

QUICK START GUIDE

FEBRUARY 2025
PART NO. 25010301

intelliGen™ Refrigeration Controller

PRIOR ASSEMBLY NEEDED

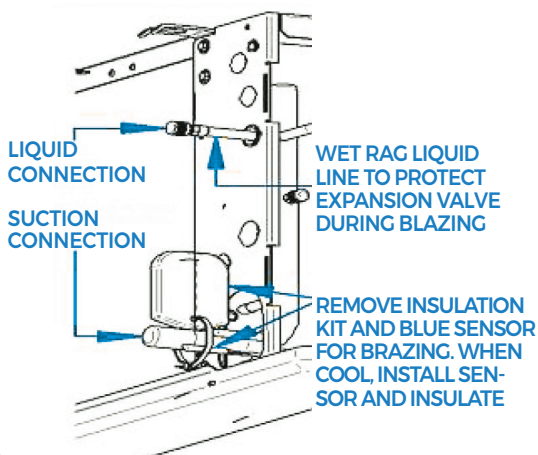
Please keep these instructions for future reference.
Equipment assembly and wiring is required before using this guide.
Please make sure control circuit transformer is properly setup.

Please ensure your board has the latest firmware. Latest firmware revision can be found at <https://intelligencontrols.com/resources>

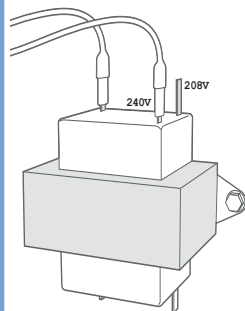
For assembly, please consult intelliGen installation & operation manual.

IMPORTANT!

BRAZING PIPING CONNECTIONS

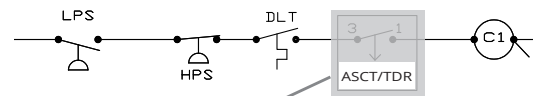


CONTROL TRANSFORMERS COME WITH THE VOLTAGE TAP ON 240V (as shown)



If your site has less than 215VAC, the tap will need to be moved to 208V in order to ensure 25VAC to 29VAC power to IntelliGen board.

ANTI-SHORT CYCLE TIMER DELAY RELAY IN CONDENSING UNIT



ASCT/TDR TO BE BYPASSED OR REMOVED WHEN INSTALLING

Some condensing units may have an Anti-Short Cycle Time Delay Relay (ASCT) installed for compressor short cycle protection. These time delay relays should be removed when connecting the condensing unit to unit coolers with intelliGen installed. The intelliGen control has compressor short cycle protection functionality built-in, and failure to remove the electro-mechanical ASCT relay can result in system run-time conflicts and negative impacts to system performance.

Legend

Abbrev. Name	Long Name	Abbrev. Name	Long Name
EV	Evap/Evaporator	CU	Condensing Unit
SP	Set-Point	COMP	Compressor
AUX	Auxiliary	LPS	Low Pressure Switch
TEMP	Temperature/Temp	HPS	High Pressure Switch
CALIB	Calibration	DLT	Discharge Line Therm.
EXV	Electronic Expansion Valve	CI	Compressor Contactor
		RDS	Refrigerant Detection System

U.S. Customer Service

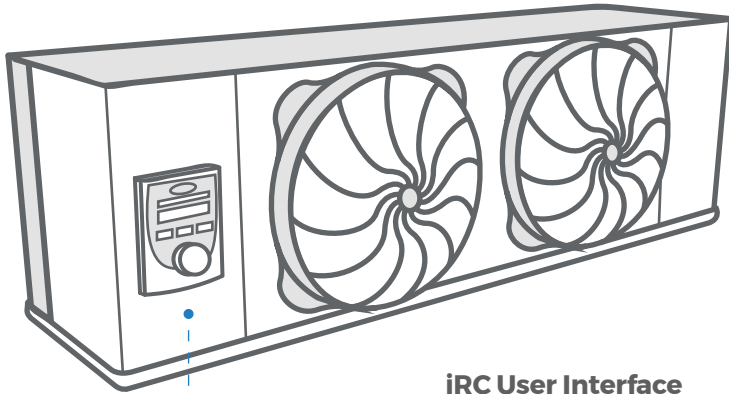
Normal Business Hours - 8:00 AM - 8:00 PM EDT
(800) 537-7775

After Hours (After 5:00 PM EDT, weekends and holidays)
(877) 482-7238

heatcraft.com/intelligen/support
SESweb@heatcrafttrpd.com

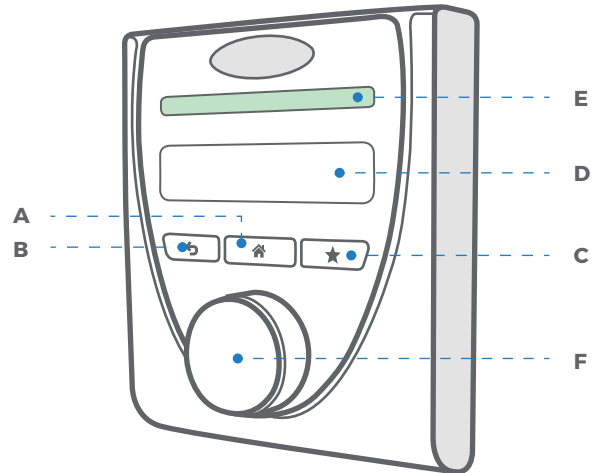
intelliGen REFRIGERATION CONTROLLER

Get to know the intelliGen Refrigeration Controller (iRC)



iRC User Interface

You can find the User Interface (iRC UI) attached to each unit.*



HOW TO NAVIGATE?

- A. Home Button:** Press to go back to Main Menu
- B. Back Button:** Press to go back to Previous Menu
- C. Favorites Button:** Press to go to your Favorites
- D. OLED Screen:** Shows the content like temperature, parameters and others.
- E. LED Status Light Bar:** Indicates the current status of all specific evaporators on the system (See below).
- F. Knob / Enter Button:** Rotate the knob left and right to navigate between Menu Options. Press the knob to ENTER.

LED Status Light Bar

GREEN



LED GREEN STATIC

The System or EV does not have any anomalies/issues.

LED GREEN FLASHING

The EV Unit is initializing.

RED



LED RED STATIC

The System or EV has an Alarm.

LED RED FLASHING

The EV Unit where the Alarm originated.

YELLOW



LED YELLOW STATIC

The System or EV has an Error.

LED YELLOW FLASHING

The EV Unit where the Error originated.

WHITE



LED WHITE FLASHING

The EV Unit is being identified.

NO LED ON



The EV Unit is currently powered off or in service mode.

Scan QR code to view the Quick Start Configuration video.



* Figure shows a Low Profile unit cooler; location might vary on other units.

QUICK SETUP FROM IRC UI

STEP 1. Enter Expert PIN

ENTER EXPERT PIN
X X X X X X

First digit in PIN automatically flashes for edit. Turn dial to change first PIN digit 0-9. Push Enter to choose digit. Repeat with all digits. The Default Expert PIN is 999999.

STEP 2. Select Configuration Mode

CONFIG FROM? EV

Select EV to proceed with configuring the system from the IRC UI. Select "Web - Local Wired" to get IP address for configuring the system from the Webserver card page.

STEP 3A. Equipment Discovery

DISCOVERING
Equipment...

After Configuration Mode is selected as 'EV', the IRC will automatically attempt to discover all units in the system.

STEP 3B. Equipment Discovery

#EV FOUND
Continue?

After polling for connected units, the IRC UI will display the number of EV that are found to be wired together. If all connected EVs were found, press Enter knob to continue.

STEP 4A. Choose Unit Base Name

UNIT ADDRESS 123
NAME: Freezer 2A

The Unit being named will have its LED flashing white. Turn knob to change base name: [Freezer, Cooler, Unit, Box]. Push the knob to choose the base name.

STEP 4B. Choose Unit Suffix

UNIT ADDRESS 123
NAME: Freezer 2A

Turn knob to change unit name suffix: [1A, 1B, ..., 8H]. Push the knob to choose unit name suffix. (Repeat this step with all your EV's as necessary)

STEP 5. Choose Box Temp Sensor

SELECT PRIMARY EV?
Freezer 2B

If more than 1 Evap was configured, turn knob to change primary evap which will be sensing the box temp. Push knob to choose primary evap.

STEP 6A. Select if Condensing Unit Wired

CU WIRED?
Yes

Press the knob to select YES, if there is a condensing unit wired to an evaporator. (Special condensing units from Heatcraft with intelliGen wiring required.)

STEP 6B. Select EV wired to Condensing Unit

CU WIRED TO EV?
Freezer 2A

Turn the knob to select the evaporator wired to the condensing unit. Press the knob to choose the evaporator.

STEP 7. Setting Date & Time/Country

COUNTRY
US-United States

Country field will automatically flash for edit. Turn dial to change country. Push the knob to choose the country.

STEP 8. Time Zone

TIME ZONE
EST-Eastern

Time Zone field will automatically flash for edit. Turn knob to change time zone. Push the knob to choose the time zone.

STEP 9. Daylight Savings

DAYLIGHT SAVINGS?
Yes

Turn the knob. Push knob to select either Yes or No.

QUICK SETUP FROM iRC UI

STEP 10. Date & Time

DATE/TIME
2023 Aug 29 11:59 PM

Year field will automatically flash for edit. Turn knob to choose year. Push the knob to choose year. Repeat steps with Month, Day, Hours, Minutes and AM/PM

STEP 11. Select Refrigerant

REFRIGERANT
R448A

Refrigerant field will automatically flash for edit. Turn knob to change refrigerant selection. Push the knob to choose refrigerant.

STEP 11A. Confirm A2L Refrigerant Detection System (RDS) Installed?

RDS INSTALLED?
NO

For A2L systems, OEM approved Refrigerant Detection Systems (RDS) is required to meet regulatory requirement. Turn the knob to select YES to confirm RDS is installed to continue to next step.

STEP 12. Select Valve Type

EXV TYPE
EXV-Carel

EXV type will automatically flash for edit. Turn knob to change valve type. EXV-Carel is the standard IntelliGen EXV with yellow stator.

STEP 13. Select Defrost Type

DEFROST TYPE
Low Temp Electric

Defrost type field will automatically flash for edit. Turn knob to change defrost type selection. Push the knob to choose defrost type.

STEP 14. Select Defrost Style

DEFROST STYLE
Smart

Defrost style field will automatically flash for edit. Turn knob to change defrost style selection. Push the knob to choose defrost style.

STEP 15. Select Box Temp Set-Point

BOX TEMP SP
-10.0F

Box temp setpoint will automatically flash for edit. Turn knob to change box temp setpoint selection. Push the knob to choose box temp setpoint.

STEP 16. Start System

2 UNITS CONFIGURED
Start System?

Start System will automatically flash for edit. Push the knob to start the system when ready.

NOTE:

IF A2L REFRIGERANT R-454A, R-454C OR R-455A IS SELECTED, OEM APPROVED REFRIGERANT DETECTION SYSTEM (RDS) IS REQUIRED AND INSTALLED IN THE UNIT COOLER TO COMPLY WITH REGULATORY REQUIREMENT FOR LEAK DETECTION AND MITIGATION.

IntelliGen Installation & Operation Manuals and Support Document:

To find all IntelliGen resources, including installation & operation manuals, technical bulletins, brochures, maintenance, troubleshooting information and more, simply scan the QR code or use the link below.

www.intelliGenControls.com/resources

