48	WE05202	13.02.09		2	795.156	14
				17	795.216	8
49	WE10029	17.03.09	P046561	24	795.245	15
50	WE10038	09.04.09		24	795.245	16
51	WE10069	12.05.09		3	795.158	6
52	WE10126	24.06.09		24	795.245	17
53	WE10340	29.03.10	P068079	2	795.156	15
				10	795.168	4



**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1080**

1 OF 1

SHEET No

**01**

DRWG NO

**795.181**

TITLE

**BED FINAL ASSY**

**ISSUE 2**

ITEM	PART No	QTY	DESCRIPTION
1	S1538	4	BOLT M10 X 35LG
2	S1819	8	WASHER M10 LIGHT
3	761.345	4	PIVOT BUSH
4	S4301	4	BENTONLOK NUT M10
5		1	SAFETY-SIDE ASSY RH (SEE SEP DRWG 795.162)
6		1	SAFETY-SIDE ASSY LH (SEE SEP DRWG 795.163)
7		1	HEAD&FOOT END ASSY (SEE SEP DRWG 796.326)
8		1	DECK ASSY (SEE SEP DRWG 795.167)
9		1	WEIGHING BASE ASSY (SEE SEP DRWG 795.156)
10		1	QLC BRACKET ASSY (795.158)
11		1	MAINS FILTER BRACKET ASSY (795.159)
12		1	DECK EXTENSION ASSY (795.164)
13		1	CALF SECTION ASSY (795.166)
14		1	BASE ELECTRICAL ASSY (795.168)
15		1	DECK ELECTRICAL ASSY (795.207)
16		1	ELECTRICAL SCHEMATIC (795.212) NOT SHOWN
17		1	LABELS(795.245) NOT SHOWN
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HUNTLEIGH  
NESBIT EVANS

PRODUCT

CONTOURA 1080

SHEET No

01

DRWG NO

795.181

TITLE

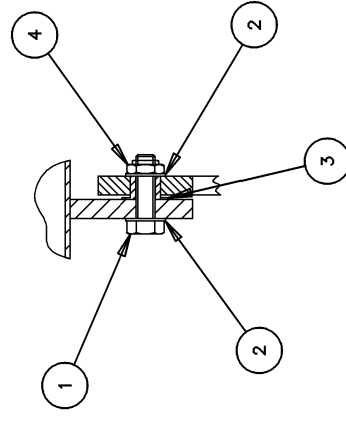
BED FINAL ASSY 450KG

ISSUE 2

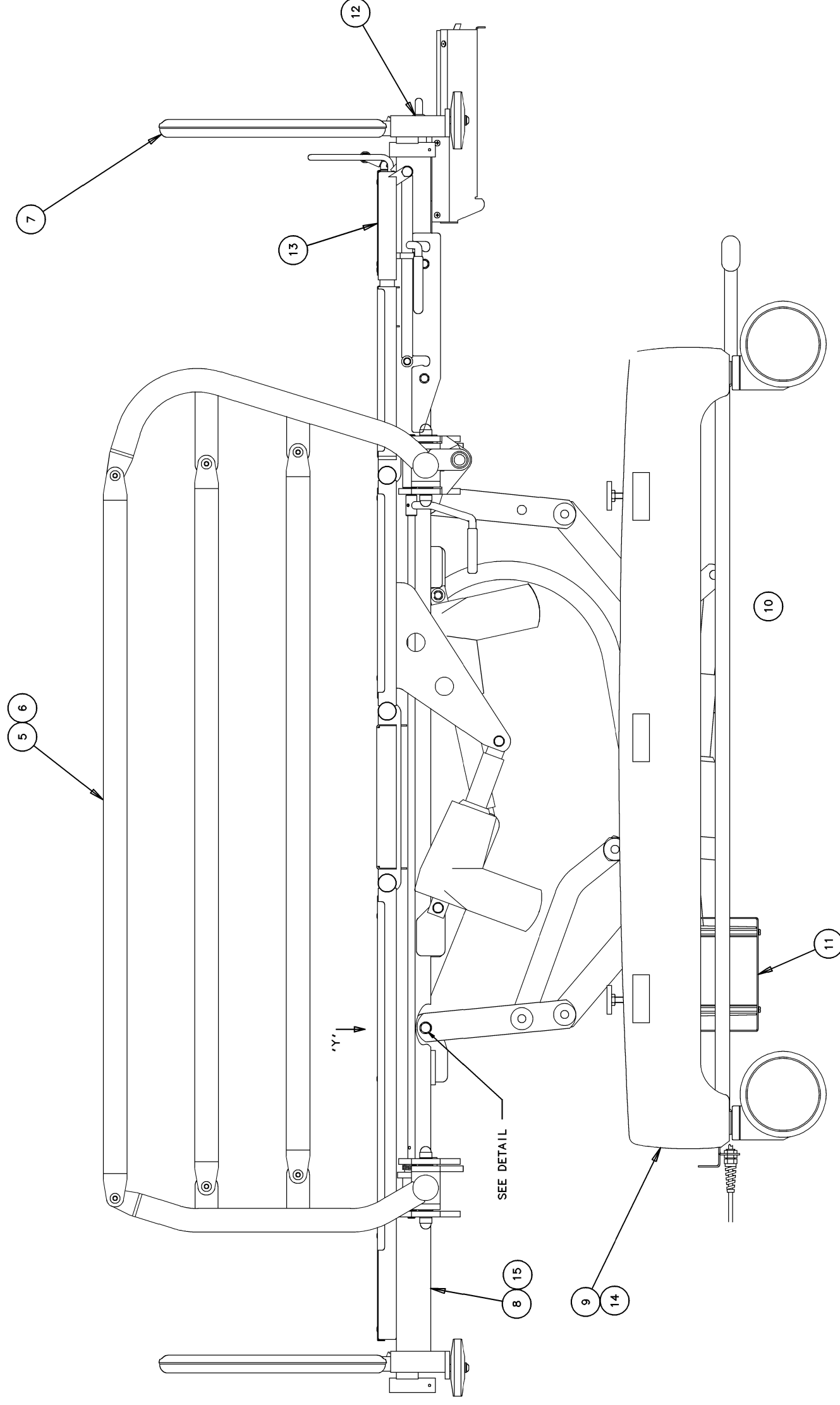
NOTE

LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR TO ASSY WITH SAPPHIRE GREASE.

FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT SCHEMATIC 795.212 AND ELECTRICAL ASSY DRAWINGS 795.168 AND 795.207



TYPICAL PIVOT DETAIL  
IN DIRECTION 'Y'



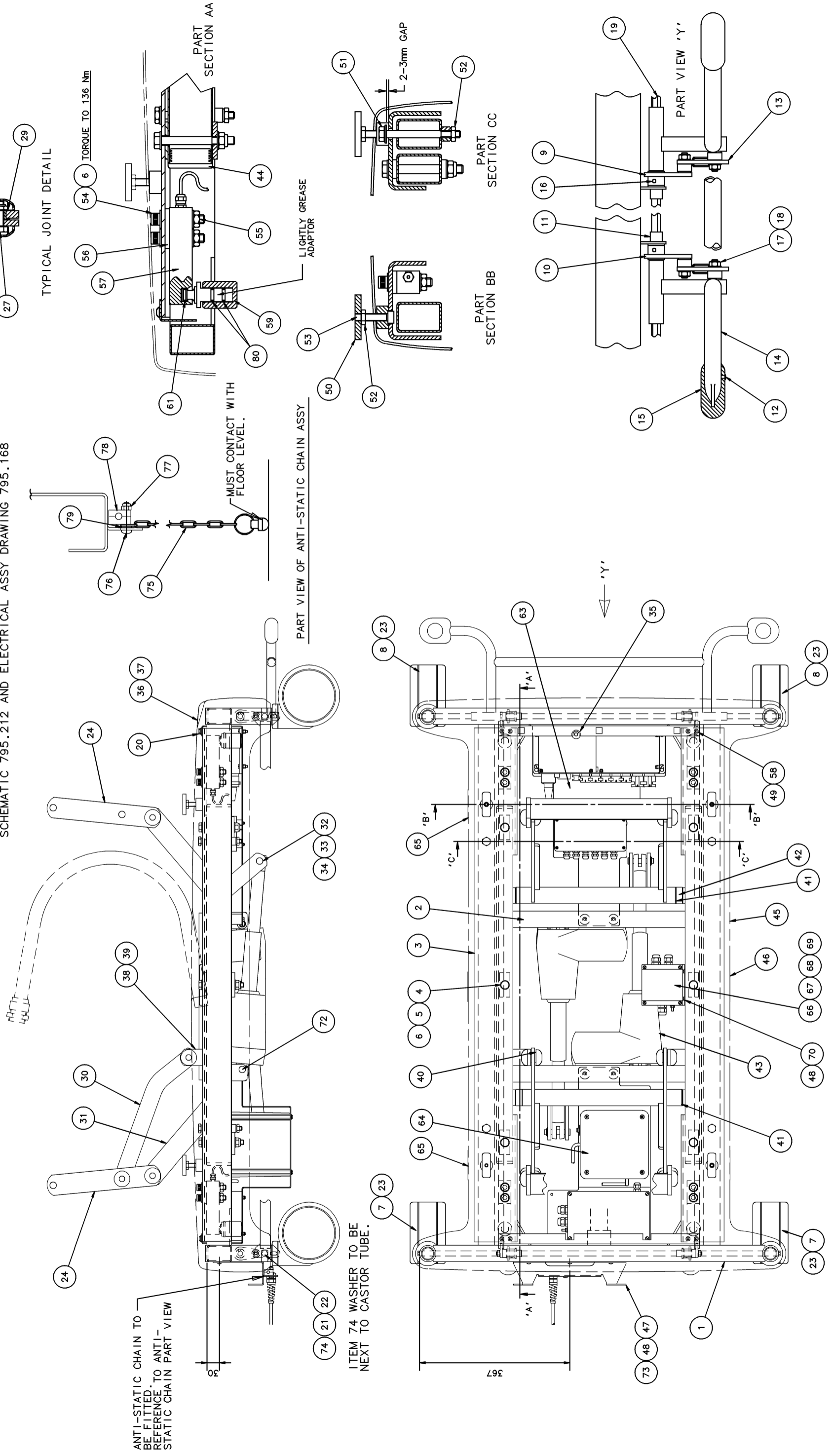
ARJOHUNTLEIGH A BRANCH OF ARJO LTD MED AB		PRODUCT CONTOURA 1080			1 OF 2		SHEET No 02
DRWG NO 795.156 etc			TITLE WEIGHING BASE ASSEMBLY 450KG			ISSUE 15	
ITEM	PART No	QTY	DESCRIPTION	795.239 120V	795.156 230V	KIT OPTIONS (SEE RELEVANT SHT NO. BELOW)	
1	795.05	1	BASE OUTER FRAME				
2	795.02	1	BASE INNER FRAME MACHINED				
3	795.01	2	PRESSING FABRICATION				
4	S1593	6	BOLT				
5	S1421	6	NUT				
6	S1864	28	WASHER				
7	S6393	2	CASTOR BRAKE/TRACK				
8	S6394	2	CASTOR BRAKE/FREE				
9	795.101	2	CASTOR LEVER FABN LH				
10	795.100	2	CASTOR LEVER FABN RH				
11	S4902	4	NYLON BUSH				
12	S4506	2	POP RIVET				
13	795.97	2	BRAKE LINK FABN				
14	795.91	1	BRAKE PEDAL FABN				
15	S5133	2	PEDAL RUBBER				
16	S1026	4	SPIROL PIN				
17	S1403	4	NUT				
18	S1804	4	WASHER				
19	795.102	2	BRAKE BAR				
20	S5108	3	BUMP-ON				
21	S1103	8	SCREW HEX HEAD				
22	718.39	4	SHAKEPROOF PRESSING				
23	712.01	4	CASTOR BUSH				
24	795.18	2	LEG FABRICATION				
25	761.137	16	CAP				
26	761.345	8	PIVOT BUSH				
27	S1538	8	BOLT				
28	S4301	12	BENTONLOK NUT				
29	S1819	16	WASHER				
30	795.14	2	STABILISER				
31	795.15	2	RADIUS ARM FABN				
32	713.92	4	CLEVIS PIN				
33	S4733	4	E RING				
34	S1836	4	WASHER				
35	S5076	1	CHARGE-LIGHT VIEW-GLASS				
36	SEE OP	1	BRAKE PEDAL LABEL LH				30
37	SEE OP	1	BRAKE PEDAL LABEL RH				30
38	791.61	2	STABILISER BRACKET				
39	S1710	4	SKT CAP SCREW M10 X 25				
40	713.105	2	SPACING WASHER				
41	712.02	4	NYLON BEARING				
42	712.04	2	RETAINING CLIP				
43	S6294	2	ACTUATOR LA34 150 STROKE				
44	A5N4137Y	4	END CAP				
45	795.13	1	BASE COVER				
46	SEE OP	2	MAX LOAD LABEL 500KG				30
47	795.157	1	CABLE TIDY BRACKET 450KG				
48	S1619	5	SCREW SELF TAPPING				
49	S3610	8	BUTTON HD SCREW				
50	791.58	4	JACK HANDLE				

ARJOHUNTLEIGH A BRANCH OF ARJO LTD MED AB		PRODUCT CONTOURA 1080			2 OF 2		SHEET No 02
DRWG NO 795.156 etc			TITLE WEIGHING BASE ASSEMBLY 450KG			ISSUE 15	
ITEM	PART No	QTY	DESCRIPTION	795.239 120V	795.156 230V	KIT OPTIONS (SEE RELEVANT SHT NO. BELOW)	
1	S1597	4	M10 x 100 FLANGE HEAD BOLT				
2	S1903	8	NUT				
3	791.49	4	JACKSCREW				
4	S1729	8	SCREW (HIGH TENSILE)				
5	S1931	8	NUT (HIGH TENSILE)				
6	S6267	4	HARDENED PLATE				
7	S6264	4	LOAD CELL				
8	S1802	8	WASHER M6				
9	791.179	4	LOAD ADAPTER				
10							
11	S6266	4	'O'-RING				
12							
13		1	QLC & C/BOX BRKT ASSY (SEE SEP DRWG 795.158)				
14		1	MAINS FILTER BRKT ASSY (SEE SEP DRWG 795.159)				
15	SEE OP	4	TRANSPORT LABEL				30
16	-----	1	MAINS CONNECTION BOX	791.223	791.221		
17	S2912	4	SELF-LOCKING NUT M3 3.5 THK				
18	S1834	4	WASHER M3				
19	S3453	4	POZI P-HD SCREW M3X20 LG				
20	795.208	1	CONNECTING BOX BRKT				
21							
22	S5126	4	NYLON WASHER				
23	SEE OP	1	ELECTRICAL SPECIFICATION LABEL				30
24	S1200	4	M8 WASHER (THICK)				
25	805.286	1	ANTI-STATIC CHAIN ASSY				
26	S3409	1	M5 POZI PAN HEAD SCREW				
27	S1410	1	M5 NYLOK NUT				
28	S5798	1	CABLE ANCHOR CLIP				
29	S1207	1	M5 INTERNAL TOOTH WASHER				
30	S6529	8	'O'-RING SUPPLIER REF:BS113 VITON				
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NOTE

DEGREASE AND APPLY LOCTITE 243 TO ITEMS 53 AND 39.  
LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR  
TO ASSY WITH SAPPHIRE GREASE.

FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT  
SCHEMATIC 795.212 AND ELECTRICAL ASSY DRAWING 795.168





**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1080**

**1 OF 1**

SHEET No

**03**

DRWG NO

**795.158 etc**

TITLE

**QLC BRACKET ASSEMBLY**

**ISSUE**

**6**

I T E M	PART No	Q T Y	DESCRIPTION	PD09	795.158	FOR COUNTRY OPTIONS SEE SHEET
				795.238 120V	230V	
1	795.160	1	QLC BRACKET 450KG			
2	S6630	1	QLC MK4			
3	S3452	2	SCREW M3 x 30 LG			
4	S2912	2	SELF LOCKING NUT M3			
5	S1834	6	WASHER M3			
6	791.69	2	SPACER			
7	S3422	2	SCREW M5 x 45 LG			
8	S1812	6	WASHER $\phi$ 5			
9	SEE OP	1	CB14 CONTROL BOX	S6666	S6641	
10	S3419	4	SCREW M5 x 20 LG			
11	S1410	4	NYLOC NUT M5			
12	S4789	2	M3 HEX SPACER 12 LG			
13	-----	2	CALIBRATION LABEL			30
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HUNTLEIGH  
NESBIT EVANS

PRODUCT

CONTOURA 1080

SHEET No

03

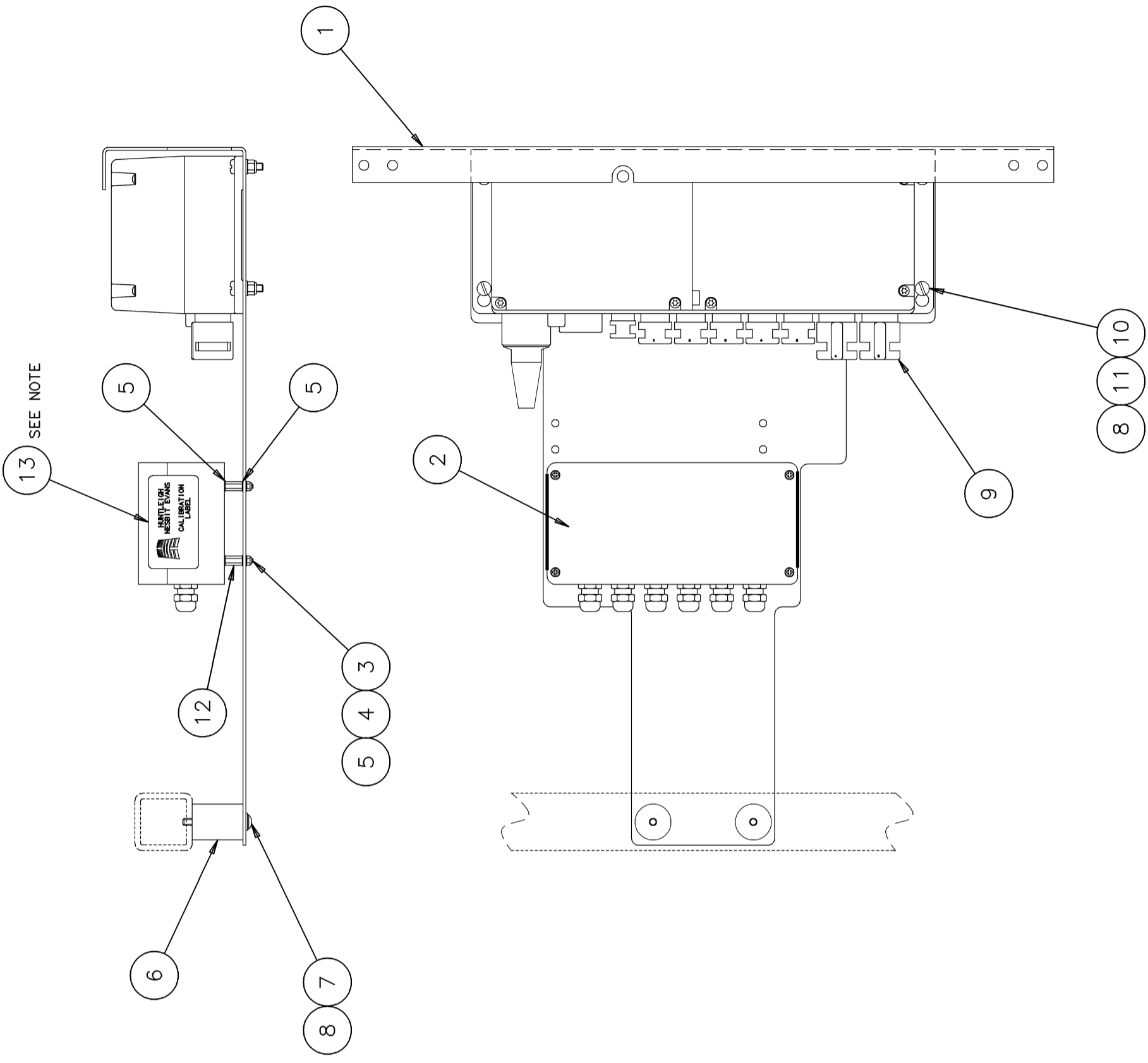
DRWG NO

795.158 etc

TITLE

QLC & CONTROL BOX BRKT ASSY

ISSUE 6



NOTE

THE QLC UNIT IS TO BE SEALED AFTER CALIBRATION USING PAPER LABEL ITEM 13 ON BOTH SIDES. THE LABELS ARE TO BE PLACED ACROSS THE JOINT BETWEEN THE QLC BOX AND IT'S LID. THIS THEN SEALS THE LOAD CELLS, QLC AND USERS INTERFACE AGAINST TAMPERING.

NOTE

DEGREASE AND APPLY LOCTITE 243 TO ITEM 7 FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT SCHEMATIC 795.212 AND ELECTRICAL ASSY DRAWING 795.168



**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1080**

1 OF 1

SHEET No

**04**

DRWG NO

**795.159 etc**

TITLE

**MAINS FILTER BRKT ASSY**

**ISSUE 2**

ITEM	PART No	QTY	DESCRIPTION	795.237	795.159
				120V	230V
1	795.161	1	TRANSFORMER/FILTER BRACKET		
2	SEE OP	1	MAINS FILTER BOX	791.222	791.220
3	S3442	4	SCREW M4 x 16 LG		
4	S1420	4	NUT M4		
5	S1828	4	WASHER M4		
6	791.70	4	PILLAR		
7	S3410	4	SCREW M5 x 12 LG		
8	S1812	8	WASHER M5		
9	791.69	2	SPACER		
10	S3422	2	SCREW M5 x 45 LG		
11	SEE OP	1	ISOLATING TRANSFORMER 230V	791.226	791.118
12	S3408	4	SCREW M5 x 35 LG		
13	S6604	1	CABLE 50LG, 16x0.2MM, COLOUR BLACK		
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HUNTLEIGH  
NESBIT EVANS

PRODUCT

CONTOURA 1080

SHEET No

04

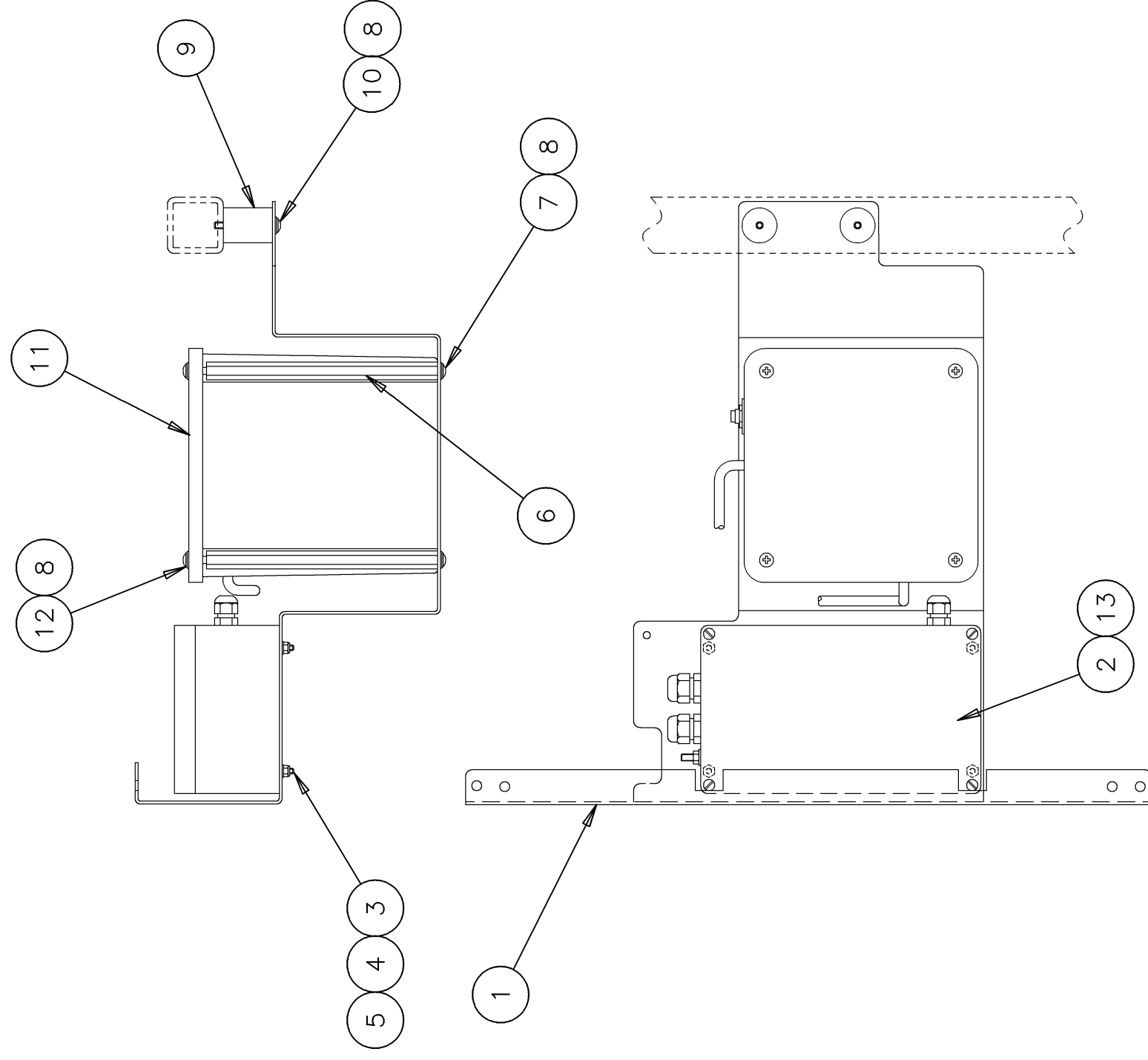
DRWG No

795.159 etc

TITLE

MAINS FILTER BRACKET ASSY

ISSUE 2



NOTE

DISGUARD 4 M5 SCREWS WHICH SECURE TRANSFORMER LID DURING TRANSPORT  
 DEGREASE AND APPLY LOCTITE 270 TO ITEMS 7, 10 AND 12.  
 FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT  
 SCHEMATIC 795.212 AND ELECTRICAL ASSY DRAWING 795.168



**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1080**

**1 OF 1**

SHEET No  
**05**

DRWG NO

**795.162**

TITLE

**SAFETY-SIDE ASSY RH**

**ISSUE 2**

ITEM	PART No	QTY	DESCRIPTION
1	795.30	1	UPRIGHT FABN HD-END RH
2	795.36	3	RAIL FABN
3	795.23	1	UPRIGHT FABN FT-END RH
4	795.59	1	RELEASE HANDLE FABN
5	796.129	1	DIP MOULDING
6	795.63	1	RELEASE BAR
7	S1017	5	Ø3/16" ROLL PIN
8	795.62	2	CATCH SPRING
9	S1156	4	HEX HD SCREW M10 X 30 LG
10	S1819	4	WASHER M10 LIGHT
11	S6506	4	M10 NUT CAP
12	795.40	1	PIVOT MTING FABN FT-END RH
13	761.345	4	RADIUS ARM BUSH
14	795.48	1	PIVOT MTING FABN HD-END RH
15	S3607	6	SKT B-HD SCREW M10 X 16LG
16	795.35	6	PIVOT SPACER
17	795.55	2	RELEASE FABN
18	795.50	2	CATCH FABN RH
19	795.58	2	CATCH PIVOT BAR
20	S1014	2	Ø5/16" ROLL PIN
21	S1423	2	NYLOC NUT M20 THIN
22	734.04	1	RELEASE BUTTON
23	734.49	1	RELEASE BUTTON SPRING
24	S2122	1	PAN-HD SCREW M5
25	795.39	1	PLUNGER
26	734.48	1	PLUNGER SPRING
27	S2104	1	SLOT PAN-HD M5X10 LG
28	S1861	4	WASHER M20 LIGHT
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**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1080**

SHEET No

**05**

DRWG NO

**795.162**

TITLE

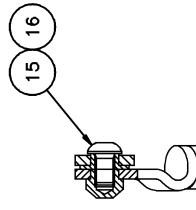
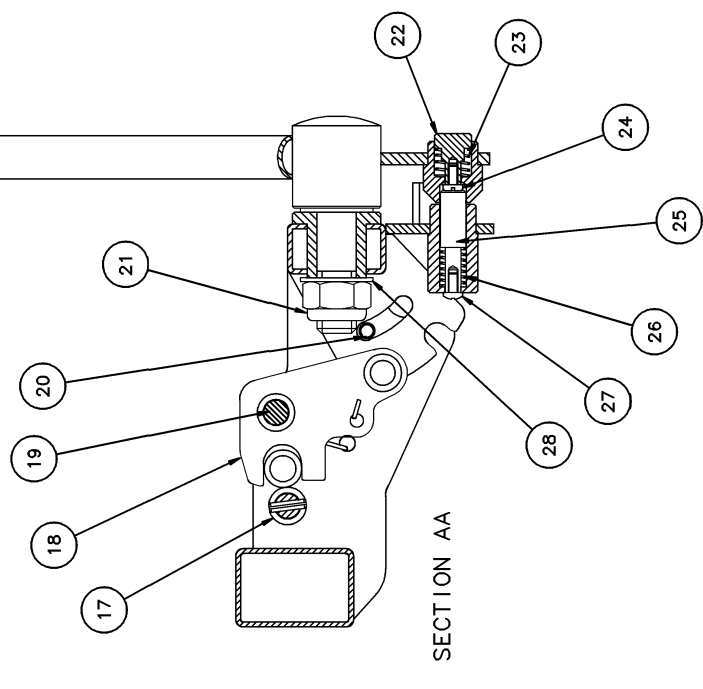
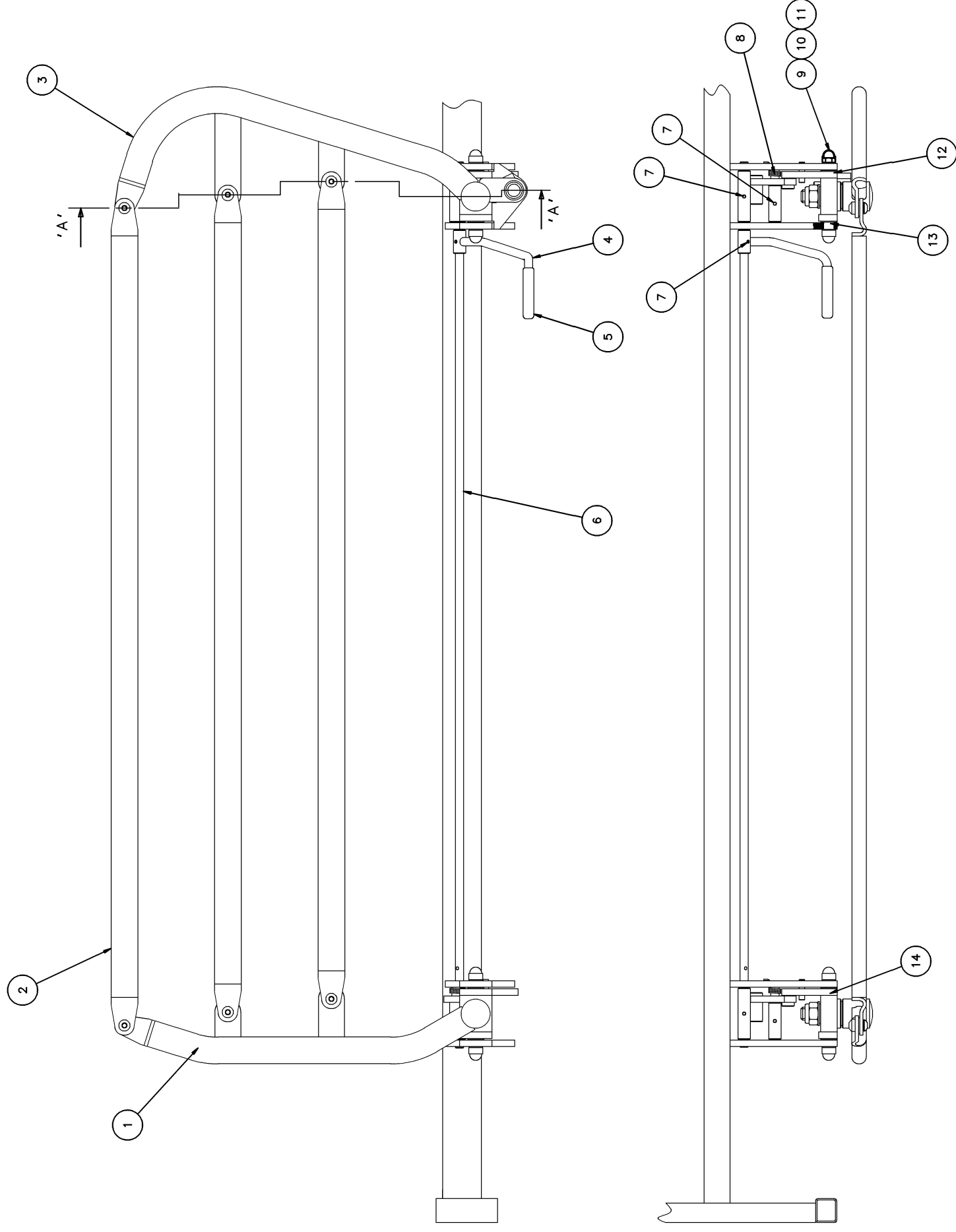
**SAFETY-SIDE ASSY RH**


ISSUE **2**

**NOTE**

DEGREASE ITEMS 9, 22 & 25 AND MATING PARTS THEN APPLY LOCTITE 242.

LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR TO ASSY WITH SAPPHIRE GREASE.



 HUNTLEIGH NESBIT EVANS		PRODUCT CONTOURA 1080		1 OF 1	SHEET No 06
DRWG NO 795.163		TITLE SAFETY-SIDE ASSY LH		ISSUE 4	
ITEM	PART No	QTY	DESCRIPTION		
1	795.31	1	UPRIGHT FABN HD-END LH		
2	795.36	3	RAIL FABN		
3	795.24	1	UPRIGHT FABN FT-END LH		
4	795.59	1	RELEASE HANDLE FABN		
5	796.129	1	DIP MOULDING		
6	795.63	1	RELEASE BAR		
7	S1017	5	ø3/16" ROLL PIN		
8	795.226	2	CATCH SPRING L/H		
9	S1156	4	HEX HD SCREW M10 X 30 LG		
10	S1819	4	WASHER M10 LIGHT		
11	S6506	4	M10 NUT CAP		
12	795.41	1	PIVOT MTING FABN FT-END LH		
13	761.345	4	RADIUS ARM BUSH		
14	795.49	1	PIVOT MTING FABN HD-END LH		
15	S3607	6	SKT B-HD SCREW M10 X 16LG		
16	795.35	6	PIVOT SPACER		
17	795.55	2	RELEASE FABN		
18	795.51	2	CATCH FABN LH		
19	795.58	2	CATCH PIVOT BAR		
20	S1014	2	ø5/16" ROLL PIN		
21	S1423	2	NYLOC NUT M20 THIN		
22	734.04	1	RELEASE BUTTON		
23	734.49	1	RELEASE BUTTON SPRING		
24	S2122	1	PAN-HD SCREW M5		
25	795.39	1	PLUNGER		
26	734.48	1	PLUNGER SPRING		
27	S2104	1	SLOT PAN-HD M5X10 LG		
28	S1861	4	WASHER M20 LIGHT		
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PRODUCT

SHEET NO

CONTOURA 1080

06

NOTE

DEGREASE ITEMS 9, 22 & 25 AND MATING PARTS THEN APPLY LOCTITE 242.

LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR TO ASSY WITH SAPPHIRE GREASE.

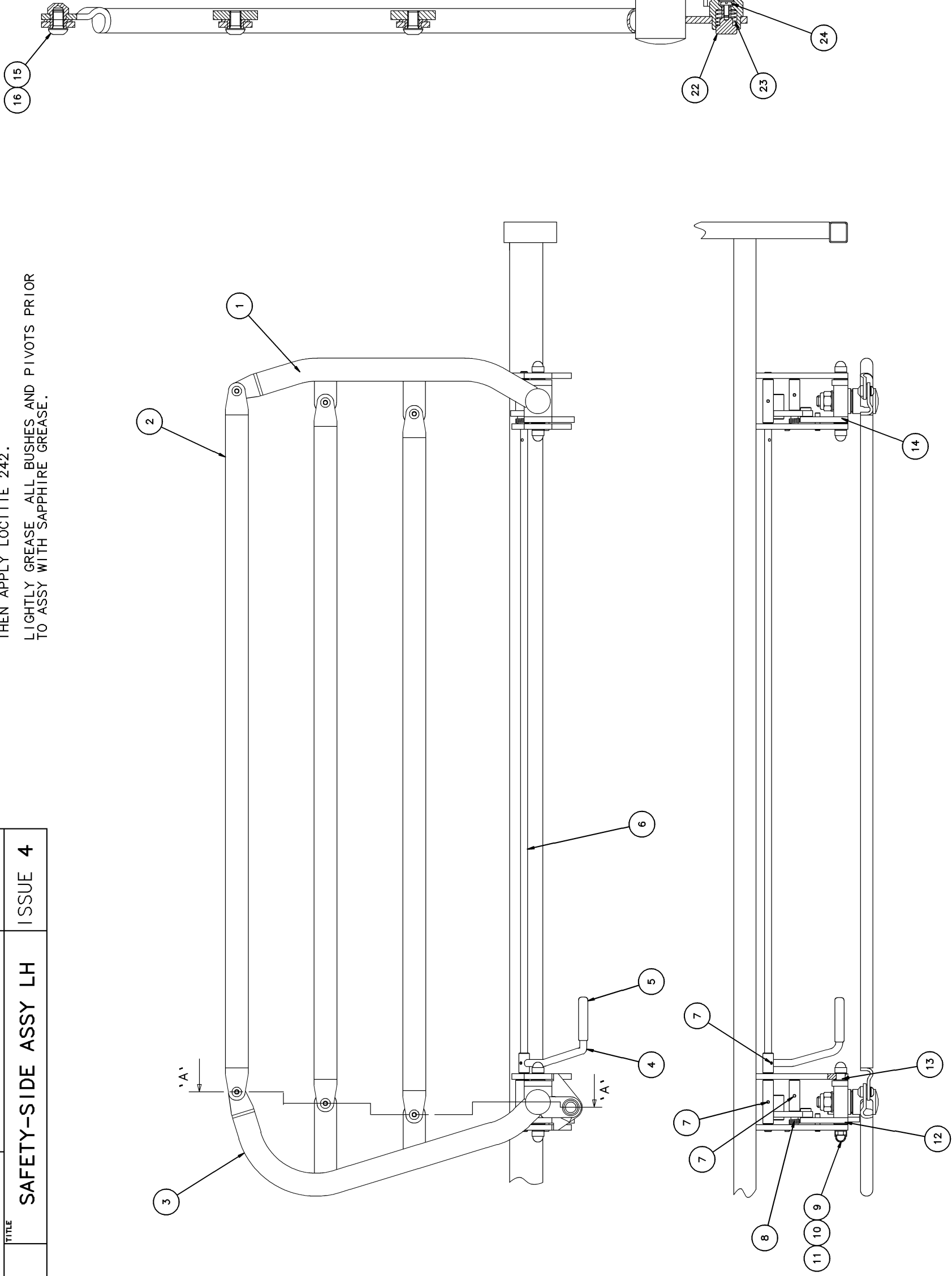
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795.163

TITLE

SAFETY-SIDE ASSY LH

ISSUE 4



 <b>HUNTLEIGH NESBIT EVANS</b>	<b>PRODUCT</b> COTOURA 1080	1 OF 1	SHEET No 07
	<b>DRWG NO</b> 795.164 etc	<b>TITLE</b> DECK EXTENSION ASSY	ISSUE 6

ITEM	PART No	QTY	DESCRIPTION	795.232	795.164
				NON EN45501	EN45501
1	795.172	4	BEARING PAD		
2	795.103	1	EXTENSION FABN		
3	S6507	2	ROLLER BUFFER $\phi$ 100 GREY		
4	S3620	2	SKT BUTTON HD M8 X 16 LG		
5	S1805	2	WASHER M8 THICK		
6					
7					
8					
9					
10	SEE OP	1	USER INTERFACE MODULE (CABLE 791.72 FITTED)	S6281	S6631
11	TL29	1	FLAT SPRING		
12	S2102	2	PAN HD SCREW M6 X 20 LG		
13	S1409	2	NYLOC M6 THIN		
14	S3419	6	PAN HD SCREW M5 X 20 LG		
15	S1410	2	NYLOC M5 THICK		
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19	795.114	1	HANDLE FABN		
20	S6297	1	MINI ACP		
21	S6625	1	NURSE HANDSET WITH CPR		
22	804.59	1	ACP TRAY FABN		
23	S4902	2	NYLON BUSH		
24	S1017	1	ROLL PIN $\phi$ 3/16" X 3/4" LG		
25	795.111	1	LOCK ROD FABN		
26	S1020	1	ROLL PIN $\phi$ 1/4" X 1 1/4" LG		
27	795.117	1	EXTENSION STOP		
28	S1804	4	WASHER M8 THIN		
29	S1112	4	HEX HD SCREW M8 X 20 LG		
30	795.243	1	ACP SUPPORT BRACKET LH		
31	SEE OP	1	WEIGHING LABEL	SHT 30	SHT 30
32	S1403	8	NYLOC M8 THIN		
33	795.244	1	ACP SUPPORT BRACKET RH		
34	756.82	4	SHOULDER BOLT		
35	SEE OP	1	REPLACE HANDSET LABEL	SHT 30	SHT 30
36	805.530	1	HANDSET CLIP DIP MOULDING		
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HUNTLEIGH  
NESBIT EVANS

SHEET No

CONTOURA 1080

07

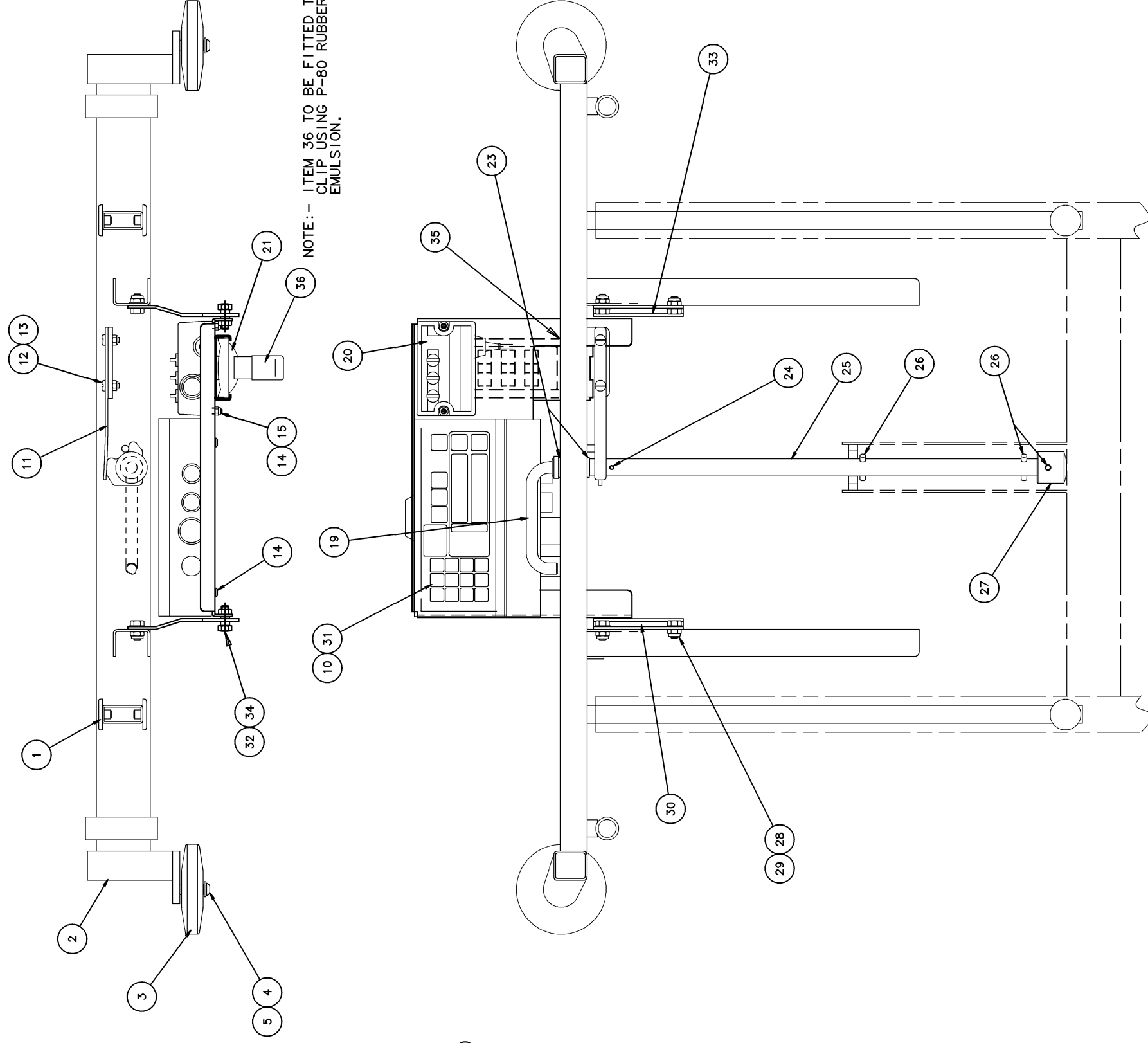
DRWG NO

795.164 etc

TITLE

DECK EXTENSION ASSY

ISSUE 6




NOTE:-  
ITEM 10 (USER INTERFACE MODULE) IS SUPPLIED  
WITH CABLE ASSY 791.72 READY FITTED.

NOTE

DEGREASE AND APPLY LOCTITE 242 TO ITEMS 4.

LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR TO ASSY WITH SAPPHIRE GREASE.

FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT SCHEMATIC 795.212 AND ELECTRICAL ASSY DRAWING 795.207

 <b>HUNTLEIGH NESBIT EVANS</b>		<b>PRODUCT</b> <b>CONTOURA 1080</b>		<b>1 OF 1</b>	<b>SHEET No</b> <b>08</b>
<b>DRWG NO</b> <b>795.166</b>		<b>TITLE</b> <b>CALF SECTION ASSY</b>		<b>ISSUE 3</b>	
ITEM	PART No	QTY	DESCRIPTION		
1	795.132	1	CALF EXTENSION FABN		
2	S4503	12	POP-RIVET		
3	795.127	1	CALF SECTION FABN		
4	795.153	1	CALF SECTION DECK SHEET		
5	795.155	1	CALF SECTION EXTENSION SHEET		
6	795.154	1	CALF SECTION END SHEET		
7	795.140	1	LOCK HANDLE FABN		
8	588.22	1	SPACER		
9	S1848	1	WASHER M12 THIN		
10	S1524	2	BOLT M10 X 45LG		
11	761.256	2	ROLLER		
12	761.254	2	ROLLER SPACER		
13	S1409	2	NYLOC M6 THIN		
14	S3633	2	SKT BUTTON HD SCREW M6 X 30LG		
15	S1802	4	WASHER M6 THICK		
16	S1018	1	ROLLPIN $\phi 3/16"$ X 1"LG		
17	795.139	1	LOCKROD		
18	S1017	2	ROLLPIN $\phi 3/16"$ X 3/4"LG		
19	S1804	1	WASHER M8 THIN		
20	S1403	1	NYLOC M8 THIN		
21	795.143	1	STAY FABN		
22	796.129	2	DIP MOULDING		
23	S3451	1	PAN/HD SCREW M3X16 LG		
24	S1834	4	WASHER M3		
25	S2912	2	SELF LOCKING NUT M3		
26	S4786	1	TOOL CLIP		
27	795.171	1	SAFETY LOCK BODY		
28	S17	1	SPRING		
29	S3421	1	PAN/HD SCREW M5X40 LG		
30	S4795	1	TENSION SPRING		
31	S2104	1	PAN/HD SCREW M5X10 LG		
32	795.182	1	SPRING BRKT		
33	S5081	2	$\phi 3/4"$ END-CAPS		
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HUNTLEIGH  
NESBIT EVANS

PRODUCT

CONTOURA 1080

SHEET NO

08

NOTE

DECREASE AND APPLY LOCTITE 242 TO ITEM 10, 29 & 31.

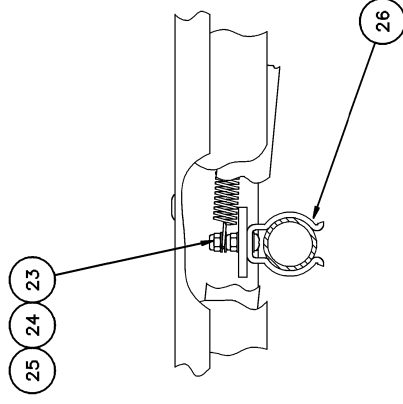
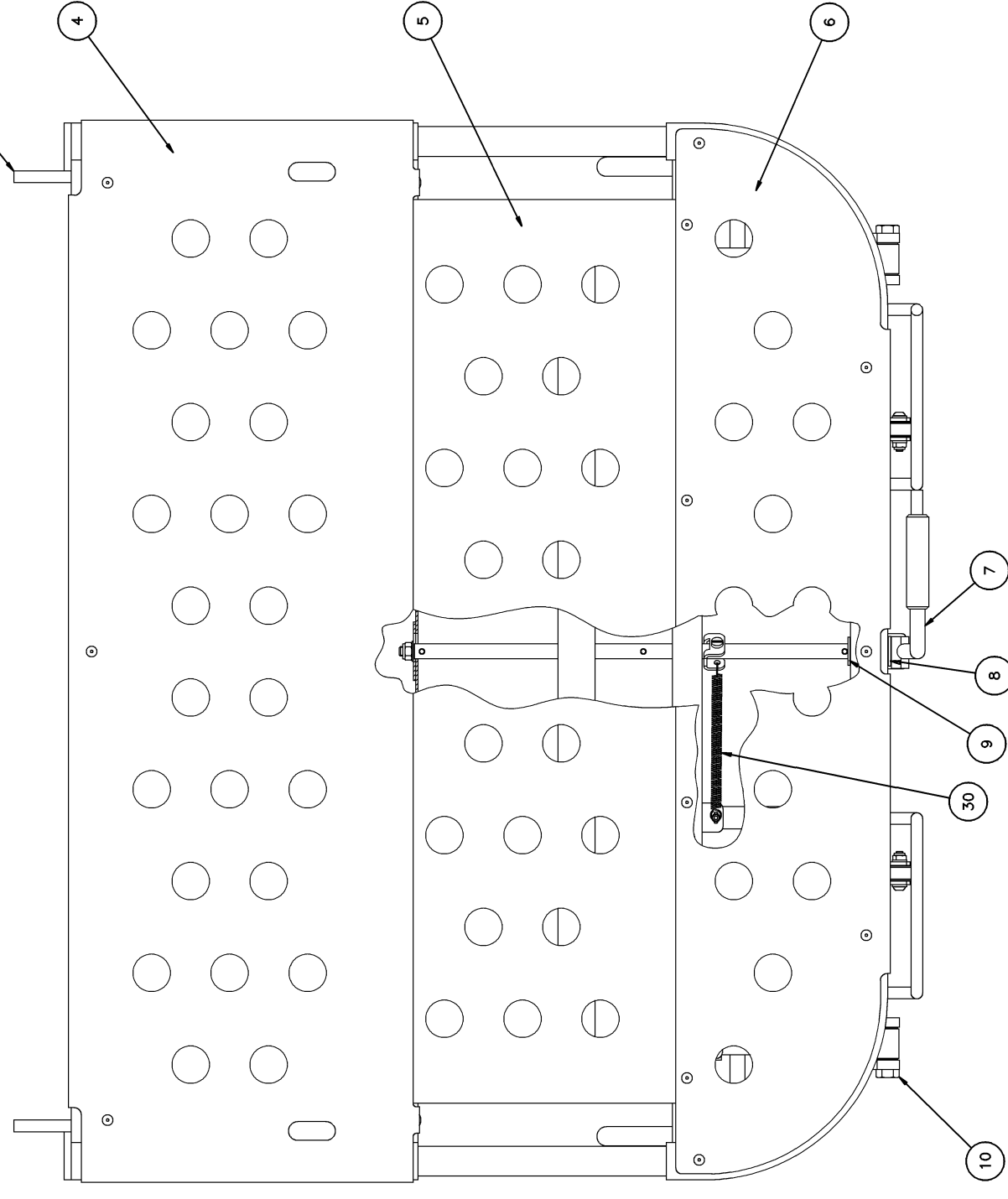
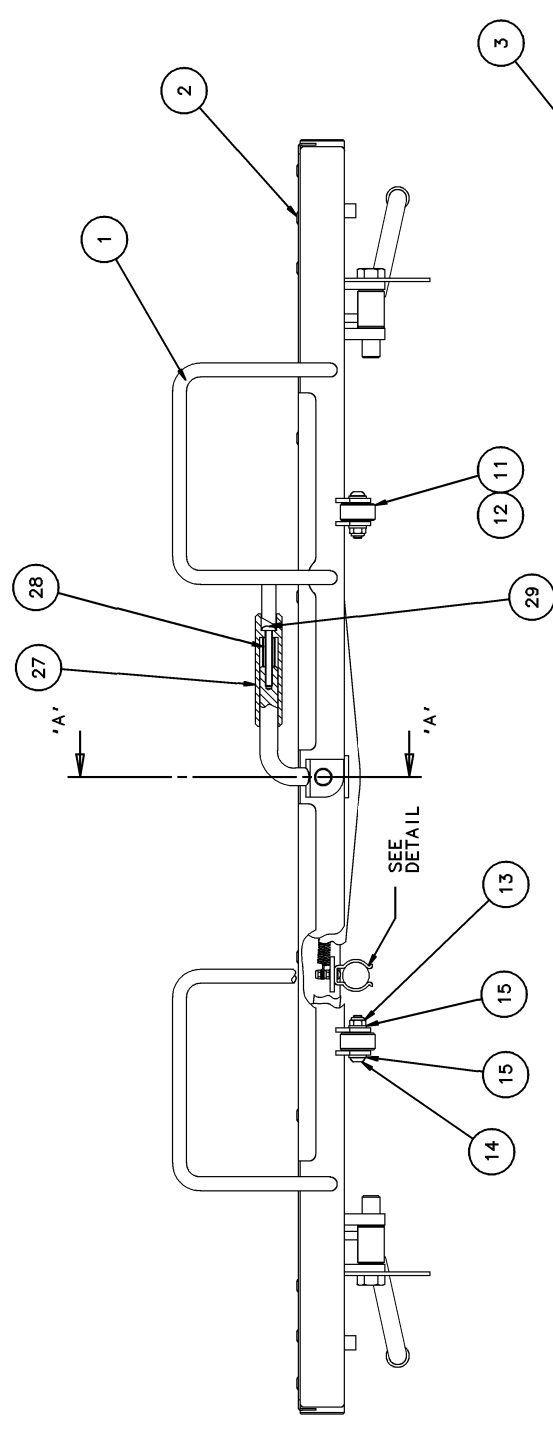
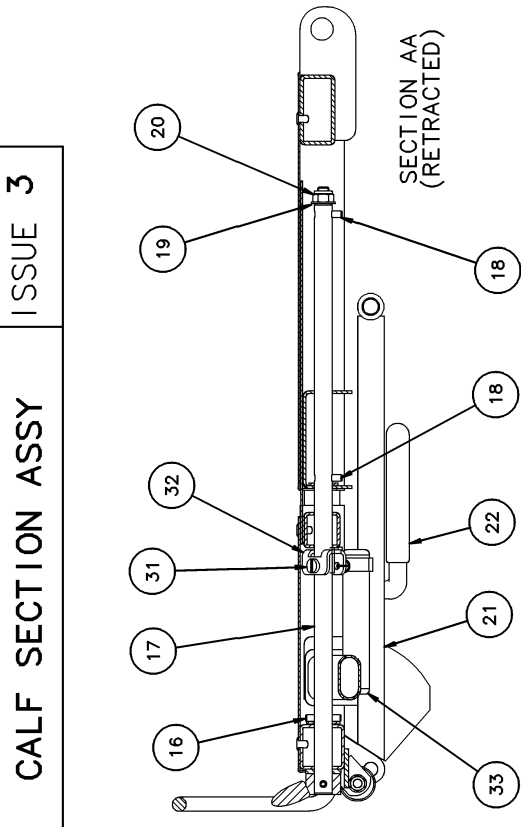
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TITLE

CALF SECTION ASSY

ISSUE 3



CLIP DETAIL

 <b>HUNTLEIGH NESBIT EVANS</b>		<b>PRODUCT</b> <b>CONTOURA 1080</b>		<b>1 OF 1</b>	<b>SHEET No</b> <b>09</b>
<b>DRWG NO</b> <b>795.167</b>		<b>TITLE</b> <b>DECK ASSY</b>		<b>ISSUE 6</b>	
<b>I T E M</b>	<b>PART No</b>	<b>Q T Y</b>	<b>DESCRIPTION</b>	<b>FOR COUNTRY OPTIONS SEE SHEET</b>	
1	795.64	1	DECK FABN		
2	795.151	1	BACKREST DECK SHEET		
3	795.118	1	BACKREST FABN		
4	795.123	1	THIGH SECTION FABN		
5	795.152	1	THIGH SECTION DECK SHEET		
6	795.150	2	RATCHET PLATE		
7	S1103	4	HEX HEAD SCREW M8 X 16LG		
8	S1805	6	WASHER M8 THICK		
9	S6620	1	LA 34 ACTUATOR 200 STROKE		
10	S6621	1	LA 34 ACTUATOR 100 STROKE		
11	S3620	2	SKT BUTTON HD SCREW M8 X 16LG		
12	S6507	2	ROLLER BUFFER ø100 GREY		
13	S4503	17	POP-RIVET		
14	S1156	6	HEX HD SCREW M10 X 30LG		
15	S1819	6	WASHER M10 LIGHT		
16	761.345	6	PIVOT BUSH		
17	S4733	4	'E' RING ø12		
18	713.92	2	CLEVIS PIN		
19	S5126	6	NYLON WASHER		
20	S1836	8	WASHER M12 LIGHT		
21	731.320	2	CLEVIS PIN		
22		1	CALF SECTION ASSY (SEE SEP DRWG 795.166)		
23		1	DECK EXTENSION ASSY (SEE SEP DRWG 795.164)		
24	795.173	4	DECK EXTENSION GUIDE		
25	S2104	4	PAN-HD SLOT SCREW M5X10 LG		
26	S1812	4	WASHER M5 HEAVY		
27	S5108	4	13/16"SQ BUMP-ON		
28	731.31	1	EARTH STUD		
29	-----	1	EQUIPOTENTIAL LABEL		30
30	S1026	4	ø3/16 x 1" SPIROL PIN		
31	S5075	2	3/4" FERRULE		
32	673.05	2	NYLON SPACER		
33	S4502	2	POP RIVET		
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**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1080**

SHEET No

**09**

DRWG NO

**795.167**

TITLE

**DECK ASSY**

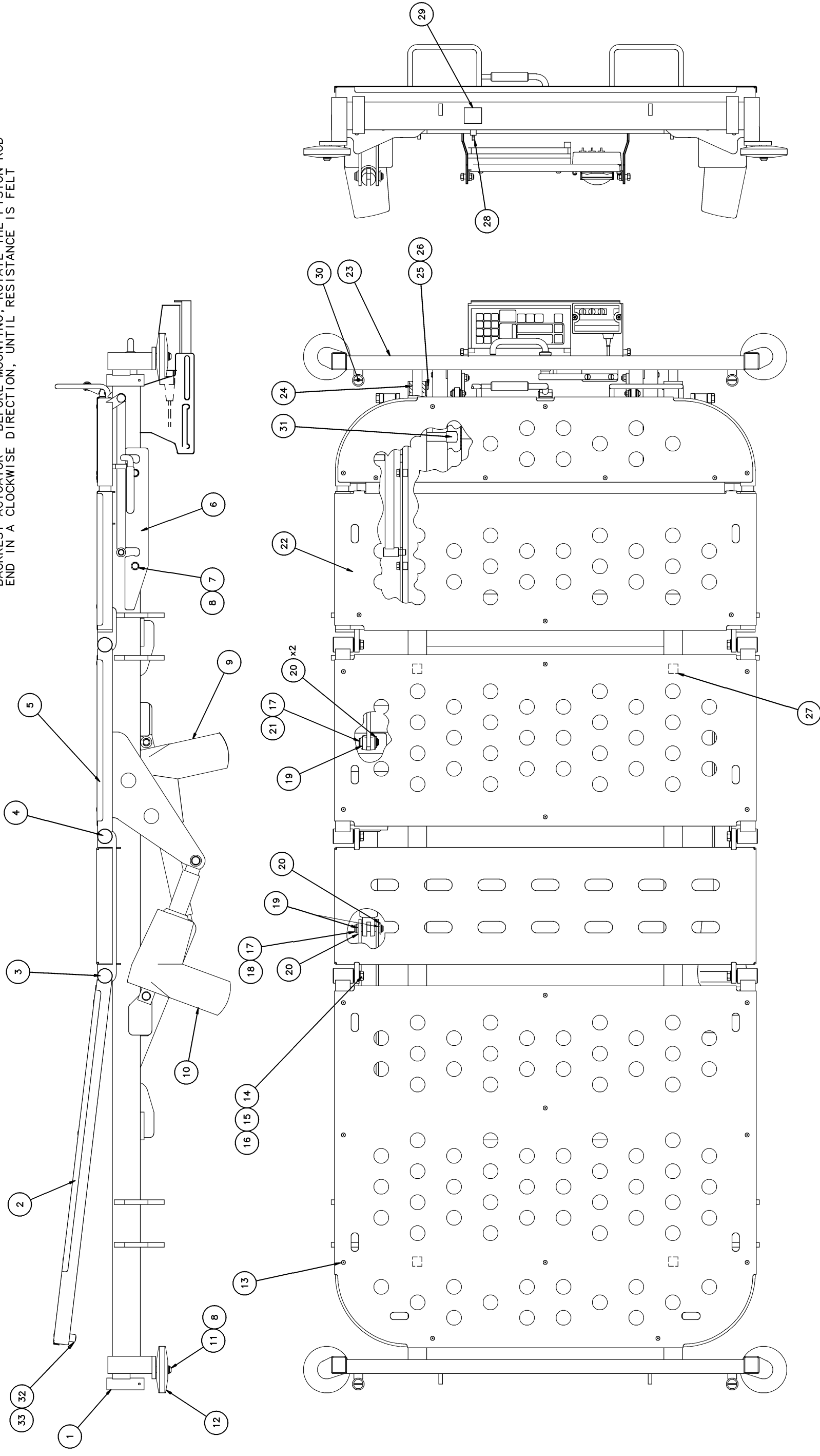
ISSUE **6**

NOTE

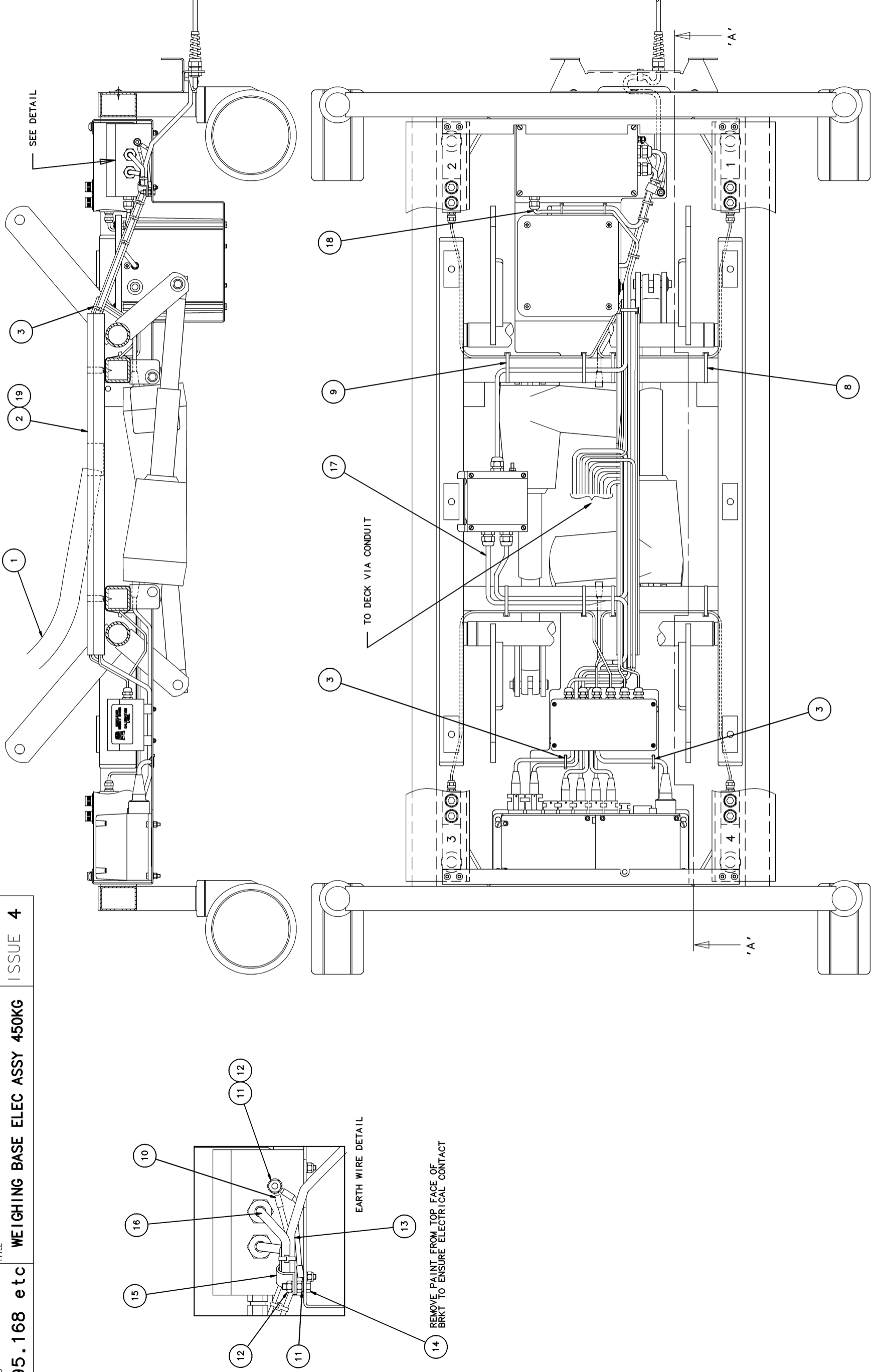
DEGREASE AND APPLY LOCTITE 243 TO ITEMS 7,11,14 AND 25.  
LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR  
TO ASSY WITH SAPPHIRE GREASE.


FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT  
SCHEMATIC 795.212 AND ELECTRICAL ASSY DRAWING 795.207

BACKREST ACTUATOR - BEFORE MOUNTING, ROTATE THE PISTON ROD  
END IN A CLOCKWISE DIRECTION, UNTIL RESISTANCE IS FELT

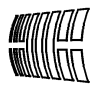


ARJOHUNTLEIGH A BRANCH OF ARJO LTD MED AB		PRODUCT CONTOURA 1080		1 OF 1		SHEET No 10	
DRWG NO 795.168 etc			TITLE WEIGHING BASE ELEC ASSY 450KG			ISSUE 4	
ITEM	PART No	QTY	DESCRIPTION	795.240 120V	795.168 230V		
1	S6244	1	FLEXIBLE CONDUIT 600LG				
2	795.180	1	BASE ELEC TRUNKING				
3	S5117	9	CABLE TIE 3 WIDE				
4							
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7							
8	S5105	4	CABLE TIE 5 WIDE 190 LG				
9	S6513	4	CABLE TIE 5 WIDE 360 LG				
10	796.243	1	EARTH BONDING STRAP (LONG)				
11	S1207	3	INTERNAL TOOTH WASHER M5				
12	S1915	3	HEX NUT M5				
13	SEE OP	1	EARTH WIRE ASSY	791.239	791.165		
14	S1137	1	HEX HD SCREW M5 X 16 LG				
15	S5150	1	P-CLIP				
16	SEE OP	1	MAINS CABLE 1000 LG	S6624	S6602		
17	SEE OP	1	MAINS CABLE 2000 LG	S6624	S6602		
18	S6287	1	TWIN SCREEN CABLE 1.6M LG				
19	S1619	2	SELF TAPPING SCREW				
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 <b>HUNTLEIGH NESBIT EVANS</b>		<small>PRODUCT</small> <b>CONTOURA 1080</b>		<small>SHEET No</small> <b>11</b>
<small>DRWG NO</small> <b>795.207</b>		<small>TITLE</small> <b>DECK ELEC ASSY 450KG</b>		<b>ISSUE 6</b>
<small>I T E M</small>	<small>PART No</small>	<small>Q T Y</small>	<small>DESCRIPTION</small>	<small>FOR COUNTRY OPTIONS SEE SHEET</small>
1	S1619	4	SELF TAPPING SCREW	
2	S4785	15	M5 EXTERNAL TOOTH WASHER	
3	731.161	3	EARTHING STRAP	
4	S2120	2	SLOT P-HD SCREW M5X25 LG	
5	S1915	2	M5 FULL NUT	
6	795.210	1	TRUNKING KIT	
7	795.211	1	SEAT SECTION TRUNKING	
8	S3432	8	POZI P-HD SCREW M3X12 LG	
9	S2912	8	SELF-LOCKING NUT M3	
10	S1834	8	WASHER M3	
11	791.73	1	QLC EXTENSION CABLE ASSY	
12	731.294	1	PLUG BOX BASE	
13	731.295	1	PLUG BOX LID	
14	S6242	1	'T' PIECE CABLE	
15	S5105	1	CABLE TIE 5 WIDE	
16		1	UIM EXTENSION CABLE ASSY (791.72) SUPPLIED WITH UIM (EUROPEAN VERSION)	
17	S6208	1	M16 LIQUID TIGHT GLAND	
18	S5117	2	CABLE TIE 3 WIDE	
19	S6206	1	3 PIN MAINS SOCKET CHASSIS MOUNTED	
20	S6207	1	SEALING CAP	
21	-----	1	PUMP LABEL	30
22	S6600	7	EARTHING LABEL (NOT SHOWN)	
23	S6636	2	FERRITE	
24	S6292	1	PATIENT HANDSET	
25	805.530	1	HANDSET CLIP DIP MOULDING	
26	S6209	1	M16 LOCKNUT	
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**HUNTLEIGH  
NESBIT EVANS**

SHEET No

11

CONTOURA 1080

DRWG No

795.207

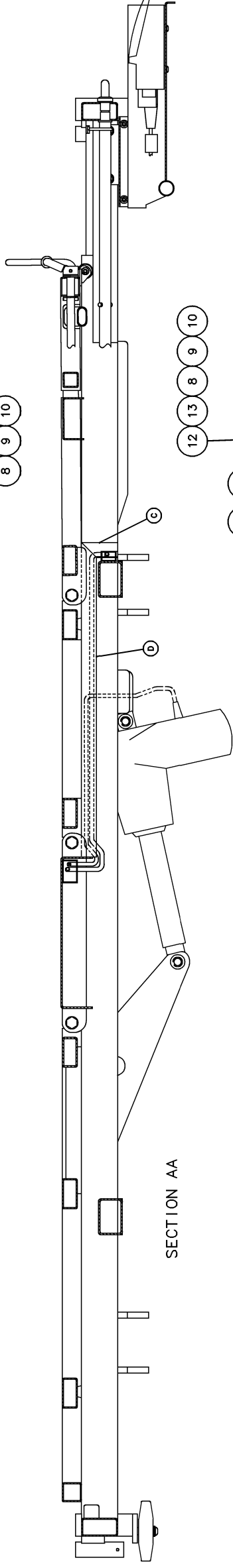
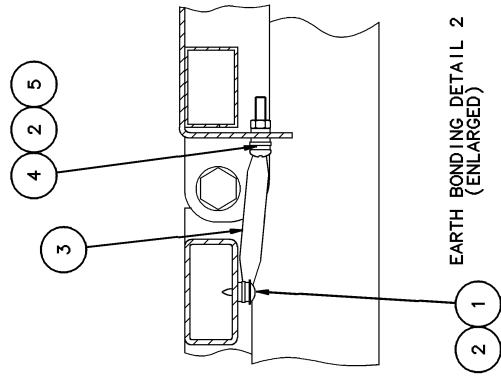
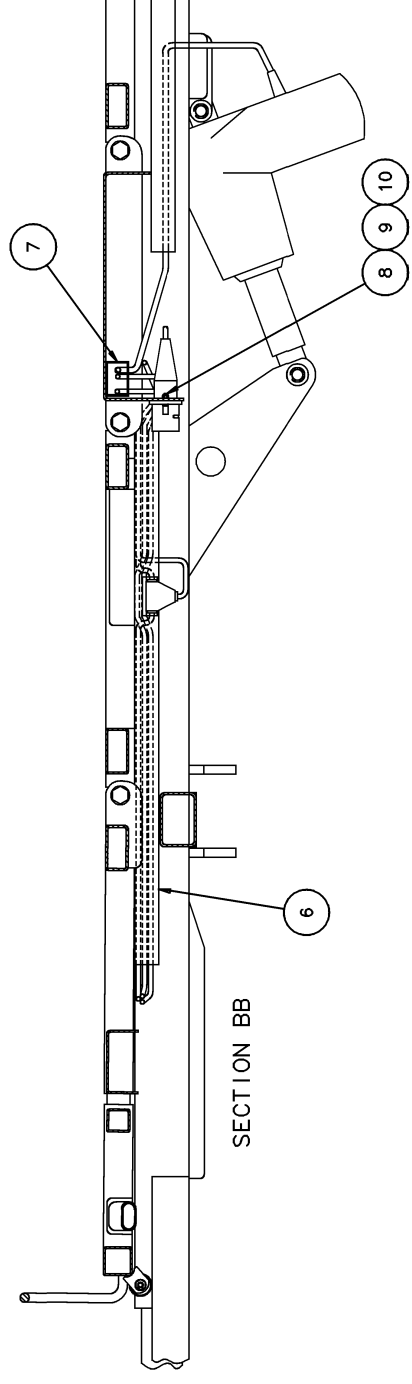
TITLE

DECK ELEC ASSY 450KG

ISSUE 6

NOTE:-

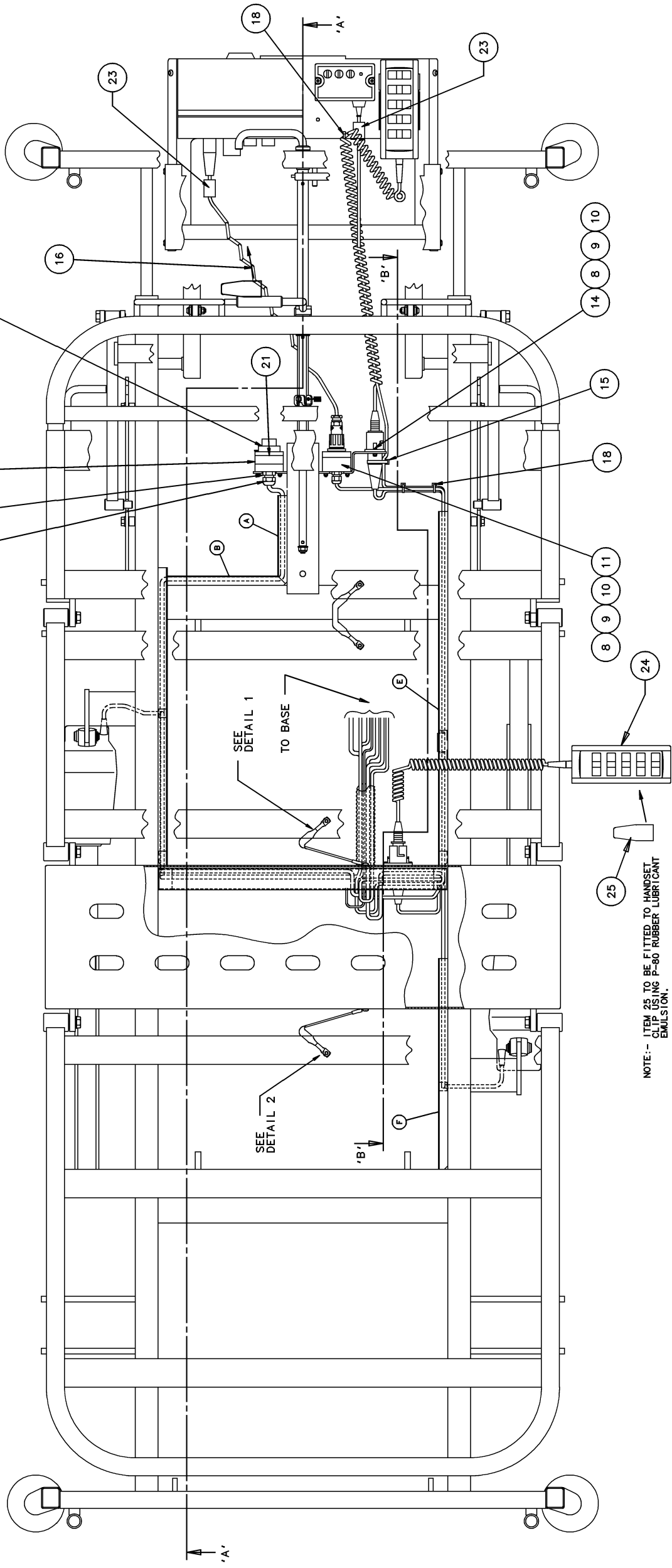
ITEMS 2 MUST BITE THROUGH COATING IN ORDER TO ENSURE ELECTRICAL CONTINUITY



EARTH BONDING DETAIL 2 (ENLARGED)



EARTH BONDING DETAIL 1 (ENLARGED)



NOTE - ITEM 25 TO BE FITTED TO HANDSET CLIP USING P-60 RUBBER LUBRICANT EMULSION.

TO BE USED IN CONJUNCTION WITH CIRCUIT SCHEMATIC 795.212



HUNTLEIGH  
NESBIT EVANS

PRODUCT

CONTOURA 1080

SHEET NO

12

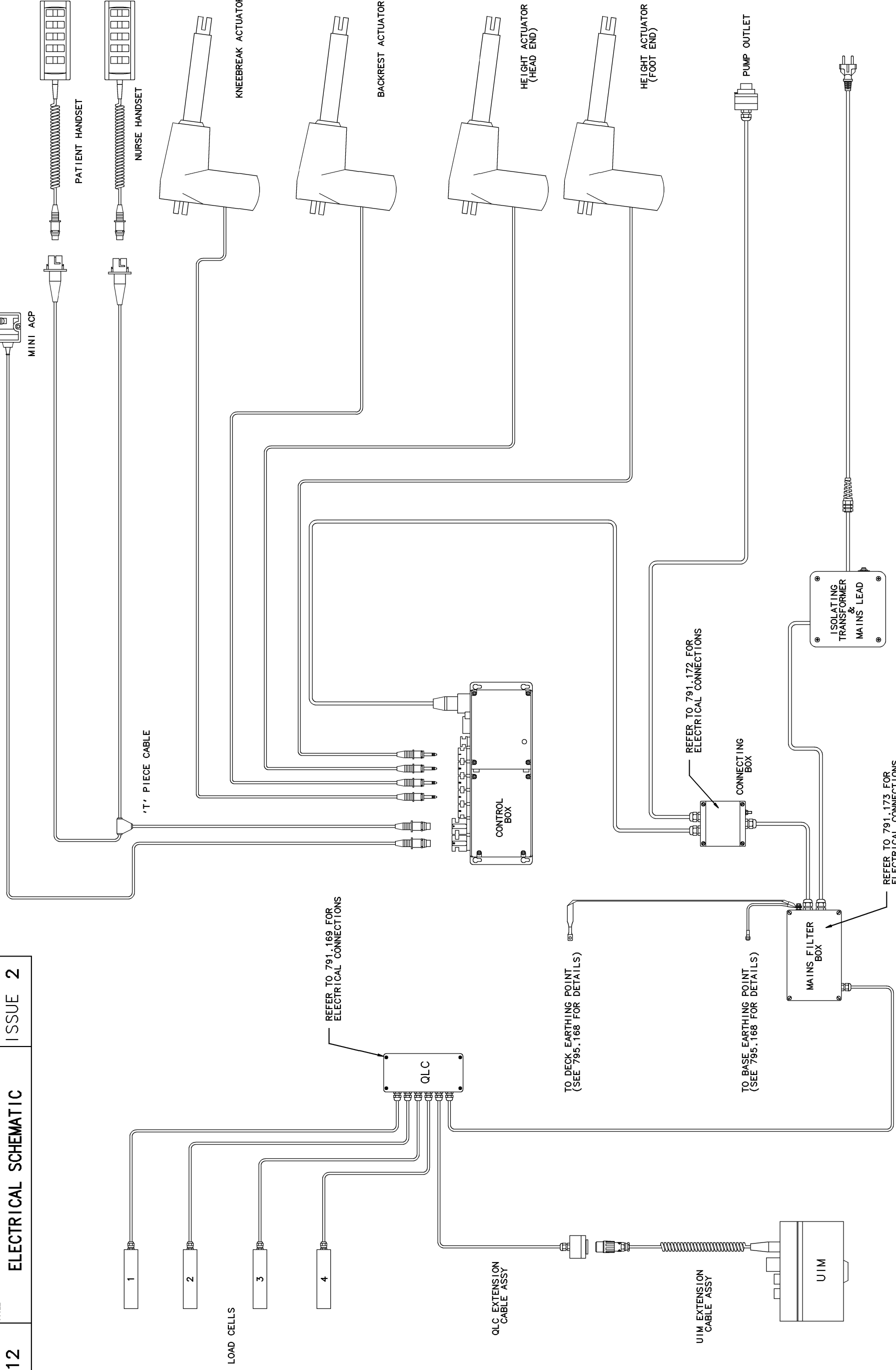
DRWG NO

795.212

TITLE

ELECTRICAL SCHEMATIC

ISSUE 2







HUNTLEIGH  
NESBIT  
EVANS

PRODUCT

SEE BELOW

SHEET NO.

SEE BELOW

DWG NO

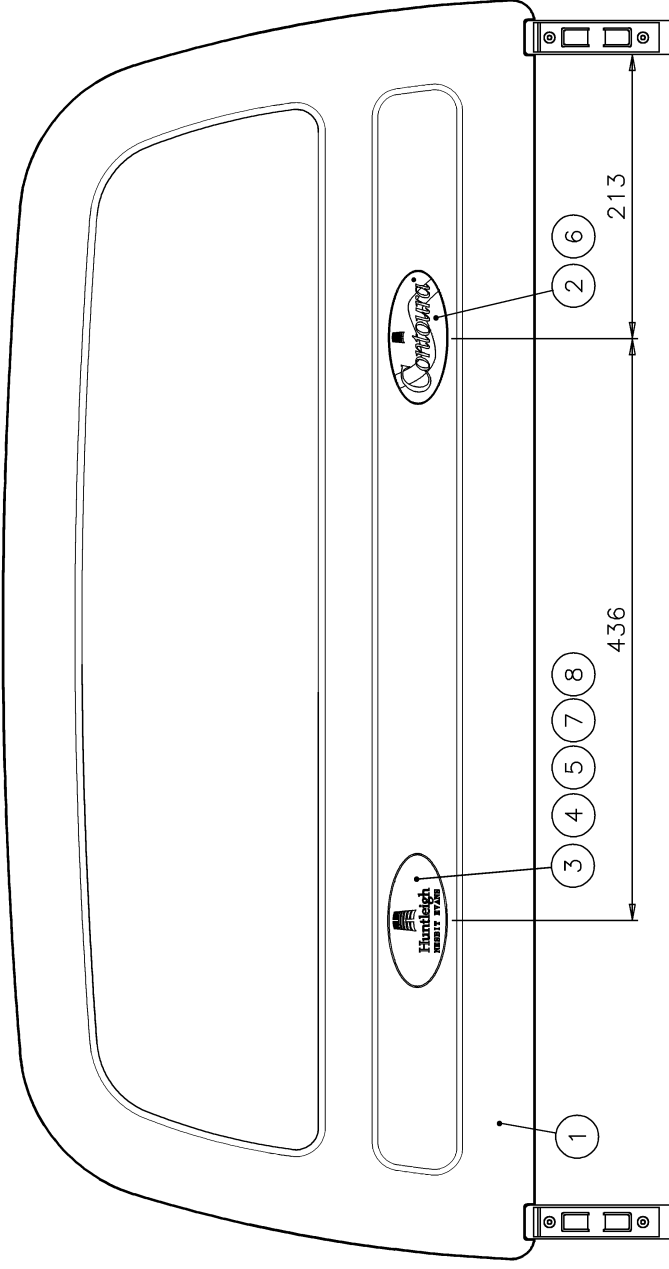
796.326 etc

TITLE

HEAD/FOOTEND ASSEMBLY

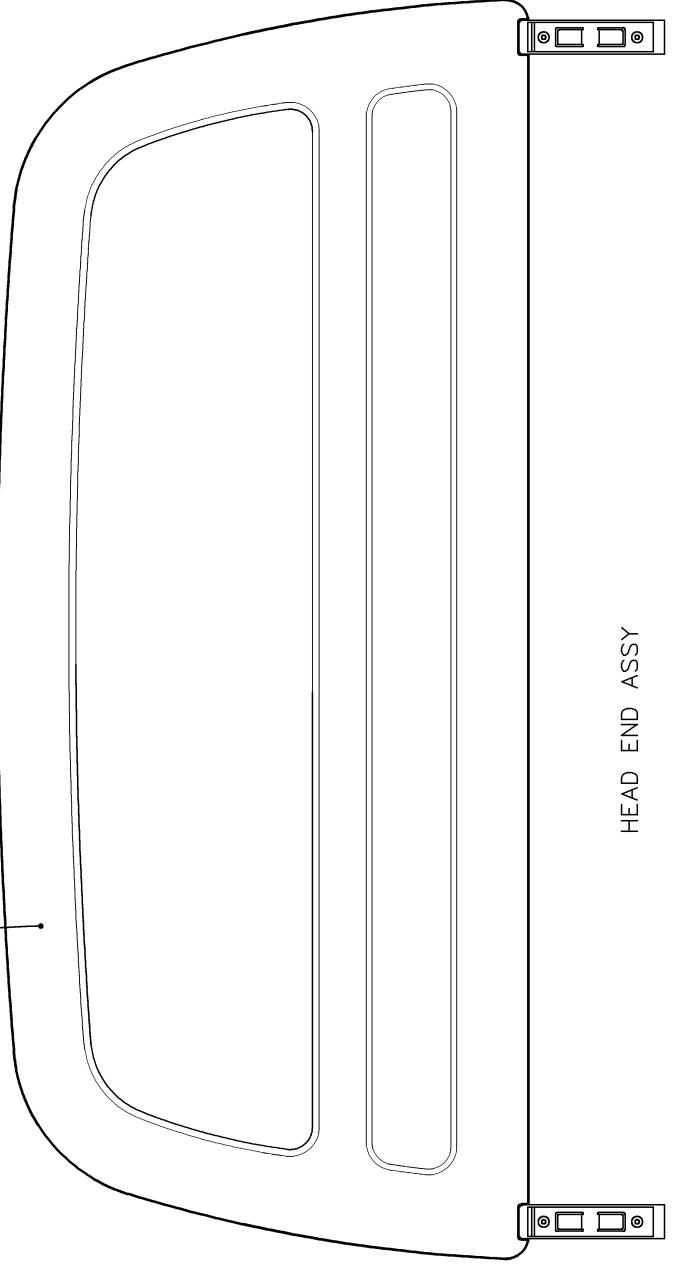
ISSUE 7

APPLIES TO FOLLOWING MODELS :-	SHEET NO
CONTOURA C450	04
CONTOURA C880	17
CONTOURA C950	19
CONTOURA C1000	13
PROSCAN 164010	20
HOSKINS P80 & P85	17



FOOT END ASSY

1



HEAD END ASSY



**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1000**

**1 OF 1**

SHEET No

**16**

DRWG NO

**795.215**

TITLE

**NON-WEIGH BED FINAL ASSY**

**ISSUE 2**

ITEM	PART No	QTY	DESCRIPTION
1	S1538	4	BOLT M10 X 35LG
2	S1819	8	WASHER M10 LIGHT
3	761.345	4	PIVOT BUSH
4	S4301	4	BENTONLOK NUT M10
5		1	SAFETY-SIDE ASSY RH (SEE SEP DRWG 795.162)
6		1	SAFETY-SIDE ASSY LH (SEE SEP DRWG 795.163)
7		1	HEAD & FOOT END ASSY (SEE SEP DRWG 796.326)
8		1	DECK ASSY (SEE SEP DRWG 795.219)
9		1	BASE ASSY (SEE SEP DRWG 795.216)
10		1	CALF SECTION ASSY (SEE SEP DRG 795.166)
11		1	DECK EXTENSION ASSY (SEE SEP DRG 795.218)
12		1	CONTROL BOX BRACKET ASSY (SEE SEP DRG 795.217)
13		1	BASE ELECTRICAL ASSY (SEE SEP DRG 795.220)
14		1	DECK ELECTRICAL ASSY (SEE SEP DRG 795.221)
15		1	LABELS (SEE SEP DRG 795.251)
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**HUNTLEIGH  
NESBIT  
EVANS**

PRODUCT

**CONTOURA 1000**

SHEET No

**16**

TITLE

**NON-WEIGH BED FINAL ASSY**

ISSUE

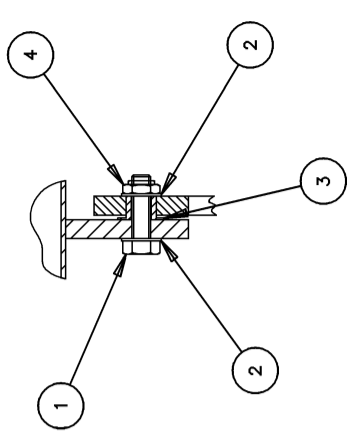
**2**

**795.215**

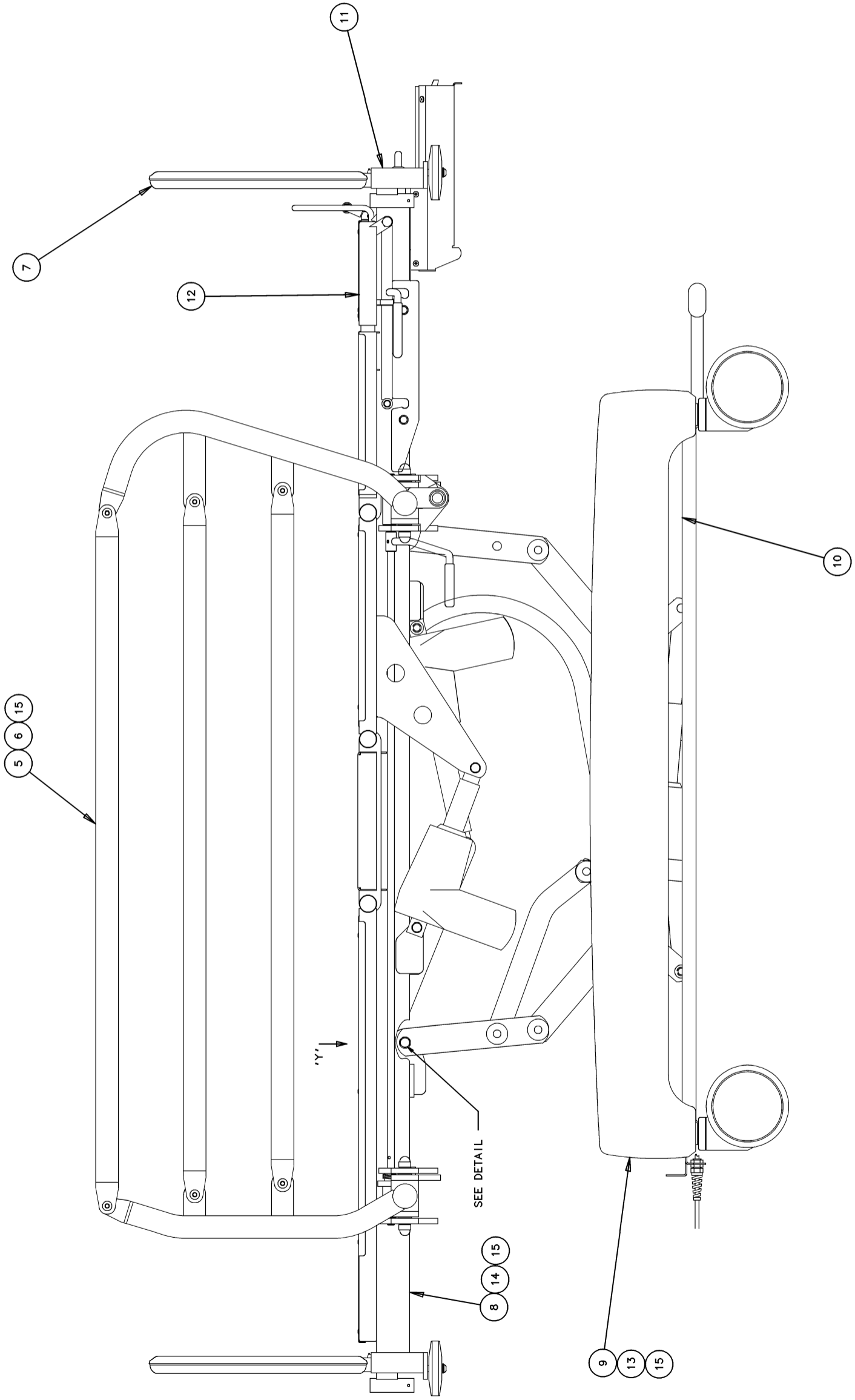
NOTE

LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR TO ASSY WITH SAPPHIRE GREASE.

FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT SCHEMATIC 795.222 AND ELECTRICAL ASSY DRAWINGS 795.220 AND 795.221



TYPICAL PIVOT DETAIL  
IN DIRECTION 'Y'





**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1000**

1 OF 2

SHEET No  
**17**

DRWG NO

**795.216 etc**

TITLE

**NON-WEIGH BASE ASSEMBLY 450KG**

ISSUE

**8**

ITEM	PART No	QTY	DESCRIPTION			KIT OPTIONS (SEE RELEVANT SHT NO. BELOW)
				795.235 120V	795.216 230V	
1	795.05	1	BASE OUTER FRAME			
2	795.223	1	BASE INNER FRAME DRILLED ONLY			
3	795.01	2	PRESSING FABRICATION			
4	S1593	6	BOLT M12x100LG			
5	S1421	6	NYLOC NUT M12			
6	S1848	12	WASHER M12 HEAVY			
7	S6393	2	CASTOR BRAKE/TRACK			
8	S6394	2	CASTOR BRAKE/FREE			
9	795.101	2	CASTOR LEVER FABN LH			
10	795.100	2	CASTOR LEVER FABN RH			
11	S4902	4	NYLON BUSH			
12	S4506	2	POP RIVET ø4.8x12.5 LG			
13	795.97	2	BRAKE LINK FABN			
14	795.91	1	BRAKE PEDAL FABN			
15	S5133	2	PEDAL RUBBER			
16	S1026	4	SPIROL PIN ø3/16x1" LG			
17	S1403	4	NYLOC NUT M8 THIN			
18	S1804	4	WASHER M8 LIGHT			
19	795.102	2	BRAKE BAR			
20	S5108	3	BUMP-ON 13/16" SQ			
21	S1103	8	SCREW HEX HEAD M8x16 LG			
22	718.39	8	SHAKEPROOF PRESSING			
23	712.01	6	CASTOR BUSH			
24	795.18	2	LEG FABRICATION			
25	761.137	16	CAP			
26	761.345	8	PIVOT BUSH			
27	S1538	8	BOLT M10x35 LG			
28	S4301	12	BENTONLOK NUT M10x6.8 THK			
29	S1819	16	WASHER M10 THIN			
30	795.14	2	STABILISER			
31	795.15	2	RADIUS ARM FABN			
32	713.92	4	CLEVIS PIN			
33	S4733	4	'E' RING SUIT ø12 BAR			
34	S1836	4	WASHER M12 LIGHT			
35	S5076	1	CHARGE-LIGHT VIEW-GLASS			
36	SEE OP	1	BRAKE PEDAL LABEL LH			24
37	SEE OP	1	BRAKE PEDAL LABEL RH			24
38	791.61	2	STABILISER BRACKET			
39	S1710	4	SKT CAP SCREW M10 X 25			
40	713.105	2	SPACING WASHER			
41	712.02	4	NYLON BEARING			
42	712.04	2	RETAINING CLIP			
43	S6294	2	ACTUATOR LA34 150 STROKE			
44	A5N4137Y	4	END CAP			
45	795.13	1	BASE COVER			
46	795.157	1	CABLE TIDY BRACKET 450KG			
47	S1619	5	SELF TAP SCR No10x1/2" FLANGE HD			
48	S3610	4	BUTTON HD SCREW M6x10 LG			
49	S1597	4	M10 x 100 FLANGE HEAD BOLT			
50	-----	1	CONTROL BOX BRKT ASSY (SEE SEP DRWG 795.217)			



**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1000**

**2 OF 2**

SHEET No

**17**

DRWG NO

**795.216 etc**

TITLE

**NON-WEIGH BASE ASSEMBLY 450KG**

**ISSUE**

**8**

ITEM	PART No	QTY	DESCRIPTION			KIT OPTIONS (SEE RELEVANT SHT NO. BELOW)
				795.235 120V	795.216 230V	
51	S1802	4	WASHER M6 HEAVY			
52	SEE OP	1	MAINS CONNECTION BOX	791.223	791.221	
53	S2912	4	SELF-LOCKING NUT M3 3.5 THK			
54	S1834	4	WASHER M3			
55	S3453	4	POZI P-HD SCREW M3X20 LG			
56	795.208	1	CONNECTING BOX BRKT			
57	S1903	4	NUT M10			
58	S5438	8	WASHER M10 O.D.30x3 THK			
59	S3616	4	SKT BUTTON HD M10x20 LG			
60	SEE OP	2	MAX LOAD LABEL 500KG			24
61						
62	SEE OP	1	ELECTRICAL SPECIFICATION LABEL			24
63	S1200	4	M8 WASHER (THICK)			
64	805.286	1	ANTI-STATIC CHAIN ASSY			
65	S3409	1	M5 POZI PAN HEAD SCREW			
66	S1410	1	M5 NYLOK NUT			
67	S5798	1	CABLE ANCHOR CLIP			
68	S1207	1	M5 INTERNAL TOOTH WASHER			
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**HUNTLEIGH  
NESBIT  
EVANS**

PRODUCT

**CONTOURA 1000**

SHEET No

**17**

DRWG NO

**795.216 etc**

TITLE

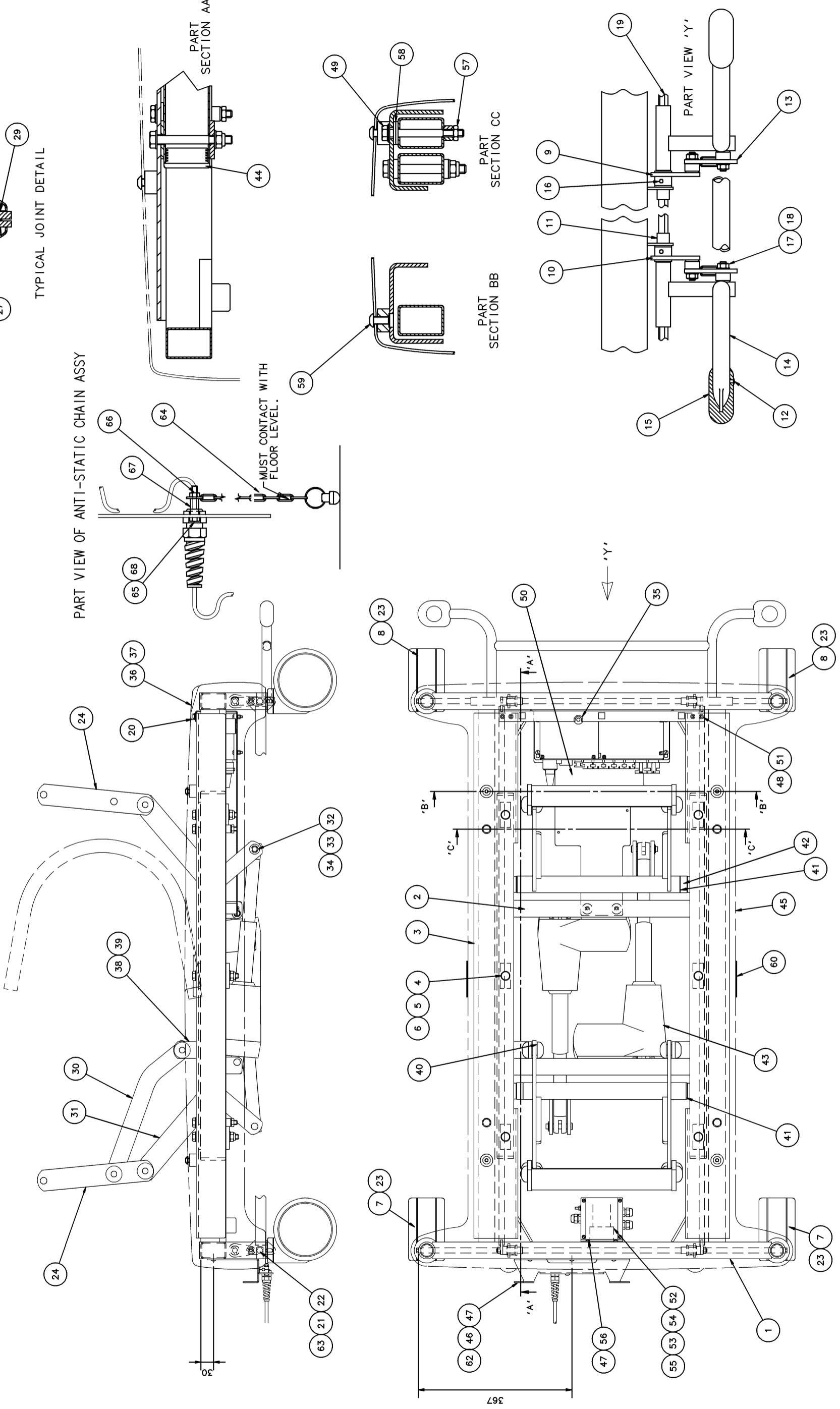
**NON-WEIGH BASE ASSY**

ISSUE **8**

NOTE

DEGREASE AND APPLY LOCTITE 270 TO ITEMS 39 & 59.  
LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR  
TO ASSY WITH SAPPHIRE GREASE.

FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT  
SCHEMATIC 795.220 AND ELECTRICAL ASSY DRAWING 795.222





**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**CONTOURA 1000**

1 OF 1

SHEET No

18

DRWG NO

**795.217 etc**

TITLE

**CONTROL BOX BRKT ASSEMBLY**

ISSUE **3**

ITEM	PART No	QTY	DESCRIPTION	795.236	795.217
				120V	230V
1	795.160	1	QLC BRACKET 450KG		
2	791.69	2	SPACER		
3	S3422	2	SCREW M5 x 45 LG		
4	S1812	6	WASHER $\phi$ 5		
5	SEE OP	1	CB14 CONTROL BOX	S6666	S6641
6	S3419	4	SCREW M5 x 20 LG		
7	S1410	4	NYLOC NUT M5		
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HUNTLEIGH  
NESBIT EVANS

PRODUCT

CONTOURA 1000

SHEET No

18

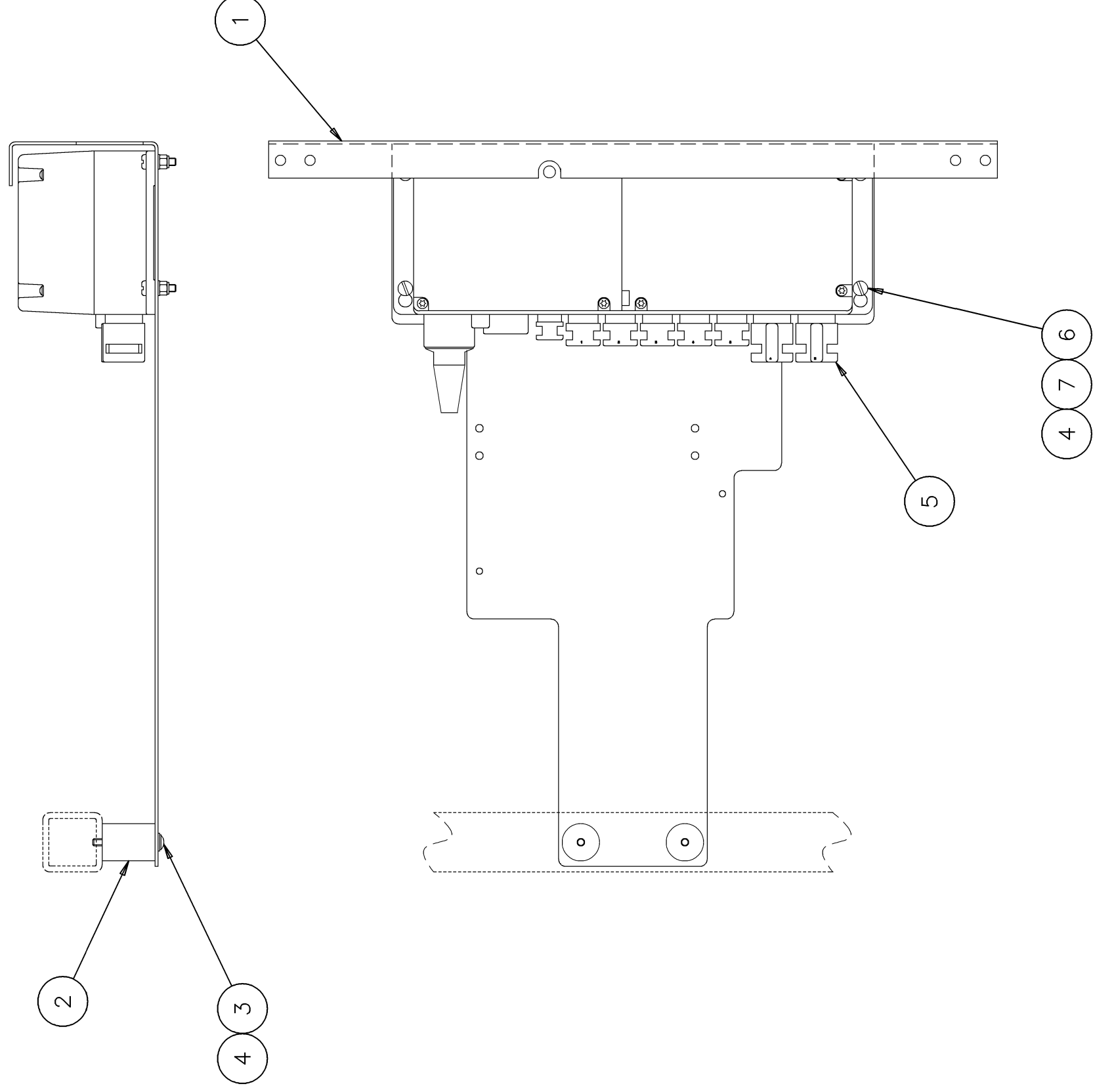
DRWG NO

795.217•tc

TITLE


CONTROL BOX BRKT ASSY

ISSUE 3



NOTE

DEGREASE AND APPLY LOCTITE 242 TO ITEM 3  
FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT  
SCHEMATIC 795.222 AND ELECTRICAL ASSY DRAWING 795.220

 <b>HUNTLEIGH NESBIT EVANS</b>		PRODUCT	1 OF 1	SHEET No 19
DRWG NO 795.253		TITLE NON-WEIGH DECK EXT'N ASSY		ISSUE 1
ITEM	PART No	QTY	DESCRIPTION	
1	795.172	4	BEARING PAD	
2	795.103	1	EXTENSION FABN	
3	S6507	2	ROLLER BUFFER $\phi$ 100 GREY	
4	S3620	2	SKT BUTTON HD M8 X 16 LG	
5	S1805	2	WASHER M8 THICK	
6				
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10				
11	TL29	1	FLAT SPRING	
12	S2102	2	PAN HD SCREW M6 X 20 LG	
13	S1409	2	NYLOC M6 THIN	
14	S3419	2	PAN HD SCREW M5 X 20 LG	
15	S1410	2	NYLOC M5 THICK	
16				
17				
18				
19	795.114	1	HANDLE FABN	
20	S6297	1	MINI ACP	
21	S6625	1	NURSE HANDSET WITH CPR	
22	804.59	1	ACP TRAY FABN	
23	S4902	2	NYLON BUSH	
24	S1017	1	ROLL PIN $\phi$ 3/16" X 3/4" LG	
25	795.111	1	LOCK ROD FABN	
26	S1020	1	ROLL PIN $\phi$ 1/4" X 1 1/4" LG	
27	795.117	1	EXTENSION STOP	
28	S1804	4	WASHER M8 THIN	
29	S1112	4	HEX HD SCREW M8 X 20 LG	
30	795.243	1	ACP SUPPORT BRACKET LH	
31				
32	S1403	8	NYLOC M8 THIN	
33	795.244	1	ACP SUPPORT BRACKET RH	
34	756.82	4	SHOULDER BOLT	
35	SEE OP	1	REPLACE HANDSET LABEL	
36	805.530	1	HANDSET CLIP DIP MOULDING	
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HUNTLEIGH  
NESBIT EVANS

SHEET No

CONTOURA 1000

19

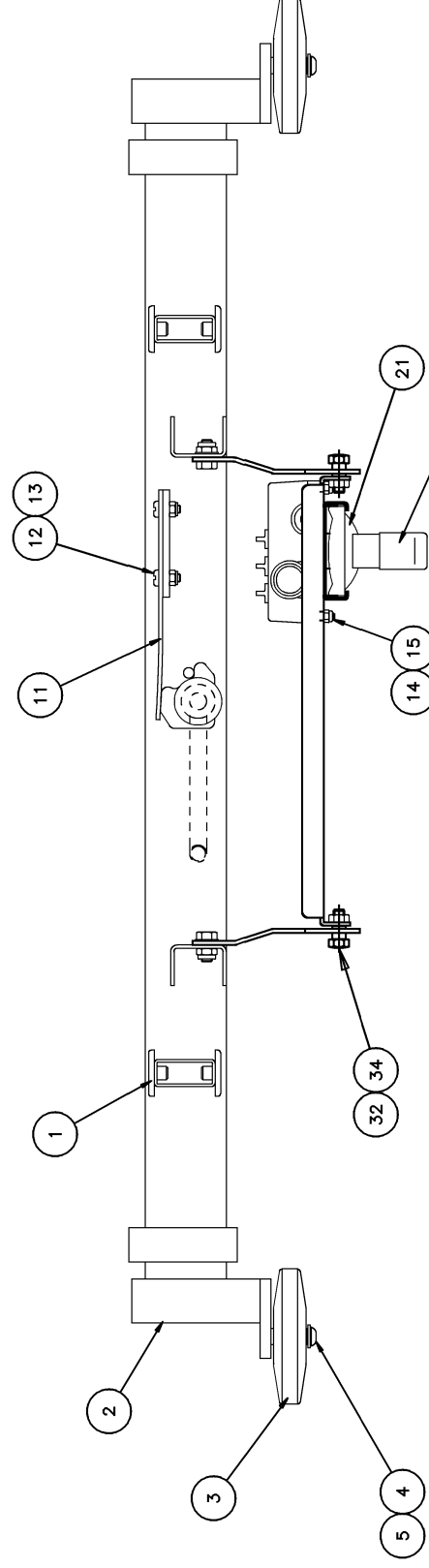
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795.253

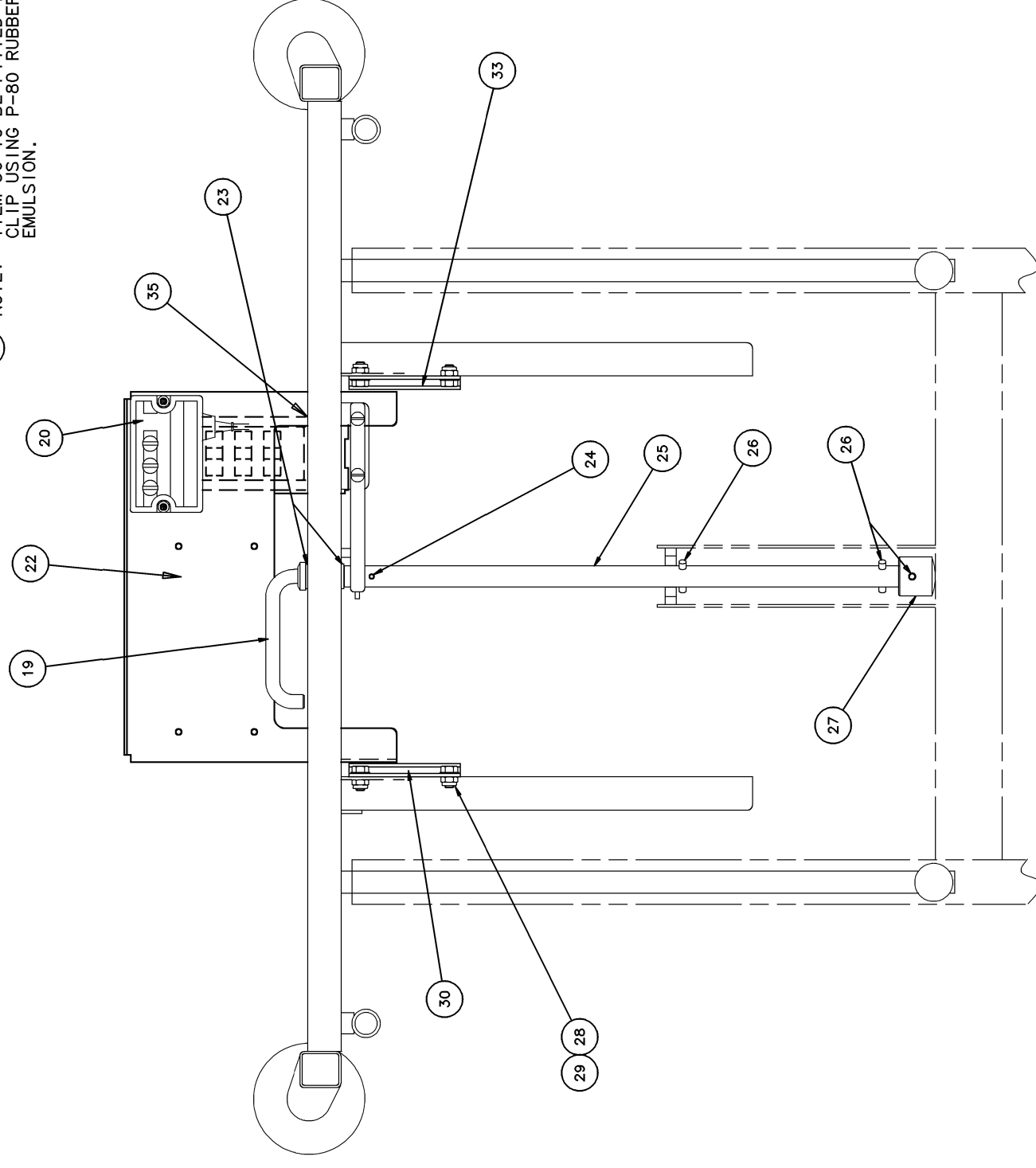
TITLE

NON-WEIGH DECK EX'N ASSY

ISSUE 1



NOTE:- ITEM 36 TO BE FITTED TO HANDSET CLIP USING P-80 RUBBER LUBRICANT EMULSION.




NOTE

DEGREASE AND APPLY LOCTITE 242 TO ITEMS 4.

LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR TO ASSY WITH SAPPHIRE GREASE.

FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT SCHEMATIC 795.222 AND ELECTRICAL ASSY DRAWING 795.221

 HUNTLEIGH NESBIT EVANS		PRODUCT CONTOURA 1000		1 OF 1	SHEET No 20
DRWG NO 795.219		TITLE NON-WEIGH DECK ASSY		ISSUE 3	
ITEM	PART No	QTY	DESCRIPTION	FOR COUNTRY OPTIONS SEE SHEET	
1	795.64	1	DECK FABN		
2	795.151	1	BACKREST DECK SHEET		
3	795.118	1	BACKREST FABN		
4	795.123	1	THIGH SECTION FABN		
5	795.152	1	THIGH SECTION DECK SHEET		
6	795.150	2	RATCHET PLATE		
7	S1103	4	HEX HEAD SCREW M8 X 16LG		
8	S1805	6	WASHER M8 THICK		
9	S6620	1	LA 34 ACTUATOR 200 STROKE		
10	S6621	1	LA 34 ACTUATOR 100 STROKE		
11	S3620	2	SKT BUTTON HD SCREW M8 X 16LG		
12	S6507	2	ROLLER BUFFER ø100 GREY		
13	S4503	17	POP-RIVET		
14	S1156	6	HEX HD SCREW M10 X 30LG		
15	S1819	6	WASHER M10 LIGHT		
16	761.345	6	PIVOT BUSH		
17	S4733	4	'E' RING ø12		
18	713.92	2	CLEVIS PIN		
19	S5126	6	NYLON WASHER		
20	S1836	8	WASHER M12 LIGHT		
21	731.320	2	CLEVIS PIN		
22		1	CALF SECTION ASSY (SEE SEP DRWG 795.166)		
23		1	N/W DECK EXTENSION ASSY (SEE SEP DRWG 795.218)		
24	795.173	4	DECK EXTENSION GUIDE		
25	S2104	4	PAN-HD SLOT SCREW M5X10 LG		
26	S1812	4	WASHER M5 HEAVY		
27	S5108	4	13/16"SQ BUMP-ON		
28	731.31	1	EARTH STUD		
29	-----	1	EQUIPOTENTIAL LABEL		30
30	S1026	4	ø3/16"x1" LG SPIROL PIN		
31	673.05	2	NYLON SPACER		
32	S4502	2	POP RIVET		
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HUNTLEIGH  
NESBIT EVANS

PRODUCT

CONTOURA 1000

SHEET No

20

DRWG NO

795.219

TITLE

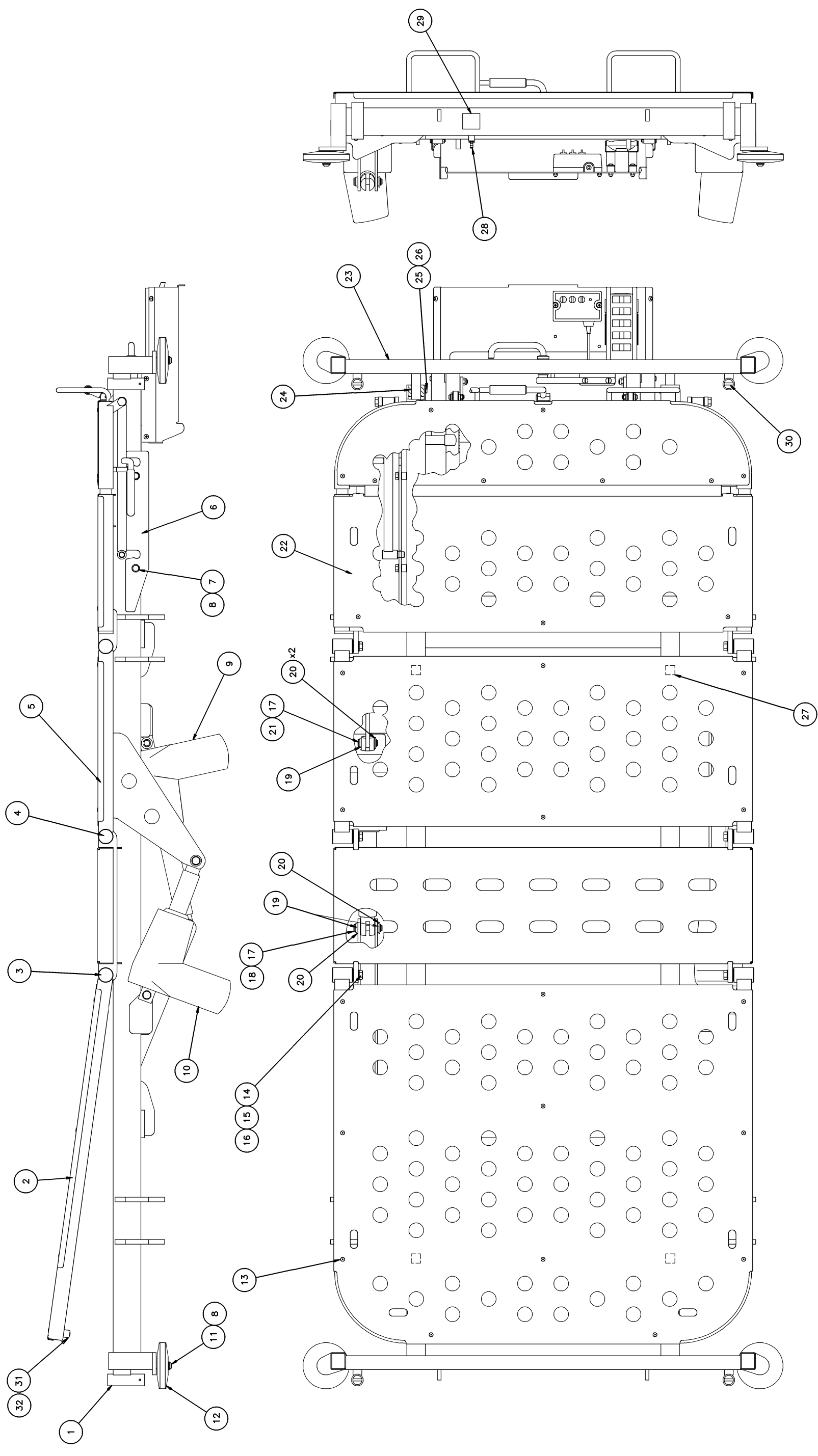
NON-WEIGH DECK ASSY


ISSUE 3

NOTE

DEGREASE AND APPLY LOCTITE 243 TO ITEMS 7,11,14 AND 26.  
LIGHTLY GREASE ALL BUSHES AND PIVOTS PRIOR  
TO ASSY WITH SAPPHIRE GREASE.

FOR ELECTRICAL ASSY DETAILS REFER TO CIRCUIT  
SCHEMATIC 795.222 AND ELECTRICAL ASSY DRAWING 795.221



 <b>HUNTLEIGH NESBIT EVANS</b>	PRODUCT	CONTOURA 1000	1 OF 1	SHEET No 21
	DRWG NO	TITLE	ISSUE 3	
795.220 etc		NON-WEIGH BASE ELEC ASSY		

ITEM	PART No	QTY	DESCRIPTION	795.234	795.220
				120V	230V
1	S6244	1	FLEXIBLE CONDUIT 600LG		
2	795.225	1	NON-WEIGH BASE ELEC TRUNKING		
3	S5117	10	CABLE TIE 3 WIDE		
4	S5798	1	CABLE CLAMP (KK3)		
5	S1410	1	M5 NYLOC NUT		
6	S3440	1	POZI PAN-HD SCREW M5X25LG		
7	S1812	1	WASHER M5		
8	795.233	1	BLANKING PIECE		
9	S5706	1	FLEX PROTECTOR		
10	SEE OP	1	MAINS CABLE & PLUG (3.5M LG)	A5S0230Z	S6211
11	S1619	1	SELF-TAPPING SCREW No10x1/2" LG		
12	S4785	3	M5 EXTERNAL TOOTH WASHER		
13	731.161	1	EARTHING STRAP		
14	S1915	1	HEX NUT M5		
15	796.243	1	EARTH BONDING STRAP (LONG)		
16	S1619	2	SELF TAPPING SCREW		
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**HUNTLEIGH  
NESBIT  
EVANS**

PRODUCT

**CONTOURA 1000**

SHEET No

**21**

DRWG NO

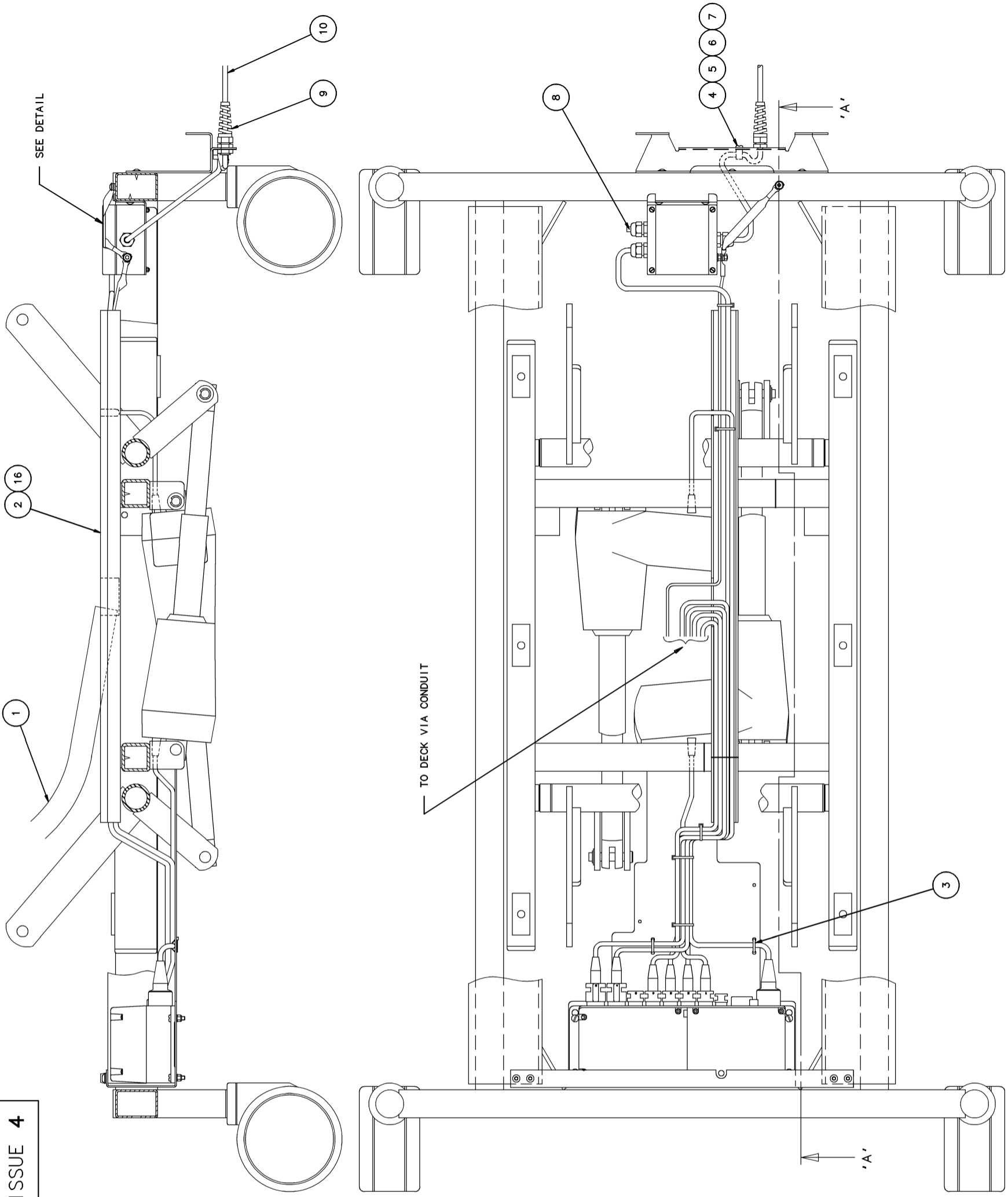
**795.220 etc**

TITLE

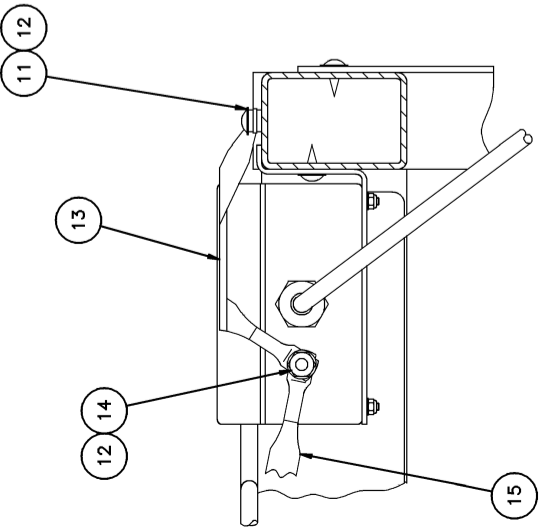
**NON-WEIGH BASE ELEC ASSY**


ISSUE **4**

NOTE: DRILL HOLES FOR ITEM 2 ON PRODUCTION LINE. SEE PART DRAWINGS FOR DRILL DETAIL. SECURE ITEM 2 WITH ITEM 11.

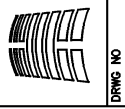


NOTE: ENSURE ITEM 12 BITES THROUGH COATING IN ORDER TO ENSURE ELECTRICAL CONTINUITY



 <b>HUNTLEIGH NESBIT EVANS</b>	PRODUCT	CONTOURA 1000	1 OF 1	SHEET No 21
	DRWG NO	TITLE	ISSUE 4	
795.220 etc		NON-WEIGH BASE ELEC ASSY		

ITEM	PART No	QTY	DESCRIPTION	795.234	795.220
				120V	230V
1	S6244	1	FLEXIBLE CONDUIT 600LG		
2	795.225	1	NON-WEIGH BASE ELEC TRUNKING		
3	S5117	10	CABLE TIE 3 WIDE		
4	S5798	1	CABLE CLAMP (KK3)		
5	S1410	1	M5 NYLOC NUT		
6	S3440	1	POZI PAN-HD SCREW M5x25LG		
7	S1812	1	WASHER M5		
8	795.233	1	BLANKING PIECE		
9	S5706	1	FLEX PROTECTOR		
10	SEE OP	1	MAINS CABLE & PLUG (3.5M LG)	A5S0230Z	S6211
11	S1619	1	SELF-TAPPING SCREW No10x1/2" LG		
12	S4785	3	M5 EXTERNAL TOOTH WASHER		
13	731.161	1	EARTHING STRAP		
14	S1915	1	HEX NUT M5		
15	796.243	1	EARTH BONDING STRAP (LONG)		
16	S1619	2	SELF-TAPPING SCREW No10x1/2" LG		
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PRODUCT

SHEET No

CONTOURA 1000

22

DRWG NO

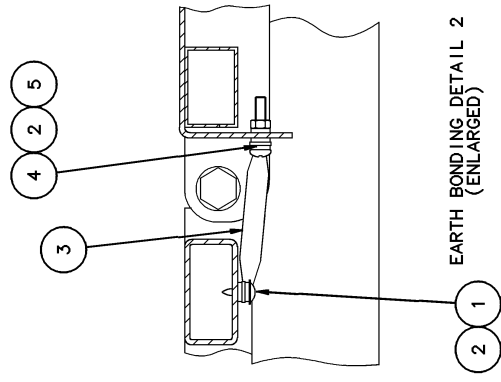
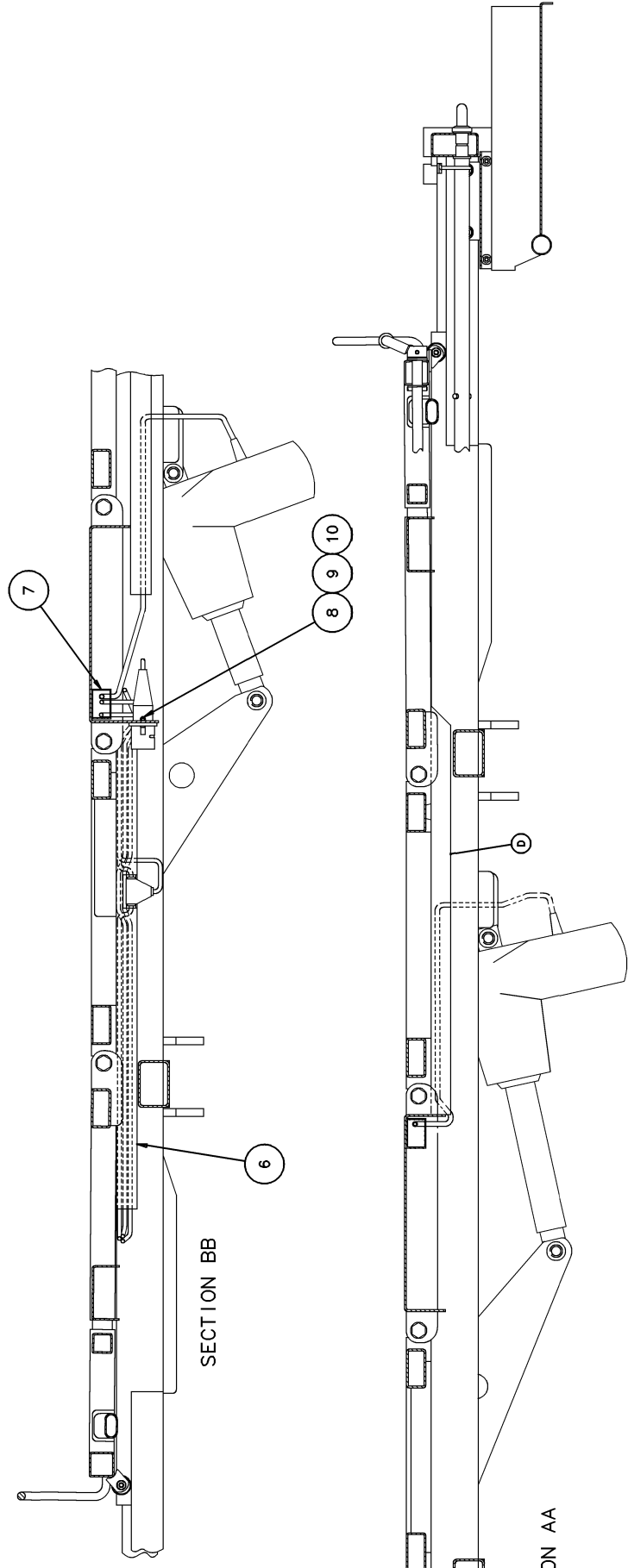
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795.221 NON-WEIGH DECK ELEC ASSY

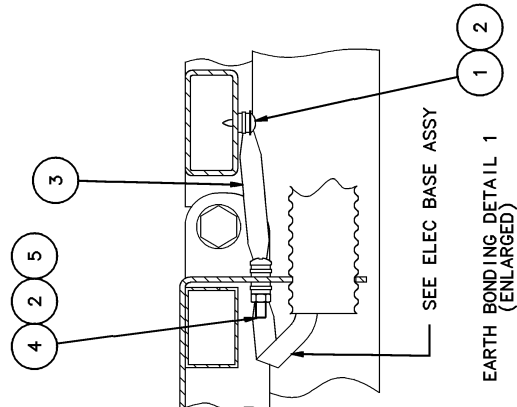
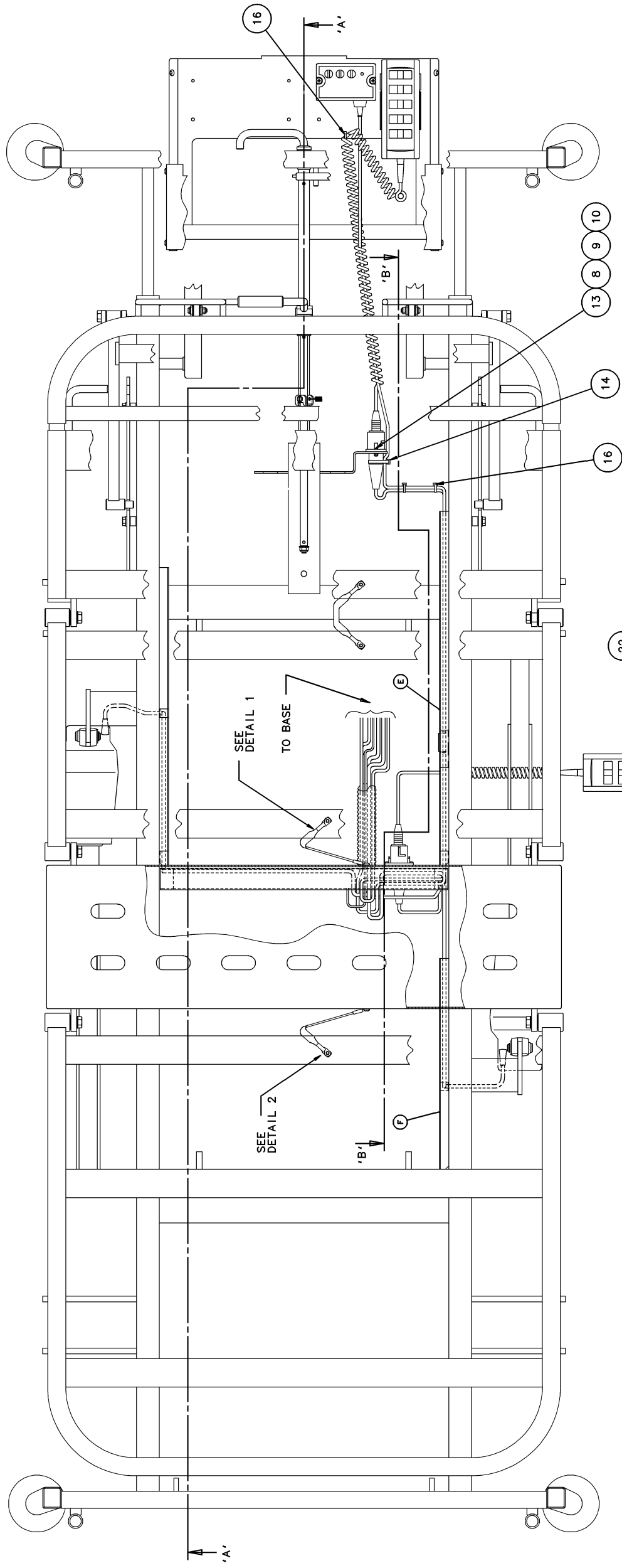
ISSUE 3

NOTE:-

ITEMS 2 MUST BITE THROUGH COATING IN ORDER TO ENSURE ELECTRICAL CONTINUITY



EARTH BONDING DETAIL 2 (ENLARGED)



SEE ELEC BASE ASSY

EARTH BONDING DETAIL 1 (ENLARGED)

NOTE THAT A,B & C SECTIONS OF THE TRUNKING KIT (ITEM 6) ARE NOT REQUIRED. TO BE USED IN CONJUNCTION WITH CIRCUIT SCHEMATIC 795.222.

NOTE:- ITEM 22 TO BE FITTED TO HANDSET CLIP USING P-60 RUBBER LUBRICANT EMULSION.



HUNTLEIGH  
NESBIT EVANS

PRODUCT

CONTOURA 1000

SHEET No

23

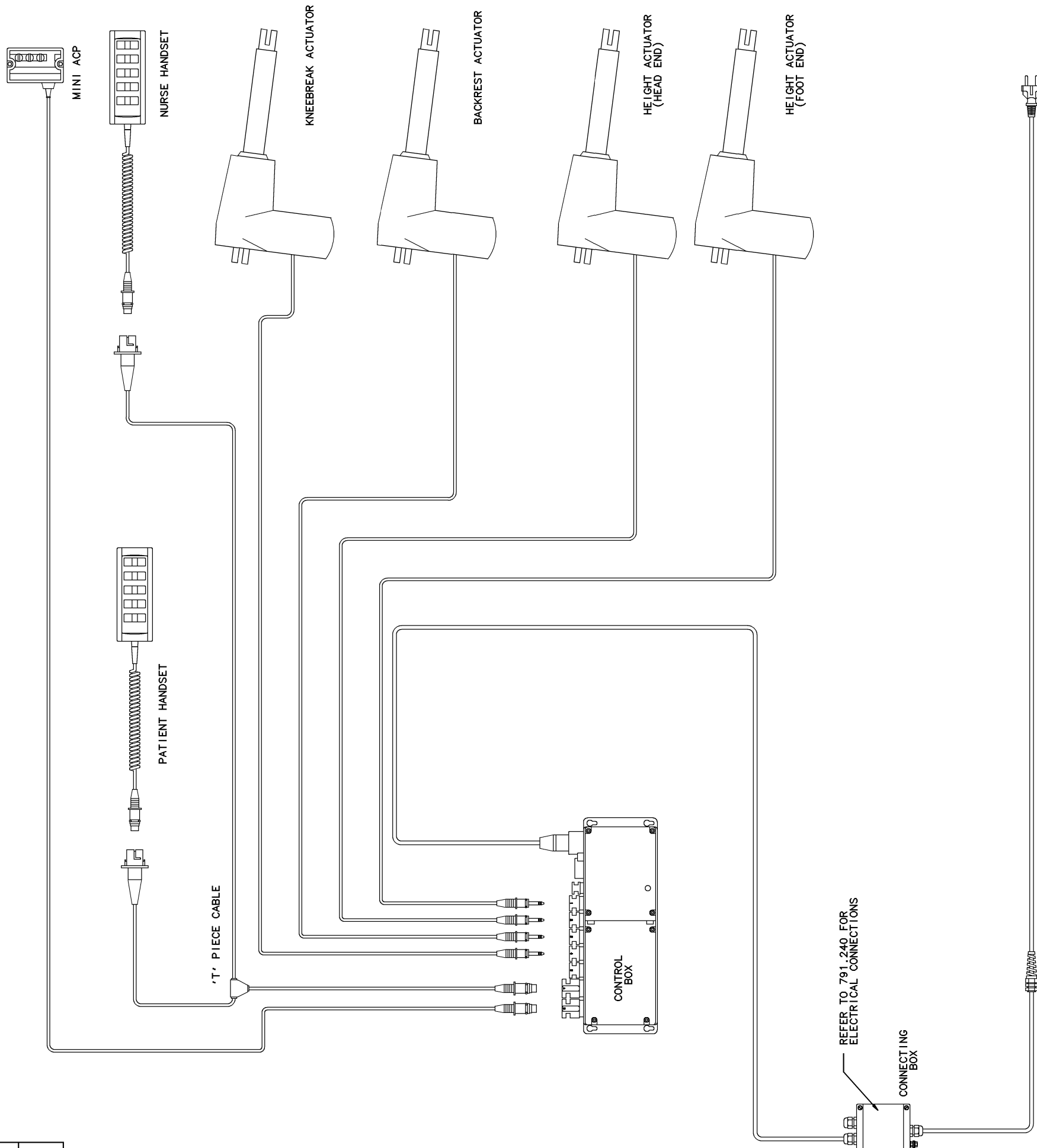
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795.222

TITLE

NON-WEIGH ELECTRICAL SCHEMATIC

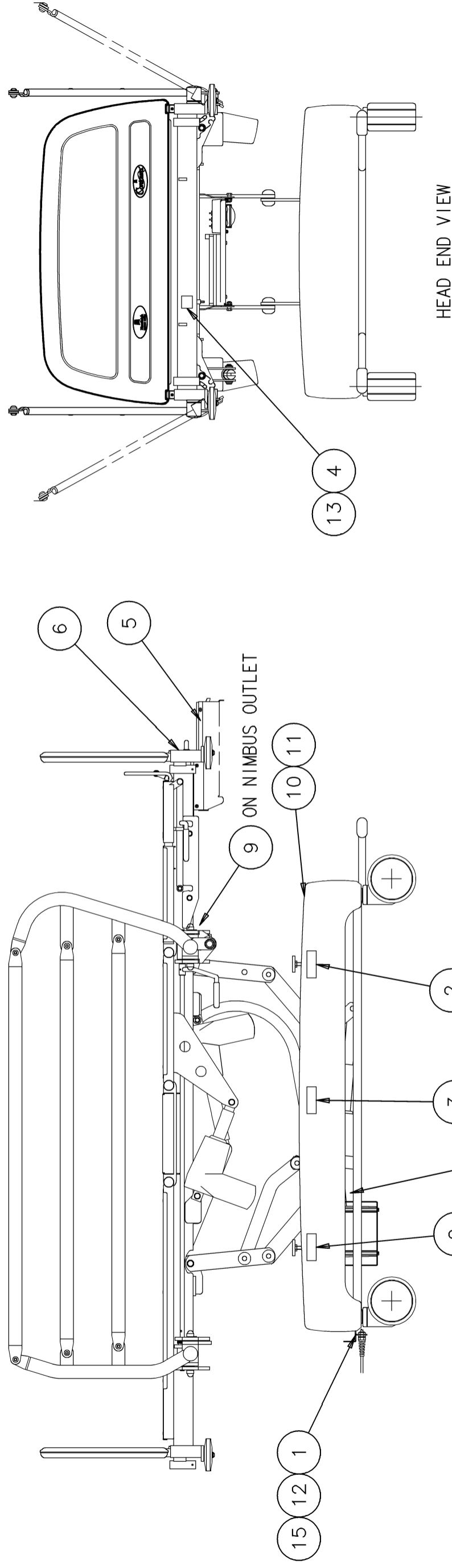
ISSUE 2



REFER TO 791.240 FOR  
ELECTRICAL CONNECTIONS

TO DECK EARTHING POINT  
(SEE 795.220 FOR DETAILS)

TO BASE EARTHING POINT  
(SEE 795.221 FOR DETAILS)



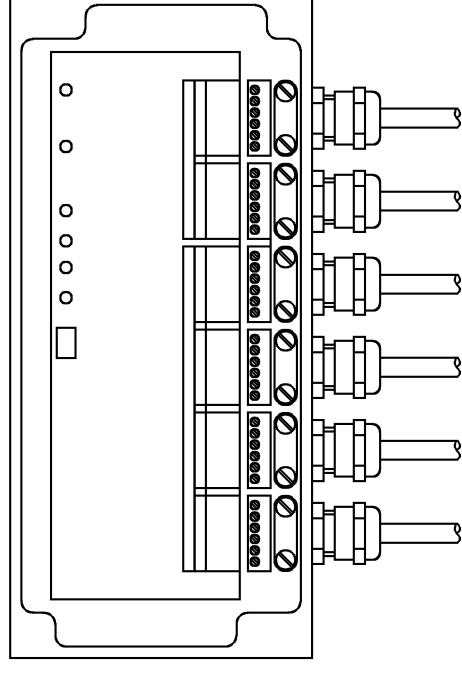
7 13 - NOT SHOWN



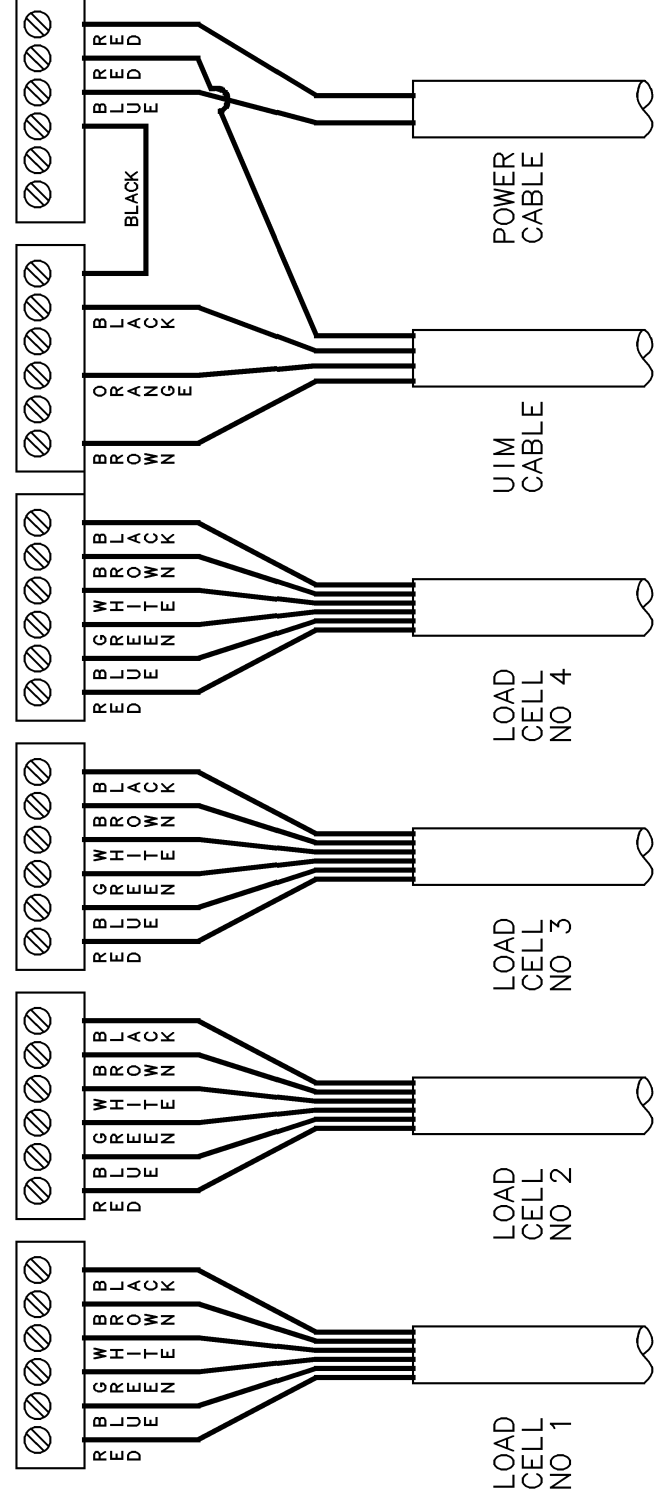


APPLIES TO FOLLOWING MODELS :-

MODEL	SHEET No
CONTOURA C950	24
CONTOURA C980	24
CONTOURA C1080	30



Priority Load Cell Vex 10VAC		Vin ±30mV		Iex 200mA		RS 485	Gnd	RS 232	Sup PWR 12-24VDC
LOAD CELL 1	LOAD CELL 2	LOAD CELL 3	LOAD CELL 4	LOAD CELL 3	LOAD CELL 4	A A B B	┌ ┐	Rx Tx	Galv isol
+FXC	+FXC	+FXC	+FXC	+FXC	+FXC	A	┌		0
N+	N+	N+	N+	N+	N+	A	┐		0
N-	N-	N-	N-	N-	N-	B	┌		0
-FXC	-FXC	-FXC	-FXC	-FXC	-FXC	B	┐		+







**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

**SEE BELOW**

SHEET No

SEE BELOW

DRWG NO

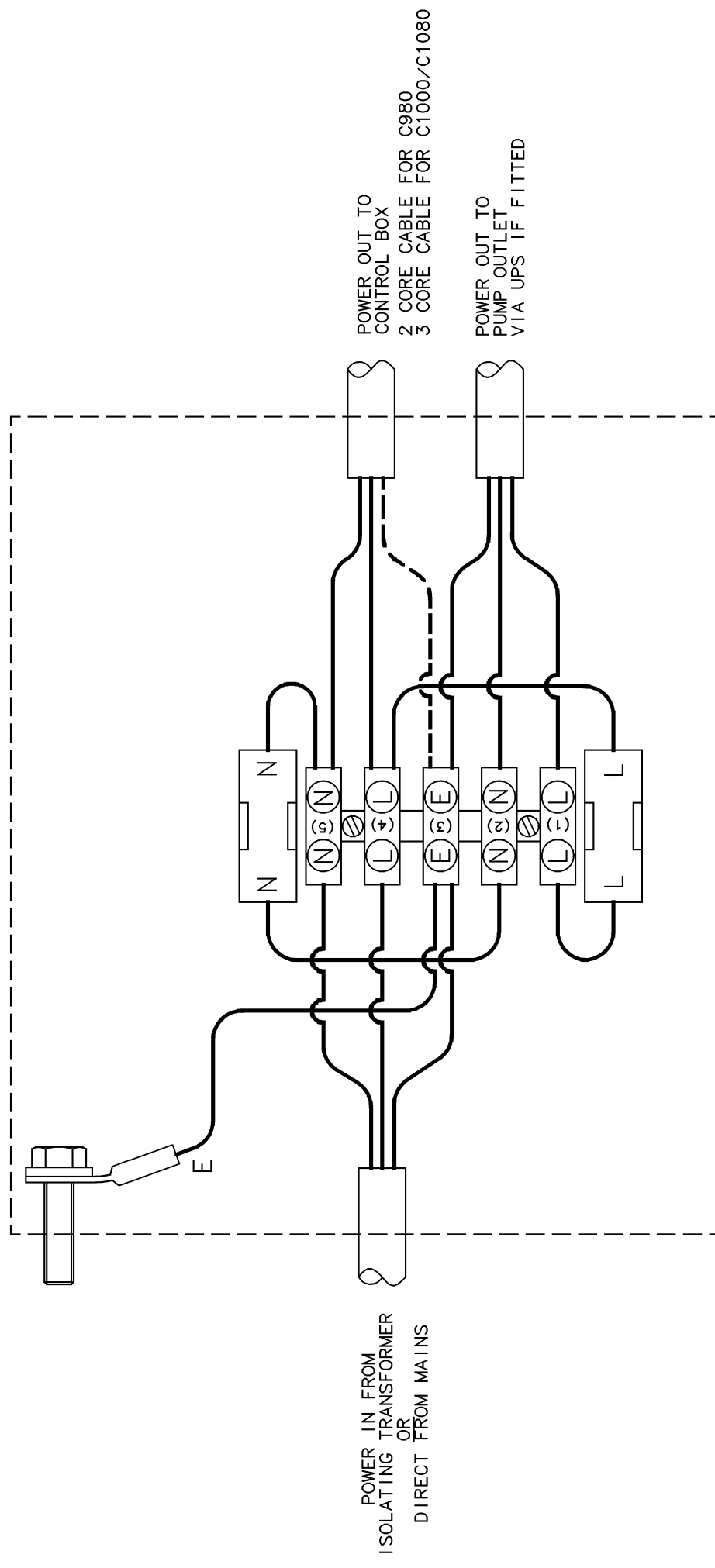
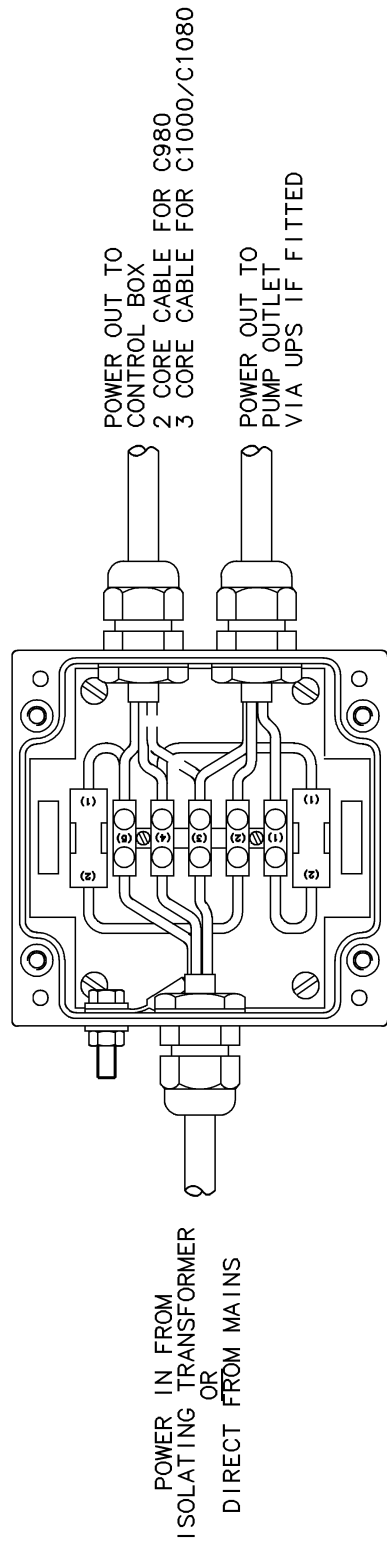
**791.172**

TITLE

**CON-BOX ELEC CONNECTIONS**

**ISSUE 3**

APPLIES TO FOLLOWING MODELS :-	SHEET No
CONTOURA C950	N/A
CONTOURA C980	27
CONTOURA C1080	31





HUNTLEIGH  
NESBIT EVANS

PRODUCT

SEE BELOW

SHEET No

SEE BELOW

DRWG NO

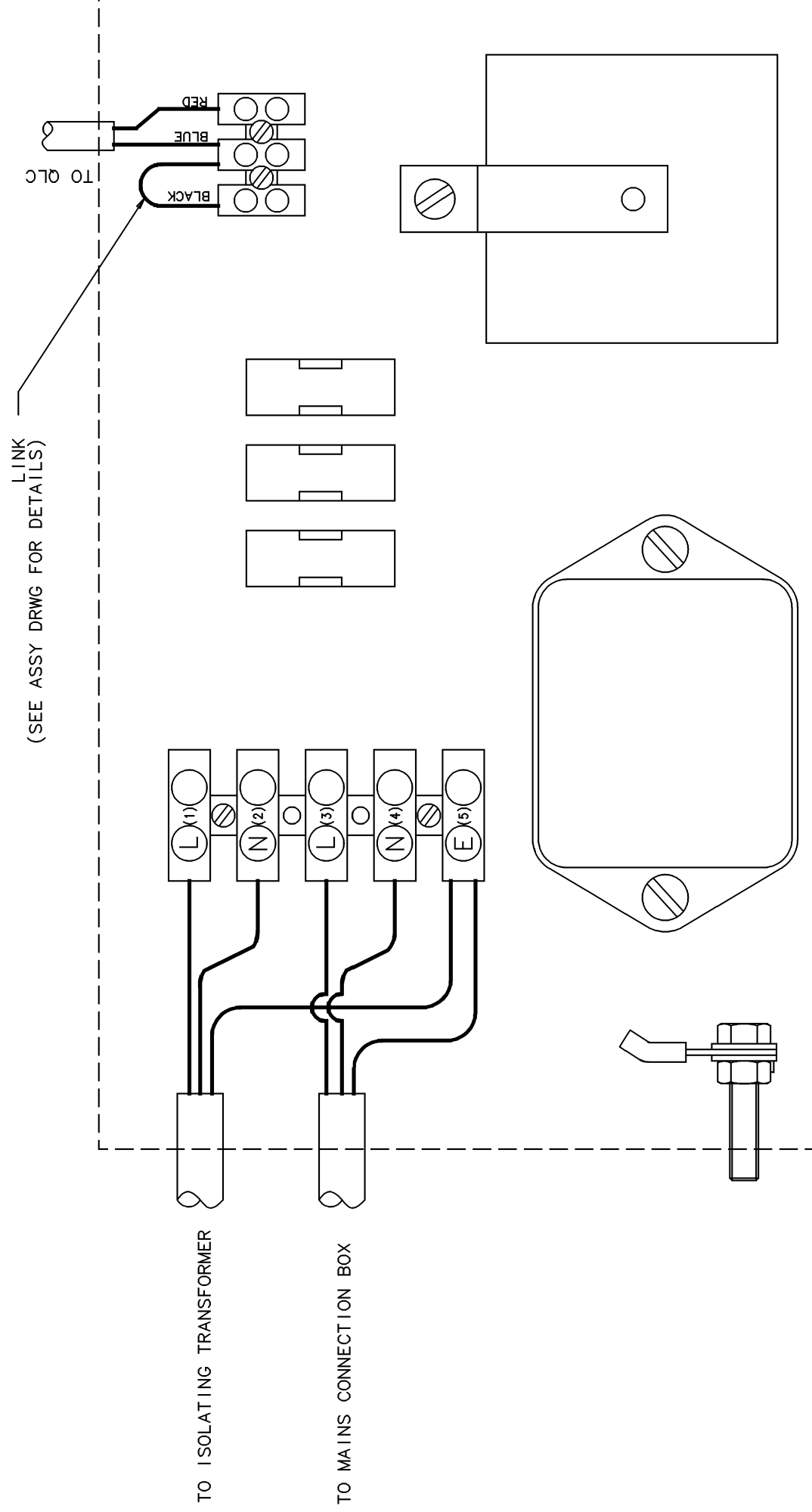
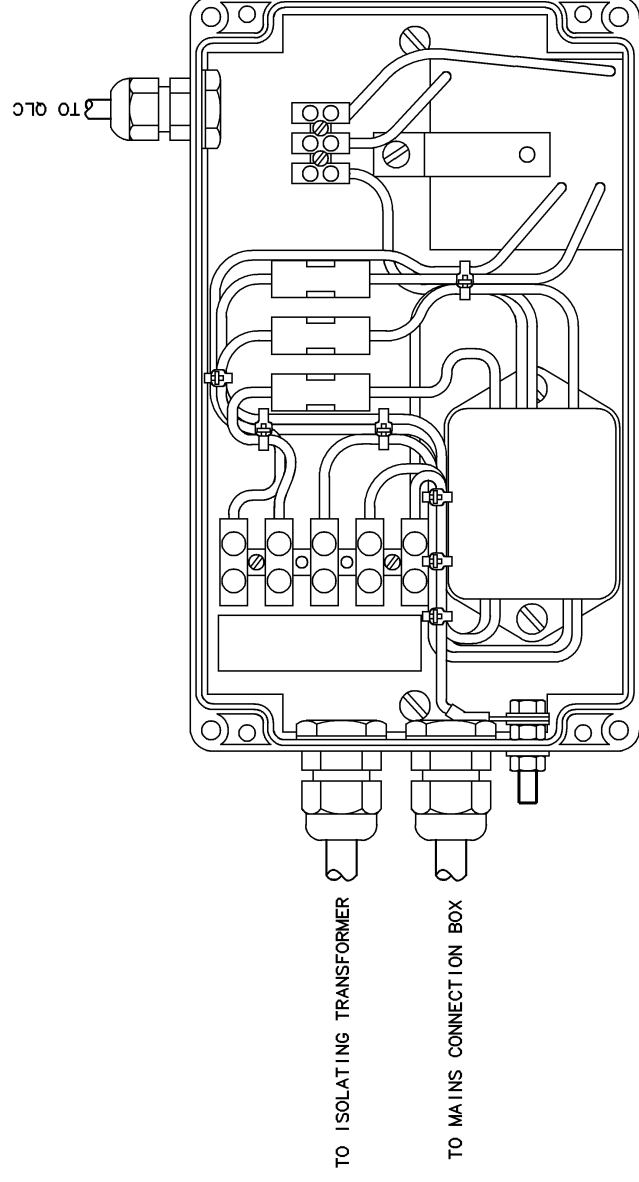
791.173

TITLE

FILTER BOX ELEC CONNECTIONS

ISSUE 1

APPLIES TO FOLLOWING MODELS :-	SHEET No
CONTOURA C950	25
CONTOURA C980	25
CONTOURA C1080	32





PRODUCT

SEE BELOW

SHEET No

SEE BELOW

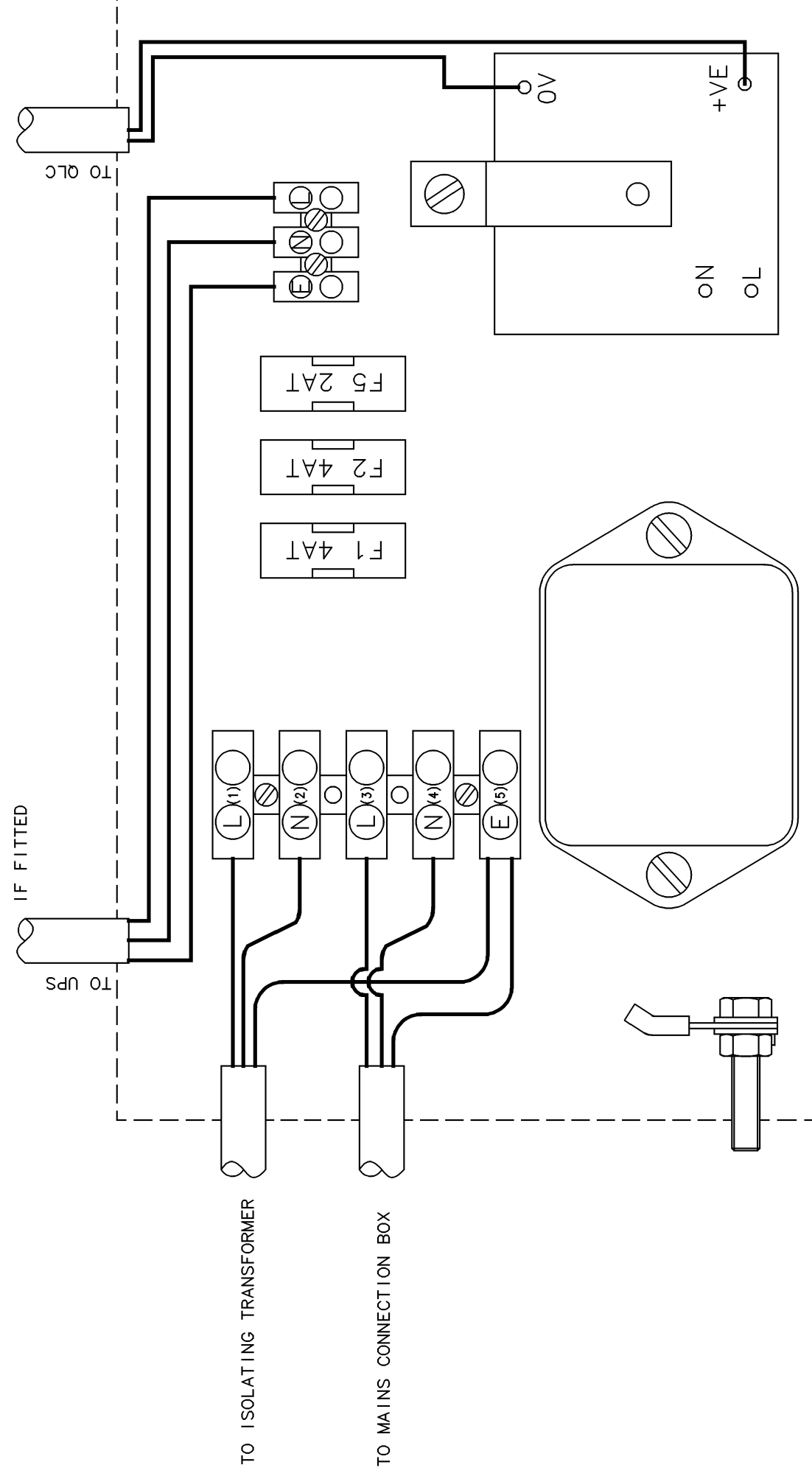
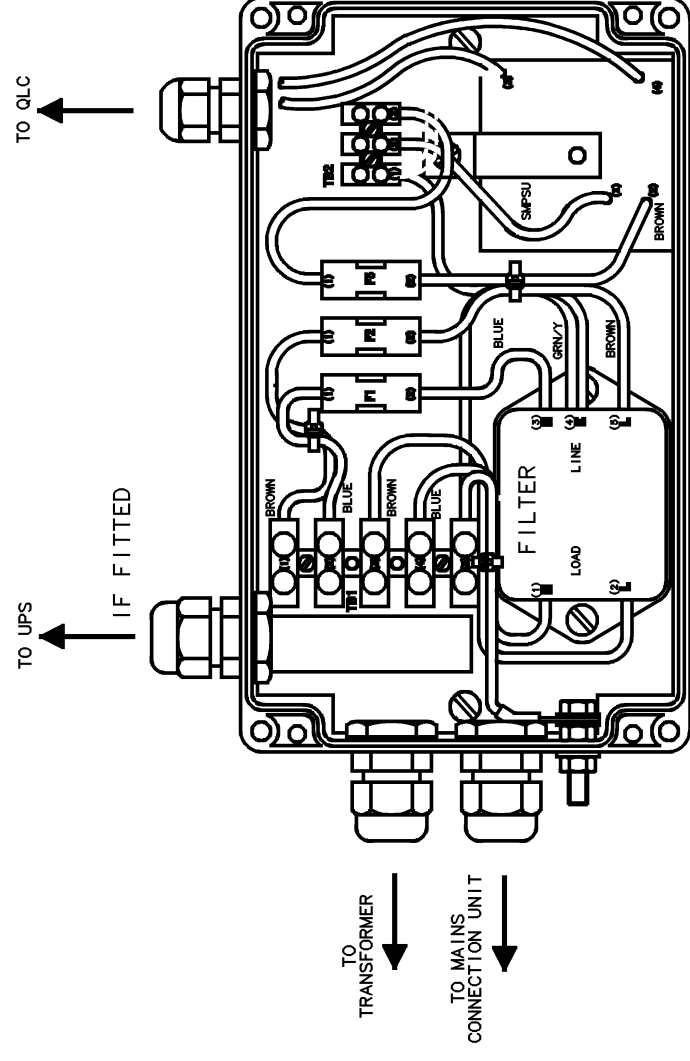
DRWG NO

791.186

FILTER BOX ELEC CONNECTIONS  
BATTERY BACK UP WEIGHING SYSTEM

ISSUE 2

APPLIES TO FOLLOWING MODELS :-	SHEET No
CONTOURA C950	28
CONTOURA C980	28
CONTOURA C1080	33
CONTOURA C980B	28





**HUNTLEIGH  
NESBIT EVANS**

PRODUCT

SEE BELOW

SHEET No

SEE BELOW

DRWG No

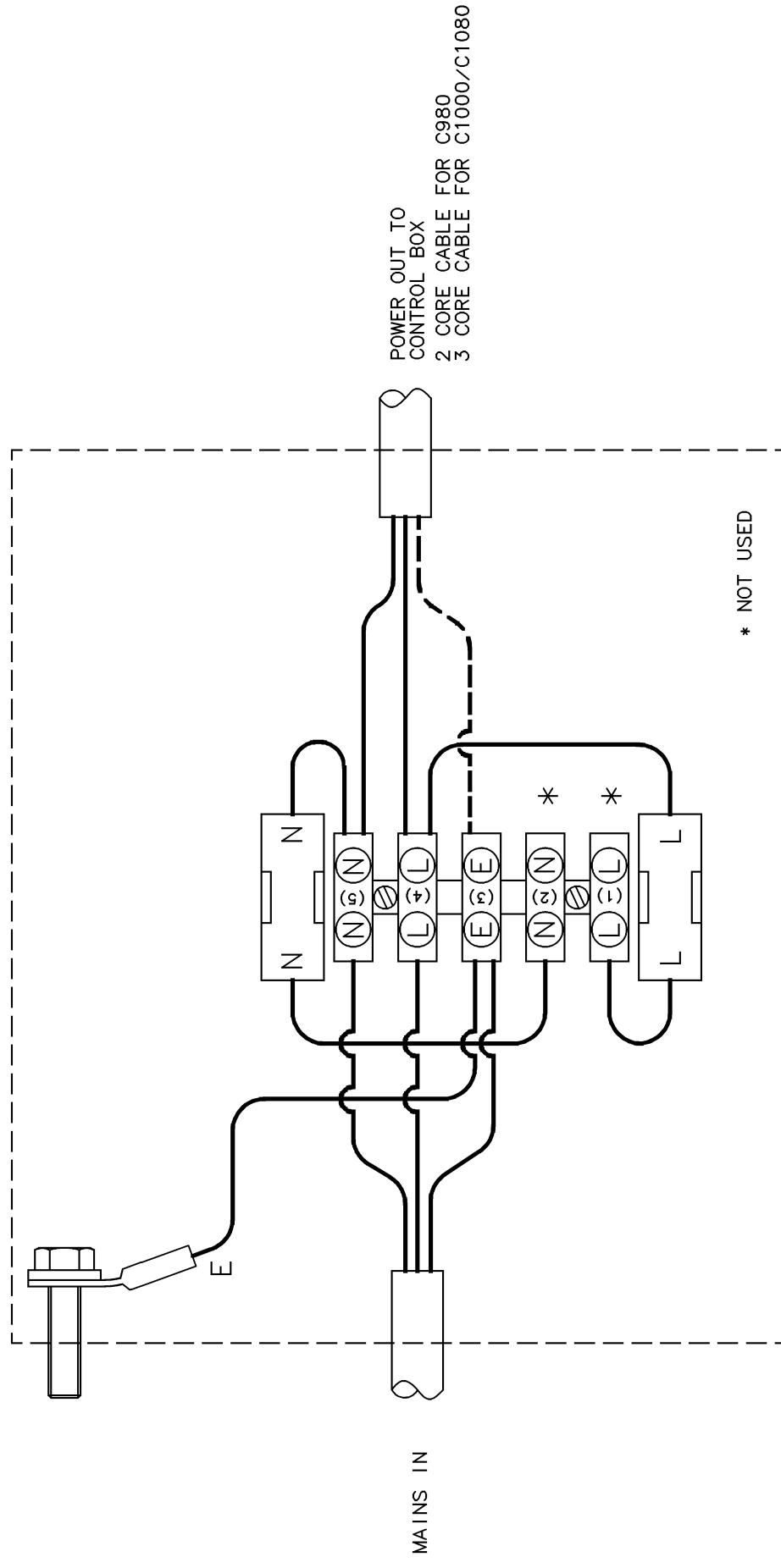
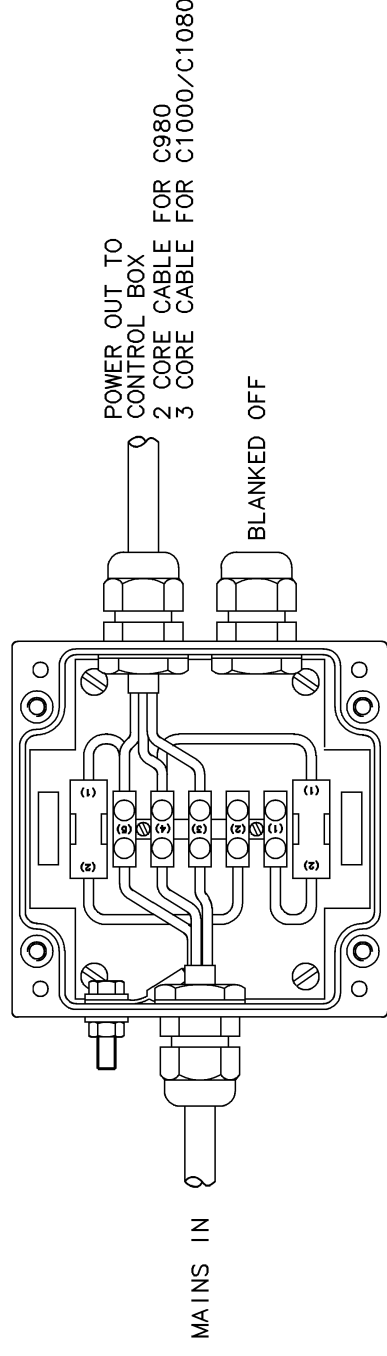
791.240

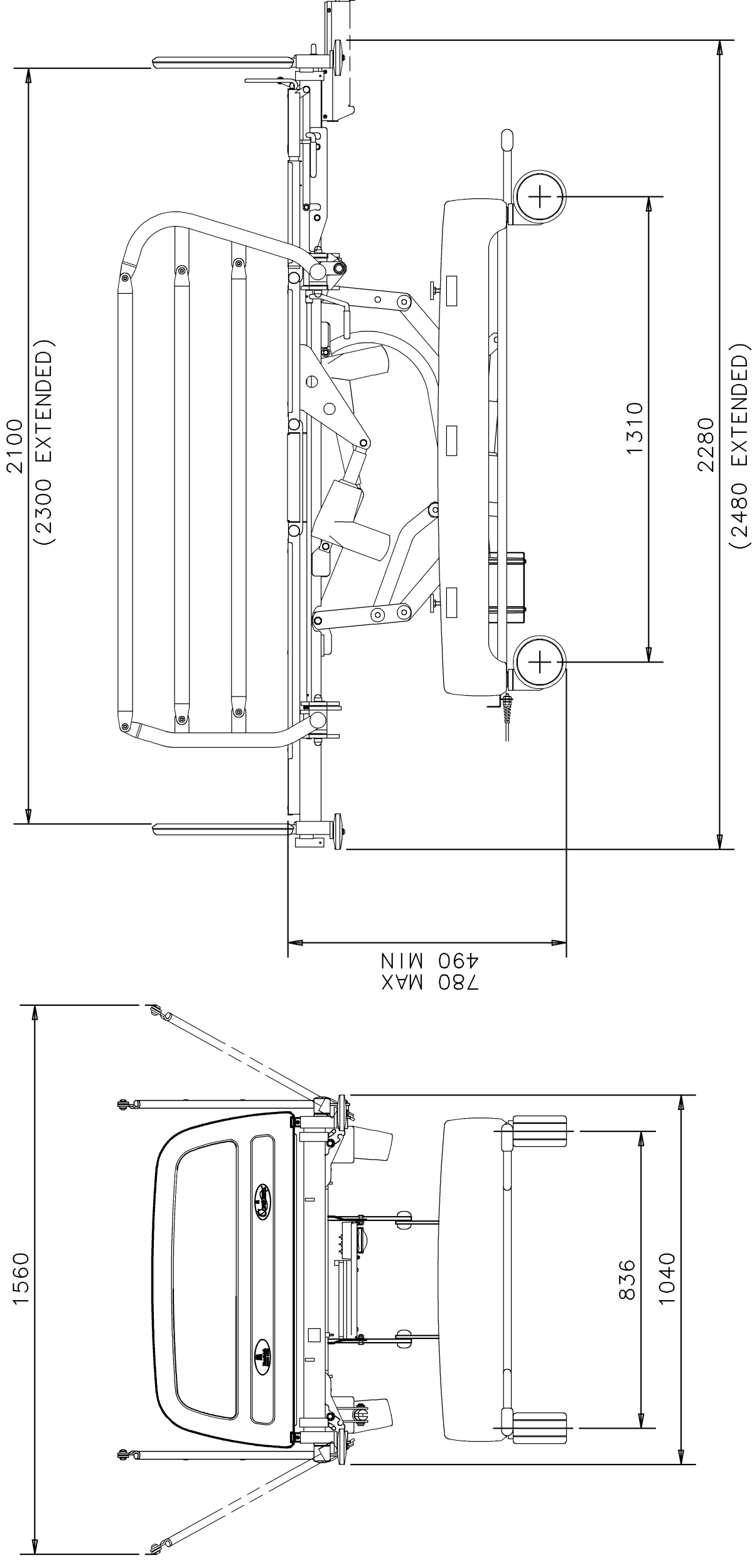
TITLE

CON-BOX ELEC CONNECTIONS  
NO OUTLET

ISSUE 1

APPLIES TO FOLLOWING MODELS :-	SHEET No
CONTOURA C1000	34





BACKREST ANGLE (MAX) 0 to 60°

HEAD DOWN TILT 0 to 14°

FOOT DOWN TILT 0 to 14°

PRODUCT WEIGHT (APPROX)

WITHOUT WEIGHING 265Kg

WITH WEIGHING 285Kg

SAFE WORKING LOAD (MATTRESS) 450Kg

SAFE WORKING LOAD (BED) 500Kg

## APPENDIX B

### DISPOSAL OF GAS SPRINGS

Gas springs contain air and oil at high pressure and must be vented in accordance with the following instructions before being discarded.

Under no circumstances should any attempt be made to open the device.

#### WARNING

**Danger of explosion. Do not heat or incinerate.**

**High pressure gas. The sudden release of gas at high pressure could cause serious injury or death. Wear suitable protective clothing, eye protection and/or a face shield.**

1. Operate the valve at the end of the piston rod and allow the piston rod to extend fully.
2. Clamp the gas spring in a vice and drill a hole approximately 3mm diameter at Position 1 as shown in Fig. B-1. Screen off the drilling point as metal chips and oil may be ejected due to the high internal pressure. Then drill a second hole at Position 2 as shown. Both holes should be drilled to a depth of approximately 10mm.

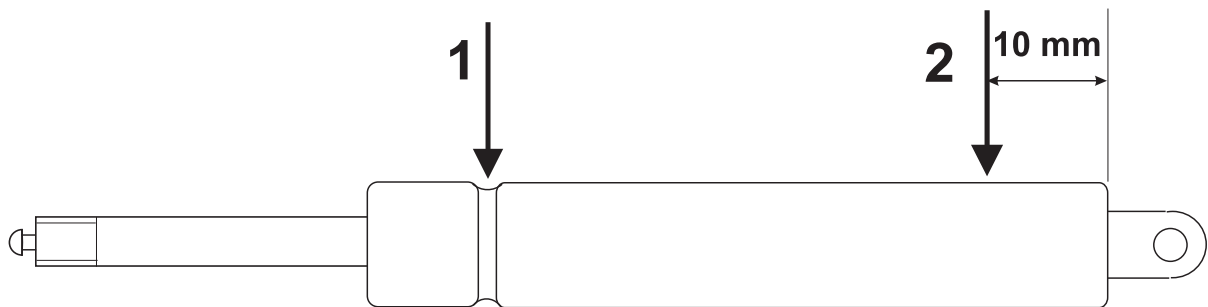


Fig. B-1 Disposal of gas spring

3. Operate the valve at the end of the piston rod and push in the piston rod.
4. Drain oil from the gas spring by pumping the piston rod in and out several times.
5. Dispose of the gas spring and oil through raw materials trade or special refuse points. Do not dispose of gas springs or oil in household refuse.

If correct disposal in accordance with these instructions is not possible, the unit should be returned to the supplier.

