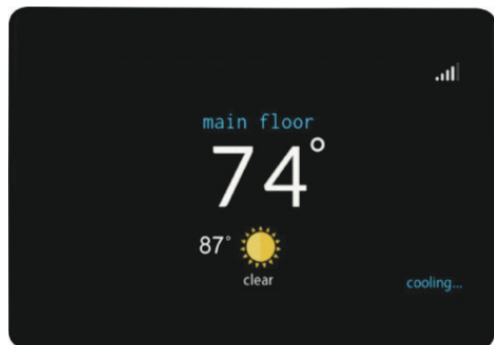


SYST0201CW Ion Black System Control



Product Data



A240490

NOTE: Ion Black System Control compatible with Ion rated indoor equipment only.

US Patents: Carrier® U.S. Pat No. 7,243,004, Carrier® U.S. Pat No. 7,775,452, pointSET™ U.S. Pat No. 7,415,102

Ion Black System Control

ICP specializes in creating a customized home comfort system tailored to your needs with our broad selection of residential heating and cooling products. The Ion Black System Control is the ultimate control center for all of your system components. When you add an Ion Black System Control to a compatible variable speed furnace, fan coil, Ion split product, you will enjoy longer heating and cooling cycles at lower fan speeds for a more consistent temperature throughout your home. By adding a variable speed, multi-stage, or 2-stage outdoor unit, you will enjoy extra benefits which include better humidity and temperature control as well as a more energy efficient comfort system. When paired with Zoning controls, the Ion Black System Control allows you to create up to 8 zones of customized comfort.

The Ion Zoning system does not require a bypass damper, leaving air temperature (LAT) sensor, or field-installed power transformer.

Always install the latest version of software to enable all features of the system.

Over-the-Air software updates for Wi-Fi models connected to the Ion server are automatically downloaded. Software updates via USB C device are available on HVACpartners, or at www.my.ioncomfort.com.

Industry Leading Features/Benefits

Ion's revolutionary Ion Black System Control is the smart control of the future. Its unique system self-configuration and diagnostics capabilities make installation and service fast and accurate, helping to avoid costly call-backs. The Ion Black System Control features a high resolution display, making it easier to read. Intuitive prompts let you program everything from humidity levels to fan speeds, giving you the ultimate control over your home comfort. Other features include:

- 4-wire installation from each major component in the system
- 2-wire connection to Ion System two or more stage outdoor equipment (including geothermal split units)
- Ion Zoning System compatibility
- Intuitive on screen prompts for ease of installation and service
- Complete integration of the temperature, humidity and ventilation in every season

- For Zoned Systems, auto mode selection to satisfy simultaneous heating and cooling demands in different zones via more aggressive Auto Changeover algorithm--installer must enable
- 7-day programmability with Lifestyle Comfort Profiles and activity features; complies with California Title 24 programmability requirements
- Easy timed-override schedule
- Simplified vacation schedules
- Day-at-a-glance programming for simplified ease of use
- Programmable fan by period
- Dirty Filter Detection
- Indoor Air Quality pop up service reminders
- General maintenance reminder messaging
- Wi-Fi® remote access capability
- Dealer info, and software updates locally via USB C device. Software updates available automatically when connected to the web server
- Compatible with home automation systems access modules, or Amazon™ Alexa™ interface.
- Compatible with Ion System geothermal products (when available). Energy Tracking feature for geothermal systems is available with Entering Water Temperature sensor installed in heat pump.

Wi-Fi® is a registered trademark of Wi-Fi Alliance Corporation.
Amazon Alexa is a trademark of Amazon, Inc. or its affiliates.

Model Number Nomenclature

	SYST	02	01	CW
Product Type Ion™ Communicating System				Model Type RM - Communicating Relay Module CW - Communicating Wi-Fi System Control ZP - Zone Panel
Version 02 - Second				Packaged Quantity 01

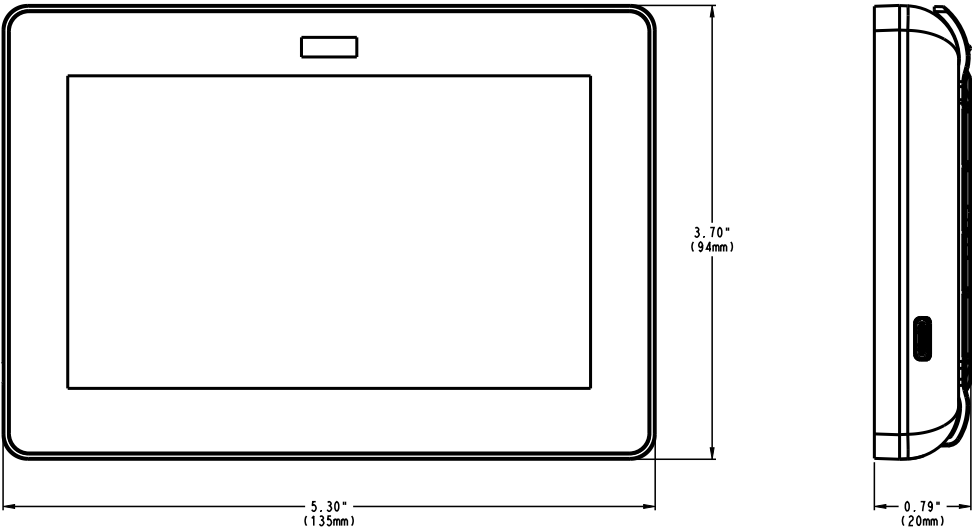


Fig. 1 – Unit Dimensions

A240321

Product Data Information

Compatible Communicating Products

Compatible with most Ion System indoor and outdoor equipment built since 2004; see equipment specifications for details.

Home Automation System Interface

The Ion Black System control may also connect to a variety of Home Automation systems. Note that not all Home Automation systems may be compatible. Reference the latest version of the Application Specification titled “SAM Remote Access Application Specification,” available on HVACpartners.com to learn more. Work with the home automation supplier to see if the systems are compatible. If not, you may provide the “Ion System Open API Getting Started Guide” or the “SAM Remote Access Application Specification” to the home automation supplier to develop an interface with the Ion System. Always be sure to obtain the latest version of the application specification from HVACpartners, as we continually update and add home automation interfaces.

NOTE: The ability to remotely access and adjust the settings of the Ion Black System Control with the Ion Home™ mobile applications is dependent on the compatibility of the home network and/or mobile device. International Comfort Products makes no representations or warranties, express or implied, including, to the extent permitted by applicable law, any implied warranty of merchantability or fitness for a particular purpose or use, about the compatibility of the user’s home network, and/or mobile device, with the Ion Black System Control, and the availability of, the user’s internet service provider or mobile device carrier service, or that the ability to remotely access and adjust the settings of the Ion Black System Control will not be negatively affected by the network-related modifications, upgrades, or similar activity of the user’s Internet service provider or mobile device carrier service.

Physical Characteristics

Dimensions: See drawing

Appearance: Black glass front, silver plastic body

Electrical Characteristics/Communication

Input Volts/Amps 24VAC

Each device in the Ion System has a four-pin connector labeled ABCD. It is recommended that the following color code be used when wiring each device:

DX+ — Green = Data A

DX- — Yellow = Data B

C — White = 24VAC (Com)

R — Red = 24VAC (Hot)

Always verify that the IDU and ODU are well-grounded, and that there are less than 10 volts AC/DC as measured between the cabinets of the IDU and ODU, while the equipment is operating at full capacity. If there is a larger voltage difference between the cabinets of the IDU and ODU, recheck the equipment grounding.

Environmental Requirements:

Operating Temperature/Relative Humidity:

User interface and all sensors: 32°F to 104°F / °C to 40°C, 95% RH non-condensing

Storage Temperature/Relative Humidity:

User interface: - 40°F to 134°F / -40°C to 56.7°C, 95% RH non condensing

Feature Specifications:

Temperature set point range: 50°F to 90°F / 10.0°C to 32.0°C

Separate heat and cool setpoints

Programming days: 7 day

Programming periods: Up to 5 periods per day

Advanced Smart Setback (with programming)

Proximity Sensor

Non-Programmable (installer selectable)

Auto Changeover* (may be disabled)

Simultaneous Heat Cool Demand Algorithm for zoned systems

Programmable fan (installer selectable)

Humidity Sensor Offsets

Auto Changeover Timer (installer adjustable)

Smart Recovery (in heating and cooling)

Hold function

Copy functions: copy day of week; copy zones

Permanent memory

Humidity display and control

Temperature sensor offsets (indoor and outdoor)

Dirty Filter Detection with compatible indoor equipment

* See Installation Instructions for details on Auto Changeover and Simultaneous Heat/Cool Demand Algorithm operation.

Wiring Requirements:

Power supply: 24VAC, 40 VA (minimum), 60 Hz, via indoor equipment ABCD Connector. Zoning systems with a large number of dampers, especially multiple dampers per zone, may require a separate, dedicated, field-installed 24VAC power supply. The SAM module requires an independent, isolated, field-supplied 24VAC power supply.

Wiring material: Standard thermostat wire 18 to 22 gauge. Use 18 AWG wiring for wire lengths over 25 feet. Shielded, twisted pair cable for the ABCD communication bus is optional, and may be helpful in electrically noisy environments, or for zoning systems with Smart Sensors.

NIM Requirements:

IDU	Non-communicating ODU	NIM Required?
Furnace	1-stage A/C	No
Furnace	2-stage A/C	Yes
Furnace	1-stage HP	Yes
Furnace	2-stage HP	Yes
Fan Coil	1-stage A/C	No
Fan Coil	2-stage A/C	Yes
Fan Coil	1-stage HP	No
Fan Coil	2-stage HP	Yes

Controls

Description	Part No.
Ion Black System Control with Wi-Fi® Remote Access Capability (Black)	SYST0201CW
Ion Communicating Relay Module (CRM)	SYST0101RM

Zoning Controls

Description	Part No.
Ion Damper Control Module (4 Zone)	SYST0101ZP*
Smart Sensor for Zoning	SYSTXZNSMS-01
Ion Remote Room Sensor Wired (RRS)	SYSTTIIRS01

*. One Damper Control Module for up to 4 zones. A second Damper Control Module is required for zones 5–8.

NOTE: Each piece of the zoning equipment is purchased separately allowing for customization of the zoning application.

Optional Accessories

Description	Part No.
Equipment Communication Connector (DX+, DX-, C,R 10 pack)	SYSTXGXRPLG10
Outdoor Air Temperature Sensor	TSTATXXSEN01-B
Energy Tracking Kit (EWT) Geothermal Heat Pumps	SYST0101RM
Remote Access Module, (SAM)	SYSTXNNRCT01
Interface Relay Kit, Hydronic Heat for FCM4X Fan Coils	NAEA00101HW

Damper Accessories & Replacement Parts

Description	Part No.
45° Actuator for round and rectangular dampers	HF21KJ011*
90° Actuator for slip-in dampers	HF21KJ012*
Damper Control Module 1-amp Fuse	ATO1*
Duct Temperature Sensor	ZONEXXODTS01

*, Available from RC

Round & Rectangular Dampers

Description		Part No.
Round Dampers	6 in.	DAMPRND06INC-*
	8 in.	DAMPRND08INC-*
	10 in.	DAMPRND10INC-*
	12 in.	DAMPRND12INC-*
	14 in.	DAMPRND14INC-*
	16 in.	DAMPRND16INC-*
Rectangular Dampers	8 in. X 10 in.	DAMPREC08X10-*
	8 in. X 14 in.	DAMPREC08X14-*
	8 in. X 18 in.	DAMPREC08X18-*
	8 in. X 24 in.	DAMPREC08X24-*
	10 in. X 10 in.	DAMPREC10X10-*
	10 in. X 14 in.	DAMPREC10X14-*
	10 in. X 18 in.	DAMPREC10X18-*
	10 in. X 24 in.	DAMPREC10X24-*

Slip-in Dampers

Description		Part No.
Slip-In Dampers	Side mount, 8 X 8	DAMPSSL08X08-*
	Bottom mount, 8 X 8	DAMPSLB08X08-*
	Side mount, 8 X 10	DAMPSSL08X10-*
	Bottom mount, 8 X 10	DAMPSLB08X10-*
	Side mount, 8 X 12	DAMPSSL08X12-*
	Bottom mount, 8 X 12	DAMPSLB08X12-*
	Side mount, 8 X 14	DAMPSSL08X14-*
	Bottom mount, 8 X 14	DAMPSLB08X14-*
	Side mount, 8 X 16	DAMPSSL08X16-*
	Bottom mount, 8 X 16	DAMPSLB08X16-*
	Side mount, 8 X 18	DAMPSSL08X18-*
	Bottom mount, 8 X 18	DAMPSLB08X18-*
	Side mount, 8 X 20	DAMPSSL08X20-*
	Bottom mount, 8 X 20	DAMPSLB08X20-*
	Side mount, 8 X 22	DAMPSSL08X22-*
	Bottom mount, 8 X 22	DAMPSLB08X22-*
	Side mount, 8 X 24	DAMPSSL08X24-*
	Bottom mount, 8 X 24	DAMPSLB08X24-*
	Side mount, 10 X 10	DAMPSSL10X10-*
	Bottom mount, 10 X 10	DAMPSLB10X10-*
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	Bottom mount, 16 X 16	DAMPSLB16X16-*
	Bottom mount, 16 X 20	DAMPSLB16X20-*

Training

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