



Recommended Installation, Maintenance and Inspection Instructions

CAT-41
DATE 04/09

These instructions apply to the following items: NEL, NELS, NENL, NENLS, NEPL, NEPLS, NEPNL, NEPNLS, N1AL, N1ALS, N1ANL, N1ANLS, NM1, NM1S, NM1P, NM1PS, REL, RELS, RENL, RENLS, REPL, REPLS, REPNL, REPNLS, R1AL, R1ALS, R1ANL, R1ANLS, RM1, RM1S, RM1P, RM1PS, and any other similar nozzles.

INSTALLATION INSTRUCTIONS

For your protection, read these instructions and warnings before installing and operating this equipment. Installation and maintenance of all gasoline handling equipment should only be done by trained personnel.

DO NOT USE WRENCH ON NOZZLE. APPLY WRENCH TO HOSE NUT ONLY.

1. Apply approved sealant to male threads of hose. DO NOT USE TEFLON TAPE!
2. Tighten securely but do not overtighten. Refer to UL 567 for details-3/4" - 83.3 ft. lbs., 1" - 100 ft. lbs.
3. Check for leaks at all connections.
4. Test nozzle flow rate following PEI/RP500-05 recommended test procedure. (See page 3)
5. Test nozzle for proper automatic shut off following PEI/RP500-05 recommended test procedure. (See page 3)
6. Check for proper operation of the no pressure-no flow feature, if this applies. See PEI/RP500-05 recommended test procedure. (See page 3)
7. Check for electrical continuity following Petroleum Equipment Institute (PEI) recommended test procedure. (PEI/RP400-02)
8. Nozzles should be limited to applications as set forth in NFPA 30A, OSHA CFR1910.106, UFC Section 5202, and adhere to local and state codes.

IF A DRIVE OFF OCCURS

Test Procedure/Maintenance/Inspection: (Reference PEI/RP500-05)

1. Check for broken spout at the shear groove.
2. Check vacuum tip on the underside of the spout to make sure it's not cracked, blocked or dislodged.
3. Check for leaks.
4. Make sure spout is tightened. (screw(s) or locknut).
5. Check to see that the hold-open latch works freely with no restriction (if applicable).
6. Perform flow test for proper automatic shut off following PEI/RP500-05 test procedure. (See page 3)
7. Perform test for proper operation of the no pressure-no flow feature, if this applies. (See page 3)
8. Check for electrical continuity following above recommendation. (PEI/RP400-02)

If the nozzle fails any of these check points, replace the nozzle.

Daily: (PEI/RP500-05)

- Check for leaks
- Check for loose spouts
- Check for any damage

Monthly:

- Check no pressure-no flow (if applicable)
- Check the nozzle automatic shut off.
- Check flow rate to verify the minimum flow rate.

Annually:

- Check electrical continuity as stated above.
- Lubricate the valve stem with a drop of light oil.

-All drive offs, maintenance and inspections must be recorded.

-All city, state or federal testing regulations and codes must be followed where applicable.

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GENERAL WARNINGS / INSTRUCTIONS

ALWAYS ADHERE TO INSTALLATION AND USAGE INSTRUCTIONS AND WARNINGS.

Improper use may result in injury, damage, hazardous spill or death.

- Observe all warnings and instructions for this equipment included with the product.
- Use of equipment is at individual's own risk.
- Always abide and adhere to city, state and federal regulations regarding the use and installation of dispensing equipment.
- Always follow the dispenser manufacturers instructions.
- Always turn off all power to the dispenser during maintenance and inspection.
- Always close the shear valves during maintenance and inspection activities.
- Always relieve pressure from the system prior to performing maintenance on equipment.
- Always check continuity after installation following Petroleum Equipment Institute (PEI) recommended test procedure (PEI/RP400-02).
- Always replace or remove from service damaged or leaking equipment immediately.
- Always report leaks, spills and accidents to appropriate authorities.
- Always have appropriate fire extinguishing equipment within 10 feet of dispensers.
- Always wear appropriate safety equipment during maintenance activities.
- Always use approved sealant for gasoline service.
- Always place containers on the ground before filling.
- Always discharge static electricity before using or servicing equipment by touching a metal part of the dispenser or by touching any grounded metal before and after fueling vehicle.
- Never smoke within 20 feet of dispensers.
- Never keep in service beyond recommended life of equipment.
- Never leave the nozzle unattended while dispensing fuel.
- Never use sparking or flaming devices within 20 feet of dispensers.
- Never use power tools near dispensers or to aid in the installation process.
- Make sure all warnings written on the handwarmer are followed.
- To avoid distractions, turn off cell phones within 20 feet of dispensers.
- Do not re-enter your vehicle while refueling vehicle.
- Do not allow gasoline to touch eyes or skin. Avoid breathing of vapors. Benzene can be harmful to your health.
- Never dispense at less than 3 GPM with a standard nozzle and 5 GPM with a hi flow diesel nozzle.
- Never use at flow rates in excess of regulatory guidelines.
- Do not fill portable containers on or in your vehicle. Fill an approved portable container on the ground. Keep nozzle in contact with the container at all times until the container is filled to desired level.
- Turn off vehicle while refueling and do not restart vehicle engine while refueling.
- Do not use any object to hold open a nozzle. This could cause the nozzle to fail to shut off properly.
- Do not allow children to pump gasoline. Only persons of legal driving age should use dispensers.

CAUTION: DO NOT TOP OFF!

Topping off can lead to spills and splashbacks.

LIMITED WARRANTY

CATLOW, INC. expressly warrants that its products shall be free from defects in material and workmanship for a period of one year from the date of manufacture. This warranty is limited to repair or replacement by CATLOW, INC. upon return of the product to the CATLOW, INC. factory. This warranty does not apply in the event of any misuse or neglect of the product. The foregoing warranty is the exclusive remedy of purchasers of CATLOW, INC. products. CATLOW, INC. expressly disclaims any warranties, other than the foregoing express warranty, including the implied warranties of merchantability and fitness for a particular purpose, and disclaims any and all liability for consequential damages resulting from the use of its products.

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TEST PROCEDURES

OPERATION INSTRUCTIONS

1. Remove nozzle from dispenser.
2. Insert spout into the fill pipe opening of the vehicle.
3. Push the nozzle so the spout spring catches the inside lip of the fill pipe.
4. Activate dispenser, lift the lever and begin fueling.
5. Nozzle will automatically shut off when the tank is full.
6. Wait at least 15 seconds to allow any fuel remaining in the spout to drain.
7. Remove nozzle from fill pipe.
8. Return nozzle to the boot of the dispenser.

Use a stopwatch and 5 gallon grounded, vented, metal test container.

HOW TO TEST NOZZLE FLOW RATE: (Reference RP500 8.6.1)

- Start the stopwatch and initiate the flow of fuel into an approved 5 gallon metal test container with the nozzle in the full open position. Calculate the GPM.
- For standard gasoline nozzles check each hold open clip point to verify a minimum flow rate of 3 GPM and the maximum flow rate of 10 GPM.
- For hi flow diesel nozzles check each hold open clip point to verify a minimum flow rate of 5 GPM; the maximum flow rate is not applicable.

NO PRESSURE-NO FLOW ACTIVATION TEST INSTRUCTIONS (Reference RP500 8.6.3)

1. Verify nozzle has a hold open device.
2. Verify dispenser is turned on.
3. Place nozzle spout into an approved metal test can.
4. Lift the lever and latch clip. A small amount of fuel may flow until line pressure is relieved.
5. Turn on dispenser and select the grade of fuel. The nozzle should not dispense fuel.
6. Release the lever.
7. Lift the lever and latch the clip on the nozzle. Nozzle should dispense fuel.
8. Turn off the dispenser. Nozzle should stop dispensing fuel.
9. Wait 10 seconds for the pressure in the hose to decrease the fuel-flow valve in the nozzle to close.
10. Turn dispenser on and select grade. Nozzle should not dispense fuel.

NOTE: If nozzle fails # 5 or #10, verify dispenser is not allowing constant pressure to the hose. If dispenser tests OK, replace nozzle.

TROUBLESHOOTING GUIDE

The nozzle keeps shutting off or won't dispense:

1. Reposition the nozzle in the fill pipe.
2. Make sure dispenser is on and activated.
3. Slow down flow rate - use lower latch on the clip.
4. Clean spout tip end.
5. Check flow rates and replace filters.
6. Inspect the breakaway for partial separation.
7. Replace the spout assembly.
8. Check dispenser pressure - 19 PSI to activated nozzle.
9. If nozzle fails these steps replace the nozzle.

Nozzle won't shut off:

1. Check flow rate - minimum of 3 GPM for standard nozzles and minimum 5 GPM for hi flow diesel nozzles.
2. Conduct nozzle shut off test. (PEI/RP500 8.6.2)
3. Remove nozzle and drain hose.

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TROUBLESHOOTING GUIDE Continued

Nozzle leaks:

1. Check for loose spout.
2. Check stem for leakage. If leaking replace nozzle.
3. Check hose connection.
4. Check for cracks in nozzle and hose threads.
5. Replace nozzle if leak cannot be fixed.

Low flow rate:

1. Verify dispenser is not in slow flow rate mode.
2. Remove Governor Flow Limiter if equipped.
3. Check for system leak. (Confirm Line Leak Detector Activation.)
4. Check dispenser filter.

Flow rate above 10 GPM:

1. Install Governor Flow Limiter.
2. Check Governor Flow Limiter for debris.

SPOUT REPLACEMENT INSTRUCTIONS

Model Elite & Elite Prepay: (New and Rebuilt)

1. Remove screw at the bottom of the nozzle that holds the spout in place.
2. Remove and discard spout o'rings (2).
3. Lubricate o'ring surface with light oil.
4. Place new large o'ring in the groove on the spout housing and the small o'ring on the skirt.
5. Insert new spout assembly into the body of the nozzle.
6. Replace the spout screw.
7. Test nozzle as recommended (*See page 3*).

Model 1A: (New and Rebuilt)

1. Remove spout locknut and spout.
2. Remove and discard spout o'rings (2).
3. Lubricate the o'ring surface with light oil.
4. Place new large o'ring in the groove on the spout housing and the small o'ring on the skirt.
5. Insert new spout assembly into the body of the nozzle.
6. Replace the spout locknut while holding the spout in proper alignment and tighten snugly.
7. Test nozzle as recommended above (*See page 3*).

Model Max 1: (New and Rebuilt)

1. Remove the three spout screws that holds the spout in place.
2. Remove and discard spout o'rings (2).
3. Lubricate o'ring surface with light oil.
4. Place new large o'ring in the groove on the spout housing and the small o'ring on the skirt.
5. Insert new spout assembly into the body of the nozzle.
6. Replace the new spout screws.
7. Test nozzle as recommended above (*See page 3*).

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