A VANTAGE Company

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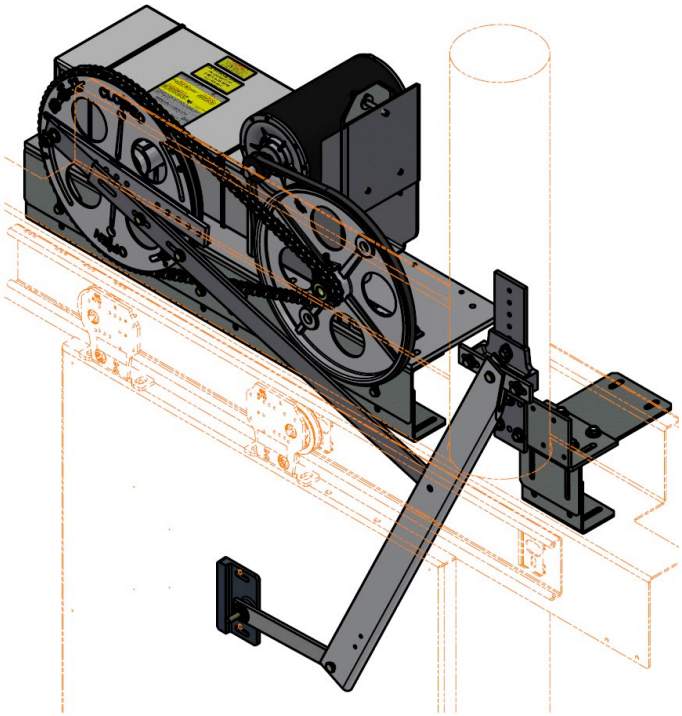
GAL COMPACT MOVFR-II

Designed for Installing a GAL Operator in limited cartop space in Dover IVO Jack Cartop



Installation Guide

Rev A

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1. Introduction

This kit is designed to allow for easy installation of GAL operators where there is an existing Dover hydraulic piston in the cartop. It was designed to have adjustable components so that only 1 part number is needed for an opening regardless of size.

Note: This kit provides a mounting solution for GAL components. It does NOT contain a GAL car hanger assembly. It is designed to only drive the door. The existing clutch system or a replacement that can work without drive arm actuation MUST remain.

2. Kit Limitations

This kit is intended for the following applications. Please contact GAL to explore other options if your modernization falls outside the below.

- Side Slide openings
- 30” to 48” wide door openings
- Up to a 34” tall header

3. General Installation and Setup

3.1. Preliminary Steps and Data Table Adjustment

Data table DATA21-5 was created based on GAL’s standard header height, and a general IVO Jack location. The data table can be modified as follows to fit a unique setup.

3.1.1. Header Height

The data table is written for a 13” tall car door header. It may be modified to fit taller headers by decreasing the “M” dimension by the amount the header is raised from 13”.

Ex. A 21” Header decreases the M by 8”.

3.1.2. IVO Jack

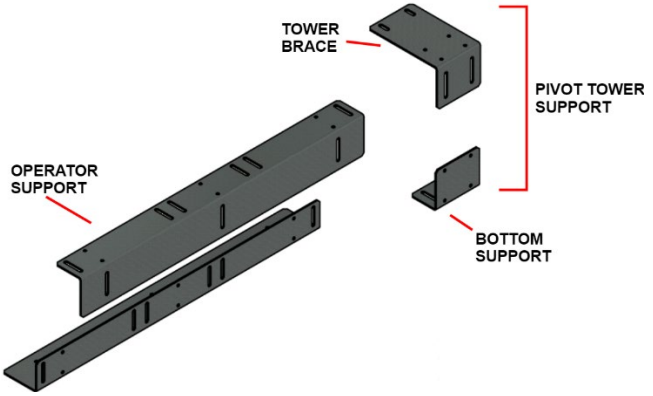
The Data Table is written assuming the hydraulic jack starts 33” from daylite on a 30”-38” door opening and 37” from daylite on 39”-48” door openings. If the jack starts more than 1” from standard, the T dimension needs to be moved by the difference.

Ex. A 30” door opening with 31” to the start of the Jack. T=-3

In the rare case that the operator cannot be moved to the leading edge, please contact GAL engineering for a custom layout.

3.2. Compact Operator Setup

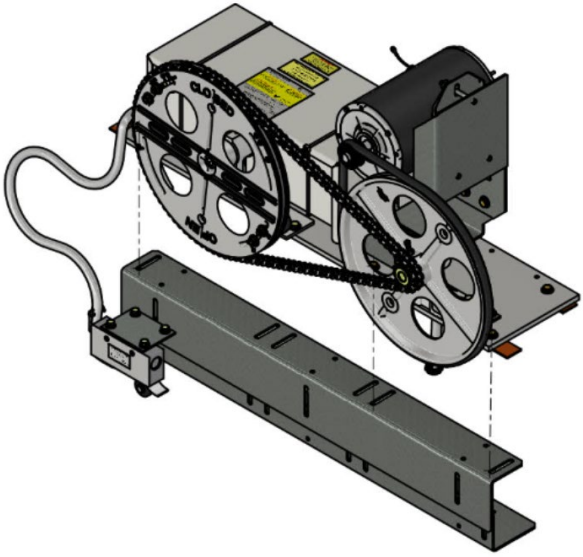
Adjustable front support brackets are provided to raise the operator and pivot tower to be level with the rest of the cab.



Both pieces of the Operator support brackets are identical. The pivot support with the longer flange is meant to go on the top and be anchored to the back of the cab.

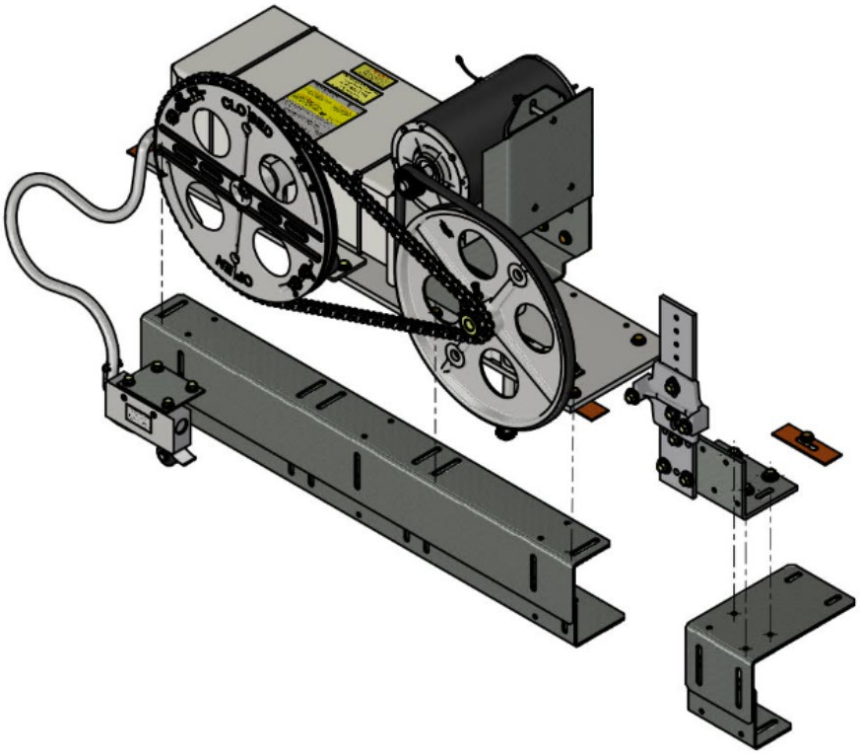
Mount the bottom support bracket to the existing header base. The tapped holes should be facing you and the 1st slot facing you should be at the T dimension on DATA21-5. **NOTE: For door openings 30”-38” the T dimension overhangs daylite by 1”.**

Attach the top support bracket to create a “C” shape using the 5/16-18 hardware provided. The top of the C should be level with the cartop. Attach the main operator piece to the support brackets using the provided 5/16-18 hardware and cork spacers.



The location of the pivot tower depends on the Q dimension from the data table. The bottom support should be mounted first with the slots on the header base and the tapped holes facing you. The faces of the tower and operator support brackets should be even. The first edge of the pivot tower will be Q-2.5” from the leading-edge pulley center.

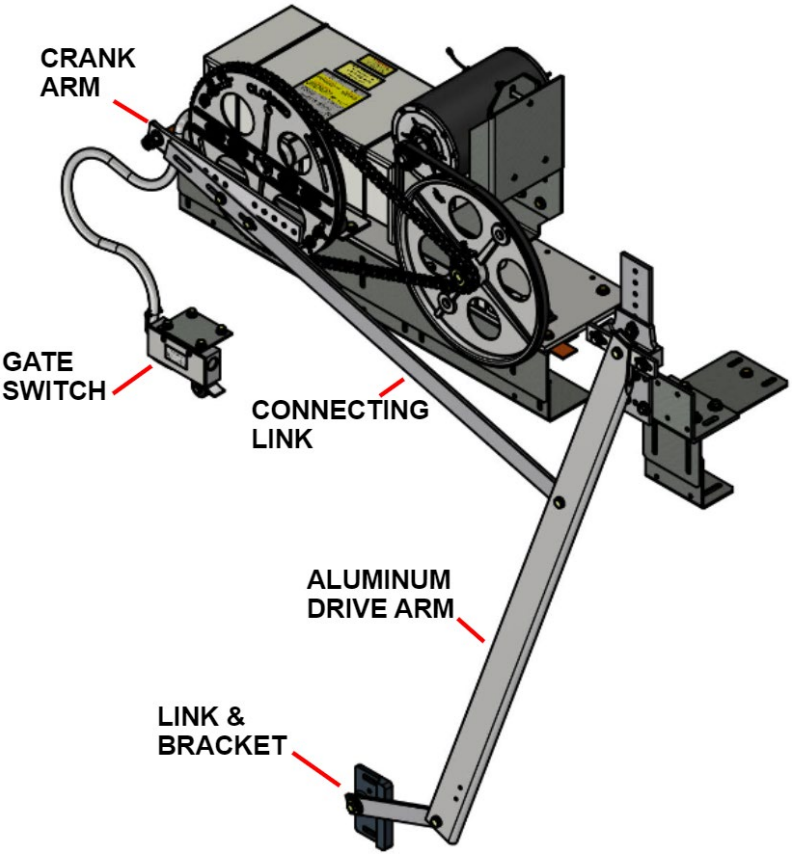
Attach the tower brace to the bottom support in the same manner as the operator support brackets. Attach the pivot tower to the brace using 5/16-18” hardware and secure the brace to the cartop.



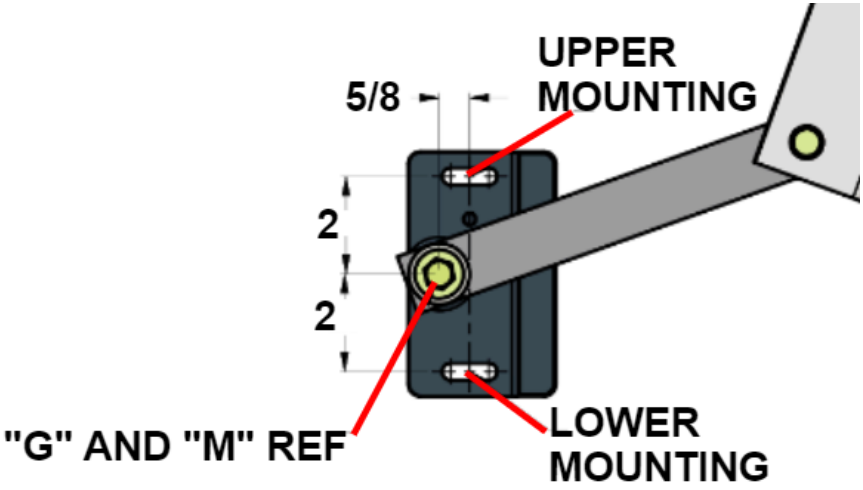
3.3. Misc. MOVFR-II Setup

The remainder of the installation is identical to normal MOVFR-II setup.

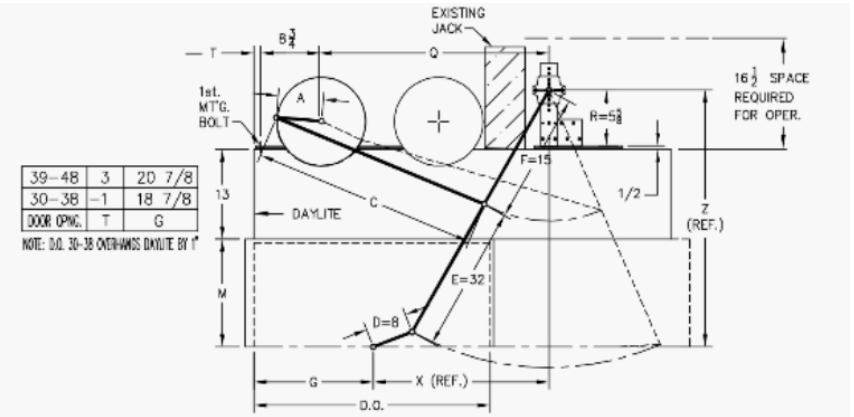
- The crank arm length, “A” can be adjusted by the 2 bolts on the backside of the leading-edge pulley,
- The connecting link length “C” is adjusted using the slots on the 2-piece linkage system.
- The aluminum drive arm “E” and “F” is attached to the pivot tower, connecting link, and false clutch bracket.



- The false clutch bracket, “link and bracket” or “D” is attached to the door with (2) 5/16-18 bolts. These holes must be drilled on-site.
    - The location of the holes is based on the “M” and “G” dimensions on DATA21-5.
    - The horizontal location is G + 5/8”
    - The vertical location is 2” above and 2” below M



4. Data21-5



48	7 5/8	34 5/16	8	32	15	25	30 7/8	44	40	5 5/8
47	7 1/2	34 1/8	8	32	15	25	30 7/8	44	40	5 5/8
46	7 7/16	33 15/16	8	32	15	25	30 7/8	44	40	5 5/8
45	7 5/16	33 1/4	8	32	15	25	30 7/8	44	40	5 5/8
44	7 1/4	34 1/4	8	32	15	25	30 7/8	44	40	5 5/8
43	7 1/8	34 5/16	8	32	15	25	30 7/8	44	40	5 5/8
42	6 3/4	39 13/16	8	32	15	25	28 7/8	44	38	5 5/8
41	6 5/8	39 13/16	8	32	15	25	28 7/8	44	38	5 5/8
40	6 1/2	39 5/16	8	32	15	25	28 7/8	44	38	5 5/8
39	6 3/8	39 7/16	8	32	15	25	28 7/8	44	38	5 5/8
38	6 1/8	39 1/4	8	32	15	27	26 7/8	46	38	5 5/8
37	6	39 13/16	8	32	15	27	26 7/8	46	38	5 5/8
36	5 7/8	39 5/16	8	32	15	27	26 7/8	46	38	5 5/8
35	5 3/4	39 1/8	8	32	15	27	26 7/8	46	38	5 5/8
34	5 3/4	39 7/16	8	32	15	27	26 7/8	46	38	5 5/8
33	5 11/16	39 1/4	8	32	15	27	26 7/8	46	38	5 5/8
32	5 7/16	39 5/16	8	32	15	27	26 7/8	46	38	5 5/8
31	5 1/4	38 7/8	8	32	15	27	26 7/8	46	38	5 5/8
30	5 1/16	38 1/4	8	32	15	27	26 7/8	46	38	5 5/8
INCHES	A	C	D	E	F	M	X	Z	Q	R
DOOR OPENING	OPERATOR ARMS		DOOR ARMS			CLUTCH	PIVOT		OPERATOR	

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SIDE SLIDE 30–48 D.O. OPERATOR DATA TABLE FOR COMPACT MOVFR–II

SEPT. 27 2022

DATA21–5