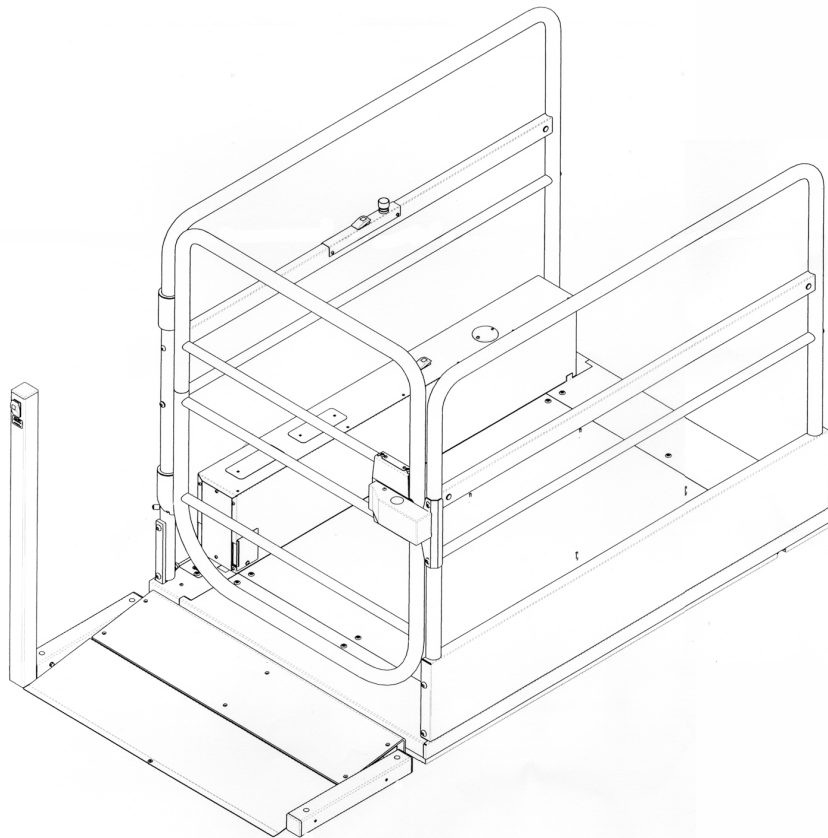




**Terry Group Ltd.**

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# Melody 1 Installation Instructions



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## **The Melody 1 Platform Lift**

The Melody 1 is a hydraulically operated scissor platform lift capable of lifting loads of 250 Kg up to 1.0m between fixed levels.

Designed and manufactured in accordance with BS 6440, the Melody 1 is suitable for use by persons with impaired mobility in either public buildings or private dwellings. The Melody 1 standard features include an integral platform gate and a low closed height eliminating the need for a pit. An interlocked gate is installed on the carriage as standard. An upper level gate option is also available or an interlock unit can be supplied to fit the client's own door.

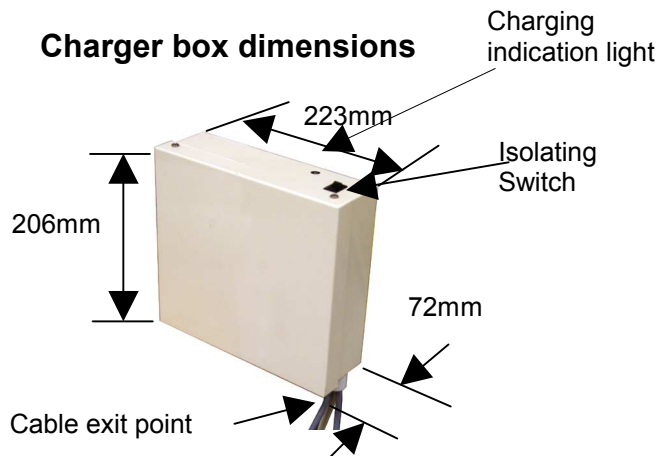
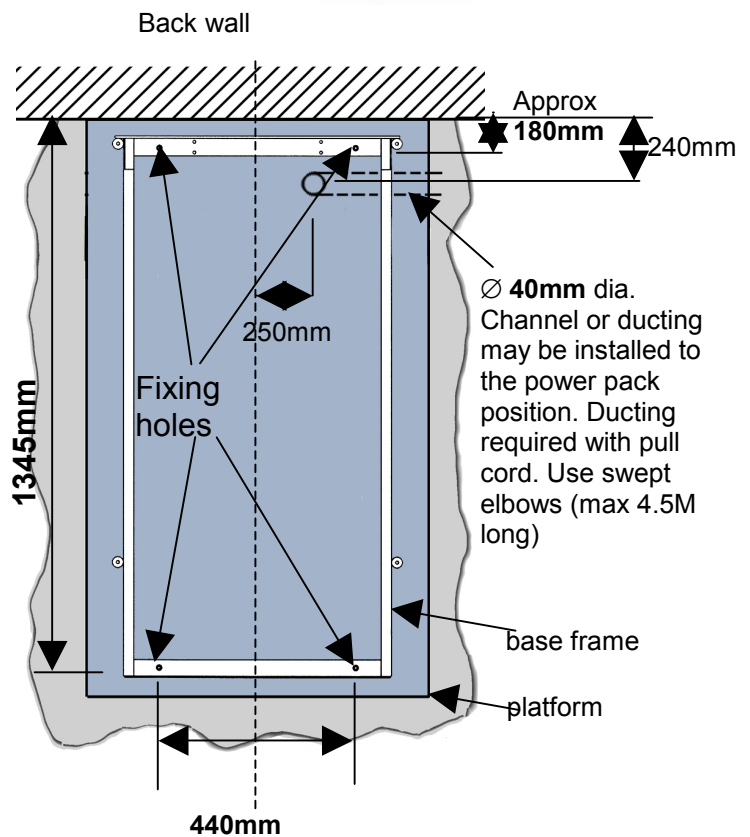
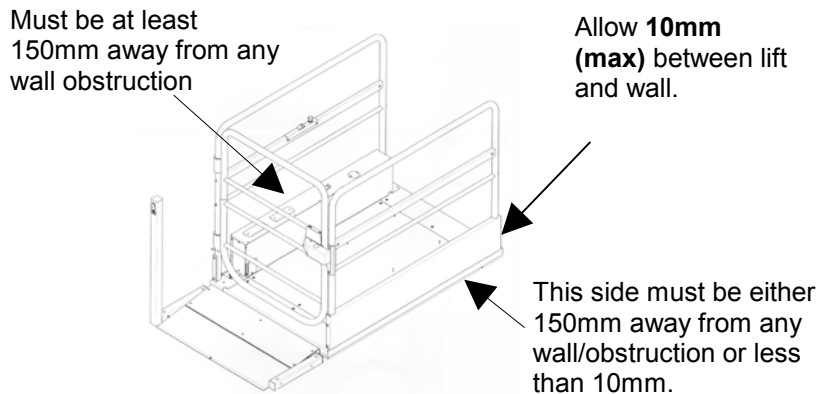
Special consideration has also been given to the location and dimensions of controls allowing safe and unaided use by person(s) with impaired mobility whether standing or with a wheelchair. An isolation switch is supplied as standard on the charger box and control stations are provided on the platform handrail and the upper and/or lower levels. A radio remote control lift enabler option to limit the lift to authorised use only is also available.

The lift is suitable for internal and external locations and a major feature of the design is that the platform is free standing, eliminating the need for column supports and thus minimising aesthetic intrusion into the environment. Standard finish is stainless steel and other finishes can be supplied to special order.

### General Installation Notes

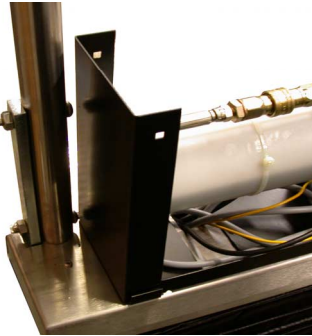
- Place the lift, using information to the right and secure upper level gate (if supplied) in desired location
- Level platform using levelling bolts on base frame ensuring moving ramp aligns flush with fixed ramp.
- Fix the power pack to the platform + connect hoses / cables and wiring.
- Fix handrails and gate to platform (if not pre-assembled to platform) as per the instructions on page 5.
- Put lift in position referring to Diagram A and fix down.
- Fix charger box to wall. Plug in charger and replace cover.
- Run the 7 core cable from the charger box to lift, upper wall station and upper level gate (if fitted) along the most appropriate route. Refer to page 7 for schematic cable run (note all cables to be put in conduit or similar).
- Strip cable and wire according to diagram on pages 17.
- Mount the upper wall station in a position convenient to the client. Run 4 core cable between wall station and charger box and connect according to diagram on page 17.
- Connect bleed pipe to ram bleed connection port. Extend ram using control switch and bleed ram
- Make suitable holes in the base of the bellows and secure to the front of the base frame and ramp support plate with tie wraps. Note: On outside installations before securing the bellows liberally spray all lift parts enclosed by the bellows e.g base frame and scissor arms with the wax oil provided.
- Carry out final adjustment and test as per pages 9, 11, 12, 13 and 24

Diagram A



## Instructions for Assembling Hand Rails and Gate

Control hand rail(non gate end)

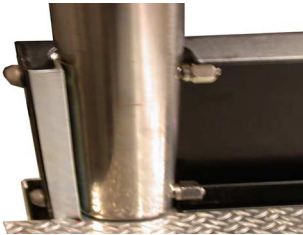


1. Remove platform power pack cover and slacken off the 6 bolts securing the power pack base to the platform.
2. Tilt power pack and remove the dome-head bolts/nut situated at the non gate end control handrail support up stand.

Control hand rail( gate end)



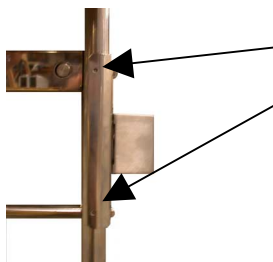
Plain hand rail



Gate and hinge



Gate Lock Fastening



3. Remove barrel nuts and bolts situated at the gate end control handrail support up stand.
4. Slide handrail through gate hinges and position control handrail in place and refit both sets of barrel bolts/nuts.
5. Retighten the bolts securing the power pack base to the platform.
6. Refit the power pack cover.
7. Remove barrel nuts/bolts from the two plain handrail upright supports.
8. Position plain hand rail in place and refit both sets the barrel nuts/bolts.
9. Adjust the Beak Plate to the correct position and drill to fit using a M3.5 drill. Secure with a M4 Stainless Taptite screw.

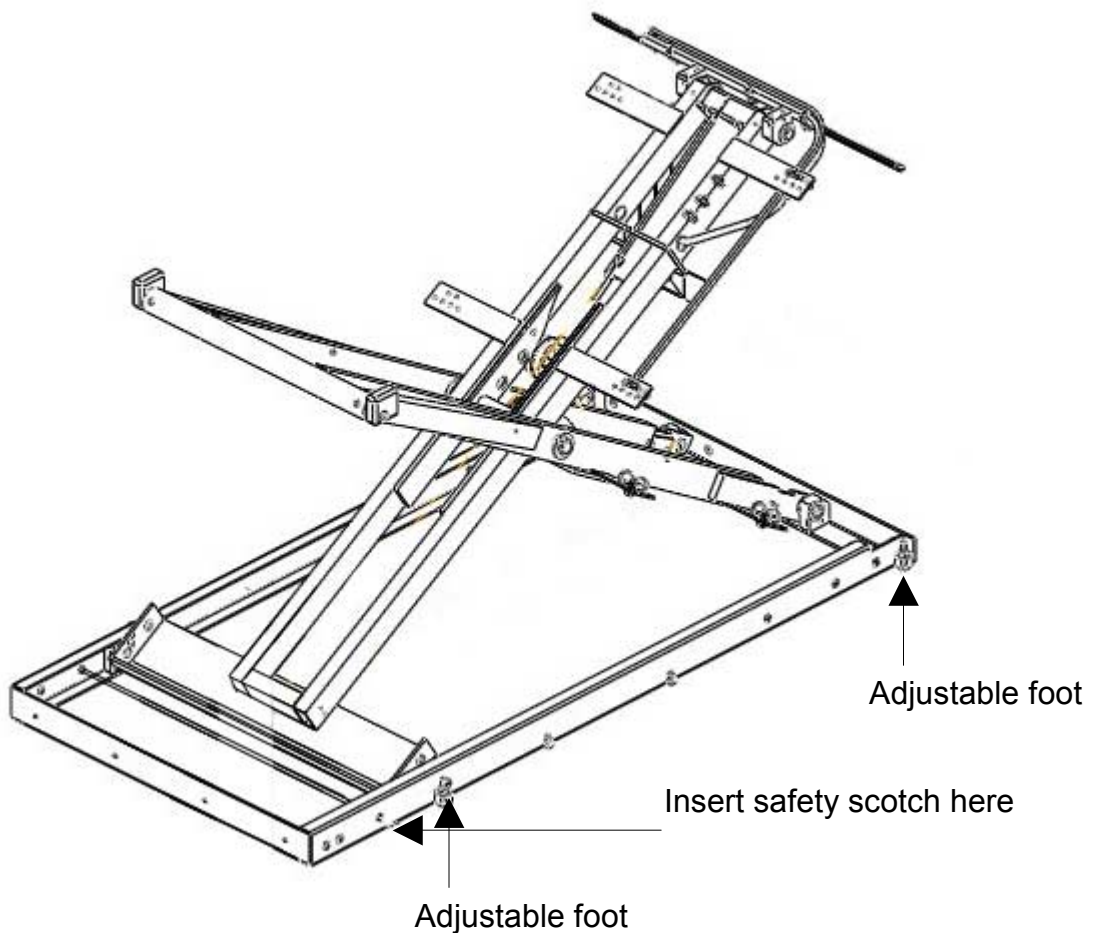
## Base Frame and Scissor Assembly

### To gain access under the platform :

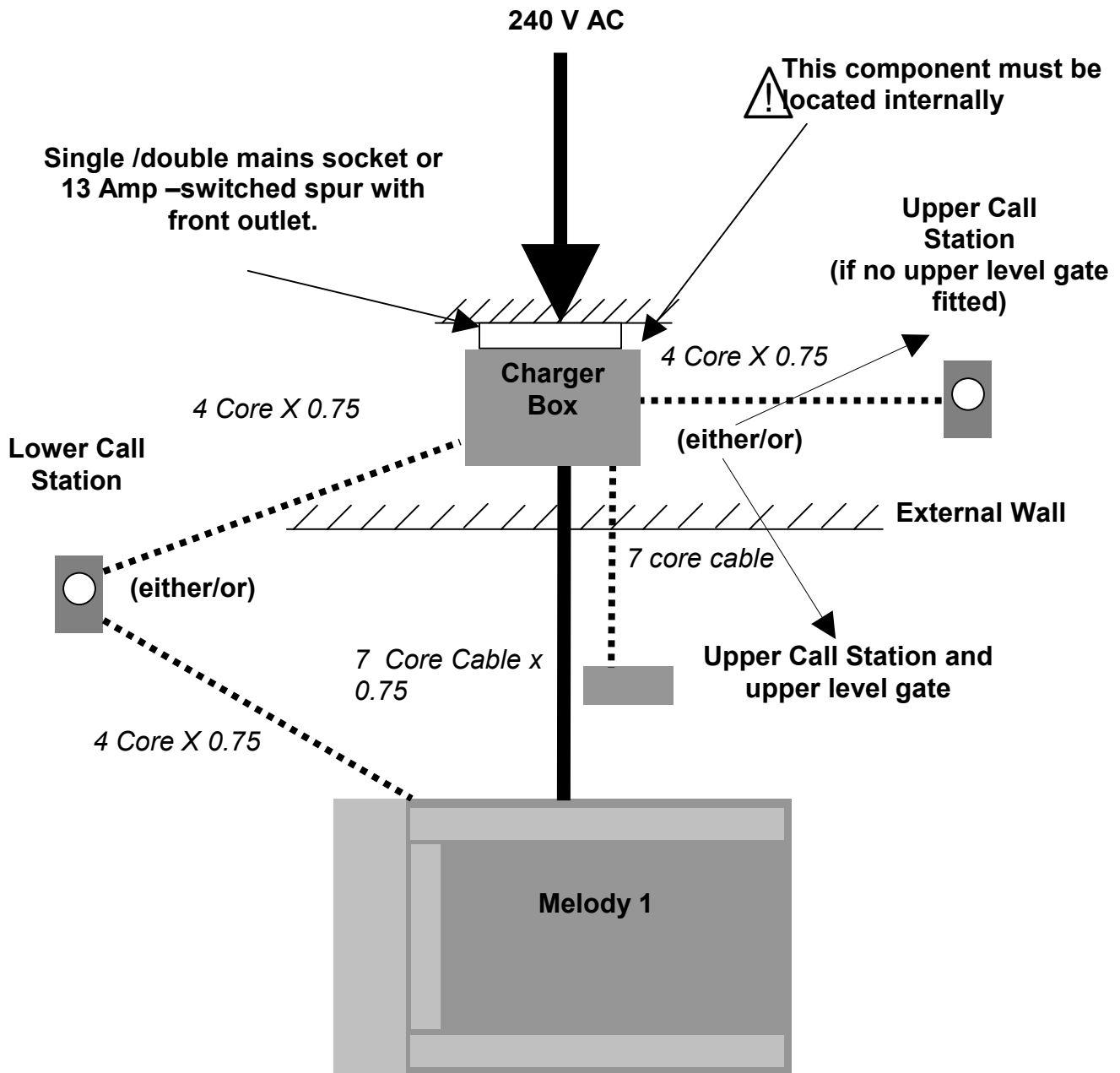
- Send lift up.
- Remove tie wraps securing base of bellows to front of base frame and ramp support plate.
- Fold bellows and hook up to base of platform using beaded tie wraps.
- Ensure that base of bellows is re-secured to front of base frame and ramp support plate after all work is completed.



**Please note that safety scotch (situated at side of chassis frame) must be inserted in chassis holes when scissors are up BEFORE any work is carried out under the platform.**



### Melody 1 -Schematic Cable Run



## Technical Specifications

Application Range	-Ambulant and wheelchair users - Internal and external locations
Safe working load	- 250Kg
Closed height	- 75mm
Maximum travel	-1 metre (1000mm)
Rated speed	-0.07 – 0.08 metres per sec.
Upper level protection requirements	-Domestic-rise exceeding 290mm -Public Access-rise exceeding 260mm
<b>Power supply</b>  <u>Electrical requirements</u> The lift does not require a dedicated power supply or RCD protection.  Low voltage operating system	220/240V AC~ 50/60 Hz-680mA (max)  24 VDC The lift has full battery back-up. The lift should never be left disconnected from the mains supply for long periods.
Optional radio remote control	12V key fob non-rechargeable alkaline battery.
<b>Duty Cycle.</b> Normal cycling(maximum)	10 cycles per hour or 40 cycles in any 24 hour period
Hydraulic oil grade	T22
Temperature Range	-20°C to +40 °C
Lifting mechanism	Fully enclosed hydraulic scissor arms
Design and manufacturing Standard	BS 6440 & CE Mark

**Terry organisation has a policy of continuous product development and the company reserves the right to change specifications without notice.**



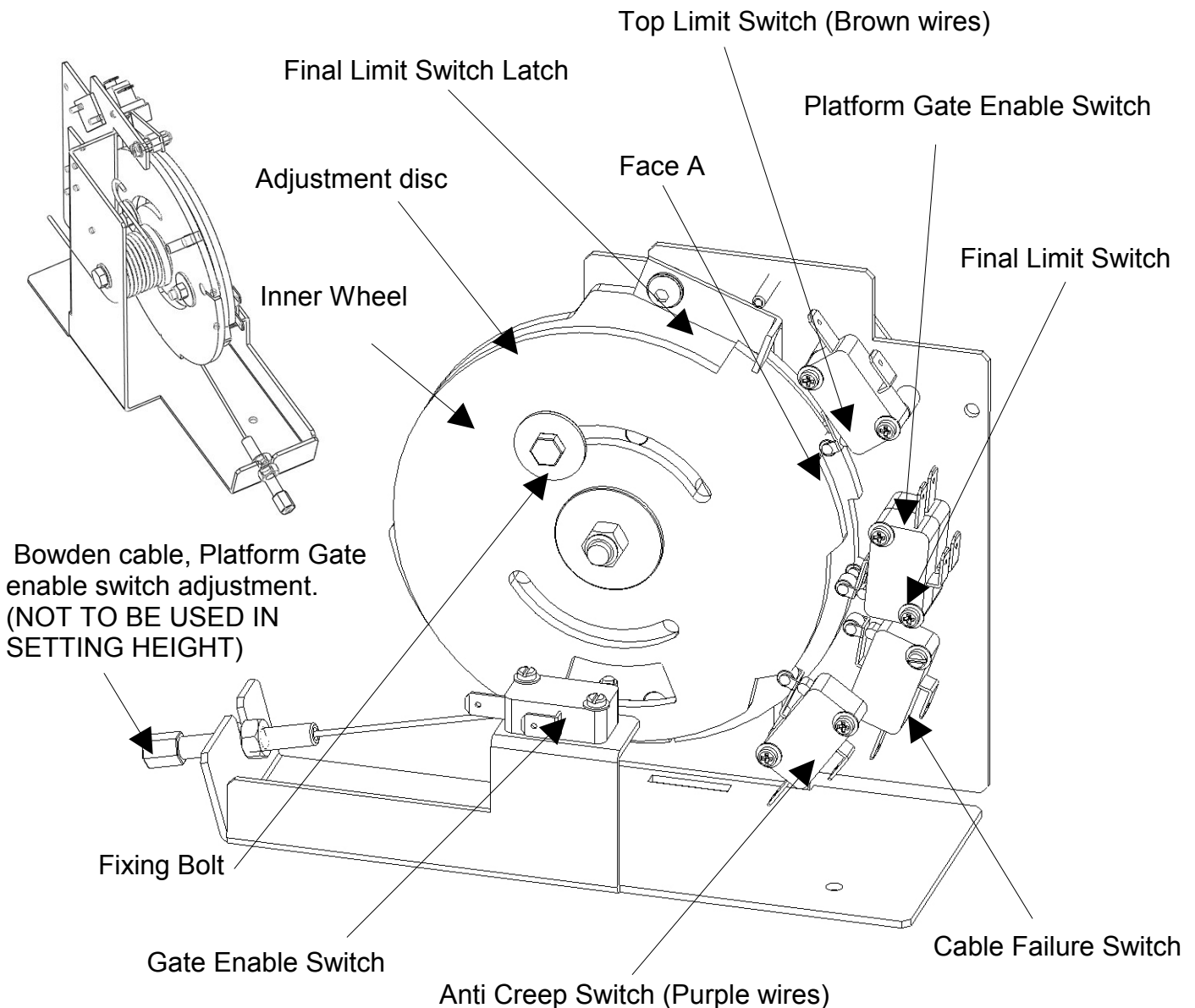
## Height Adjustment

### IMPORTANT:

- Before adjusting the mechanism ensure anti-creep switch is disconnected (refer to page 17)
- The control mechanism will be pre-set to a platform height of 1000mm
- With lift at ground level disconnect the spring by unclipping.
- Stop lift at required height. Slacken bolts. Rotate adjustment disc (larger diameter) until face A is in contact with roller of top limit switch (brown wires). Re-tighten bolt
- Lower lift to ground level and re-connect the spring. The spring must be wound around 1 full turn before hooking onto tab on rear of disc. Check top level height.

### BOWDEN CABLE ADJUSTMENT

Before setting the height the bowden cable must be adjusted to set the position of the switch on the wheel that releases the lower gate. The lower gate should only release when the lift is around 100mm off lower level (usually nuts are to very end of thread closest to wheel).



### General Fault Finding

FAULT	CHECK
Lift will not go up	Check that when the up/down button is pressed, is L1 (green LED) lit ? If not :- 1.Check platform gate 2.Check F1 fuse (25A) 3.Check isolate switch on charger box is in. 4.Check remote control enabler operation.(if fitted). If above is OK, check wiring
Lift will not go down	Check when the up/down button is pressed, is L2 (yellow LED)lit ? If not :- 1.Check final limit switch 2.Check F2 fuse (5 A) If above is OK, check wiring 3.Check isolate switch on charger box is in. 4.Check remote control enabler operation (if fitted). If above is OK, check wiring
Lift will not go up or down (L1 and L2 not lit)	1.Check F3 (1A) is OK 2.Check lift isolate fuse (30A) is OK 3.Check battery voltage - should be in the range 27.5 – 29.5V(from charger) – if not - 4.Check 5A fuse to charger – if OK change charger 5.Check for bowden cable failure 6.Check that upper level gate (if fitted) is closed.
Upper level gate will not open	1.Check that lift is at the top.  Note: Gate will only be opened within the first five-ten seconds of the lift reaching the top level. If timer has expired the gate can be released by pressing and releasing the carriage or upper postgate release switch, unless on the lift in which case the lift will have to be sent down and brought back up to the top to open the gate.
Lower level gate will not open	2.Check that lift is at the bottom.  Note: Gate will only be opened within the first five-ten seconds of the lift reaching the bottom level. If timer has expired the gate can be released by pressing and releasing the carriage or lower post gate release switch, unless on the lift in which case the lift will have to be sent down and brought back up to the top to open the gate.
Reprogramming the remote control enabler key fob	It maybe necessary to reprogram the key fobs if the lift has been disconnected from the mains or been in storage for a long time. Full instructions to reprogram the key fob including the 3 minute timer feature are attached. See page 23

### Melody 1 Installation Test Certificate(Page 1 of 3)

B.1. Description of installation:

Lift reference:-

Location:-

Manufacturer:- Terry Group Ltd, Longridge Trading Estate, Knutsford,  
Cheshire. WA16 8PR

Lift Description:

Date of Manufacture

Length of travel:  Lift serial No.

Other identification:

Safe working load

Rated speed:

Description of lift:

Maximum working pressure:

Pressure relief valve setting:

Electrical supply: a)contract 13A  
240V  
1 Phase 50Hz

### Melody 1 Installation Test Certificate(Page 2 of 3)

#### B.2. Static Examination

- a) Is all metalwork that encloses live conductors bonded to the main earthing terminal by protective conductors?
- b) Is the platform bonded to earth by a separate conductor?
- c) Does the resistance of the earth protective path exceed .1 ohm?
- d) Insulation resistance to earth. Power circ. safety circuits.
- e) Full load control volts.
- f) Are the platform anti-trapping safety devices adequate?  
By for example, an enclosure, guards, bellows, blinds, safety edges or sensitive surfaces.
- g) Do they operate correctly?
- h) Does the platform level to within + or - 12mm on full load?
- i) Is adequate liftway protection provided?  
By for example, short flights of steps, strong enclosure 1M above upper level, interlocked + locked gate or barrier.
- j) Are the liftway clearances adequate? (as stated in Specifier's Guide)  
That is less than 10mm or greater than 150mm or protected by sensitive edges.
- k) Do the interlocks on the gates operate correctly? Carriage   
Upper Level (Optional)
- l) Does the manually operated scotching device operate correctly?
- m) Does the manually lowering valve function correctly?
- n) Does the final limit switch latch operate correctly ?
- o) Does the upper limit switch stop the lift at the upper level?

List any points on which the installation fails to comply:-

### Melody 1 Installation Test Certificate(Page 3 of 3)

#### B.3. BASIC SAFETY SYSTEM CHECKS

- Hose condition and connectors
- Check call station operation
- Check carriage gate interlock operation
- Check upper-level gate interlock operation (if fitted)
- Check main ram rollers
- Check remote control enable operation (if fitted)
- Check S/Edges operation

#### B.4. DECLARATION A

I/We certify that on / / this Steplift was installed to the latest installation instructions and thoroughly examined and found to be free from obvious defects and to comply with the requirements of BS 6440 and that the foregoing is a correct report of the examination.

Signed:- Qualifications:- Authorised Installer

Address:- Date:-

#### CERTIFICATE OF ACCEPTANCE BY PURCHASER/USER

I/We being the purchaser/user of this Melody 1 Steplift (Serial No. ) have received, and fully understood, verbal and written instructions, in association with a demonstration, from on its correct and safe use.

Signed:- Date:-



### Service Points

- 1. Check for loose fixings
- 2. Perform insulation resistance check to earth
- 3. Perform insulation resistance check of safety circuits
- 4. Check fuse ratings
- 5. Check no debris around or under the lift
- 6. Check earth bonding
- 7. Check emergency lowering system
- 8. Check gate emergency release systems if gate fitted
- 9. Check operation of bridging system if fitted
- 10. Check gate i/lock operation on all gates fitted
- 11. Check condition of rear pivot
- 12. Check operation of ramp
- 13. Check operation of ramp over ride switches
- 14. Check hydraulic hoses and cylinders for wear and leaks
- 15. Check security of guard rails
- 16. Check stopping height is to within +/- 12mm
- 17. Check operation and integrity of blind / bellows
- 18. Check for squeaks and rattles and rectify
- 19. Check that the load plate is fitted
- 20. Check and lubricate all bushes and pivots
- 21. Check operation of remote control enabler(if fitted)
- 22. Check S/Edges operate correctly
- 23. Charger voltage
- 24. Battery voltage
- 25. Low battery's fall under load
- 26. Bellows fixed down
- 27. Oil level in pump
- 28. Ensure metal tie is secure around the main ram when the lift is at max travel
- 29. Check conduit, trunking condition

### LUBRICATE

- 1. Lubricate base frame sliding blocks with grease (part no. TC012)
- 2. Lubricate hydraulic cylinder shaft + rollers + cams with grease (part no. TC012)
- 3. Lubricate top sliding blocks with grease (part no. TC012)
- 4. Spray components within the bellows with Supertrol
- 5. Lubricate bowden cable with oil (part no. TC002)
- 6. Lubricate ramp pivots with oil (part no. TC012)
- 7. Lubricate gate interlocks with oil (part no. TC002)

### Basic Safety System Checks

- Hose condition and connectors
- Check call station operation
- Check gate interlock operation if fitted
- Check main ram rollers
- Check carriage gate interlock operation
- Check remote control enabler operation if fitted.
- Check four (4) S/Edges operate

I certify that on \_\_\_\_\_ I thoroughly examined this lift and all the above items have been checked and are satisfactory. If the lift fails any basic safety system checks it must be taken out of service immediately.

Signed \_\_\_\_\_ Name (Print) \_\_\_\_\_

Organisation \_\_\_\_\_ Date \_\_\_\_\_



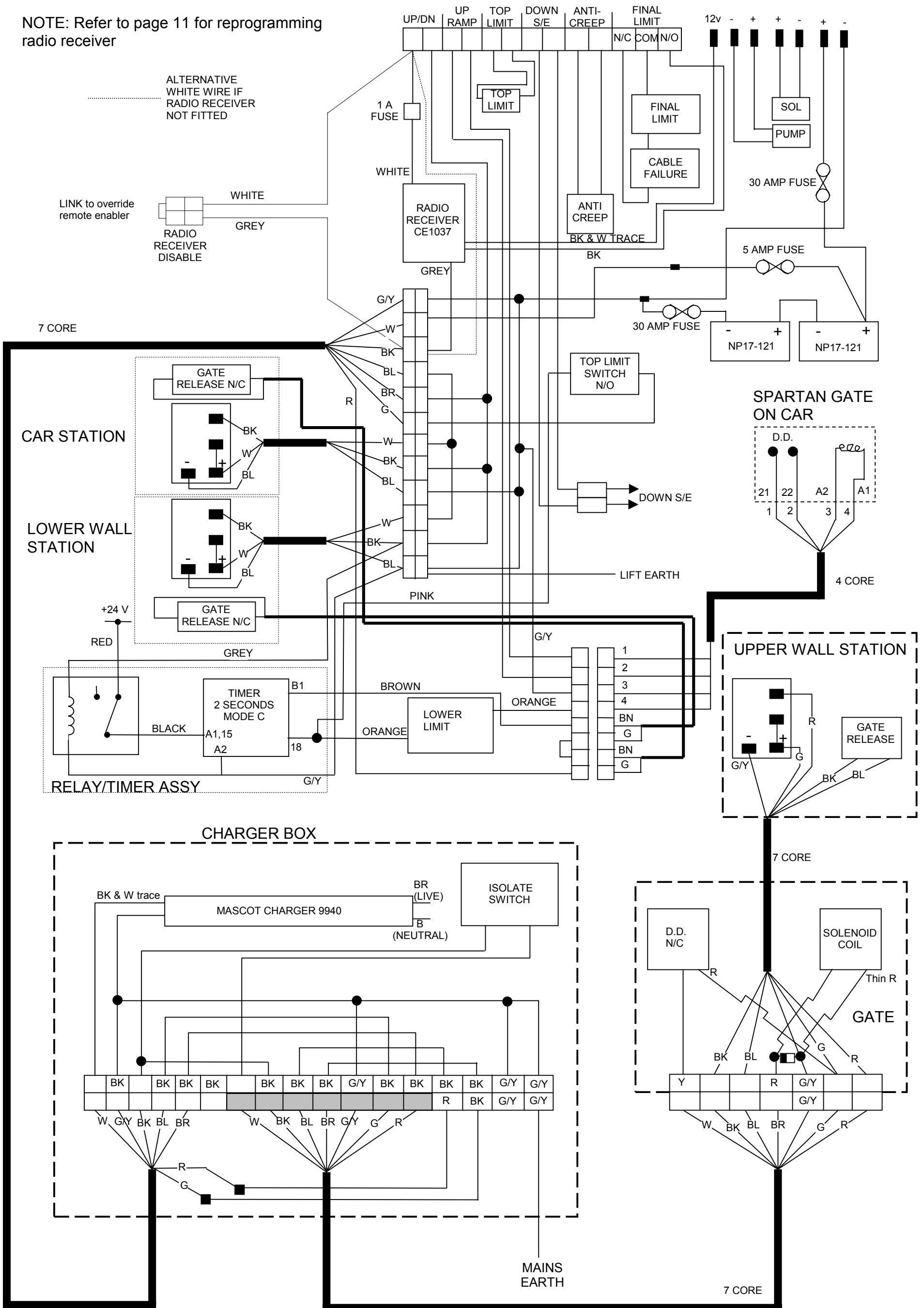
## Definition Of Basic Safety Items

- A. Check Condition of Hose.** - Manually check condition of hose for splits or leaks and fittings.
- B. Check Call Station Operation.** - Check they all operate correctly and light up.
- C. Upper Level gate** – Check no down with gate open and only releases when lift at top
- D. Check main ram lifting rollers for security of fastenings**
- E. Car Gate Interlock** – Check car gate can only be opened when lift is within 100mm of lower level.
- F. Check remote control enabler** - Check that lift remains disabled until remote control enabler is activated.
- G. Safe Edges x 4** – Check the lift stops if the underpan is obstructed in any corner and also the lift will drive away from the obstruction.



### Melody 1 Wiring Diagram

NOTE: Refer to page 11 for reprogramming radio receiver





## Control Board Wiring

The Melody 1 is fitted with a Terry LS33100 Controller.

The LS33100 Controller has the following facilities incorporated in the design :-

- 1)UP / DOWN CONTROL - The LS33100 uses constant pressure buttons.
- 2)ONE SECOND DELAY CIRCUIT – The delay circuit provides a delay of 1 second between pressing the up / down button and the lift operating
- 3)THE SECOND ONE SECOND TIMER CIRCUIT  
The second - one second timer is similar to the first one second delay circuit. The timer is initiated by the one second delay timer output when the up / down button is released. If the up/down button is repressed within 1 second, the lift starts again in the same direction (up or down). If the up/down button is re-pressed after 1 second, the lift reverses direction.
- 4) ANTI-WELD - The up and down relays are connected so that if a relay contact was to weld, the earth return of the other relay coils is broken and the lift will not operate until the weld is cleared.
- 5) FINAL RELAY INTERLOCKING – The way that the final relays are wired ensures that if the lift is travelling, the other relay coils are isolated. This means that it is impossible for both up and down relays to operate at the same time.
- 6) DIRECTION REVERSAL CIRCUIT – This circuit is comprised of relays RL11 and RL12 and changes the lift direction.
- 7) MOSFET CONTROL CIRCUIT - The function of the MOSFET control circuit is to ensure that the MOSFET makes and breaks the power to the pump motor and solenoid.
- 8) ANTI-CREEP CONTROL – When the lift rises it stops in the top position due to the N/C contacts of the top limit switch going O/C which breaks the up hold circuit. If the lift creeps downwards, the N/O anti-creep switch operates causing the lift to rise.
- 9) LED INDICATORS - Two LEDs are incorporated in the board design to indicate the state of the safe edges. A green LED, if on, indicates that the up ramp and top limit switch are both closed allowing the lift to rise. A yellow LED indicates the state of the down safe edge. If the LED is on, the safe edge or safe edge O/R switch is closed so the lift can be lowered. Note :- The LEDs are only lit as appropriate after one second when the UP/DN button is pressed.

### Fuses

#### FUNCTION OF FUSES ON LS33100 BOARD

- F1 – 25 Amps Auto-fuse - Controls the power to the pump motor.
- F2 – 5 Amps Auto-fuse - Controls the power to the pump solenoid.
- F3 – 1 Amp Auto-fuse - Protects the control circuit of the board.

#### FUNCTION OF FUSES NOT ON LS33100

- 1) 30A Fuse (at end of kicking strip) – To isolate the battery from the LS33100 board.
- 2) 5A Fuse (above batteries) - In feed to batteries from Mascot charger.
- 3) 30A Fuse on negative lead to battery. To protect against earth fault.

## Lift Gate Control Circuitry

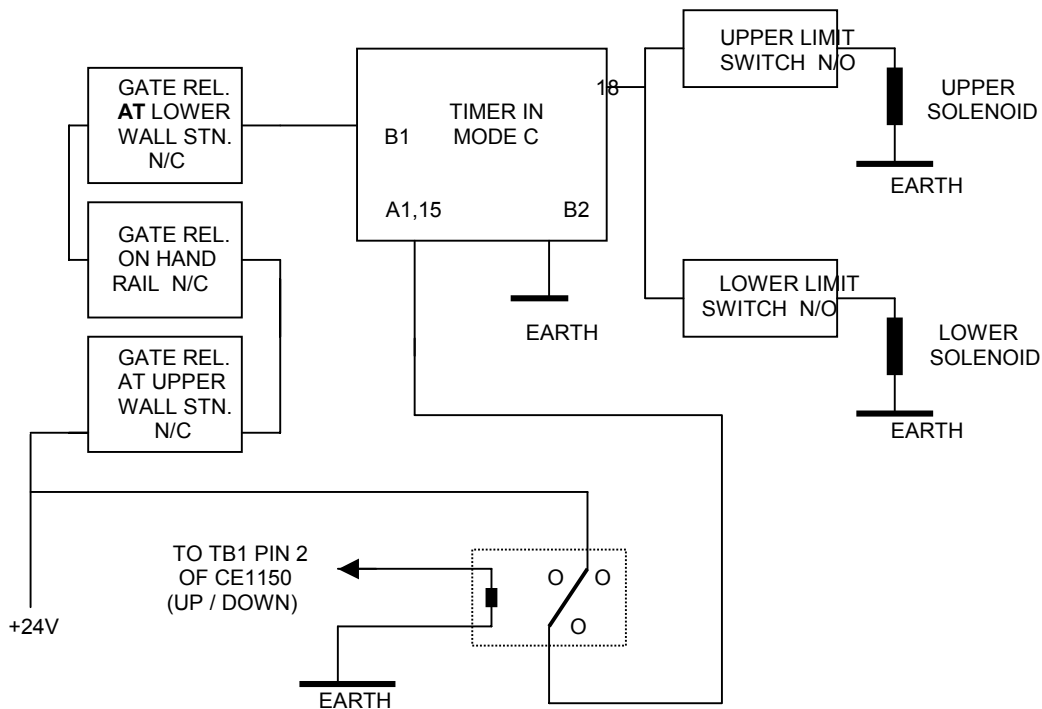
The melody lift has been developed with safety as one of the main design criteria. The below circuit and associated text describes the interlocks associated with the gate functionality.

If the lift is at top or bottom, pressing a gate release button will remove 24 volts from timer contact B1 and trigger the timer.

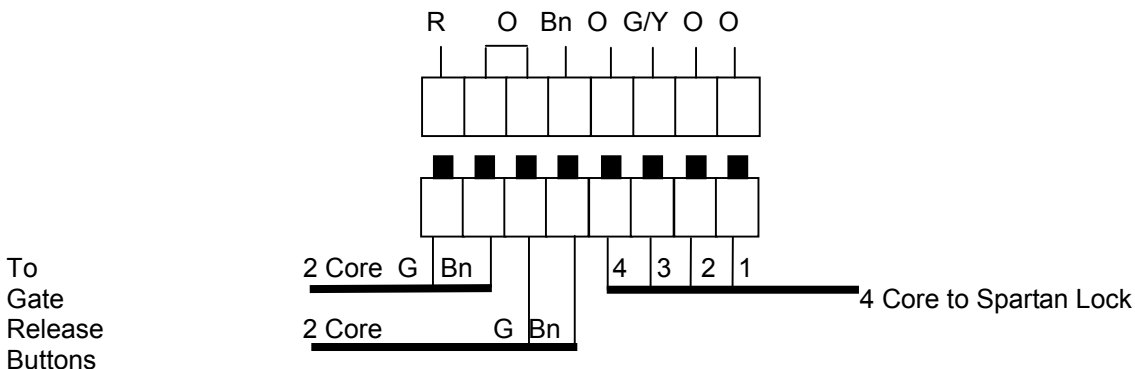
The upper solenoid will only be powered from the timer if the lift is at the top (via the upper limit switch) and similarly the lower solenoid when the lift is at the bottom via the lower limit switch.

In the circuit below, when the lift reaches the top or bottom and the up/down button is released, the appropriate gate is released for 2 seconds. If the lift is left after the timer has timed out, a further release of 2 seconds can be given by pressing any gate release button. If the lower gate is closed, there is a delay of 6 seconds before the lift will rise when the up/down button is pressed.

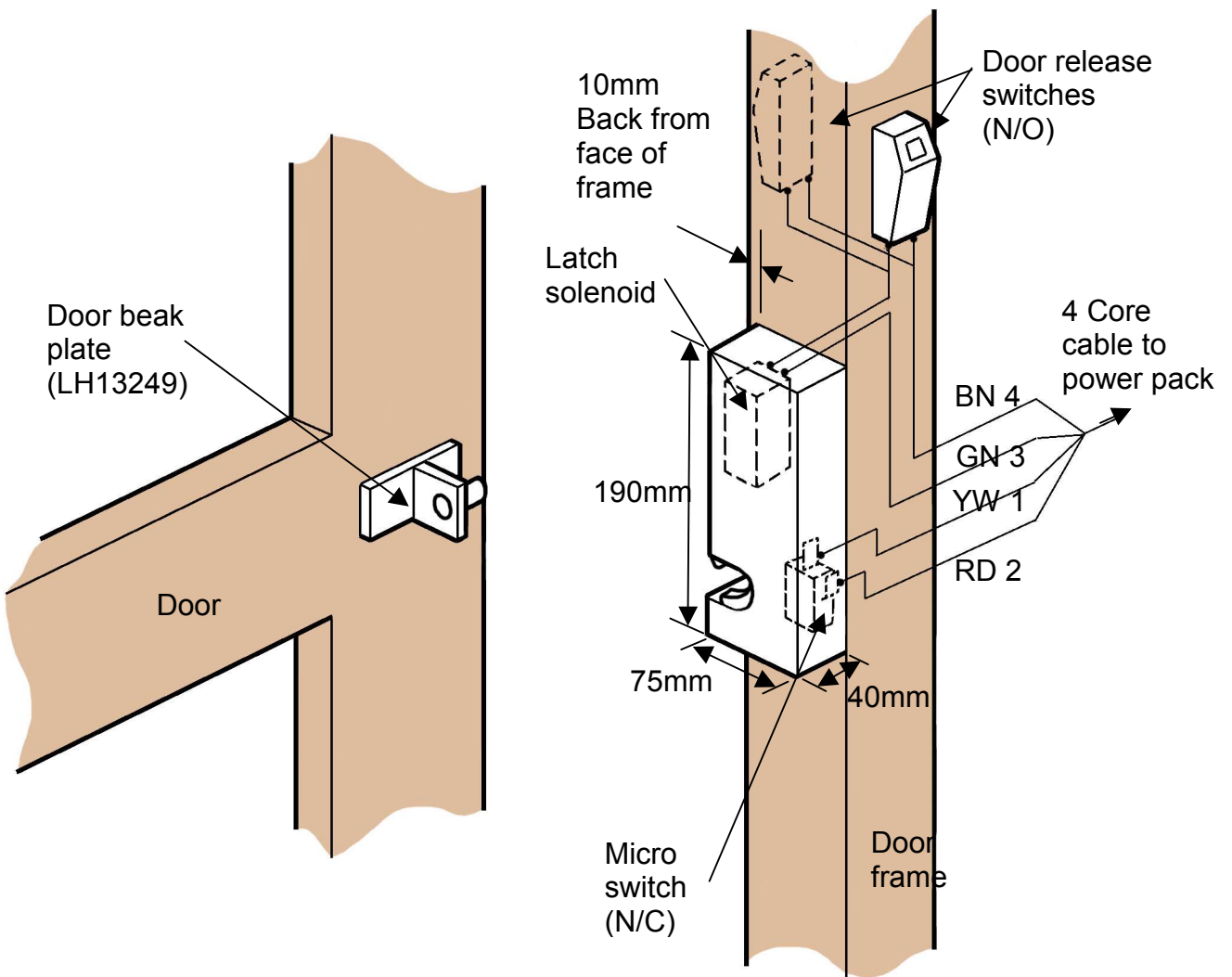
In order to use only one timer on the Melody one, a 24 volt relay is required to put 24v on pins A1 and 15 of the timer if the lift is stationary i.e. if none of the up/down buttons are not pressed.



### Eight Way Connector Wiring (Reconnected on site)

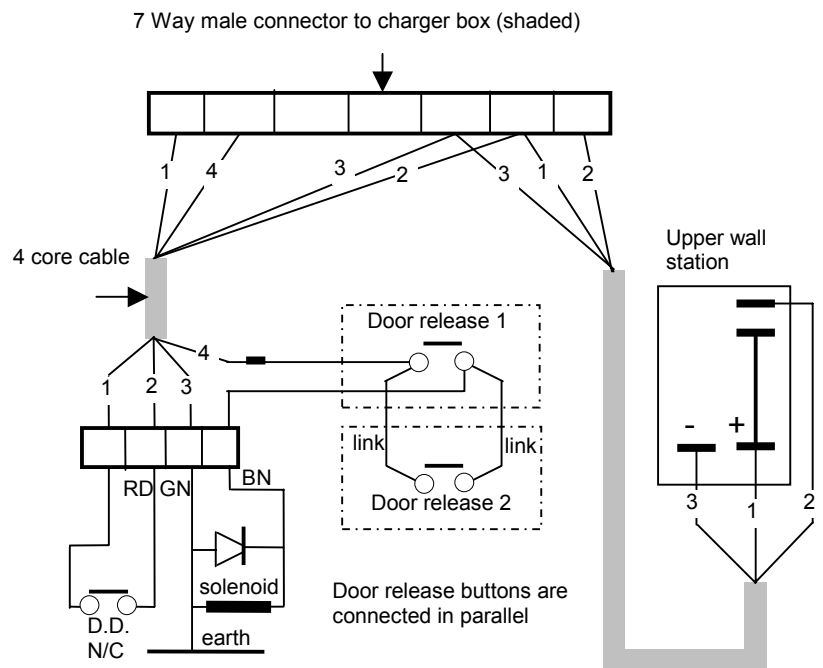


## Terry Melody 1 Upper Gate Interlock Wiring



If a gate latch assembly is to be fitted at the upper level of a Melody 1 lift, the wiring to the gate from the charger box is different. The latch assembly kit is comprised of 1 gate latch and 2 gate release button boxes (buttons are N/O one for each side of the door). Referring to circuit diagram SE120D, at the charger box the 7 way connector to the gate is replaced by the following wiring to the gate latch assembly.

**Note:** The timer in the charger box is not fitted.



## Appendix-Remote Control Enabler System

### Operation

The single channel control system is comprised of a transmitter CE1038 and receiver CE1037. The receiver is set in the 3 minute timer mode.

The receiver is powered by 12 volts dc and the controlled output is a N/O contact. (The receiver is a black box inside the control box)

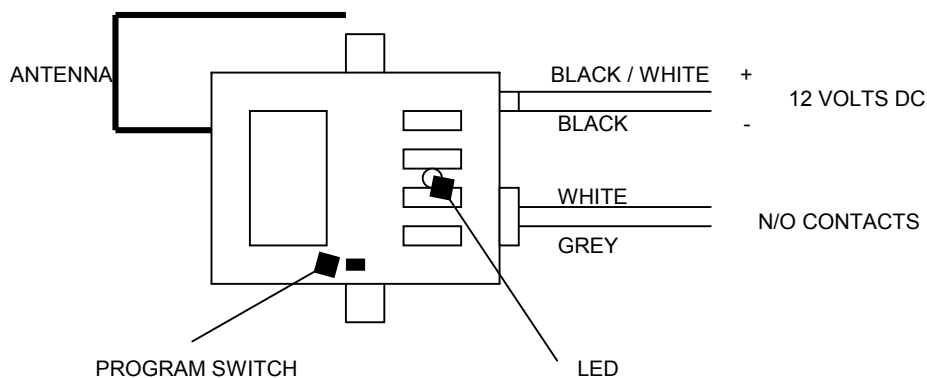
The remote radio control enabler is supplied factory set. If the lift has been left in storage or disconnected from the mains for a long period it maybe necessary to reprogram the receiver as per stages 1 and 2 below. When programming a new key fob only stage 1 needs to be carried out.

### Stage1-Reprogramming of key fobs

- 1) Use a ball pen and push the programming switch until the LED starts flashing then release. It is now in programming transmitter's mode.
- 2) Within 5 seconds, press the button on the fob and hold it pressed until the LED is on continuously then release the button.
- 3) The receiver is now programmed to the transmitter frequency.
- 4) To check that the receiver is programmed to the transmitter, press the transmitter button and the N/O contacts on the receiver should momentarily go S/C

### Stage2-Programming the output timer

1. Use a ball pen and push the programming switch until the LED starts flashing then release and push the switch again until the LED flashes at a slower rate. It is now in programming output timer mode.
  2. To obtain the 3 minute timer function push the transmitter button four times. It should now flash four times then pause.
- To exit the programming output timer mode wait 15 seconds to allow the system to automatically exit the mode.



LAYOUT OF CE 1037 RECEIVER



## Megger Testing

### Earth continuity test

Connect a multimeter between the top terminal of the 12 way male connector (earth) and all exposed metal including the Mascot charger box. All resistance readings should be < 1.0 ohm.

### Megger tests

- 1) Disconnect the 6 way male connector and the 2 – 3 way male connectors from the 12 way female connector to the main loom.
- 2) At the charger box, remove the 2 – 7 core cable connectors from the main charger box connectors.
- 3) Referring to SE150A diagram, megger test between the terminals coloured W, BK, BL, BR \*G and earth G/Y of the 6 way connector. Do not megger the Red Wire this is connected to the timer.

- 4) Megger test between the following terminals of the 6 way male connector :-

From W to BK, BL, BN and G  
 From BK to BL, BN and G  
 From BL to BN and G  
 From BN to G

- 6) Megger test between 1 and 2 terminals of each of the 3 way male connectors on the car station connector.
- 7) Disconnect the 13 way female connector from TB1 of the CE1080 board and remove the 25 amp battery fuse and 5 amp charger fuse.
- 8) At the 13 way female connector, Megger between the following connections :-

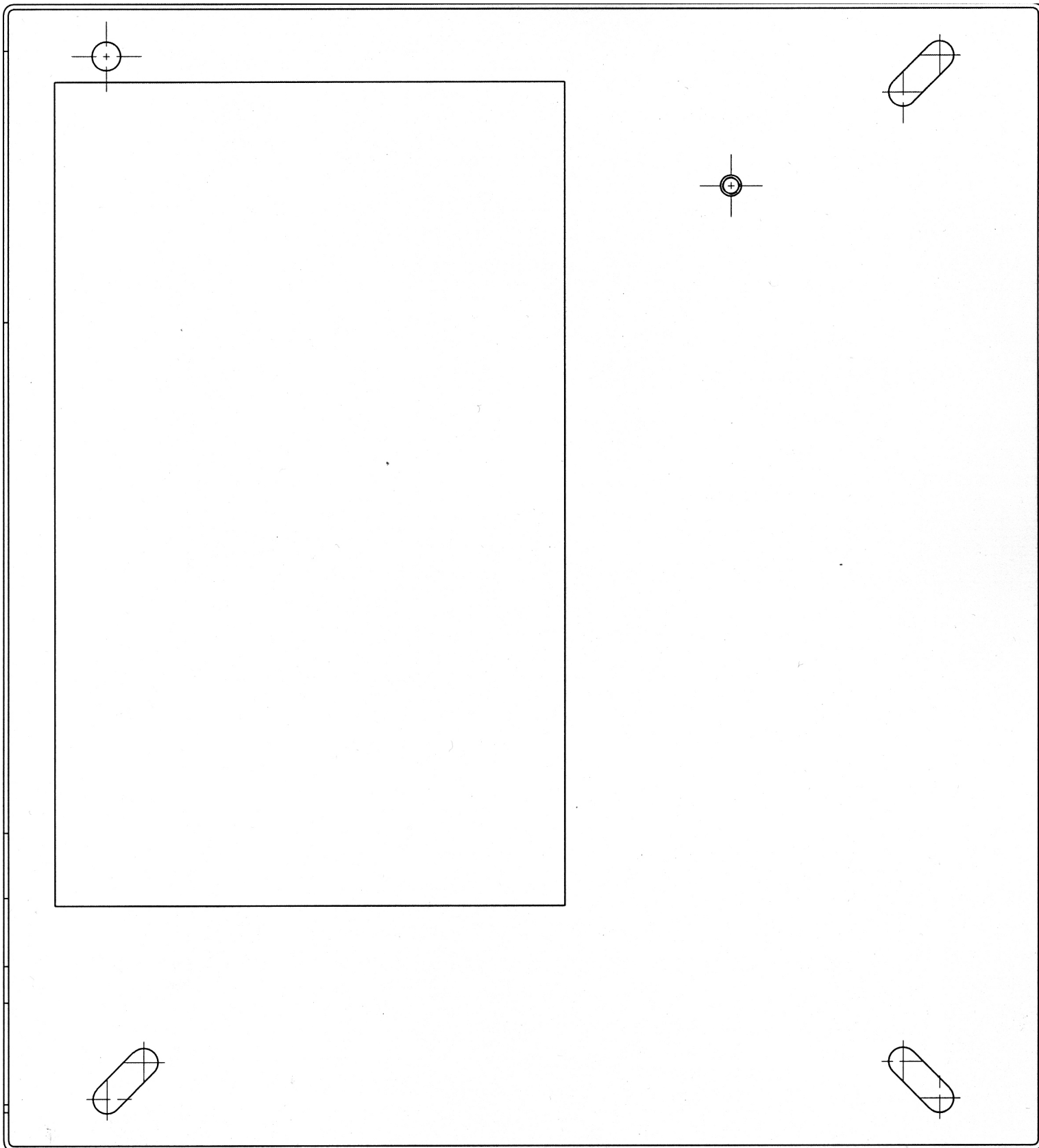
2 to 3, 5, 7, 9 and 11.	(from up/down to other circuits).
3 to 5, 7, 9 and 11.	(from up ramp to other circuits).
5 to 7, 9 and 11.	(from top limit to other circuits).
7 to 9 and 11.	(from dn S/E to other circuits).
9 to 11	(from anti-crp to other circuits).

- 9) At the upper level gate, disconnect the 7 core cable connector and megger test between all wires and earth and wire to wire.
- 10) Replace all connections.

All megger readings should be > 1.0 M Ohms.



**Charger Box Template**





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## Client Check List

Lift No:

- Control locations and operation
- Safety features
- Emergency lowering procedures
- Cleaning procedures
- Power supply location
- Contents of Lift operation booklet
- Contact details

I confirm that the engineer has taken me through the above checklist.

Client name (or representative):

Date: