SYSTXNNRCT01
Remote Access Module

Installation Instructions

NOTE: Read the entire instruction manual before starting the installation.

pointSETt U.S. Pat No. 7,415,102

Table of Contents

Table of Contents 1
Safety Considerations 1
Installation Considerations 1
Introduction. 1
Installation 1
Troubleshooting 2

Safety Considerations

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause death, personal injury or property damage. Consult a qualified installer, service agency or your distributor or branch for information or assistance. The qualified installer or agency must use factory--authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses, protective clothing, and work gloves. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings and cautions included in literature and attached to the unit. Consult local building codes and the current edition of the National Electrical Code (NEC) NFPA 70.

In Canada, refer to the current editions of the Canadian Electrical Code CSA C22.1.

Recognize safety information. When you see this symbol ⚠ on the unit and in instructions or manuals, be alert to the potential for personal injury. Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards, which will result in severe personal injury or death. WARNING signifies hazards, which could result in personal injury or death. CAUTION is used to identify unsafe practices, which may result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

Installation Considerations

The Remote Access Module, part number SYSTXNNRCT01, is powered with a field-supplied 24VAC transformer. A 120VAC supply must be near the mounting location when using the accessory plug-in 24VAC transformer. Provisions must be made to secure the accessory plug-in transformer to the outlet. The D-wire (24VAC) from the communicating system must NOT be used to power the Remote Access Module, and should not be connected to the module.

This instruction covers the physical installation and start up. Use this instruction to guide the actual installation process after the communicating system(s) have been installed. One Remote Access Module is capable of handling two communicating systems.

Introduction

The Remote Access Module provides an interface to Home Automation systems, utilizing the RS-232 serial port connection. This version is compatible with older communicating controls but does not supply a Wi-Fi connection like previous models.

NOTE: See the latest version of the SAM Remote Access Interface Specification, available on HVACpartners, for more details on the home automation interface.

Installation

BEFORE STARTING:

- SYSTXCCITC01, SYSTXCCITW01, SYSTXBBECC01, or SYSTXBBECW01 Series A or higher) wall control is required.

Check Equipment and Job Site

INSPECT EQUIPMENT - File claim with shipping company, prior to installation, if shipment is damaged or incomplete.

Component Location and Wiring Considerations

⚠ WARNING

ELECTRICAL OPERATION HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing, modifying, or servicing system, the main electrical disconnect switch must be in the OFF position and install a lockout tag. There may be more than one power disconnect switch. Lock out and tag switch with a suitable warning label.

NOTE: All wiring must comply with national, state, and local codes.

LOCATING THE UNIT - The Remote Access Module is approved for indoor use only and should never be installed with any of its components exposed to outdoor environmental conditions. The Remote Access Module may be installed in any area where the temperature remains between -4°F / -20°C and 158°F / 70°C, and there is no condensation. The cover must be installed to prevent damage from other sources. Do not locate where it will be accessible to children. It should be mounted in the vertical position.

⚠ CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage.

Do not mount unit on plenum, ductwork, or flush against furnace.

WIRING CONSIDERATIONS - Ordinary thermostat wire is ideal when wiring the Remote Access Module into the HVAC system (shielded cable is not necessary). Use 22-gauge or larger for normal wiring. Lengths over 100 ft / 30 m should use 20-gauge or larger wire.

Install Components

INSTALL REMOTE ACCESS MODULE

The Remote Access Module is designed so that wires can enter it from behind, above, or below. Plan wire routing before mounting.

1. Remove cover to access mounting holes.
2. Mount back plate to wall using screws and wall anchors provided.
3. Level back plate and tighten screws.

⚠ CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

Improper wiring of the ABC connector will cause the system to operate improperly. Check to make sure all wiring is correct before proceeding with installation or turning on of power.

Connect Communicating Systems

Connect the A, B, and C wires from the communicating system to terminals labeled A1, B1, and C1. Connect the second communicating system (if present) to the terminals labeled A2, B2 and C2.

ABC bus wiring only requires a three-wire connection; however, it is good practice to run thermostat cable greater than three wires in the event of a damaged or broken wire during the installation.

It is recommended that the following color-code be used when wiring each ABC connector:

A - Green	Data A
B - Yellow	Data B
C - White	24AC (Com)

NOTE: The D-wire (red- 24VAC hot) from the communicating system is NOT connected to the Remote Access Module.
It is not mandatory that the above color code be used, but each ABC connector in the system MUST be wired consistently.

RS-232 Connector – Home Automation System Interface

An RS-232 port has been provided for connection to home automation equipment. Consult your home automation supplier for support. If the particular home automation supplier needs information for the interface, you may supply the latest version of the SAM Remote Access Interface Specification, found on HVACpartners, to the home automation supplier. Designing and providing the interface to the communicating system through the RS-232 communication port on the Remote Access Module is the responsibility of the home automation supplier. Contact your Distributor Service Manager for details, if required.

Connect Power Source

A field-supplied 24VAC 40VA transformer is required to power the Remote Access Module. An accessory plug-in transformer is available to order through the Replacement Components group (part No. SYSTXNNXFM01).

The accessory plug-in transformer is heavy. Make sure it is secured to the power outlet with an appropriate screw through the base on the transformer.

NOTE: Do NOT connect the "D" communication bus wire (24VAC hot) from the communicating system to the Remote Access Module. This may cause damage to the Remote Access Module, the comunicating system, or both.

System Start-Up

The communicating system wall control will automatically find the Remote Access Module at system power on during the system self-installation sequence. If the Remote Access Module (aka SAM "System Access Module") is being added to an existing system, initiate a full system re-install sequence to ensure that the SAM is discovered properly.

The wall control will enter the system installation screens automatically and will display the Equipment Summary screen when finished. For the newer communicating systems, the word SAM will appear toward the bottom right of the Equipment Summary screen.

If SAM is not displayed on the Equipment Summary screen, or if "no SAM" is displayed in the communicating Equipment Summary screen, check connections to the ABC wires as well as ensure the Yellow LED is lit on the Remote (this ensures the module has power). The Green LED will be lit next to each ABC connection if the User Interface has established communications.

NOTE: The Yellow Status LED may begin to flash status codes when used with newer generation communicating systems. This is due to the fact that the network interface within the SAM enclosure was removed for this model. The following status codes should be ignored when using the Remote Access Module with newer generation communicating controls:

Code 61: Radio out of range
Code 62: Loss of communication with radio or Ethernet device
Code 63: Radio not registered
Code 66: Ethernet/Wi-Fi not detected
Code 67: No communication with server

Troubleshooting

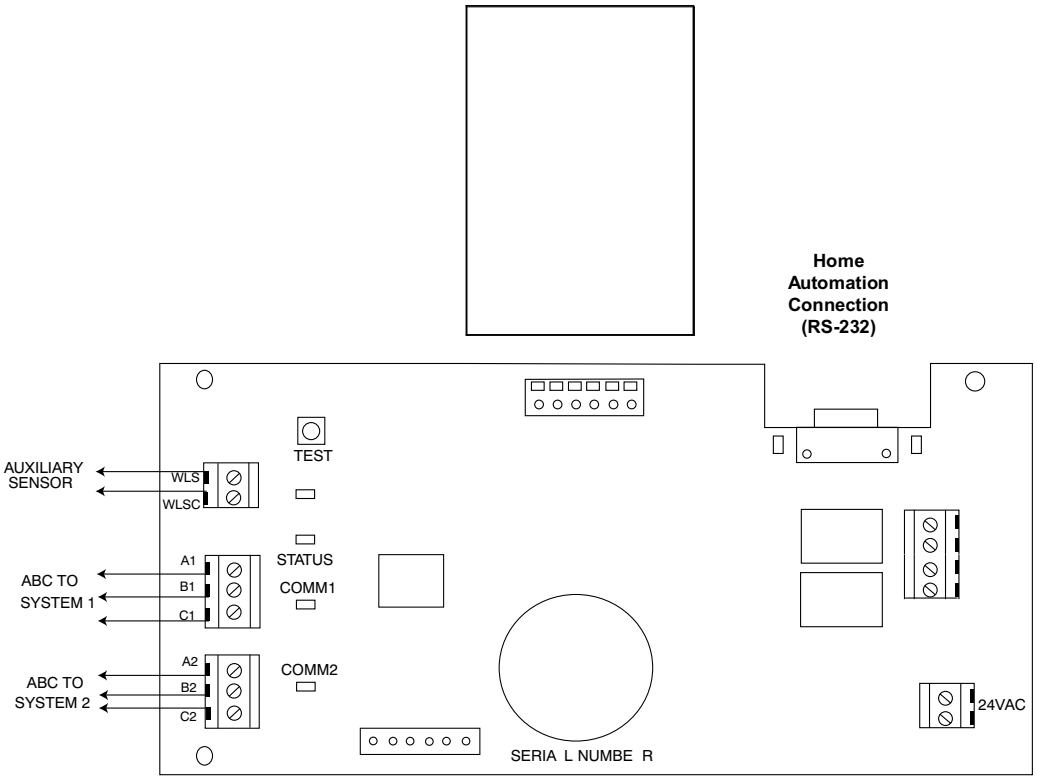
FAULT INDICATORS - Under normal operation, the Yellow and Green LED will be on continuously (solid). If the Remote Access Module does not receive communications with the communicating system, the green LED will not be on. If there are faults present, the yellow LED indicator will blink a two-digit status code. The first digit will blink at a fast rate, the second at a slow rate.

NOTE: When the SAM is used with the newer communicating systems, it may display status codes that are unique to the previous generation UID/UIZ systems, but are irrelevant when the Remote Access Module is used with the newer communicating systems. These codes should be ignored. See below.

Status Code	Description	Resolution
45	Board Failure	Replace Remote Access Module.
62	Loss of communication with Ethernet device	Ignore fault. No action required.
64	Auxiliary sensor active	Auxiliary sensor terminals are shorted by external device.
66	Ethernet network not detected	Ignore fault. No action required.
67	No communication with server	Ignore fault. No action required.

NOTE: The 62, 66 and 67 status codes should be IGNORED for newer generation communicating systems.

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.



A210198

Fig. 1 – Remote Access Module Control Board

A180093

© 2021 Carrier. All rights reserved.