



Mi-T-M[®]
C O R P O R A T I O N

**STAINLESS STEEL
DETERGENT INJECTOR
AW-8000-0001**

**OPERATING INSTRUCTIONS
& PARTS LIST**




CAUTION

**RISK OF INJURY! READ ENTIRE MANUAL
BEFORE OPERATING! THIS MANUAL IS AN IMPORTANT
PART OF THE INJECTOR AND MUST REMAIN WITH THIS
UNIT WHEN YOU SELL OR RENT IT**

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WARNING

 **WARNING:** This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

INTRODUCTION

Congratulations on the recent purchase of your new Mi-T-M Detergent Injector! You can be assured your Detergent Injector was designed with quality and performance in mind. Each component has been rigorously tested to ensure the highest level of acceptance.

This operator's manual was compiled for your benefit. The contents of this manual are based on the latest product information available at the time of publication. Mi-T-M reserves the right to make changes in price, color, materials, equipment, specifications or models at any time without notice.

The Detergent Injector attaches downstream from the pump, so no detergents flow through the pump or plumbing on the machine. This means no detergent reactions; no caking, flaking or corrosion, and much longer problem-free pump life.

Important features on your Detergent Injector include:

Convenience: The entire kit is attached with a quick connect system and installs in seconds.

Speed: The detergent flow can be initiated and ceased remotely at the gun/wand assembly. This eliminates the need to walk back to the unit to introduce detergent.

Safety: In the detergent flow cycle, the pressure drops back to approximately *200 PSI (Pounds per Square Inch). This minimizes splash back, while keeping enough force to apply detergent solutions over a large area quickly.
*This figure varies depending upon the pressure washer model.

! IMPORTANT !

ALWAYS PROVIDE A COPY OF THIS MANUAL TO ANYONE USING THIS EQUIPMENT. READ ALL INSTRUCTIONS IN THIS MANUAL AND ANY INSTRUCTIONS SUPPLIED BY MANUFACTURERS OF SUPPORTING EQUIPMENT BEFORE OPERATING THIS EQUIPMENT AND ESPECIALLY POINT OUT THE "SAFETY WARNINGS" TO PREVENT THE POSSIBILITY OF PERSONAL INJURY TO THE OPERATOR.

If you have questions, contact your Mi-T-M® Customer Service Representative at 800-553-9053.



Mi-T-M® Corporation, 50 Mi-T-M Drive, Peosta, IA 52068-0050 USA



SAFETY WARNINGS



When using this product, basic precautions should always be observed, including the following:

| HAZARD | POTENTIAL CONSEQUENCE | PREVENTION |
|---|---|---|
| <p>RISK OF INJECTION OR SEVERE CUTTING INJURY</p>  | <p>Serious injury or death could occur from high pressure spray penetrating the skin.</p> | <p>KEEP AWAY FROM THE SPRAY: If an accident does occur, and the spray appears to have penetrated the skin, SEEK EMERGENCY MEDICAL CARE. DO NOT TREAT AS A SIMPLE CUT. Be prepared to tell a physician exactly what type of detergent you are using. This information is provided on the Mi-T-M Detergent Label and the MSDS (Material Safety Data Sheet) provided with your detergent.</p> <p>Before attempting to install the injector, make sure the pressure washer is shut off. Relieve pressure in the system.</p> <p>NEVER spray at yourself or any one else.</p> <p>NEVER put your hand, fingers or body directly over the spray nozzle.</p> <p>Maintain a safe distance from persons while operating this unit.</p> <p>DO NOT allow children or pets near the area when operating the unit.</p> |
| <p>RISK OF BODILY INJURY</p>  | <p>Serious injury can occur from detergent injector applications.</p> | <p>Always wear eye protection when using the Detergent Injector. Other protective clothing such as a rubber suit, gloves, respirator, etc., may be necessary for additional protection.</p> <p>Do not use solvents, highly corrosive detergent or acid type cleaners with this injector. Do not use this injector to dispense hazardous detergents. Use only Mi-T-M detergents with the injector and mix these detergents only with water.</p> <p>Mi-T-M Detergents contain surfactants which may be harmful if swallowed.</p> <p>Stay alert! Watch what you are doing. Do not operate the unit or injection feature under the influence of alcohol or drugs.</p> <p>If the detergent hose, strainer or components show any sign of damage, replace before continuing.</p> <p>Read all instructions in both this manual and the manual accompanying the pressure washer you are using with this Detergent Injector.</p> |



SAFETY WARNINGS

READ ALL SAFETY WARNINGS BEFORE USING DETERGENT INJECTOR



| HAZARD | POTENTIAL CONSEQUENCE | PREVENTION |
|---------------------------------|-----------------------|--|
| RISK OF EQUIPMENT DAMAGE | Risk of major repair. | Do not alter the injection feature in any manner not prescribed in this manual. Use only genuine Mi-T-M replacement parts for necessary repairs. |

!SAVE THESE INSTRUCTIONS!

INSTALLATION & PREPARATION

INJECTOR INFORMATION:

1. This injector was designed for use with specially formulated, highly concentrated Mi-T-M Detergents. NEVER mix detergent with anything but water!
2. Simply follow the instructions on the container for proper dilution. Keep in mind this injector further dilutes the detergent at an approximate 1 part detergent to 12 parts water ration. (Detergent siphon ration may vary depending upon the temperature or viscosity of the detergent being used.)

NOTE: *Before beginning a cleaning job, always spot test the detergent on the area to be cleaned to determine if a detergent reaction may occur. Be certain to rinse cleaning surface thoroughly with water.*

INSTALLATION:

1. Ensure the pressure washer is off, the water supply is off and that all pressure is relieved from the system by pointing the gun in a safe direction and squeezing the trigger.
2. Disconnect the high pressure discharge hose from the water outlet on the pressure washer.
3. Quick-connect the detergent injector into the water outlet on the pressure washer.
4. Reattach the high pressure discharge hose to the female quick-connect on the detergent injector.
5. Turn the adjustment knob (#13, page 8) on the detergent injector completely counterclockwise to the fully open position. Siphoning rate can be adjusted by turning the adjustment knob from a clockwise to a counterclockwise position. Fully clockwise is closed.
6. Fully submerge the strainer end of the detergent hose (#14, page 8) into the detergent solution.

OPERATION

START-UP & OPERATION:

1. Ensure the trigger gun is locked in the "OFF" position and insert a 40° nozzle into the wand assembly.
2. Refer to your pressure washer manual for correct start-up procedures for the pressure washer you are using with this detergent injector. Be certain to read and follow all Safety Warnings in both the pressure washer manual and in this detergent injector manual, before starting the unit.
3. Once the pressure washer is started, wet the area to be cleaned using the 40° nozzle.
4. Lock the trigger gun in the "OFF" position and replace the 40° nozzle with the 6540° (black colored) detergent nozzle which was shipped with your detergent injector. This injector was designed for low pressure application only. It will not allow detergents to be introduced into the system unless the detergent nozzle is installed.
5. After connecting the detergent nozzle into the end of the wand, unlock the trigger gun and squeeze the trigger. Low pressure water will spray out of the nozzle, followed shortly by the detergent water mixture.

NOTE: *If this does not occur within one minute of triggering the gun, refer to the "Troubleshooting:" section of this manual, page 7.*

6. Hold the gun/wand assembly approximately two feet from the surface being cleaned and mist-wet the area with cleaning solution. Start spraying from the bottom and moving up using long, overlapping strokes. Applying detergents from the bottom up helps avoid streaking. Allow to soak briefly. DO NOT let detergent dry on surface as it will become extremely hard to remove!
7. Lock the gun in the "OFF" position and replace the 6540° nozzle with the desired high pressure nozzle. Point the trigger gun toward the cleaning surface and squeeze the trigger. Cleaning solution will exit the high pressure nozzle until all the remaining detergent in the siphon mode is purged from the system. Begin rinsing with the high pressure spray, keeping the nozzle at a 15° angle, approximately 6" from the surface to "chisel" the dirt off of the area. For best rinsing results, start at the top and work down.

NOTE: *DO NOT use the 0° nozzle for rinsing as this can gouge the area being cleaned.*

8. If some dirt remains, repeat the procedure outlined above, allowing the detergent to soak a little longer. DO NOT allow detergent to dry on the surface!
9. When done using the detergent injector, always run a gallon of clean water through the injector to prevent corrosion of parts.
10. When not using the injector, remove it from the unit. This will give the couplers longer life and relieves and stress on internal components of the injector.

TROUBLESHOOTING

Contact

Mi-T-M CUSTOMER SERVICE: 800-553-9053

Monday- Friday 7:30 am- 5:30 pm CST.

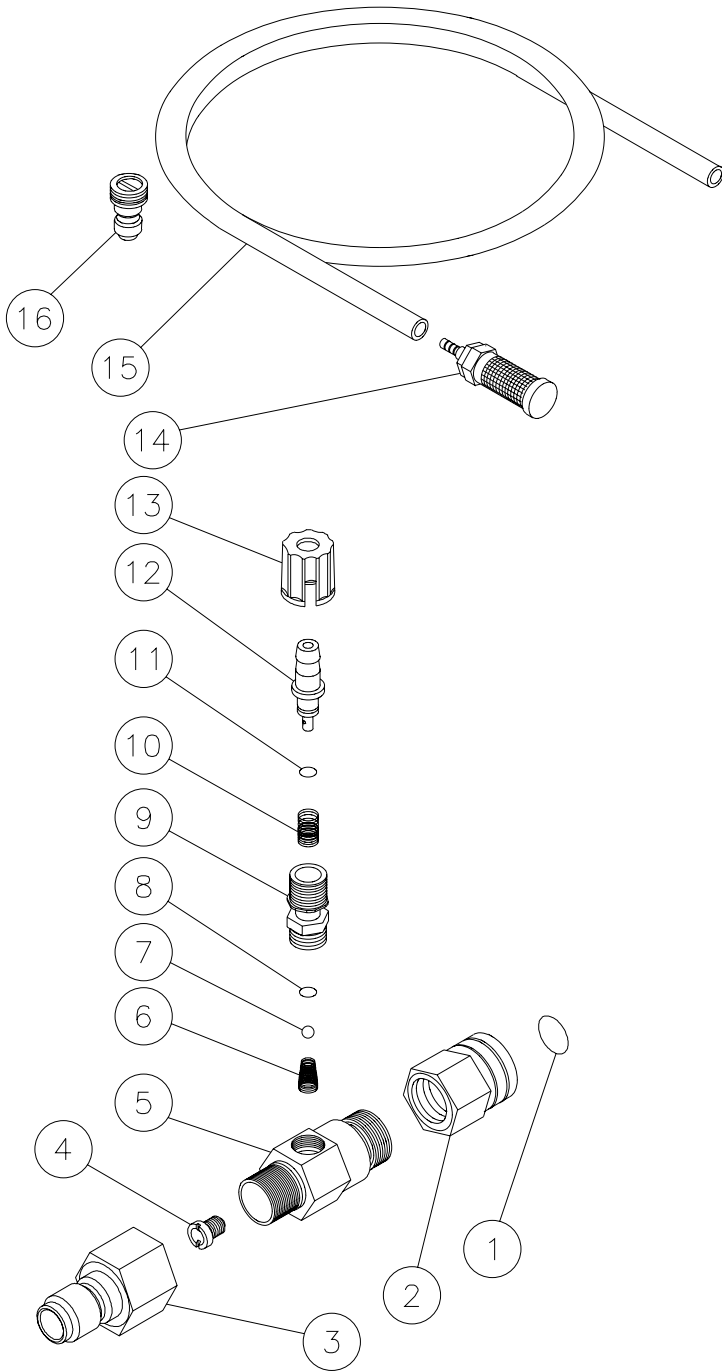
| PROBLEM | PROBABLE CAUSE | REMEDY |
|--------------------------------------|--|--|
| No Detergent | Detergent injector not installed. | Install Detergent Injector (See pg. 5 for installation). |
| | Detergent nozzle not installed. | Install 6540° (black) nozzle. |
| | Detergent strainer not completely submerged in detergent solution. | Submerge strainer. |
| | Detergent strainer obstructed. | Inspect, clean or replace as necessary. |
| | Adjusting knob turned to "closed" position. | Turn adjusting knob completely counterclockwise. |
| | Detergent hose cut or obstructed. | Inspect, clean or replace. |
| | Ball in Detergent injector assembly stuck. | Disassemble. (See pg. 8 & 9.) Clean or replace parts. |
| Detergent flows back into container. | Ball in Detergent injector missing or corroded. | Disassemble. (See pg. 8 & 9.) Replace. |
| | O-ring (Ref. #8, pg. 8) damaged or missing. | Disassemble. (See pg. 8 & 9.) Replace. |

Contact

Mi-T-M CUSTOMER SERVICE: 800-553-9053

Monday- Friday 7:30 am- 5:30 pm CST

DETERGENT INFECTOR AW-8000-0001



OMGEN274-052898-DCE

| DETERGENT INJECTOR (AW-8000-0001) | | | |
|--|--|---------------|-------------|
| REF. # | DESCRIPTION | PART # | QTY. |
| 1 | O-ring | 25-0123 | 1 |
| 2 | Quick Connect | 17-0004 | 1 |
| 3 | Quick Connect | 17-0006 | 1 |
| 4 | Orfice- 2.1mm | 50-0057 | 1 |
| 5 | Injector Body (Stainless Steel) | N/A | 1 |
| 6 | Spring (See 851-0327) | N/A Sep | 1 |
| 7 | Ball (See 851-0327) | N/A Sep | 1 |
| 8 | O-Ring (See 851-0327) | N/A Sep | 1 |
| 9 | Piston Retainer | 50-0159 | 1 |
| 10 | Spring | 49-0056 | 1 |
| 11 | O-ring (See 851-0327) | N/A Sep | 1 |
| 12 | Adjustable Shutter Barb | 50-0151 | 1 |
| 13 | Adjustment Knob - Black Plastic | 50-0160 | 1 |
| 14 | Detergent Strainer | 19-0050 | 1 |
| 15 | Detergent Hose *(Six feet required) | 15-0021 | 1 |
| 16 | Detergent Nozzle | 18-0148 | 1 |
| | Injector Repair Kit (Inc. 6,7,8,11) | 851-0327 | |
| | Detergent Injector 2.1mm orifice (Inc. 4-13) | 50-0147 | |
| | *Must Order in One Foot Lengths | | |

DISASSEMBLY & REPAIR PROCEDURES

1. Disconnect Detergent Injector from water outlet and high pressure hose.
2. Place Injector Body (5) in vice with Adjustable Barb (12) facing up.
3. Remove detergent hose (15).
4. Remove Adjusting Knob (13).
5. Remove Adjustable Barb (12) with O-ring (11) and Spring (10).
6. Loosen the Piston Retainer (9).
7. Take Body (5) out of vice and turn upside-down then remove Piston Retainer (9). Allow Ball (7) and Spring (6) to fall out.
8. With wire pick, remove O-ring (8) from Piston Retainer (9).
9. Inspect all components for evidence of wear. Clean or replace parts as needed.
10. To reassemble, install O-ring (8) into Piston Retainer (9).
11. Drop Ball (7) into Piston Retainer (9) making sure it seats properly against the O-ring (8).
12. Place Spring (6) against Ball (7), tapered end first.
13. Taking care not to lose any parts, screw Piston Retainer (9) into Body (5) and tighten.
14. Insert Spring (10) into Piston Retainer (9) followed by Shutter Barb (12) with O-Ring (11).
15. Screw Adjusting Knob (13) onto Piston Retainer (9).
16. Install strainer into hose and install hose into Shutter Barb (12).
17. Test injector by referring the Safety, Installation and Operation instructions given in this manual.

PERFORMANCE CHART

| FLOW | LOW PSI NOZZLE (MAX. INJECTING PRESSURE LESS HOSE FRICTION LOSS) | MAX. DETERGENT DRAW | PRESSURE DROP ACROSS NOZZLE (DEDUCT FROM HIGH PRESSURE) |
|-------|--|---------------------|---|
| 3 GPM | 225 PSI | 54 | 150 |
| 4 GPM | 375 PSI | 54 | 250 |
| 5 GPM | 600 PSI | 54 | 400 |

Optimum performance of detergent injector occurs with 50 ft. high pressure hose and a minimum of 3/8" I.D. The type of hose, extended lengths, reduced I.D. and fittings may create back pressure in excess of the low pressure nozzle rating and prevent the injector from drawing detergent. Deduct the hose friction loss from the above PSI nozzle.

