

**TECHNICAL SUPPORT SERVICE
BULLETIN****INTERNAL DISTRIBUTION ONLY***

DATE: 9/15/2008

PRODUCT: 3800 (RJO)

SUBJECT: Door Types

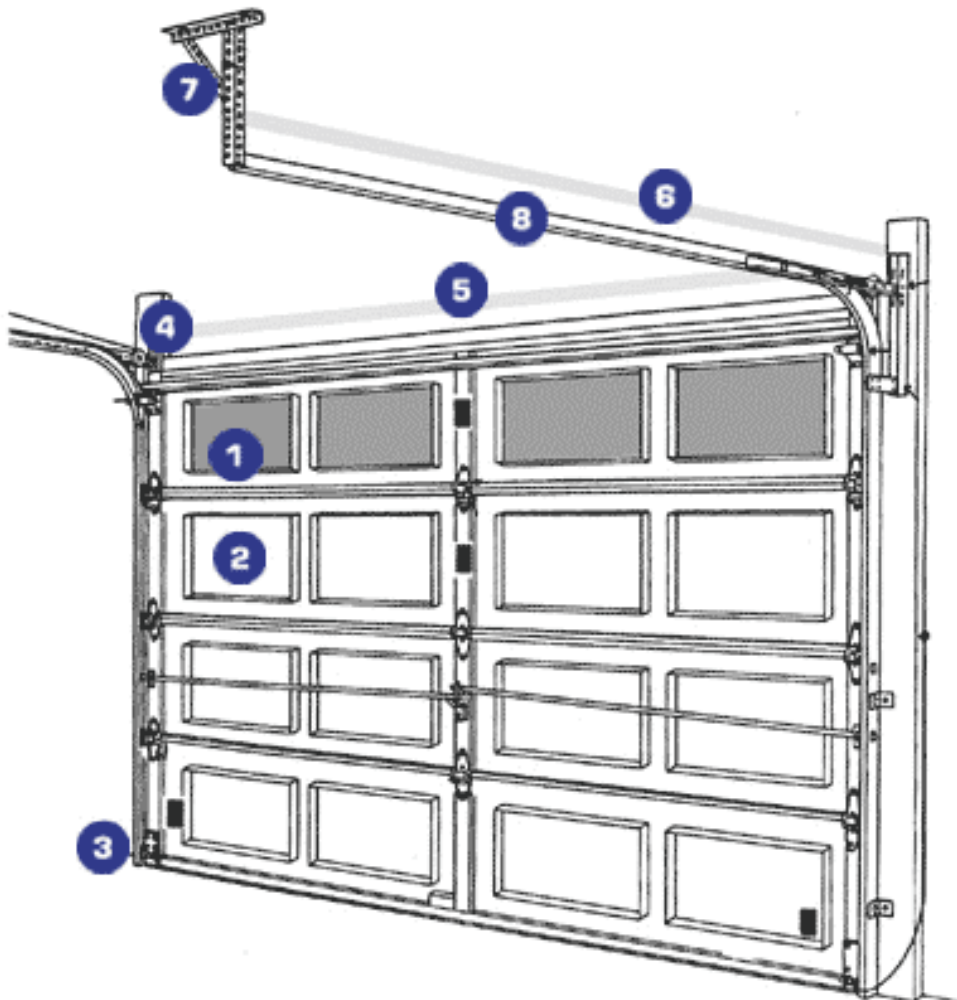
With the introduction of the 3800 we found that not all garage doors are the same. The 3800 is unique and interacts differently with different doors. The next eight pages will explain in brief detail the various types of doors and how these doors interact with the 3800.

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Common Door Terms

- | | | | |
|----|----------------|----|----------------------|
| 1. | Window Light | 5. | Torsion Bar/ Springs |
| 2. | Panel | 6. | Extension Springs |
| 3. | Bottom Bracket | 7. | Rear Track Hanger |
| 4. | Cable Drums | 8. | Horizontal Track |

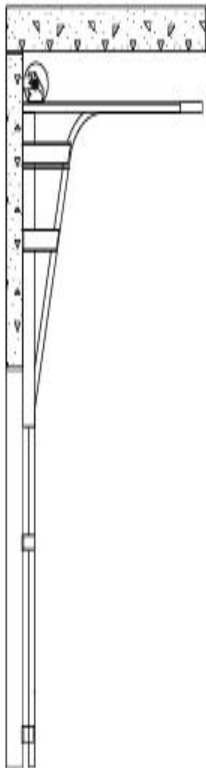


High Lift



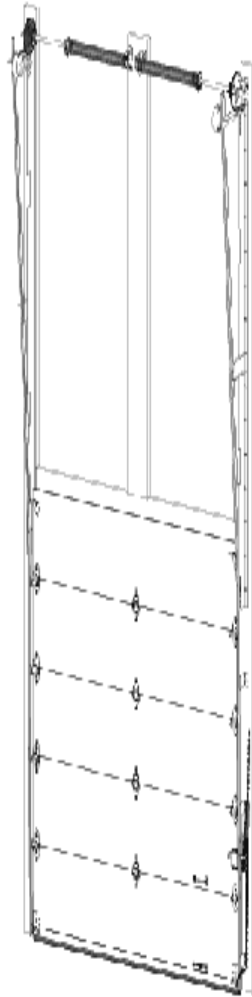
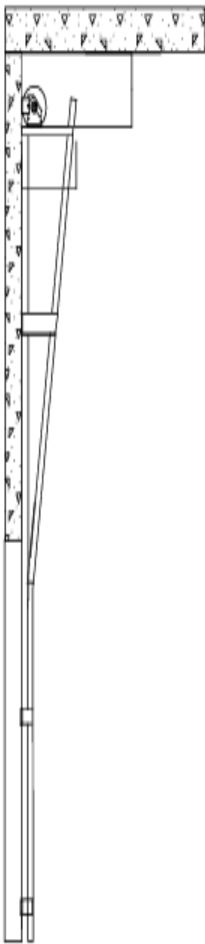
For applications that require a little more headroom, High lift doors are available for up to 120" inches above the height of the door jam. This means that the door will raise vertically for up to 120" before rotating around into it's horizontal resting position. The RJO is only recommended for use on high lift up to 84".

High-lift track (HL)



Full Vertical

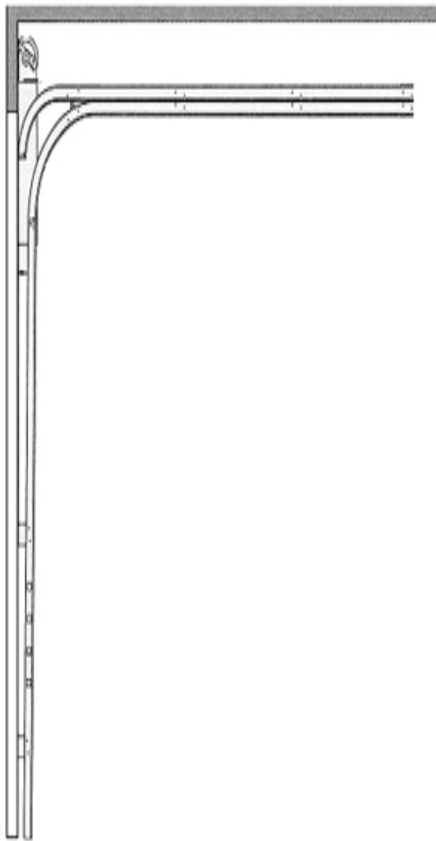
Full vertical lift (FV)



Not recommended for use on the RJO due to the type of cable drum that is used on this application. Full vertical lift doors utilize a step down or tapered drum as shown below.



Low Headroom Front Mount (LHF)



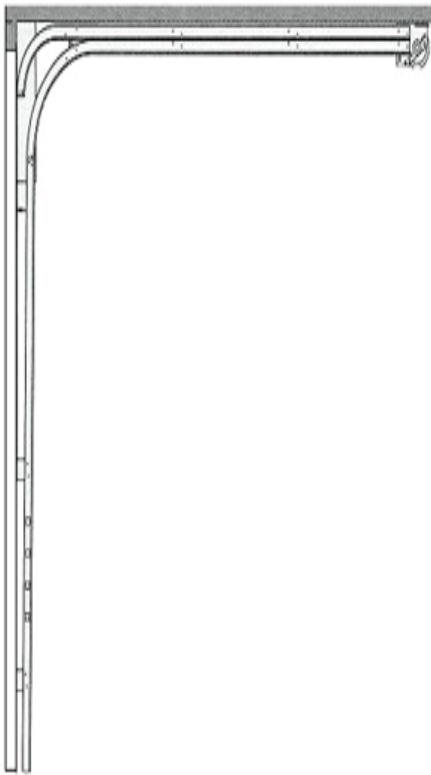
- Where there is still space available above the door to allow for the spring assembly, but still not enough ceiling height for standard hardware. LHF comes in two types, inside and outside pickup. The difference being where the cable runs in relation to the vertical track (inside or outside).

- Outside pickup is not compatible with the RJO due to the fact that the springs are wound in the opposite direction. When the RJO goes to open the door, the door will in fact close.

- Common tracks include 3 1/2" , and 6" radius tracks.

NOTE: changing the motor wiring polarity will change motor direction but not the safety connections this is not recommended

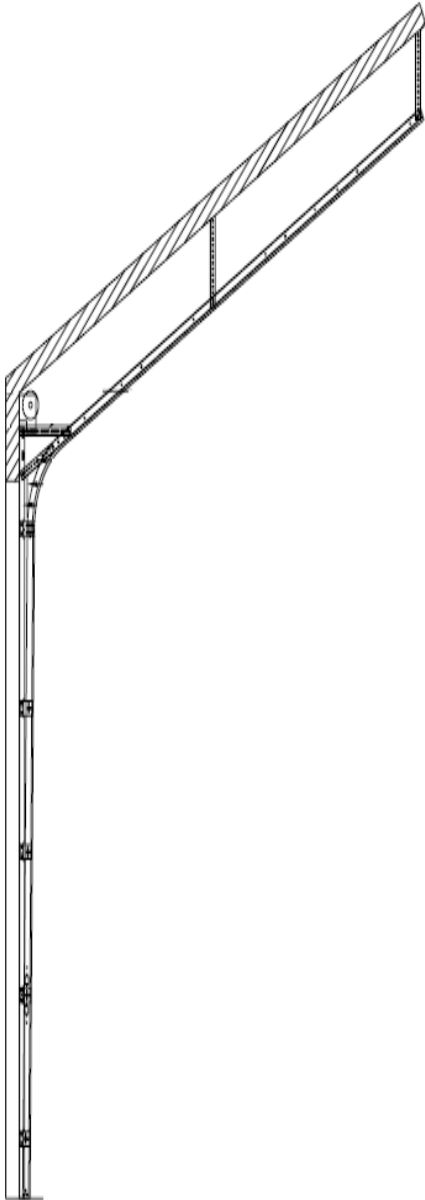
Low Headroom Rear Mount (LHR)



- When space is really tight, or your trying to maximize the height of the door, low headroom tracks are an option. With LHR the spring and drums are located at the rear of the track to save space above the door. The extra horizontal track above the normal radius allows the top roller to make a tight turn while opening and closing.

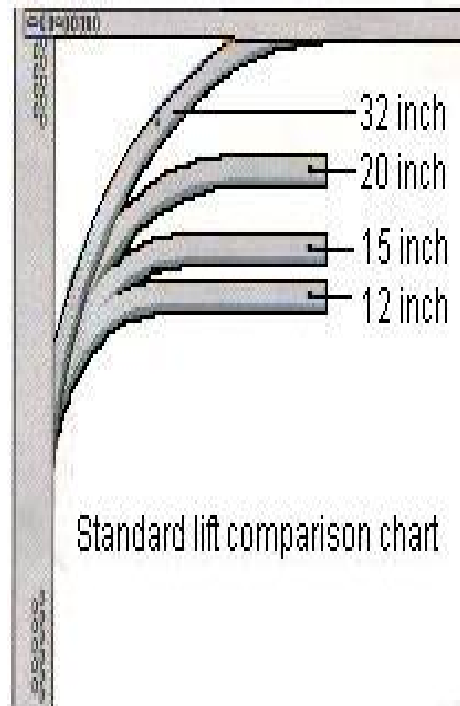
- LHR is not recommended for use on the RJO. It is possible but a lot fabrication would be needed to mount the operator and cable tension monitor.

Follow The Pitch



- Designed to place the horizontal track on the roof incline, and as close as possible to the roof. Can be used with standard lift or high lift applications.
- This works very well with a 3800 due to the fact that the door doesn't have to make much of a turn to close.

Track Radius



- The RJO is well suited for use on tracks 15" plus
- 12" radius tracks can pose a problem.
 - Suggest the horizontal track be lifted in the rear
 - Suggest the use of a pusher spring

NOTE: 12" radius tracks are not recommended for use on doors with less than 4 panels

Pusher Springs

- Pusher Springs or Push Down Bumpers when compressed by the top panel of the door will help start the door into the opening.
- Pusher springs are often used in combination with a jackshaft style garage door opener to prevent thrown cables.
- Pusher springs often come in two sizes 15" and 27".
 - 15" pusher springs will have 6" of travel and when fully compressed approximately 60 lbs of initial thrust
 - 27" pusher springs will have 15" and when fully compressed approximately 150 lbs of initial thrust.

