

Installation and Operation

of the

TiltNStore™ Garment Storage System

Model Numbers TS4G and TS6G

The wall mount garment storage system.

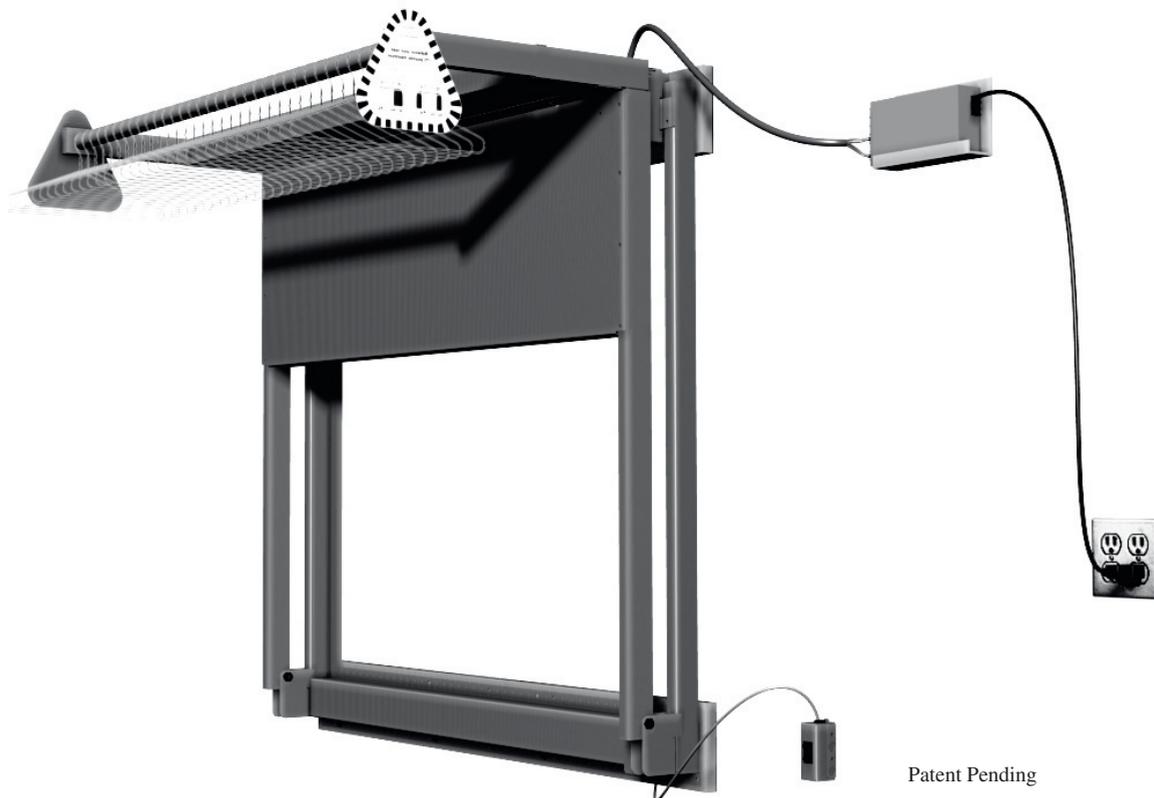


image 110

Patent Pending

Installation and Operations Manual

The TiltNStore Garment Storage System model numbers TS4G and TS6G

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What is the TiltNStore?

This is a wall mounted storage machine. The Hang Bar, which is used for storing clothing or bicycles, is the most common configuration for the LiftNStore.

With a push of a button the Hang Bar moves up and out of the way, like a draw bridge.

Merchandise and goods are safe and out of reach.



image 131

What is in the box:

1. The complete TiltNStore Frame ready to mount
2. Lag bolts to mount the Frame to 2x6 boards
3. Right Arm and Torex head screws
4. Left Arm and Torex head screws
5. Top Cover and Torex head screws

Optional Parts:

- ___ Cable, Daisy Chain, regular length
- ___ Cable, Daisy Chain, long length
- ___ Cable, Up/Down Switch, regular length
- ___ Cable, Up/Down Switch, long one
- ___ Cable, Power, regular length
- ___ Cable, Power, long length
- ___ Power kit, includes Converter box, Cord and Fasteners
- ___ Rollaway Cart
- ___ Quick Release Tube Assembly
- ___ End Safety Caps



image 132

Note: See page 15, Replacement and Optional Parts for ordering.

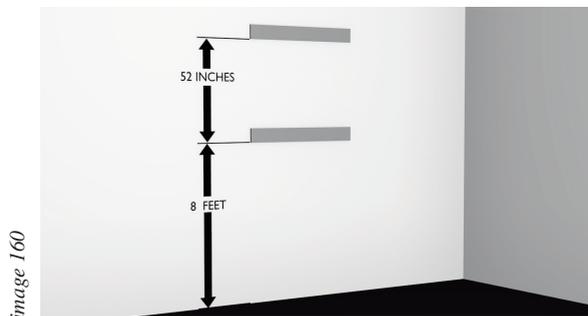
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Four safety features built into each TiltNStore

1. The gear box and motor are the natural brake that prevents anything from unwinding too fast.
2. The main drive shaft has a safety freefall arrestor welded in place. If the shaft starts to rotate too fast, the arrestor stops it. Like your seat belt lock.
3. The stainless steel aircraft cable in the middle of the Hang Bar is there in case there is a fire and the nylon straps burn through.
4. The electric converter box has built in overload protection. If there is too much current being drawn, the power is cut off and the machine stops. To reset it, go to the wall outlet and unplug it. After a few minutes just plug it back in and you're good to go.



Factory recommended installation method:

The Frame of the TiltNStore needs to be screwed to 2x6 boards (not included) that are firmly attached to the wall.

Because we do not know what kind of a wall you will be mounting to, we have not included and wall mounting screws.

The TiltNStore is designed to be exactly 4 feet across which is the width of standard American shelving.

Your 2x6 mounting boards should be a minimum of 4 feet long. It is a good idea to use a longer boards when mounting several machines in a row.

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image 112

Tools needed for a standard installation:

1. Safety glasses
2. Work gloves
3. Reflective safety vest
4. Safety Cones and Caution Tape
5. 25 foot tape measure
6. Level, 2 feet long minimum, magnetic is best
7. Wrench or nut driver for mounting 2x6's
8. Stud finder
9. 5/8 inch counter sink bit for the holes in the 2x6's
10. Torx head screw driver and screw gun
11. A sizzor lift

You will need other tools and fasteners depending on your installation.

Note: Always use Safety Cones and Caution Tape to wall off the area you are working in.

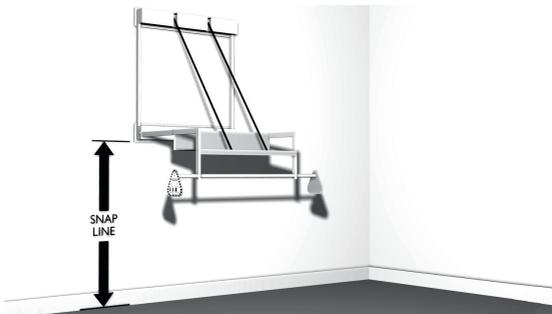


image 140

The snap line:

This snap line will mark the height of the bottom of the TiltNStore Frame.

For normal setups your snap line should be 72 inches off the floor. Your actual height may be different.

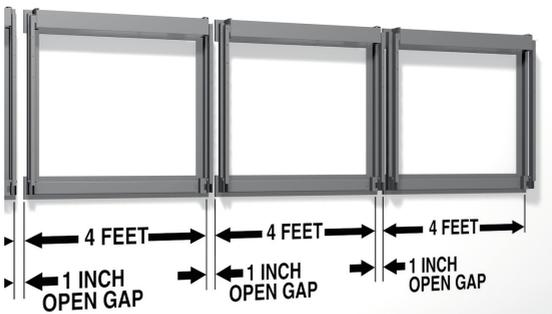


image 170

Space between machines:

Leave a one inch open space between every TiltNStore Frame.

Note: If you are mounting several in a row, you will probably want to use long 2x6 boards instead of several shorter boards.

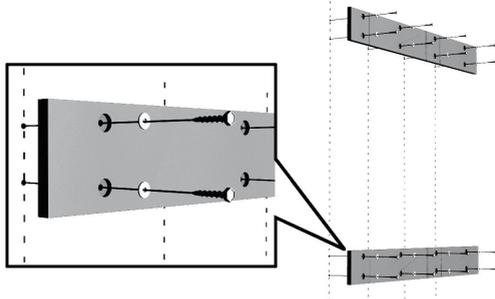
Special note: If you ever intend to change these units over to use 4 or 6 foot hangbars, you will want to leave 13 inches between each unit.

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image 141



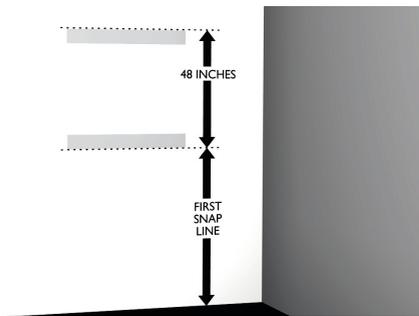
Mounting to a standard wall:

Important: Make sure you check with your construction expert to make sure you mounting to a wall of high quality.

1. Use a stud finder to locate the studs you will be mounting to.
2. Mark each 2x6 for drilling. Use 8 lag bolts along with 8 flat washers to mount every 2x6.
3. Counter sink the holes big enough for the flat washers and deep enough to contain the bolt heads.

Note: If mounting to a wall made with steel studs, masonry, concrete, or block walls, use anchors designed for these applications.

image 151



How to mount the lower 2x6:

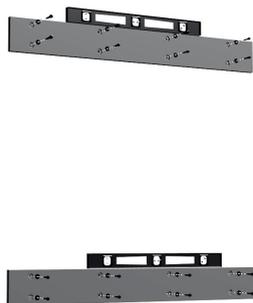
Your snap line should be 72 inches off the floor. Use this snap line for the lower edge of your lower 2x6.

How to mount the upper 2x6:

Measure up 48 inches to get your second snap line. This snap line will be for the top edge of the upper 2x6.

The TiltNStore Frame will mount flush with the *bottom* edge of this 2x6.

image 102



Keep it level:

Use your level to make sure you are mounting the 2x6 straight and level. Use 16 fasteners for every four feet of 2x6, 8 for the top board and 8 for the bottom board. Be sure you are using the appropriate fasteners for your wall. Use your level to make sure you are mounting the Frame straight and level.

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image 152

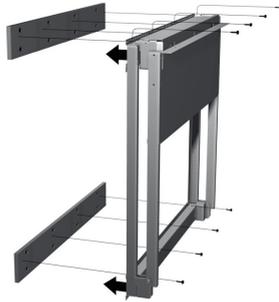


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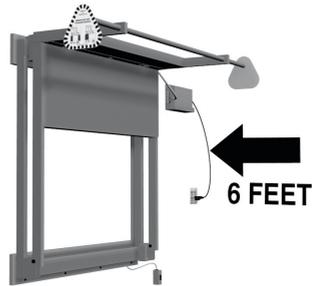


image 201

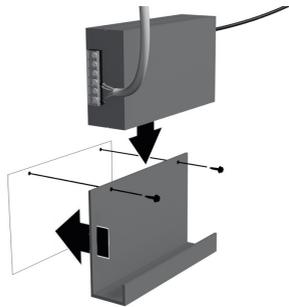
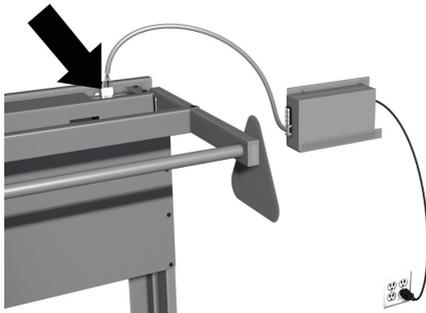


image 202



How to mount the frame:

Caution: Use a sizzor lift, do NOT use a ladder, to mount your TiltNStore to the wall. Use two people to mount your TiltNStore to the wall. Do NOT attempt to do this alone. Use the enclosed hex head lag bolts to screw the frame to the 2x6 mounting boards. For each TiltNStore use 4 screws for the top, and 4 screws for the bottom of the frame.

Where to locate the Converter Box:

You will want to mount the Converter Box a little out of reach so no one tampers with it.

Make sure your 110 volt outlet is close enough, the power cable is 6 feet long. You might need to have your electrician move your wall outlet.

How to mount the Converter Box:

1. Find the stud you will be mounting to.
Note: If there is no stud you may need to use a different appropriate fastener.
2. Screw the Bracket to the wall.
3. Slide the Converter into place.

How to connect the Converter Box:

Snap the Power Connector into the Power Socket in the top right of the first TiltNStore. Plug the power cord into a standard grounded 110 volt wall socket.

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image 109



How to mount the Up Down Button:

The standard cable length is 6 feet long. Longer cables are available.

The cable has to plug into the Socket near the bottom right corner of the TiltNStore (see below).

Most installations have the Up Down Button mounted directly to the wall.

image 113



Besides mounting flat onto a wall, you can screw your Up Down Button into any side of a wall stud.

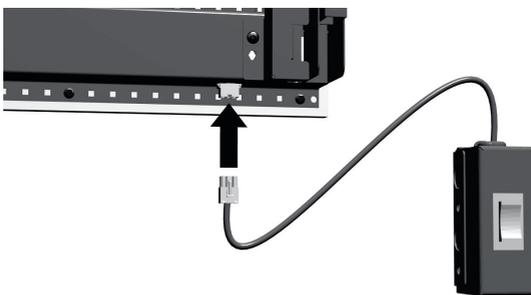
Our exclusive mounting box allows you to pick the way you want to mount the switch.

image 114



Be sure to use the right screw for the type of wall or stud you are mounting to.

image 221



How to connect the Button:

Snap the Switch Connector into the Switch Socket on the bottom right corner of the TiltNStore.

The standard cable length is 6 feet long. Longer cables are available.

Note: See page 15, Replacement and Optional Parts for ordering.

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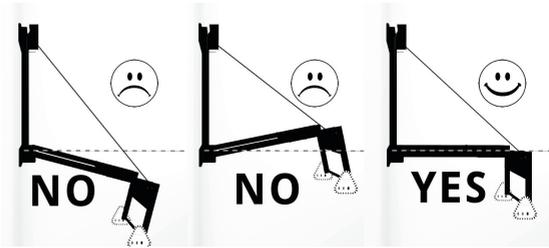


image 224

How to change where the machine stops:

Note: You will be adjusting the Lower Limit Switch. You will be sliding the Switch Cover back and forth a little bit.

1. Push the Down Button till the arm is full down.
Notice if the arm is a little too high or too low.
If it is, move the Switch Bracket a little.

2. Loosen the torex screws shown.

Note: Sliding the switch 1/16 of an inch here, moves the full down Hang Bar about 1 inch.

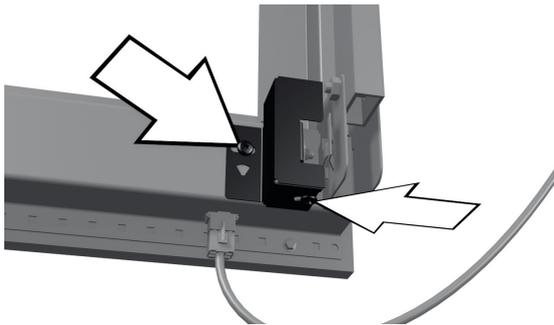


image 222

3. Slide the Switch Bracket to the right to have the Hang Bar stop lower.

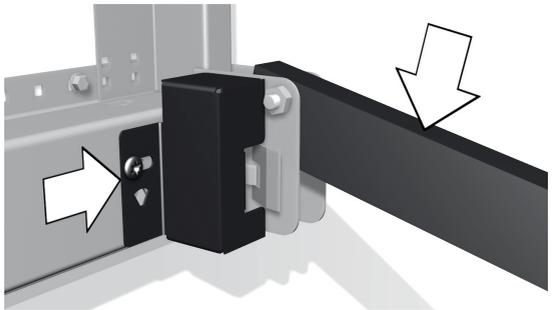


image 115

4. Slide the Switch Bracket to the left to have the Hang Bar stop higher.

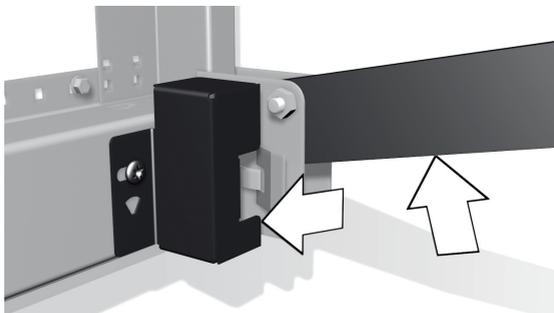


image 116

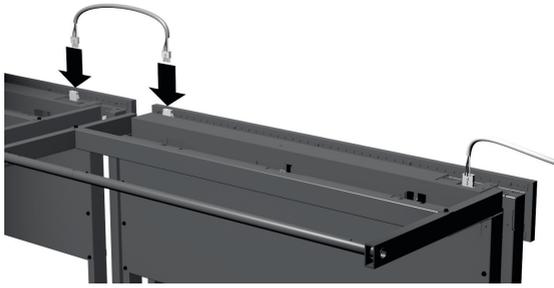
5. Tighten the screws.
6. Test and readjust if necessary.

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image 223



How to set up the Daisy Chain:

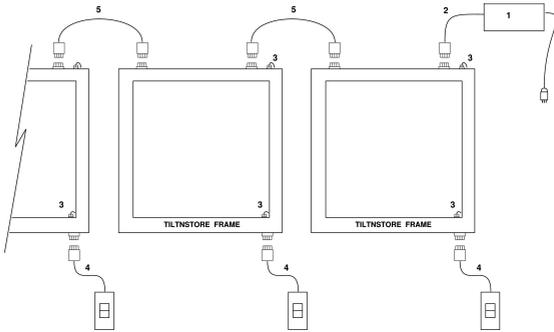
If more than one unit is used in sequence, you must use the 3 foot Daisy Chain Cord. This is the jumper cord that connects one unit to the next.

If you have 4 foot long Hang Bars, your Daisy Chain Cord will be 12 inches long.

If you have 6 foot long Hang Bars, your Daisy Chain Cord will be 60 inches long.

Note: You can connect a maximum of 5 TiltNStores in a row to run off of one Converter Box.

image 246



1. Converter Box
2. Cable, Converter to Frame
3. Limit Switch
4. Up Down Switch
5. Cable, Daisy Chain

Plug the cord from one unit to the next:

Each TiltNStore gets it's own Up/Down Switch.

When all of your TiltNStore's are in place test each one. Check to make sure every arm is straight out when it is full down. Adjust if necessary.

Caution: Only run one TiltNStore up or down at a time. If you run two or more at the same time you could overload the Power Converter.

If this happens, you will need to unplug the Converter for a second and plug it back in again to reset.

image 227



The Safety Cable

is a stainless steel aircraft cable that is a double safety feature of the TiltNStore.

1. If the arm ever moves down too fast the Safety Cable will stop it. It has the built in Freefall Arrestor that acts like your seat belt lock.

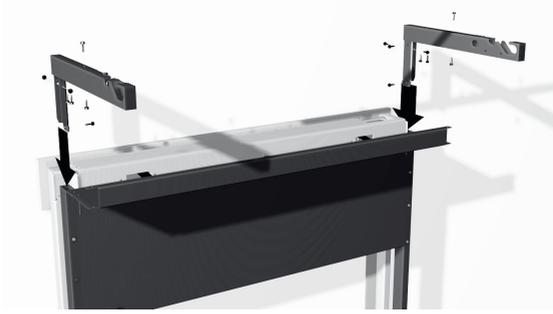
2. If a lift strap would ever fail (each strap is rated for 1700 pounds), the Safety Cable ensures that the arm stays safe.

Note: The Safety Cables are built in and set at the factory. Do NOT mess with them.

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image 161



How to attach the Arms:

1. Slide the Right Arm into the end of the Tube and screw it in place.
2. Slide the Left Arm into the end of the Tube and screw it in place.

image 162



3. Snap the Hang Bar into place.

image 163

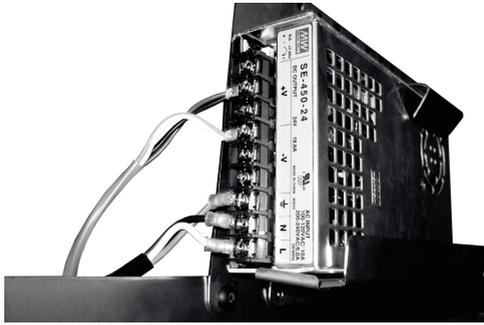


4. Screw the End Caps in place.

image 164



image 121



Troubleshooting

Problem: The machine will not run.

Step 1. Check the Converter Box.

When the Converter Box is working right, the fan should be running.

If the fan is not running unplug the power cord from the wall and plug it back in again, this will reboot the Converter Box. If there has been a power interruption or surge, the Converter Box may have shut itself down.

Check to make sure there is power from the wall too.

If that did not fix it move onto Step 2.

Step 2. If the Converter Box still does not start up the internal fuse might be blown. Have someone qualified open the Converter Box and replace the fuse.

If the Converter Box still does not start up give us a call.

If the Converter Box is running but the machine is not working move onto Step 3.

Step 3. Check the wires coming from the Converter Box.

If any are loose, tighten them.

If any wires are on the wrong terminal, move them to the correct one.

If the Converter Box is running but the machine is not working move onto Step 4.

Step 4. Check the cables.

Make sure all the cables are firmly seated in their sockets.

Test the machine.

If that did not fix it move onto Step 5.

image 145

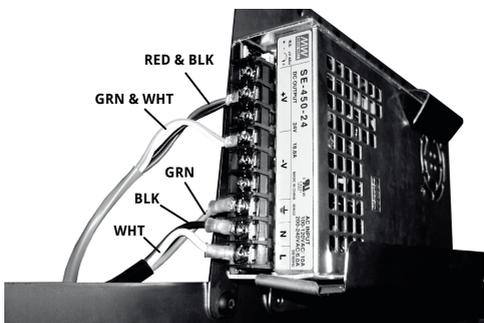


image 146



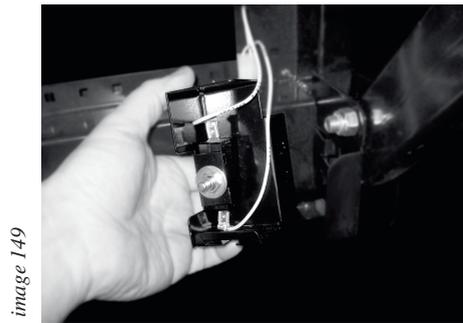
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Step 5. Check the Lower Limit Switch.

1. Unplug the Converter Box from the wall.
2. Unscrew the mounting box so you can get to the tabs on the switch.

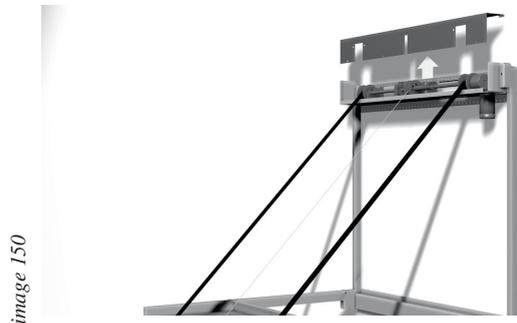


3. Test the switch for continuity while you push the button in and out.

If this switch is broken the machine will not work at all. Give us a call and we'll send you a replacement switch.

If this switch is working ok, put it back together, power up the machine and see if it works.

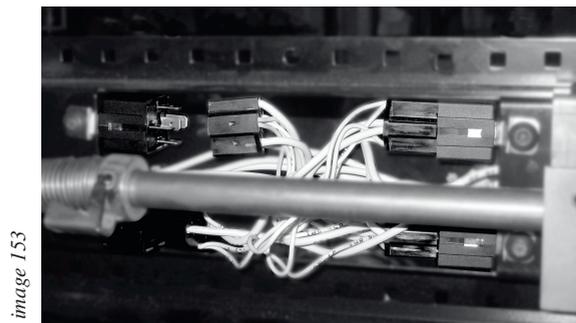
If that did not fix it move onto Step 6.



Step 6. Test the relays.

1. Unplug the Converter Box from the wall.
2. Go to the powered unit, this is the one the Converter Box plugs into.

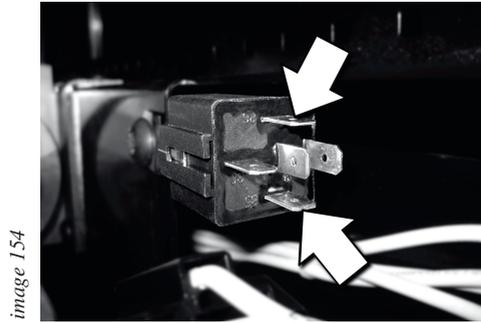
Unscrew the metal cover and take it off.



3. Unplug a relay.

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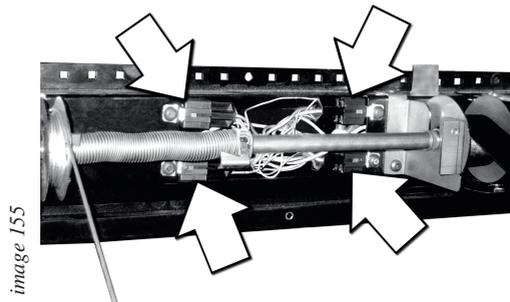
4. Find the blades shown.

Test across blades 85 and 86 for continuity.

If there is continuity the relay is ok.

If there is no continuity the relay is blown.

Give us a call and we'll send you replacement relays.



5. Test all four relays.

If the relays all check out ok, screw the metal cover back on.

Note: It is ok if you get the plugs on the relays switched around.

6. Turn the power back on and test the machine.

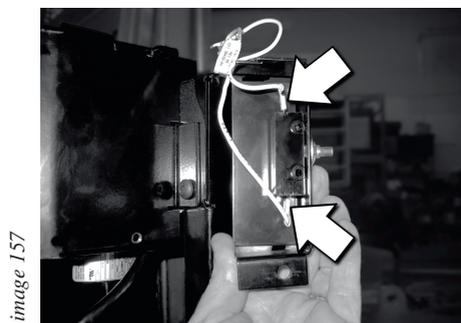
If that did not fix it give us a call.



Problem: The machine will go down but not up.

Check the Upper Limit Switch.

1. Unplug the Converter Box from the wall.



2. Unscrew the mounting box so you can get to the tabs on the switch.

3. Test the switch for continuity while you push the button in and out.

If this switch is broken the machine will not go up.

Give us a call and we'll send you a replacement switch.

If this switch is ok, put it back together and test the machine again.

If that did not fix it give us a call.

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Replacement and Optional parts:

image 240



Converter Box Kit
part number TNS 2001

image 243



Cable, Converter to Frame, regular length
part number TNS 2008

Cable, Converter to Frame, long length
part number TNS 2009

image 242



Switch, Up/Down, regular length
part number TNS 2006

Switch, Up/Down, long length
part number TNS 2005

image 245



Cable, Daisy Chain, regular length
part number TNS 2003

Cable, Daisy Chain, long length
part number TNS 2002

Electrical Schematic

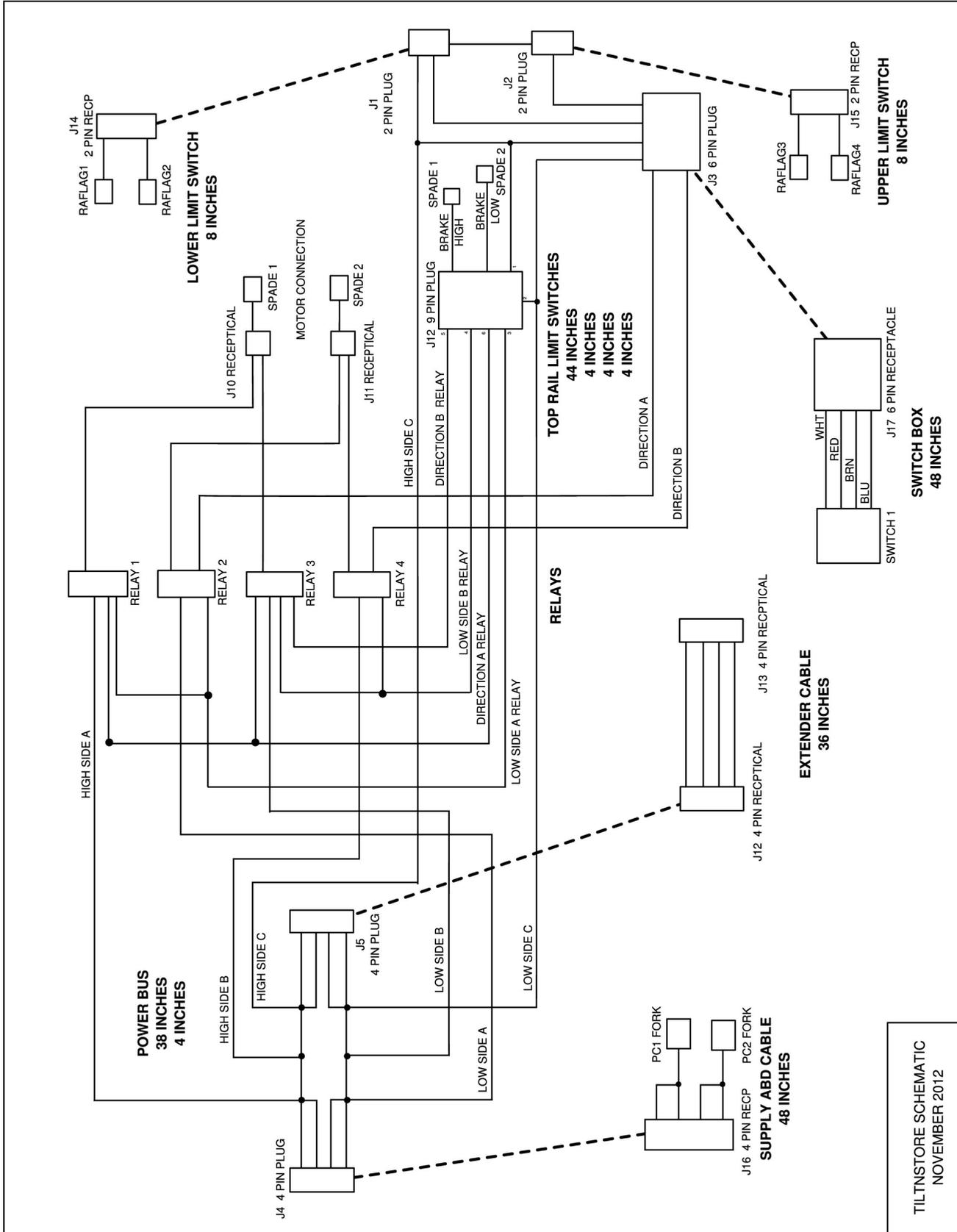


image 100

TILTSTORE SCHEMATIC
NOVEMBER 2012

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One Year Warranty

Your TiltNStore comes with a 1 year parts and labor warranty covering Metal parts, Electrical, and the Motor Gear Box.
This does not cover misuse, abuse or over loading.

Maintenance:

Your TiltNStore requires no lubrication or other maintenance. Periodically check the nylon Hang Straps and look for wear, cuts or abrasion.

Warning:

Never allow anyone to hang on or play with this machine.
It is NOT a toy or a chin bar.
Possible injury can result and damage to your TiltNStore will not be covered by your warranty.

Other TiltNStore Models



image 105

Shelving TiltNStore *model number TS4S*
Shelving smoothly moves up and out of the way.
Aisles stay clear and open.
No ladders, no falling, no lifting, no dropping.
Use open wall space above built in shelving.
Long term storage.
Shelving brought to your eye level in moments.



image 101

4 Foot TiltNStore for Clothing *model number TS4G*
Safely store hanging garments or clothing.
The Hang Bar is 4 feet long.
Mount on unused open wall space to keep aisles open.
Often mounted above fixed racking or clothing bars.
Excellent for long term storage in warehouse or backroom. Use in show room for display and immediate sales.

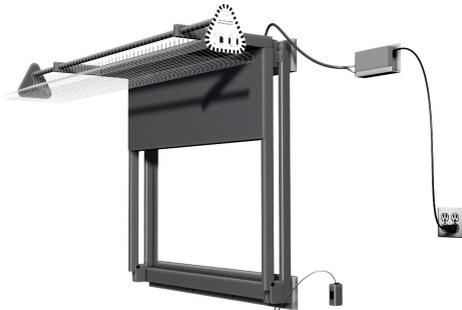


image 111

6 Foot TiltNStore for Clothing *model number TS6G*
Safely store hanging garments or clothing.
The Hang Bar is 6 feet long.
Mount onto unused open wall space and keep aisles open.
Usually mounted above fixed racking or clothing bars.
Excellent for long term storage in warehouse or backroom.
Use in show room for display and immediate sales.



image 103

4 Foot TiltNStore for Bicycles *model number TS4B*
Quick out of the way storage for bicycles.
Comfortably holds 4 bikes.
Usually mounted onto unused open wall space above bikes on the floor.
Aisles stay open.
Excellent for backroom and assembly areas.
Use in show room for display and hands on delivery.

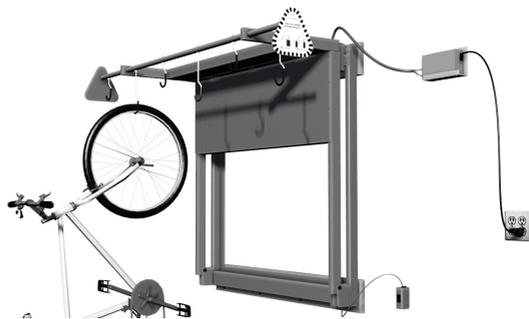


image 104

6 Foot TiltNStore for Bicycles *model number TS6B*
Quick out of the way storage for bicycles.
Comfortably holds 6 bikes.
Mount onto unused open wall space above bikes on the floor.
Aisles stay open.
Excellent for backroom and assembly areas.
Use in show room for display and instant delivery.