



WARNING: Installation, usage and maintenance of this product must be in compliance with all RegO® instructions as well as requirements and provisions of NFPA #54, NFPA #58, DOT, ANSI, all applicable federal, state, provincial and local standards, codes, regulations and laws.

Repairs of the seals should be done with hands clothing and tools free of oil, grease and foreign matter to prevent contamination of component parts.

Inspection and maintenance on a periodic basis is essential. Installation, disassembly, repair and maintenance must be performed only by qualified personnel.

Be sure all instructions are read and understood before installation, operation and maintenance. These instructions must be passed along to the end user of the product.

RegO Rail Tank Car equipment is AAR approved. If repaired, the continued validity of the AAR approval is contingent upon proper inspection to determine what needs to be repaired; proper repair using RegO OEM parts and procedures, proper testing for leakage and performance following repairs and installation.

ECI EXPRESSLY DISCLAIMS ANY AND ALL LIABILITY – UNDER ANY THEORY, WHETHER CONTRACT, WARRANTY, TORT OR OTHERWISE – RELATING IN ANY MANNER TO ANY RAIL TANK CAR EQUIPMENT REPAIRED USING ANY PRODUCTS NOT MANUFACTURED BY ECI.

USE OF ANY PRODUCTS NOT MANUFACTURED BY ECI TO REPAIR ANY RAIL TANK CAR EQUIPMENT WILL INVALIDATE ANY AND ALL WARRANTIES OF THE RAIL TANK CAR EQUIPMENT, WHETHER EXPRESS OR IMPLIED.

CAUTION: Contact or inhalation of LP-Gas, ammonia and their vapors can cause serious injury or death! NH₃ and LP-Gas must be released outdoors in air currents that will ensure dispersion to prevent exposure to people and livestock. LP-Gas must be kept far enough from any open flame or other source of ignition to prevent fire or explosion! LP-Gas is heavier than air and may not disperse or evaporate rapidly if released in still air.

Forward
RegO railcar relief valves are designed for service on pressurized railcars with a flanged opening that complies to AAR standard Section CIII. The valve permits servicing while the container is under pressure, in emergency situations. This valve is of the pop-action design. The design permits the valve to open slightly to relieve moderately excessive pressures, keeping the amount of relieved lading to a minimum. When pressure increases beyond a predetermined point, the valve is designed to pop open to its full discharge capacity to relieve pressure quickly, then reseal when the container pressure is reduced to a safe level.

Please contact RegO if you have material compatibility concerns. Before installation, verify the valve set pressure is correct. RegO relief valves are equipped with a data plate secured directly to the valve body that indicates model number, serial number, date of manufacture and flow capacity.

Valve Installation

- Tighten the bolt studs & nuts gradually in an alternate and opposite sequence around the flange. Follow the sequence shown in Figure 2.
- After the container is pressurized, check the seal of the flange by applying a non-corrosive leak detection solution. If bubbles appear, tighten the nuts until the flange seals. If this does not work the flange surface or sealing gasket needs to be checked.
- Press rain cap so that it fits snugly on top of body as shown in Figure 1.

A8434F Series Pressure Relief Valves for Railcars Installation and Operation

Figure 1- Railcar Relief Valve

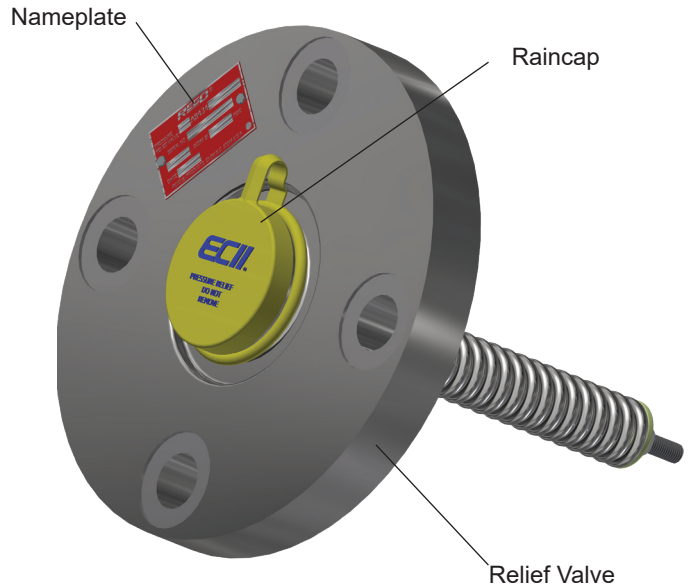


Figure 2 - Number Sequence



WARNING: DO NOT STAND DIRECTLY OVER A PRESSURE RELIEF VALVE WHEN THE CONTAINER IS PRESSURIZED.



SUGGESTED MAINTENANCE GUIDE

Pressure Relief Valve



Pressure Relief Valves are designed for service on pressurized railcars. Since these valves are exposed to the environment, regular inspections and maintenance are required. The following suggested schedule will help to keep the valves in operating condition.

This is only a suggested maintenance schedule for Pressure Relief Valves. These time periods were based on ideal conditions. However, the actual time periods may need to be reduced depending on the environment in which the valve is placed. Inspection and maintenance is very important. Failure to properly inspect and maintain relief valves could result in personal injury and property damage.

Valve Placed in Service:
Month / Day / Year

/	/	
Daily when dome cover is open	1 Year	5 Year

1	Verify rain cap is secured and in position on top of the relief valve.	✓		
2	Inspect the valve and flanged connection for leaks using a non-corrosive leak detection.		✓	
3	Inspect the valve for signs of corrosion. If detected – remove the corrosion, clean, and repaint. Avoid painting over any of the informational labels that are secured to the valve body.		✓	
4	Inspect the springs for signs of corrosion or damaged epoxy coating. If detected, remove and replace the relief valve springs.			✓
5	Remove and replace the relief valve seals as outlined in the repair kit instruction sheet.			✓

NOTICE

LP-Gas is extremely flammable and explosive. Failure to install parts exactly as described in the instructions could result in a product that will not perform satisfactorily. Even if parts are correctly installed, the product might fail to perform satisfactorily. If other parts are worn, corroded or dirty. Improper repair can cause leaks and malfunction, which could result in bodily injury and property damage. Any such use or installation of parts must ONLY be done by experienced and trained personnel using accepted governmental and industrial safety procedures.

Most RegO® products are listed with Underwriters Laboratories as manufactured. If repaired, the continued validity of the UL listing is contingent upon proper inspection to determine what needs repairing, proper repair using RegO® parts and procedures, and proper testing for leakage and performance following repairs and installation.

RegO® assumes no responsibility or liability for performance of products repaired in the field. It must be clearly understood that the person or organization repairing the product assumes total responsibility for performance of the product.

LIMITED 10 YEAR WARRANTY

RegO® warrants to the original purchasers the products and repair kits manufactured by it to be free from defects in materials and workmanship under normal use and service for a period of 10 years from the date of manufacture. If within thirty days after buyer's discovery of what buyer believes is a defect, buyer notifies in writing and ships (at buyer's expense) the product to RegO® at 100 RegO Drive, Elon, N.C. 27244, RegO®, at its option, and within forty-five days of receipt, will repair, replace F.O.B. point of manufacture, or refund the purchase price of that part or product found by RegO® to be defective. Failure of buyer to give such written notice and ship the product within thirty days shall be deemed an absolute and unconditional waiver of any and all claims of buyer arising out of such defect.

This warranty does not extend to any product or part that is not installed and used continuously after installation in accordance with RegO's printed instructions, all applicable state and local regulations, and all applicable national standards, such as those promulgated by NFPA, DOT and ANSI. This warranty does not extend to any product or part that has been damaged by accident, misuse, abuse, failure to maintain, or neglect, nor does it extend to any product or part which has been modified, altered, disassembled, or repaired in the field. This warranty does not cover any cosmetic issues, such as scratches, dents, marring, fading of colors or discoloration.

EXCEPT AS EXPRESSLY SET FORTH ABOVE, AND SUBJECT TO THE LIMITATION OF LIABILITY BELOW, REGO® MAKES NO OTHER WARRANTY, AND EXPRESSLY DISCLAIMS, ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO ITS PRODUCTS AND PARTS, WHETHER USED ALONE OR IN COMBINATION WITH OTHERS. REGO® DISCLAIMS ALL WARRANTIES NOT STATED HEREIN.

This Limited Warranty is given by Engineered Controls International LLC, of 100 RegO Drive Elon, NC 27244 USA, (336) 449-7707.

LIMITATION OF LIABILITY

RegO® total liability for any and all losses and damages arising out of any cause whatsoever shall in no event exceed the purchase price of the products or parts in respect of which such cause arises, whether such causes be based on theories of contract, negligence, strict liability, tort or otherwise.

RegO® shall not be liable for incidental, consequential or punitive damages or other losses. RegO® shall not be liable for, and buyer assumes any liability for all personal injury and property damage connected with the handling, transportation, possession, further manufacture, other use or resale of products, whether used alone or in combination

with any other products or materials.

From time to time buyers might call to ask RegO® for technical advice base upon limited facts disclosed to RegO®. If RegO® furnishes technical advice to buyer, whether or not a buyer's request, with respect to application, further manufacture or other use of the products and parts, RegO® shall not be liable for such technical advice or any such advice provided to buyer by any third party and buyer assumes all risks of such advice and the results thereof.

NOTE: Some states do not allow the exclusion or limitation of incidental, consequential or punitive damages, so the above limitation or exclusion may not apply to you. The warranty gives you specific legal rights, and you may have other rights that vary from state to state. The portions of the limited warranty and limitation of liability shall be considered severable and all portions which are not disallowed by applicable law shall remain in full force and effect.

The benefits given by the Limited Warranty above are in addition to any other rights and remedies to which you may be entitled by law.

NOTE TO AUSTRALIAN PURCHASERS: The following applies if you purchased this product as a "consumer" as defined in the Australian Consumer Law. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Information regarding how to return a product and make a claim under this Limited Warranty is set forth below.

Nothing in this document purports to modify or exclude your rights if any under the Australian Consumer Law, or other laws which cannot be lawfully be modified or excluded.

WARNING

All RegO® products are mechanical devices that will eventually become inoperative due to wear, corrosion and aging of components made of materials such as rubber, etc. The environment and conditions of use will determine the safe service life of these products. Periodic inspection and maintenance are essential to avoid serious injury and property damage.

Many RegO® products are manufactured components which are incorporated by others on or in other products or systems used for storage, transport, transfer and otherwise for use of toxic, flammable and dangerous liquids and gases. Such substances must be handled by experienced and trained personnel only, using accepted governmental and industrial safety procedures.

NOTICE TO USERS OF PRODUCTS

The Limited Warranty stated above is a factory warranty to the first purchasers of RegO® products. Since most users have purchased these products from RegO® distributors, to make a claim under this Limited Warranty the user must within thirty (30) days after the user's discovery of what user believes is a defect, notify in writing and return the product (at the user's expense) to the distributor from whom he purchased the product/part. The distributor may or may not at the distributor's option choose to submit the product/parts to RegO®, pursuant to this Limited Warranty. Failure by buyer to give such written notice and return the product within thirty (30) days shall be deemed an absolute and unconditional waiver of buyer's claim for such defects. Acceptance of any alleged defective product/parts by RegO's distributor for replacement or repairs under the terms of RegO's Limited Warranty in no way determines RegO's obligations under this Limited Warranty.

Because of a policy of continuous product improvement, RegO® reserves the right to change designs, materials or specifications without notice.



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