

# Hill 90E

Exam Chair



  
Hill Laboratories  
COMPANY

REFERENCE MANUAL

# *Congratulations!*

And welcome to the Hill Laboratories family

HillLaboratories Company has been making

quality a family business since 1945.

Your Hill HA90E is built in a tradition of

innovation and value that Hill Laboratories products

have become known for.

Our good name rests on the confidence that

your Hill Chair will provide you with solid, reliable service

for many years to come.

# *At Your Service*

## The Hill Laboratories Guarantee

Your Hill Laboratories HA90E has been thoroughly tested and inspected before shipment. All parts are guaranteed against defect in materials for one full year from date of purchase. During this period, any such defect will be remedied by Hill Laboratories or by a factory-authorized repair service without charge.

Tables damaged by mishandling or accident will be repaired at a reasonable charge.

All correspondence should be directed to your local dealer, or when this is not possible, to Hill Laboratories directly.

We appreciate your business and your confidence in our product. Our aim is to provide you with excellent service and satisfaction for many years to come.

*Howard A. Hill*

President of Hill Laboratories Company

Table Serial Number \_\_\_\_\_

# Ready for use

**Your Hill HA90E comes ready to plug into any 115 volts outlet.**



## Specifications

### Table Rating

Lifts up to 400 lbs. Static Tested at 1000 lbs.

**Height Range** - 22" - 35"

**Standard Width** - 26"

**Length Reclined** - 6'1"

### Table Base Skirting

Acrylic thermo-plastic

### Foam

Ultra-Cell® for comfort and shape retention

### Shipping Weight

Approximately 250 lbs

### Electric Requirements

115 v~, 60 Hz., 5 A (single motor), 10 A (2 motor), where specified - 230 v~, 50 Hz.

**Note:** Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked hospital only or hospital grade. There is no EMI concern related to the safe operation of this table.

### Transportation and Storage Conditions

#### Ambient Temperature Range:

-30°C to +60°C (-22°F to 140°F)

#### Relative Humidity

0% to 90% (non-condensing)

# Table Care

## Cleaning Your Table

Your Hill Table comes upholstered in a highly durable vinyl material. Its appearance is guarded by Prefix™ brand protective finish. Your upholstery may be cleaned with the Hill Laboratories Vinyl Cleaner or any non-abrasive household detergent without change to surface luster. Stubborn stains can be cleaned with most common solvent cleaners such as naphtha (lighter fluid), rubbing alcohol (IPA type), toluene, Coleman gas, turpentine (paint thinner), and nail polish remover (50/50 mixture of acetone and water) with no change to surface luster or color. One hundred percent acetone can also be used for short periods but it is suggested that it first be tested on an inconspicuous area of the table.

**Caution:** These solvents are highly flammable; exercise proper care when cleaning with these materials and do not use near open flame or intense heat. Wear rubber gloves during all cleaning activities. When cleaning other parts of your table (besides upholstery) use only nonabrasive household detergents and water.

## Cautions and Symbol Explanation

**Caution:** Be sure to unplug your table before performing any maintenance on the table.

**Caution:** The table should be checked once a year to make sure all internal and external bolts are secure.

**Caution:** The table should be in its lowest height position when not attended.

**Caution:** In case of power outage, the table will rely on the generator back-up of the facility where the table is installed for powering the table to its lowest position.

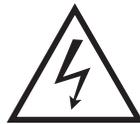
**Caution:** The power cord shall be located to avoid objects being rolled over or placed on top of it and also to avoid people tripping over it. Damaged cords should be replaced with another of hospital grade.

**Caution:** Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked hospital only or hospital grade.

**Symbols - Each of the symbols below are used in your product labeling. An explanation of each is below.**



**Attention Symbol**  
consult accompanying  
documents



**Dangerous Voltage  
Symbol**



**Type BF Applied  
Part Symbol**



**Ground  
Symbol**

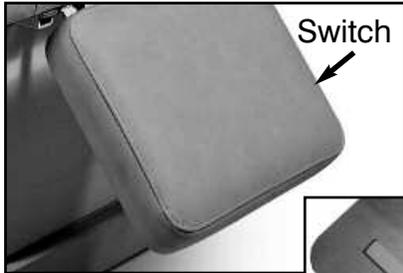


**Alternating Current  
Symbol**

# Table Features

## Manual Lift Back

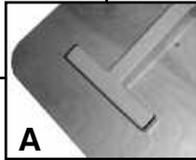
The Manual Lift Back is controlled by a manual switch located on the right side of the chair as you face the back. Press and hold the switch to freely adjust the angle of the cushion. Release to lock the cushion in place.



Switch

## Fold-Down Foot Section

The Fold-Down Foot Section has a slide out T-bar which supports the foot cushion in the "UP" position (see "A") and slides back under the seat when not in use. For chairs equipped with a manual switch-lock, press and hold the switch (as seen above) to freely adjust the angle of the cushion. Release to lock the cushion in place.



A

## Stirrups

The 90MD stirrups are located on both sides of the main seat cushion. Their length can be adjusted by loosening the black knob (A, photo 7), pulling the stirrup out to the desired position, and then tightening the knob again. When not in use, the black foot section folds down and under the cushion (photo 8).

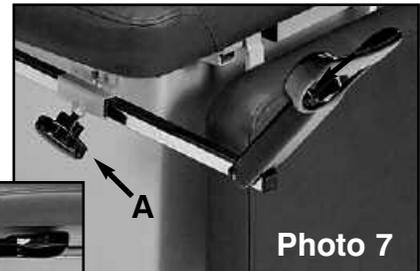


Photo 7



folded back

Photo 8

## Foot Pedals



The foot pedal controls the height of the chair. Pressing the right side raises the elevation and pressing the left side lowers the height. An additional foot pedal may be added if an optional electric lift back is added.

# Table Features

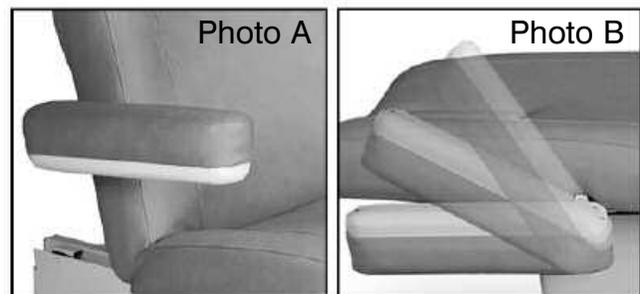
## Adjustable Headpiece

The optional adjusting headpiece can be moved in both the forward-backward direction and up-down. To adjust the forward position of the headpiece, loosen the black knob directly behind the head cushion ("A" in photo) and adjust the cushion position. Then, retighten the knob. Repeat the same procedure for the up and down adjustment ("B" in photo). Rated at 20 pounds and tested with 160 pounds.



## Fold-Down Armrests

When the optional fold-down armrests are positioned in the normal position (shown in Photo A), they can be easily folded back by lifting from the bottom until the armrests are parallel with the back seat cushion (Photo B). Rated at 10 pounds and tested with 80 pounds.

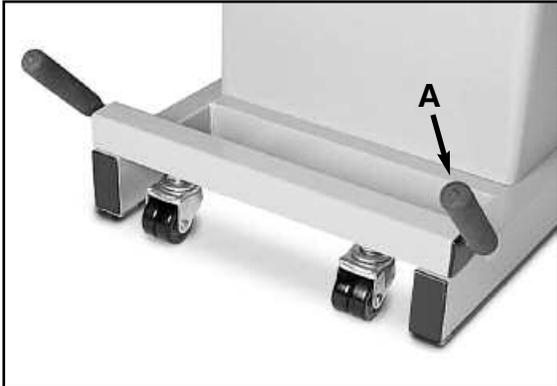


## Rocker Foot Pedal

The optional Rocker Foot Pedal operates the height of the table from either side of the table base. Press the right side of the pedal for "UP" and the left side for "DOWN". The pedal will return to the neutral position when released.



# Table Features



## Casters

The optional casters are located at both ends of the table base and facilitate easy table movement. The photo shows the casters in the disengaged position. To move the table you must engage the casters at both ends of the base. To engage, push the handles ("A") down towards the floor - this will lift the table approx-

imately 1/2" from the floor. Repeat this step with the casters at the opposite end of the base. Move the table as desired. Be sure to disengage both sets of casters before using the table. **IMPORTANT:** Never move table with caster while anyone is on the table.

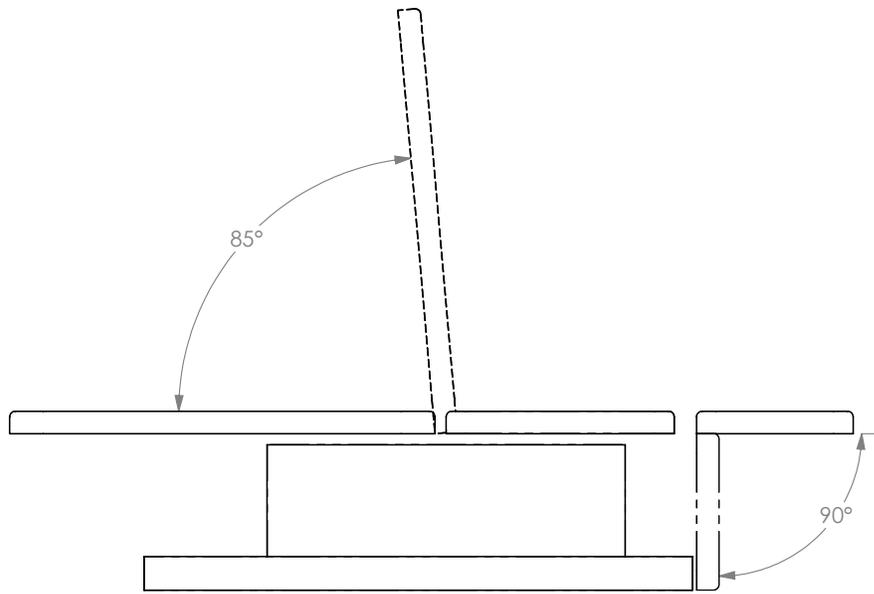
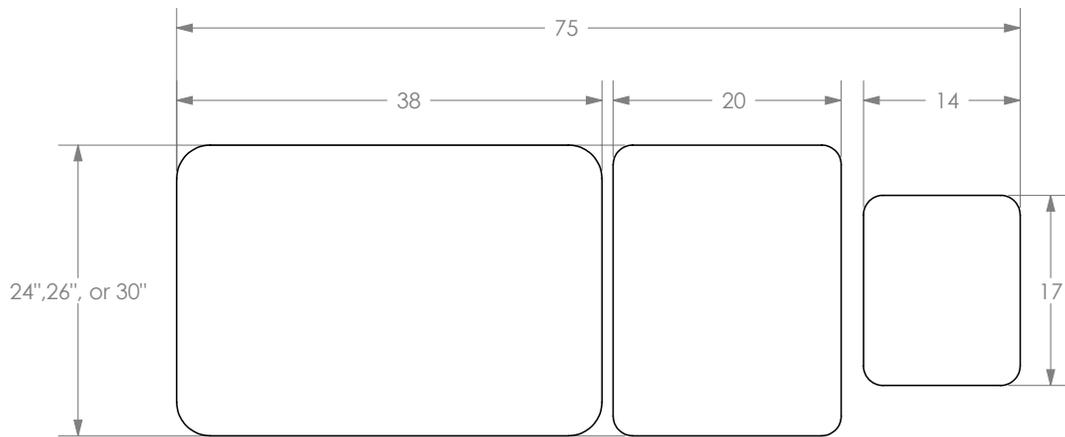
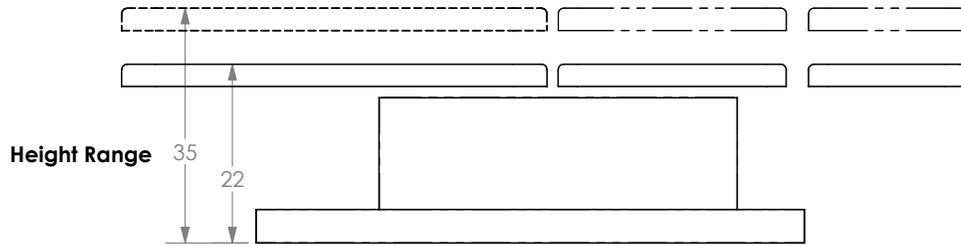
## Examination Armboard



The optional Examination Armboard inserts from either side of the chair and tightens with a knob. It can be positioned and locked at various angles vertically and horizontally as shown in the photos left and right. The Armboard is rated at 10 pounds/tested with 80 pounds.

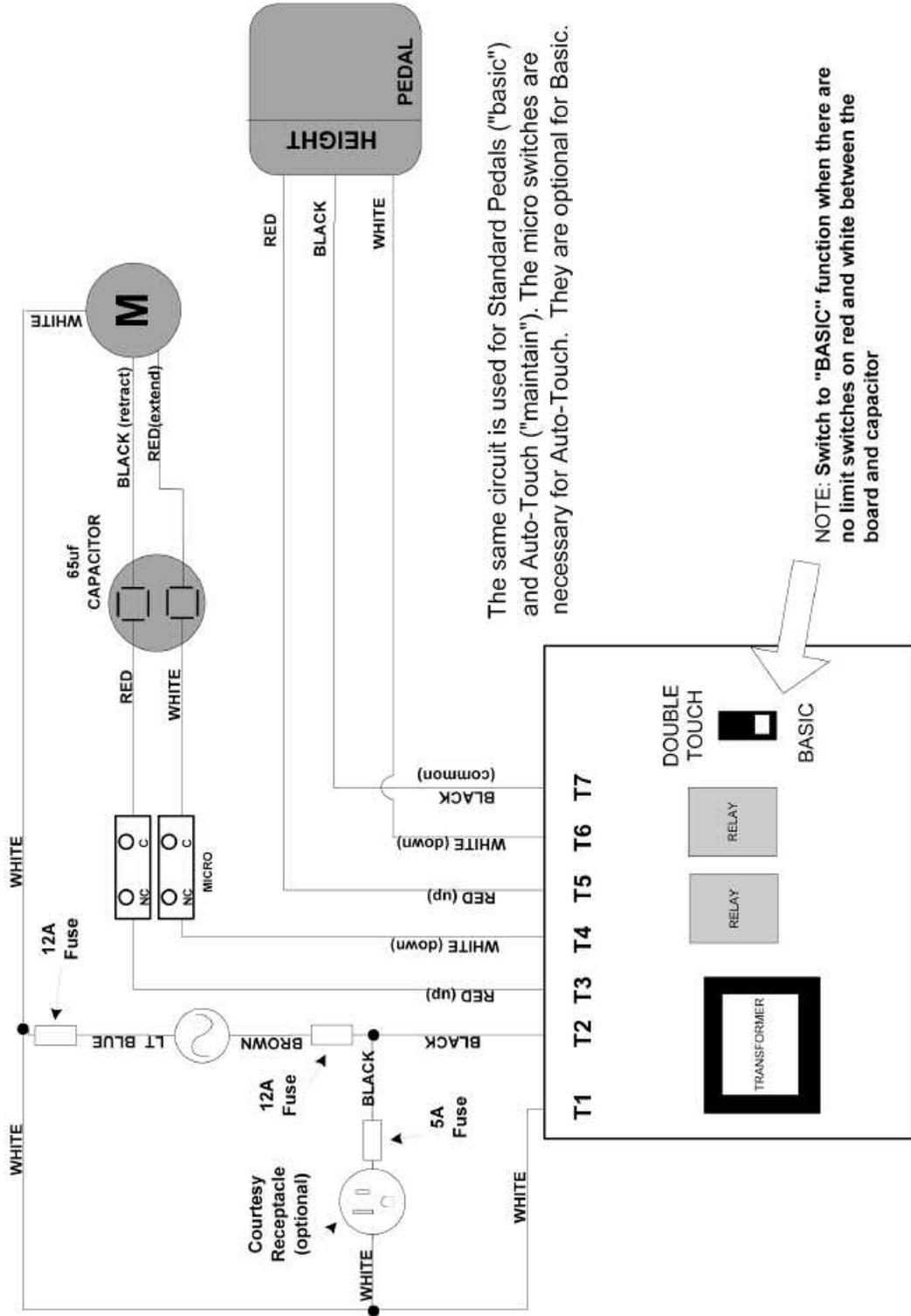
# Diagrams

## 90E Model Dimensions



# Wiring Diagrams

## Single Motor Diagram

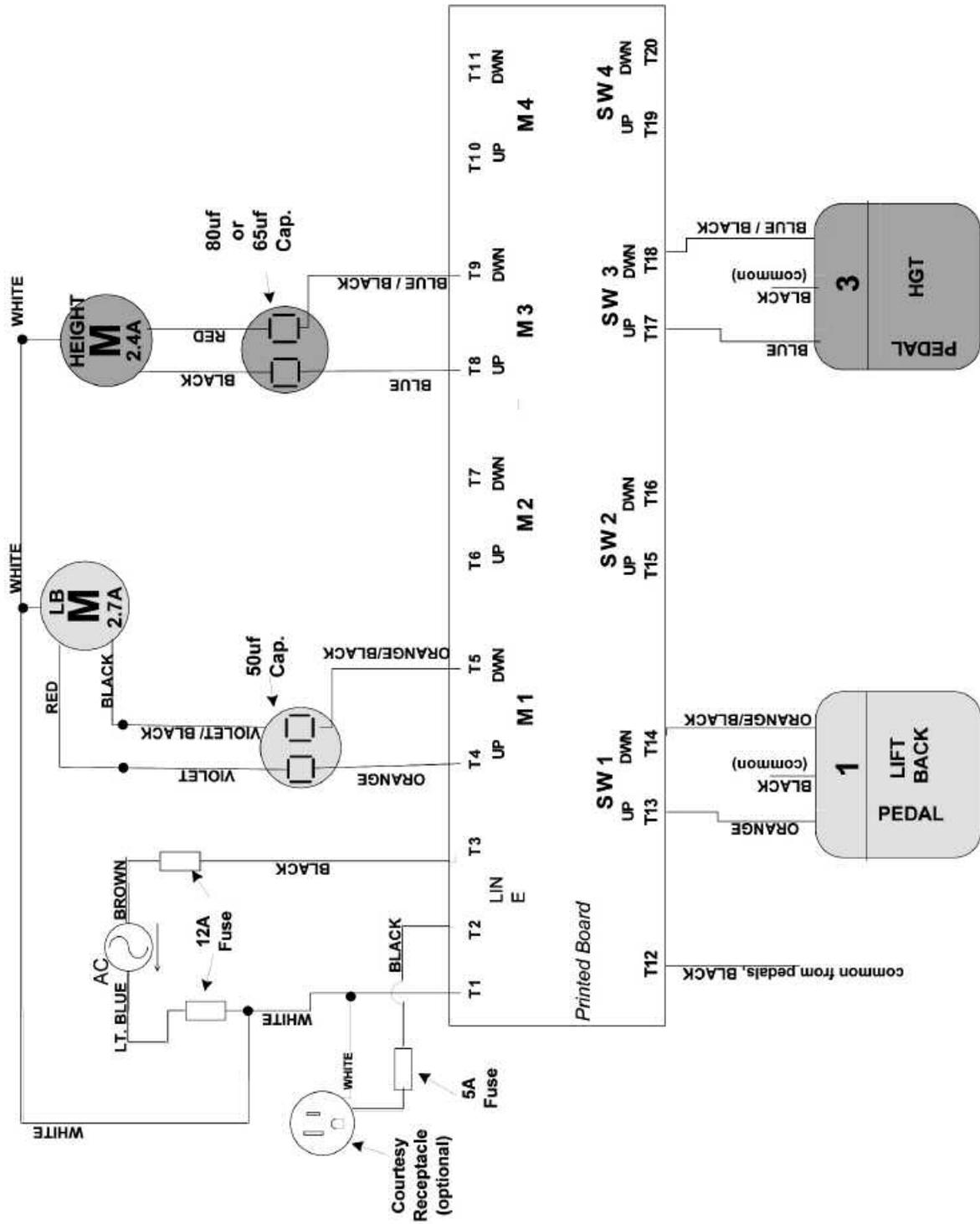


The same circuit is used for Standard Pedals ("basic") and Auto-Touch ("maintain"). The micro switches are necessary for Auto-Touch. They are optional for Basic.

NOTE: Switch to "BASIC" function when there are no limit switches on red and white between the board and capacitor

# Wiring Diagrams

## Two Motor Diagram





**Additional service needed?**

**Contact your local dealer or reach us directly:**

Phone: 1-877-445-5020 • Fax: 610-647-6297 • Email: [Support@HillLabs.com](mailto:Support@HillLabs.com)

**Technicians are available 9 am - 4 pm E.S.T., Monday - Friday.**

# Tables Manufactured by Hill Laboratories



Anatomotor  
Massage w/Traction



90C



Air90C



Air-Flex  
w/4 Drops



Hi-Lo



HA90



HA90 Lift Back



Mat Table



PT Mobilization



Rath Mechanical  
McKenzie Technique



Repex Table  
McKenzie Technique



PT Tilting



HA90E



90MD



90D Dermatology  
Chair



90W Wound Care Chair



Podiatry Model



Counterstrain  
(multi-positional)



HA90V Tilt  
Vascular/Diagnostic



Posture Angel™  
Active Rehab System



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