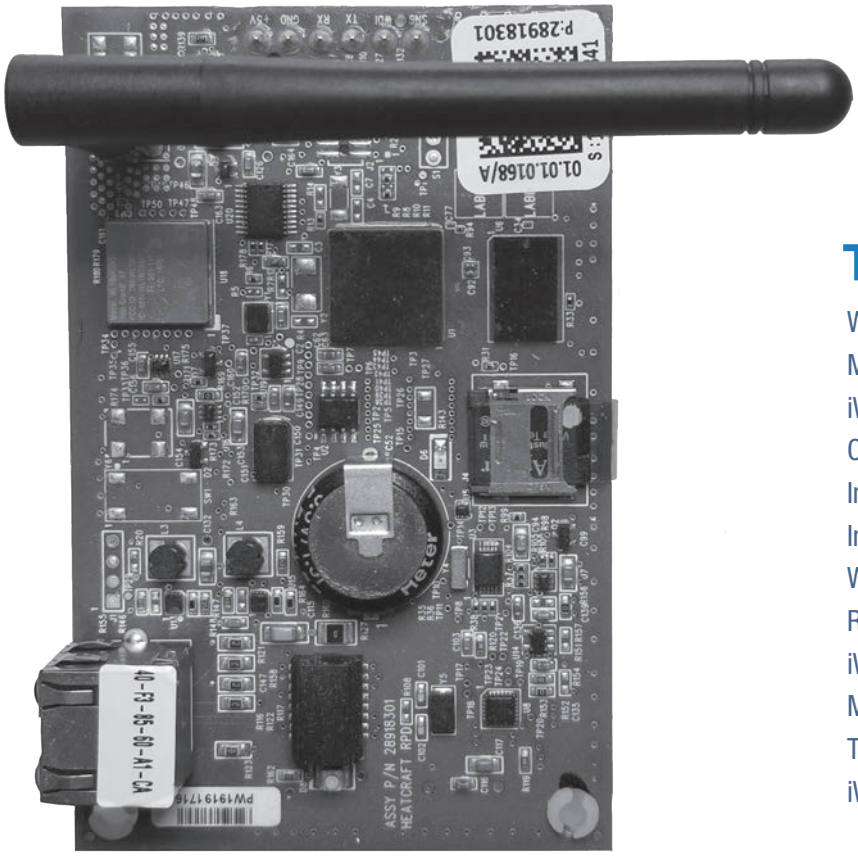
HEATCRAFT Refrigeration Products

intelliGen BY HEATCRAFT REFRIGERATION PRODUCTS

# Installation & Operation Manual

## intelliGen™ Webserver Card (iWC) and Multi-System Control Card (MSC)

SEPTEMBER 2026
**PART NO. 25010401**



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## Legend

| Abbrev. Name | Long Name |
|---|---|
| iWC | intelliGen Webserver Card |
| MSC | Multi-System Control |
| iRC | intelliGen Refrigeration Controller |
| iRCUI | intelliGen Refrigeration Controller User Interface |
| DHCP | Dynamic Host Configuration Protocol |
| RTU | Remote Terminal Unit |
| MAC | Media Access Control |

*Scan QR code to view the manual online*

# intelliGen Webserver Card and Multi-system Control Card

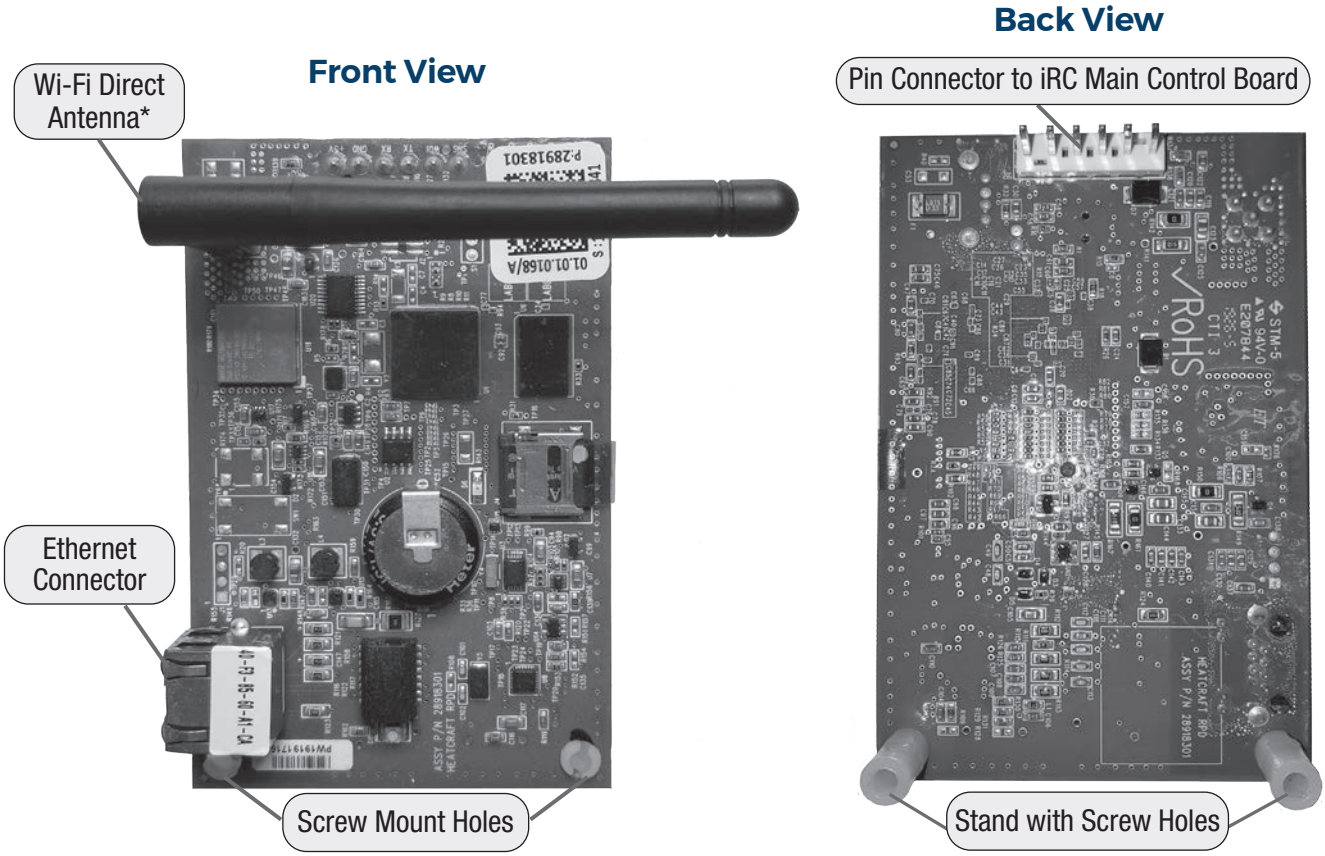
## Webserver Card (iWC)

The intelliGen Webserver Card (iWC) is an add-on card to enable the intelliGen system for remote monitoring. It provides graphic rich webserver pages and dashboards to monitor and control the system from a computer or a smart device.
The iWC card connects to a network router via an Ethernet cable. When a computer or a smart device connects to the same router, it can open intelliGen's webserver pages on a web browser like Google Chrome to access the system for status review and configure the system parameters. When the network router is connected to the Internet, users can register the system to the intelliGen online portal for remote monitoring anywhere with Internet access.

## Multi-System Control Card (MSC)

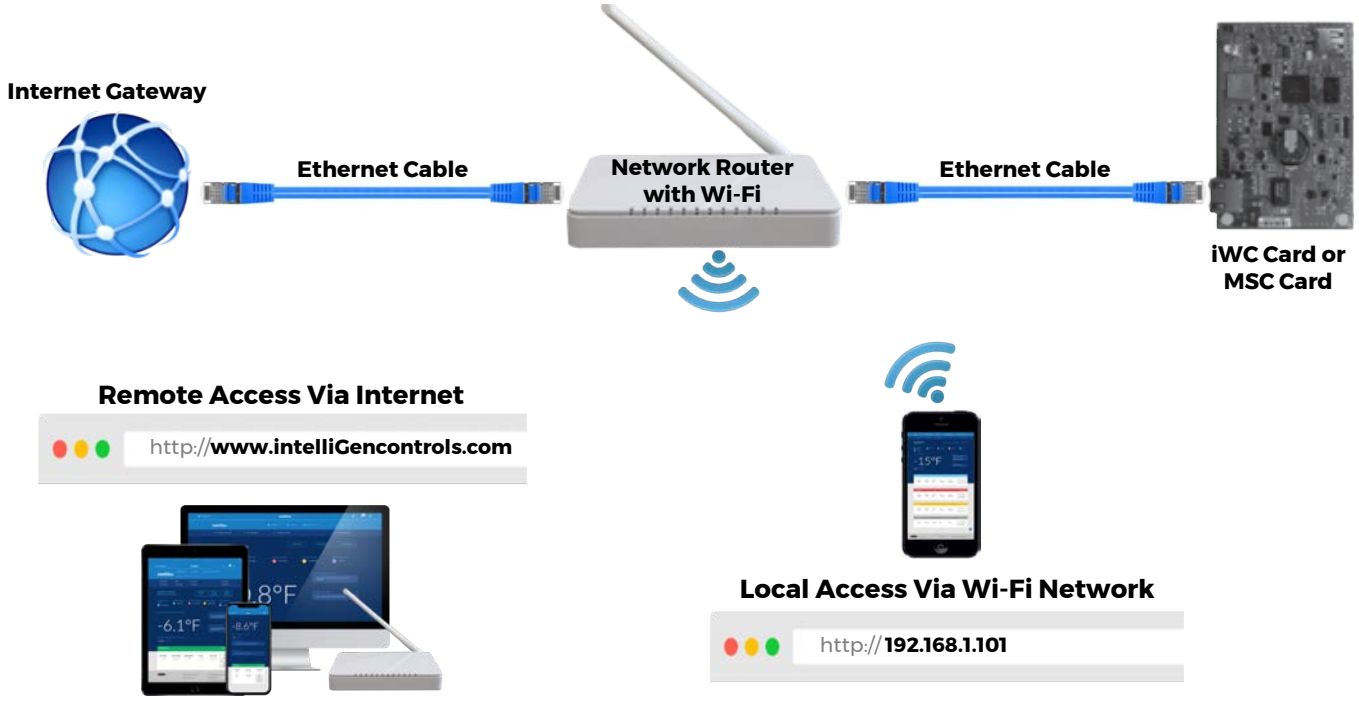
The Multi-System Control Card is an add-on card to connect all the intelliGen systems on a site for easy access and remote monitoring. It supports up to 32 systems connected on a network and provides system status summary in dashboard. All the systems connected can be sub-grouped into multiple Lead-Lag Zones for redundancy setup and Sections for easy management. The MSC card includes all the features of the Webserver Card and Wi-Fi Direct enabled with antenna. Wi-Fi Direct is point-to-point wireless connection between the MSC card and the mobile device. It is NOT network Wi-Fi to the local network and the Internet.

## iWC and MSC Card Layout




***Note: *MSC card comes with Wi-Fi Direct antenna and the iWC webserver card does not come with Wi-Fi Direct antenna.***

# Network Connection Diagram




# Installation

### 1.) TURN OFF POWER TO THE IRC BOARD.

### 2.) MOUNTING THE IWC CARD AND MSC CARD

To enable local and remote access to the intelliGen system, a Webserver Card or Multi-System Control Card can be mounted to the iRC. There is a row of six pins protruding from the back and top of the card which must plug into sockets on the board located near the center of the iRC board above the CPU (central processing unit) chip. Take care when plugging the card into the iRC board to not bend any of these pins. After the pins on the card are settled into the board, #6-32x1 stainless steel machine screws are required to secure the card to the board. Do not over tighten.

### 3.) LOCAL ACCESS

For local access to the intelliGen system using a smart device, you will need to connect the card to a wireless network router. Connect a CAT5e cable to the connector at the bottom, left side of the Webserver Card or Multi-System Control Card. Then connect it to a “LAN” connection on the router. Once the router is powered up, you can connect a smart device to communicate with the system through the router by selecting the router’s SSID (network name). Open a browser on the smart device and type in the IP address of the system at the address bar to load the webserver page.

### 4.) REMOTE ACCESS

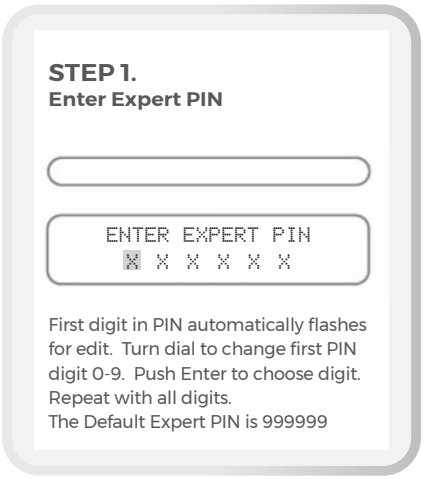
To connect to the intelliGen system from any internet enabled device for remote access, the router needs to be internet enabled and connected. New SSID will be available for internet connection. See Remote Access User Setup section to register the system to the intelliGen online portal.

# Network Configuration and Initial Setup
## *Local Access*

### IF SYSTEM HAS NOT BEEN PREVIOUSLY CONFIGURED

- Follow steps in intelliGen Quick Start Guide to configure system via iRCUI on an evaporator OR following the next steps
- To connect and configure the system via Wi-Fi Direct, see Wi-Fi Direct Wireless Connection and Setup section on later page.
- Connect the iWC or MSC to a network point/router before beginning webserver configuration
- Follow below steps to obtain IP address:

### STEP 1
**Enter Expert PIN**




### STEP 2
**Select Configuration Mode**

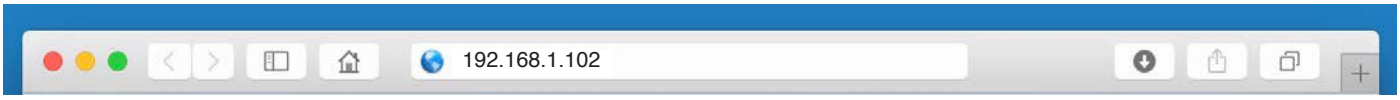



### STEP 3
**IP Address Generation**




### STEP 4
**Open a web browser on a computer or a smart device that is connected to the same network router.**

### STEP 5
**Type IP Address into Browser**

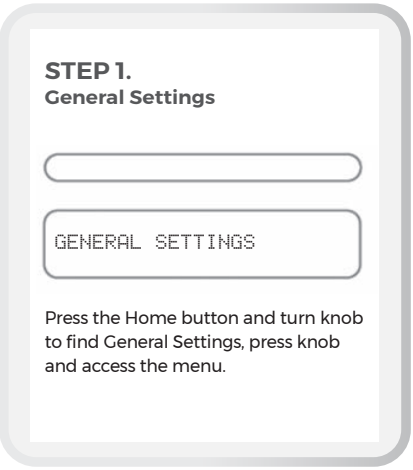



***Type IP address into web browser and follow the prompts to complete system configuration***

## IF SYSTEM HAS BEEN PREVIOUSLY CONFIGURED

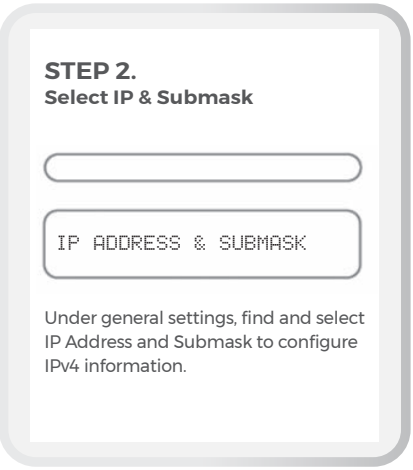
- Connect iWC or MSC to a network point/router before commencing webserver configuration
- Follow steps to obtain IP address:

### STEP 1
**Go To General Setting Menu**




Press the Home button and turn knob to find General Settings, press knob and access the menu.

### STEP 2
**Select IP Address & Submask**




Under general settings, find and select IP Address and Submask to configure IPv4 information.

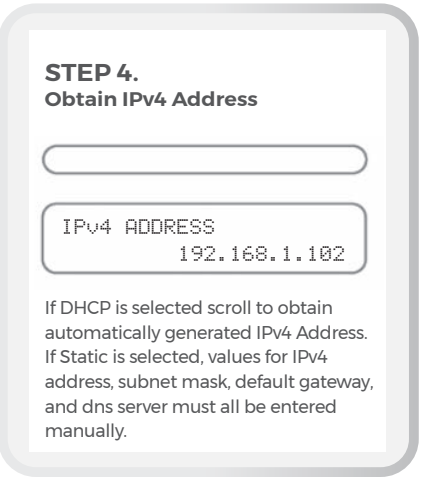
### STEP 3
**Configure IP address info**




IPv4 is defaulted to DHCP, if a static IP is needed, press knob and scroll to select static ip address assignment.

***Note: IPv4 Defaults to DHCP, this setting will work with most networks. Highly secured networks may require a static IP address. Contact your IT department for additional support.***

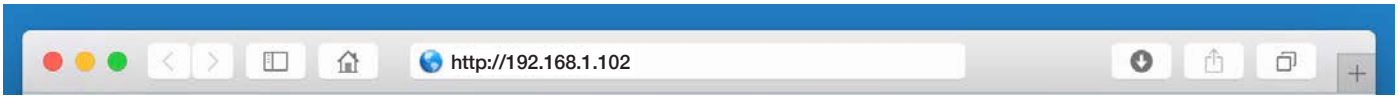
### STEP 4
**Obtain IPv4 address**




If DHCP is selected scroll to obtain automatically generated IPv4 Address. If Static is selected, values for IPv4 address, subnet mask, default gateway, and dns server must all be entered manually.

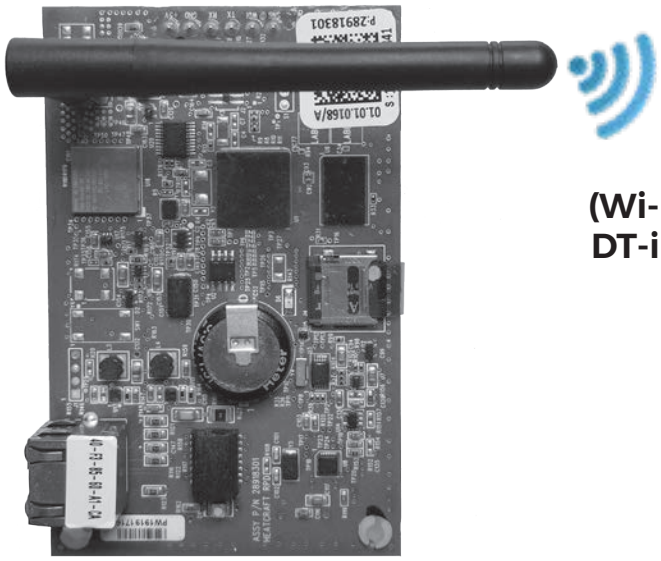
### STEP 5
**Open a web browser on a computer or a smart device that is connected to the same network router.**

### STEP 6
**Enter IPv4 address in Browser**




***Type IPv4 address into web browser on a device that is connected to the local network to access system information through the web.***

# Wi-Fi Direct Connection Diagram



**MSC Multi-System Control Card**
**Or**
**iWC Webserver Card**

**(Wi-Fi Signal Name:**
**DT-intelliGen-xxxx)**




**Local Access Via Wi-Fi Direct**




## WI-FI DIRECT (POINT TO POINT) WIRELESS CONNECTION AND SETUP

1.) Go to the Wi-Fi connection setting of the computer or smart device to see a list of Wi-Fi network or signals available

2.) Look for the Wi-Fi signal name "DT-intelliGen-xxxx"

3.) Select the Wi-Fi signal to connect

4.) Enter the default password "9999999999" (ten 9s) when prompted

5.) Open a standard browser on the computer or smart device

6.) On the address bar, enter IP address "172.16.0.1" to open the webserver page
***Note: You can check the Wi-Fi Direct IP address assigned on your device by open the intelliGen Wi-Fi Direct connection again under network settings on your device.***

7.) Follow the prompted screens to complete the initial setup for the system.

# Remote Access

## USER SETUP : *Log-in information including passwords and 6 digit pin*

- iWC and MSC must be configured per Local Access instructions
- Create an account by visiting: **https://intelligen.online**
- Log in and select 'REGISTER NEW SYSTEM'. A prompt for a 6 digit PIN will appear
- To obtain PIN follow these steps

***Note: Please check to make sure the iWC webserver card or the MSC multi-system control card is connected to the network router with Internet connection before performing the following steps.***

### STEP 1
### Go To Connectivity Menu

**STEP 1.**
**General Settings**

CONNECTIVITY

Press the Home button and turn knob to find Connectivity, press knob and access the menu.

### STEP 2
### Remote Web Set-Up

**STEP 2.**
**Remote Access**

REMOTE ACCESS

"Turn the knob to find REMOTE ACCESS, press the knob to access.

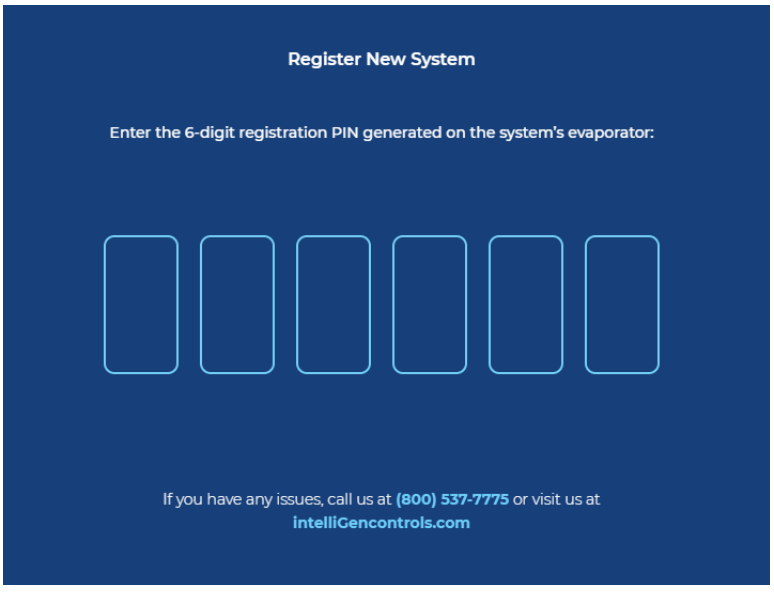
### STEP 3
### Remote Web Set-Up

**STEP 3.**
**Remote Web Set-Up**

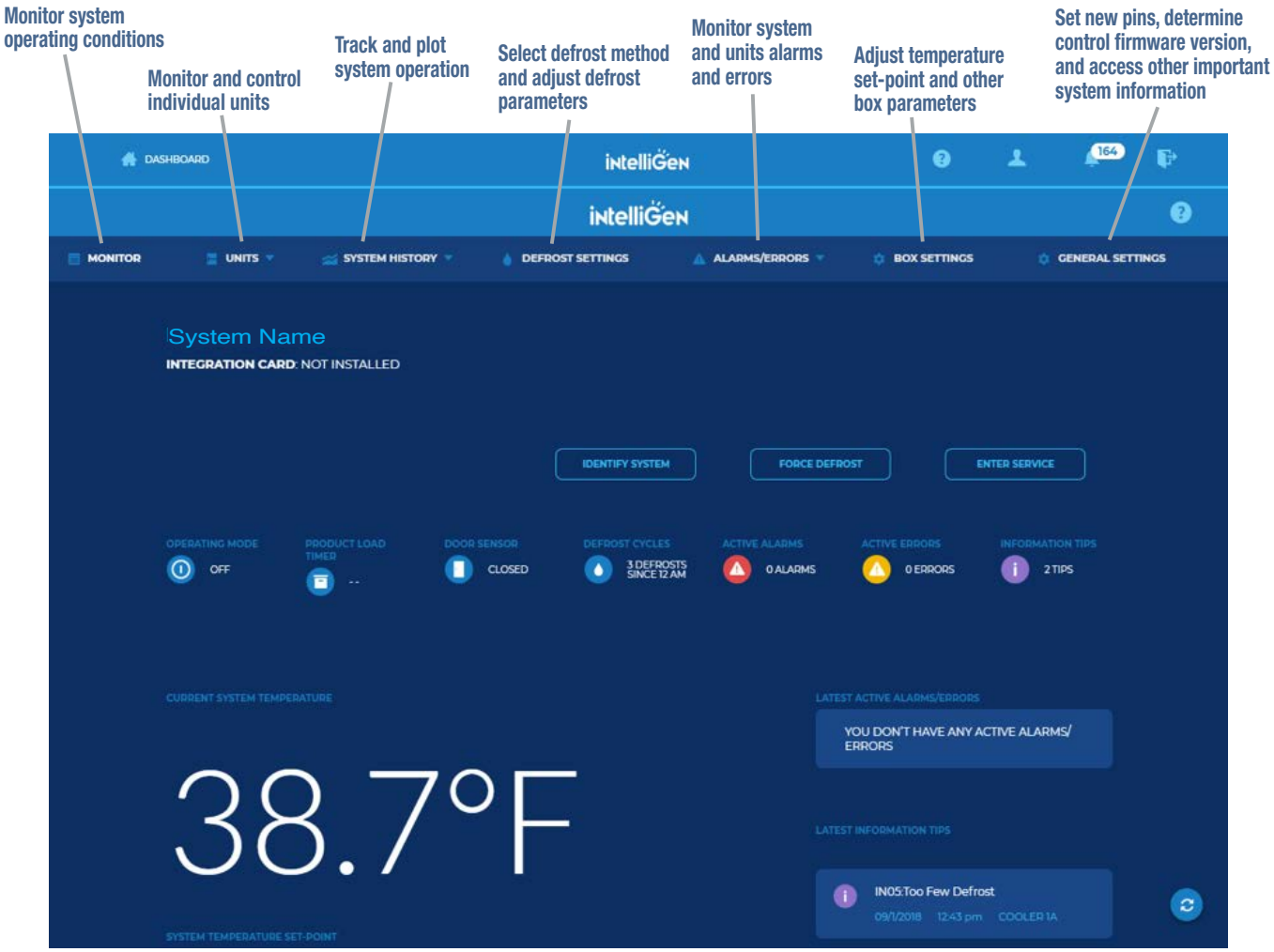
REMOTE WEB SETUP
Generate Code

Under Connectivity and then Remote Access settings to" access the remote web setup to generate a 6 digit code. If the system is already registered, display will read Done-Sys ID XXXXXX

***When registering a new system, enter 6 digit code that was generated on the iRCUI into the web browser***



# IWC WEBSERVER CARD NAVIGATION



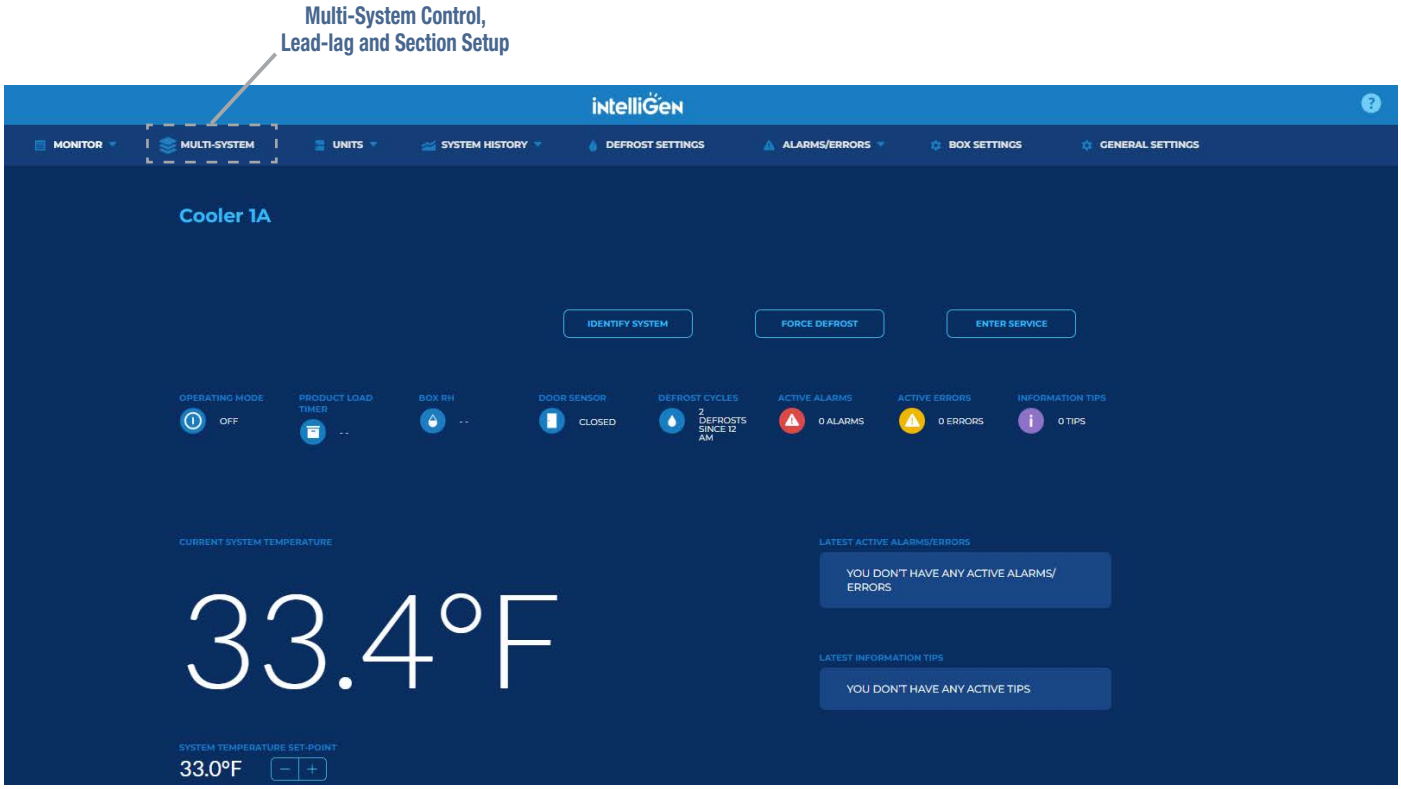

## Dashboard Menu Options:

DASHBOARD: Lists all your sites in a single location
QUESTION MARK: Takes you to the Heatcraft Support Site (internet Connectivity required)
PROFILE: Change User settings, including E-mail and Text Alerts and Alert Frequency
NOTIFICATIONS: Lists all the notifications from all your systems
LOG OUT: To Exit the Dashboard

## System Menu Options:

MONITOR: Monitor system operating conditions
UNITS: Monitor and control individual units
SYSTEM HISTORY: Track and plot system operation
DEFROST SETTINGS: Select defrost method and adjust defrost parameters
ALARMS/ERRORS: Monitor system and units alarms and errors
BOX SETTINGS: Adjust temperature set-point and other box parameters
GENERAL SETTINGS: Set new pins, determine control firmware version, and access other important system information.

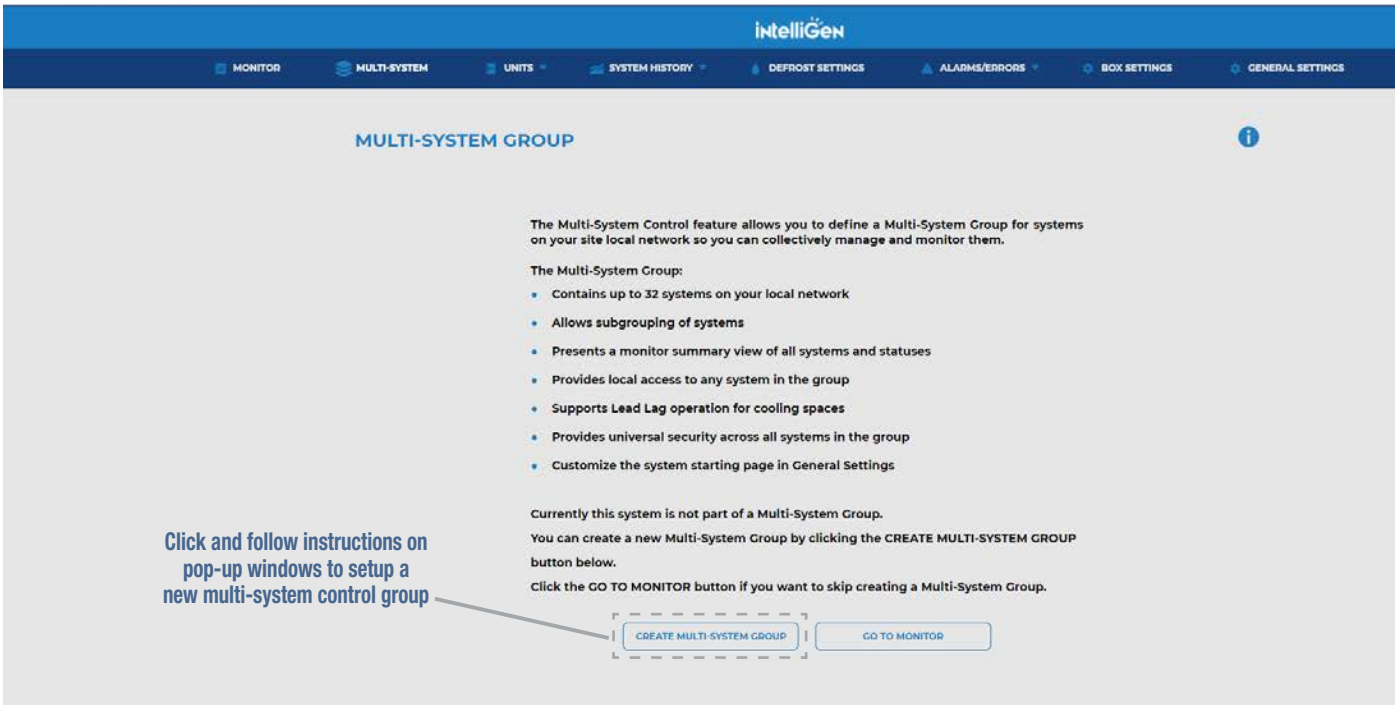
# MSC MULTI-SYSTEM CONTROL CARD NAVIGATION



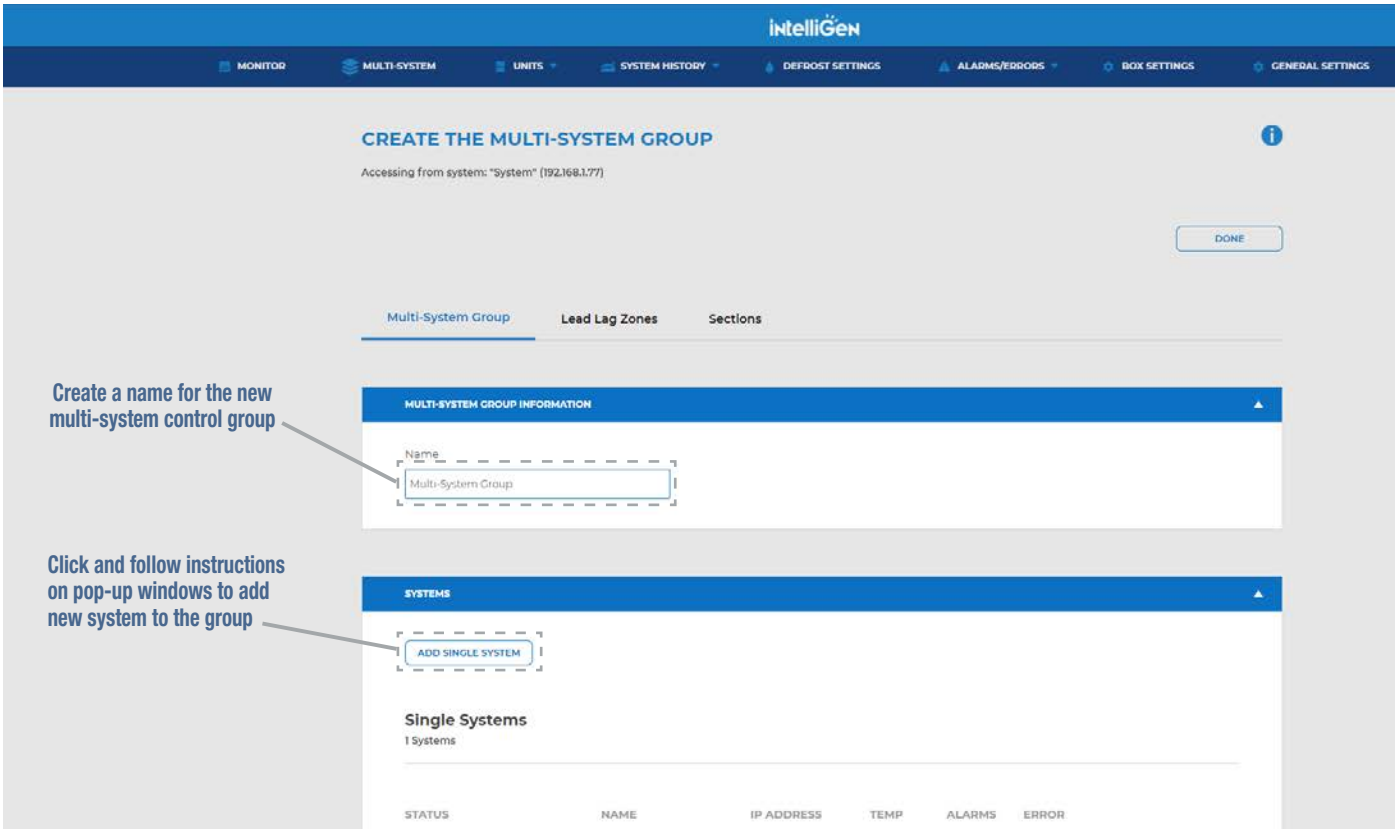

The MSC card has all the features of the iWC Webserver Card. It also has a new “MULTI-SYSTEM” tab added to setup the Multi-System Control group. After the MSC group is setup, the user can subgroup the systems into Lead-lag Zones for redundancy setup and Sections for systems organization.

**For lead-lag systems, static IP address is required for each system for proper operation.** Please refer to the network router’s user manual to login to the router’s administrative page to assign static IP addresses or consult your IT network administrator.

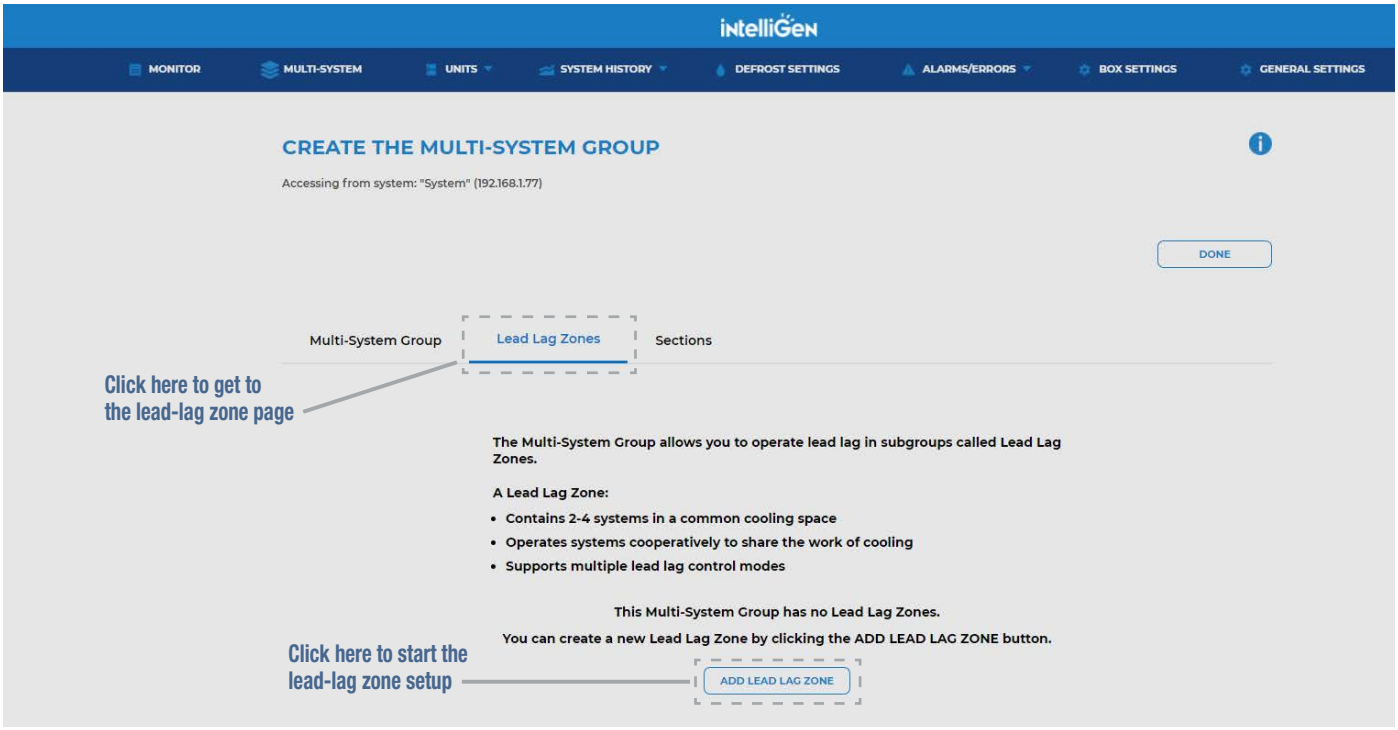
## 1. Setup a new Multi-System Control Group



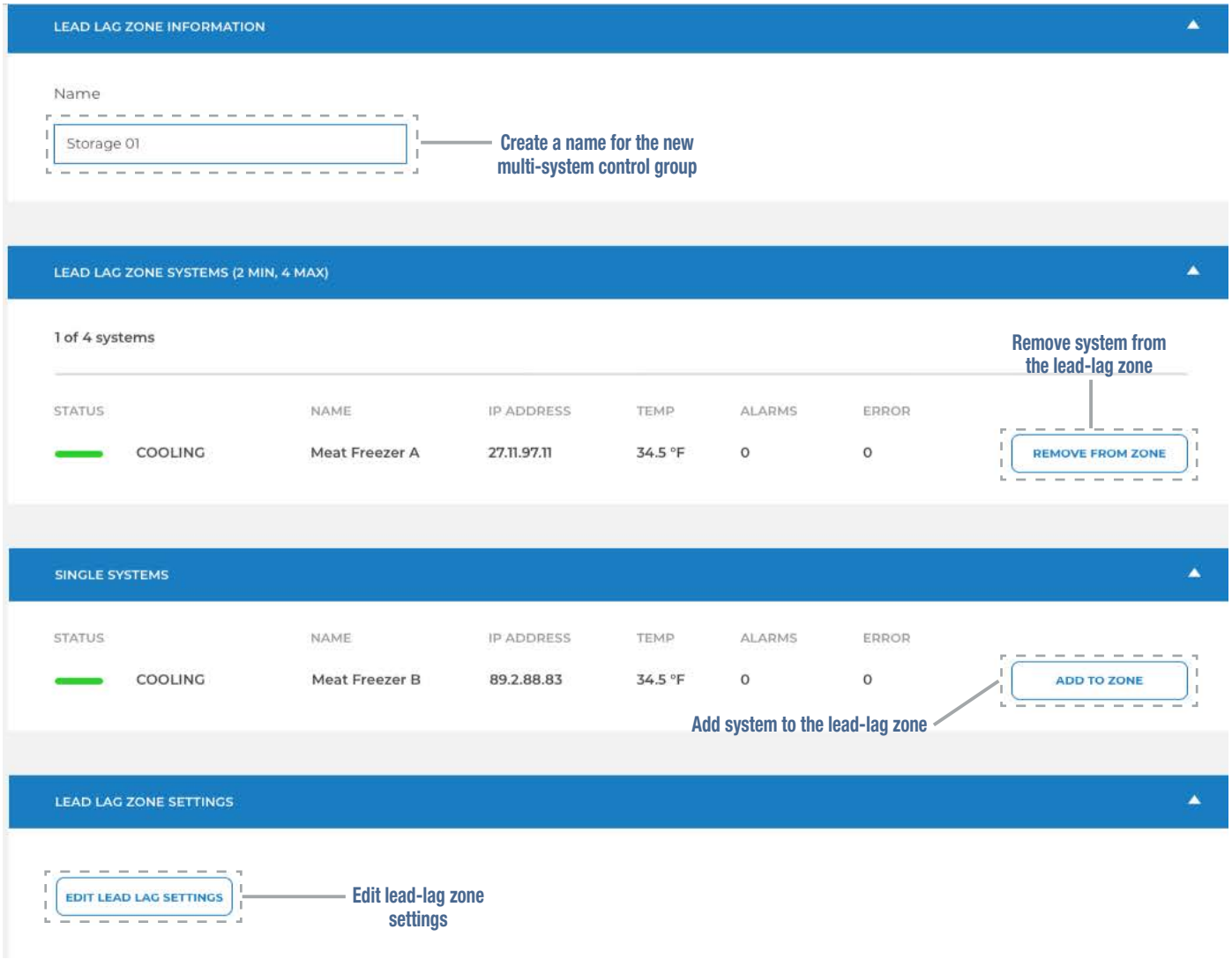

## 2. Create a Multi-System Control Group name and add systems to the group



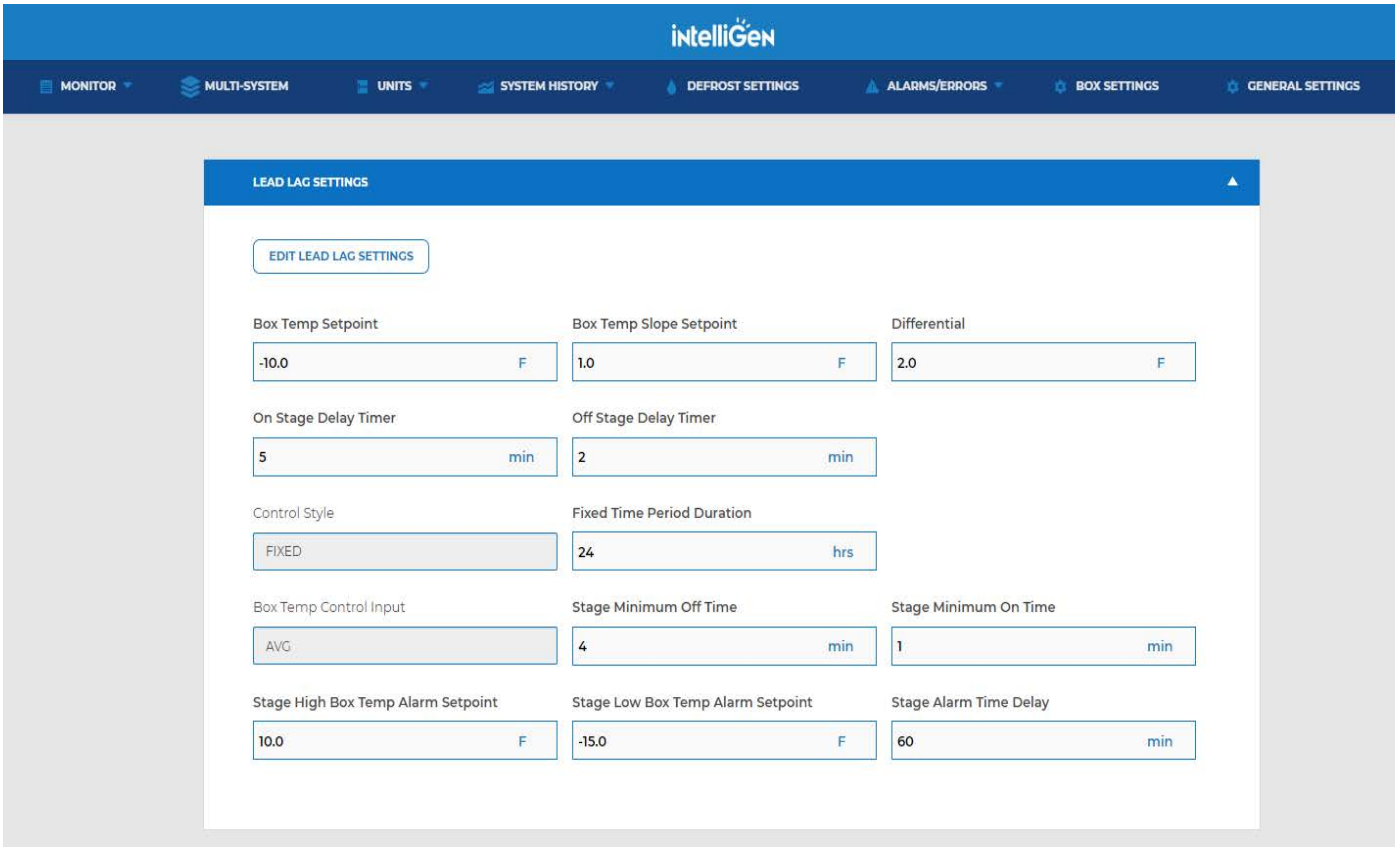
## 3. Setup a new Lead-Lag Zone



## 3.1 Add and remove systems to Lead-Lag Zone



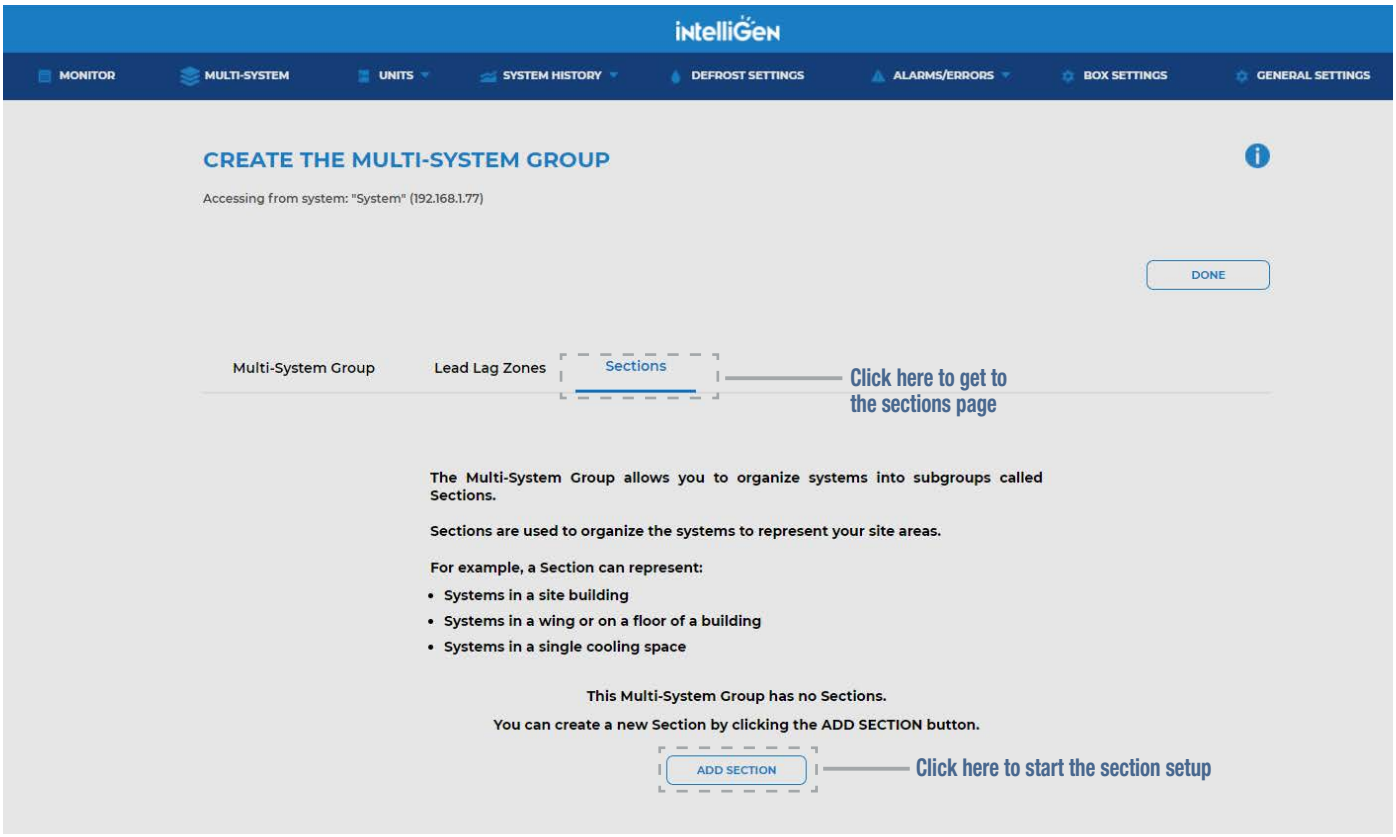
## 3.2 Configure the lead-lag settings



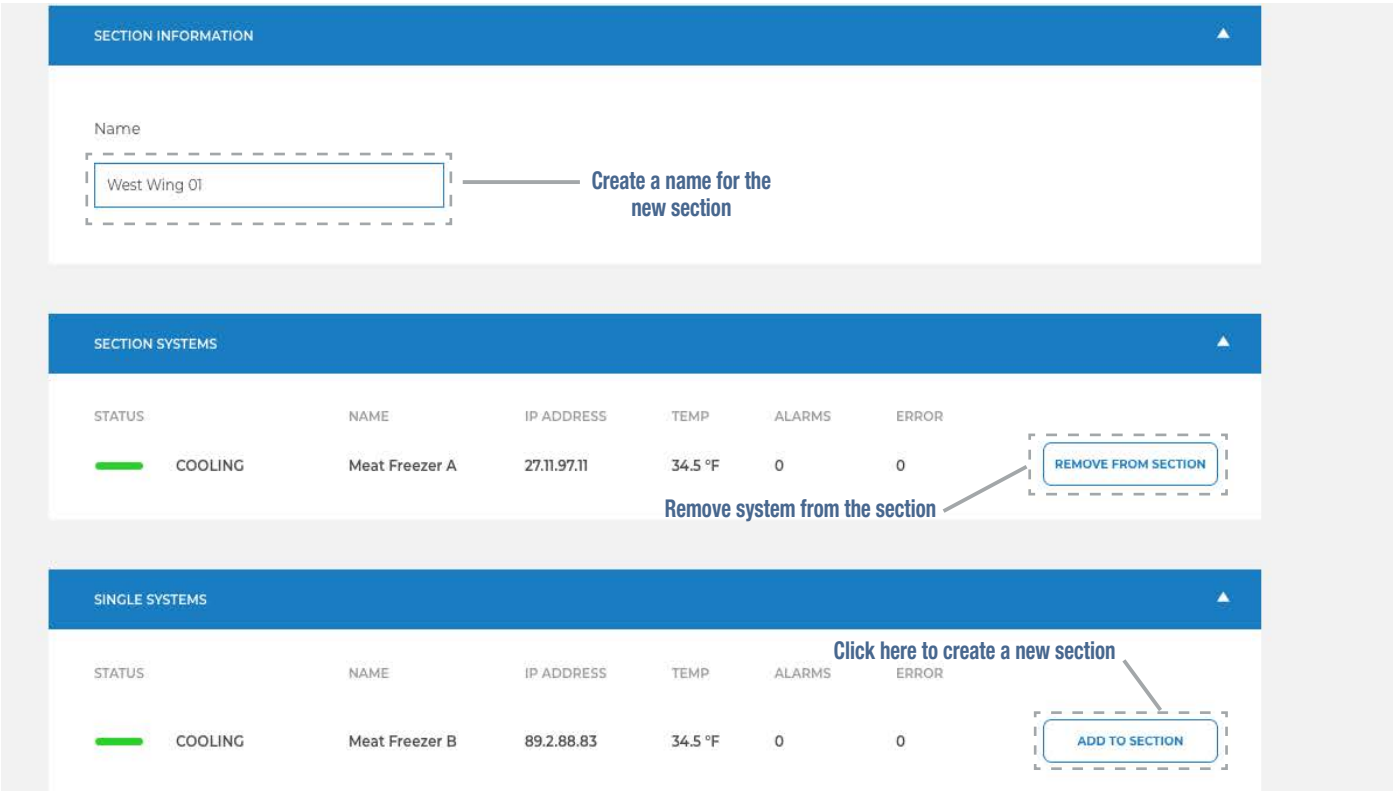
## LEAD-LAG CONTROL SETTINGS

| Parameter Name | Description |
|---|---|
| **Box Setpoint Temp** | A defined set-point for the refrigerated space. This set point overwrite the Box Temp Set Point parameter for all systems in the lead-lag group |
| **Box Temp Slop Setpoint** | The rate of change of the box temperature per minute. |
| **Differential** | The number of degrees around which the system controls box temp. Calls for cooling if box temp greater than setpoint plus half of the differential. Stops cooling if box temp less than setpoint minus half of the differential. |
| **On Stage Delay Timer** | The minimum delay before the lead-lag control can activate a stage. This timer starts as soon as a stage is activated. |
| **Off Stage Delay Timer** | The minimum delay before the lead-lag control can deactivate a stage. This timer starts as soon as a stage is deactivated. |
| **Control Style** | |
| **FIFO: First in-First Out Control** | When it is time to turn off a stage, the first stage that was on (refrigerating) will be the first stage to deactivate. Conversely, when it is time to turn a stage on, the stage that has been off (not refrigerating) the longest will be activated. For the very first stage activation, system can be selected randomly. |
| **BALANCED RUN TIME** | The stage with the least runtime will be activated when it is time to turn on a stage. Conversely, when multiple stages are refrigerating, the stage with the most runtime will be deactivated first when it is time to turn off a stage |
| **FIXED TIME PERIOD** | Stage activation will be determined based on predefined runtime hours or days. A user will select the amount of time, in hours or days, that each system should run as the primary stage. [Example: End User with 4 systems (stages) connected to Lead Lag may want each system to run as primary stage for 6 hours. As a result, for hours 1-6 stage 1 will be the first stage always called into cooling, for hours 7-12, stage 2 will be primary for cooling, hours 13-18 will be stage 3 and hours 19-24 will be stage 4. In this case, the user is basically trying to balance runtime across the systems by selecting the amount of time that each system is the primary refrigeration system.] |
| **Fixed Time Period Duration** | The amount of time that should be used for each stage as the primary refrigeration system under Lead Lag Fixed Time Period control. |
| **Box Temp Control Input** | Input to be used to control the box temperature |
| **Stage Minimum Off Time** | The minimum amount of time that a stage should be OFF (not refrigerating) before it can be called upon or cooling. |
| **Stage Minimum On Time** | The minimum amount of time that a stage should be ON (refrigerating) before it can turn off (not refrigerating). |
| **Stage High Box Temp Alarm Setpoint** | The temperature above which the Lead Lag control can throw an alarm for High Box Temperature. |
| **Stage Low Box Temp Alarm Setpoint** | The temperature below which the Lead Lag control can throw an alarm for Low Box Temperature |
| **Stage Alrm Time Delay** | The amount of time that a Lead-Lag High or Low Box Temperature Alarm must be active before triggering. |

## 4. Setup a new section




## 4.1 Add and remove systems from a Section



# TROUBLESHOOTING GUIDE
## *Local Webserver Access*

| Problem: | Step: | Action Item: | If OK: | If Not OK: |
|---|---|---|---|---|
| **Cannot Access Local Webpage** | **1)** Confirm IP address is assigned to intelliGen controller | **1)** Navigate to 'GENERAL SETTINGS' > 'IP ADDRESS & SUBNET MASK' > 'IPv4 ADDRESS'. Confirm a valid IP address is displayed, this should be a value other than 0.0.0.0 | **1)** Go to Next Step | **1a)** Power off the unit that has the iWC/MSC connected for 30 seconds, then re-apply power and wait 5 minutes for the iWC/MSC to acquire a valid IP address.<br>**1b)** Remove Ethernet cable from iWC/MSC and connect it to a laptop or PC. Disable wireless connection on computer. Open 'command prompt' application and type command "ipconfig". Confirm IPv4 Address is being assigned. If no address is assigned, have local IT check router/switch settings. |
| **Remote Webserver Access** | **1)** Test local webserver connection and proceed through local webpage troubleshooting<br>**2)** Confirm port 443 is open | **1)** Refer to Local Webserver Access Troubleshooting Steps<br>**2)** Consult local IT | **1)** Go to Next Step | **1)** - |

***Blue Steps: Requires some basic network troubleshooting skills - may require local IT assistance***

## iWC AND MSC CONNECTION TROUBLESHOOTING

The following table is to be used for troubleshooting of local and remote internet connections of the intelliGen Webserver Card (iWC) and Multi-System Control Card (MSC).

Compatible firmware versions:

intelliGen Refrigeration Card (iRC): 01.02.0242 and later

intelliGen Webserver Card (iWC) and Multi-System Control Card (MSC): 01.02.0219 and later

Both the iRC and iWC/MSC must be running a compatible firmware version in order to access this troubleshooting feature.

The table provides the details of the issue, and what can be done to resolve the issue. Some issues will resolve automatically after a period of time. For these issues, the typical amount of time required for resolution is included in the Status Description.

The table also lists the messages in the order in which they are expected to be seen. If an error with lower Priority Number is seen, then the higher numbered errors/messages are not expected to be seen until this error is resolved.

The messages without an exclamation symbol (!) in the beginning are status messages. Any message with this symbol is an error message and that needs to be addressed.

If an error is encountered, the error message will remain there until it is resolved. The issue could be resolved on its own, but if it is static for longer than expected duration then manual intervention is needed.

The remote connection troubleshooting codes can be found in the local user interface under the CONNECTIVITY menu, CONNECTIVITY/REMOTE ACCESS/REMOTE CONNECTION.

# iWC/MSC CONNECTION TROUBLESHOOTING (CONT.)

| Priority Number | Status Displayed on Local UI | Issue | Probable Cause | Fix |
|---|---|---|---|---|
| 1. | "iWC connected" | - | - | - |
| 2. | "! iWC not connected" | The iRC is not detecting a connected iWC. | Check the iWC and see if the iWC card is getting powered on by observing the green LED on the iWC. | Confirm the iWC has all six connection pins fully inserted into the iRC. The iWC can be swapped out only after the system is powered OFF. |
| 3. | "iWC running" | - | - | - |
| 4. | "ethernet connected" | - | - | - |
| 5. | "! no ethernet cable" | Ethernet cable not detected by the iWC. | 1. Make sure Ethernet cable is plugged in correctly.<br>2. Check if the cable is faulty. | Check the connection to the iWC port and see if replacing a cable with a new one will resolve the issue. |
| 6. | "ip addr assigned" | - | - | - |
| 7. | "! no ip addr set" | Check if the system is connected to a network. The network is either using DHCP or if using static IP address, an IP address is assigned to this system.<br>- In case of DHCP make sure an IP address is assigned to this system.<br>- In case of Static IP address assignment, the IP address need to be set on the UI.<br>The IP address can be set or verified under General Settings -> IP Address & Submask menu | Network connectivity and/or network configuration of the network provider. | Check with the IT team to make sure the configuration is correct. Check if the right MAC address of the iWC card (the label on the iWC has the MAC address) is used in the network configuration if static IP address allocation is used. |
| 8. | "internet available" | - | - | - |
| 9. | "! ping failure" | Usually this is a transient message. When the network connection takes longer, this message can appear for a couple of minutes.<br>If this message does not go away after 5 minutes, it indicates some network connectivity issue to external internet. | This could be because of network connectivity issue, where the network is down from the ISP side. | If the other devices on the same network can connect to the internet, then check the connectivity and make sure there are no faulty cables and connections. |

# iWC/MSC CONNECTION TROUBLESHOOTING (CONT.)

| Priority Number | Status Displayed on Local UI | Issue | Probable Cause | Fix |
|---|---|---|---|---|
| 10. | "remote server online" | - | - | - |
| 11. | "! cannot reslov srvr" | The intelliGen server is not reachable. | - | - |
| 12. | "tunnel ip addr" | - | - | - |
| 13. | "! open vpn fail" | If the VPN connection is failing, then this message is shown. | 1. Make sure the port 443 for OPEN VPN tunnel is open.<br>2. Ensure the date/time are correctly set on the system. | Talk to IT to make sure that this port is not blocked in their configuration. Or the OPEN VPN protocol is not blocked. |
| 14. | "system id assigned" | - | - | - |
| 15. | "! interrogate fail" | This should not be shown for more than 5 minutes.<br>If the message stays longer than that, then there is anissue with configuration and iRC and iWC cards used. | | Make sure the cards used in this system are not taken from a pre-existing system which was at some point connected to the remote webserver.<br>If any such swapping of the cards was done, both the systems need to be factory reset to correct the configuration mismatch at the server. |
| 16. | "system registered" | Everything is working as expected between the system and the server. | - | - |

iNtelliGeN
BY HEATCRAFT REFRIGERATION PRODUCTS

Heatcraft Refrigeration Products, LLC
2175 West Park Place Blvd., Stone Mountain, GA 30087
www.heatcraftrpd.com

Customer Service and Technical Support

Normal Business Hours – 8:00 AM – 8:00 PM EDT
(800) 321-1881

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

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