



GENUINE MEGA.

# MPT MEGA PORTABLE TANK



## TECHNICAL MANUAL

*SPECIALTY HAULAGE SOLUTIONS FOR CONSTRUCTION AND MINING*



**MEGA CORP.®**

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# **TABLE OF CONTENTS**

	Page
Section 1 Definitions and Abbreviations .....	1-1
Section 2 System Description.....	2-1
Section 3 Commissioning .....	3-1
Section 4 Operation Instructions.....	4-1
Section 5 Maintenance and Repair.....	5-1
Section 6 Scheduled Maintenance Inspections.....	6-1
Section 7 Recommended Support Parts.....	7-1
Section 8 Illustrated Parts Breakdown.....	8-1
Appendix Installation Drawings .....	A-1

# **TABLE OF CONTENTS**

# SECTION 1

## Definitions and Abbreviations

### Contents

Manual Usage ..... 1-1	Safety Messages ..... 1-2
Warning, Caution And Notes ..... 1-1	Abbreviations ..... 1-4
Use Of Shall, Will, Should And May ..... 1-1	MPT Overview (Typical) ..... 1-5

### MANUAL USAGE

This technical manual only contains information required to safely operate and maintain the MEGA Portable Tank. If your system is not covered in this manual please contact MEGA Corp. Product Support at: 1-800-345-8889 or visit our website at [www.megacorpinc.com](http://www.megacorpinc.com) for more detailed information.

The exact location of the hazards and description of the hazards are reviewed in this section. All personnel working on or operating the machine must become familiarized with all the safety messages.

### **WARNING**

Due to the nature of these processes, ensure that all safety information, warnings and instructions are read and understood before any operation or any maintenance procedures are performed. Some procedures take place with heavy components and at moderate heights, ensure proper safety procedures are maintained when performing these actions. Failure to use and maintain proper safety equipment and procedures will cause injury, death or damage to equipment.

### WARNING, CAUTION AND NOTES

The following definitions are found throughout the manual and apply as follows:

### **WARNING**

Operating procedures and techniques, which could result in personal injury and/or loss of life if not carefully followed.

### **CAUTION**

Operating procedures and techniques, which could result in damage to equipment if not carefully followed.

### **NOTE**

Operating procedures and techniques that are considered essential to emphasize.

### USE OF SHALL, WILL, SHOULD AND MAY

**Shall** and **Will** – Used when application of a procedure is mandatory.

**Should** – Used when application of a procedure is recommended.

**May** - Used to indicate an acceptable or suggested means of accomplishment.

## SECTION 1

### Definitions and Abbreviations

#### SAFETY MESSAGES

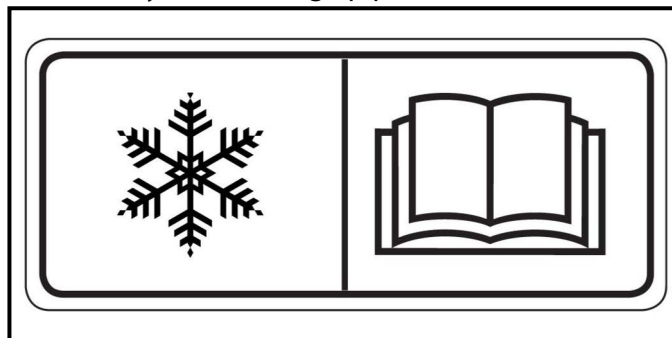
There are several specific safety messages applicable to this machine. Some of these safety messages have associated warning labels located on the machine. The descriptions of the hazards and the locations (if applicable) of their warning labels are reviewed in this section. All personnel working on or operating the machine must become familiarized with all the safety messages.

Make sure that all of the safety labels are legible. Clean or replace the safety labels if you cannot read the words. Replace the illustrations if the illustrations are not legible. When you clean the safety labels, use a cloth, water and soap. Do not use solvent, gasoline or other harsh chemicals to clean the safety labels. Solvents, gasoline or harsh chemicals could loosen the adhesive that secures the safety labels. Loose adhesive will allow the safety labels to detach.

Replace any safety label that is damaged or missing. If a safety label is attached to a part that is replaced, install a new safety label on the replacement part.

#### FREEZING

This safety label is located on the front of the machine, by the discharge pipe..



#### WARNING

**Drain tank, fill pipe, and drain valve in freezing weather. Refer to the Operator and Maintenance Manual for the procedure to follow.**

#### NON-POTABLE

This safety label is located at the rear of the tank, near the ladder.



#### WARNING

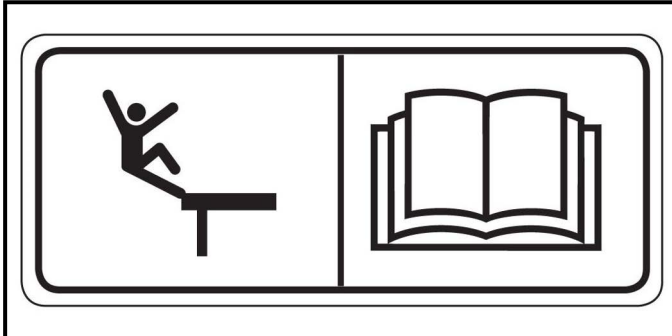
**Water held within tank is not potable. Do not use tank for transport of water intended for human or animal consumption or serious injury or death may result.**

## SECTION 1

### Definitions and Abbreviations

#### FALL HAZARD

This safety label is located at the top of the front and rear of the tank.



#### ⚠ WARNING

Do not walk on the top of tank without fall arrest PPE. Serious injury or death could occur from a fall.

#### CONFINED SPACE

This safety label is located near the water tank access and fill ports.

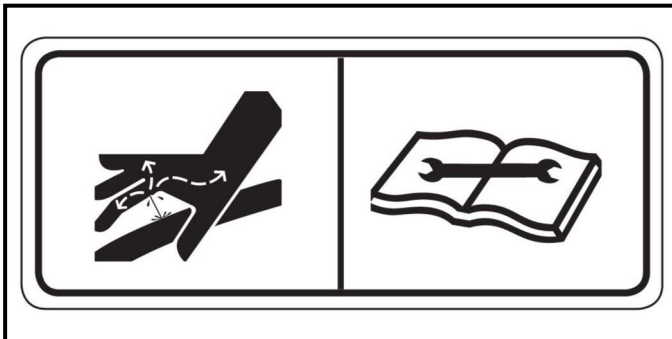


#### ⚠ WARNING

Do not enter confined spaces without following established site specific procedures. Failure to follow proper safety procedures will result in serious injury or death.

#### HIGH PRESSURE MOTOR

This safety label is located next to the motor.

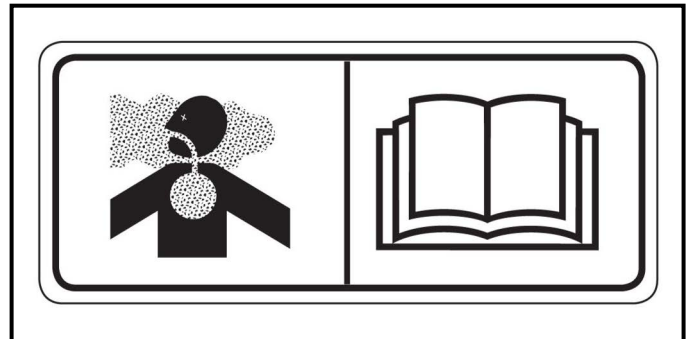


#### ⚠ WARNING

Hydraulic motor and supply lines contain oil under high pressure. Improper removal and repair procedures could cause severe injury. To remove or repair, instructions in the Maintenance Manual must be followed.

#### TOXIC GAS HAZARD

This safety label is located on the side of the tank and at all water-fill entrances.



#### ⚠ WARNING

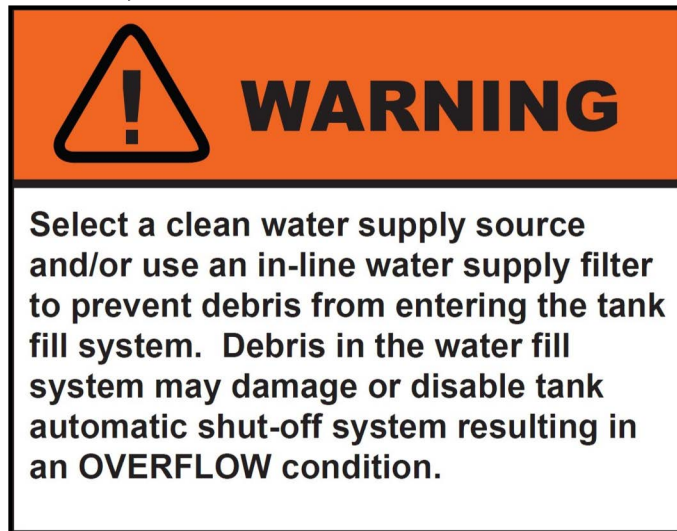
CUTTING or welding operation on the inside of the tank can cause the accumulation of toxic gases. Read and understand instructions and warnings in the Maintenance Manual. Failure to provide proper ventilation or breathing apparatus while conducting these operations may result in serious injury or death.

## **SECTION 1**

### **Definitions and Abbreviations**

#### **USE CLEAN WATER SUPPLY**

This safety label is located at the rear of the tank.



The label features a black triangle with a white exclamation mark on an orange background. To the right of the triangle, the word "WARNING" is written in large, bold, black capital letters. Below this header, the following text is enclosed in a black border:

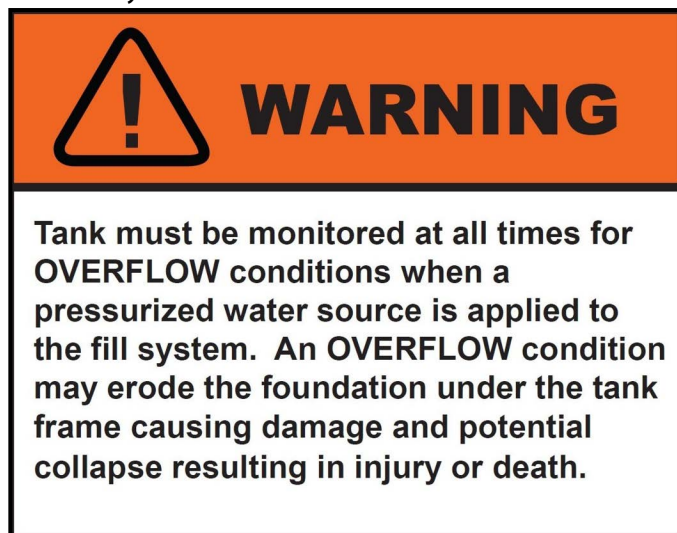
Select a clean water supply source and/or use an in-line water supply filter to prevent debris from entering the tank fill system. Debris in the water fill system may damage or disable tank automatic shut-off system resulting in an OVERFLOW condition.

#### **ABBREVIATIONS**

- BFV** - Butterfly Valve
- CCW** - Counterclockwise
- CW** - Clockwise
- FIP** - Fault isolation procedures
- FOB** - Frequency operated button
- Ft-lbs** - Foot pounds of torque
- gpm** - Gallons per minute
- IPB** - Illustrated parts breakdown
- LT** - Left (as viewed from the rear of the vehicle looking forward)
- MPT** - MEGA Portable Tank
- Nm** - Newton meters of torque
- psi** - Pounds per square inch
- RT** - Right (as viewed from the rear of the vehicle looking forward)
- rpm** - Revolutions per minute

#### **MONITOR TANK WHILE FILLING**

This safety label is located at the rear of the tank.



The label features a black triangle with a white exclamation mark on an orange background. To the right of the triangle, the word "WARNING" is written in large, bold, black capital letters. Below this header, the following text is enclosed in a black border:

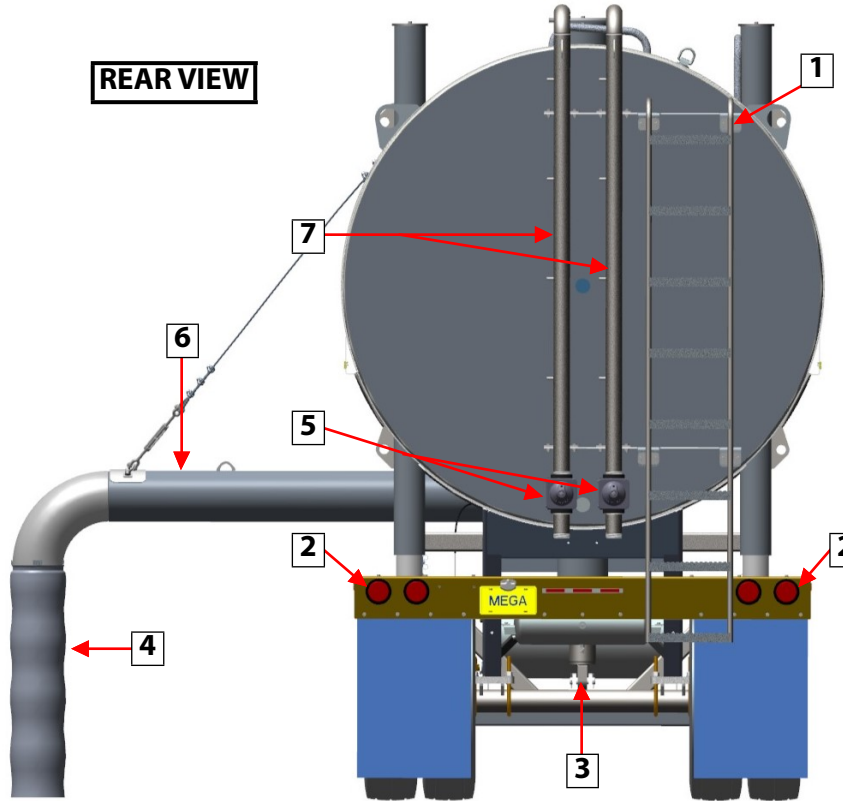
Tank must be monitored at all times for OVERFLOW conditions when a pressurized water source is applied to the fill system. An OVERFLOW condition may erode the foundation under the tank frame causing damage and potential collapse resulting in injury or death.

# SECTION 1

## Definitions and Abbreviations

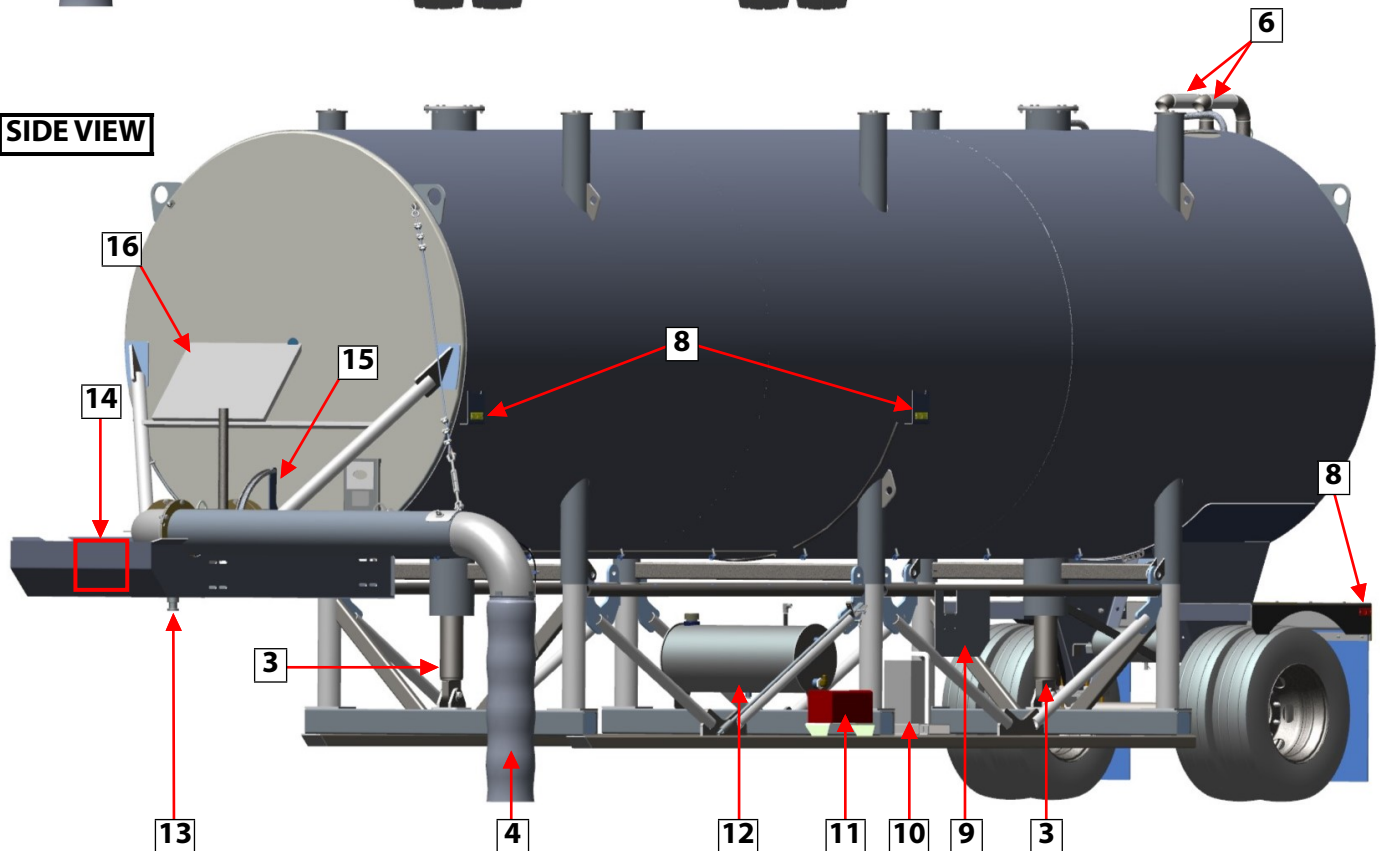
### MPT OVERVIEW (TYPICAL)

**REAR VIEW**



- |    |                                      |
|----|--------------------------------------|
| 1  | ACCESS LADDER                        |
| 2  | DOT STOP/TURN/TAIL LIGHTS            |
| 3  | HYDRAULIC CYLINDERS                  |
| 4  | SOCK                                 |
| 5  | FILL PIPE VALVE                      |
| 6  | SIDE DISCHARGE TUBE (Optional)       |
| 7  | FILL PIPE (w/optional 2nd FILL PIPE) |
| 8  | MARKER LIGHTS                        |
| 9  | LEVER CONTROL SYSTEM                 |
| 10 | ENGINE & HYDRAULIC PUMP              |
| 11 | TOOL BOX                             |
| 12 | HYDRAULIC TANK                       |
| 13 | GOOSENECK KINGPIN                    |
| 14 | BATTERY & CONTROL BOX                |
| 15 | BFV HANDLE                           |
| 16 | SOLAR PANEL (Optional)               |

**SIDE VIEW**





**SECTION 1**  
**Definitions and Abbreviations**

## SECTION 2

### System Description

#### Contents

Description .....	2-1	Water Discharge System .....	2-3
MPT Tank .....	2-1	Axle .....	2-3
Self-Raising System .....	2-1	Solar Remote Actuator System .....	2-3
Fill Pipe Shut Off .....	2-2	Side Discharge Pipe .....	2-7

#### DESCRIPTION



The MEGA Portable Tank (MPT) is a 12,000 gallon platform or stand tank designed for towing with a fifth-wheel on-highway tractor. The MEGA MPT is used to rapidly fill water distribution equipment to maximize productivity. All MEGA MPTs are self-erecting by use of an engine-driven hydraulic pump and hoist cylinders with pin locks. MEGA MPTs have a 10 inch diameter discharge pipe capable of filling a 5,000 gallon tank in approximately 2 minutes. The MPT can be filled from a municipal water source or with other water pumping equipment. The 3" fill pipe is equipped with an automatic shut off to prevent overfilling.

The MPT is designed to comply with all Department of Transportation requirements, and is available in custom colors and with special signage as specified by the customer. For more information, please contact the MEGA Sales Department at 1-800-345-8889, or contact your local dealer.

#### MPT TANK



The MPT tank is 2.59m (8.5 ft) in diameter, 11.13m (36.5 ft.) in length, and has a capacity of 45.42 L (12,000 gallons). The corners of the tank are reinforced to provide sturdy connection to supports. An access ladder leading to the top of the tank is located at the rear of the trailer, and a ladder is located inside of the tank. An 8" diameter float is located inside of the tank for automatic fill shut-off when the tank is full.

#### SELF-RAISING SYSTEM

The MPT's self-raising system incorporates dual hydraulic cylinders and a 6.5 horsepower engine with a hydraulic pump.

#### Hydraulic Cylinders



Dual 127mm (5 inch) diameter double-acting hydraulic cylinders that allow the tank to be raised for connection to a tractor. The frame can be lifted with the same cylinders after tractor hook-up is complete.

## SECTION 2

### System Description

#### Engine



A 6.5 horsepower engine and hydraulic pump that is mounted on the base of the MPT. The engine is equipped with a handle for removal and storage after the tank has been locked in the raised position. Quick disconnects for the

lines to the hydraulic pump are located on the structure for storage of the hydraulic hoses after the motor/pump package is removed.

#### Pin Handler



The MEGA Pin Handler is a tool that allows a person to install and remove all six (6) MPT hitch pins while standing at ground level, eliminating the need for a ladder and saving time in the process.

#### FILL PIPE SHUT OFF



The MPT is equipped with an automatic shut off valve on the fill pipe to prevent over filling. A float inside the tank will signal shut off valve to close when tank is full.

#### **⚠ WARNING**

- Periodic monitoring of filling operation shall be performed or serious injury to personnel or severe damage to equipment may occur due to over-filling.
- Water supply shall be terminated to MPT when not in use or serious injury to personnel or severe damage to equipment may occur due to over-filling.
- Select a clean water supply source and/or use an in-line water supply filter to prevent debris from entering the tank fill system. Debris in the water fill system may damage or disable tank automatic shut-off system resulting in an OVERFLOW condition.

## SECTION 2

### System Description

#### WATER DISCHARGE SYSTEM



The MPT's water discharge system includes a 10 inch diameter discharge pipe with a flow rate of approximately 2,000 gal/min, a shut-off valve with a constant force wheel to ensure positive closure, a weight and pulley system to secure the chain while positioning the tanker beneath the discharge pipe spout, and a canvas discharge sock for the discharge pipe spout.

#### AXLE



The heavy-duty utility axle has a 20,000 lb. capacity with an oil-lubricated bearing and auto slack adjusters. It is the highest strength axle tube generally available for utility vehicle axles. The materials used allow for a stiffer and stronger axle beam with no camber required.

The axle utilizes air braking. The backing plate of the hydraulic brake mounts onto the piloted axle brake flange, allowing the brakes to perform at their optimum effectiveness.

#### SOLAR REMOTE ACTUATOR SYSTEM

The remote control system is designed to let the operator activate the butterfly valve without manually moving the BFV handle to start and stop water flow from the tank.

The solar remote actuator system includes a solar panel, solar panel charger/analyzer, remote control receiver, sealed battery, linear actuator, an emergency release cable, 2 remote FOBs, and a hard-wired pendant control.

#### Solar Panel



Mounted on the front of the unit. It provides charging of the sealed battery as controlled by the charger/analyzer.

## SECTION 2

### System Description

#### Remote Control Box

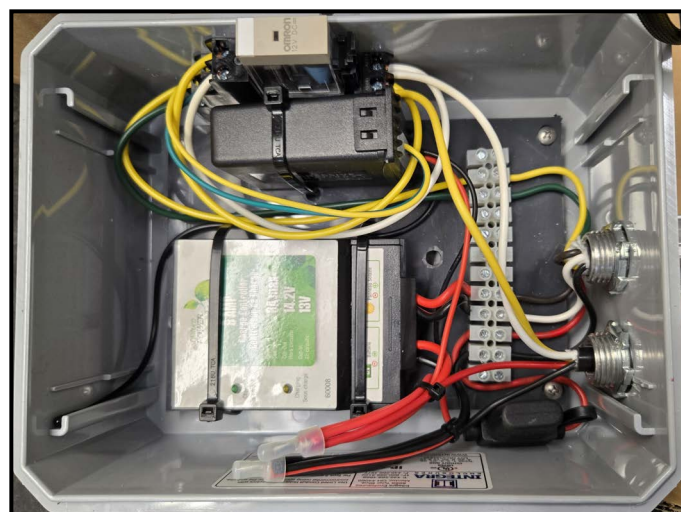


Mounted on top of the battery storage box. It contains the remote control receiver and charger/analyzer. Provides 12-volt power to the linear actuator as commanded by the remote FOBs or pendant control.

#### Sealed Battery (Black Box)



A 12-volt sealed battery located in a secure case and mounted in the goose neck. The battery is charged and conditioned by the charger/analyzer unit.



1. Remote control receiver
2. Solar panel charger/analyzer controller
3. 15 amp actuator fuse

#### Linear Actuator

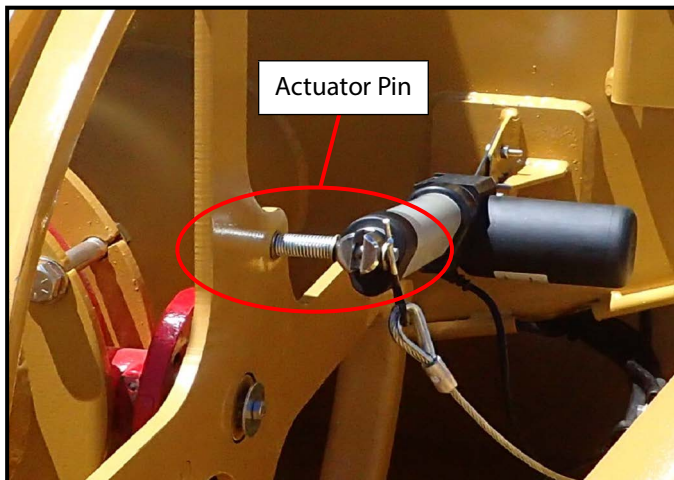
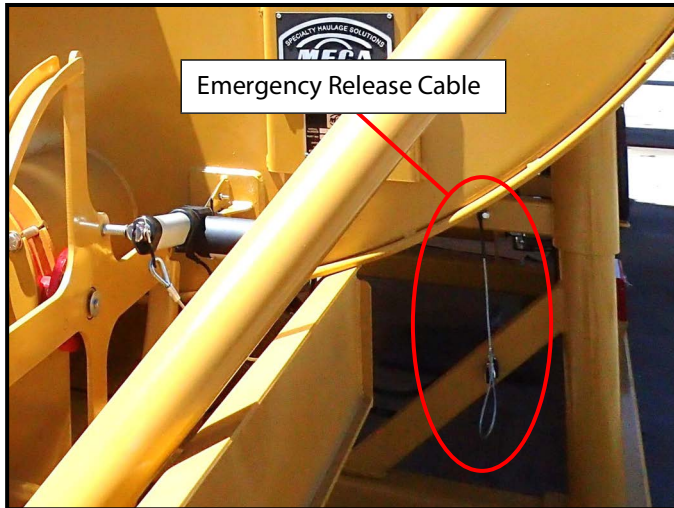


Mounted to the front head and connected to the BfV handle via a spring-loaded pin. The actuator is 12 volts and powered through the remote control box. Full activator travel is about five (5) seconds.

## SECTION 2

### System Description

#### Butterfly Valve Emergency Release Cable



An emergency release cable is connected to the spring loaded pin in case power is low or actuator fails and the butterfly valve must be activated by using the manual chain.

#### Pendant Control



Hard wired into the remote control box. The pendant control is provided to remotely open and close the butterfly valve in instances where the remote FOB is unavailable or inoperative.

Press and hold the momentary switch to open or close the butterfly valve. If the button is released at any time while opening or closing the valve, it will stop in that position.

#### Remote FOB



Provided to command the operation of the butterfly valve through the remote control box.

The FOB has 2 programmable settings: momentary (press and hold) and non-momentary (press and release) modes.

The default program is set to non-momentary mode (press and release). Press and release the UP button to

open the valve and press and release the DN button to close the valve. Once pressed and released, the valve will go to fully open or fully closed. To stop the valve from fully opening or closing, press the command directional button a second time to stop the valve in the commanded position.

Typically, MEGA sets the remote in momentary mode (press and hold). Press and hold the UP button to open the valve, press and hold the DN button to close the valve. If the button is released at any time while opening or closing the valve, it will stop in that position.

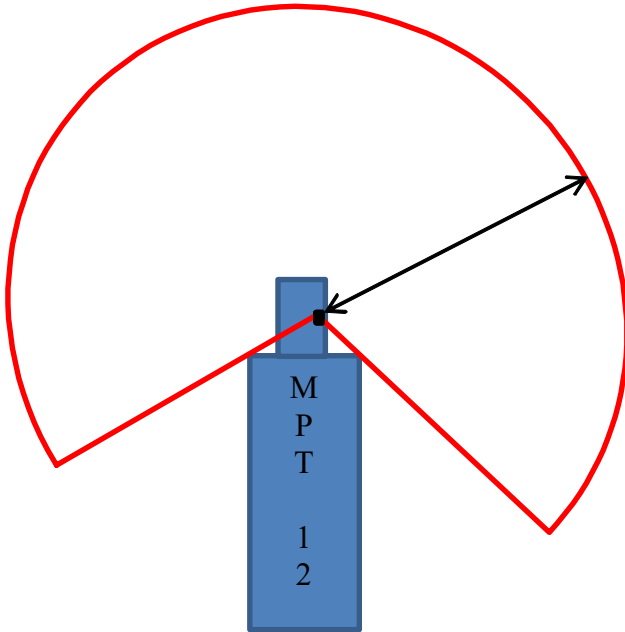
## SECTION 2

### System Description

#### Limitations

The remote control transmitter range is approximately 30 feet (9 meters) with a clear line of sight in the raised position.

The transmission range can be limited by metal objects interfering with the radio signals. See illustration.



#### ⚠ WARNING

If multiple systems are in close proximity to one another (less than 100 yards or 92 meters), it may be possible to operate more than one unit simultaneously. This may cause unexpected opening of the butterfly valve releasing water from the tower. Ensure there is enough distance between the systems, and all personnel are clear from underneath tanks before operating remote actuator or damage to equipment or personnel may occur.

#### Pairing FOBs

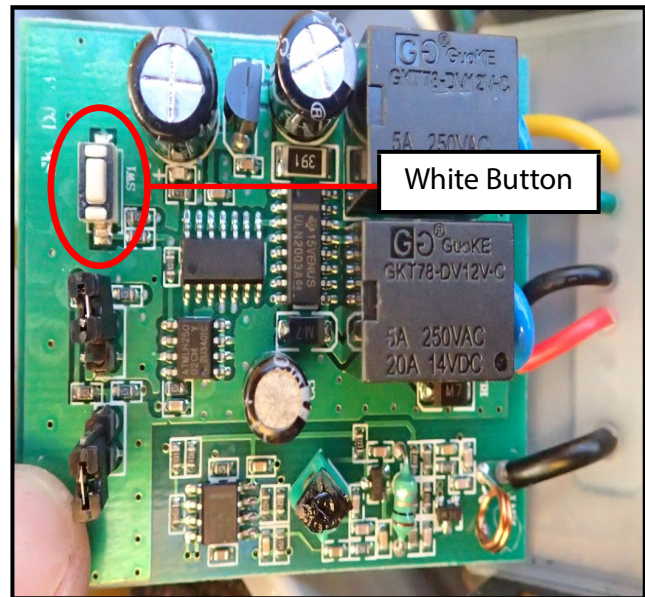
In cases where a new FOB is required due to loss or damage, the new FOB must be paired with the controller.

#### NOTE

A maximum of 2 FOBs may be paired to one controller at a time.

Use the steps below to pair FOBs to the controller:

1. Open the control (gray) box.
2. Press the white button. A blue LED will turn on.



3. Press and release any button on the FOB. The LED will turn off.
4. The FOB is now paired with the control box.

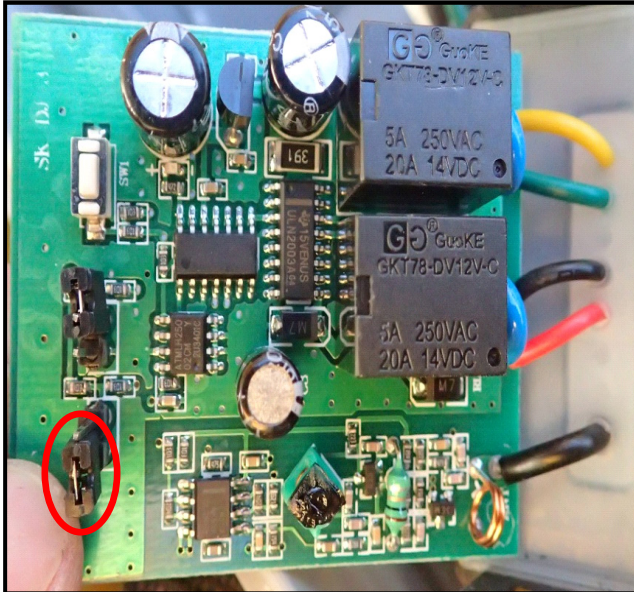
## SECTION 2

### System Description

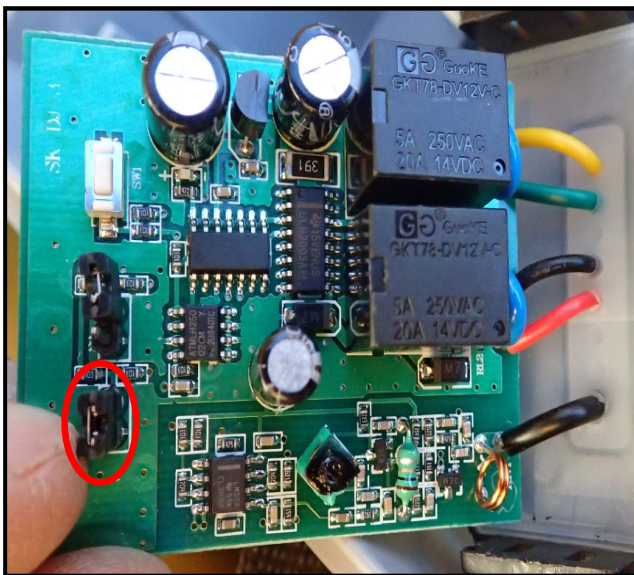
#### Reprogramming FOB Function

To change the FOB function, refer to the following illustrations:

Test actuator prior to changing functions as the operation of the FOB may have been changed from the default setting.



- Jumper for S1 on the remote control circuit board; no pins are connected by the jumper. This is the **default** setting.



- Jumper for S1 on remote control circuit board; both pins connected by jumper. This setting will activate the "Push and Hold" to operate.

#### SIDE DISCHARGE PIPE



This option provides a means to discharge water to either side of the unit. The pipe is mounted on a hinged flange to allow deployment and storage. Simply unstow the pipe, then swing out to allow bolting of the hinged flange and secure with the bolts. Once deployed and bolted, check the wire for security and adjust the turn buckle accordingly. Once properly rigged and set, the tank can be raised and filled.



# **SECTION 2**

## **System Description**

## SECTION 3

### Commissioning

#### Contents

Description .....3-1

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#### DESCRIPTION

The following section details the test procedure steps required for inspection of the stand tank prior to placing the stand tank into service.

If you are having difficulties with these procedures, please contact The MEGA Corp. Product Support Group at:

U.S. Toll Free: **1-800-345-8889**

Direct: **1-505-345-2661**

Visit our website at [www.megacorpinc.com](http://www.megacorpinc.com)

1. Check hydraulic oil level.
2. Check oil level in wheel hubs.
3. Check engine oil & fuel.
4. Start engine.
5. Remove hitch pins.
6. Raise tank until pin hoist clears top pinhole.
7. Lower tank& replace hitch pins.
8. Butterfly valve in closed position.
9. Fill with water.
10. Pull up on float, adjust valve until water flow shuts off

11. Fill tank to check operation of float

#### **WARNING**

- Periodic monitoring of filling operation shall be performed or serious injury to personnel or severe damage to equipment may occur due to over-filling.
- Water supply shall be terminated to MPT when not in use or serious injury to personnel or severe damage to equipment may occur due to over-filling.
- Select a clean water supply source and/or use an in-line water supply filter to prevent debris from entering the tank fill system. Debris in the water fill system may damage or disable tank automatic shut-off system resulting in an OVERFLOW condition.

12. Drain water back into main supply.

13. Tie down float, toolbox, and hydraulic tank cap.

**SECTION 3**  
**Commissioning**

## SECTION 4

### Operation Instructions

#### Contents

Description .....	4-1	Set-Up .....	4-3
Lowering .....	4-1	Solar Remote Actuator System .....	4-4
Transporting .....	4-1	Cold Weather Storage .....	4-5

#### DESCRIPTION

This section includes the steps required for lowering, transporting, and set-up of the MPT. Failure to adhere to these steps and their associated warnings, cautions, and notes may result in death, severe injury, or damage to the equipment. If your system is not covered in this manual or you are having difficulties with the installation please contact The MEGA Corp. Product Support Group at: U.S. Toll Free 1-800-345-8889 or Direct 1-505-345-2661 or visit our website at [www.megacorpinc.com](http://www.megacorpinc.com) for more contact information.

#### LOWERING

1. Read the engine operator's manual prior to operation.
2. Remove water from the tank.

#### ⚠ WARNING

Empty tank of water prior to lowering. Never move a tank containing water.

3. Start the hydraulic power unit and use the hydraulic control valves to slightly raise the tank and remove weight from the hitch pins.

#### ⚠ WARNING

The tank should always be positioned on stable, level ground before filling with water and/or raising. The ground beneath the tank must be capable of supporting the tank and a full payload of water as well as the weight of the equipment utilizing the tank.

4. Remove hitch pins and store in the tool box.
5. Turn off the hydraulic power unit.

6. Use the hydraulic control valves to lower the tank until it is resting on the ground.

#### ⚠ WARNING

Keep feet from under the frame or personal injury could occur. Remove hoses or tools from under frame before lowering tank.

#### CAUTION

Extension of the front and rear hydraulic cylinders are controlled by separate valves. To avoid damage when raising or lowering the tank adjust hydraulic cylinders to keep the tank level at all times.

#### TRANSPORTING

1. Read the engine operator's manual prior to operation.
2. Remove water from the tank.

#### ⚠ WARNING

Empty tank of water prior to transporting. Never move a tank containing water.

3. Start the hydraulic power unit and use the hydraulic control valves to lower the tank to level ground.

## **SECTION 4**

### **Operation Instructions**

4. Start the hydraulic power unit and use the hydraulic control valves to raise the tank into a position that aligns the trailer kingpin with the tractor's fifth wheel height.

#### **⚠ WARNING**

The tank should always be positioned on stable, level ground before filling with water and/or raising. The ground beneath the tank must be capable of supporting the tank and a full payload of water as well as the weight of the equipment utilizing the tank.

5. Back tractor into locking position and connect the trailer to the tractor. While keeping the tank level, use the hydraulic control valves to lower the tank until the tires are on the ground.

#### **⚠ WARNING**

Keep feet from under the frame or personal injury could occur. Remove hoses or tools from under frame before lowering tank.

#### **CAUTION**

Extension of the front and rear hydraulic cylinders are controlled by separate valves. To avoid damage when raising or lowering the tank, adjust hydraulic cylinders to keep the tank level at all times.

6. Connect air and electrical systems between the tractor and tank.
7. Check brakes and lights for proper operation. Check tires for correct air pressure.

8. Use the hydraulic power unit to completely raise the tank frame.

#### **⚠ WARNING**

The tank should always be positioned on stable, level ground before filling with water and/or raising. The ground beneath the tank must be capable of supporting the tank and a full payload of water as well as the weight of the equipment utilizing the tank.

9. Insert hitch pins with hitch pin clips into the bracket between the tank and tank frame at all four (4) locations, front and rear.
10. Stow remaining two (2) pins in tool box.
11. Pin float ball in locked position.
12. Remove all loose items from the unit. Turn off the hydraulic power unit. Secure the tool box.

## SECTION 4

### Operation Instructions

#### SET-UP

1. Read the engine operator's manual prior to operation.
2. Select a level area with a stable foundation for positioning of the tower. The area should be level in all directions and offer good access to water haulage equipment.

#### ⚠ WARNING

The tank should always be positioned on stable, level ground before filling with water and/or raising. The ground beneath the tank must be capable of supporting the tank and a full payload of water as well as the weight of the equipment utilizing the tank.

3. Disconnect air and electrical controls from the tractor.
4. Start the hydraulic power unit and remove the hitch pins from the brackets between the tank and frame. Retain the pins for use after raising the tank.
5. Use the hydraulic controls to lower the frame to the ground. Raise the tank until it is possible to disconnect the tractor from the tank.

#### ⚠ WARNING

Keep feet from under the frame or personal injury could occur. Remove hoses or tools from under frame before lowering tank.

#### CAUTION

Extension of the front and rear hydraulic cylinders are controlled by separate valves. To avoid damage when raising or lowering the tank, adjust hydraulic cylinders to keep the tank level at all times.

6. Disconnect the tractor.
7. Remove the float lock pin from the transport position.

8. Continue to raise the tank evenly until the desired height is reached.
9. Install the hitch pins into all six (6) frame legs. Be sure that they extend completely through both sides of each leg. Use the hitch pin installation tool if necessary to reach the holes.

#### CAUTION

Failure to install hitch pins in all six (6) frame legs may result in damage to the tower.

10. Use the hydraulic controls to lower tank until it rests upon the hitch pins. Turn off the power unit.

#### ⚠ WARNING

Keep feet from under the frame or personal injury could occur. Remove hoses or tools from under frame before lowering tank.

#### CAUTION

Extension of the front and rear hydraulic cylinders are controlled by separate valves. To avoid damage when raising or lowering the tank, adjust hydraulic cylinders to keep the tank level at all times.

11. Connect the water supply to the tank. Check the ball float and valve for proper operation.

#### ⚠ WARNING

- Periodic monitoring of filling operation shall be performed or serious injury to personnel or severe damage to equipment may occur due to over-filling.
- Water supply shall be terminated to MPT when not in use or serious injury to personnel or severe damage to equipment may occur due to over-filling.
- Select a clean water supply source and/or use an in-line water supply filter to prevent debris from entering the tank fill system. Debris in the water fill system may damage or disable tank automatic shut-off system resulting in an OVERFLOW condition.

## **SECTION 4**

### **Operation Instructions**

12. Use tie downs to prevent wind damage to the tower tank in high wind conditions. Tie-down locations and details are given in "Figure 4-1: Tie-downs" on page 6.

#### **SOLAR REMOTE ACTUATOR SYSTEM**

If the valve fails to operate, a release mechanism can be activated by using the pin installation tool to pull the release cable. This will release the pin for the actuator to disengage it from the butterfly valve.

#### **⚠ WARNING**

If multiple systems are in close proximity to one another (less than 100 yards or 92 meters), it may be possible to operate more than one unit simultaneously. This may cause unexpected opening of the butterfly valve releasing water from the tower. Ensure there is enough distance between the systems, and all personnel are clear from underneath tanks before operating remote actuator or damage to equipment or personnel may occur.

#### **REMOTE ACTUATOR DISCONNECT**

To release the pin from the BFV handle:

1. Remove the pin handler tool from the storage rack.
2. Insert shear pin tool in wire loop near the left front leg of tank.
3. Pull down sharply to release cotter pin spring to eject actuator from BFV handle. If actuator does not release from handle, move manual operation chain to release tension on actuator until the actuator springs off of pin allowing manual operation of butterfly valve
4. Operate the butterfly valve by using the chain.

#### **REMOTE ACTUATOR RE-CONNECT**

To re-install actuator:

1. Empty the tank of all water.
2. Start engine and raise tank sufficiently to remove weight from shear pins.
3. Remove 6 (six) shear pins and stow in tool box.

4. Lower tank to ground level.
5. Troubleshoot system to isolate failed component and repair or replace component.
6. Fully retract actuator.
7. Locate actuator pin, three flat washers, spring and cotter pin.
8. Insert actuator pin from the side of the handle opposite the actuator.
9. Install one flat washer on outside of pin.
10. Install spring on pin.
11. Install one flat washer on outside of spring.
12. Compress spring and slide actuator rod onto the pin.
13. Install one flat washer on outside of actuator rod.
14. Insert cotter pin in hole of pin.



#### **NOTE**

Ensure release cable is free and not binding when cotter pin is installed. Test actuator to ensure correct operation and release cable does not bind or interfere with butterfly valve handle, and butterfly valve moves to the completely closed position.

15. Return MPT12 to normal service.

## SECTION 4

### Operation Instructions

#### COLD WEATHER STORAGE

### CAUTION

Ice will cause serious damage to the fill pipe and fill pipe valves if water is allowed to freeze in the tank or water piping. Ensure all water is drained from the unit when the temperatures are expected to fall below freezing for any period of time.

1. Ensure that the unit is stable and is positioned on level ground. Do not lower the tank.

### ⚠ WARNING

Empty tank of water prior to lowering. Never move a tank containing water.

2. Shut-off all water fill sources (hydrant or pump) to the fill pipes.
3. Open discharge BFV and drain water from the tank. Be careful not to drain the water so quickly that it will erode the ground beneath the frame.
4. Use the hydraulic controls to lower the frame to the ground (as described previously in "Lowering" procedures).

### ⚠ WARNING

Keep feet from under the frame or personal injury could occur. Remove hoses or tools from under frame before lowering tank.

### CAUTION

Extension of the front and rear hydraulic cylinders are controlled by separate valves. To avoid damage when raising or lowering the tank, adjust hydraulic cylinders to keep tank level at all times.

5. Disconnect and drain fill source hosing.
6. Open fill pipe valves and drains shown in *Section 8* (Illustrated Parts Breakdown).
7. Check to ensure that all water has drained from tank, fill pipes, and valves.

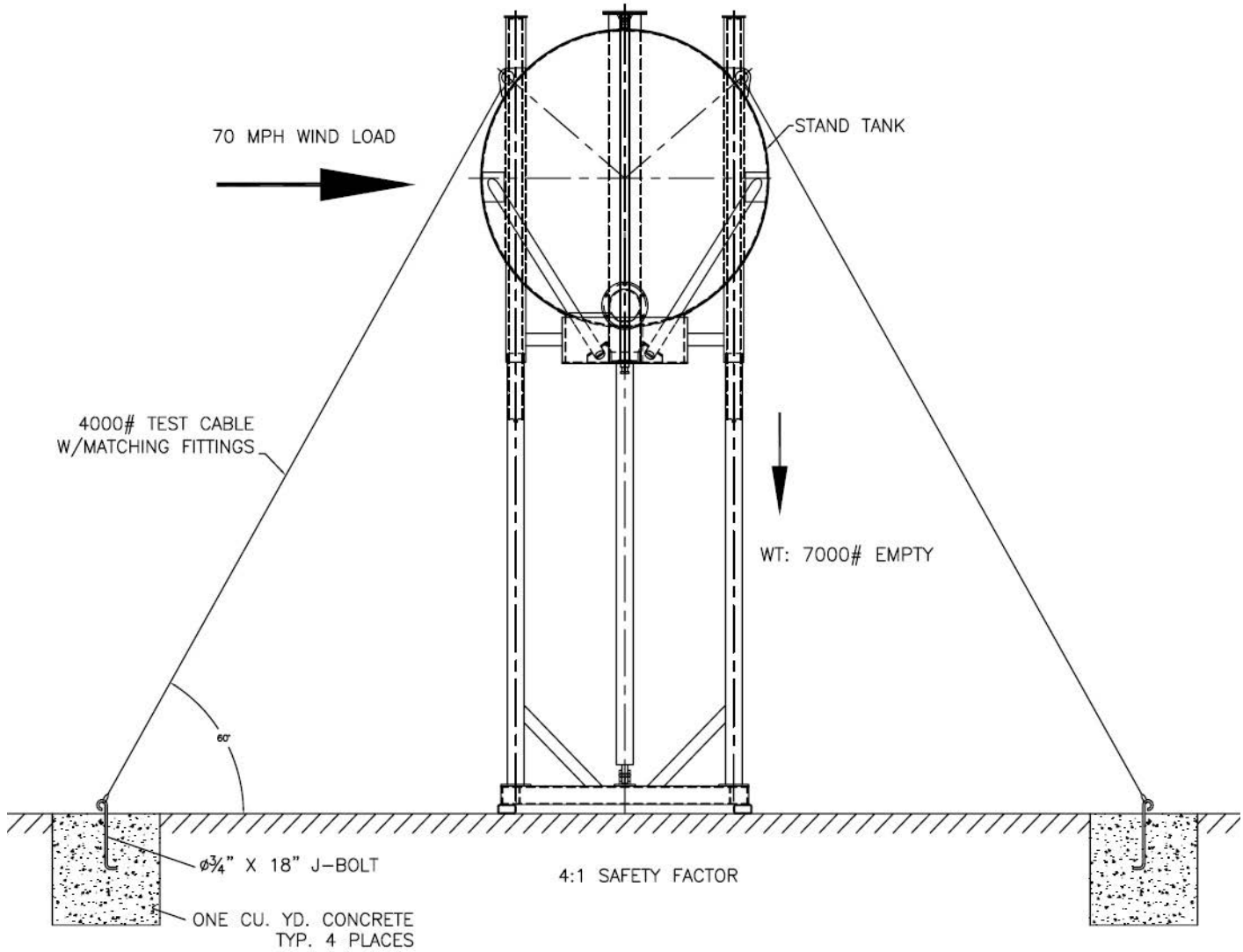
#### REACTIVATING UNIT

1. Close drain on fill pipe valve.
2. Close discharge BFV and fill pipe valves.
3. Set up the tank in accordance with "Set Up" operating procedures.



## SECTION 4 Operation Instructions

Figure 4-1: Tie-downs



# SECTION 5

## Maintenance and Repair

### Contents

Description .....	5-1	Solar Remote Actuator System .....	5-3
Water Tank .....	5-1	Axle .....	5-4
Float Adjustment.....	5-2	Grease and Oil Specifications .....	5-5
Hydraulic Pump Filtration and Installation.....	5-3		

### DESCRIPTION

This section discusses inspection, maintenance, and repair of the MPT. Failure to perform regular inspections on your MPT system may result in damage to the components and reduced life-span of the MPT.

If your system is not covered in this manual or you are having difficulties with the installation please contact The MEGA Corp. Product Support Group at:

U.S. Toll Free **1-800-345-8889**

Direct **1-505-345-2661** or

Visit our website at [www.megacorpinc.com](http://www.megacorpinc.com)

### WATER TANK



The MPT tank is 2.59m (8.5 ft) in diameter, 11.13m (36.5 ft.) in length, and has a capacity of 45.42 L (12,000 gallons). The corners of the tank are reinforced to provide sturdy connection to supports. An access ladder leading to the top of the tank is located at the rear of the trailer, and a ladder is located inside of the tank. An 8" diameter float is located inside of the tank for automatic fill shut-off when the tank is full.

### INSPECTION

1. Inspect tank exterior paint for wear and corrosion.
2. Inspect tank outer skins for damage or leaks.

3. Inspect tank outer structure for damage.
4. (Interior coating equipped only) Inspect tank interior coating for wear, condition and deterioration. Repair as required.
5. Inspect all water ways, pipes, and couplings for security, wear and leaks.
6. Inspect all tank mounted wiring, and hydraulic hoses for wear, security and leaks.

### REPAIR

#### Paint

Remove corrosion. Prime and paint.

#### Interior Coating (Epoxy or Urethane)

1. Brief and follow all local confined space entry requirements and procedures.

### ⚠ WARNING

Do not enter confined spaces without following established site specific procedures. Failure to follow proper safety procedures will result in serious injury or death.

2. Use all required safety equipment and procedures to perform grinding and painting of interior coatings. Refer to coating manufactures MSDS information.
3. Inspect coating for flaking, bubbling or cracking.
4. Remove damaged coating via wire brush wheel or grinder. Ensure coating is removed about 1-2" beyond the visible defect.
5. Wipe area clean and inspect exposed edges of the coating. Ensure exposed edges of the coating still adhere to the metal surface.

## SECTION 5

### Maintenance and Repair

6. Wipe clean with Prep Sol or equivalent preparation solution to remove debris and/or oil.
7. Mix Epoxy or Urethane coating according to the manufacturer's instructions.
8. Apply coating with appropriate roller or brush. Ensure coating is applied at the manufacturer's recommended thickness. See MSDS sheet for details.
9. Allow sufficient time for the coating to cure before filling tank with water.

#### Leaks

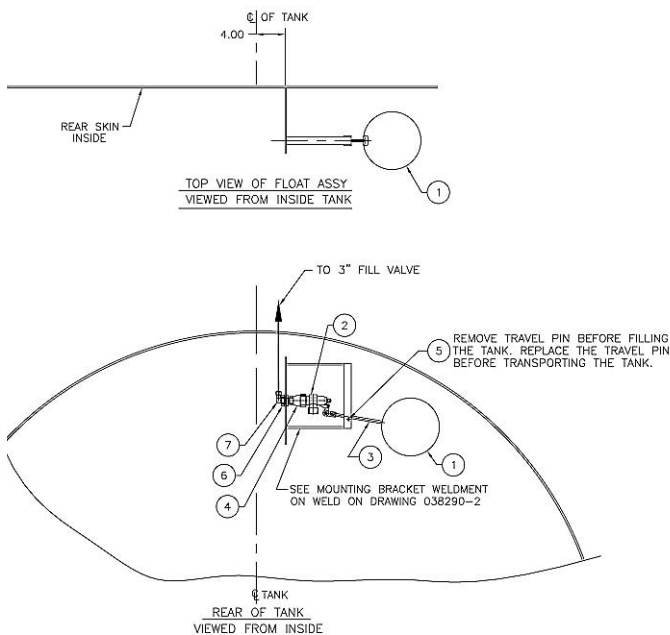
1. Remove paint and corrosion from suspected area.
2. Weld over leak.
3. Prime and paint over weld.

#### Structure

Contact MEGA Product Support for assistance on major structural repair at US toll free: 1-800-345-8889 Direct: 1-505-345-2661 or visit our website at [www.megacorpinc.com](http://www.megacorpinc.com) for more detailed contact information.

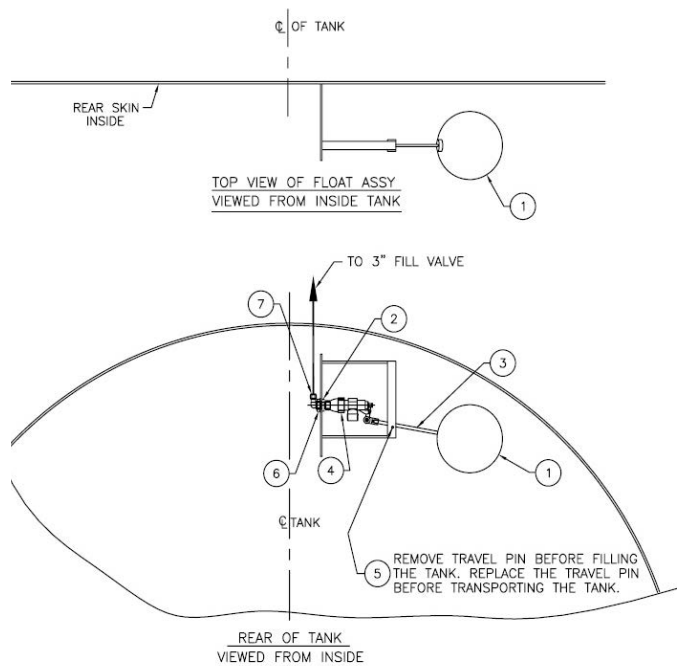
### FLOAT ADJUSTMENT

#### SINGLE FILL PIPE



1. Make sure shut-off valve is open.
2. Open flow control valve all the way and then close it all the way. Check for flow control function.
3. Open flow control valve 3 to 3-1/2 turns.
4. Start fill.
5. Water should be coming out of float valve (if not, open flow control valve until water starts flowing).
6. Pull up on float.
7. If water will not shut off, close flow control valve 1/4 of a turn or until water shuts off without chatter or slamming.

#### DOUBLE FILL PIPE



1. Connect water source to one fill pipe at a time while setting flow controls.
2. Close shut-off valve on secondary fill pipe.
3. Adjust primary fill pipe by following steps 1-7 in the previous section "SINGLE FILL PIPE" on page 2.

## SECTION 5

### Maintenance and Repair

4. Once primary fill pipe is set, close the shut-off valve and then open secondary shut-off valve.
5. Connect water source to secondary fill pipe. Repeat the steps in "SINGLE FILL PIPE" on page 2.
6. Connect water source to both fill pipes. Start fill.
7. Close both shut-off valves on each fill pipe to make sure both valves are shutting off.
8. Open shut-off valves.
4. Green LED illuminated – Battery Charged (14.2 VDC).
5. Yellow LED illuminated – Charging (<13 VDC cut in charge voltage).
6. Check and ensure actuator wiring and connectors are in good condition and there is no corrosion or damage present.
7. Check butterfly valve to ensure valve is not binding or dragging.

### HYDRAULIC PUMP FILTRATION AND INSTALLATION

Please follow coupling manufacturer's recommended installation instructions

#### CAUTION

For maximum pump and system component life, the system should be protected from contamination at a level not to exceed 214 particles greater than 10 microns per milliliter of fluid.

#### CAUTION

Pump and motor shaft alignment must be within 0.007 inches total indicator reading using a standard float coupling. Please follow coupling manufacturer's recommended installation instructions to prevent end thrust on pump shaft. Turn pump by hand to assure freedom of rotation. Pump and motor must be on a rigid base. The coupling should be sized to absorb the peak horsepower developed.

### SOLAR REMOTE ACTUATOR SYSTEM

If actuator runs slow:

1. Ensure battery connections are good and clean.
  2. Check battery voltage, ensure battery voltage is 12 VDC to 14.2 VDC.
  3. Check to ensure solar charging system functions properly.
  8. Repair as required.
- If actuator fails to operate:
1. Check battery voltage, ensure battery voltage is 12VDC to 14.2 VDC.
  2. Ensure all power and ground connections are in good shape with no corrosion or damage present.
  3. Check fuse for remote control actuator, ensure fuse is good.
    - a. If 20 amp fuse in control enclosure box is blown, high current draw is present.
      1. Possible damaged actuator, short to ground in wiring or motor, cut or damaged wiring or stuck butterfly valve.
      2. Check to ensure butterfly valve operates correctly and does not bind or stick.
      3. Check actuator to ensure maximum current draw at load does not exceed 12 amps.
  4. Check/replace batteries in remote control FOBs.
    - a. Replacement batteries are: 2 each CR2016 3V Lithium cell batteries.
  5. Check remote control circuit output.
    - a. Ensure when remote control is activated the output signal is directed to actuator.
  6. Repair as required.

## SECTION 5

### Maintenance and Repair

#### AXLE



The heavy-duty utility axle has a 25,000 lb. capacity with an oil-lubricated bearing, auto slack adjusters, and electro-hydraulic air braking. The backing plate of the hydraulic brake mounts onto the piloted axle brake flange.

#### LUBRICATION

1. Check oil level. If below 0.25 INCH, add oil.
2. Inspect for grease or oil contamination. Change if required, using the approved greases listed in Table 5-1.

#### **⚠ WARNING**

Do **NOT** use gasoline to clean parts. Gasoline can explode or burn, resulting in serious personal injury or death.

3. Check for grease or oil on the brake disc, drum, or linings. If necessary, clean the disc or the drum and replace contaminated linings.

#### **⚠ WARNING**

The presence of grease or oil on the brake disc, drum, or linings can cause poor brake performance, leading to serious injury or death and equipment damage.

## SECTION 5

### Maintenance and Repair

#### GREASE AND OIL SPECIFICATIONS

**Table 5-1: Approved Greases**

Lubricant Specification	Recommendation
O-616-A	Shell Darina Grease No. 1 Texaco Thermatex EP-1 Texaco Hytherm EP-1 Aralub 3837
O-617-A O-617-B	Multipurpose Chassis Grease
O-637	Witco Chemical Corp. SA-824946
O-641	Never-Seez Anti-Seize
O-645	Mobilgrease 2B (Military) Mobiltemp SHC 32 (Industrial) Aerospace Lubricants Inc. Triolube 12 - Grade 1
O-692	Amoco Super Permalube # 2 Citgo Premium Lithium EP-2 #2 Exxon Ronex MP-2 #2 Kendall L-427 Super Blu #2 Mobilith AW-1 #1 Sohio Factran EP-2 #2

**Table 5-2: Cam Brake Grease Specifications**

Component	Rockwell Specification	NLGI Grade	Grease Type	Outside Temperature
Hold Down Clips, Anchor Pins, Rollers (Journals only) Camshaft Bushings	O-616-A	1	Clay Base	Down to -40°C (-40°F)
	O-617-A or O-617-B	1  2	Lithium 12-Hydroxy Steadate or Lithium Complex	See grease manufacturer's specifications
	O-645	2	Synthetic Oil, Clay Base	Down to -54°C (-65°F)
	O-692	1 and 2	Lithium Base	Down to -40°C (-40°F)
	Any of Above	See Above	See Above	See Above
Camshaft Splines	O-637	1-1/2	Calcium Base	See grease manufacturer's specifications
	O-641	—	Anti-Seize	

## SECTION 5

### Maintenance and Repair

**Table 5-3: Automatic Slack Adjuster Grease Specifications**

Component	Rockwell Specification	NLGI Grade	Grease Type	Outside Temperature
Automatic Slack Adjuster	O-616-A	1	Clay Base	Down to -40°C (-40°F)
	O-692	1 and 2	Lithium Base	Down to -40°C (-40°F)
	O-645	2	Synthetic Oil, Clay Base	Down to -54°C (-65°F)
Clevis Pins	Any of Above	See Above	See Above	See Above
	O-637	1-1/2	Calcium Base	See grease manufacturer's specifications
	O-641	—	Anti-Seize	

**Table 5-4: Manual Slack Adjuster Grease Specifications**

Component	Rockwell Specification	NLGI Grade	Grease Type	Outside Temperature
Manual Slack Adjuster	O-616-A	1	Clay Base	Down to -40°C (-40°F)
	O-617-A or O-617-B	1  2	Lithium 12-Hydroxy Steadate or Lithium Complex	See grease manufacturer's specifications
	O-645	2	Synthetic Oil, Clay Base	Down to -54°C (-65°F)
	O-692	1 and 2	Lithium Base	Down to -40°C (-40°F)
Clevis Pins	Any of Above	See Above	See Above	See Above
	O-637	1-1/2	Calcium Base	See grease manufacturer's specifications
	O-641	—	Anti-Seize	

## SECTION 5

### Maintenance and Repair

**Table 5-5: Trailer Axle Wheel Oil Specifications**

Component	Rockwell Specification	Military Specifications	Grease Type	Outside Temperature			
				°F		°C	
				Min.	Max.	Min.	Max.
Trailer Axle Wheel End	O-76A, Gear Oil	MIL-L-2105-D	GL-5, SAE 85W/140	10	None	-12	None
	O-76D, Gear Oil	MIL-L-2105-D	GL-5, SAE 80W/90	-15	None	-26	None
	O-76E, Gear Oil	MIL-L-2105-D	GL-5, SAE 75W/90	-40	None	-40	None
	O-76J, Gear Oil	MIL-L-2105-D	GL-5, SAE 75	-40	+35	-40	+2
	O-76L, Gear Oil	MIL-L-2105-D	GL-5, SAE 75W/140	-40	None	-40	None
	O-76M, Full Synthetic Oil	MIL-L-2105-D	GL-5, SAE 75W/140	-40	None	-40	None
	O-76N, Full Synthetic Oil	MIL-L-2105-D	GL-5, SAE 75W/90	-40	None	-40	None

**Table 5-6: Trailer Axle Wheel Grease Specifications**

Grease	Rockwell Specification	NLGI Grade	Grease Classification	Outside Temperature
Multi-Purpose Grease	O-617-A or O-617-B	1  2	Lithium 12-Hydroxy Stearate or Lithium Complex	Refer to the grease manufacturer's specifications for the temperature service limits.
Trailer Axle Bearing	O-647	00	Lithium Complex	Refer to the grease manufacturer's specifications for the temperature service limits.



**SECTION 5**  
**Maintenance and Repair**

## SECTION 6

### Scheduled Maintenance Inspections

#### Contents

Description .....	6-1	MPT Structure .....	6-2
Axle and Brake System .....	6-1	Engine .....	6-2

#### DESCRIPTION

This section establishes scheduled maintenance inspections of the MPT at the designated frequencies. Performing these inspections will identify potential system discrepancies and allow preventative maintenance to be performed before a component or system is rendered totally inoperative.

### NOTE

The recommended oil change intervals are based upon operating conditions, speeds, and loads. Limited service applications may allow the recommended interval to be increased. Several service applications may require the recommended interval to be reduced. For more information, contact MEGA Product Support at U.S. Toll Free 1-800-345-8889 or Direct 1-505-345-2661 or visit our website at [www.megacorpinc.com](http://www.megacorpinc.com) for more contact information.

FREQUENCY					
AXLE AND BRAKE SYSTEM	1000 MILES	30,000 MILES	100,000 MILES	EVERY 6 MONTHS	ANNUALLY
Check oil level. Change oil if the oil level is less than 0.25". Additionally, change the oil and grease the bearings whenever the wheel end is disturbed during wheel or hub removal or if the oil is contaminated.	X				
<b>(Heavy-Duty Service)</b> If the MPT accumulates over 60,000 miles a year, change the oil and grease the bearings every 30,000 miles.		X			
<b>(Heavy-Duty Service)</b> If the MPT accumulates less than 60,000 miles a year, change the oil and grease the bearings every six months.				X	
<b>(Standard-Duty Service)</b> If the MPT accumulates over 100,000 miles a year, change the oil and grease the bearings every 100,000 miles.			X		
<b>(Standard-Duty Service)</b> If the MPT accumulates less than 100,000 miles a year, change the oil and grease the bearings once a year.					X
Check brake pods for security, damage, and leaks				X	

## SECTION 6

### Scheduled Maintenance Inspections

		FREQUENCY				
STEP	MPT STRUCTURE	150 HRS (WEEKLY)	250 HRS (BI-WEEKLY)	500 HRS (MONTHLY)	1,000 HRS (QUARTERLY)	5,000 HRS (ANNUALLY)
1	Check filler port trash screen for debris and inspect assembly for security and damage. Repair or replace trash screen as required.	<b>X</b>				
2	Visually inspection tank exterior for damage and evidence of leaks. Repair as required			<b>X</b>		
3	Check all lights for proper operation. Replace lights as required.			<b>X</b>		
4	Inspect discharge and inlet valves for damage, leaks, and security. Repair as required.			<b>X</b>		
5	Check engine, hydraulic tank hoses and cylinders for damage, leaks and security. Repair as required.			<b>X</b>		
4	Check all interior tank structure for leaks, cracks and condition of epoxy coating (if equipped). Repair structure and coatings as required.					<b>X</b>

		FREQUENCY				
STEP	ENGINE	FIRST 5 HOURS	8 HOURS OR (DAILY)	25 HOURS OR (ANNUALLY)	50 HRS OR (QUARTERLY)	100 HRS OR (ANNUALLY)
1	Change engine oil.	<b>X</b>				
2	Check engine oil, clean area around muffler and controls, clean air intake grill.		<b>X</b>			
3	Clean air filter, clean pre-cleaner			<b>X</b>		
4	Change engine oil, service exhaust system				<b>X</b>	
5	Change 6:1 gear reduction oil (If Equipped)					<b>X</b>

## SECTION 7

### Recommended Support Parts

#### Contents

Description .....7-1	Brakes Group ..... 7-1
Hydraulic Pump & Engine Parts Group.....7-1	Lights Parts Group ..... 7-2
Water Flow Parts Group .....7-1	Miscellaneous Parts Group ..... 7-2

#### DESCRIPTION

This section contains a listing of recommended support parts to have on the shelf. **NOTE:** All MPTs are not configured the same. There are several variations of parts. Ensure MPT serial numbers and actual component part numbers are checked before ordering any parts.

#### A. HYDRAULIC PUMP & ENGINE PARTS GROUP

PART DESCRIPTION	PART NO.	QTY
1. Pump, Hydraulic Gear (4ZC31)	302100	1
2. Flow Control Valve	302244	1
3. Oil Filter, Element	309898	1

#### B. WATER FLOW PARTS GROUP

PART DESCRIPTION	PART NO.	QTY
1. Valve, Butterfly, 10"		
a. Primary	310457	1
b. Alternate	301486	1
2. Discharge Sock w/Metal Grommet	302253	1
3. Discharge Sock ("Drawstring Style")	304856	1
4. Worm Drive Clamp	304855	1
5. Float Assembly	See Illustrated Parts Breakdown	
6. Lynch Pin	355879	1
7. Valve, Float, 1"	303202	1
8. Valve, In-Line 3"	302457	1

#### C. BRAKES GROUP

PART DESCRIPTION	PART NO.	QTY
1. Couplers, Gladhand, Blue, Emergency Brake Driver's Side	301300	
2. Couplers, Gladhand, Red, Service Brake Passenger Side	301301	
3. Petcock, 1/4"	300296	1

## SECTION 7

### Recommended Support Parts

<b>D. LIGHTS PARTS GROUP</b>		
PART DESCRIPTION	PART NO.	QTY
1. LED Clearance Light, Red	306116	2
2. LED Clearance Light, Yellow	306117	4
3. LED Stop/Turn/Tail Light, Red	307178	4
4. LED Stop/Turn/Tail Light Pigtail, Right Angle	307177	4
5. Grommet, Truck Light	307176	4
6. LED ID Bar, Red	307183	1
7. HHCS, M5x0.8X25MM	308190	4
8. Nut, M5X0.8	355250	4
9. Washer, M5	355261	4
10. LED License Plate Lamp	307181	1

<b>E. MISCELLANEOUS PARTS GROUP</b>			
PART DESCRIPTION	LOCATION / USE	PART NO.	QTY
1. Chain	Front of trailer	353540	1
2. Weight, Counter Balance	End of rope on MPT 10 or MPT 12	034810	1
3. Rope Assembly	Front of trailer	032826	1
4. Pulley, Swivel	Passenger side of trailer; rope attaches to pulley to smooth the travel of rope	354276	1
5. Hitch Pin Assembly & Keepers	At side posts of tower tank	354255	
6. Lynch Pin with Chain	At side posts of tower tank	354257	

If your system is not covered in this manual or are having difficulties locating the necessary components please contact MEGA Corp. Product Support Group at:

US Toll Free: 1-800-345-8889 or

Direct: 1-505-345-2661 or visit our website at [www.megacorpinc.com](http://www.megacorpinc.com) for more detailed contact information.

# SECTION 8

## Illustrated Parts Breakdown

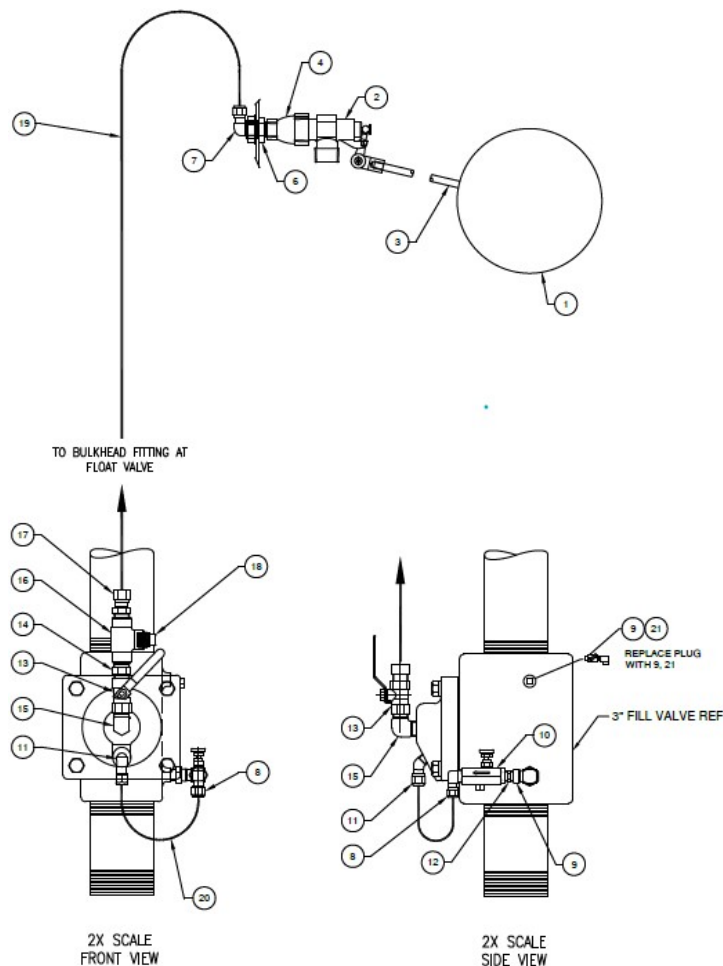
### Contents

Description .....	8-1	Discharge Valve Group.....	8-3
Single Fill Pipe Float Assembly .....	8-1	Hydraulic Control Valve Assembly.....	8-4
Dual Fill Pipe Float Assembly .....	8-2	Lights.....	8-5
Discharge Valve Group.....	8-3		

### DESCRIPTION

This section contains illustrated parts breakdowns of several MPT assemblies. **NOTE:** All MPTs are not configured the same. There are several variations of parts. Ensure MPT serial numbers and actual component part numbers are checked before ordering any parts.

### SINGLE FILL PIPE FLOAT ASSEMBLY



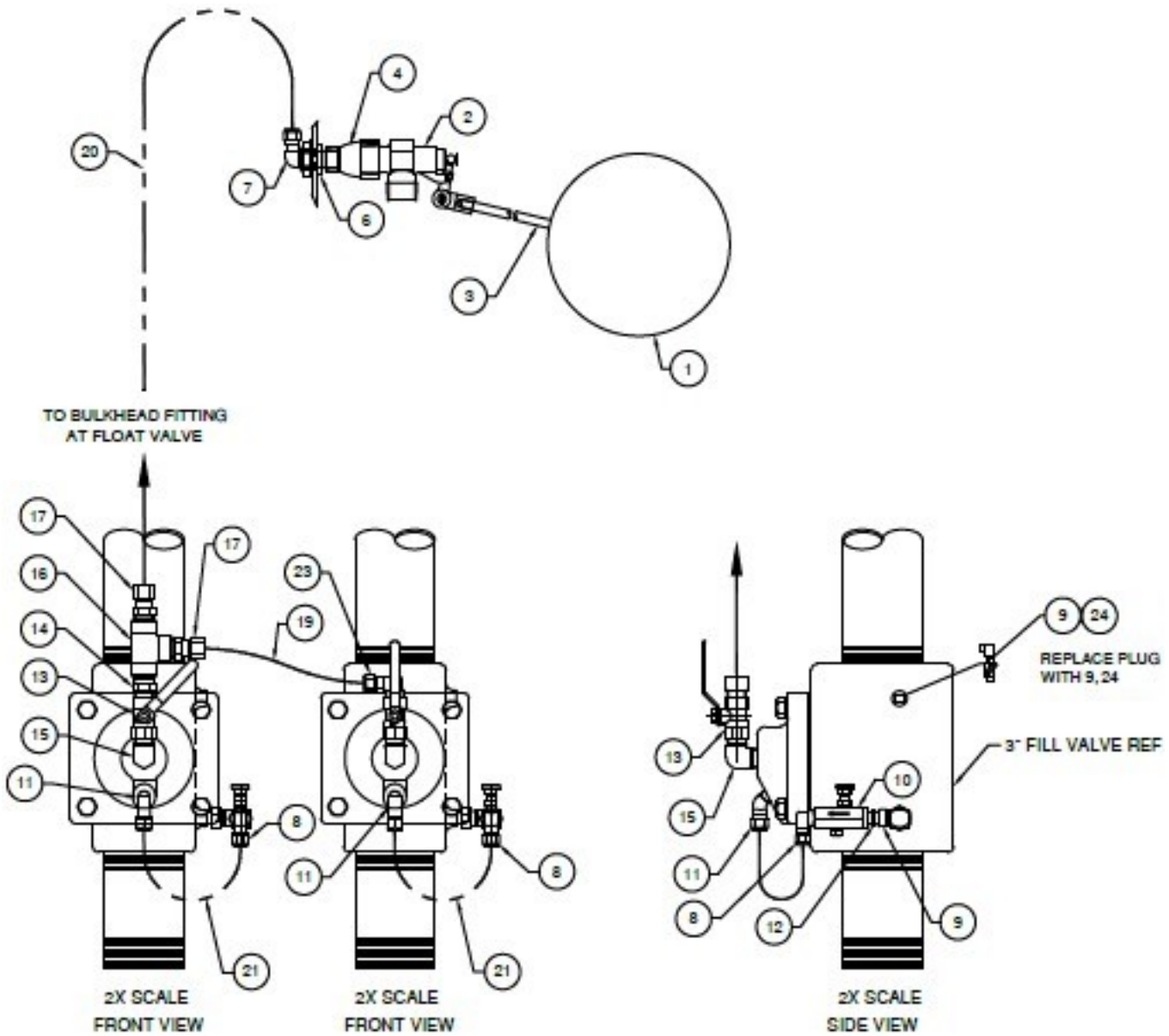
NO.	PART NO.	DESCRIPTION	QTY
1	310444	BALL, FLOAT 8 INCH 1/4-20 UNC	1
2	310445	VALVE, BRASS 1 INCH NPT 1/4-20 UNC	1
3	310446	ROD, ALL THREAD, 1/4-20 UNC X 9 INCH	1
4	352706	BELL REDUCER 1/2 FPT TO 1 FPT	1
5	355879	FLOAT LOCK PIN	1
6	354258	CLAMPING STUD	1
7	351088	AIR FTG 1469x8	1
8	351082	AIR FTG 1469x6	1
9	352892	AERO FTG 2089-6-4S	2
10	300283	CONTROL VALVE—1/4 NPT	1

11	351124	AIR FTG 1480x6	1
12	352467	AERO FTG 2083-4-4S	1
13	301299	BALL VALVE, 1/2 FPT	1
14	352472	AERO FTG 2083-8-8S	1
15	354037	AERO FTG 2085-8-8S	1
16	352858	AERO FTG 2090-8-8S	1
17	351072	AIR FTG 1469x8x8	1
18	350852	PLUG, PIPE 1/2 SQ. HEAD	1
19	351142	TUBING—ø1/2" x 126 INCHES	1
20	351141	TUBING—ø3/8 x 12 INCHES	2
21	300297	PETCOCK, 3/8	1

## SECTION 8

### Illustrated Parts Breakdown

#### DUAL FILL PIPE FLOAT ASSEMBLY

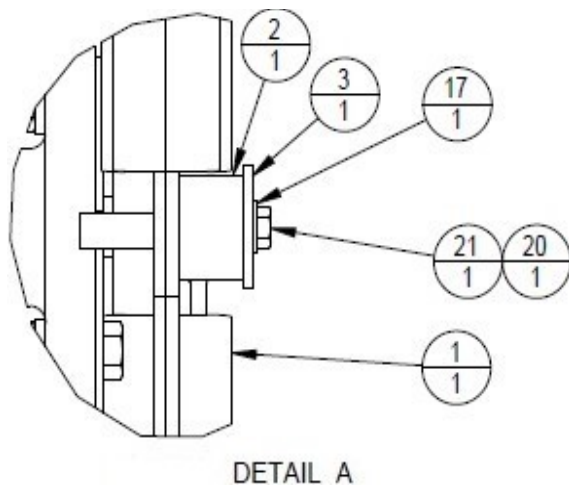
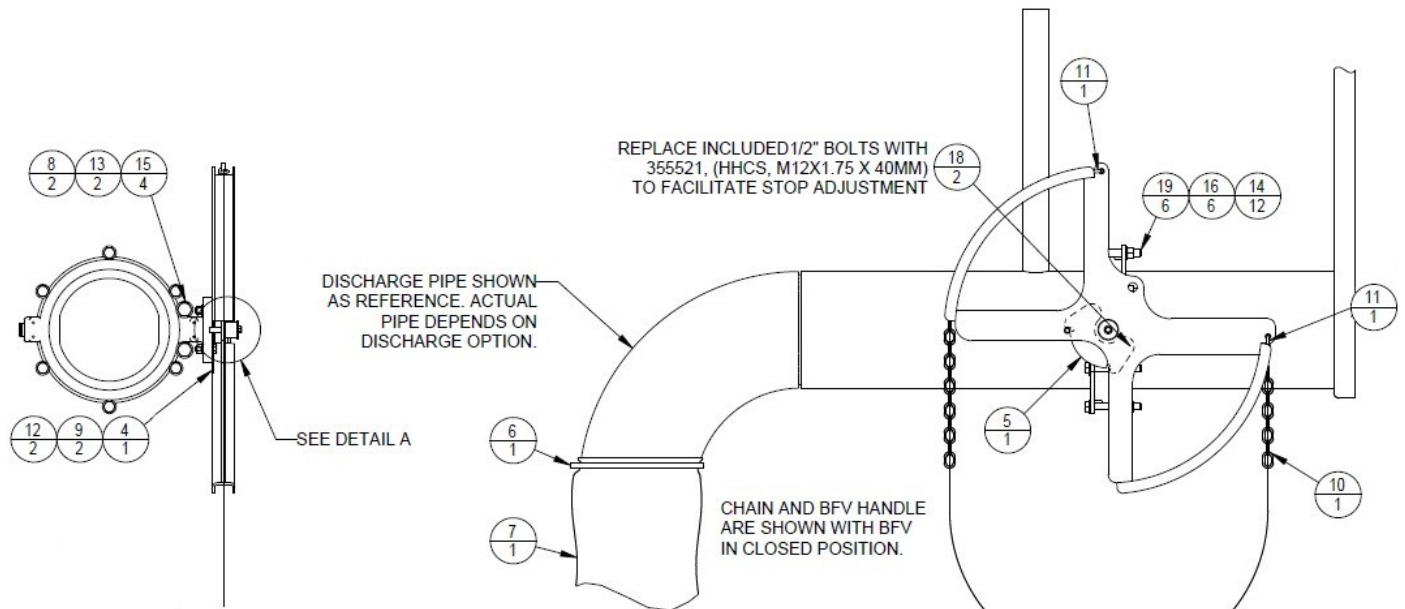


NO.	PART NO.	DESCRIPTION	QTY
1	310444	BALL, FLOAT 8 INCH 1/4-20 UNC	1
2	310445	VALVE, BRASS 1 INCH NPT 1/4-20 UNC	1
3	310446	ROD ALL THREAD, 1/4-20 UNC X 9 INCH	1
4	352706	BELL REDUCER 1/2 FPT TO 1 FPT	1
5	355879	LYNCH PIN	1
6	354258	CLAMPING STUD	1
7	351088	AIR FTG 1469x8	1
8	351082	AIR FTG 1469x6	2
9	352892	AERO FTG 2089-6-4S	4
10	300283	CONTROL VALVE—1/4 NPT	2
11	351124	AIR FTG 1480x6	2
12	352467	AERO FTG 2083-4-4S	2

13	301299	BALL VALVE, 1/2 FPT	2
14	352472	AERO 2083-8-8S	1
15	354037	AERO 2085-8-8S	2
16	352858	AERO 2090-8-8S	1
17	351072	AIR FTG 1468x8x8	2
19	351142	TUBING— $\phi$ 1/2" x 24 INCHES	1
20	351142	TUBING— $\phi$ 1/2" x 126 INCHES	1
21	351141	TUBING— $\phi$ 3/8 x 12 INCHES	2
23	351091	AIR FTG 1469x8x8	1
24	300297	PETCOCK, 3/8	2

## SECTION 8 Illustrated Parts Breakdown

### DISCHARGE VALVE GROUP



310457- 10 in BFV\*



301486- 10 in BFV  
(ALTERNATE)

**\*PLEASE NOTE:**  
When replacing 301486 with 310457 a new BFV HANDLE may be required. Please contact the MEGA Corp. Product Support Group at:  
U.S. Toll Free:  
1-800-345-8889  
Direct:  
1-505-345-2661 for more information.

NO.	PART NO.	DESCRIPTION	QTY
1	018408	10 inch BFV HANDLE & KEY ASM	1
2	059074	SPACER	1
3	059075	RETAINER	1
4	059076	PLATE, A36 10GA	1
5		BUTTERFLY VALVE, 10 INCH	1
5A	310457	BUTTERFLY VALVE, 10 INCH*	
5B	301486	BUTTERFLY VALVE, 10 INCH (ALTERNATE)	
6	304855	CLAMP, WORM DRIVE	1
7	304856	DISCHARGE SOCK	1
8	306930	HHCS, M20X2.5X120MM	2
9	350018	WASHER, LOCK 12MM	2

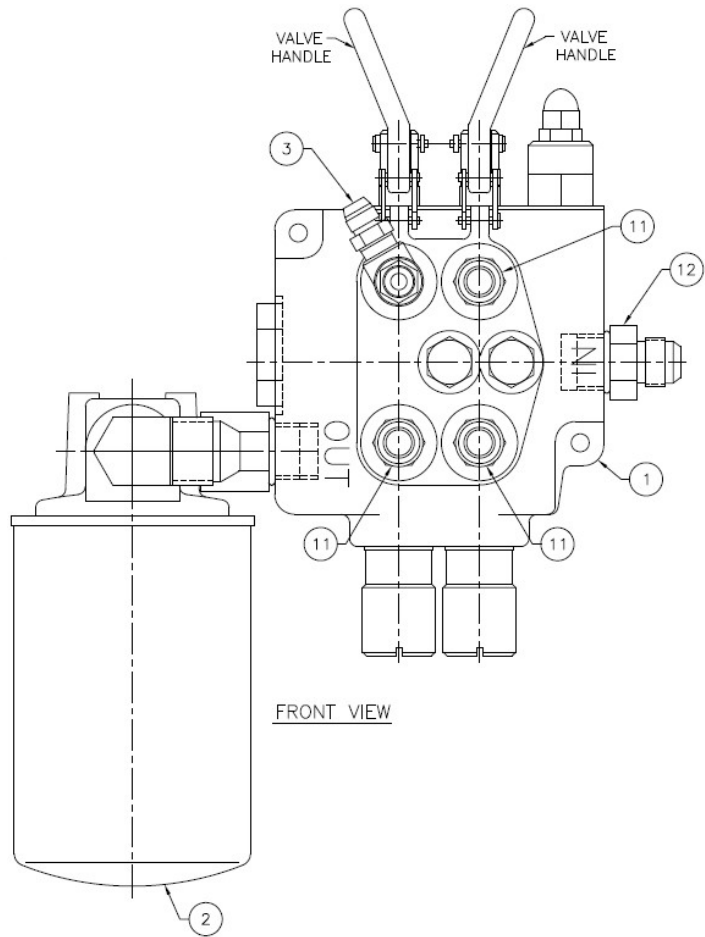
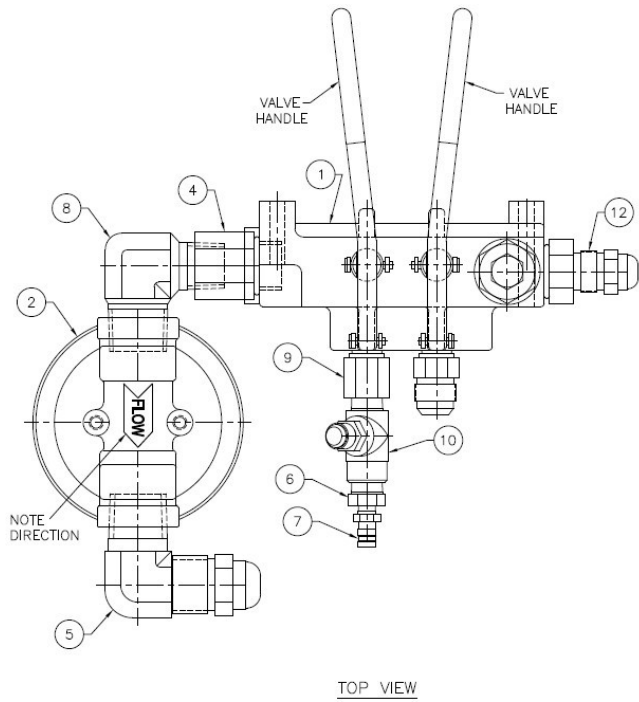
10	353540	UTILITY CHAIN- 3/16 X 23 FEET	1
11	354272	COLD SHUT, 1/4 INCH	2
12	355255	NUT, M12X1.75	2
13	355258	NUT, M20X2.5	2
14	355266	WASHER, M16	12
15	355267	WASHER, M20	4
16	355472	NUT, M16X2.0	6
17	355510	WASHER, M8	1
18	355521	HHCS, M12X1.75X40MM	2
19	355537	HHCS, M16X2.0X120MM	6
20	355562	HHCS, M8X1.25X16MM	1
21	355567	HHCS, M8X1.25X40MM	1



## SECTION 8

### Illustrated Parts Breakdown

#### HYDRAULIC CONTROL VALVE ASSEMBLY



NO.	PART NO.	DESCRIPTION	QTY
1	302244	VALVE, HYDRAULIC CONTROL	1
2	302316	FILTER, ASM	1
3	352310	AERO 2021-8-8S	1
4	353225	AERO 2216-8-10S	1
5	352452	AERO 2024-12-12S	1
6	352871	AERO 2081-8-4S	1
7	354588	AERO FD90 -1045-4-4S	1
8	354070	AERO 2085-12-8S	1
9	354340	AERO 2216-8-8S	1
10	354704	TEE AERO 2092-8-8S	1
11	352612	AERO 202702-8-10S	3
12	352616	AERO 202702-10-8S	1

## SECTION 8

### Illustrated Parts Breakdown

#### LIGHTS



- 1
8
9
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2
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7

NO.	PART NO.	DESCRIPTION	QTY
1	307181	LICENSE PLATE LAMP, LED	1
2	307183	LED ID BAR 17 INCH RED	1
3	307178	S/T/T LIGHT, 4 INCH LED RED	4
4	307177	S/T/T PIGTAIL, RIGHT ANGLE	4
5	307176	GROMMET, TRUCK LIGHT	4
6	306116	LED CLEARANCE RED (SMALL)	2
7	306117	LED CLEARANCE YEL (SMALL)	4
8	308190	HHCS, M5X0.8X25MM	4
9	355250	NUT, M5X0.8	4
10	355261	WASHER, M5	8

**SECTION 8**  
**Illustrated Parts Breakdown**

# **Appendix**

## **Installation Drawings**

### **DESCRIPTION**

This section contains all the drawings required to assemble, transport, and operate the MPT12. These drawings are NOT serial number specific and may show options that are not installed on the MPT12 being worked on. These drawings are designed to be used in conjunction with previous section information to successfully produce a fully operational MPT12 system.

If your system is not covered in this manual, you are having difficulties with the installation or need additional information or assistance, please contact The MEGA Corp. Product Support Group at:  
U.S. Toll Free: 1-800-345-8889  
Direct: 1-505-345-2661  
or visit our website at [www.megacorpinc.com](http://www.megacorpinc.com) for more contact information.

# **Appendix**

## **Installation Drawings**