HUSSMANN®

CoreLink™

Self Test Manual

IMPORTANT

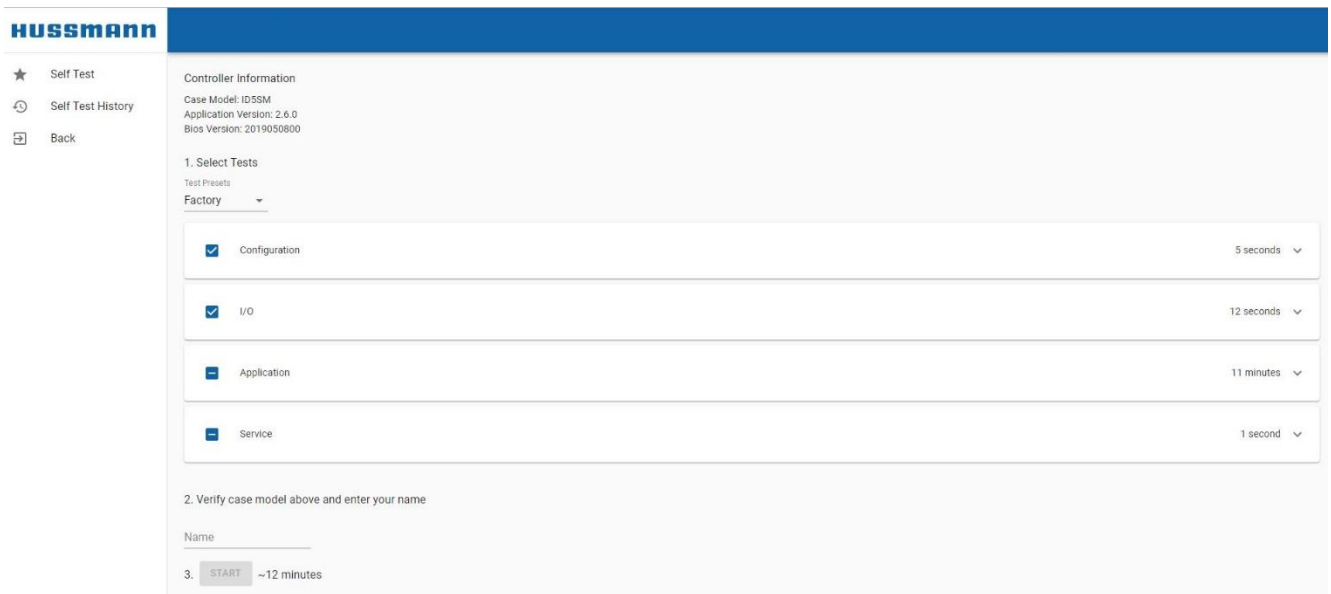Keep with controller for

future reference!

Operation Manual

Setting up your test:

Access the CoreLink self test from the WebUI diagnosis dropdown at the top of the page.

Self test option in Diagnosis dropdown

Self test main interface

NOTE: *The Web UI self test should be used only in Google Chrome or Firefox*

The self test interface shows the controller information: Case model, application version, and BIOS version. Verify that the controller info is correct before running the self test. To run a self test, either select a test preset or select individual tests to be run as a custom self test.

Presets:

There are three testing presets available from the Test Presets dropdown. These presets select individual tests to be run for specific purposes.

- Factory
- Lidl Factory
- Field
- Custom*

*If you select a preset and change one of the settings, the preset will show: Custom

As part of configuring the CoreLink for a case, the case type is set from the System tab of the WebUI. This does not have any effect on how the self test runs.

Running a test:

Do the following to run a self test with a preset or specific tests selected:

- Set Selected Test to preferred test
- Enter your name
- Verify the controller information
- Press START and begin test

Running Factory test:

1) Select "Factory" from the preset dropdown
2) Enter your name into the "Name" field
3) Click START to begin the test
4) Recommended: Select EXPORT TEST REPORT to get a csv file containing the results that can be viewed in excel

Self Tests Performed:

1. Select Tests

Test Presets

Factory ▼

Configuration

Conf Files Test
Runtime: ~1 second
Verifies the conf files are correct

Date and Time Test
Runtime: ~1 second
Verifies the date and time are correct

Distributed Zones Test
Runtime: ~2 seconds
Verifies sensors are not set for zones which do not exist

Pressure Scaling Test
Runtime: ~1 second
Verifies pressure scaling is set to a reasonable value

5 seconds ›

I/O

Corelink Probe Test
Runtime: ~2 seconds
Verifies the connection of the Corelink probes

Valve Driver Connection Test
Runtime: ~1 second
Verifies the connection of the valve driver

Valve Driver Probe Test
Runtime: ~2 seconds
Verifies the connection of the valve driver probes

Compressor Safety Switch Test
Runtime: ~7 seconds
Verifies the pressure switch is wired correctly

12 seconds ›

Application

Fan Test
Runtime: ~40 seconds
Verifies the fans are working
Auto/Manual

PWM Valve Test
Runtime: ~45 seconds
Verifies PWM valves are working correctly
Manual

Light Test
Runtime: ~40 seconds
Verifies the lights are working
Auto/Manual

EEV Test
Runtime: ~45 seconds
Verifies EEVs are working and in the correct position
Manual

Temp Probe Location Test
Runtime: ~5 minutes
Spray cold/hot air on probes to verify their position
Manual

Night Curtain Test
Runtime: ~30 seconds
Verifies night curtains are working

Compressor Test
Runtime: ~3 minutes
Verifies compressors are working and in the correct position
Auto/Manual

Defrost Heater Test
Runtime: ~30 seconds
Verifies defrost heaters are working
Manual

11 minutes ›

Self Contained Refrigeration Test
Runtime: ~2 hours
Verifies refrigeration performs as expected for self contained cases

Self Contained Defrost Test
Runtime: ~20 minutes
Verifies defrost performs as expected for self contained cases

Service

Saturation Temp Test
Runtime: ~2 seconds
Verifies saturation temp is in the correct range for the setpoint

Factory Pressure Test
Runtime: ~1 second
Verifies the factory pressure is within the correct range

1 second ›

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Application:

Fan Test- During the Fan Test, test operator confirms the Fans turn on/off when prompted.

Application

1. Fan Test
   Runtime: ~40 seconds

   Log

   - Checking digital output configuration for Fans
   - Fans are configured on DO 1 (pin 42)
   - Running manual test
   - Turning Fans off
   - **Did Fans turn off?**

   [YES] [NO]

   Variables

   - Evap Fan DO: Off

   - **Did Fans turn on?**

   [YES] [NO]

   Variables

   - Evap Fan DO: On

Light Test- During the Light Test, test operator confirms the Lights turn on/off when prompted.

2. Light Test
   Runtime: ~40 seconds

   Log

   - Checking digital output configuration for Lights
   - Lights are configured on DO 2 (pin 43)
   - Running manual test
   - Turning Lights off
   - **Did Lights turn off?**

   [YES] [NO]

   Variables

   - Light DO: Off

   - **Did Lights turn on?**

   [YES] [NO]

   Variables

   - Light DO: On

Temp Probe Location Test- During the temp probe location test, the self test will prompt you to spray cold/hot air on each temp sensor. This will not timeout, the test will wait here until the sensor is sprayed, or test is manually failed/skipped. This step is the only part of the self test that will prompt a user input.

3. Temp Probe Location Test
   Runtime: ~5 minutes

   Log

   - Finding connected temp sensors
   - Please spray cold/hot air on Discharge Air 1
   - Temperature change detected on Discharge Air 1
   - Please spray cold/hot air on Discharge Air 2
   - Temperature change detected on Discharge Air 2
   - Please spray cold/hot air on Discharge Air 3
   - Temperature change detected on Discharge Air 3
   - **Please spray cold/hot air on Return Air 1**

   [FAIL] [SKIP]

   Variables

   - Discharge Air 1: 17.7°F
   - Discharge Air 2: 23.9°F
   - Discharge Air 3: 19°F
   - Return Air 1: 24.5°F

Compressor Test- During the Compressor Test, test operator confirms the Compressors turn on/off when prompted.

4 Compressor Test
Runtime: ~3 minutes

Log

- Checking what compressors are configured in digital outputs
- Refrigeration 1 is configured on DO 4 (pin 45)
- Turning off all compressors
- Turning on compressor 1
- **Select which compressor turned on**

COMPRESSOR 1   NONE   SKIP

PWM Valve Test- During the PWM Valve Test, test operator confirms the valves turn on/off when prompted. Repeat steps for all configured valves

5 PWM Valve Test
Runtime: ~45 seconds

Log

- PWM Valve 1 is configured on AO 1 (pin 7)
- PWM Valve 2 is configured on AO 2 (pin 8)
- PWM Valve 3 is configured on AO 3 (pin 15)
- Waiting for valves to stabilize
- Opening valve 1 to 50%
- **Is the valve 1 relay LED turning on every 3 seconds and off every 3 seconds?**

YES   NO

- **Do you hear valve 1 opening/closing?**

YES   NO

EEV Test- During the EEV Test, test operator confirms the valves turn on/off when prompted. Repeat steps for all configured valves

6 EEV Test
Runtime: ~45 seconds

Log

- Checking case type
- Case Type: Remote Standalone
- Closing all valves
- Opening and closing valve 1
- **Select the valve that is opening and closing**

VALVE 1   VALVE 2   VALVE 3   NONE   SKIP

Defrost Heater Test- During the Defrost Heater Test, test operator confirms the heater is wired correctly.

8 Defrost Heater Test
Runtime: ~30 seconds

Log

- Checking what heaters are configured in digital outputs
- Defrost 1 is configured on DO 3 (pin 44)
- Turning defrost heaters off
- **Please connect a multimeter to the defrost heater leads to measure resistance or an amp clamp meter to measure current**

RESISTANCE   CURRENT   SKIP TEST

- **Does the amp clamp meter read 0?**

YES   NO

- **Does the amp clamp meter read the expected non-zero current value per heater spec?**

YES   NO

Note – PWM Valve Test and Defrost Heater test are only available with CoreLink application 2.6.0 and Web application 1.9.0.

CoreLink automatically detects and enables/disables the PWM or EEV test depending on the configurations.

Results:

After completion of the test, results can be viewed online or in an exported file.

- Export Test Report – will create a csv file containing all test results
- Reset – will take you back to the self test page ready to start another test

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★ Self Test

🕓 Self Test History

⤴ Back

Controller Information

Case Model: ID5SM
Application Version: 2.6.0
Bios Version: 2019050800

Configuration	Passed: 3 Failed: 1	⌄
I/O	Passed: 3 Skipped: 1	⌄
Application	Passed: 6 Skipped: 2	⌄
Service	Failed: 1	⌄

All Tests

Passed: 12
Failed: 2
Skipped: 3

Tests completed

RESET   **EXPORT TEST REPORT**

⚠ **Date and Time Test**
Runtime: ~1 second

Log

- Getting Corelink Date/Time
- Corelink Date/Time: 11/6/2019, 7:59:43 AM
- Time difference: ~1 hour
- Test failed

Troubleshooting

- Set the time/date on the controller to the correct time

SYNC TIME

Syncs the time on the controller with the time on this device

Self Test results explained:

	A	B	C	D	E	F	G
1	Test Name	Group	Time Comp	Test Passed	Log	Troubleshooting	
2	Conf Files 1	Configurati	7/30/2019,	SKIPPED	Case	Verify	
3	Date and T	Configurati	7/30/2019,	TRUE	Getting		
4	Distributed	Configurati	7/30/2019,	TRUE	Checking		
5	Pressure Sc	Configurati	7/30/2019,	TRUE	Getting		
6	Corelink Pr	I/O	7/30/2019,	TRUE	Checking		
7	Valve Drive	I/O	7/30/2019,	FALSE	Checking	Verify the	
8	Valve Drive	I/O	7/30/2019,	TRUE	Getting		
9	Compressc	I/O	7/30/2019,	SKIPPED	Checking		
10	Fan Test	Application	7/30/2019,	TRUE	Checking		
11	Light Test	Application	7/30/2019,	TRUE	Checking		
12	Temp Prob	Application	7/30/2019,	SKIPPED	Finding		
13	Compressc	Application	7/30/2019,	SKIPPED	Checking	This test	
14	EEV Test	Application	7/30/2019,	FALSE	Valve	Check the Valve Drive	

Column A: Test name. Which part of the test that was completed
Column B: Group. What type of test it was
Column C: Time completed. This is the time when this particular test was completed
Column D: Test Passed. This column indicates if this part of the test passed or failed. If the portion of the test was skipped, it will also be indicated here
Column E: Log. Shows information logged during the test
Column F: Troubleshooting. Here are suggested troubleshooting steps given for failed parts of the test

Running Factory test:
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Troubleshooting with Self Test:

Test Name	Troubleshooting Step
Configuration	
Conf Files	• CoreLink may need to be factory reset
Date and Time	• Sync controller system time in Web UI
Distributed Zones	• Verify Number of Distributed Zones setting under System in Web UI
Pressure Scaling	• Verify Pressure scaling setting under I/O -> HSVDxx
Application	
Compressor	• Swapped compressor inputs • Missing: compressor connections wrong/not present
Temp Probe Location	• Probes are swapped
Light	• Lightbulb burned out
Stepper/Pulse Valve	• Check EEV wiring • Check SSR wiring
Fans	• Check Fan wiring
Heater	• Check Heater wiring
Night Curtain	• Refer to Night Curtain setup procedure internal document
I/O	
CoreLink probe	• Check probe connection
Valve Driver Connection	• Check valve driver connection
Valve Driver Probe	• Check valve driver probe connection
Compressor Safety Switch	• Check pressure switch wiring
Service	
Saturation Temp	• First check setpoint setting