



Operational & Maintenance Manual

Products:

Installation Site

Contractor

Architect

Distributor



Dear Customer:

Thank you for choosing [^] as your custom door installation specialist.

The Operation and Maintenance Manual, which is enclosed, has been supplied by Overhead Door Corporation to meet your needs as our customer. Appropriate information for the products installed has been compiled in this manual for your use. We recommend compliance with all of the safety information provided within the manual.

We strongly recommend implementing a preventative maintenance program. Benefits of properly maintaining your door system include:

- Increased operational efficiency and reliability.
- Extended useful life of your equipment.
- Increased probability of dependable equipment performance.
- Elimination of non-budgeted maintenance cost for door service.

As an Overhead Door distributor, we offer you complete product support for your service and maintenance needs. Do not hesitate to call us for assistance.

We hope that you will also continue to consider [^] for your future product and installation needs. We are firmly committed to providing the finest in Overhead Door products, accessories, and a level of customer support unmatched in the industry.

Sincerely,



Operation & Maintenance Manual

Sectional Doors

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GENERAL INFORMATION



OVERHEAD DOOR CORPORATION

Overhead Door Corporation, based in Dallas, Texas, is a leading single-source manufacturer of integrated door and operator systems for commercial and residential applications.

Overhead Door is the door solutions provider that delivers expert service and the highest level of performance and reliability. Our comprehensive product line encompasses a wide variety of commercial door solutions including: commercial operators, commercial sectional and rolling service doors, advanced performance rolling doors, and security grilles.

With our nationwide network of more than 400 authorized distributors, we are a leading provider of overhead and garage door systems, and we continue to lead the way with reliable solutions and unmatched professional installation, service and support that keeps customers coming back. The brand trusted for over 90 years, Overhead Door gives home and business owners confidence and peace of mind.



To locate a distributor:

From the United States, call 1-800-929-3667 (DOOR)

International: 1-717-248-0131

<http://www.overheaddoor.com/Pages/distributor-locator.aspx>

Contact Information:

Overhead Door Corporation
2501 S. State Hwy. 121, Suite 200
Lewisville, TX 75067

Telephone: 1-800-275-3290

www.overheaddoor.com



PREVENTATIVE MAINTENANCE



BENEFITS OF PREVENTATIVE MAINTENANCE PROGRAM

- **Increase operational efficiency, safety and reliability**
- **Extend useful life of your equipment**
- **Reduce probability of equipment malfunctioning**
- **Decrease costly downtime**
- **Decrease long-term repair expense**
- **Priority scheduling for service**
- **Establish relationship with experienced, service-oriented professionals**



RECOMMENDED PREVENTATIVE MAINTENANCE

Preventative maintenance frequency is a variable of the many conditions within which a sectional door is required to operate. How often a cycle of maintenance is required will be dependent on the geographic location, ambient environmental conditions and the general parameters under which the door must operate. The following recommendations should be established as routine until experience dictates a different time period for your installation.

Track – (Monthly)

- The track surface should be maintained free of all oil or grease. Check tightness of track bolts to angles and fasteners attaching angle to jambs or snugness. Check for track damage.

Door Surface and Hardware – (Every six months or as required)

- Top fixture – with door in the down position, adjust roller assembly holder so that the wheel is tight against the track surface on the door side. Lightly oil the roller stem and races of the roller assembly wheel. Wipe off excess oil.
NOTE: The above procedure for oiling should be followed for all roller assemblies in the end hinges and bottom fixture.
- Oil the hinge points on all center hinges.
- Check all door hardware fasteners for tightness and freedom from corrosive activity.
- Bottom seal – inspect for damage and replace if necessary.

Counterbalance – (Every six months or as required)

- Drum – check set screw for tightness.
- Cable – Examine for frayed or broken strands. All cables should be tight when the door is closed.
- Torsion spring – lightly oil across the top of the coils.
- Shaft bearing – oil each bearing located on the counterbalance shaft.
- Set screws – visually inspect all set screws for corrosion or slippage.
- Collars – check tightness of set screws.

WARNING: Bottom fixtures, cables, drums, pulleys, shafts, and brackets are under high spring tension. Repairs on these items must be made by a trained service person.

Winding, repairs and adjustments of the springs must be made by trained service personnel.



RECOMMENDED PREVENTATIVE MAINTENANCE (Cont'd.)

After lubrication, inspection is complete, operate door by hand several times, taking note of any binding, erratic shifting in tracks, rollers not turning, unusual noises, etc. The door should also be level and sealed against the jambs. The correct fit of the door is critical to proper operation and long life of rollers, cable, etc.

SOME THINGS NOT TO DO:

DO NOT continue to operate a door which has damage to the door and/or track and requires any degree of "additional effort" to completely open or close. Have the unit repaired as quickly as possible and operate it by hand until the repairs are made.

DO NOT use an electric operator to "power open or close" a poorly operating or damaged door.

DO NOT attempt to wind, unwind or otherwise tamper with a torsion spring counterbalance. Contact a qualified service person.



TROUBLESHOOTING GUIDE FOR SECTIONAL DOORS

SYMPTOM	POSSIBLE CAUSE
Door is harder to raise when halfway open than at any other position.	Springs require more turns. Lower door to fully closed and locked position. Add 1/8 turn at a time until the same resistance is felt pulling the door down from the fully opened position as is felt pulling the door up at the half opened position.
Door is harder to start down from the fully opened position than at any other position.	Springs require less turns. Lower door to fully closed and locked position and remove 1/8 turn until the same resistance is felt pulling the door down from the fully opened position as is felt pulling the door up at the half opened position.
Electric operator stops too soon or not soon enough at the open or close position.	Operator limit switch setting has become out of phase with the door. Reset the limit switches. See operator installation instructions for method of resetting limits. Tighten the drive chain between operator and door sprockets to avoid the chain jumping and a repeat of this situation.
Operator does not run and circuits to it are okay.	<ul style="list-style-type: none">▪ Limit switch jammed at an out of phase position. Loosen and reset per operator installation instructions.▪ Faulty limit switch.▪ Interlock switch faulty or mechanism is in position for manual operator. Make sure mechanism is in position for electric operation.▪ If none of the above solves the problem, contact an Overhead Door Technical Representative.

WARNING: Repairs and adjustments to springs must be made by a trained service person using proper tools and instructions.

Operators are powered by electrical current. Unplug operator or throw circuit breaker before making any adjustments to limit switch.

NOTE: All of the above instructions are covered more extensively in the individual installation instructions within this manual.



TROUBLESHOOTING GUIDE FOR SECTIONAL DOORS (Cont'd.)

Emergency Release Mechanisms

All electrically operated overhead doors are equipped with emergency release mechanisms of some kind to permit operation of the door by hand in case of a power failure or other times.

Trolley (Drawbar Type)

1. Obtain good step ladder or other solid surface on which to stand.
2. The "L" shaped connecting arm which is attached to a carriage (trolley) assembly of the operator and to a bracket on the top section of the door has a pull chain, cable or strap-activated catch at the operator trolley end. No tools should be required to disengage it.
3. Hold the connecting arm with one hand to keep the arm under control. Give the strap or chain a quick jerk. More than one attempt may be necessary.
4. If the release catch is bent or otherwise damaged and will not disengage, remove the bolt or clevis holding the arm to the door bracket.

Sidemount/Jackshaft

1. These operators are equipped with a pull chain, rope or cable which is generally accessible from the floor.
2. Pull down on the lanyard and tie or otherwise fasten it to hold it in that position. There may be a wall bracket to which it may be secured.
3. The door can now be operated manually.
4. When the power is restored, release the lanyard. It should return to its original position and the operator dentil should re-engage.



SCOPE OF WORK FOR SECTIONAL DOORS AND ELECTRIC OPERATORS

For the period _____, 20__, through _____, 20__, the following services and inspections will be provided as part of the Preventative Maintenance Program for the sectional door(s) and operator(s):

SECTIONAL DOORS:

- 1) Inspect section condition.
- 2) Inspect alignment of door to ensure proper operation.
- 3) Disconnect operator and operate door manually to check for smooth operation.
- 4) Lubricate and inspect rollers and bearings.
- 5) Lubricate springs.
- 6) Inspect spring fasteners for secure mounting.
- 7) Inspect and tighten hinges and hardware.
- 8) Inspect cables for wear or damage.
- 9) Inspect drums for wear or damage.
- 10) Inspect locks for proper operation.
- 11) Inspect weather-strip for wear or damage
- 12) Inspect track fasteners and hangers for secure mounting.
- 13) Inspect and lubricate chain hoist.
- 14) Inspect track for damage.
- 15) Inspect safety labels, placement and condition.

ELECTRIC OPERATORS:

- 1) Inspect and adjust limit switches.
- 2) Inspect and adjust belts.
- 3) Inspect and lubricate roller chain.
- 4) Inspect and adjust brake.
- 5) Inspect and adjust clutch.
- 6) Inspect operator mounting.
- 7) Inspect and test disconnect.
- 8) Inspect and tighten all sprockets.
- 9) Lubricate all bearings.
- 10) Inspect safety labels, placement and condition.



INSTALLATION INSTRUCTIONS



521 Series Commercial Aluminum Door

Sectional Door Installation Instructions

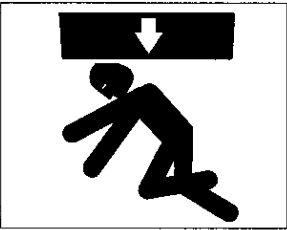
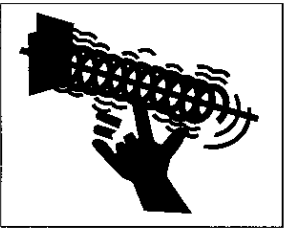
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These Instructions are for use by trained technicians.

⚠ WARNING

Overhead doors are large, heavy objects that move with the help of springs under high tension and electric motors. Since moving objects, springs under tension, and electric motors can cause injuries, your safety and the safety of others depend on you reading the information in this manual. If you have questions or do not understand the information presented, call your nearest service representative.

POTENTIAL HAZARD	EFFECT	PREVENTION
 MOVING DOOR	Can Cause Serious Injury or Death	Get help or use support when removing old door and lifting new door into place. Keep people clear of opening while door is moving.
 HIGH SPRING TENSION	Can Cause Serious Injury or Death	Do Not try to remove, repair or adjust springs or anything to which door spring parts are fastened, such as, wood blocks, steel brackets, cables or other like items. Installation, repairs and adjustments must be done by a trained technician using proper tools and instructions.

SAFETY INSTRUCTIONS

In the following text, the words **Danger**, **Warning**, and **Caution** are used to emphasize important safety information. The word:

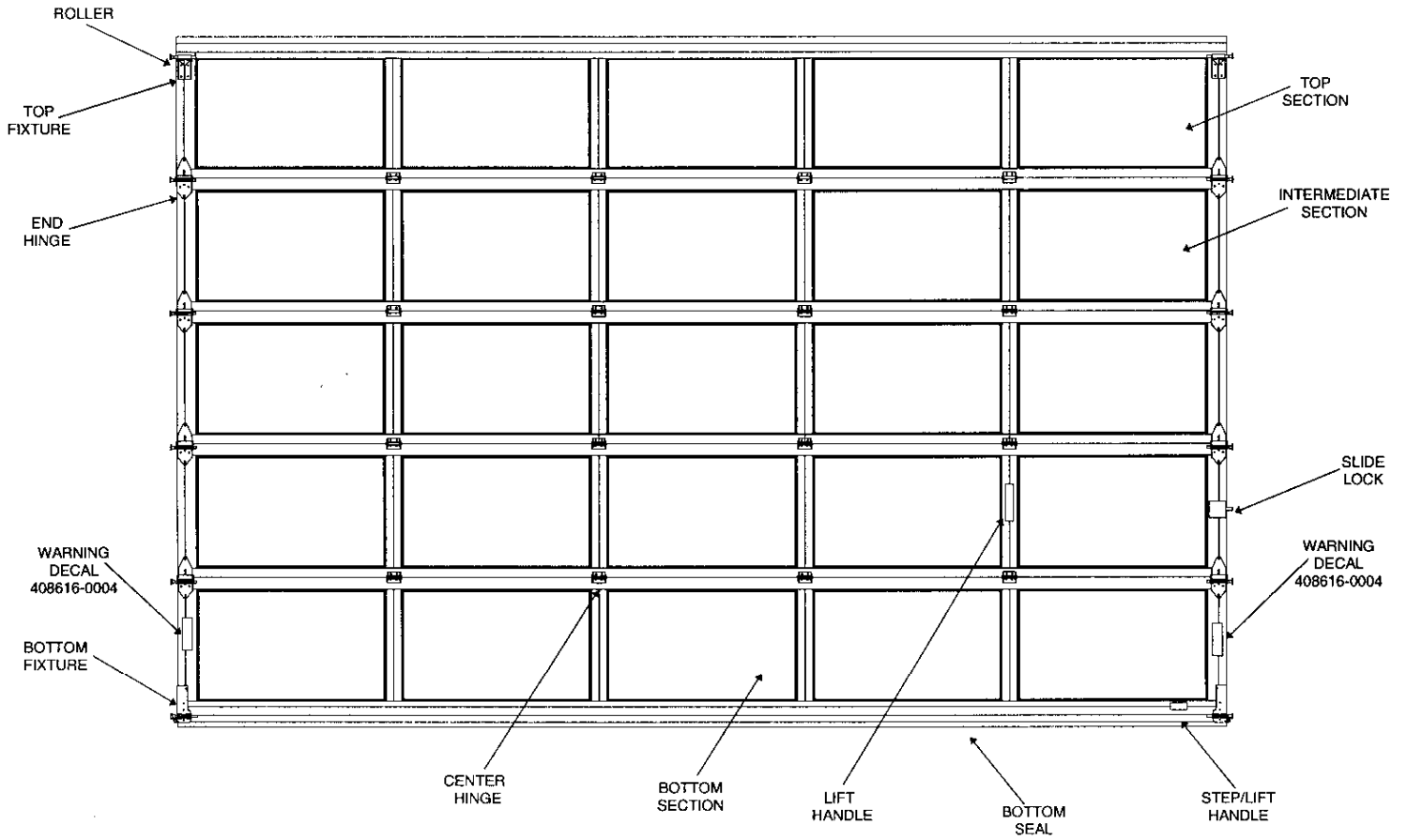
DANGER means that serious injury or death will result from failure to follow instructions.

WARNING means that serious injury or death can result from failure to follow instructions.

CAUTION means that minor injury or property damage can result from failure to follow instructions.

The word **NOTE** is used to indicate important steps to be followed or important differences in equipment.

KEY DRAWING

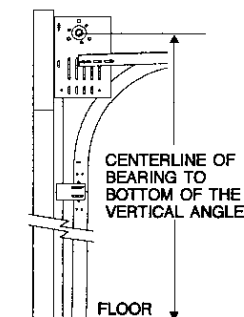


PREPARING FOR INSTALLATION

Before beginning installation, make sure of the following:

1. Opening width and height are correct for the product supplied.
2. Jambs are plumb and the floor and header are flat and level.
3. Headroom is adequate.

NOTE: To determine adequate headroom, measure the distance from the bottom of the vertical angle to the centerline of the headplate bearing. Add the radius of the cable drum. This sum must be less than the ceiling height.



4. Spring and/or bearing support pads are flush with the jambs.

NOTE: When installing several doors of the same size and construction, complete one door installation first to assure proper fit and counterbalance.

BOTTOM SECTION ASSEMBLY

1. Attach cable assemblies to bottom fixtures using clevis pin and cotter pin.

Align bottom fixture on bottom section. Attach with a minimum of three (3) fasteners and insert track rollers. See Figure 1.

2. Attach Warning decal above each Bottom Fixture. See Figure 1.
3. Attach end hinges by first aligning (See Figure 2) and then inserting the screw next to the barrel of the hinge in the lower half. See Figure 2A.

NOTE: All end hinges are numbered as their placement is important. Starting from the bottom section, attach hinges in numerical order starting with Number 2 hinge for 2" track and Number 4 hinge for 3" track.

Anchor hinge securely with the screw before inserting the screw the lower tip of the hinge.

Insert track rollers.

NOTE: If double end hinges are supplied, attach first end hinge in normal manner. Insert the long stem roller, and slide second end hinge in place. Attach to section with same fasteners and procedure as above. See Figure 3.

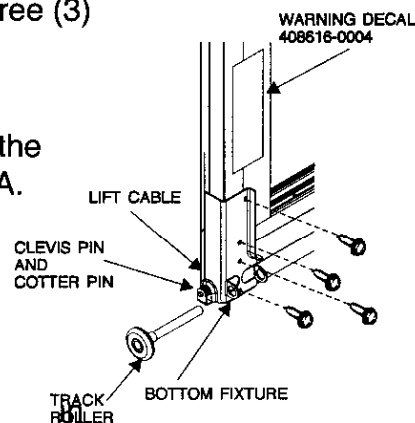


Figure 1

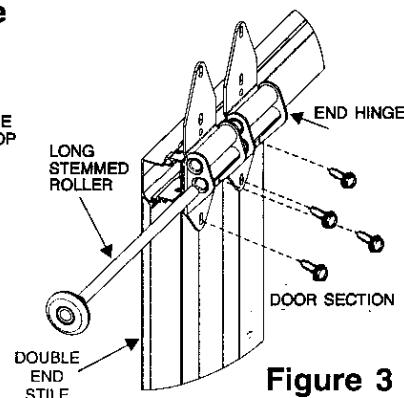
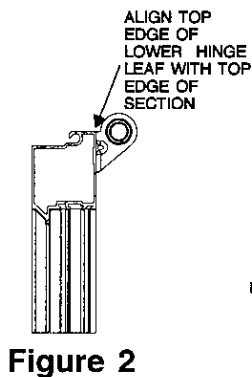
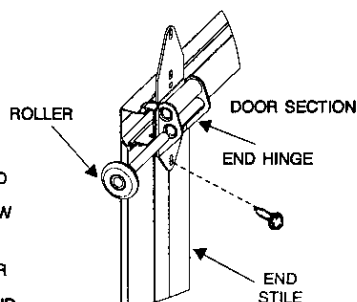
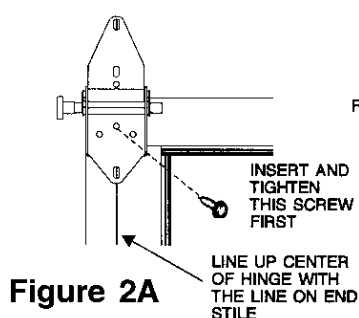


Figure 3

BOTTOM SECTION ASSEMBLY (continued)

4. Attach lower leaf of the center hinge to the top of the section using self drilling screws. See Figure 3A for proper alignment and attachment.

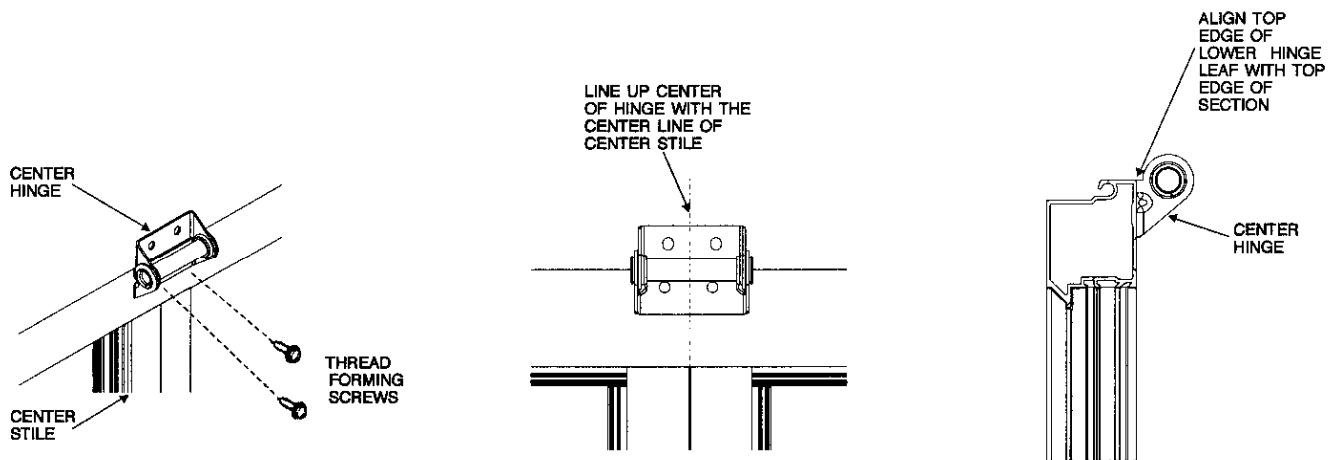


Figure 3A

INTERMEDIATE SECTION ASSEMBLY

1. Install end and center hinges per bottom section assembly on pages 4 and 5.

NOTE: Install end hinges to one side of section only. Opposite side will be assembled according to the "INSTALLING DOOR SECTIONS IN TRACK" section on page 7.

STRUT INSTALLATION

When struts are required, they may be shipped from the factory unattached. To attach struts:

HAT STRUTS

1. If hat struts are supplied with door, they are to be attached using self drilling screws (2 at each end and 1 top and bottom at each center stile) and applied to the top rail and bottom rail of the door.
2. Attach hat struts while section is lying flat on a firm, level surface. Hold strut firmly against rail so that self drilling screws are driven through the strut and rail. See Figure 6.

CAUTION: Load bearing capacity of the strut is lost if the hole is stripped out or if the strut is not held tight against each stile.

3. When a drawbar is requested attach on center center stile with 2 carriage bolts as shown in Figure 7.

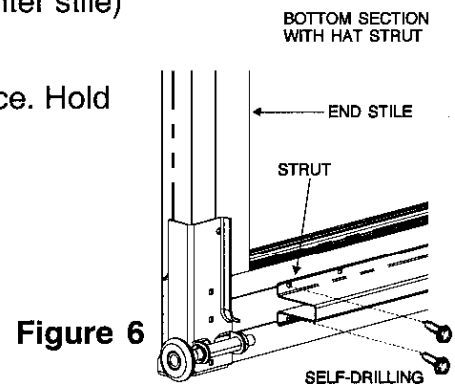


Figure 6

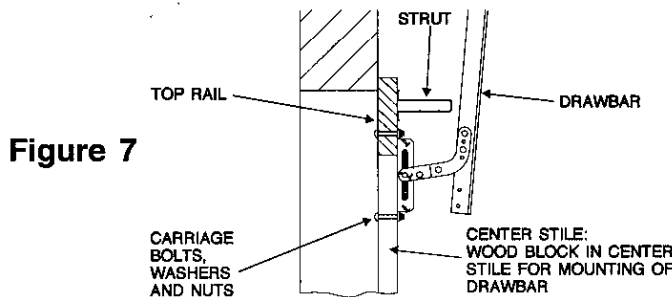
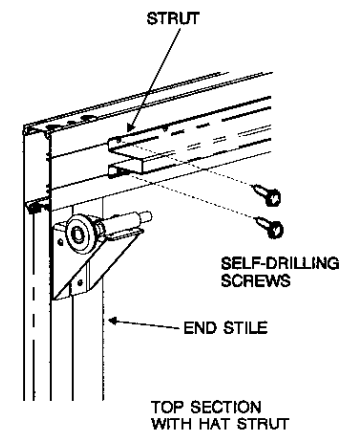


Figure 7

ANGLE STRUTS

4. If angle struts are supplied, they are to be bolted to the finned rails of the top and intermediate sections.
5. Bolts, nuts and washers will be placed 2 on each end, one at each center stile and 1 centered between each hinge for standard applications. If windload is required, 3 bolts, nuts and washers will be placed on each end, 2 at each center stile and 1 centered between each hinge.. See Figure 8.

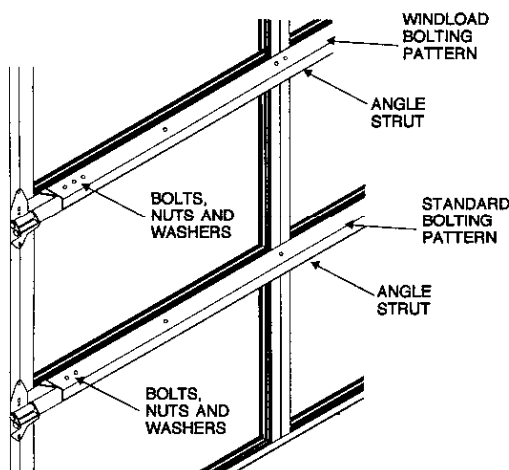
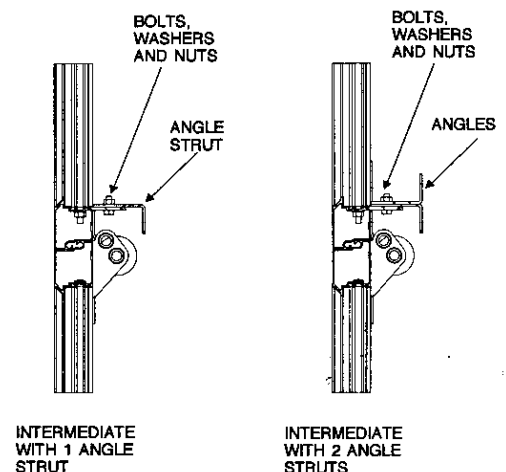


Figure 8



INSTALLING DOOR SECTIONS IN TRACK

1. Position bottom section with hardware and rollers attached.

NOTE: Do not install top section of door at this time. Top door section should be installed AFTER horizontal track or upper vertical track has been installed. See pg 10, Figure 17.

Brace door section in opening until end hinges or top fixtures and rollers are installed and secured to door section.

2. Insert roller into end hinge on intermediate section. Hook roller into track and swing section into place. Set section on top of lower section
3. Insert rollers into corresponding loose end hinge. Hook roller into track and swing end hinge onto door section. See Figure 9.
4. Secure end hinges to door section. Refer to Figure 2, page 4.
5. Attach upper half of center and end hinges to bottom of next highest section. See Figure 10.
6. Refer to Commercial Track Installation Instructions 408207-0001.

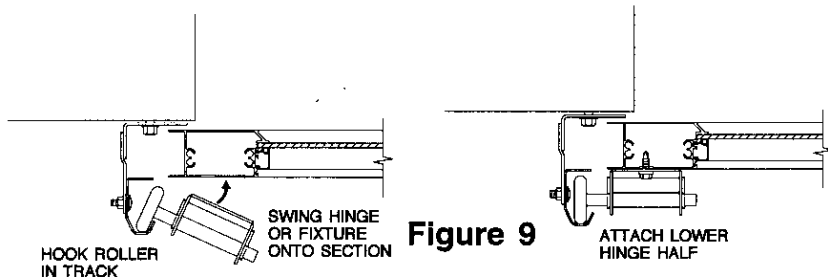


Figure 9

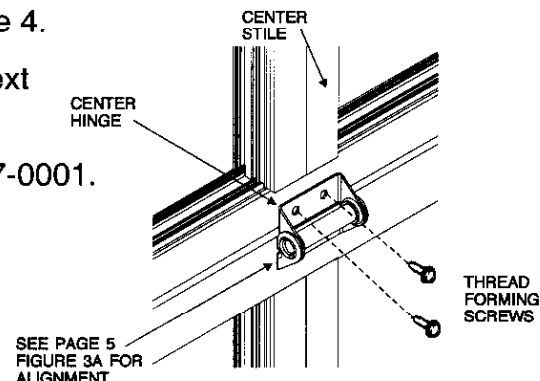


Figure 10

STEP PLATE/LIFT HANDLE INSTALLATION

1. Locate lift handles, vertically approximately 3" to 5-1/2" above bottom rail on first center stile over on lock side.
2. Use handle as a guide and drill two 1/4" holes through panel face.
3. Secure lift handles with (2) 1/4" carriage bolts, washers and nuts. See Figure 11.
4. Attach step lift handles approximately 5 inches to left of bottom fixture (normally the right side when inside looking out).

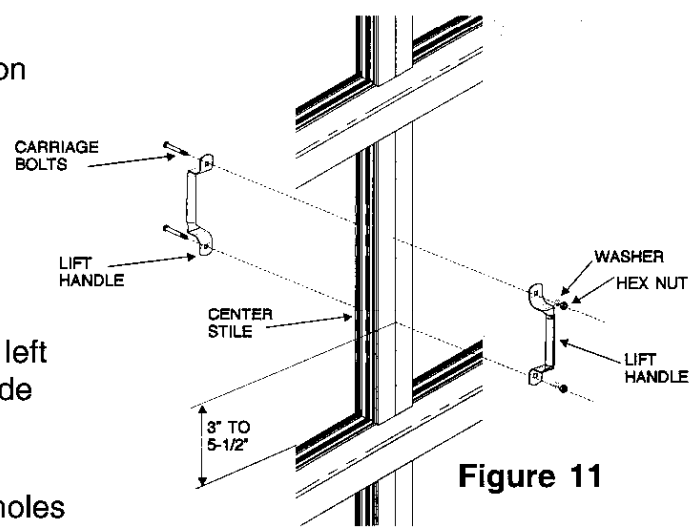


Figure 11

- a. Using the step plate as a guide, drill two 1/4" holes through the bottom rail and secure step lift handle to step plate with carriage bolts, lock washers and nuts. See Figure 12.

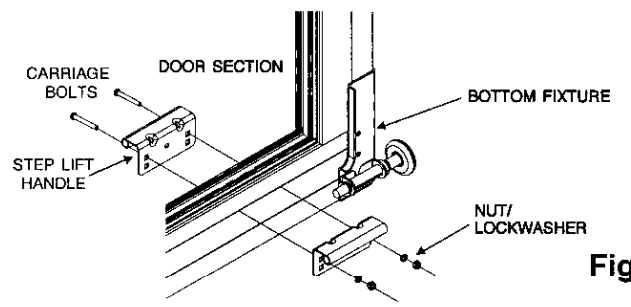
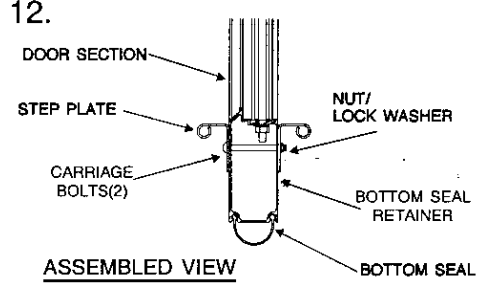


Figure 12



LOCK INSTALLATION

END STILE LOCK(SLIDE LOCK)

1. Center lock rod in track cutout. See Figure 13.
2. Retract lock rod and move lock assembly so that the end of the lock rod is flush with edge of door section in unlocked position.
3. Mark four holes. Drill 1/8" holes and attach with self-extruding screws.
4. Attach lock rod keeper.

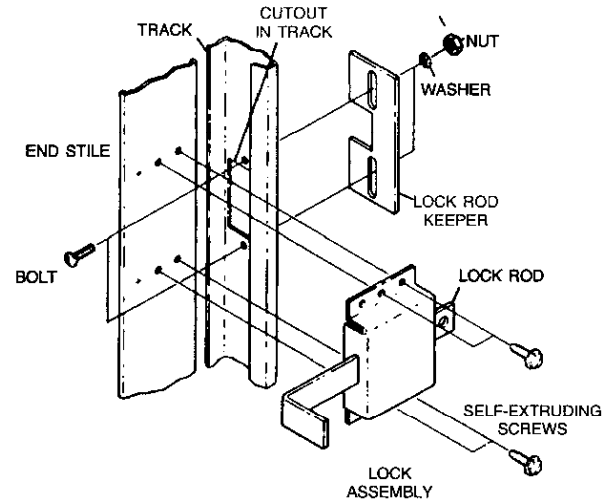


Figure 13

SINGLE OR DOUBLE ROD LOCK

1. Place outside handle assembly on outside of section and insert carriage bolts. See Figure 14.
2. Insert lockcase assembly on inside door.
3. Insert lock stem and cylinder tongue in proper place with bolts going through spacers.
4. Secure nuts to through bolts, holding both inner and outer parts.
5. Install 4 self-extruding screws in lock assembly.

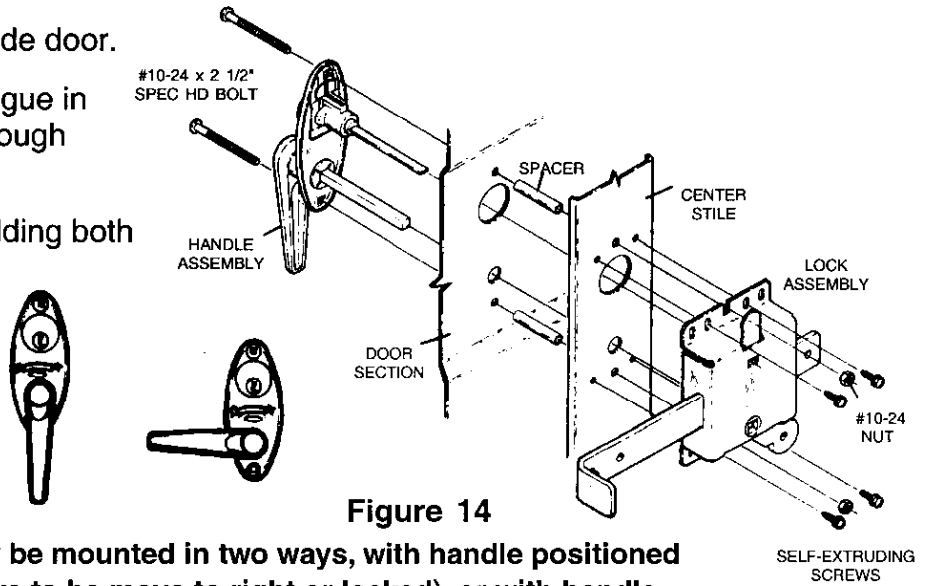
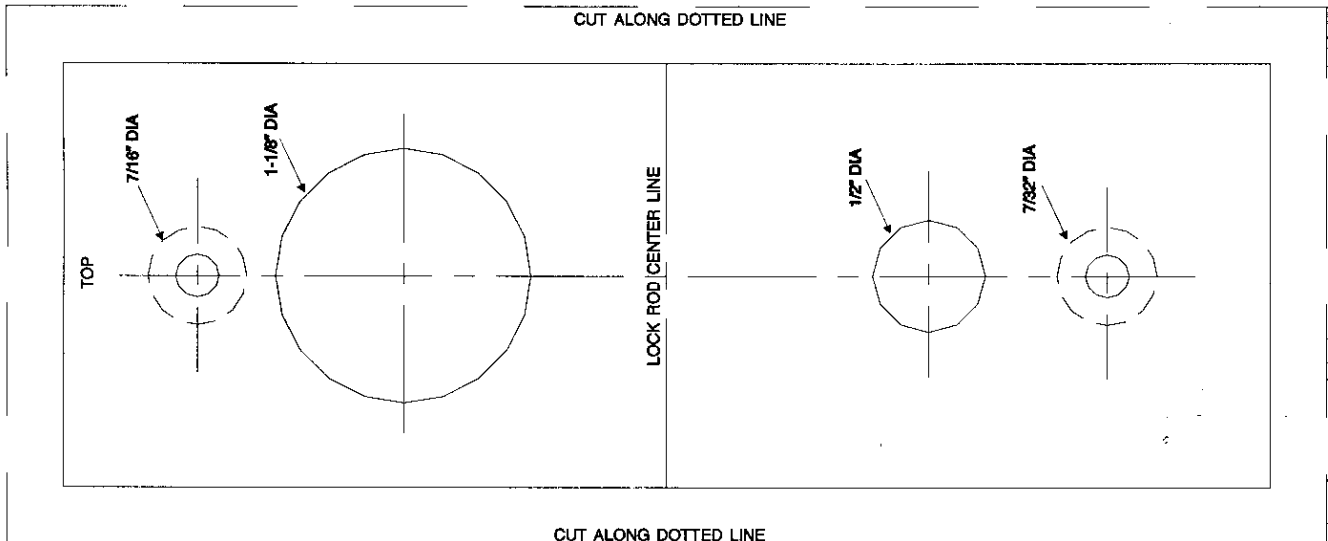


Figure 14

NOTE: Lock handle assembly may be mounted in two ways, with handle positioned down (lockcase bar will have to be move to right or locked), or with handle held up in the unlocked position (masking tape may help hold handle in place while attaching lockcase).



LOCK INSTALLATION (continued)

LOCKROD INSTALLATION

1. Secure lockrod(s) to lockcase assembly. See Figure 15.
2. Install guide(s) on lockrods.
3. Position guide(s) on end stile(s) 3/4" from edge of section. Align with slots in track.
4. Drill 1/8" mounting holes in end stile(s) and secure guide(s) to end stiles.
5. Drill 1/8" mounting holes and secure guides to center stiles.
6. If required, install lockrod keeper(s) on slot in track(s).
7. Install lock spring. Locate on left hand side on double rod installation.

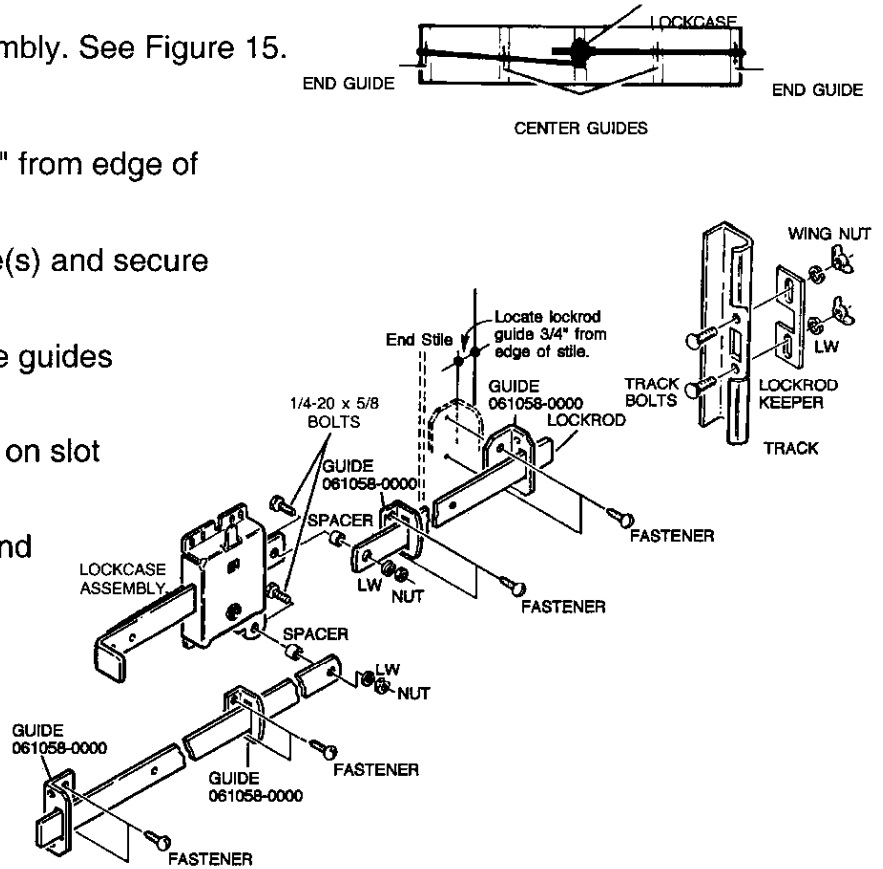


Figure 15

LEFT HAND LOCKS

All locks are shipped "Right Hand" installation (See Figure 16). If "Left Hand" installation is required, use the following procedure:

1. Remove set screw, lock catch and lock bar spring.
2. Pivot lock crank to opposite side of lock case.
3. Re-install lock bar in opposite side of case. Align spring bar with slot in case and push lock release out of path of lock bar.
4. Re-install lock catch. Push lock release out of way allowing tab of lock catch to fit between lock bar and lock release.
5. Align hole in lock catch with hole in lock bar and re-install set screw.

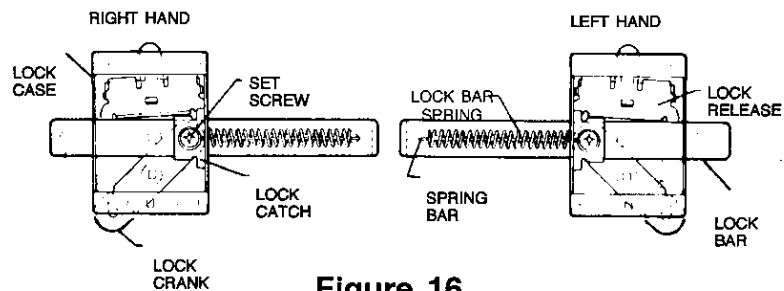


Figure 16

TOP FIXTURE INSTALLATION

After horizontal tracks or upper verticals have been installed, set top section in place.

Insert rollers into top fixture and attach to section using four fasteners. See Figure 17.

NOTE: Top fixture may be inverted as required.

If double end hinges are supplied, attach first top fixture in normal manner. Insert the long stem roller and slide second top fixture in place. Attach to section with same procedure shown above.

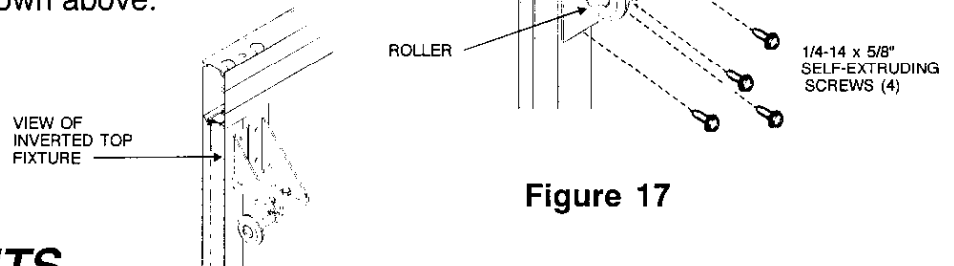


Figure 17

FINAL ADJUSTMENTS

1. On manually operated doors, attach pull down rope to bottom fixture and long track bolts located at a jamb bracket above mid-point of door height using a rope washer. See Figure 18.

Attach the pull down rope on same side of door as lock assembly.

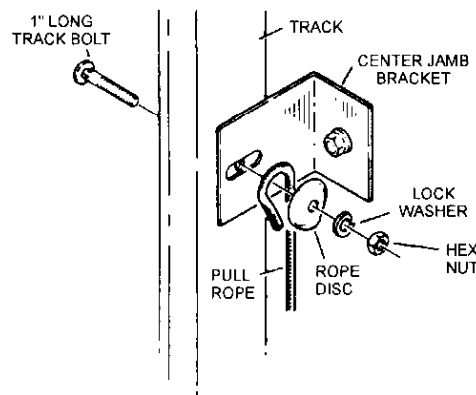
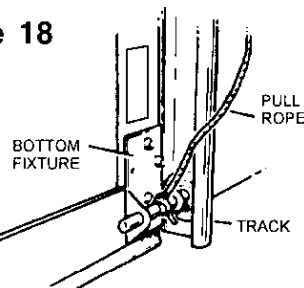


Figure 18



2. Adjust top fixtures to seat top section against header or header seal.
3. Adjust lock rod keeper on track, if necessary, for secure locking and ease of operation.
4. Lubricate all moving parts (hinge barrels, rollers, lock etc.) with regular grade machine oil.
5. Affix Warning decal 408616-0002 to wall next to hoist handchain.



WARRANTY

The Genuine. The Original.



One Year Limited Warranty

The authorized distributor of Overhead Door Corporation products whose name appears below ("Seller") warrants the products sold under this warranty to be free from defects in material and workmanship under normal use and service for a period of **ONE YEAR**. Labor to repair or replace is included during this warranty period. This warranty extends only to the original purchaser ("buyer"), and expires one year after the date of installation.

Seller's sold obligation under this warranty is limited to repairing or replacing any part, which shall be determined by Seller to be defective, and is conditioned upon buyer giving written notice of any such defect to Seller within the warranty period. If Seller concludes that repair or replacement is necessary, Seller will commence work within a reasonable time after the decision to repair or replace is made.

This warranty does not apply to any product which has been altered, modified, damaged or deteriorated due to abuse, neglect, misuse or by accident. Warranty will be **VOID** if any repairs are made or attempted to be made by any person not authorized by the Seller, or if proper maintenance and painting practices are not followed.

THERE IS NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER IMPLIED WARRANTY BEYOND THE ONE-YEAR PERIOD DESCRIBED ABOVE. SELLER WILL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR ANY FURTHER LOSS WHICH MAY ARISE IN CONNECTION WITH ANY CLAIM.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

Seller has not established any informal dispute settlement procedure of the type described in the Magnuson-Moss Warranty Act. Claims under this warranty must be made in writing to the Selling Distributor whose name and address appears below within the applicable warranty period. (Proof of purchase and identification as the original purchaser may be required).

DOOR TYPE: _____

OPERATOR TYPE: _____

CUSTOMER NAME (ORIGINAL PURCHASER): _____

CUSTOMER INSTALLATION LOCATION: _____

ORDER # _____

DATE OF INSTALLATION: _____

NAME OF DISTRIBUTOR/INSTALLER: _____

SIGNATURE OF DISTRIBUTOR/INSTALLER: _____



Overhead Door Corporation
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