



MEP650 AND MEP651 CABLE CONTROL MECHANISM INSTALLATION AND OPERATING MANUAL

!WARNING!

Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion and/or fire causing property damage and personal injury or death.

Install, operate and maintain Marshall Excelsior Co. equipment in accordance with federal, state, and local codes and these instructions. The installation in most states must also comply with NFPA No. 58, and ANSI/CGA G-2.1.

For installation in the European Union, the equipment must also comply with PED/TPED and EN ISO standards. Periodic inspections, intermediate inspections and exceptional checks of transportable pressure equipment should be carried out in accordance with the Annexes of Directive 2008/68/EC and with 2010/35/EU Directive (TPED) to ensure continued compliance with their safety requirements.

Only personnel trained in the proper procedures, codes, standards and regulations of the LP-Gas Industry should install, maintain and service this equipment.

Be sure all instructions are read and understood before installation, operation and maintenance. These instructions must be passed along to the end user of the product.



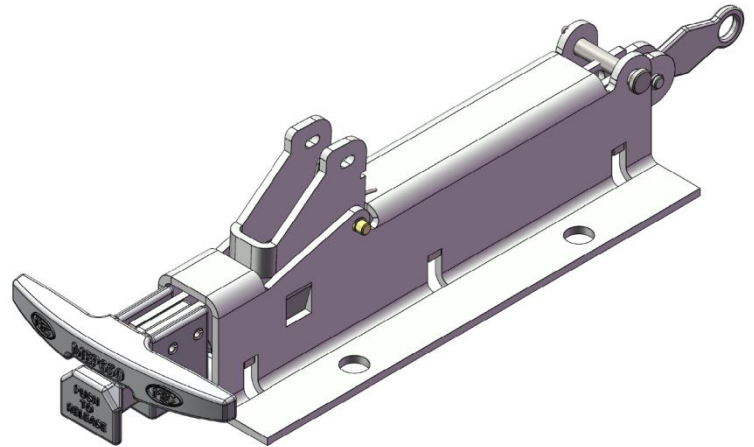
WARNING: These products contain a chemical known to the state of California to cause cancer and birth defects or reproductive harm

Introduction

Scope of the Manual

This manual covers instructions for installation and maintenance of MEP650 and MEP651 cable control mechanisms.

MEP650/MEP651: Primary cable control for remote operation of all threaded 1-1/4", 2", and 3" sizes of MEC "Excelsior" internal valves. MEP650 Assembly also includes two fusible links, a return spring, a 50' / 15.24m cable, two cable clamps, a connector, and a machine screw.



Operation

There are three notches on the MEP650/MEP651 control to give a travel of 4", 5", or 6" (10.1cm, 12.7cm, or 15.2cm). All threaded 1-1/4" MEC internal valves require the MEP650/MEP651 be set in the first notch (4" travel), and all 3" threaded valves require the MEP650/MEP651 be set in the third notch (6" travel) to assure adequate valve operating lever travel. To open the internal valve, pull the MEP650/MEP651 handle to the correct notch. To close the valve, hold the handle and push in on the release knob.

In emergencies, the release knob on the MEP650/MEP651 can be pushed to close the valve, but this procedure is not recommended for everyday usage.

Fusible elements at the internal valve, primary cable control, and auxiliary remote release provide thermal release protection to allow the internal valve to close in case of fire.

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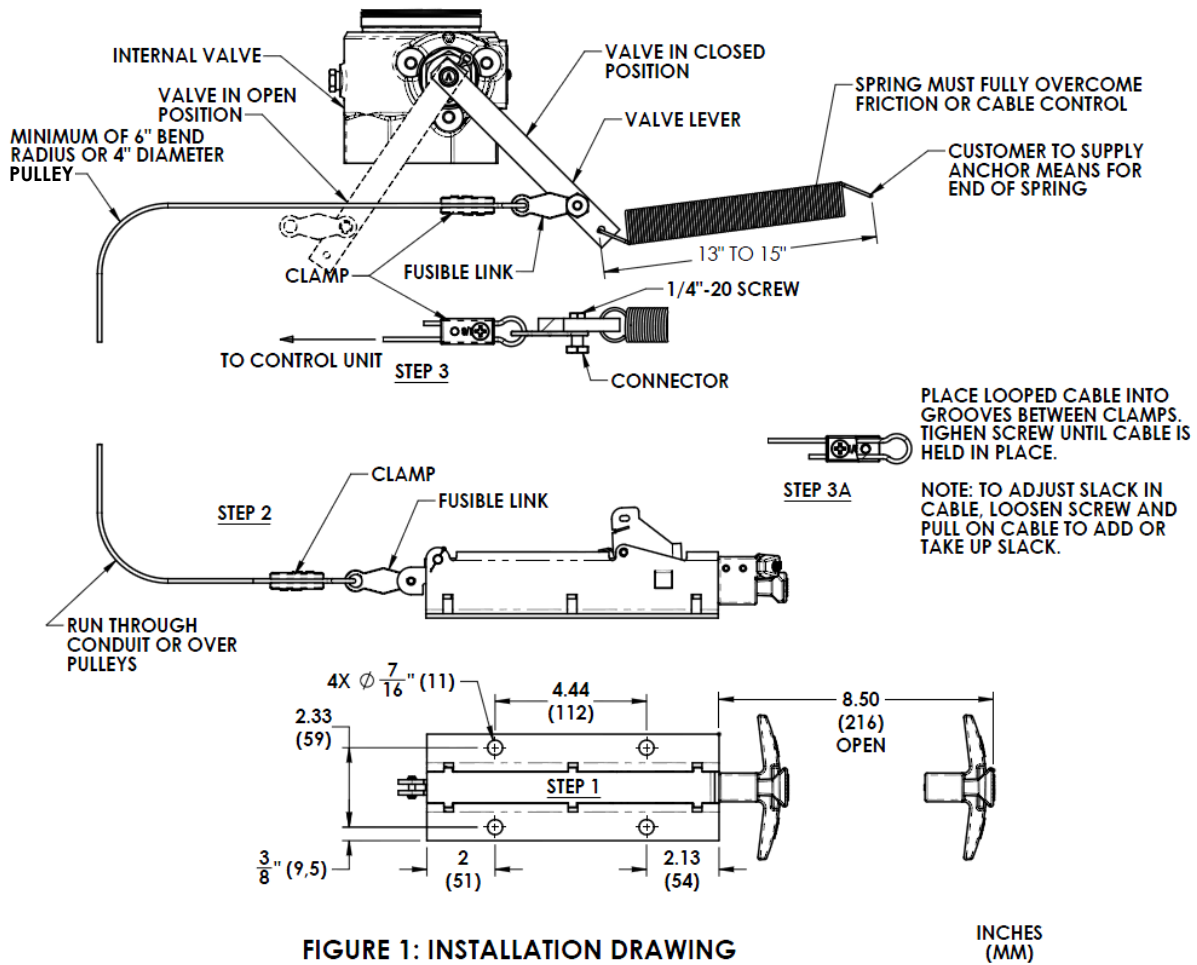


FIGURE 1: INSTALLATION DRAWING

Installation

Refer to the installation drawing (figure 1).

Step 1: Mount the MEP650/MEP651 primary control at the desired location using four metal screws (not furnished) in the 7/16" diameter holes. Allow 8.5" / 21.6cm additional space to permit full extension of the operating handle.

Step 2: Connect the cable and the fusible link to the MEP650/MEP651 primary control as shown, and run the cable through conduit and / or pulleys to the operating lever on the internal valve.

Note

Minimum conduit bend radius of 6" / 15.2cm and minimum pulley diameter of 4" / 10.1cm.

Step 3: Connect the fusible link and the cable to the internal valve's operating lever as shown. The cable slack must be adjusted as shown in Step 3A of the drawing in order to get the proper operating lever travel on the internal valve. The internal valve lever swings through a 70° arc (90° on the threaded 1-1/4" size valves) from the closed to open position.

!CAUTION!

Make sure the MEP650/MEP651 moves the operating lever to within 5° of the fully open position. Failure to adjust the opening correctly can cause premature excess flow closure during operation.

Check to see if the internal valve is open the required amount by manually moving the operating lever with the MEP650/MEP651 latched in the required notch (see "Operation"). If the valve operating lever can be rotated further than 5° toward the open position, the cable must be tightened.

The internal valve will close prematurely if sufficient operating lever travel is not obtained, but in all cases leave a small amount of travel from the full open position. The cable should be taut with the internal valve operating lever in the open position and the MEP650/MEP651 latch in the required notch. There should be slack in the cable when the operating lever is in the closed position.

Attach the return spring to the operating lever as shown. The return spring must overcome the cable drag and close the internal valve when the control is released.

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Leave only enough slack in the cable to allow the MEP650/MEP651 latch to engage the slide.

Check the following after completing the assembly:

1. The internal valve operating lever should be in the open position when the MEP650/MEP651 handle is in the required notch.
2. The auxiliary release assemblies (if used) must be capable of deactivating the MEP650/MEP651 primary control, closing the internal valve.
3. The internal valve must be completely closed with the primary control (MEP650/MEP651) in the closed position.

Maintenance

!CAUTION!

Do not use internal valves and cable controls if they leak, fail to work properly or have been damaged or have missing parts. Prompt repairs should be made by a properly trained personnel. Continued use without repair can create a hazardous situation which could result in serious or fatal personal injury or property damage.

A simple preventive maintenance program for the internal valve and its controls will eliminate many potential problems.

MEC recommends these steps be conducted once a month:

1. Inspect the operating lever and cable controls to see that they operate freely and that there is no leakage around the retainer nut. If there is sticking or leakage, replace the packing and bushings.
2. Check for tight closure of the internal valve seals regularly. Any leakage indicates a defect in the seal caused from wear or from dirt or scale lodging and embedding in the seal. To check for leakage, close the internal valve, and exhaust downstream pressure. Close the first valve downstream from the internal valve, and note any pressure build-up by means of a pressure gauge. If leakage is indicated, the seals should be replaced. If piping is cold allow it to warm to ambient temperature.
3. All operating controls should be inspected, cleaned, and lubricated. Rust, corrosion, and dirt can make the controls inoperable. The controls should be checked to see that they fully open but not over travel the internal valve operating lever and operates freely to close the valve.

Parts Ordering

Important

Use only genuine MEC replacement parts. Components that are not supplied by MEC should not, under any circumstances, be used in any MEC valve, because they might adversely affect the performance of the valve, and could give rise to personal injury and property damage.

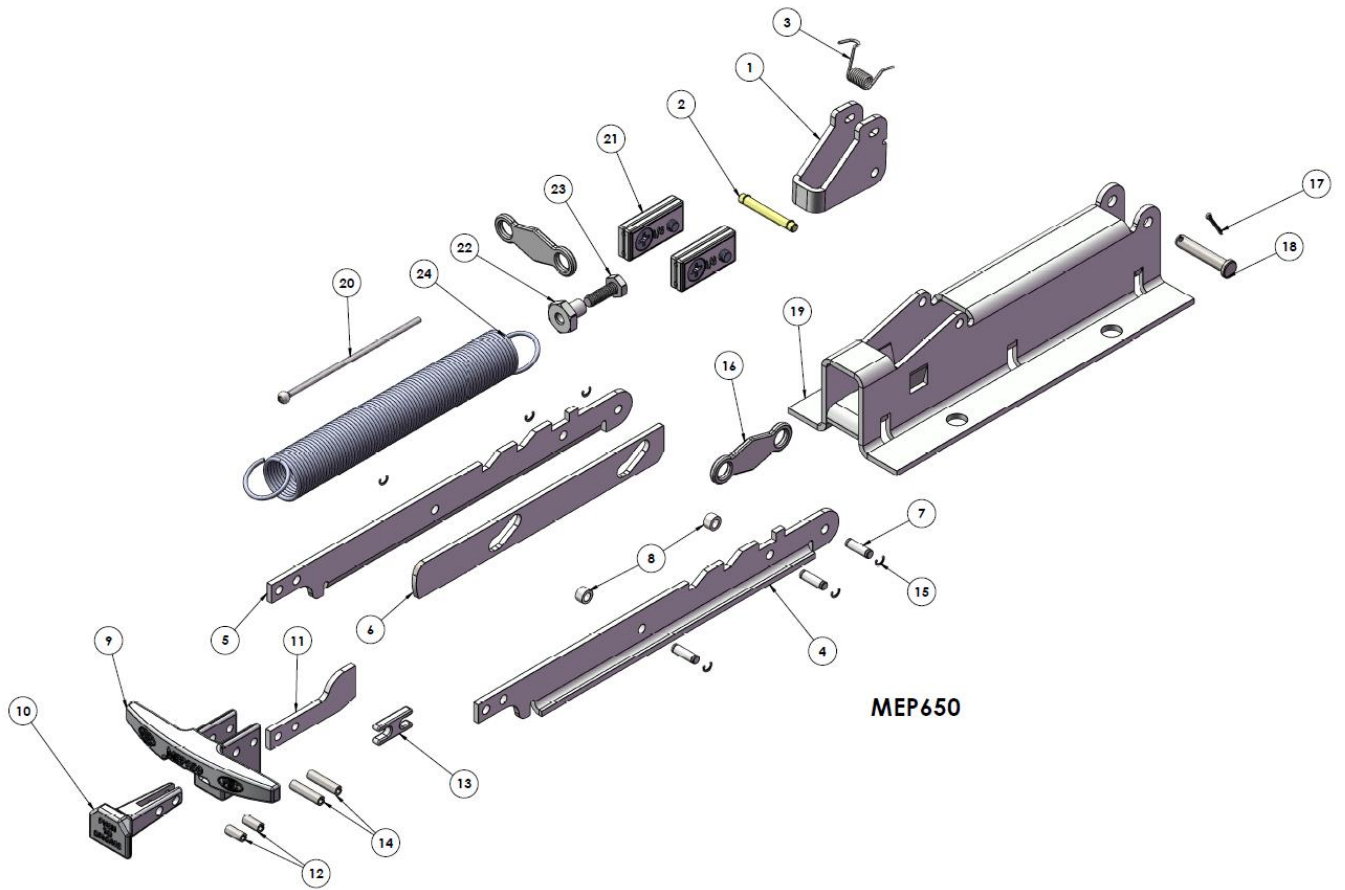
When corresponding about this equipment, always reference the equipment model or series number found on the nameplate.

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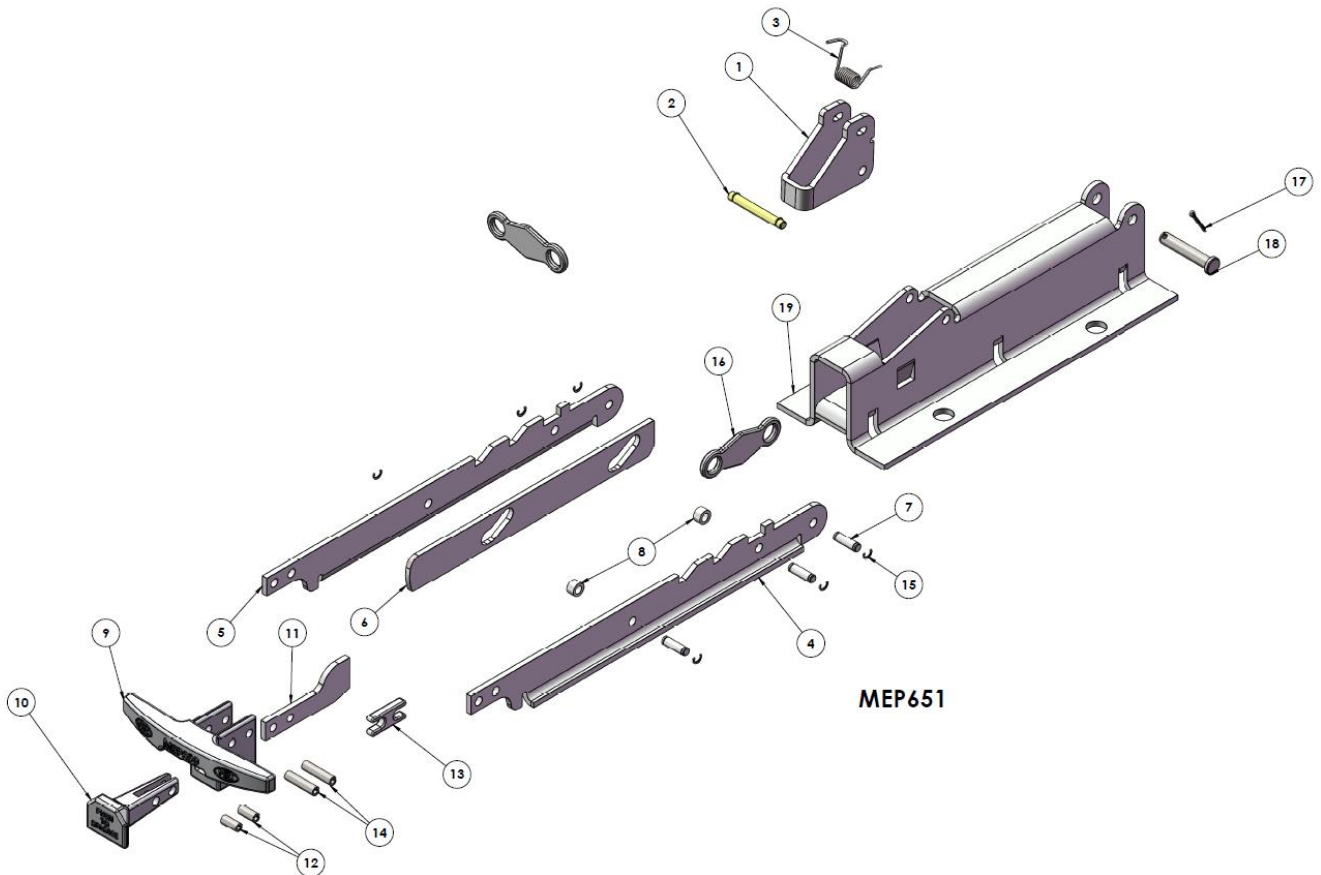
Parts List For MEP650		
Ref.#	Description	Qty.
1	Latch	1
2	Latch Pin With Rings	1
3	Latch Spring	1
4	Latch Right	1
5	Latch Left	1
6	Guide	1
7	Pin	3
8	Bearing	2
9	Pull Handle	1
10	Release Handle	1
11	Release Hammer	1
12	Release Pin	2
13	Spacer	1
14	Pull Handle Pin	2
15	Retaining Pin	6
16	Fusible Link	2
17	Cotter Pin	1
18	Clevis Pin	1
19	Body Weldment	1
20	Cable	1
21	Clamp	2
22	Connector	1
23	Screw	1
24	Return Spring	1

Parts List For MEP651		
Ref.#	Description	Qty.
1	Latch	1
2	Latch Pin With Rings	1
3	Latch Spring	1
4	Latch Right	1
5	Latch Left	1
6	Guide	1
7	Pin	3
8	Bearing	2
9	Pull Handle	1
10	Release Handle	1
11	Release Hammer	1
12	Release Pin	2
13	Spacer	1
14	Pull Handle Pin	2
15	Retaining Pin	6
16	Fusible Link	2
17	Cotter Pin	1
18	Clevis Pin	1
19	Body Weldment	1

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