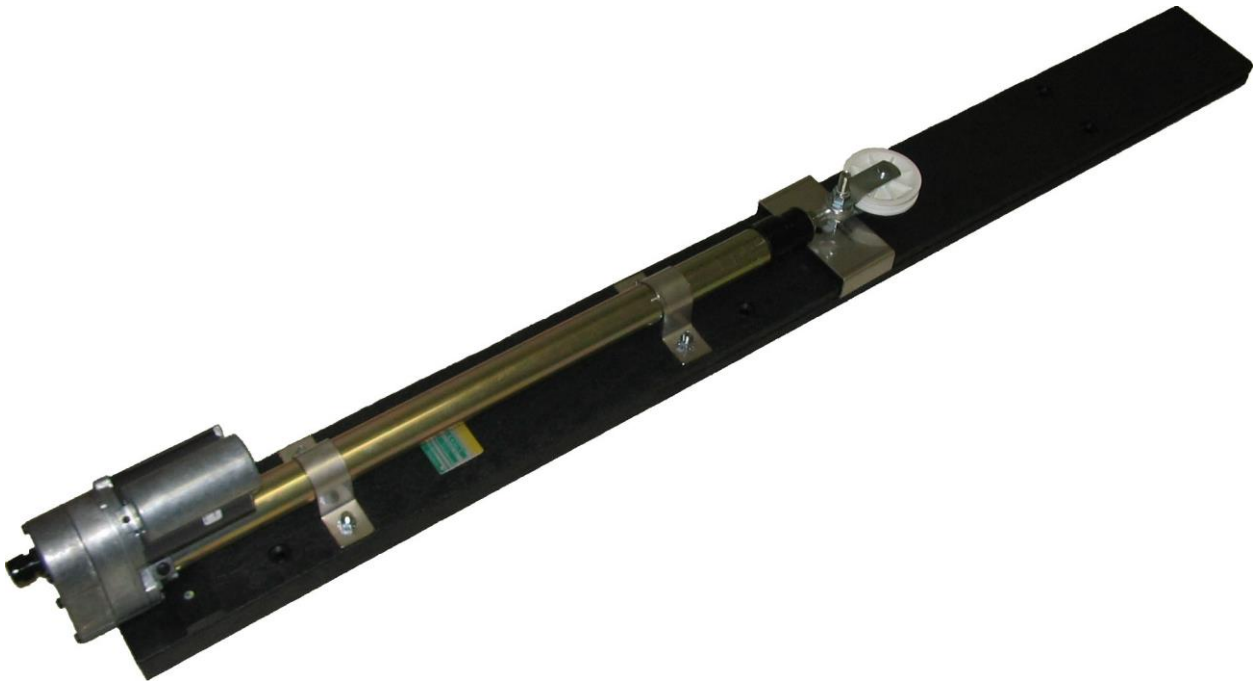
Read carefully the information provided. Retain manual for future reference.

24” Linear Actuator
115 Volts A.C.
(Cat. # C430A)



IMPORTANT!

This merchandise left our premises in prime condition. After unpacking the product, carefully inspect the product for any damage that may have occurred during transit. Check for loose, missing or damaged parts. On all products that sold F.O.B. Cokato, Minnesota, the title passes to the consignee upon receipt of the shipment by the carrier and ends our responsibility. The consignee should immediately file claims for loss or damage to the contents with the carrier as follows:

CONCEALED LOSS OR DAMAGE

Concealed loss or damage means loss or damage, which does not become apparent until the merchandise has been unpacked. The contents may be damaged in transit due to rough handling, even though the carton may not show external damage. When the damage is discovered upon unpacking, make a written request for inspection by the carrier's agent immediately on date of delivery. Then file a claim with the carrier since such damage is the carrier's responsibility. By following these instructions carefully, we guarantee our full support of your claims to protect you against loss from

VISIBLE LOSS OR DAMAGE

Any external evidence of loss or damage must be noted on the freight bill, express receipt or delivery receipts in the case of UPS shipments, and signed by the carrier's agent. Failure to adequately describe such external evidence of loss or damage may result in the carrier refusing to honor a damage claim. The carrier will supply the form required in filing a claim.

Save Carton and Wrapping for Carrier Inspection

DO NOT RETURN DAMAGED MERCHANDISE TO RAYDOT

FILE YOUR CLAIM AS STATED ABOVE

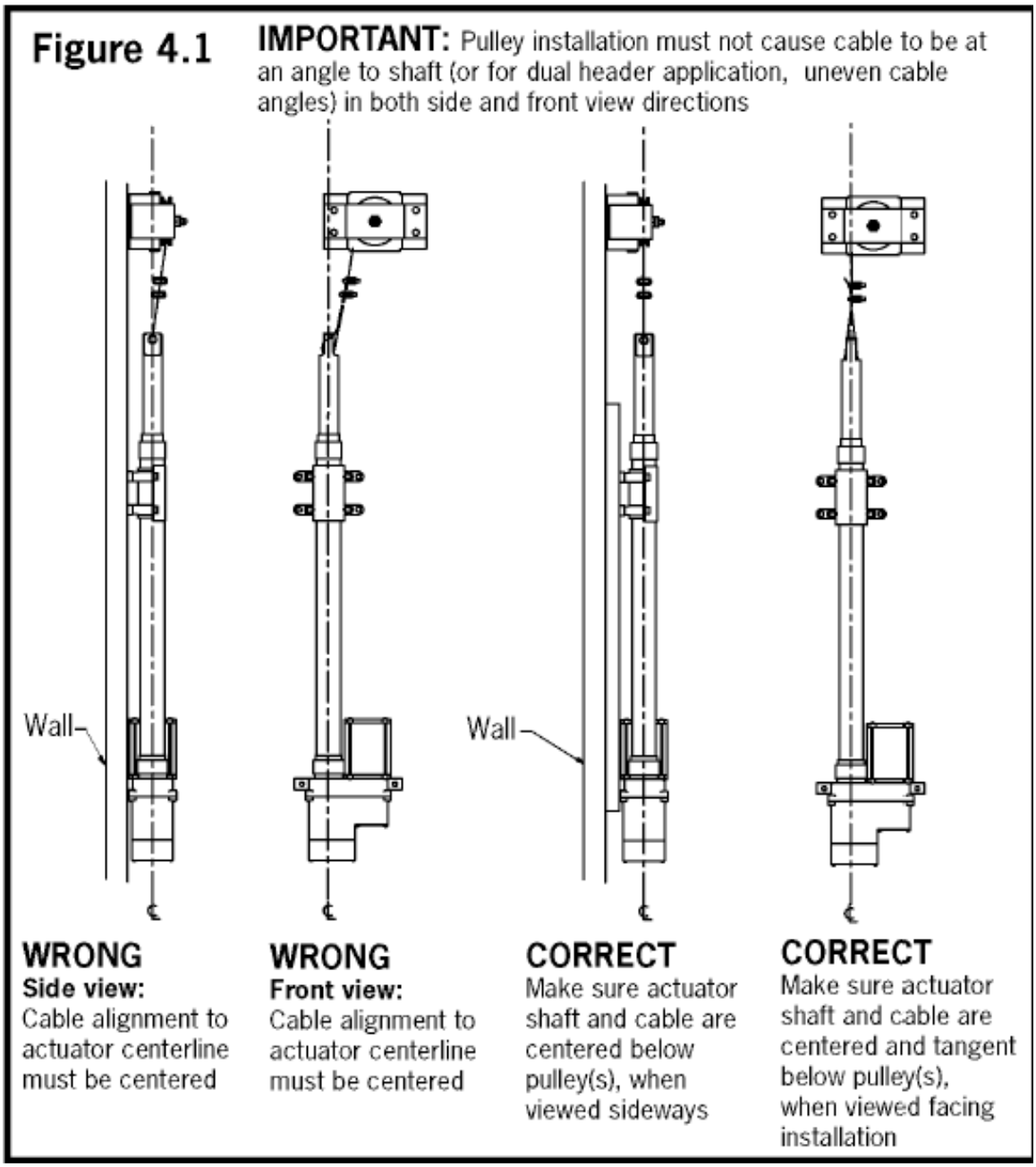
24” Linear Actuator (115 Volts A.C.)

Your Valco representative will be happy to answer all technical questions, which will improve your use of the Linear Actuator. Be prepared with the model number and necessary information before you place a call to your Valco representative. If your Linear Actuator requires service when the warranty period has expired, please contact you Valco representative for assistance in the procedure to returning product.

INSTALLATION

Actuator Mounting:

1. Operating this liner actuator above the rated load capacity or pulling a load off center may cause early failure and will void the warranty**. See Figure 4.1 below.**
2. Use the existing mounting holes (24” on center) if possible. If the existing mounting holes will not work, take care to drill any additional mounting holes a minimum of 1 ½” from the edge of the board.
3. Lag bolt the mounting board to a secure structure, using a minimum of 4 – 3/8” X 2 ½” lag bolts. It is important not to bolt within 1 ½” of the edge of the mounting board because it will obstruct the slide plate from sliding freely. NOTE: Be sure not to have more than ¼” of the bolt sticking out of the top of the actuator mounting board.
4. Refer to drawing number 15513 – A – 00 or 15513-B-00 on page 6 for the proper wiring diagram.



Limit Switch Adjustment

WARNING! Disconnect power before making any adjustments of the limit switches.

NOTE: The retract limit switch and cam (closet to the gear housing) is factory adjusted and no attempt shall be made to change that setting.

1. Remove the limit switch cover from the end of the motor to reveal the limit switches.
2. Identify and become familiar with the limit switches and limit cams. The retract limit switch and cam is located closet to the gear housing (inner). The extend limit switch and cam are furthest from the gear housing and adjacent to the retract limit switch and cam (outer).

3. Manually operate the actuator to the fully retracted position. The retract limit will stop the actuator at the fully retracted position.
4. Manually operate the actuator to the desired fully extended position. To accomplish this, the extend limit cam may need to be adjusted clockwise more than once to allow the actuator to extend to this position. Once the actuator has been extended to the desired position, rotate the extend limit cam counter clockwise to activate the extend limit switch.
5. Manually operate the actuator through several full cycles to test the limit settings, and make any fine adjustments with the extend limit cam. Due to the thermal overload protection on the motor, you may have to do this step over a period of time to allow the motor to cool sufficiently between cycles.

Linear Actuator Maintenance

INSPECTION

WARNING! Make certain that the power supply is disconnected before attempting to service or remove any components. If the power disconnect point is out of sight, lock it in the open position and tag to prevent unexpected application of power.
WARNING! Before servicing and touching capacitor terminals, always discharge the capacitor by shorting the terminals (for example, with an insulated screwdriver) to prevent electrical shock.

The actuator should be inspected on a periodic basis (see PERIODIC INSPECTION) with attention being given to the following items:
1. Clevis ends for wear, cracks, distortion or other damage.
2. Loose bolts, screws on actuator and clevis or drive tube connections.
3. Limit switches for proper setting and operation.
4. Acme screw and drive tube for excessive wear or lack of lubrication.
5. Electrical wiring and power supply cord for frayed insulation or loose connections.
6. Excessive or unusual noises.
7. Dirt and dust from interfering with proper ventilation or clogging of moving parts. Any of the above deficiencies should be repaired or corrected before restoring the actuator to service.

PERIODIC INSPECTION

The exact periods for inspection of the actuator cannot be predetermined, due to the many variables involved such as frequency of operation, type and size of loading, operational environment, etc. Determination should be based on the user's experience. It is recommended that the user begin with a weekly inspection, extend that to monthly, quarterly, or annually as conditions dictate.

LUBRICATION

The actuator is lubricated for design life at the factory. Periodic lubrication should not be required under normal operating conditions. During normal use, slight oil or grease leakage around drive tube or acme screw is expected.

1. Acme screw: If inspection indicates a need for additional lubrication, a small amount of grease (Non-fluid Oil Corp. HD-11/MS-2 or equivalent) should be applied to the acme screw at a location, which passes through the acme nut.
2. Bearings: Ball or sleeve bearings are lubricated and do not normally require field lubrication or replacement, if run under normal operating conditions. Under more adverse operating conditions, bearings may require additional servicing or replacement.
3. Mounting Pins: Periodically, a few drops of oil or grease should be applied to the mounting pins at the pivot points.

Linear Actuator Replacement Parts

Catalog Number	Description	Model Number
C430	24" Linear Actuator, w/ Potentiometer Feedback	24"
ZA-304	1 ¼" Clamp, Two Hole	24"
ZA-301	Slide Plate for Actuator Ass'y	24"
ZA-302	3 ½" Pulley for Actuator, complete w/ Bracket	24"
ZA-308	Mount Plank, Actuator, Machined	24"
IS10007	Instruction Sheet, C430A, 24"	24"

VALCO
24" Linear Actuator Limited Warranty

Limited Warranty:
Valco warrants the 24" Linear Actuator and Sub assemblies, (catalog number C430A) to be free from defect in material and workmanship for a period of 12 months, (1year) from date of installation. Valco will, at its option, (a) repair or replace such Product effecting all necessary parts replacements without charge, F.O.B. Cokato, or (b) refund to the original purchaser the original invoice price, in lieu of such repair or replacement. Under no circumstances will Valco be liable for any kind of direct, incidental or consequential damages, nor will the liability ever exceed the purchase price of the Product.

Conditions:
1. Product must be installed, operated and maintained according to factory recommendations.
2. The Product must not have been previously altered, modified, improperly installed or repaired by anyone other then Valco authorized dealer or certified representative.
3. This Warranty does not cover Product that has been damaged resulting from, but not limited to, negligent use, improper shipping or handling, misuse, alteration, lack of maintenance, accident, storage or installation other than published instructions. The opinion of Valco with respect to these matters shall be final.
4. Valco reserves the right to make design or specification changes at any time without notice and without any contingent obligation to purchasers or products already sold.
5. This Warranty is extended to the original purchaser and is not transferable or assignable.
6. Warranty will be void if serial numbers or identifying markings are altered, defaced or removed.
7. No Product will be accepted for return until a Return Materials Authorization (RMA) number and/or a form has been issued.
8. Operating this linear actuator above it's rated load capacity or pulling a load off center may cause early failure and will void the warranty.

What is Not Covered:
The following are not covered by this warranty:
1. All labor, travel, supplies, freight and related expenses required to repair or replace the defective Product.
2. Damage, deterioration, corrosion, or malfunction resulting from, but not limited to: accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature, improper storage, unauthorized product repair or modification, damage in shipment, removal or installation of product, or any other cause not related to a product defect.

3. Cartons, batteries, and other accessories used in connection with product.
4. Any Product not distributed and/or installed in the U.S.A.

How to Obtain Warranty Service:

Contact VALCO Customer Service Department:
P.O. Box 117, 210 E. Main St.
Coldwater, Oh. 45828
Telephone (800) 998-2526

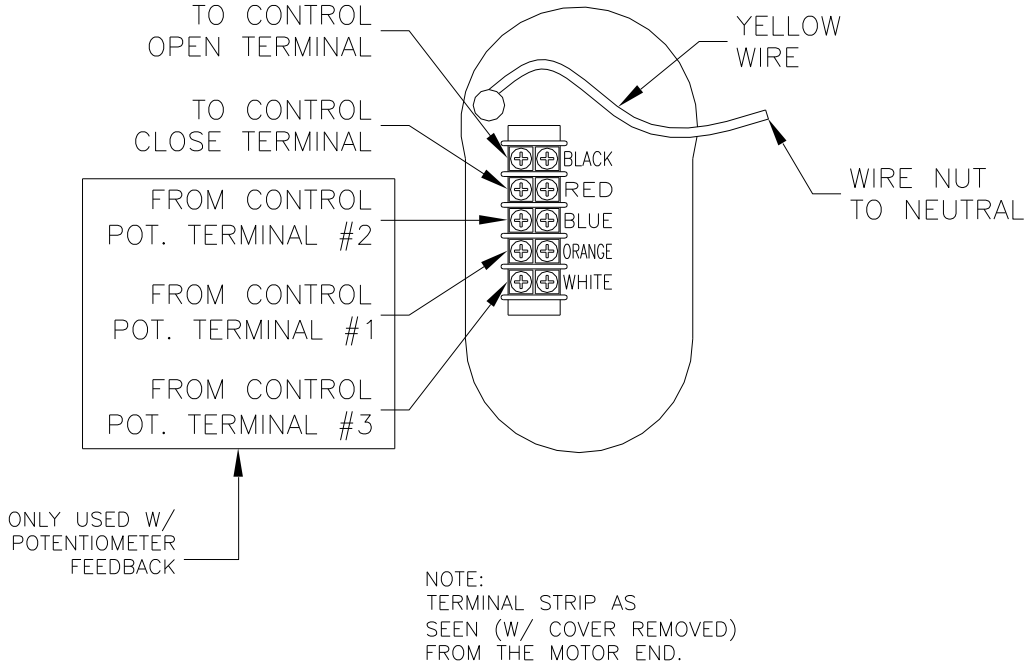
Limitation of Damages and Implied Warranties:

VALCO'S SOLE LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, AT VALCO'S OPTION. VALCO SHALL NOT BE LIABLE FOR:

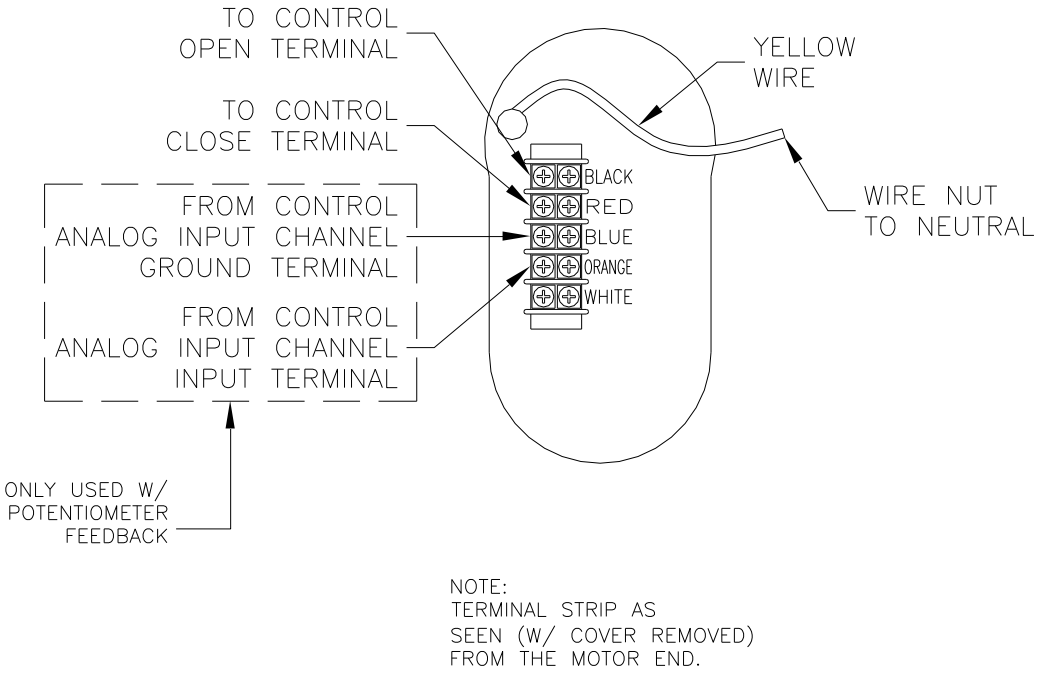
1. DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THIS PRODUCT, DAMAGES BASED UPON CONVENIENCE, LOSS OF THE PRODUCT, LOSS OF TIME OR DATA, OR COMERCIAL LOSS.
2. ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL, OR OTHERWISE.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABLE OF FITNESS FOR A PARTICUALR PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THEREFORE, THE ABOVE EXCLUSIONS OR LIMITATIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY, FROM STATE TO STATE.

DRAWING # 15513-A-00
R & C SERIES CONTROLS



DRAWING # 15513-B-00
VENTIUM & VENTRA CONTROLS



NOTE:
TERMINAL STRIP AS
SEEN (W/ COVER REMOVED)
FROM THE MOTOR END.