



## Models 1396 and 1398 Operation and Service Guide



Model 1396 (Less dowel holes and apparatus)



Model 1398 (With dowel holes and apparatus)

# Models 1396, 1398 Power Height Parallel Bars

## Operation and Service Guide

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### CONSTRUCTION

The drive system consists of (4) "TMA" synchronized lifting columns which can be elevated and lowered by means of control box and associated control switch with LED height readout (in inches).

### LIFTING COLUMNS

The TMA are electrical linear drives in no-clearance aluminum guide tubes. Surfaces of vertical lift columns are anodized aluminum. A 24 V-DC motor drives through a worm drive and threaded rod. A tapped nut, which is firmly attached to the push drive, moves up and down the threaded rod and this provides the forward movement. Extension and contraction of the telescopic tubes is by means of changing the direction of the rotation of the motor.

### CONTROL BOX

The control and supply of the lifting columns is by means of an associated micro-processor control unit IE.

(4) Column system control unit ... LD-014 Control box is double insulated for safety.

## HAND SWITCH

Operation of the system is by means of an LD-011 Hand Control Switch (mounted on black wooden support post near one end of platform).

## OPERATING METHOD

Not designed for continuous use.

Intermittent 10%; 30 seconds ON

270 seconds OFF

Thermal overload: Unit will shut down automatically if motor overheats due to continuous use.

Unit will restart automatically after "cool off" period of up to 15 minutes.

## TECHNICAL DATA

Push Force (1 Lift Column) 1000 N

Stroke 15" (29" to 44" high)

Speed 2.1"/second

110V, 60Hz, 2.5 Amps

All electrical components are U.L. recognized components, furniture grade.

There is sufficient wheelchair clearance for most 16" and 18" wide seat wheelchairs, but insufficient clearance for 20" or wider seat wheelchairs.

## PATIENT WEIGHT CAPACITY

400 lbs.







NOTE: Handrail motors are designed to electrically adjust in height , and to be stable under use when at their fixed height level. **Motors are not designed to "lift" full weight of patient from sitting to standing position.**

## OPERATION (See hand control switch at top of page 7.)

Unit is pre-wired and pre-tested at factory ready for use. Set the platform in place and plug power cord into 110V wall outlet.

### IMPORTANT

Follow these instructions exactly upon initial use, as follows:






- ▶ Press  "Up" Button and elevate both handrails approximately 2" (not more) - the LED display will read-out the height in inches.
- ▶ Press  "Down" Button and lower both handrails until they are at lowest height (bottomed out). The unit will stop automatically at lowest level.
- ▶ Press  "Down" Button again for 5 seconds to make sure all (4) columns have bottomed out to their lowest height.
- ▶ Press  "Up" Button and elevate hand rails to maximum highest height of 44".
- ▶ Press  "Up" Button again for a second or two to make sure all (4) lift motors are at maximum height.
- ▶ Press  "Down" Button to lower to normal height level.

YOU ARE NOW READY TO OPERATE FOR NORMAL USE.

## MEMORIZING THE MEMORY POSITIONS

As the height adjustment is variable and random from patient to patient, we normally do not recommend use of memory control, but it is an option if needed.

With the memory capacity, you can specify a given handrail height. Up to four different heights can be memorized. These memorized positions can be later re-specified.

- ▶ Press  . An S appears in the LED display.
- ▶ Press one of the position keys  ,  ,  or  .

After the position key has been pressed, the number of the position key appears in the LED display next to S. After the memorization procedure, a double-click is heard, and after approximately 2 seconds the current height appears again in the LED display.

## POSITIONING TO MEMORIZED POSITIONS

**i** If a key is pressed during automatic positioning the handrails stop moving.

### Variant A

▶ Press and hold one of the position keys **1**, **2**, **3** or **4**.

The handrails move to the selected position as long as the key is kept pressed. If the key is released, the handrails stop.

If the key is kept pressed, the handrails keep moving until they reach the memorized position.

### Variant B (optional)

▶ Double-click one of the position keys **1**, **2**, **3** or **4**.

The handrails automatically move to the memorized position.

## MAINTENANCE AND CARE

### Maintenance

The motor cables and power cord should be periodically checked for any signs of wear or tear.

### Care

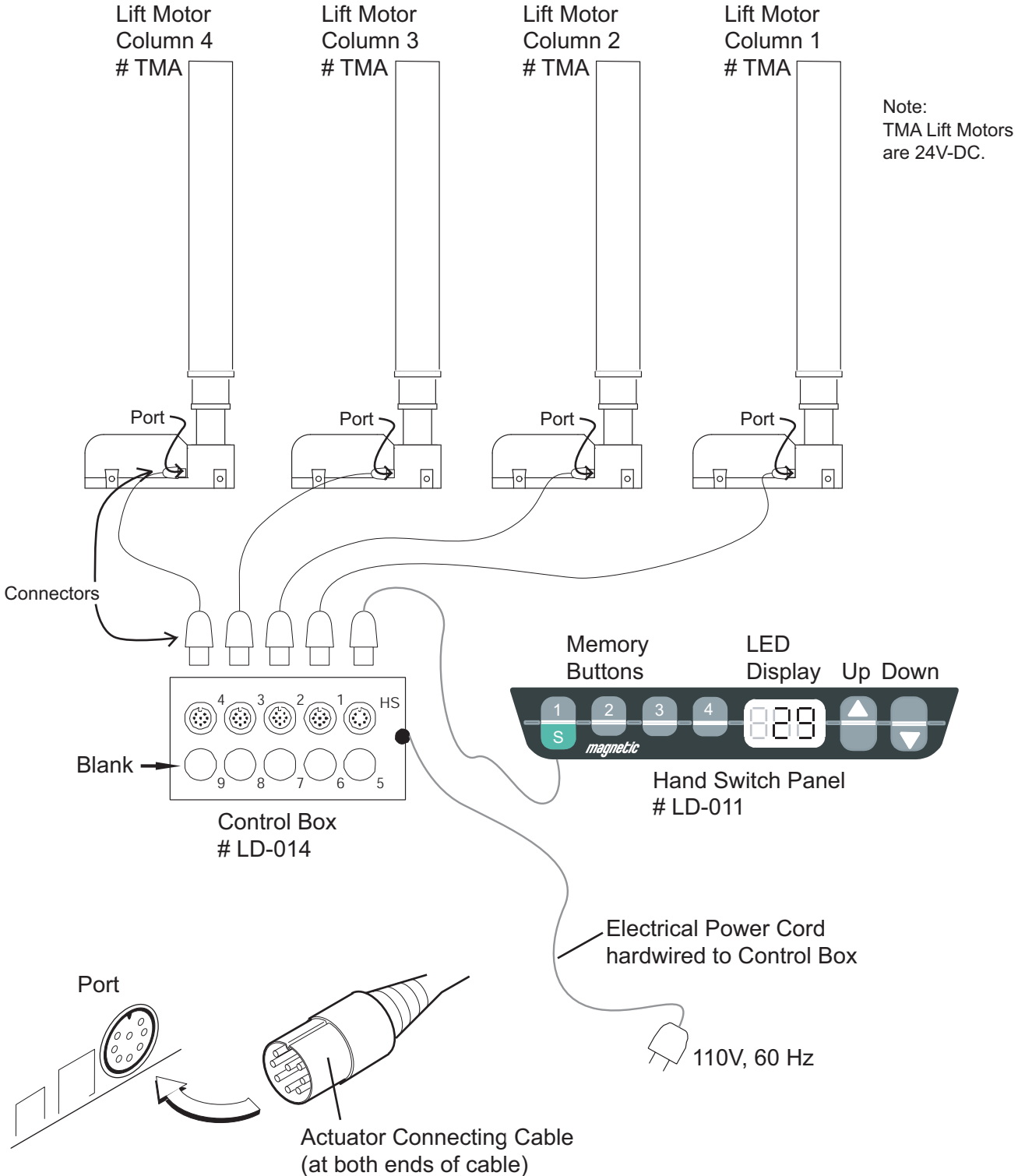
A damp (non-dripping) cloth is best for manual cleaning.

### Responsibility

Responsibility for the operation of the apparatus falls in all cases on the proprietor or operator, if the apparatus has been improperly installed, maintained or adjusted, or if use is made of it which does not correspond with its intended use.

# 1396/1398 WIRING DIAGRAM

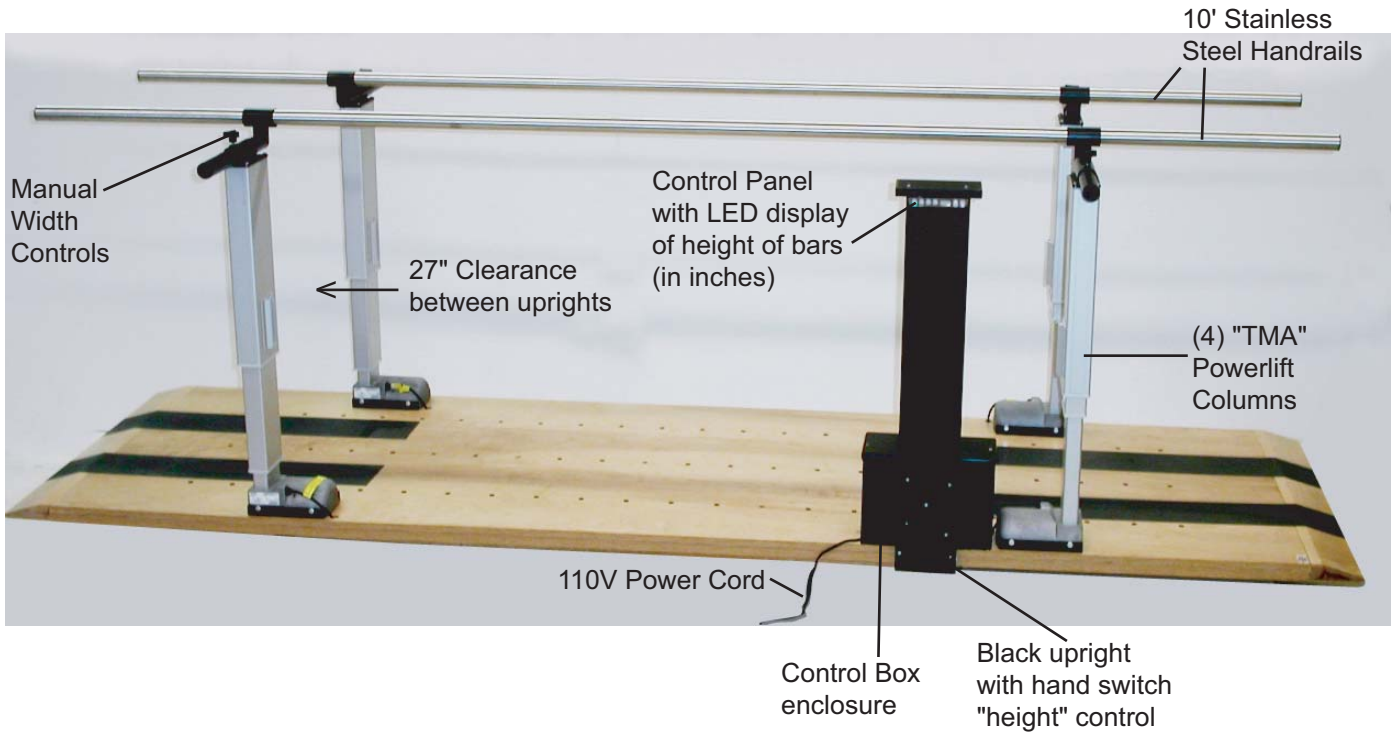
ALL CORD CONNECTIONS FROM LIFT COLUMNS TO CONTROL BOX ARE PRE-CONNECTED AT FACTORY. DO NOT REMOVE CONNECTIONS WITHOUT FACTORY AUTHORIZATION.



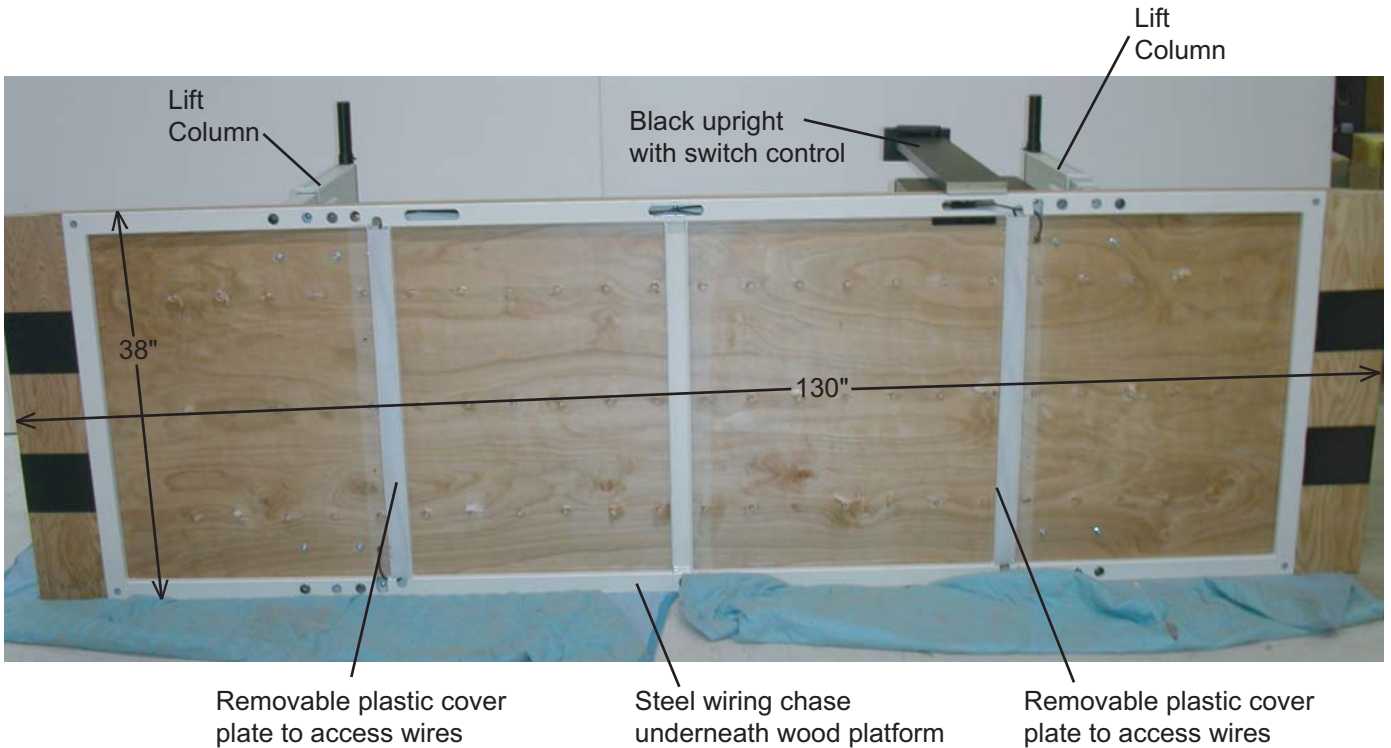
Unit is shipped fully wired and ready for operation.

**CAUTION: You must remove 110V power plug before attempting any factory authorized repair.**

**MODEL 1396 AND 1398 (1396 has no dowel holes in platform)**

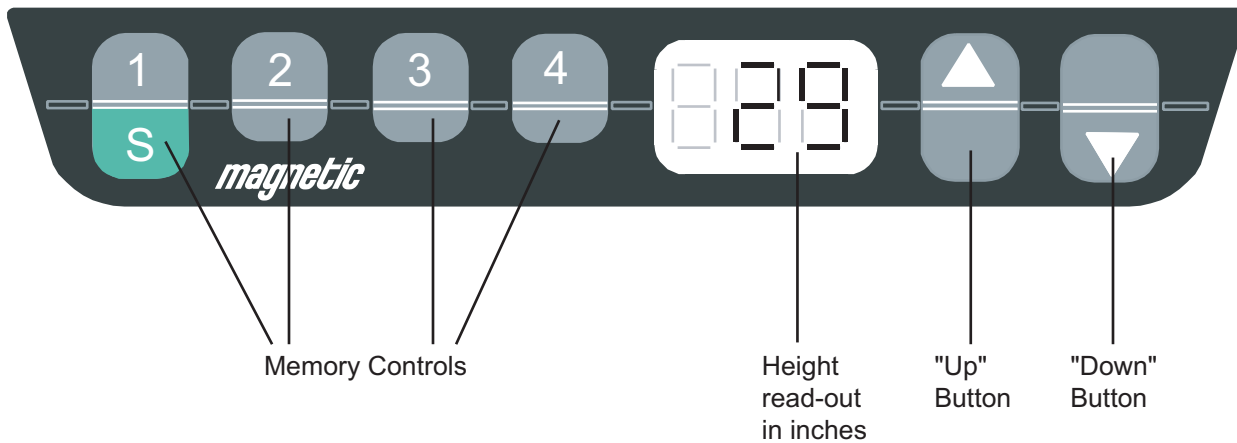


**DETAIL OF STEEL WIRING FRAME (UNDER WOOD PLATFORM)**

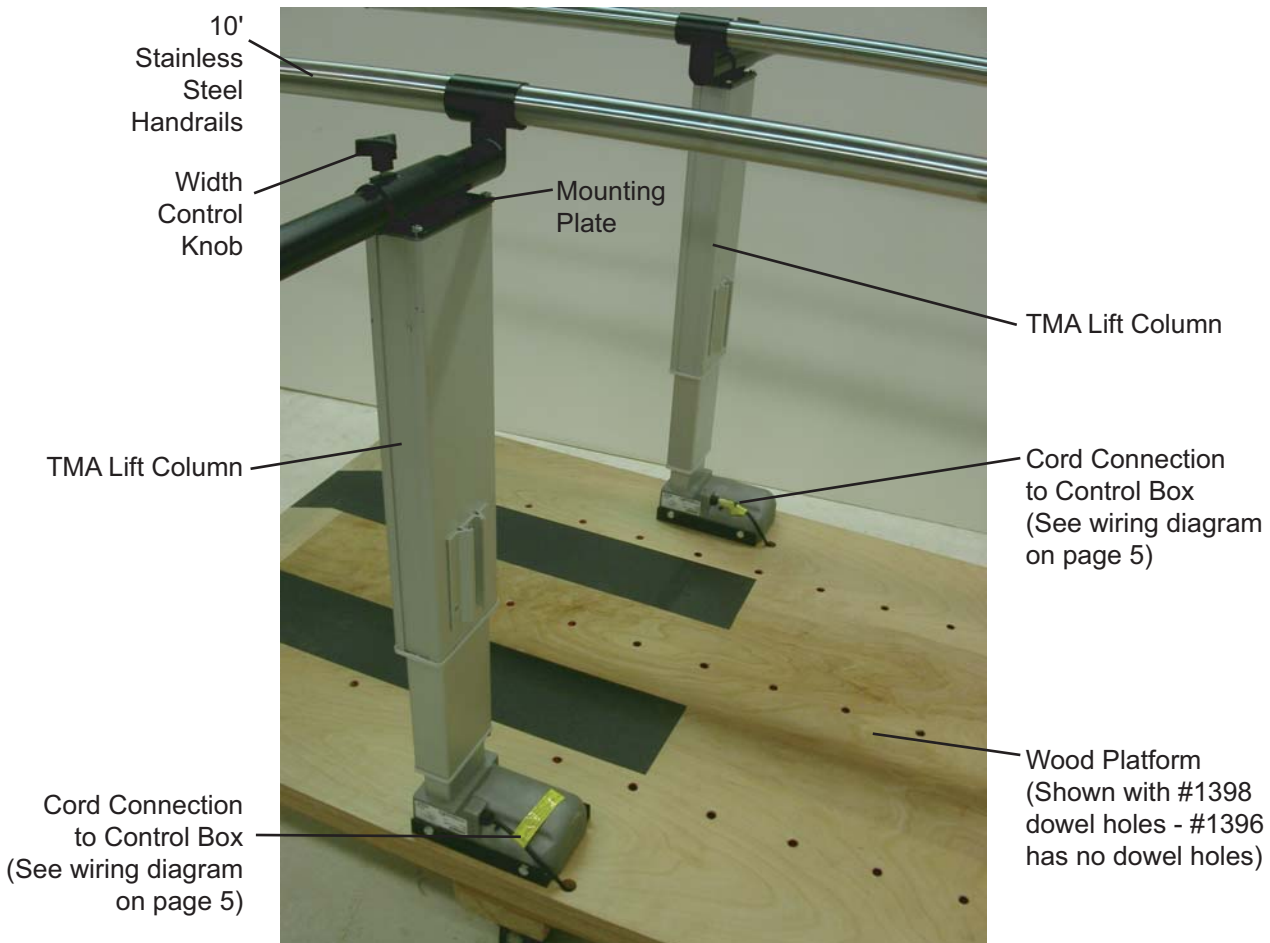


## DETAIL OF HAND CONTROL SWITCH WITH LED DISPLAY OF HEIGHT READ-OUT

See page 2 for initial operating instructions upon delivery.

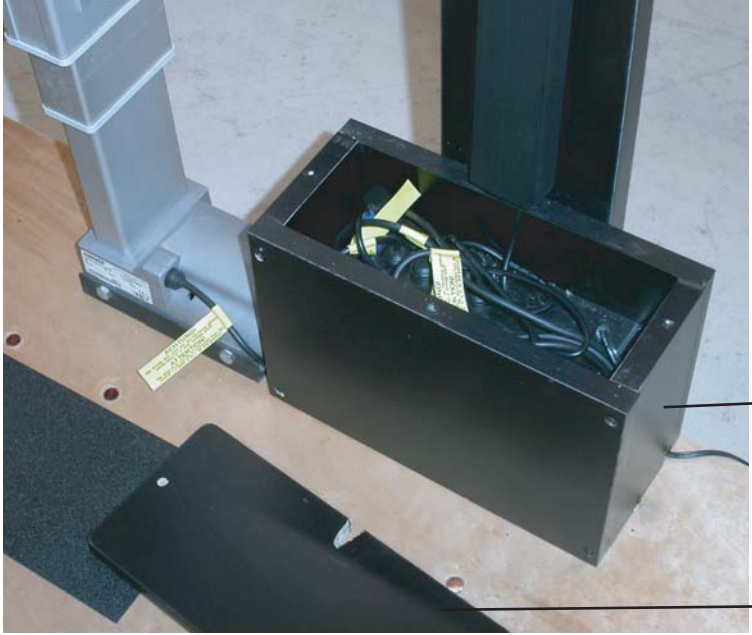


**ALL CORD CONNECTIONS FROM LIFT COLUMNS TO CONTROL BOX ARE PRE-CONNECTED AT FACTORY. DO NOT REMOVE CONNECTIONS WITHOUT FACTORY AUTHORIZATION.**





**DETAIL OF CONTROL BOX WITH LID "OFF"**



**CAUTION:**  
Do not open or access control box  
without prior factory authorization.  
Disconnect 110V power cord before  
authorized access.

Control Box

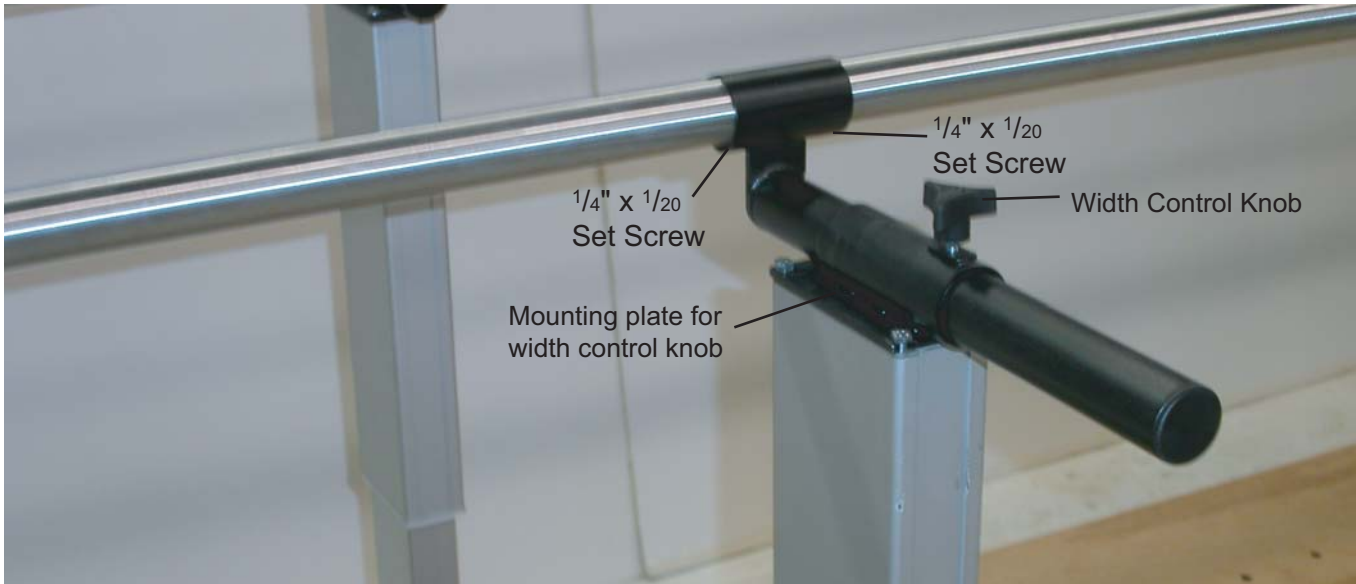
Lid Removed

LD-014  
Control Box  
(shown with lid "off")

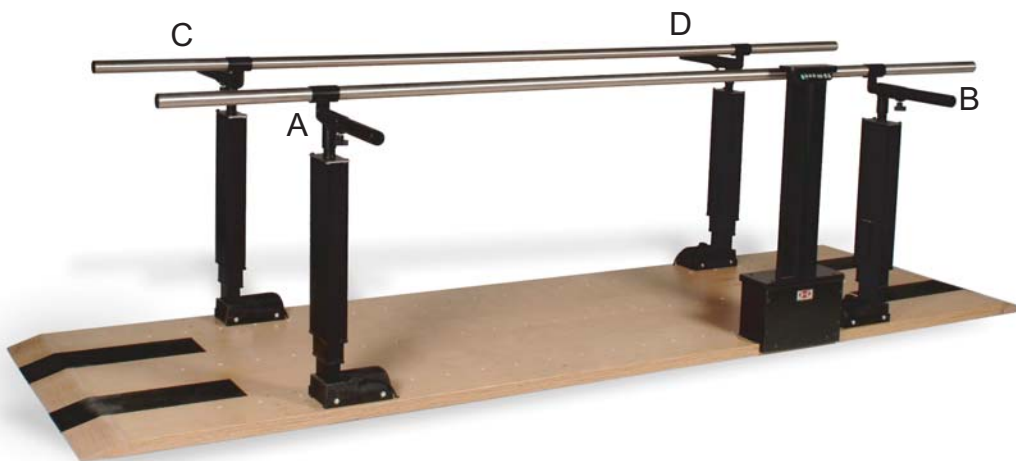
Port 4   Port 3   Port 2   Port 1   Control Switch Port



## DETAIL OF WIDTH ADJUSTMENT KNOB OF STAINLESS STEEL HANDRAIL

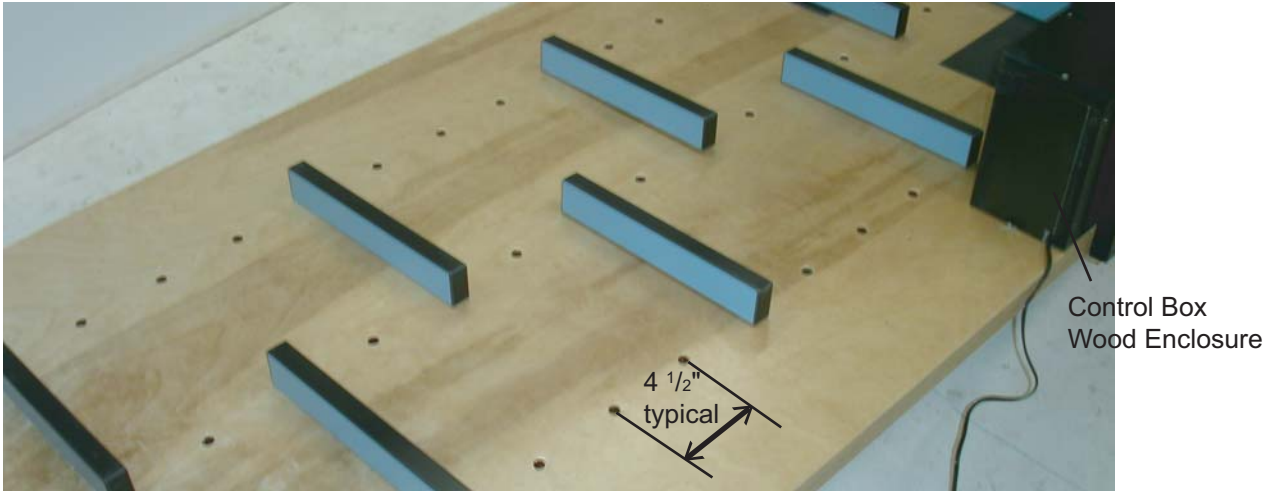


To adjust width, turn both width control knobs counter-clockwise until "loose", then move handrail "in" or "out" as needed, and retighten friction control knobs to lock-in width position of handrails. Width adjusts from 15" to 28" wide. Each side should be adjusted at the same time. See image below: Adjust side A-B, then adjust side B-C.

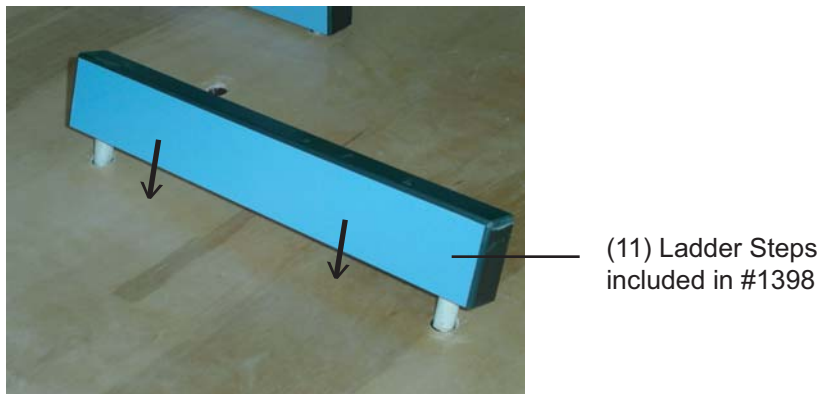


**1398 ONLY**

Detail showing (23) rows of holes in wood platform for variable placement of "blue" ladder steps



Detail showing insertion of ladder step into dowel holes in wood platform.



Detail of (1) balance beam 6' 5" long x 6" wide x 3" high.



Detail of dowel pin of balance beam.

Position dowel pins on each end of balance beam in center row of dowel holes before use.

