



BY JOHNSON CONTROLS

Service Information

File In/With: YCAV, YCIV

Supersedes SI0275 (313)

SI0275

REV

1016

Equipment Affected: YCAV, YCIV

KVS Stepper Valve Replacement

GENERAL

The original KVS Stepper Valves have become obsolete. The part number has been superseded to the current ETS Stepper Valve P/N 025-41565-000. The KVS valve and the ETS valve **require different Stepper Controllers**. A kit has been developed to include the ETS Stepper Valve, ETS Controller and harness that attaches to the ETS Stepper. Replacement kit numbers for ordering are listed below.

Given the original KVS Stepper flows refrigerant at a right angle while the ETS Stepper flows straight through (inline), the new field kit will require a piping modification. Refrigerant flow in the new ETS Stepper, if installed in the vertical, must flow upward. Also, if installed in the horizontal, the motor portion must be anywhere from level to upright (but never below level). Flow on the Stepper is not marked, but the correct flow direction is with the motor pointing on the inlet side and the site glass on the leaving side. **The piping will need to be modified in the field for this installation.**

When replacing a single Stepper, the new "additional" controller furnished with the kit must be installed and the 35 VDC power supply must be daisy-chained off the original controller power supply (typically at the original controller). The new Stepper motor added will require the 0 - 10 VDC control wiring to be rerouted to the new ETS Stepper Controller, and the output to the new ETS Stepper Valve must be rerouted to the new Stepper Controller. If replacing "all" the old Stepper Valves for a given controller, you can simply remove the old controller and replace it with the new. The kit harness may be required for the new ETS Stepper.

COMPONENT FAILURE			RESOLUTION
JCI Part Number	Danfoss Code Number	Description	Perform the following as described below:
025-39688-000	034L2055	KVS 35 Stepper Valve; PBT Nut	1. Replace with ETS 250 Part # 025-41565 (034G2006) 2. Place EEV Controller with 031-02742-000 (080Z0147)
025-41564-000	034L2056	KVS 35 Stepper Valve; PEEK Nut	1. Replace with ETS 250 Part # 025-41565 (034G2006) 2. Place EEV Controller with 031-02742-000 (080Z0147)
031-02510-000	080Z0149	AK2-XM Stepper Module w/ analog input for KVS	1. Replace EEV Controller Only with 031-02510-000 (080Z0149) Same Part Number. No additional Changes Required.
025-41565-000	034G2006 034G2008	ETS 250	1. Replace with ETS 250 Part # 025-41565-000 (034G2008)
031-02742-000	080Z0147	AK2-XM Stepper Module w/ analog input for ETS	1. Replace EEV Controller Only with 031-02742-000 (080Z0147) Same Part Number. No additional Changes Required.

Work on this equipment should only be done by properly trained personnel who are qualified to work on this type of equipment. Failure to comply with this requirement could expose the worker, the equipment and the building and its inhabitants to the risk of injury or property damage.

The instructions on this service bulletin are written assuming the individual who will perform this work is a fully trained HVAC & R journeyman or equivalent, certified in refrigerant handling and recovery techniques, and knowledgeable with regard to electrical lock out/tag out procedures. The individual performing this work should be aware of and comply with all Johnson Controls, national, state and local safety and environmental regulations while carrying out this work. Before attempting to work on any equipment, the individual should be thoroughly familiar with the equipment by reading and understanding the associated service literature applicable to the equipment. If you do not have this literature, you may obtain it by contacting a Johnson Controls Service Office.

Should there be any question concerning any aspect of the tasks outlined in this bulletin, please consult a Johnson Controls Service Office prior to attempting the work. Please be aware that this information may be time sensitive and that Johnson Controls reserves the right to revise this information at any time. Be certain you are working with the latest information.

Product Technical Support

STEPPER MONITOR VALVE CONTROLLER

Danfoss does not make "KTS" valves anymore, **they only make "ETS" valves.**

Baltimore parts will ship "ETS" valves to the field.

You have three (3) choices.

CHOICE 1:

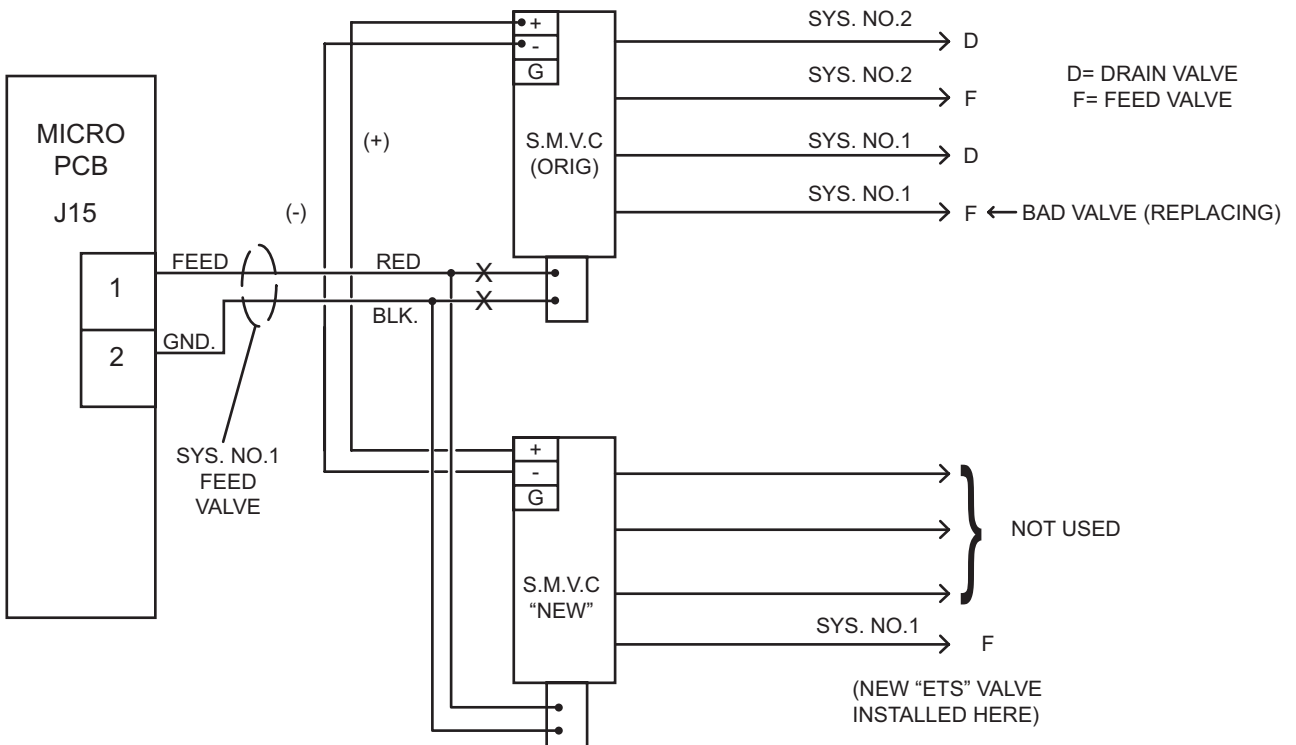
1. Replace **all** the valves over the "ETS" valves.

CHOICE 2:

1. "ETS" direct replacement.
2. You will receive a kit which will contain an "ETS" valve and cable.

CHOICE 3:

1. KTS valve goes bad, replace one (1) "KTS" valve with an "ETS" valve and controller.
2. Kit contains one (1) "KTS valve" and cable and one (1) S.M.V. Controller.
3. Mount the S.M.V. Controller in the cabinet close to the original S.M.V. Controller.
4. Wire the new S.M.V. Controller as shown below:



LD20971