STORED PRESSURE, HAND PORTABLE FIRE SUPPRESSION DEVICE
WITH WATER BASED AGENT FOR CLASS A AND LITHIUM BATTERY FIRES
MODEL: AVD 2L (*)

Owner's SERVICE MANUAL
No. ZX-UL-SM007 Rev2
(*) AVD is AQUEOUS VERMICULITE DISPERSION

INSTALLATION, OPERATING & SERVICING INSTRUCTIONS

CAUTION:

This device is not approved to a UL fire extinguisher standard and should only be installed where the state or local jurisdiction permits installation of unlisted equipment. Local regulations restrict the sale of this product as a fire extinguisher in California, Nevada, and New York. Always check local regulations before installing this device.

The device is suitable for small class A and small Lithium battery fires and should, when permitted, be treated as additional equipment rather than primary firefighting equipment.

Victory recommends that the service and maintenance of the AVD 2L follow similar practices as larger units.

When installation, inspection or maintenance is required, it should be performed by certified trained persons having proper equipment. This device is a pressurized vessel and must be treated with respect and handled with care. AVD2L is a mechanical device and requires periodic maintenance to ensure it is ready to operate properly and safely when required. Victory strongly recommends that the maintenance of this device be performed by a trained professional your local qualified Victory Service providers.

Victory Corporation makes original factory spare parts available to ensure proper maintenance. **USE OF SUBSTITUTE PARTS RELEASES VICTORY OF ITS WARRANTY OBLIGATIONS.** Victory spare parts have machined surfaces and threads that are manufactured to exact tolerances. O-rings, hoses, nozzles, and all metal parts meet precise specifications and are subjected to multiple in-house inspections and tests for acceptability. Only spare parts listed in appendix A should be used.

DO NOT SUBSTITUTE.

WARNING

Do not use this device on class C fires involving energized electrical equipment, class D fires or flammable materials that react with water. Protect device from freezing. Never include Calcium Chloride within AVD content

RECHARGE IMMEDIATELY AFTER ANY USE

VICTORY CORPORATION DOES NOT SERVICE, MAINTAIN, OR RECHARGE FIRE EXTINGUISHERS. THIS MANUAL IS PROVIDED SOLELY AS A GUIDE TO ASSIST QUALIFIED SERVICE PERSONNEL IN THE INSPECTION, MAINTENANCE, AND RECHARGE OF VICTORY FIRE EXTINGUISHERS.

NO INSTRUCTION MANUAL CAN ANTICIPATE EVERY POSSIBLE MALFUNCTION THAT MAY OCCUR DURING FIRE EXTINGUISHER SERVICING. DUE TO THE POSSIBILITY OF IMPROPER PRIOR SERVICE, IT IS CRUCIAL THAT ALL WARNINGS, CAUTIONS, AND NOTES IN THIS MANUAL BE FOLLOWED CAREFULLY. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY.

VICTORY CORPORATION ASSUMES NO LIABILITY FOR THE SERVICE, MAINTENANCE, OR RECHARGE OF FIRE EXTINGUISHERS AND DISCLAIMS ANY RESPONSIBILITY ARISING FROM THE USE OF THIS MANUAL.

REFERENCES IN THIS MANUAL: (*)		**AVAILABLE FROM: (*)**
NFPA 10	Standard for Portable Fire Extinguishers 2022 Edition	**National Fire Protection Association** 1 Batterymarch Pk. P.O Box 9101 Quincy, MA. 02169-7471 www.nfpa.org
CGA C-1	Methods for Hydrostatic Testing of Compressed Gas Cylinders	**Compressed Gas Assoc., Inc.** 8484 Westpark Drive, Suite 220. McLean, Virginia 22102. www.cganet.com
CGA C-6	Standard for Visual Inspection of Steel Compressed Gas Cylinders	**Compressed Gas Assoc., Inc** 8484 Westpark Drive, Suite 220 McLean, Virginia 22102. www.cganet.com
National Fire Code of Canada Canada,		**National Research Council** 1200 Montreal Road, Ottawa, ON K1A 0R6 Canada. https://nrc.canada.ca/en/

Note (*): Address or contact details or references may change. Recommend checking online when required.

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IMPORTANT AVD HANDLING INSTRUCTIONS

Critical Points

AVD is a highly refined, aqueous, mineral dispersion and hence its quality will be spoilt by:

a) Soluble salts, including those naturally present in mains water, will destabilize the dispersion causing the mineral particles to flocculate even if not visually obvious.
b) Allowing the water to evaporate, for example by leaving the lid off the container, may lead to dry film forming; this will potentially lead to blocked device filter / nozzles preventing discharge of the AVD agent.
c) Contamination, especially large particles, from dirty equipment or holding vessels may cause blockage of the filters preventing discharge of the AVD agent.
d) Contamination could lead to microbial growth including under anaerobic conditions.

For cleaning and transferring

a) Only use demineralized water (deionized or distilled) water for cleaning valves, siphon tubes, hose assemblies or flushing cylinders (body).
b) Ensure all equipment is spotlessly clean.
c) Store AVD in its delivery container with lid on until required for refilling devices.

Handling AVD

All equipment, including pumps and transfer lines, should be spotlessly clean; it is advisable to have dedicated equipment for handling AVD. Cleaning should be with demineralized water only and, if possible, thoroughly dried. As an absolute minimum the transfer lines should be flushed with AVD, and the cleaning charge discarded.

a) Visually inspect the AVD for settling, thickening, microbial growth, etc.
b) Agitate the AVD, for example with an air lance to ensure homogeneity.
c) Ideally check viscosity is within specification.
d) Use only spotlessly clean transfer lines and vessels.

Refilling AVD

a) Empty AVD into a clean holding container and flush the body with demineralized water, emptying the contents into same container.
b) Thoroughly clean and dry the body paying particular attention to the points above.
c) Perform maintenance steps.
d) Charge the device with the correct amount of AVD just prior to reassembly.
e) Pressurize only with nitrogen. Do not use carbon dioxide.

Post Service AVD

a) Recycling of AVD for use in is not recommended.
b) Dispose of used AVD in line with local and federal regulations.

INSTALLATION

Your layout and particular hazards dictate the placement of firefighting equipment. NFPA-10 requires that hand portable extinguishers with a gross weight less than 40 lbs. be hung with the top of the extinguisher **not more** than 5 ft. (1.53 m) above the floor. Extinguishers having a gross weight greater

than 40 lbs. (18.14 kg) should be installed so that the top of the extinguisher is **not more** than 3 1/2 ft. (1.07m) above the floor. Extinguishers should be mounted in a clean and dry location, accessible to possible fire hazards and preferably near an exit. **Never install the extinguisher in a location where a potential hazard would prevent easy access. Victory Fire and Gas recommend the same practices are followed for the AVD 2L product.**

Use the mounting bracket supplied with a device or an approved Victory vehicle bracket if needed. Secure to a solid surface using the appropriate fixings for the surface (not supplied) to firmly hold the bracket in place.

The operational temperature range for this device is +40°F to +120°F (+4°C to +49°C) [please see the nameplate on your device]. The device should be adequately protected if temperatures outside of this range are anticipated. Keep the device clean and free from dirt, ice, chemicals, and any contaminants that may interfere with its proper operation. **DO NOT FUNCTIONALLY TEST THIS DEVICE.** (Testing or any use may cause the device to gradually lose pressure over time and make the device ineffective). Never throw device into a fire because rapid heat buildup could cause pressure expansion and exceed the limitations of the cylinder.

SERVICE TOOLS

Victory recommends that only the correct tools, weighing scales and pressurizing adaptors are utilized for service and recharge to ensure correct assembly and filling (See appendix B for detail). Victory recommended tightening torque values should be followed. **DO NOT OVERTIGHTEN** or **CROSS THREAD** any threaded connections.

SAFETY

Victory recommends the appropriate personal protective equipment (PPE) to be used as described in the Safety Data Sheet (SDS) available on the Victory website. Observe instructions for the disposal of any agent in accordance with SDS.

HOW TO USE

WARNING

Persons expected to use this suppression device should be trained in initiating its operation and in the proper firefighting technique. Familiarize all personnel with this information before an emergency occurs.

Failure to stand back at a sufficient distance from the front edge of the fire or use of an inadequate sweeping technique of the agent stream could splash and / or scatter burning materials.

1. Remove the device from its hanger or bracket.
2. Pull and remove the ring (safety) pin, breaking the visual tamper seal.
3. Using the carrying handle, transport the unit to a safe position upwind of the fire.
4. Remove the nozzle from the retainer and while keeping the device in a vertical position, aim the nozzle at the base of the fire.
5. Approach fire from upwind, minimum of 8 feet of the front edge of the fire.
6. Starting back from this distance, squeeze the operating lever fully to initiate the agent discharge.

7. Apply the AVD agent discharge in a gentle sweeping manner, being careful not to scatter the fuel. Operators can advance closer as control of the fire is gained; however, they should avoid stepping into the fuel or fire area.
8. When the fire is out, standby if practical, until the burning media has cooled to ensure extinguishment.
9. Evacuate and ventilate the area immediately after extinguishing the fire. The fumes and smoke from any fire may be hazardous and can be deadly.
10. Ensure the burning media is properly removed and disposed of in accordance with any local handling requirement.

REMEMBER STEPS. P.A.S.S. PULL AIM SQUEEZE SWEEP

AFTER USE INSTRUCTIONS NOTE

1. This device should always be recharged immediately after any use.
2. Invert device, then while securing and pointing the nozzle in a safe direction, squeeze the operating lever valve to clear hose and release all remaining pressure from the device.
3. Notify the person responsible that the device was used, so that it can be immediately recharged, or a replacement obtained.

WARNING

a. Before attempting to disassemble, be sure the device is completely depressurized. To depressurize – hold the unit in an inverted position and slowly squeeze the discharge handle and lever. See trouble shooting section for more details.
b. Never have any part of your body over the device whilst removing the valve assembly.
c. Use a protective shield between you and the valve while charging. Do not stand in front of the valve if a shield is not available.
d. Check and calibrate regulator gauge at frequent intervals. The regulator gauge should be used to determine when the intended charging pressure has been reached. Do not use the device gauge for this purpose.
e. Never leave a device connected to a regulator of a high-pressure source for an extended period. A defective regulator could cause the cylinder to rupture due to excessive pressure.

CAUTION

Discharge time and effective range of the agent throw varies according to model – see the specification literature for your device.

The procedures outlined below may not be sufficient for every jurisdiction or location. The recommendations shown below should be applied as the minimum requirements for inspection and maintenance.

INSPECTING THE SUPPRESSION DEVICE

This device should be inspected at regular intervals (monthly or more often if circumstances dictate) to ensure that it is ready for use. Inspection is a "quick check" to ensure that the equipment is available and is in good operating condition with no damage or corrosion. It is intended to give reasonable assurance that the device is fully charged with no loss of pressure (pointer in green

zone), tamper seal is unbroken and no obstructions in hose or nozzle. This is done by verifying that it is in its designated place, that it has not been actuated or tampered with, and that there is no obvious physical damage or condition to prevent its operation.

WARNING

For safety purposes, if the device shows signs of corrosion or mechanical damage, it shall be subjected to a hydrostatic pressure test or replaced.

PERIODIC INSPECTION PROCEDURES

(Monthly or more often if circumstances dictate)

Victory Fire and Gas recommends periodic inspection of fire suppression devices shall include a check of at least the following items:

1. Location in designated place.
2. Visibility of device or means of indicating the device location.
3. Pressure gauge reading or indicator in the operable range or position.
4. Fullness determined by weighing or hefting.
5. Operating instructions on nameplate and facing outward.
6. Safety seals and tamper indicators not broken or missing.
7. Examination for obvious physical damage, corrosion, leakage, or clogged nozzle.
8. Date and initial the inspection tag or record in accordance with NFPA-10 or local requirements.

MAINTENANCE

At least once a year or more frequently if circumstances require, maintenance should be performed. Maintenance is a "thorough check" of the device. It is intended to give maximum assurance that the fire suppression device will operate effectively and safely. It includes a thorough examination for physical damage or condition to prevent its operation and any necessary repair or replacement. It will normally reveal if hydrostatic testing or internal maintenance is required.

Maintenance, servicing & recharging shall be performed by trained and certified persons having available the appropriate servicing manual, the proper types of tools, recharge materials, lubricants, and Victory replacement parts.

Devices taken out of service for maintenance or recharge shall be replaced by spare devices of the same type and at least an equal performance.

MAINTENANCE – SERVICE PROCEDURE

THE EQUIPMENT SHOULD BE SUBJECTED TO MAINTENANCE AT INTERVALS OF NOT MORE THAN ONE YEAR, AT TIME OF HYDROSTATIC TEST OR WHEN SPECIFICALLY INDICATED BY AN INSPECTION DISCREPANCY. MAINTENANCE EXAMINATION WILL IDENTIFY THE NEED FOR REPLACEMENT, REPAIR AND IF HYDROSTATIC TESTING IS REQUIRED.

WARNING

Before servicing check the device is correctly pressurized.

This procedure is best accomplished with the device in an upright position and on a level surface.

1. Ensure the device is installed in the proper location and that it is readily accessible. (The AVD2L is suitable for temperature ranges between +40° F to +120° F and need to be protected from freezing).
2. Remove the device from hanger or bracket whilst ensuring all mounting hardware is properly installed, secure and in good operating condition. Check for damage or corrosion, abrasion, dents, or weld damage or use of substitute parts. If any damage is found, hydrostatically test in accordance with instructions in CGA C-1 and C-6 and NFPA 10.

   NOTE: Only factory replacement parts are approved for use on Victory AVD2L fire suppression device.
3. Clean device to remove dirt, grease, or foreign material. Check to make sure that the instruction nameplate is securely attached and legible.

   NOTE: When cleaning, avoid the use of solvents around the pressure gauge. They could seriously damage the plastic gauge face.
4. Weigh the device and compare with weight printed in the "Maintenance" section on the nameplate(label). Recharge if weight is not within indicated allowable tolerances. Any unit not falling within the tolerance limits shall be properly recharged.
5. Check the date of manufacture stamped on the cylinder, dome or shown on the nameplate. The cylinder must be hydrostatically tested every five years to the test pressure indicated on the nameplate. Never place any device back into service if the hydro test is overdue. Always complete hydro test and if acceptable return to service. Always refill with Victory AVD agent after successfully completing the hydro test following the instructions on refill pack.
6. Visually inspect the pressure gauge:
   a. If bent, damaged or improper gauge, depressurize and replace.
   b. If pressure is low, check for leaks and immediately correct any defects before pressurizing.
   c. If over pressurized (overcharged), depressurize the device and follow recharge instructions.
7. Check ring (safety pin) for freedom of movement. Replace if bent or if removal appears difficult.
8. Inspect discharge lever for any dirt or corrosion which might impair freedom of movement. Inspect carrying handle for proper installation. If lever, handle, or rivets are damaged replace with proper Victory part(s).
9. Remove the hose assembly and visually inspect the inside valve body. Inspect nozzle and the hose assembly for damage – replace, as necessary. Blow air through the hose assembly to ensure passage is clear of foreign material or obstruction.
10. Inspect the valve assembly for corrosion or damage to hose thread connection. Replace valve assembly or component parts as necessary following the proper depressurization and recharge procedures. If valve removal is necessary, complete all steps in the Recharge Procedure.
11. Install hose assembly, firmly tighten, and twist hose material clockwise (will twist within ferrule) to ensure nozzle orifice is horizontal. This will ensure the fan pattern is horizontal when the device is used. Finally place hose inside loop on the strap wrapped around the cylinder body.
12. Install a new tamper seal and record service data on the inspection tag.
13. Replace the device on the wall hanger or in the vehicle bracket making sure that it fits the bracket properly and the bracket is securely attached – replace the bracket if necessary.

COMPLETE MAINTENANCE – FIVE YEAR TEARDOWN / HYDROTESTING

Every five years, stored pressure water-based extinguishers require a five-year hydrostatic test, shall be emptied, and subjected to the applicable maintenance procedures. When the applicable maintenance procedures are performed during periodic recharging or hydrostatic testing, the five-year requirement shall begin from that date. Victory recommends the same procedure is followed for AVD2L.

NOTE: Some states have legislation which requires "Complete Maintenance" on an annual basis. Please contact your local Victory Installation and service provider to see if these requirements apply to you.

1. Discharge devices to release pressure and AVD agent. Make sure that the device is completely empty and depressurized. To depressurize – hold the device in an inverted position and slowly squeeze the discharge handle and lever. See trouble shooting section for more details.
2. Clean device to remove dirt, grease, or foreign material. Check to make sure that the instruction nameplate is securely fastened and legible. Inspect the cylinder for corrosion, abrasion, dents, or weld damage or use of substitute parts. If any of these conditions are found and you doubt the integrity of the cylinder, hydrostatically test to factory test pressure marked on the nameplate (label), using the proof pressure method, in accordance with CGA C-1 and NFPA 10. Any distortion or leakage of the cylinder shall be cause for rejection.

   NOTE: When cleaning, avoid the use of solvents around the pressure gauge. They could seriously damage the plastic gauge face.
3. Inspect the device for damaged, missing or substitute parts.

   NOTE: Only factory replacement parts are approved for use on Victory firefighting devices.
4. Check the date of manufacture on the device label (nameplate or cylinder). The cylinder must be hydrostatically (proof pressure) tested every five years to the test pressure indicated on the nameplate. Any distortion or leakage of the cylinder shall be cause for rejection. Never place device back into service if the hydro test is overdue. Always complete hydro test and if acceptable return to service.
5. Visually inspect the pressure gauge – if bent, damaged or improper type or pressure – replace with the proper Victory pressure gauge (see Parts List).
6. Check ring (safety) pin for freedom of movement. Replace if bent or if removal appears difficult.
7. Inspect discharge lever for any dirt or corrosion which might impair freedom of movement. Inspect carrying handle for proper installation. If lever, handle, or rivets are damaged, replace them with proper Victory parts.
8. Remove hose assembly and visually inspect threads on hose coupling, hose for damage, and replace, as necessary. Blow air through nozzle and hose to ensure passage is clear of foreign material or obstructions. See recharging procedure step 10 for hose cleaning if the unit has been used.
9. Inspect the valve assembly for corrosion or damage to hose thread connection. Replace valve assembly or component parts, as necessary.
10. Remove and disassemble valve assembly by removing dip tube, spring, and valve stem assembly.

See recharging procedure step 2 for valve cleaning if the unit has been used. Install a new valve stem and valve O-ring after lightly lubricating with Visilox V- 711.(Do not lubricate valve stem seal.)

11. Complete steps 3 through 15 of Recharge Procedure.

RECHARGE

WARNING

a. Before attempting to disassemble, be sure the device is completely depressurized. To depressurize – hold the device in an inverted position and slowly squeeze the discharge handle and lever. See trouble shooting section for more details.

b. Never have any part of your body over the device while removing the valve assembly.

c. Use a protective shield between you and the pressure gauge while charging device. Do not stand in front of the gauge if a shield is not available.

d. Use a regulated pressurizing source of dry nitrogen only with a minimum dew point of minus 70°F (minus 57°C). Set the regulator to no more than 25 psi above the operating pressure.

e. Check and calibrate regulator gauge at frequent intervals. The regulator gauge should be used to determine when the intended charging pressure has been reached. Do not use the device gauge for this purpose.

f. Never leave device connected to a regulator of a high-pressure source for an extended period. A defective regulator could cause the cylinder to rupture due to excessive pressure.

RECHARGING PROCEDURE

RECHARGING is the replacement of the extinguishing agent and the propellant gas.

1. Perform steps 1 through 10 of the "Complete Maintenance (Five Year Teardown)" section.
2. Rinse inside of valve and siphon tube and all passages with demineralized water. Blow the valve out with nitrogen or air. Clean all parts of the disassembled valve with a soft bristle brush or soft cloth. Inspect the collar O-ring, valve stem, spring, and dip tube assembly, and replace parts if worn or damaged. Ensure the siphon tube screen between siphon tube and coupling is not blocked, damaged or any AVD residue is present. Ensure the handle and lever move freely. Lubricate the valve O-ring and small O-ring on the valve stem with Visilox V-711 (do not lubricate the valve stem seal).
3. Reassemble the valve assembly, ensuring the siphon tube is firmly tightened securely and set aside. Squeeze and release handle and lever to ensure freedom of movement and stem returns freely.
4. Remove any AVD agent remaining in the cylinder. Rinse the cylinder thoroughly with demineralized or deionized water until no residual AVD is present.
5. Inspect the cylinder interior following CGA Visual Inspection Standard C-6.
6. Using an accurate scale, fill the cylinder with the correct amount of AVD agent specified on the label (nameplate). Do not reuse agent from device. Always use new refill when recharging. When filled correctly within the weight limits stated on the nameplate.

   CAUTION: Filling by eye alone could cause potentially dangerous overfilling – always use a scale.

7. Carefully center the dip tube and install valve assembly aligning center of gauge with center of nameplate. Ensure the O seal seats correctly. Firmly hand valve onto the cylinder (max force 20-30 Nm / 15-22 ft lbs.) to hold valve firmly in place. The valve should index with pressure gauge aligned with center of the instructions section of the nameplate. Attach the charging adapter hand tight into the valve assembly thread.
8. With the device properly secured in an upright position, connect your nitrogen pressurizing line with a quick connector to the charging adapter. Depress the device operating lever and pressurize device to the proper operating pressure. When the desired pressure has been reached, release the lever. Shut off nitrogen supply and remove the quick connect.
9. Check device for leaks by applying detecting fluid or a solution of soapy water to the charging adapter orifice, around the collar O-ring sealing area, cylinder welds and gauge. Remove the charging adapter. Blow nitrogen or air into the interior of the valve assembly to remove any remaining leak detecting fluid. Wipe the exterior of the device to remove any remaining residue.
10. The hose assembly should be checked for blockage or damage, especially if the device has been used. Check by blowing air through hose assembly from threaded coupling end ensuring air passes through nozzle. If the device has been used, then rinsing the hose and nozzle with demineralized water is required. If the AVD agent cannot be removed, then a new complete hose assembly will be required. Install hose assembly, firmly tighten, and twist hose material clockwise (will twist within ferrule) to ensure nozzle orifice is horizontal. This will ensure the fan pattern is horizontal when the device is used. Finally place hose inside a loop on the strap.
11. Install ring pin through handle, lever and valve with ring facing the front of the device (gauge side).
12. Install new tamper seal wrapping through loop and around levers to secure ring pin. Do not over stress tamper seal.
13. Weigh assembled device and confirm that the total weight is within the allowable tolerances indicated in the Maintenance section of the nameplate (label).
14. After completing the maintenance examination, properly tag, label, and record the procedure in accordance with NFPA-10 and any local requirements.
15. Replace the device on the wall hanger or in the vehicle bracket making sure that it fits the bracket properly and the bracket is securely attached – replace the bracket if necessary.

TROUBLESHOOTING GUIDE

WARNING

To avoid risk of injury or death, should any audible pressure leak be observed during disassembly of the device, then technicians should stop service activities and wait until all residual pressure is released.

LEAKAGE

Determine the source of a leak before the device is depressurized. The device must be completely depressurized before any attempt is made to de-valve it and correct a leakage problem.

DEPRESSURIZE

Hold the device in an inverted position and slowly squeeze the discharge handle. Some AVD agent remaining in the dip tube will be expelled so care should be taken in the area being used for depressurizing. Thoroughly clean all valve parts after depressurization and valve removal in accordance with instructions.

	PROBLEM	CORRECTIVE ACTION
1	Leak at valve O-ring	De-pressurize. Remove valve assembly, remove, and discard O-ring, valve thread, and lube lightly with Visilox V-711. Clean O-ring groove on valve and install new O-ring. Lubricate with Visilox V-711.
2	Leak through valve	De-pressurize. Check the valve stem seating area for scratches or foreign matter. Clean the seating area with a toothbrush and soft cloth. Install a new valve stem assembly.
3	Valve outlet thread or port obstructed or dirty	De-pressurize. Flush clean with water or empty and recharge. If still blocked replace valve assembly with new.
4	Leak around gauge	De-pressurize, remove valve. Remove gauge, clean threads, and reinstall using Teflon tape on the gauge threads.
5	Defective or damaged gauge	De-pressurize and replace. Install the correct Victory pressure gauge using Teflon tape on the gauge threads.
6	Pressure gauge reads outside green zone	Check the ambient temperature correlation. De-pressurize and recharge or replace
7	Gauge operating pressure differs from label	De-pressurize and replace. Install the correct Victory pressure gauge using Teflon tape on the gauge threads.
8	Gauge does not indicate compatibility with agent	De-pressurize and replace. Install the correct Victory pressure gauge using Teflon tape on the gauge threads.
9	Gauge does not indicate compatible with brass	De-pressurize and replace. Install the correct Victory pressure gauge using Teflon tape on the gauge threads.
10	Defective cylinder	Contact Victory if under warranty, otherwise mark "REJECTED" and remove from service or return to owner.
11	Device suspected of freezing	Empty, closely examine & hydrostatic re-test. Recharge or replace as necessary
12	Wall hook / bracket loose or damaged	Secure, repair or replace
13	Bent pull pin, corroded, damaged	Replace
14	Lever or handle loose	De-pressurize and replace if possible or replace with new valve assembly
15	Damaged hose, worn, cracked, or corroded	Replace
16	Nameplate instructions illegible	Replace
17	Agent cylinder damaged or corroded	Inspect and hydrostatic re-test or dispose of in accordance with NFPA-10
18	Noise noticeable from within cylinder	De-pressurize and internally examine for broken siphon tube or foreign object
19	Total Charge weight of device different to tolerances on nameplate	De-pressurize and recharge

20	Hose strap damaged or missing	Replace
21	Nozzle or hose or coupling obstructed	Flush clear with demineralized or deionized water and blow dry. If still obstructed, replace
22	Hose O-ring missing, cracked or damaged	Replace and lightly lubricate.

LIMITED WARRANTY

Victory warrants its fire devices ("Products") to be free from defects in material and workmanship for a period of five (5) years from the date of manufacture. Victory's responsibility for defects in material or workmanship are limited to repair or replacement of the products for the original retail purchaser ("Consumer") only. This limited warranty does not cover defects resulting from modification, abuse, accident, alteration, misuse, exposure to corrosive conditions, or improper installation or maintenance. No warranty is provided for products or components that have been subject to normal wear and tear, misuse, improper installation, incompatible chemicals/materials, corrosion; that have not been used for their intended purpose; or that have not been installed, maintained, modified, or repaired in accordance with applicable standards of the National Fire Protection Association and/or the standards of any other authorities having Jurisdiction. Materials found by the seller to be defective shall be either repaired or replaced, at the seller's sole option. The seller neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. The seller shall not be responsible for system design errors, or inaccurate or incomplete information supplied by buyer or buyer's representatives. This limited warranty sets forth the exclusive remedy for claims based on failure of or defect in products, materials, or components, whether the claim is made in contract, tort, strict liability, or any other legal theory. This warranty will apply to the full extent permitted by law. The invalidity, in whole or part, of any portion of this warranty will not affect the remainder. Victory is not responsible for the installation or the maintenance of the products.

Defective products for which a valid claim has been made shall be returned to Victory's facility for repair or replacement (or to other repair facilities pursuant to Victory's prior written authorization), and transportation costs to such locations shall be paid by consumer.

VICTORY DOES NOT ACCEPT LIABILITY BEYOND THE REMEDIES PROVIDED IN THIS LIMITED WARRANTY, WHETHER BASED ON CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, INCLUDING WITHOUT LIMITATION DAMAGES FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR ANY DIRECT, INDIRECT, SPECIAL, CONSEQUENTIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES, AND INCLUDING WITHOUT LIMITATION ANY LIABILITY FOR THIRD PARTY CLAIMS, IN EACH CASE EVEN IF VICTORY HAS BEEN ADVISED OF THE POSSIBILITY THEREOF. LAWS OF SOME JURISDICTIONS DO NOT ALLOW THE DISCLAIMER OF CONSEQUENTIAL OR OTHER TYPES OF DAMAGES, AND CONSUMERS MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION. UNDER SUCH CIRCUMSTANCES, THIS LIMITED WARRANTY AND THE LIMITATIONS AND DISCLAIMERS HEREIN SHALL BE TO THE GREATEST EXTENT PERMITTED BY LAW.

THIS LIMITED WARRANTY CONTAINS THE ENTIRE WARRANTY PROVIDED BY VICTORY AND SHALL BE IN LIEU OF ANY AND ALL OTHER WARRANTIES OR CONDITIONS, WHETHER EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

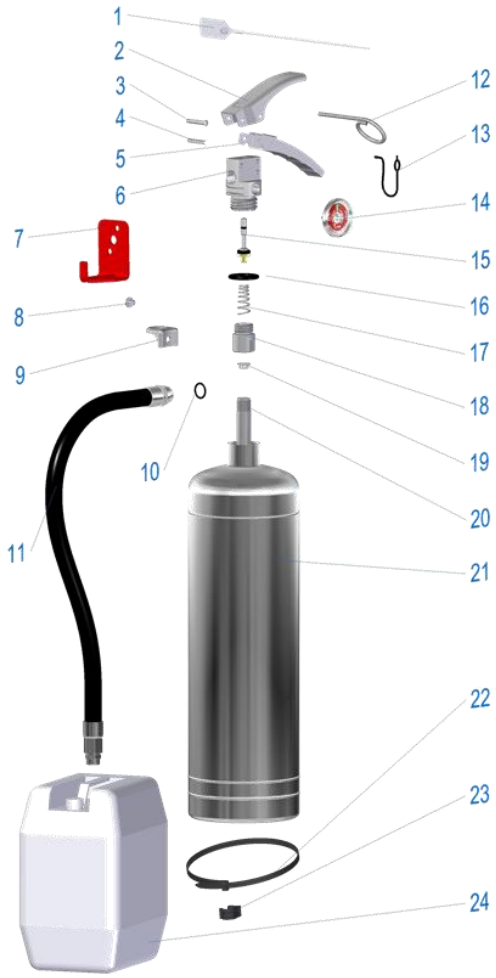
Neither the product distributor nor any other third party is authorized to make any conditions, representations, or warranties on Victory's behalf. VICTORY neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than as expressly set forth herein. Any disputes regarding or relating to this limited warranty will be resolved at the sole discretion of VICTORY.

AVD DEVICE LIMITED WARRANTY

DISCLAIMER: The following disclaimer is for all Victory Fire and Gas Inc products including, but not limited to portable firefighting devices, fire extinguishing agent and apparatus. Victory Fire and Gas Inc does not accept responsibility or warrant performance for part used Victory Fire and Gas Inc devices or for those damaged by inappropriate storage or handling (please see user instructions for recommended practice). Handheld firefighting devices are for first response (initial low ferocity) firefighting and are not suited for large or deep-seated fires. Victory Fire and Gas Inc does not accept responsibility for loss or damage to property or human life when Victory Fire and Gas Inc products are used and we do not give guarantee, or warranty, or suggest, or imply that the Victory Fire and Gas Inc products will extinguish all fires, regardless of fire type or origin. We only confirm that AVD Fire agent has been third party performance tested against a set of performance criteria relating to Lithium Battery fires. Further information relating to this testing can be found on the website www.victoryfiregas.com or contact Victory Fire and Gas Inc directly on info@victoryfiregas.com Victory Fire and Gas Inc shall have no liability for any damage caused by the customer's failure to observe guidelines set out in the product user instructions. This does not affect the customer's statutory rights.

APPENDIX A

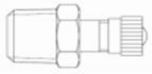
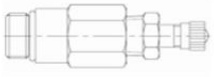
VICTORY FIRE SPARE PARTS
AVD Model
AVD 2L



NO.	Product Code	Descriptions	Qty.
1	0714025	Seal	1
2	0202117	Lever	1
3	0204025	Rivet Ⅰ Φ4×22.5	1
4	0204024	Rivet Ⅱ Φ4×21.5	1
5	0203088	Carry Handle	1
6	020504019	Valve Body	1
7	070200003	Bracket	1
8	0715038	Screw	1
9	0715037	Hanging Loop	1
10	30390229	O Ring Φ10XΦ1.8	1
11	30290391	Hose Assembly	1
12	30420049	Safety Pin	1
13	0210001	Chain/Tether	1
14	30120102	Pressure Gauge	1
15	0220103	Valve Stem Assembly	1
16	020603003	O Ring Φ30.45XΦ3.53	1
17	020701009	Spring	1
18	30410076	Tube Holder	1
19	30240021	Filter Assembly	1
20	30310364	Dip Tube	1
21	200302001336	Cylinder	1
22	071117	Strap	1
23	071007	Hose Catch	1
24	1A1401199	AVD Refill	1

APPENDIX B

Equipment Type	Where Used	Comments
Adjustable Wrench or 19mm open ended wrench	Hose Assembly to valve	Recommended torque. 5Nm (44 in lbs.)
Adjustable Wrench or 7/8" open ended wrench	Siphon Tube Assembly to valve	Recommended torque. 8Nm (71 in lbs.)
11mm (7/16") open ended wrench	Pressure Gauge to valve	Recommended torque. 5-12Nm (44-106 in lbs.) with sealant/ glue
Scales	Filling cylinders with AVD	Recommended accuracy. +/- 2.5% or better
Pressurizing / recharging adaptors	See table below for application	
Regulated Gauge	Pressurizing	Use a regulated gauge set when pressurizing the device. **NOTE**: Do not set pressure on regulator more than 25 psi above working pressure shown on the gauge
Hand / Wrench	Valve to cylinder	Recommended torque. 20-30Nm (15-22 ft lbs.)
Lubricant	Neck to valve seal and blow by O seal on stem	Recommended lubricant Visilox V-711

Item	Product Code	Application	Thread to valve	Thread to gas supply	Photo
1	10010127	2.5LB dry Chemical	3/8-24UNF Male	1/4-18 NPT Female	
2	10010128	5LB dry Chemical	1/2-20UNF Male	1/4-18 NPT Female	
3	10010129	10/20 LB dry Chemical & 6L/ 2.5-Gal liquid based	5/8-18UNF Male	1/4-18 NPT Female	
4	10010162	10/20 LB dry Chemical & 6L/2.5-Gal liquid based	5/8-18UNF Male	1/8-27 NPT Female	
5	10010201	1/4 – 18NPT Schrader Type Valve	1/4-18NPT Male	8V1 Male	
6	2005051	10/20 LB dry Chemical & 6L/2.5-Gal liquid based	5/8-18UNF Male	8V1	

CHANGE HISTORY

Date	Revision	Change Details
12/19/2023	1	FIRST RELEASE
02/19/2025	2	Updated warranty period to five years to align with first hydro date. Updated references and formatting.