Johnson Controls

Service Information

File In/With:	SI0322 New 616
Equipment Affected:	Johnson Controls Series 100 Single Packaged Rooftop Units and L-Series Water-Cooled Self-Contained Units

Field Modifications to Johnson Controls Series 100 and L-Series Units

GENERAL

The Series 100 and L-Series units manufactured by Johnson Controls are build-to-order units. They both have factory installed options that can be selected during the ordering process.

In addition to the standard features and options, there is a fairly substantial Special Quote (SQ) database that exists for requests that are not currently standard features and options. SQs will be looked at and priced on a case-by-case basis.

Because the Series 100 and L-Series units are built-to-order and can contain many different options, cooling/heating capacities, airflow ranges, and differing motor/fan assemblies, there are no field installed kits available at this time.

FIELD MODIFICATION REQUEST PROCEDURE

In the event that a Series 100 or L-Series unit was ordered, built, and shipped to the site and it becomes evident that an essential option was missed, please follow the below steps for possible field modification of the unit.

1. Please send an email to the Applied DX Product Technical Support (PTS) Team's email addresss: AppliedDXTechSupport@jci.com
2. Provide a detailed explanation of the requested field modification.
3. Provide the original YorkWorks file or Factory Order form for the unit needing modification.
4. Create a new YorkWorks file that includes the needed modification. (e.g., If the unit was ordered as a "Return Fan without Exhaust" but should be a "Return Fan with Exhaust," the newly created YorkWorks file should show the selection of "Return Fan with Exhaust.")

Once the Applied DX PTS Team receives the above information, they will submit the request to the Applied DX Engineering Team. The engineering team will make every effort possible to accommodate the request. Certain requests may be denied due to violating certain agency listings or safety concerns.

If the field modification request is approved, the engineering team will compile a list of needed parts and materials, as well as new performance specifications as applicable for the specific unit. This bill of materials (BOM) and performance specifications will be provided to the requesting party.

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.

APPROVED FIELD MODIFICATION REQUEST

- The requesting party will be responsible for ordering all parts. All parts will need to be Johnson Controls authorized parts and should be ordered through the Johnson Controls Baltimore Parts Center (BPC).
- In the event a part is not set up in the BPC system, it will be the responsibility of the requesting party to work with BPC to have the part set up.
- All labor will need to be performed by a local Johnson Controls Service Branch.
- When possible, assembly drawings will be provided to assist in the field modification.
- Written instructions will not be provided for field modifications.
- The Applied DX Engineering Team will determine if a field inspection by ETL, UL, or any other applicable agencies is needed. If a field inspection is needed, the Applied DX Engineering Team will coordinate the inspection after the field modification is complete. The cost for the inspection will be the responsibility of the requesting party.
- Since field modifications are not installed at the factory, there will be no factory warranty on these modifications. The parts will carry a one year parts warranty through BPC.
- Labor warranty for the installation of the field modifications will be handled through the JCI Service Branch performing the service and will be limited to quality of workmanship.

ADDING AFTERMARKET CONTROLS IN THE FIELD

The Applied DX Engineering Team has worked very hard to provide the Series 100 and L-Series units with all applicable control options. They have performed extensive testing on the components that are installed in the units and have determined which components are best suited for the Series 100 and L-Series units.

Adding aftermarket parts that have not undergone this testing process could cause the units to operate outside the design specifications and therefore would not be supported by the factory.

Exceptions

- Use of field installed remote shutdown devices connected to CTB1 at the appropriate terminal
- Use of field provided and installed temperature sensors connected to CTB1 (10K Type III thermistor)
- 24 VAC Multi-Stage thermostat connected to CTB1
- Use of a field provided and installed humidity sensor connected to CTB1
- Use of a 5K or 10K potentiometer connected to CTB1 for use of supply air temperature or duct static pressure reset
- Use of a field provided and installed time clock connected to CTB1

Please refer to the appropriate Installation, Operation, and Maintenance (IOM) Manual for field wiring connections located in Section 2.

If aftermarket controls are added in the field, all or part of the unit warranty could be voided.

FIELD CONTROL OF SERIES 100 OR L-SERIES UNITS

The Series 100 and L-Series units use a cold-fire processor to control the operation of the unit. The processor contains proprietary software that has been developed specifically for the Series 100 and L-Series units. The software contains specific logic and algorithms that allow the Series 100 and L-Series units to operate properly, safely, and within engineered design specifications.

The Series 100 and L-Series software has undergone extensive testing to ensure proper operation of the different sequences and still provide adequate safety for the units

Taking direct field control of the Series 100 and L-Series units could cause the unit to operate outside the engineered design specifications and thus would not be supported by the Applied DX Engineering or Applied DX PTS Teams.

The IOMs contain a separate section detailing the unit's sequence of operations. The IOMs also contain a complete list of the available BACnet MS/TP points. The BACnet MS/TP points can be used to change different setpoints in the unit controller, as well as enable/disable other functions. The units can also be controlled by a LON, N2, or Modbus system. (*Please refer to the appropriate IOM for an in depth explanation of the different communication protocols and their operation.*)

Field Control Not Supported

- Taking direct field control of any variable frequency drive (VFD)
- Taking direct control of any actuator, motor, or damper
- Taking direct control of any compressor
- Taking direct control of any heating medium (Modulating Gas, Staged Gas, HW/Steam, or Electric Heaters)
- Using a field installed device to bypass any portion of the Series 100 or L-Series unit's factory installed software
- Connecting field installed wiring to existing factory wiring

Taking direct field control of any of the above mentioned components could result in all, or part, of the unit's warranty being voided.

If further questions remain or clarification is needed regarding any of the above statements, please contact the appropriate Applied DX support team:

Applied DX Products Pre-Sales Application Team

AppliedDXSalesSupport@jci.com

1-877-334-9209

Applied DX Products Post Sale Technical Support Team

AppliedDXTechSupport@jci.com

1-877-329-7430