

Hill AFT / AirAFT Table

Owner's Manual




Hill Laboratories
COMPANY

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Hill Laboratories
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Quality and Innovation Since 1945.

Congratulations!

And welcome to the Hill Laboratories family.

Hill Laboratories Company has been making quality a family business since 1945. Your Hill AFT Table 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 Table will provide you with solid, reliable service for many years to come.

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At Your Service

The Hill Laboratories Guarantee.

Your Hill Laboratories table has been thoroughly tested and inspected before shipment. All parts are guaranteed against defect in materials for one full year from the date of purchase. During this period, any such defect will be remedied by Hill Laboratories or by a factory-authorized repair service at no 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 products. Our aim is to provide you with excellent service and satisfaction for many years to come.



Howard A. Hill
President, Hill Laboratories

Hill AFT Manual

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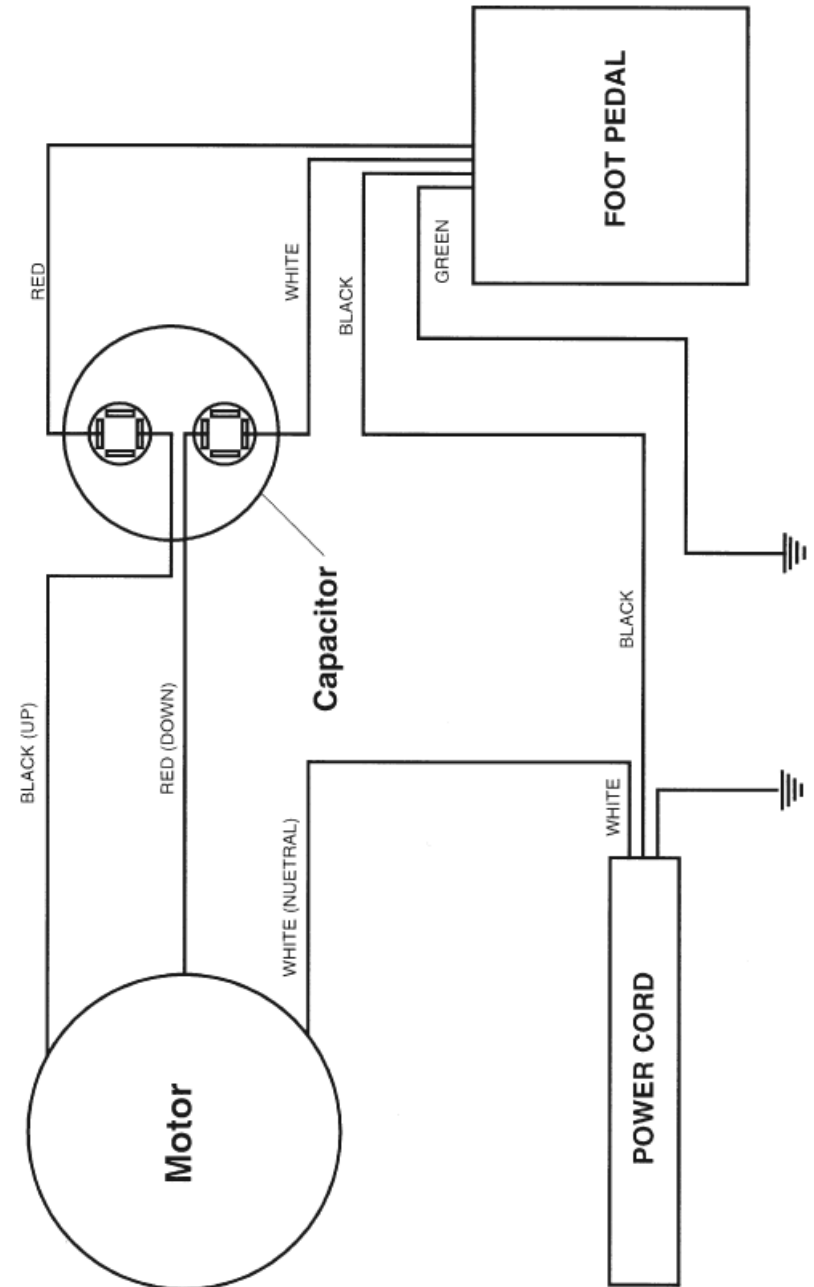
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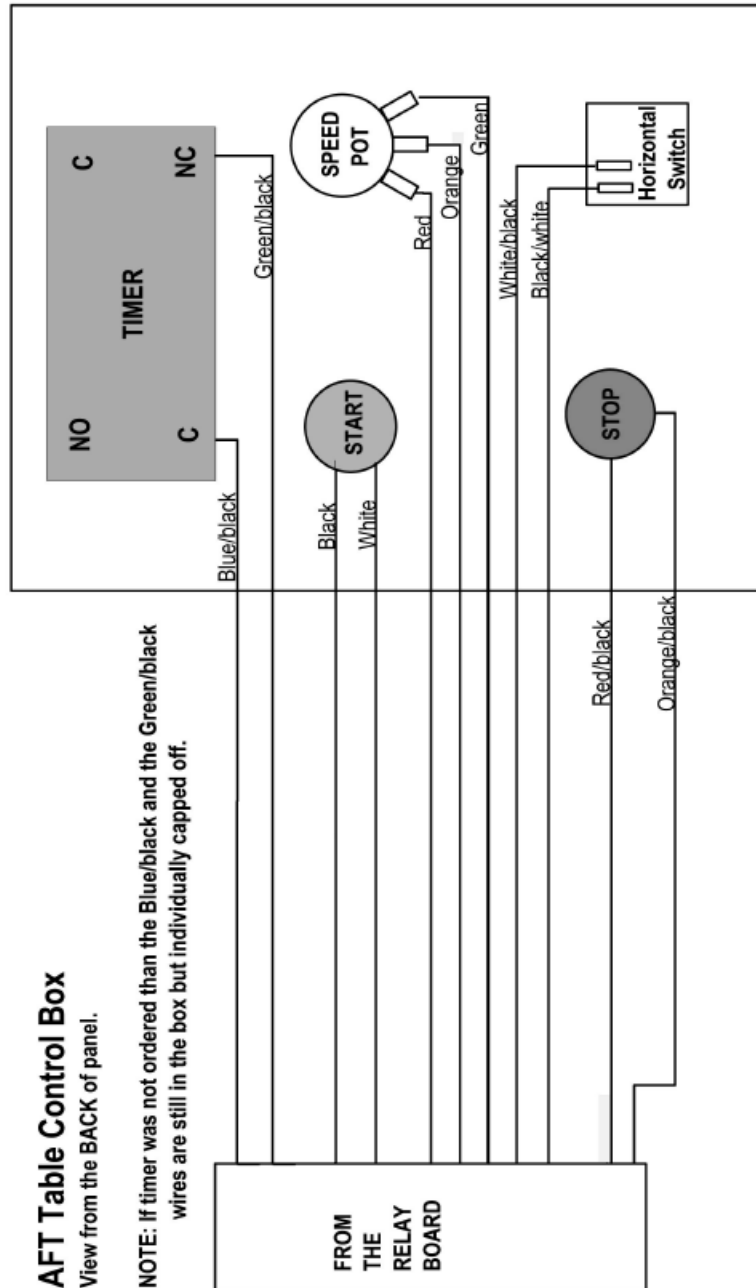
Wiring Diagram - AFT, 24VDC, Part 3

Height System for all AFT Models.

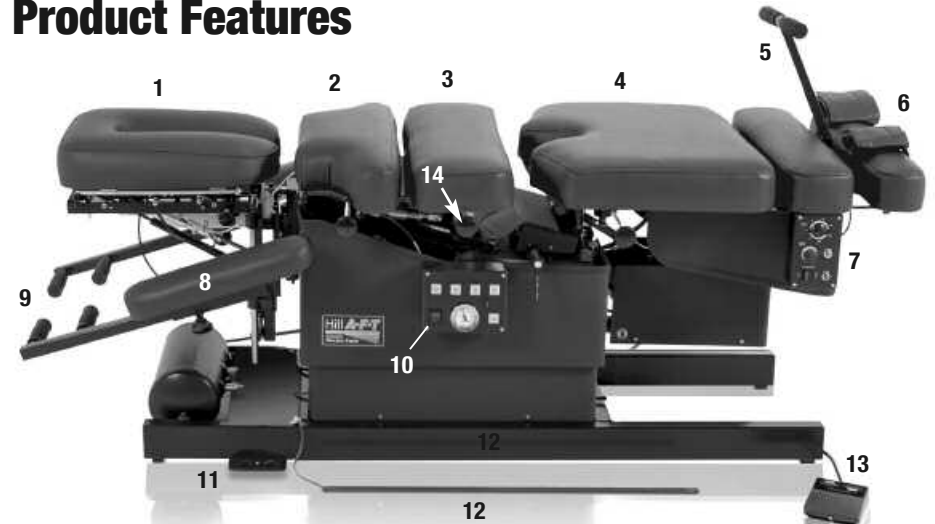


Wiring Diagram - AFT, 24VDC, Part 2

Air System for all AFT Models.

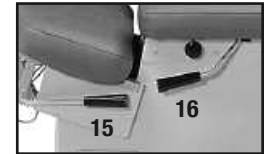


Product Features



1.1 Basic Table Components

1. Tilting Headpiece. May include several options
2. Thoracic Drop with Thoracic Release/Break-away.
3. Lumbar Drop
4. Pelvic Drop on Flexion Section
5. Removable Pelvic Flexion Tiller Bar
6. Slide-out Ankle Support with Ankle Harnesses
7. Flexion Control Panel
8. Armrest
9. Adjustable Patient Gripper Bars
10. Power and Air-Drop Control Panel (air-models)
11. Rocker Foot Pedal for Height Adjustment
12. Power Foot Strips for activating Air-Drops (optional)
13. Air-Pressure Foot Pedal (air-models)
14. Drop Tension Control Knobs
15. Tension Control Handle for Manual Spring-Breakaway
16. Cocking Handle for Manual Drop



1.2 Specifications

- Electric requirement 60 Hz, 110 v~, 5 A/ AirAFT - 10 A (or 220-50 cycle)
- Lifting capacity - 450 pounds
- Acrylic thermo-plastic base
- Ultra-Cell® foam for comfort and shape retention
- Height Range - 21 1/2" - 29" or 22 1/2" - 30"
- Shipping weight approximately 250-300 lbs.
- Length - 5' 5" (extends to 6' 2"), with cervical drop - 5' 7" to 6' 4"
- Standard width 24", optional 27"

Table Care

2.1 Cleaning your Table







Hill table upholstery may be cleaned with Hill Laboratories' Vinyl and Leather Cleaner or any household dishwashing liquid mixed with water. Hill also offers Protex™ Disinfectant Spray and wipes to protect against pathogens, such as MRSA, HIV, Staph and the H1N1 Swine Flu Virus. Many stubborn stains can be removed by applying 91% rubbing alcohol (isopropyl alcohol) to the stain and wiping with a dry, soft, lint-free cotton cloth, towel or soft bristle brush.

Caution: These solvents are highly flammable; 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.

2.2 Caution and Symbol Explanation

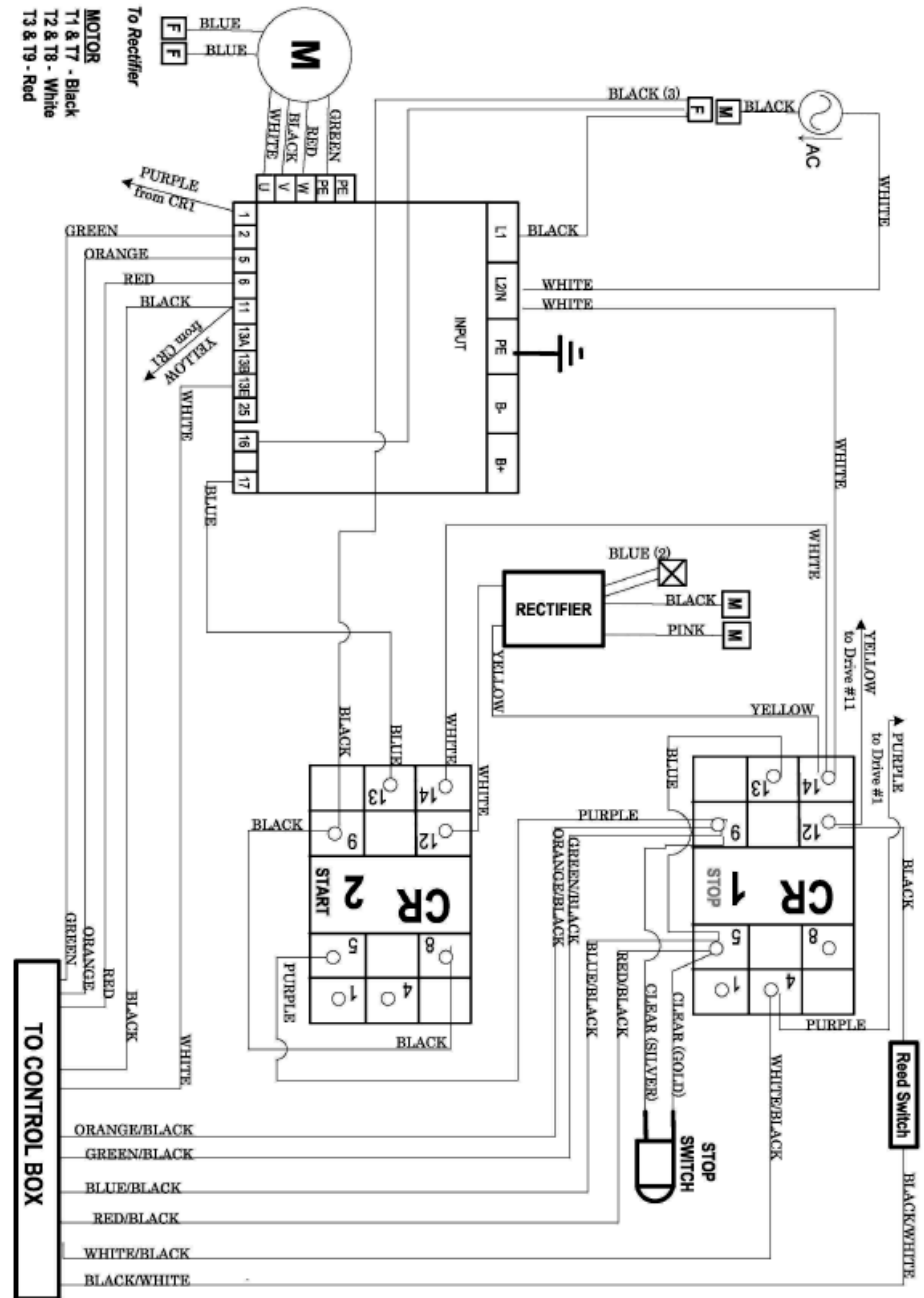
- Caution:** Always unplug the table before performing any maintenance.
- Caution:** Check table once a year to make sure all internal and external bolts are secure.
- Caution:** Table should be in its lowest height position when not attended.
- Caution:** In case of power outage, the table will rely on the generator back-up of the facility where installed for powering to its lowest position.
- Caution:** The power cord should be located to avoid risk of tripping or having objects rolled over or placed on top of it. Damaged cords should be replaced with another of hospital grade.
- Caution:** Grounding reliability can only be achieved when connected to an equivalent receptacle marked hospital only or hospital grade.

Symbols - Each of the symbols below are used in your table 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	Don't Touch Symbol

Wiring Diagram - AFT, 24VDC, Part 1

Air System for all AFT Models.



Problem

The main power board is turning off on it's own. This is likely the Auto-Shutdown mode operating normally.

When the AFT is left inactive for 2 hours, the Auto-Shutdown mode will power the main control board down automatically.

To Fix:

Simply press the green power button.

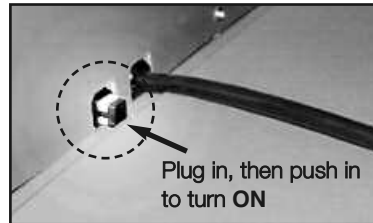


Problem

Power Outage: Due to lightning or some other reason, you facility may lose electrical power from time to time. When this happens, your table's power switch will need to be reset.

To Fix:

Unplug the table from the wall outlet and wait approximately 30 seconds. Plug the table back in to the outlet and then press the power switch in, (see photo), to the "ON" position



Basic Table Operation

3.1 Preparing the AFT for your patient

Plug your table into any 110 volt grounded outlet or 220 volt grounded outlet when specified. The Power Switch is located where the power cord exits the table (photo 1). It ships in the "OFF" position. **After** the table is plugged in, press the button in to turn the power on.

Paper Roll - Used for facedown treatment. Close the paper cutter located on the side of the headpiece (photo 2) and tear off excess.

Preparing the Air System

For air models, press the Power button of the main Control Panel (photo 3) to start the table's air-compressor. Each of the function buttons will light consecutively and then turn off. The compressor will stop when the pressure reaches 90 lbs. See 4.2, "Using Air-Drops" for air-feature instructions.

Note: The AFT is equipped with an Auto Shutdown mode which will power down the main control board if the table is inactive for 2 hours. Press the green power button to power the board back up.

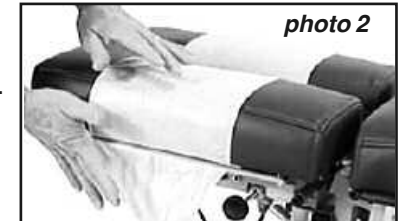
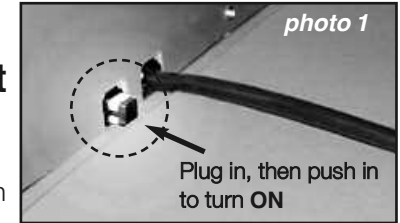
3.2 Height Pedal

The basic AFT is equipped with a dual Rocker Foot Pedal (#11 under "Product Features") which controls the table height from either side of the base. Press the right side of the pedal to elevate; the left side to lower.

Auto-Touch Foot Pedal (Option)

The Auto-Touch Foot Pedal option maintains upward or downward motion even after releasing the pedal. **To operate:**

- With the table at the lowest height, double-touch the "UP" arrow and release. The table will continue upward until you tap either side of the pedal again.
- With the table at the highest height, double-touch the "DOWN" arrow and release. The table will continue downward until you tap either side of the pedal again.
- With the table at any starting height in between, a single-touch up or down will start and stop the motion.



3.3 Function Control Panel

For AFTs equipped with air functions, the control panel (photo 3) has a power button, drop-selector buttons and a thoracic-breakaway button. After power, press in any order to activate the corresponding function.

3.4 Thoracic Release / Thoracic Breakaway

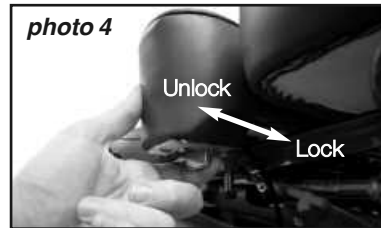
Thoracic Release

To operate the Thoracic Release, pull the switch towards you while holding the cushion; adjust to the desired depth and release the switch to lock the cushion.



Thoracic Spring-Breakaway

The standard Thoracic Breakaway (non-air) uses a fixed-tension gas shock to create a recoil movement when the thoracic cushion is unlocked (see photo 4).



Thoracic Air-Breakaway

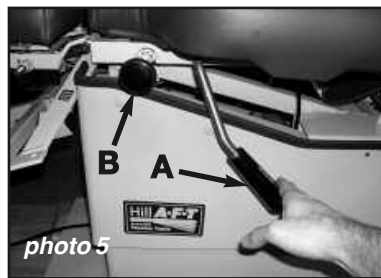
For tables with a Thoracic Air-Breakaway, it is necessary to regulate the air-pressure before treating your patient. Follow these steps:

1. Select the 'THOR' (thoracic) button on the main control panel (photo 3).
2. Unlock the thoracic breakaway switch by pulling toward you until it clicks (photo 4). This will allow the cushion to move freely up and down.
3. Press the right side of the Pressure Pedal (#13, page 2) to increase the air-pressure in the thoracic section. Push down on the cushion as you add air to test for desired firmness.
4. Lock the cushion at any point by pushing the thoracic lock switch towards the table until it clicks. Be sure to depressurize the thoracic section after locking to prevent an abrupt release when unlocked.

Using Drops

4.1 Manual-Drops

Cocking handles are located on both sides of each drop. Push the cocking handle up (A, 5) to activate the drop. Turn the tension knobs (B) clockwise to tighten and counterclockwise to loosen (also see caution, pg. 6).



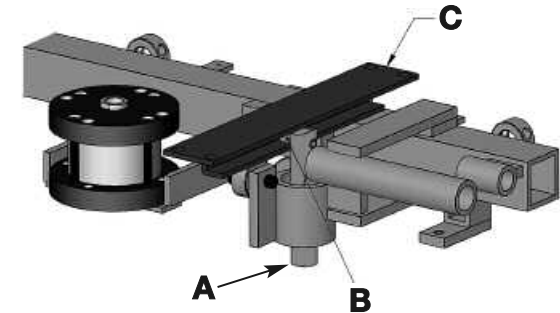
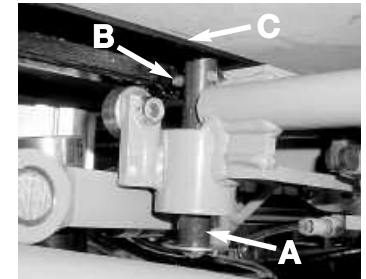
Trouble Shooting

Problem

**The Pelvic Cushion cocks up but does not stay up.
The drop pin has come out of its track.**

To Fix:

1. Loosen the Pelvic Drop Tension Knob enough to rotate the drop pin (see "A" in drawing) so that the cross pin (B) faces and engages the bracket (C) as shown in the photo and drawing below. You may need to use a flat head screw driver to turn the pin from the bottom. Once the pin is turned into the bracket, retighten the Tension Knob.

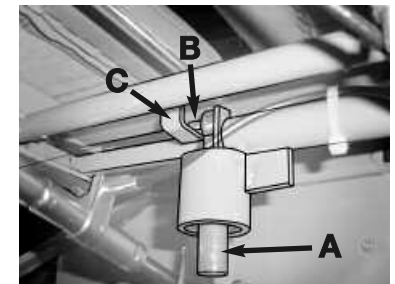


Problem

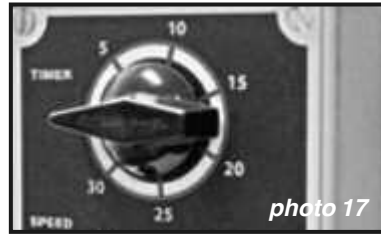
**The Cervical Cushion cocks up but does not stay up.
The drop pin has come out of its L-bracket.**

To Fix:

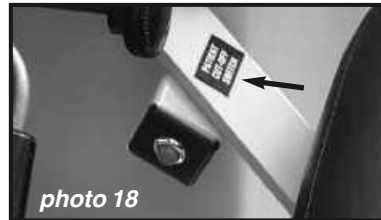
1. Loosen the Cervical Drop Tension Knob enough to rotate the drop pin (see "A" in photo) so that the spring pin (B) faces and engages the bracket (C) as shown in the photo. Once the pin is turned into the bracket, retighten the Tension Knob.



Horizontal Switch - The Horizontal Switch controls how the table behaves when the Stop Button is pushed. If you want the table to cycle back to the horizontal position when the Stop Button is pushed, set the 'Horizontal Switch' to 'ON'. If you want the table to stop immediately at any point in the flexion cycle when the Stop Button is pushed, set the Horizontal Switch to 'OFF'.



Start Button - Push to start the flexion treatment.



Stop Button - Push to stop the flexion treatment. **Important:** See *Horizontal Switch* (above) for setting Stop Button behavior.



Timer - For tables equipped with a timer, flexion can be set to run automatically for up to 30 minutes (photo 17).

Patient Cut-Off Switch

The patient can stop treatment immediately at anytime using the 'Patient Cut-Off Switch'. The PCO switch is located on the left armrest support (photo 18). Instruct the patient as to the location and function of the switch. To resume treatment after stopping, press the green Start Button on the flexion control panel.



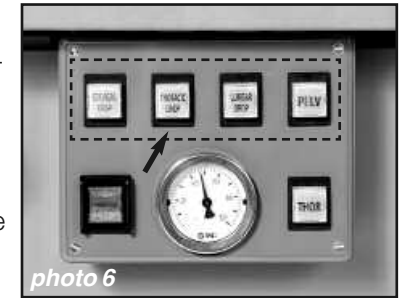
6.3 Using Lateral Motion

To use Lateral Motion with flexion, insert the flexion handle (tiller) into the receptacle, just above the ankle cushion (photo 19). Disengage the lateral lock handle counter-clockwise (photo 20). This will allow the lower part of the table to move freely from side-to-side. You can also lock the cushion laterally at any point on either side by turning the lock to the 6 o'clock position. Also, be sure the handle is locked before patient exits the table.

4.2 Air-Drops

Drop Selector Switches

The Drop Selector Switches (photo 6) activate the table drops. You may choose one or up to four drops simultaneously. Once selected, press the Pressure Pedal (or optional foot strips, #12, pg. 2) to activate the drops. After discharging, press the pedal or foot strip again to immediately re-activate the drops.



Drop Tension Control Knobs

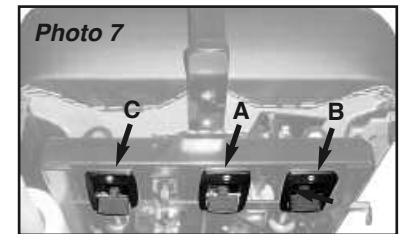
The Drop Tension Knobs are located on the left side of each drop (#14, pg. 2). Turn the knob clockwise to increase the firmness of the drop—counter clockwise to decrease.

Caution: Do not loosen Tension Knobs too far- Adjusting the tension knobs out too far can cause the cervical and pelvic drops to malfunction. See "Trouble Shooting" section on pg. 10 for more detail.

Headpieces

5.1 Tilting Headpiece

All AFT models are equipped with a tilting headpiece. The lever for tilting is located under the front of the headpiece (A, photo 7). It controls the angle of tilt 30° positive or negative. Click the switch in to lock; out to unlock.



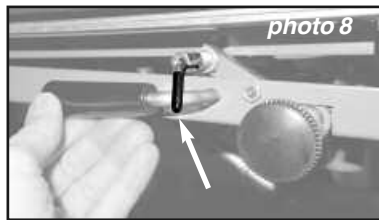
5.2 Dual-Drop Headpiece

The Dual-Drop headpiece contains two drops—a drop-forward motion and a straight-down drop.

Important Note: Before changing any of the settings described in the following section, be sure the headpiece drop is discharged.

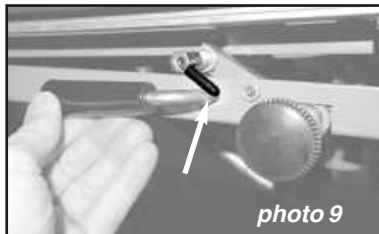
Straight-Down Drop Headpiece

To use the Straight-Down Drop of the headpiece, the setting lever should remain in the side channel of the setting mechanism as shown in photo 8. Be sure that the pin locks into the receiver behind it—otherwise, the drop will not work. For a manual drop, push up on the black cocking handle to engage. *For Air-Cervical Drop, see section 4.2.*



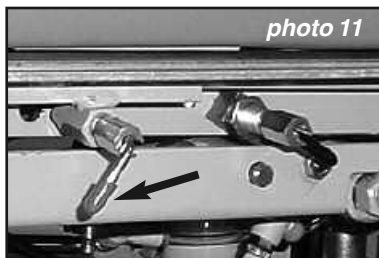
Drop-Forward Motion Headpiece

To use the Drop-Forward Motion action of the headpiece, pull the black setting lever out and turn it to the left so that it points straight down (photo 9). For a manual drop, push up on the black cocking handle to engage. *For Air-Cervical Drop, see section 4.2).*



5.3 Raised Headpiece

The Raised Headpiece allows the headpiece to rise up to 5” above the surface of the table. It is controlled by a lever in front of the head cushion (7, B). Pull and hold the switch to adjust to the desired height; release to lock. To lower, apply gentle downward pressure to the back side of the headpiece with one hand while pulling the lever to adjust.



5.4 Cervical Flexion Headpiece

The Cervical Flexion Headpiece includes the raised headpiece feature, occipital strap and the removable tiller bar.

Set Up

Position the patient as shown in photo 10. Secure the occipital strap using the Velcro® connectors.

Important: Prior to flexion, release the red cushion lock pin by pulling and turning the lever to the left (photo 11). This will allow the cushion to slide in the axial direction for applying manual cervical distraction.



Lateral Adjustment

The Cervical Flexion Headpiece includes lateral motion. To use lateral motion, locate the switch as shown in photo 12 (7, C). Pull the lever toward you to click and unlock. This will allow full-range lateral movement. The headpiece can also be locked at any angle in the lateral range.

Flexion and Lateral Movement

6.1 Preparing for Flexion

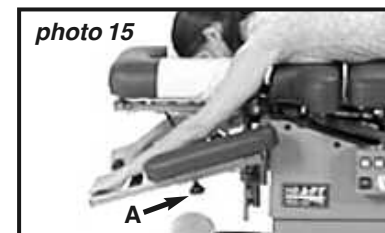
Applying flexion with the Hill AFT is easy. Follow these steps -

Set Up

Position the patient comfortably on the table in the face-down position. Adjust the slide-out ankle support to fit your patient's height using the lever located under the ankle cushion (photo 13). Secure the ankles by firmly fastening the straps with the velcro connectors (photo 14).



Now, have your patient grasp the gripper bars (photo 15). The length of the bars can be adjusted by loosening the handle (A, 15) and sliding the bars so that the patient can grasp them firmly. Tighten the handles on each bar to secure. The Gripper Bars keep the patient from sliding during flexion treatment.



6.2 Using Flexion

Using the Flexion Control Panel

All of the controls for flexion are conveniently located at the foot end of the AFT (see '8', under 'Product Features').

Speed Setting - The Auto Flex has a fixed rate of movement from 1-28 cycles per minute (photo 16). Set to desired speed and press 'Start' (always start with a low speed if there is any concern about a patient's flexibility). Speed can be changed at any time during the cycle.

