



A **VANTAGE** Company

**G.A.L. Manufacturing Company, LLC**

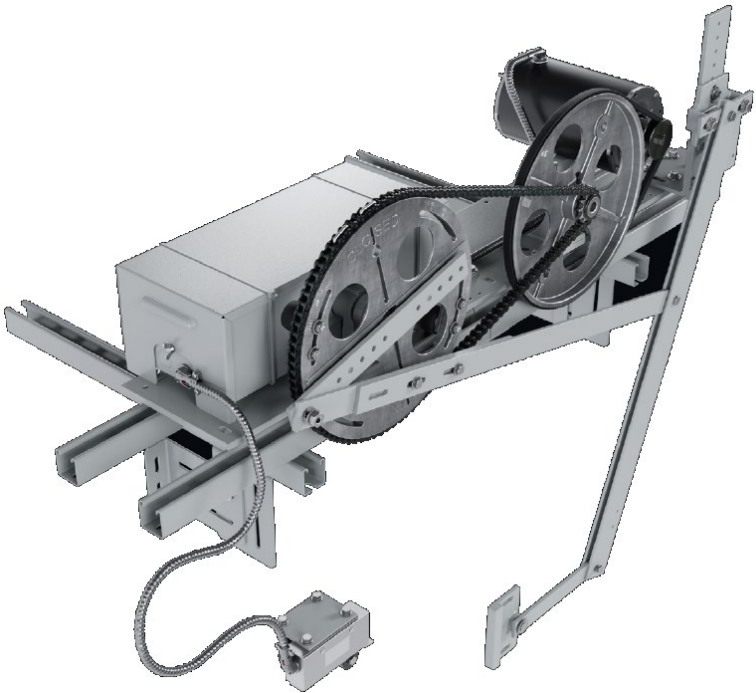
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## **Dover HD to GAL MOVFR-II Conversion Kit**

*Designed for Installing a GAL MOVFR in place of a  
Dover HD operator*



## ***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-HD operator. 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.

- Single Panel openings **OR** Multi-Panel Openings with existing cable relating
- 36" to 48" wide door openings
- Up to a 33" tall header

## 3. General Installation and Setup

### 3.1. Preliminary Steps and Data Table Adjustment

DATA21-6 & DATA23-8 were created based on a 13" header height, and general Dover HD location. The data table can be modified to fit a unique setup.

#### 3.1.1. Header Height

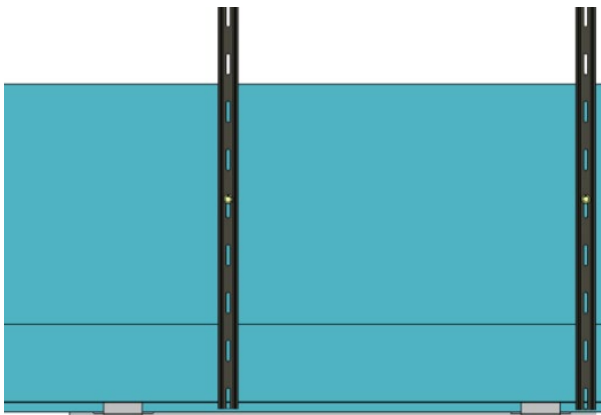
The data table is written for a 13" tall car door header. It may be modified to fit taller headers by decreasing the "M" dimension by the amount the header is raised from 13".

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

### 3.2. Operator Support Setup

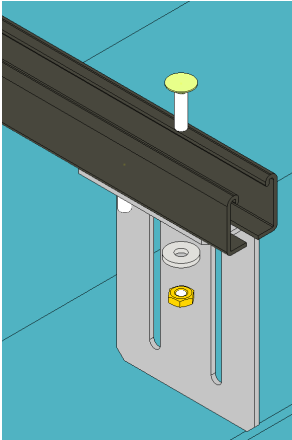
A channel strut platform is provided to support the MOVFR Operator. Using 5/16-18 bolts, mount (2) pieces of strut to the cartop perpendicular to the opening so that they both clear all obstructions on the cartop.

- The front of the strut should be in line with the back of the door
- The 2 pieces of channel strut should be no less than 30" apart.
- For side slide operators the leading-edge channel strut should be at least 10" from the leading-edge door opening.
- For Center Parting operators the pieces of channel strut should be centered on the door opening.



## DOVER HD to GAL MOVFR KIT

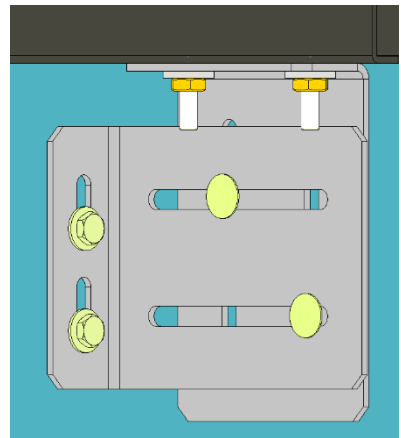
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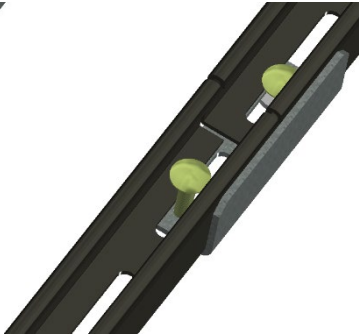


Attach a long support bracket to the front of each channel strut using (2) 5/16-18 carriage bolts each.

Connect a second support bracket to each original bracket using (2) more carriage bolts. The short flange should be flush to the face of the header.

Secure the second bracket to the header using (2) 5/16-18 bolts.

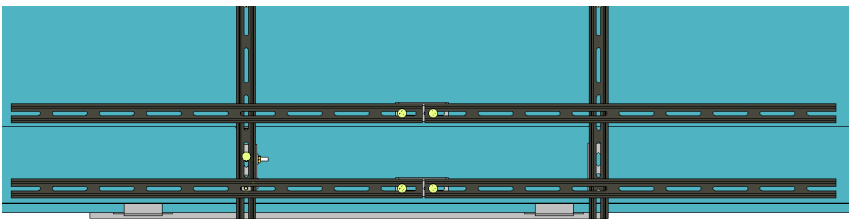
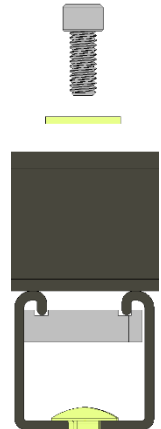




Connect (2) of the remaining channel struts together end-to-end using the short connecting bracket and 5/16-18 carriage bolts. Repeat for the remaining (2) channel struts.

Using 5/16-18 strut nuts and socket head bolts, loosely attach the long channel struts to the mounted channel strut. This creates the platform to hold the MOVFR baseplate and will not be finalized until the MOVFR is located according to the MOVFR-installation manual provided separately.

- The channel strut closer to the hoistway opening will be roughly  $1\frac{3}{4}$ " from the face of the car door.
- The other channel strut will be about  $5\frac{7}{8}$ " from the 1<sup>st</sup> strut.



## DOVER HD to GAL MOVFR KIT

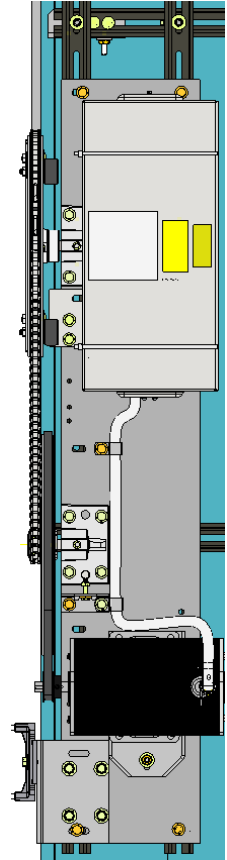
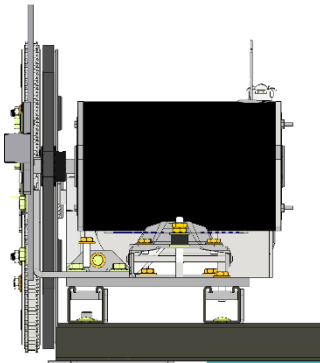
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Place the operator on top of the channel strut.

Loosely connect the corners of the base plate to the channel struts.

Locate the correct distance from the face of the car door to the base of the operator in accordance with the MOVFR installation manual.

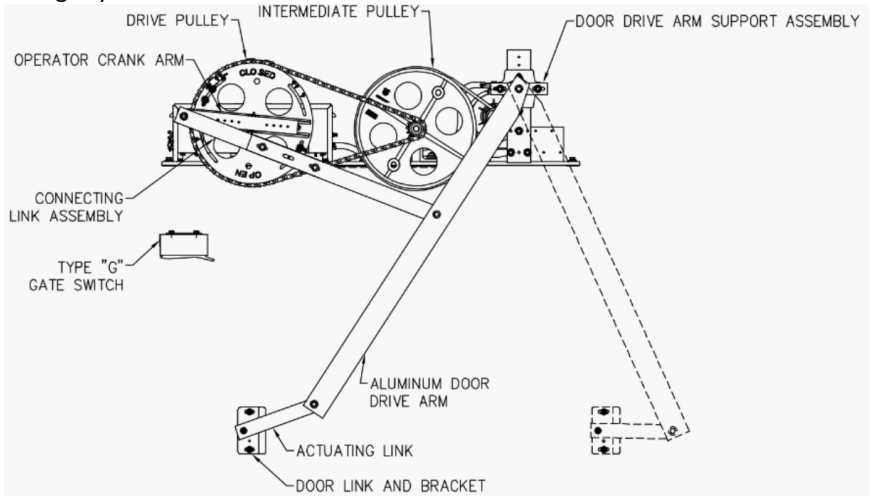
Tighten the bolts on the top channel struts and mount the MOVFR base plate.



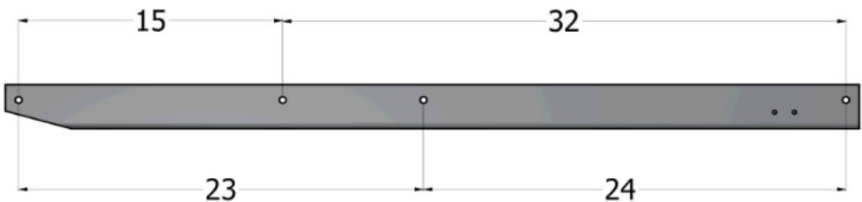
### 3.3. Misc. MOVFR-II Setup

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 provided drive arm has 2 center holes. The correct location for the connecting like depends on the data table being used.

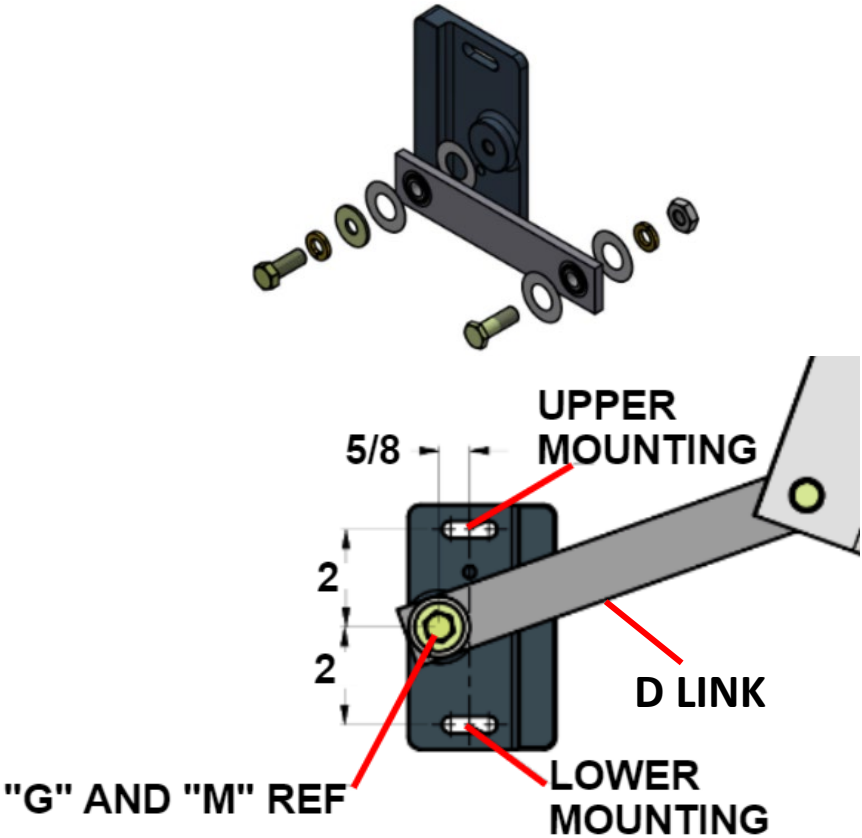




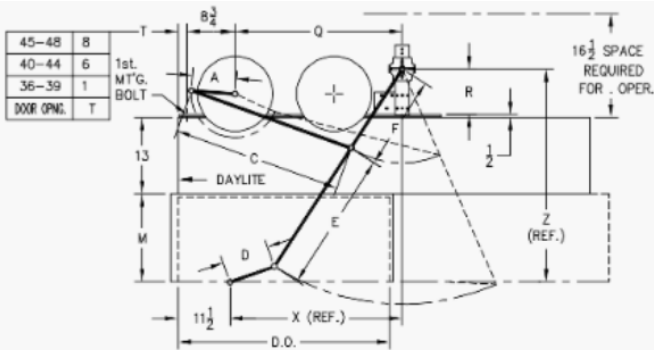
## DOVER HD to GAL MOVFR KIT


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- 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 DATA21-6 or DATA23-8.
  - The horizontal location is  $G + 5/8$ ”
  - The vertical location is 2” above and 2” below M
  - (2) different length “D” dimensions are called out depending on the data table being used. The bracket can be easily disassembled to replace the link with the correct length.

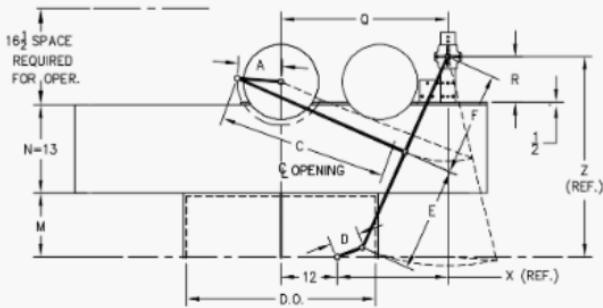


4. Data21-6




48	10 1/8	27 15/16	8	32	15	24	31 1/4	43 7/8	26	6 1/2
47	9 7/8	27 5/8	8	32	15	24	31 1/4	43 7/8	26	6 1/2
46	9 11/16	27 3/4	8	32	15	24	31 1/4	43 7/8	26	6 1/2
45	7 1/2	27 5/8	8	32	15	24	31 1/4	43 7/8	26	6 1/2
44	7	27 11/16	8	32	15	24	24 1/4	45 5/8	26	7 1/4
43	6 7/8	27 9/16	8	32	15	24	24 1/4	45 5/8	26	7 1/4
42	6 3/4	27 7/16	8	32	15	24	24 1/4	45 5/8	26	7 1/4
41	6 5/8	27 5/16	8	32	15	24	24 1/4	45 5/8	26	7 1/4
40	6 1/2	27 3/16	8	32	15	24	24 1/4	45 5/8	26	7 1/4
39	6 1/8	28 1/16	6	32	15	24	24 1/4	45 5/8	26	7 1/4
38	6	28	6	32	15	24	24 1/4	45 5/8	26	7 1/4
37	5 7/8	27 7/8	6	32	15	24	24 1/4	45 5/8	26	7 1/4
36	5 1/2	27 3/4	6	32	15	24	24 1/4	45 5/8	26	7 1/4
INCHES	A	C	D	E	F	M	X	Z	Q	R
DOOR OPENING	OPERATOR ARMS		DOOR ARMS			CLUTCH	PIVOT		OPERATOR	
 SIDE SLIDE 36-48 D.O. OPERATOR DATA TABLE TO RETAIN EXISTING NON-GAL CLUTCH									OCT. 10 2023	
									DATA21-6	

5. Date 23-8



NOTE:  
OPERATOR IS MEANT TO DRIVE THE SAME DOOR AS THE EXISTING CLUTCH

LEFT HAND SHOWN  
RIGHT HAND OPPOSITE

51	5 <sup>7</sup> / <sub>8</sub>	35 <sup>1</sup> / <sub>8</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
50	5 <sup>3</sup> / <sub>4</sub>	35 <sup>1</sup> / <sub>8</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
49	5 <sup>11</sup> / <sub>16</sub>	34 <sup>15</sup> / <sub>16</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
48	5 <sup>3</sup> / <sub>4</sub>	34 <sup>13</sup> / <sub>16</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
47	5 <sup>1</sup> / <sub>2</sub>	34 <sup>3</sup> / <sub>4</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
46	5 <sup>7</sup> / <sub>16</sub>	34 <sup>3</sup> / <sub>8</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
45	5 <sup>9</sup> / <sub>16</sub>	34 <sup>3</sup> / <sub>16</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
44	5 <sup>1</sup> / <sub>16</sub>	34 <sup>1</sup> / <sub>2</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
43	5 <sup>1</sup> / <sub>8</sub>	34 <sup>3</sup> / <sub>8</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
42	5	34 <sup>5</sup> / <sub>16</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
41	4 <sup>7</sup> / <sub>8</sub>	34 <sup>3</sup> / <sub>8</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
40	4 <sup>3</sup> / <sub>4</sub>	34 <sup>3</sup> / <sub>8</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
39	4 <sup>11</sup> / <sub>16</sub>	34 <sup>3</sup> / <sub>8</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
38	4 <sup>1</sup> / <sub>16</sub>	33 <sup>15</sup> / <sub>16</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
37	4 <sup>1</sup> / <sub>2</sub>	33 <sup>7</sup> / <sub>8</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
36	4 <sup>3</sup> / <sub>8</sub>	33 <sup>3</sup> / <sub>4</sub>	6	24	23	24	31	46 <sup>1</sup> / <sub>8</sub>	31	8 <sup>3</sup> / <sub>4</sub>
INCHES	A	C	D	E	F	M	X	Z	Q	R
DOOR OPENING	OPERATOR ARMS		DOOR ARMS			CLUTCH	PIVOT		OPERATOR	
 CENTER PARTING 36-51 D.O. OPERATOR DATA TABLE USING SINGLE ARM OPERATOR TO RETAIN EXISTING NON-GAL CLUTCH									OCT. 10 2023	
									DATA23-8	