

DECCA DOORS LTD.

DECCA

DECCA

DECCA

manufacturers of overhead doors

7584 Vantage Place, Delta, B.C. V4G 1A5

Tel: (604) 946-7777 • Fax: (604) 946-7130

TORSION SPRING INSTALLATION INSTRUCTIONS

Read The Enclosed Instructions Carefully BEFORE Attempting
To Install This Door

IMPORTANT SAFETY NOTICE

1. Operate door only when properly adjusted and free of obstructions.
2. Door is constantly under extreme spring tension. Repairs and adjustments, especially to cables and spring assembly, are hazardous and should be performed by qualified door service people only.
3. Do not permit children to play with the garage door or the electric controls. The child could get caught between the door and floor causing fatal injury.
4. If door is now or later becomes electrically operated, pull down rope MUST be removed and the locking mechanism must be disengaged.
5. Avoid standing in the open doorway or walking through while the door is moving. A person could get caught between the door and the floor causing fatal injury.
6. Should door become hard to operate or completely inoperative, it is recommended that a qualified door company be contacted.
7. If you have an existing garage door opener that does not have a reversing mechanism, you should consider purchasing a new opener with this safety feature.
8. You should avoid installing your new door on windy days. Door could fall during the installation.
9. Periodically check all bolted connections to make sure they are secure.
10. To avoid injury, never place hands between open door panels.
This may cause broken bones or serious lacerations.

The foregoing safety directions have been approved and recommended by the National Association of Garage Door Manufacturers (NAGDM).

STEP 11 : TORSION SPRING INSTALLATION

NOTE : YOUR DOOR MAY REQUIRE ONE OR TWO SPRINGS DEPENDING ON ITS WEIGHT. IF ONLY ONE SPRING IS REQUIRED IT WILL BE A LEFT HAND SPRING.

Assemble the spring anchor bracket, torsion springs, bearing, cable drums, and the bearing head plates on the tubular torsion bar with 3/8"-16 x 1-1/2" hex head bolts and nuts. (See Diagram #16)

NOTE : Spring warning tag must be bolted to the spring anchor bracket. Pay careful attention to the direction that the springs are wound. They are not alike nor interchangeable. (See Diagram #17) The nylon bearing goes into the anchor cone of either spring, it does NOT go through the spring anchor bracket.

Once the assembly is put together, place it across the horizontal tracks. Attach bearing head plates to the horizontal track angle with 3/8"-16 x 3/4" hex head bolts and nuts. (See Diagram #18)

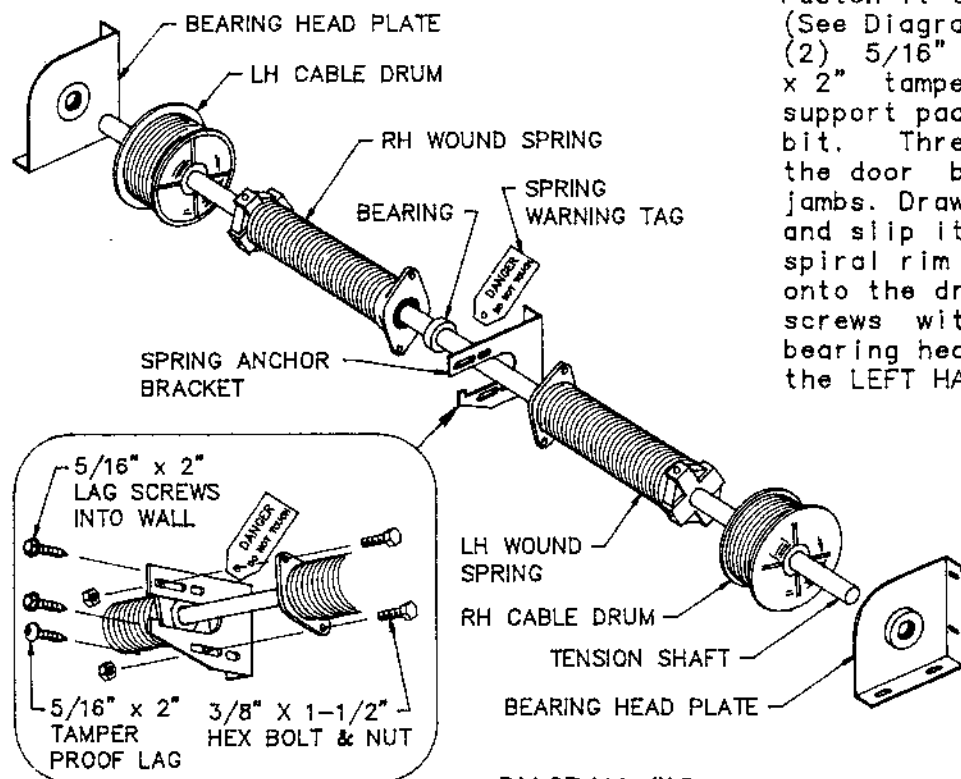


DIAGRAM #16

WARNING : TAMPER PROOF LAG MUST BE INSTALLED IN THE BOTTOM HOLE OF THE SPRING ANCHOR BRACKET.

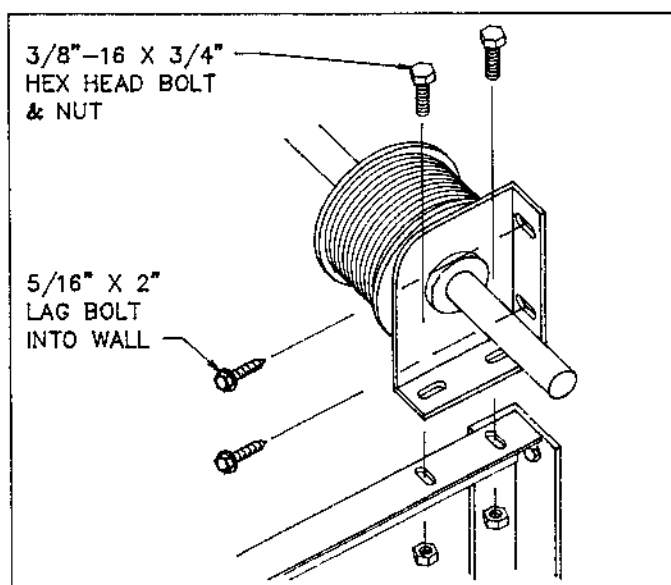


DIAGRAM #18

Position the spring anchor bracket approximately in the center of the door so that the tension shaft is level, straight and parallel to the front wall. Fasten it to an appropriate support pad (See Diagram #2) on the front wall with (2) 5/16" x 2" lag bolts and (1) 5/16" x 2" tamper proof lag. Predrill the support pad with a 3/16" diameter drill bit. Thread the cable up the side of the door between the roller shafts and jambs. Draw the cable up behind the drum and slip it through the slot on the high spiral rim of the drum. Wind the cable onto the drum and tighten the drum set screws with the drum tight against the bearing head plate. NOTE : Always set the LEFT HAND cable drum first.

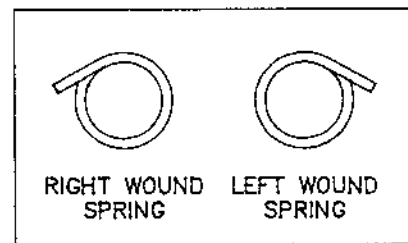


DIAGRAM #17

NOTICE : TORSION SPRINGS CAN CAUSE SERIOUS INJURY IF NOT HANDLED OR INSTALLED PROPERLY.

Attach the vise grips to the shaft with the end of the grips against the wall so that the cable remains taut while setting the cable on the other drum. (See Diagram #19) This will provide equal tension so that both sides of the door will be lifted together. Be sure the tension on each cable is equal before winding the springs. Remove the nails from both sides of the door that temporarily held the sections in the opening.

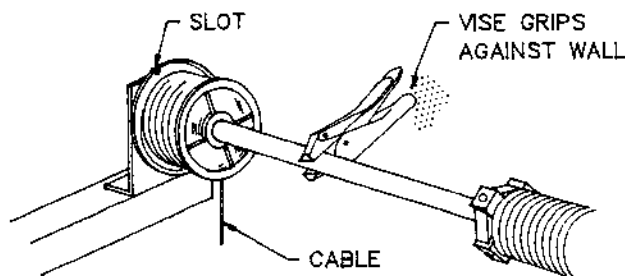


DIAGRAM #19

STEP 12 : WINDING SPRINGS

Lock the door in the closed position (or place a vise grip across the vertical track above the #3 roller) before winding the springs. NOTE : Both springs wind in the upward direction. With a piece of chalk, draw a horizontal line across the face of the springs so you can count the number of turns when winding. (See Diagram #20) Refer to Diagram #21 for the number of turns your door will take.

TORSION SPRING WINDING CHART FOR CABLE DRUMS	
DOOR HEIGHT	NUMBER OF TURNS
6' - 6"	7
7' - 0"	8
8' - 0"	9

DIAGRAM #21

BE CAREFUL. KEEP HANDS AWAY FROM THE COILS AND CONES AS MUCH AS POSSIBLE WHILE WINDING IN CASE THE BAR SLIPS.

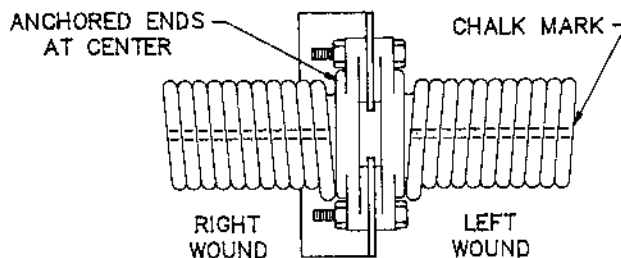


DIAGRAM #20

NOTE : ALL SPRINGS WIND UPWARD AND SHOULD BE MOUNTED SO YOU ARE TRYING TO WIND THE FITTING OUT OF THE SPRING.

To wind the springs, use cold rolled steel bars the same diameter as the winding cone holes. The bars must fit snugly and be inserted ALL THE WAY into the holes. DO NOT USE SCREW DRIVERS OR LOOSE FITTING BARS. Use only good quality snug fitting bars. Position yourself on a sturdy stepladder off to the side. Never wind the spring directly in front of you. Put the bar ALL THE WAY into the hole and lift up 1/4 turn. Put the other bar into the next hole. Remove the first bar, lift up 1/4 turn and put the first bar into the next hole. Continue winding until you can count the correct number of spirals on the springs. (See Diagram #22) Each complete turn will cause one (1) spiral to appear in the spring. After the proper number of spirals appear, leave the winding bar in the spring cone and tighten the set screw in the cone securely. Tighten the set screw 3/4 to 1 full revolution after it has made contact with the shaft. Remove the bar. If your door requires two springs, repeat the process with the second spring.

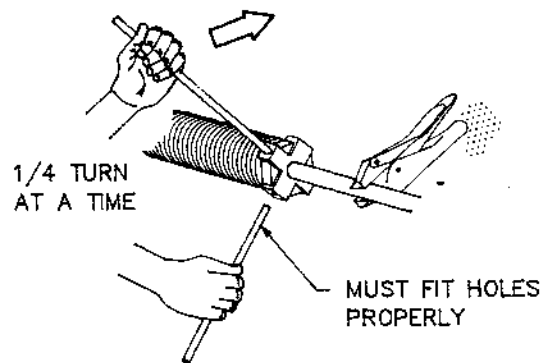


DIAGRAM #22

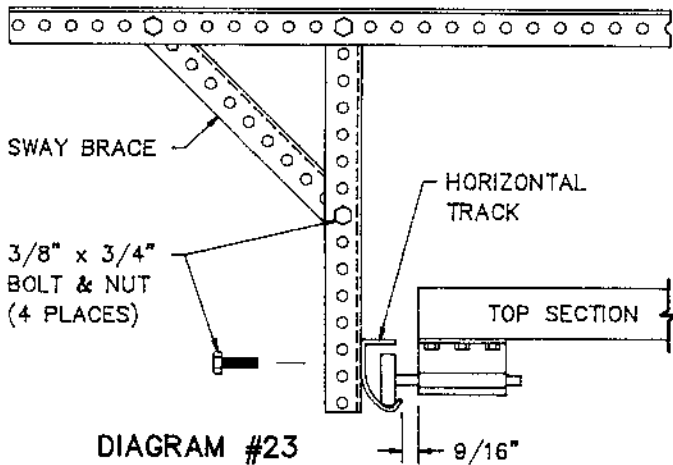
STEP 13: TEST AND ADJUST DOOR

DANGER : TO AVOID INJURY, NEVER PLACE HAND BETWEEN OPEN DOOR PANELS. THIS MAY CAUSE BROKEN BONES OR A SERIOUS LACERATION.

Place vise grips on both sides of the horizontal track approximately 2 feet beyond the track radius. This will allow the door to go up approximately 3 feet to test the springs and to adjust the horizontal spacing.

CAUTION: If the horizontal track is not square and plumb with the vertical track the door could fall out of the horizontal track and cause serious injury.

Remove the vise grips from the torsion tube and the vertical track and unlock the door. Raise the door until the top fixture roller just passes the radius. Space the horizontal tracks parallel to the door and square with the opening. Assemble back hanger angles as shown in Diagram #23. Level the horizontal tracks and attach to the hanger angle. (14 Ga. prepunched angle recommended)



Remove the vise grips. Run the door up and down to check for proper function. If the door does not balance properly and requires further spring adjustment, repeat the procedure for winding the springs to add or remove spring tension. If the door comes down too hard, the spring tension must be increased. If it tends to lift quickly off the floor, the spring tension must be decreased. Once the springs are correct, adjust the track and top fixture as necessary for proper seal at the jambs and header.

Attach the rope behind the bottom roller and into the jamb with a screw eye as shown in Diagram #24. IF THE DOOR IS TO BE MOTORIZED DO NOT INSTALL THE ROPE AND REMOVE THE LOCKS FOR SAFETY. With the door down, remove the stops. Turn them around and nail the stops to the jambs with the flap towards the door. Adjust for a proper seal. Door installation is now complete.

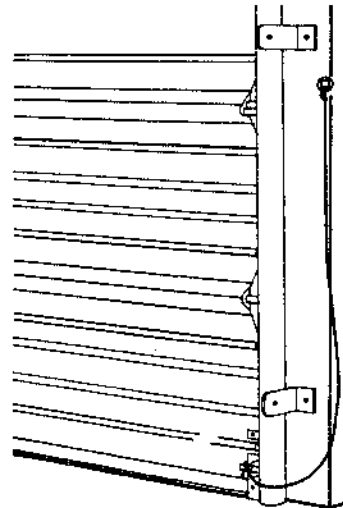


DIAGRAM #24

OPTIONAL PAINTING INSTRUCTIONS

SURFACE PREPARATION, NEW DOOR

Wash the entire door with a solution of water and a common soap to remove dirt. Wipe the entire door with a rag saturated with xylene (xylol). This industrial solvent will facilitate the removal of oils and wax and assure maximum paint adhesion.

REPAINTING NEW DOOR

After the surface has been properly prepared, it must be immediately coated with a premium quality exterior house paint such as Glidden Dura Series, Sherwin Williams 100 Line or Super Paint Line, or Pittsburgh Paint's Latex Exterior House Paint. All are available through a number of retailers. Follow the instructions on the back of the label for proper handling, clean up, and observe all precautions, especially those involving acceptable conditions in which to paint.

CAUTION: Make sure no paint gets on the rollers, hinges, track channels, springs or other moving parts of the door.

INSTALLATION

For efficient and safe operation the garage door must be installed in strict accordance with the manufacturer's instructions. If the door is installed by an authorized representative of the manufacturer, the manufacturer's installation instructions must be followed explicitly. If the door is to be installed by other than the manufacturer's representative it is essential that the installation instructions be followed explicitly. If an upward acting garage door should become damaged in any way, its operation could become hazardous; therefore, when damage occurs, call a qualified door repair service immediately; preferably the representative of the door manufacturer.

When opening or closing a manually operated door, caution must be exercised to keep hands and fingers clear of section joints, track, etc., while the door is operating.

MAINTENANCE AND REPAIR

Like any piece of mechanical equipment, garage doors do require some maintenance and periodic service. Unless the user is experienced in the maintenance and repair of garage doors, the maximum amount of maintenance undertaken at that level should be the lubrication of moving parts such as hinges, rollers, pulleys, movable lock parts, springs and bearings. As an example, repairing cables and springs should be left to the professionals.

Professional service will insure a job done correctly, and more important, it will take the personal exposure of danger away from the user.

The best place to obtain knowledgeable and professional service for a garage door is from an authorized representative of the manufacturer of that door. The name of the door manufacturer will normally be found on the lock handle, hinges, or nameplate. In addition, the installing company's nameplate will be on the door or immediately adjacent to it.

DO-IT-YOURSELF INSTALLATIONS

A significant number of smaller doors are installed by handymen, contractors, or "do-it-yourselfers" who can make minor adjustments to the door. In all cases, the original manufacturer's instructions and precautions must be observed. If in doubt about what is required to properly install a door, stop and contact a professional door installer or service company to do the job.

ELECTRIC OPERATION

If you are among the growing number of people now enjoying the convenience of an electrically operated garage door, you should be aware of a few simple points regarding the continued trouble-free operation of this equipment.

1. Electrically operated doors must be properly counterbalanced, as recommended in the door manufacturer's installation instructions, for smooth easy manual operation before applying the electric opener. The opener is a convenience; if it works hard to open the door, its life expectancy will be reduced. A garage door opener is designed to control the motion of a door already properly counterbalanced.
2. Remove pull down ropes, normally used for manual operation, when the door is electrically operated. Locks should be made inoperative in the open position.
CAUTION: If this is not complied with, the door or operator can be damaged.
3. When maintenance is required, consult your Owner's Manual prior to attempting repairs. If the problem is not covered in the manual, contact the installing dealer or the manufacturer, giving them the symptom of the problem, and request the best manner in which to proceed.
4. The portable electronic radio transmitters should receive the care shown any similar piece of delicate electronic gear.
5. If for any reason the clutch, safety stop, or reversing device gives indications of being inoperative: 1. Check the Owner's Manual; 2. If simple checks do not resolve the failure, call a qualified service man at once!

The foregoing instructions have been approved and recommended by the National Association of Garage Door Manufacturers (NAGDM).