

80 & 80W High-Pressure GunJet® Spray Gun

USER GUIDE



Spraying Systems Co.®
Experts in Spray Technology

MI-80
spray.com

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INTRODUCTION

NOTE: The 80W features the continuous "weep" feature. Except for the Valve Stem and Seat Plug, the #80 and #80W GunJets® are identical and require the same installation and operating procedures.

WARNINGS & PRECAUTIONS

IMPORTANT: READ ALL INSTRUCTIONS BEFORE USING SPRAY GUN

GENERAL WARNING FOR HIGH PRESSURE SPRAY GUNS: THIS IS A HIGH PRESSURE DEVICE WHICH SHOULD ONLY BE USED IN A PROPERLY ENGINEERED SYSTEM. THIS SPRAY GUN SHOULD BE OPERATED ONLY BY TRAINED OPERATORS AND KEPT OUT OF REACH OF CHILDREN. PLEASE READ THE FOLLOWING INSTRUCTION SHEETS BEFORE ATTEMPTING TO OPERATE THE #80 HIGH PRESSURE GUNJET SPRAY GUNS. IF THE OPERATING PRESSURE IS BETWEEN 100 PSIG (0.69 MPA) AND 3200 PSIG (22.06 MPA), THEN AN EXTENSION OR WAND SHOULD BE USED THAT SEPARATES THE DISCHARGE NOZZLE A MINIMUM OF 29.5 INCHES (750 MM) FROM THE TRIGGER MECHANISM. DO NOT ASSEMBLE DISCHARGE NOZZLE DIRECTLY INTO THE SPRAY GUN.

IF THE OPERATING PRESSURE IS BETWEEN 3200 PSIG (22.06 MPA) AND 5000 PSIG (34.48 MPA), THEN AN EXTENSION OR WAND SHOULD BE USED THAT SEPARATES THE DISCHARGE NOZZLE A MINIMUM OF 4.0 FEET (1.22 M) FROM

THE TRIGGER MECHANISM. DO NOT ASSEMBLE DISCHARGE NOZZLE DIRECTLY INTO THE SPRAY GUN.

HEED ALL THESE WARNINGS or serious and permanent injury may result.

1. **DO NOT** aim gun at any person or any part of the body. Fluids under high pressure can penetrate the human skin and can cause severe injury, possibly resulting in amputation or death. Hot liquids and chemicals can also cause burns or injury. If any part of the body comes in contact with the spray stream, immediately consult a physician.
2. **DO NOT** at any time place hands or any other part of the body in front of spray nozzle or tip.
3. **DO NOT** alter equipment in any manner; if repairs are necessary, use only genuine factory repair parts supplied by Spraying Systems Co.
4. **DO NOT** exceed maximum operating pressure of the lowest rated accessory item within the spray system even though some of the accessories have a higher maximum pressure rating.
5. **DO NOT** leave equipment under pressure unattended at any time. Relieve pressure by shutting off power to pump, turning off the liquid supply to the pump, and actuating Trigger until all fluid ceases to flow; then position Trigger Lock to the locked position.
6. **DO NOT** use damaged, perforated, or weakened fluid hose.
7. **DO NOT** use a GunJet with a faulty or damaged Trigger Lock.
8. **DO NOT** operate a spray gun if there are any leaks from the packings, fittings, hoses, etc. Fluids that are under high pressure can penetrate skin, cloth, etc., and cause serious injury.
9. **DO NOT** touch any metal parts of the gun or accessories when spraying hot liquids or severe injury can occur.

WARNING: WHEN THE SPRAY TIP OR NOZZLE HAS BEEN REMOVED, THE SPRAY GUN BECOMES MORE DANGEROUS BECAUSE A GREATER VOLUME OF LIQUID CAN BE EMITTED FROM THE OUTLET OF THE GUN AT A HIGH VELOCITY.

SAFETY SHOULD ALWAYS BE OBSERVED:

1. **DO** use a “two-handed” control of Model 80 GunJet at all times. Grasp spray gun firmly with both hands. If an extension is used, grasp the extension. (Insulated extension if spraying hot liquids.)
2. **DO** adopt a secure body stance prior to and during spray operation to safely control the high reactionary force of this unit.
3. **DO** impress on other people in the spraying area the importance of obeying strict safety precautions for everyone’s safety.
4. **DO** develop a habit of shutting off the power to the pump, relieving fluid pressure from gun and hose by actuating trigger until all fluid ceases to flow, and setting the Trigger Lock in the locked position, before attempting to remove the tip, nozzle, gun or any part of the gun, or when gun is not in use.
5. **DO** check operation of Trigger Lock before each spray period. Trigger Lock must hold the Trigger to its forward position. (Adjust if necessary; see section Trigger Adjustment Procedure.)
6. **DO** carefully check and tighten threaded connections regularly. Make them secure and leak proof.
7. **DO** flush gun after each spray period using the same safety precautions as used during spraying operations. Always use the lowest possible pressure for flushing.
8. **DO** keep gun clean and dry to allow for positive grip.
9. **DO** use GunJet in a well-ventilated area and make sure spray gun is grounded properly when used in a possibly explosive or inflammable environment. A grounded-type hose should be used.

IMPORTANT: In case of the slightest appearance of skin penetration from spray, CONSULT A PHYSICIAN IMMEDIATELY!

INSTALLATION

Before connecting the GunJet® to your pump system, thoroughly familiarize yourself with the pump operating instructions, then follow these points.

1. Before installing GunJet to hose, select WashJet® tip or, if desired, an appropriate extension and WashJet nozzle for your application. Install on gun with nozzle positioned for your particular spraying needs and tighten.
2. Make sure all power is turned off to the pump. Attach GunJet to high-pressure hose with rating to meet or exceed the maximum operating pressure to be used. When spray gun is being used in a possible explosive or flammable environment, a grounded-type hose should be used.
3. Follow your pump and component parts manufacturer's recommendations for operation, but in any case, do not exceed the pressure or temperature of the lowest rated component within the system.
4. Make sure all power to the pump is turned off and there is no pressure in any part of the system. Examine all connections, making sure they are of the proper type and are secure.
5. Before turning on the pump and holding the GunJet® in downward vertical position pointed away from body, familiarize yourself with the operation of the Trigger Lock (25).
6. Make sure Trigger Lock (25) is in "locked" position. Trigger Lock operation is to be checked when there is no pressure in the system before each spraying period and after each re-assembly. Do not operate spray gun if Trigger Lock is not operating properly (see "Adjustment - Trigger Lock" position).

MAINTENANCE

With proper care, your Model 80 series GunJet® will give you reliable service. To maintain this performance, parts should be inspected regularly and replaced when necessary with genuine Spraying Systems Co. parts. (Repair kit AB 80-kit)

DISASSEMBLY PROCEDURE:

(See Figure 1 and parts list PL 80 & 80W, PL B80 & B80W)

If it becomes necessary to disassemble this unit, follow these steps:

1. Make sure all air, electrical, and liquid lines to the pump are turned off.
2. Release all the pressure and liquid (from the hose to GunJet) by operating Trigger until fluid ceases to flow.
3. Set Trigger Lock (25) in locked position.
4. Remove gun from hose.
5. Remove 7 Screws (2) to remove housing halves (1).
6. As a sub -assembly remove Outlet Adapter (27), Lock Spring (26), Trigger Lock (in locked position) (25), and Outlet Tube (24).
7. Remove Stem Nut (23), Spring (22), and Washer (21) while using a 1/2" wrench to keep Trigger Guide (17) from turning.
8. Remove Screw (19), Screw Housing (18), Trigger (20) and Trigger Guide (17) to allow for removal of Packing Screw (16).
9. Using long 9/16 wrench, unscrew Packing Screw (16) only enough to disengage threads from Inlet Body (5) to avoid damaging hex on Packing Screw. Carefully withdraw components (8 thru 16), as an assembly from Inlet Body (5).
10. If replacement of Lip Seal (13) is not anticipated use caution when removing Packing Screw (16) from Stem Assembly (10). To prevent damage to Back-Up Ring (14) and Lip Seal (13), "unscrew" Packing Screw (16) from Stem (10B) at the location where the stem threads contact the Back-up Ring (14) and Lip Seal (13).
11. Back-up Ring (14), Lip Seal (13), O'ring (15), Seat Washer (11), O'ring (9) and Back-up Ring (8) are now accessible for replacement.
12. If required Stem and Plate Sub-Assembly (10B) may be separated from Seat Plug (10A) by removing Snap Ring (10C).



ASSEMBLY PROCEDURE: (See Parts List PL 80 & 80W)

1. Apply a thin coating of light machine oil to all Viton parts to be installed (9)(13)(15). Install Washer (8) onto Main Stem (6).
2. Reassemble Stem Sub-Assembly if disassembled in above step 8, and install new O'ring (9), and Back-up Ring (8).
3. Insert Main Spring (7) into Inlet Body (5).
4. Assemble Seat Washer (11) onto Seat Retainer (12) with chamfered seating surface of Seat Washer away from seating surface of retainer and slide Seat Retainer onto Stem Assembly (8)(9)(10).
5. Install Back-up Ring (14) first, then Lip Seal (13), and O'ring (15) in Packing Screw (16).
6. **Important: Correct direction of Lip Seal (13) is with lips facing Main Spring (7).**
7. To prevent damage to the Packing Screw Lip Seal (13) carefully screw the Packing Screw (16) onto the threaded section of Stem Assembly (8)(9)(10)(11) until it engages the unthreaded section of the Stem (10).
8. Slide Stem Assembly (8)(9)(10) with Seat Retainer Assembly (11)(12) and Packing Screw (16) into Inlet Body (5).
9. Thread Packing Screw (16) into Inlet Body (5) and tighten securely.
10. Thread Trigger Guide (17) onto Stem (10).
11. Install Trigger (20) onto Inlet Body (5) and Housing (18) and Screw (19).
12. Install Washer (21), Spring (22) and Stem Nut (23) loosely.
13. Before assembly, apply a thin coat of PTFE pipe sealant on the thread of the Outlet Tube (24) which engages Inlet Body (5). Assemble Outlet Tube (24), Trigger Lock (25), Lock Spring (26) and Adapter (27) and thread into Inlet Body (5). (If Outlet Tube (24) and Adapter (27) were disassembled previously, apply a semi-permanent thread sealant to the Outlet Tube Thread (24) which engages the Adapter (27).
14. If previously disassembled, apply a thin coat of PTFE pipe sealant on both ends of Inlet Tube Thread (4) and assemble Inlet Tube (4) and Adapter (3) to Inlet Body (5).

15. Thread Inlet and Outlet Adapters (3) and (27) until the flats are properly aligned with the flats in the Housing Half (1).
16. Follow trigger lock adjustment procedure from step 3 through 11 as described below.

TRIGGER LOCK ADJUSTMENT PROCEDURE:

Under no circumstances should this spray gun be operated with an incorrectly adjusted Trigger Lock. The Trigger Lock operation should be checked before each spray period and after each disassembly. It operates properly when it locks the Trigger tightly in the "Off" position after the Trigger lock is rotated to its "Locked" position. However, if the Trigger is not tight or can move while in this "Locked" position, adjust the Trigger Lock as follows:

1. Disassemble Left-Hand and Right-Hand Housings (1) by removing the 7 Screws (2).
2. Loosen Stem Nut (23) while using 1/2" wrench to keep Trigger Guide (17) from turning.
3. Rotate Trigger Lock (25) until locking lugs are positioned as shown in Parts List PL80 where knurled side of thumb wheel is closest to the Stem Nut (23) (Trigger in locked position).
4. Holding Trigger (20) firmly against lugs of Trigger Lock (25), tighten Trigger Guide (17) against back surface of Trigger (20).
5. Turn Trigger Guide (17) one-half turn away from the Trigger (20) and securely tighten Stem Nut (23) against Trigger Guide (17) while using a 1/2" open end wrench to keep Trigger Guide (17) from turning.
6. Check to ensure that the Trigger (20) does not contact the Trigger Guide.
7. (17) when the Trigger Lock (25) is in the lock position. (Repeat above steps 3 through 6 of necessary.)
8. Carefully and cautiously check for leakage at all joints.
9. Release all pressure and correct any detected leakage.
10. Reassemble Housing Halves (1) and install 7 Screws (2).
11. CAUTION: Do not over tighten screws.
12. Be sure Trigger Lock is in the locked position before attaching to pump.



DATA SHEET

MODEL NOS. 80M- WITH "KEEP" FEATURE (TO PREVENT FREEZING) ARE ALSO AVAILABLE WITH CONNECTIONS AS TABULATED.

PAT. PENDING

MAXIMUM PRESSURE 3000 P.S.I. (207 BAR) (207 MPa)

MAXIMUM TEMPERATURE 150°C

NO. 80 GUNJET SPRAYING SYSTEMS CO. WHEATON, ILL. U.S.A.

TRIGGER LOCK POSITION (FRONT OTHER SIDE)

TRIGGER GUARD

NO. 15255-1/4 or NO. 15255-3/8 HANDLE WITH "KEEP" FEATURE (OPTIONAL)

TRIGGER GUN NO. 80 & 80M GUNJET SPRAY NOZZLES ARE AVAILABLE IN T. INLET AND OUTLET THREADED CONNECTIONS.

LIQUID INLET

OUTLET CONN.

HANDLE

NO. 80 GUNJET IS DESIGNED FOR USE WITH:

- 1/4" HIGH PRESSURE PIPE EXTENSION WITH 1/4" MEG-WASHER NOZZLES (O.S. - 15653) - FOR MODEL NO. 80-3/8-1/4
- 1/4" MEG - WASHER NOZZLES (MIL. 177) - FOR MODEL NO. 80-3/8-1/4
- 3/8" HIGH PRESSURE PIPE EXTENSION OR 3/8" NOZZLE - FOR MODEL NO. 80-3/8-3/8
- 1/2" EXTENSION WITH HANDLE CHAP IS ALSO AVAILABLE (SEE O.S. 17733).
- UNBREAKABLE HANDLE TIPS (O.S. - 15624) - FOR MODEL NO. 80-3/8.

HIGH PRESSURE PIPE EXTENSION (1/4" or 3/8") (SUPPLIED BY CUSTOMER)

IMPORTANT: HIGH REACTION FORCES REQUIRE "HARD-HANDS" CONTROL OF NO. 80-GUNJETS AT ALL TIMES.

TYPE MEG-WASHER NOZZLE HARDENED STEEL (O.S. - 15653)

NO. 80 GUNJET FEATURES:

- HEAVY DUTY . . . DESIGNED TO WITHSTAND HIGH IMPACT AND ROUGH USAGE
- SMOOTH AND EASY TO OPERATE . . . LIGHT TRIGGER PULL WITH POSITIVE BALANCED TRIGGER ACTION
- OPERATES UNDER ALL TEMPERATURES, EVEN UNDER MAXIMUM DESIGN OPERATING FLOW AND PRESSURE CONDITIONS.
- HANDLE REPAIRS CONVENIENT DURING HOT SPRAYING OPERATIONS UP TO 300° F.
- HANDLE GRIP DESIGNED FOR GLOVED OR UN-GLOVED HAND.
- VITON SEALS.
- CARBON-FILLED TEFLON VALVE SEAT.
- STAINLESS STEEL SHUT-OFF NEEDLE

NO. 80 GUNJET FEATURES:

- PRESSURES UP TO 3,000 P.S.I.
- FLOW RATES UP TO 10 G.P.M. (PRESSURE DROP AT 10 G.P.M. IS 65 P.S.I.)
- MAXIMUM TEMPERATURE - 300° F.
- BATTER CASKINS WITH TRIGGER GUARD HOLLOWED OF HIGH IMPACT WILSON MATERIAL.
- WILL ACCOMMODATE STANDARD 5-S-GO. ACCESSORIES FOR BOTH THE INLET AND OUTLET CONNECTIONS (SEE LISTINGS FOR LISTINGS OF ACCESSORIES). LIMITATIONS SUCH AS: EXTENSIONS, SHIELDS, STRAINERS AND ADAPTERS.
- WEIGHT - 2 1/4 LBS.
- OVERALL HEIGHT - 6-7/8"

MODEL NO.	INLET CONN.	OUTLET CONN.	OVERALL LENGTH
80-3/8-1/4	3/8" NPT (F)	1/4" NPT (F)	8-3/8"
80-3/8-3/8	3/8" NPT (F)	3/8" NPT (F)	8-3/8"
80-3/8	3/8" NPT (F)	1/4" NPT (F)	8-3/8"

HANDLE

READ INSTRUCTION SHEET #11-80 BEFORE USING SPRAY GUN. HIGH PRESSURE SPRAYS AND HOT LIQUIDS CAN BE EXTREMELY DANGEROUS. ALWAYS WEAR PROTECTIVE CLOTHING WHEN HANDLING GUN, GRASP IT FIRMLY WITH BOTH HANDS ON HANDLE. ADAPT PROPER BODY STANCE TO ANTICIPATE REACTION THRUST OF SPRAY GUN. NEVER PUT YOUR HAND OR BODY IN FRONT OF LOCKED POSITION. POINT GUN AT OTHERS, WHEN NOT USING GUN KEEP TRIGGER LOCK IN LOCKED POSITION.

BEFORE REMOVING SPRAY TIP OR NOZZLE, SHUT OFF PUMP, RELIEVE FLUID PRESSURE FROM UNIT AND LOCK TRIGGER IN "OFF" POSITION.

WHEN SPRAYING HOT LIQUIDS, OPERATOR MUST BE CAUTIOUS TO AVOID BODY CONTACT WITH THE NON-INSULATED PARTS OF GUN, EXTENSION, ETC. . . .

DESCRIPTION: NO. 80 HIGH PRESSURE GUNJET SPRAY GUN

Rev. No. 3 DATABHEET 17734 SHEET OF

Ref. 17734





ITEM	PART NO.	DESCRIPTION
1	CP1982-NR	Right and Left Hand Housing Set, Nylon (Black)
2	CP1703-11/16-302SS	Screw, Type 302 Stainless Steel (7 Req'd)
3	CP17113-ENP	Adapter, Steel, Electroless Nickel Plated (For 80-3/8- and 80W-3/8-)
4	CP17112-ENP	Adapter, Steel, Electroless Nickel Plated (For 80-1/4)
5	CP17109-ENP	Inlet Tube, Steel, Electroless Nickel Plated
6	CP17102	Inlet Body, Brass
7	CP17108-302SS	Pipe Plug, Brass
8	CP17105-TEF	Main Spring, Type 302 Stainless Steel
9	CP1712-2-11-VI	Back-Up Ring, PTFE
10	17107-SS	O-Ring, Viton®
11	17107-1-SS	Viton Stem Sub-Asb. (Inc. Items 10A, 10B, 10C) For Model 80-
12	CP17116-SS	Viton Stem Sub-Asb. (Inc. Items 10A, 10B, 10C) For Model 80W-
13	CP17116-1-SS	Seal Plug, Stainless Steel (For Model 80-)
14	17124-SS	Seal Plug, Stainless Steel (For Model 80W-)
15	10C	Stem Sub-Assembly, Stainless Steel
16	11	Snap Ring, Stainless Steel
17	CP17106-CGR1EF	Snap Washer, Carbon Graphite Filled PTFE
18	CP17105-SS	Seal Retainer, Stainless Steel
19	CP14955-2-VI	Lip Seal, Viton®
20	CP15268-TEF	Back-Up Ring, PTFE
21	15	O-Ring, Viton®
22	16	Packing Screw, Brass
23	17	CP17111 Trigger Guide, Brass
24	18	CP8034-1-ZP Screw Housing, Steel, Zinc Plated
25	19	CP8034-2-ZP Screw, Steel, Zinc Plated
26	20	CP17115-NY Trigger, Nylon (Yellow)
27	21	CP2981-IP Washer, Steel, Zinc Plated
28	22	CP17126-302SS Trigger Spring, Type 302 Stainless Steel
29	23	CP2984-IP Stem Nut, Steel, Nickel Plated
30	24	CP17110-ENP Outlet Tube, Steel, Electroless Nickel Plated

ITEM	PART NO.	DESCRIPTION
25	CP17115-NY	Trigger Lock, Nylon (Yellow)
26	CP17121-302SS	Lock Spring, Type 302 Stainless Steel
27	CP17114-ENP	Adapter (11/16-16 Thk.), Steel, Electroless Nickel Plated (For 80, 80W (3/8-1/4))
28	CP17890-NP	Cap, Steel, Nickel Plated
29	CP17112-ENP	Adapter (1/4"-NPT-F), Steel, Electroless Nickel Plated (For 80-3/8-1/4 & 80W-3/8-1/4)
30	CP17113-ENP	Adapter (3/8"-NPT-F), Steel, Electroless Nickel Plated (For 80-3/8-3/8 & 80W-3/8-3/8)
	No. A880-3/8	GunJet® Spray Gun
	No. A880-3/8-1/4	GunJet® Spray Gun
	No. A880-3/8-3/8	GunJet® Spray Gun
	No. A880-1/4	GunJet® Spray Gun
	No. A880W-3/8	GunJet® Spray Gun
	No. A880W-3/8-1/4	GunJet® Spray Gun
	No. A880W-3/8-3/8	GunJet® Spray Gun

* AB80-Kit-Spare Parts Kit (Includes all items marked with *)

DESCRIPTION:
 No. A880- and A880W- High Pressure GunJet® Spray Guns

Spraying Systems Co.
 Spray Nozzles and Accessories
 P.O. Box 7600 • Wheaton, IL 60189-7600

Rev. No. 1	Parts List No.
Rev.	PL 80 & 80W
	SHEET OF

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