Application Specification Carrier Communicating HVAC System







ASCII Protocol Information

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INTRODUCTION

This specification outlines the ASCII interface requirements and protocol for an independent home automation system to connect with the microprocessor based System Access Module (SAM) for a Carrier Infinity[™] Communicating HVAC system.

The SAM provides wireless remote access between an Infinity[™] System and a Carrier server via a SkyTel server and two-way pager radio. The SAM also allows access between a home automation system and the HVAC system via an ASCII port that is described in this document.

Local power for the SAM is provided by way of a 24-volt AC-AC transformer that is separate from the power for the rest of the Infinity[™] System. This power source must not be used to provide power to the home automation system. Components within an Infinity System communicate via a proprietary Carrier operating system that is independent of any home automation system that may be connected via the ASCII port.

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Infinity[™] Home Automation

The revolutionary Infinity[™] heating and cooling system from Carrier is the ultimate comfort system of the future. Carrier's Infinity[™] System Access Module gives unprecedented control of homeowner comfort and allows them to monitor and change their settings from anywhere in the world via internet or telephone.

Home automation of the Infinity[™] System is provided through the use of the Infinity System Access Module (part numbers SYSTXCCSAM01, SYSTXCCSAMCAT501, SYSTXCCSAMWIFI01) in conjunction with third party software/hardware. Third parties currently offering home automation solutions for the Infinity system include Crestron (www.crestron.com), Home Logic (www.homelogic.com) and AMX (www.AMX.com). The System Access Module provides a connection to a home automation system through a RS232 (DB9) serial communication port.



Infinity[™] System Access Module (SYSTXCCSAM01)

The System Access Module supports connection of up to two Infinity™ Systems to a home automation product.

Remote monitoring via the internet, along with maintenance and system fault notifications by email and/or phone requires a \$100 / year subscription fee to Carrier. The System Access Module may be used for home automation access only if desired. This fee is not required if only home automation is desired.

If remote monitoring through Carrier is to be utilized, the System Access Module, part number SYSTXCCSAM01, will communicate through a two-way radio via the Skytel paging network. Please visit: http://www.skytel.com/coverage/telemetry_coverage.htm to check coverage for the installation site. The coverage must be listed as "Full Service" for the System Access Module to function properly. Skytel service coverage is not required if only home automation is desired.

System Access Module SYSTXCCSAMCAT501 uses a wired Ethernet connection (CAT5 cable) connected to a network router. System Access Module SYSTXCCSAMWIFI01 uses a wireless Ethernet connection connected to a wireless router (802.11b protocol).

Through the home automation port, the user can perform and view all of the functions available on the Infinity[™] user interface:

- temperature set points
- mode
- fan
- program schedule
- vacation schedule
- humidity set points
- actual room temperature
- · actual humidity
- outdoor temperature
- accessory life remaining
- · dealer name/phone number

Sample Crestron system screen below:



Notification of system malfunctions, routine maintenance reminders, and equipment diagnostics are not available over the home automation port. This requires remote monitoring via the internet and the \$100 / year fee described earlier.

HOME AUTOMATION ASCII PORT (RS232)

Overview

This section defines the requirements for connecting the SAM to non-Infinity[™] home automation equipment via the ASCII port.

Input:

RS232 ASCII Messages from non-Infinity™ equipment.

Output:

RS232 ASCII Messages to non-Infinity™ equipment.

Process (Algorithm):

The intent of the SAM ASCII interface is to provide easy systems access into select portions of the Infinity[™] network. The SAM has a female, DB-9 connector that contains standard +/-9V RS232 RX, TX, and GND connections. A standard DB-9 extension cable can be used to connect the SAM to a PC or other RS232 devices. The SAM ASCII interface will respond to the following messages as long as they are formatted as follows:

- All ASCII characters will be converted, and parsed as uppercase by the SAM. The host may send ASCII characters as either upper or lower case.
- All commands will be terminated by a carriage return and line feed (CR/LF).
- Upon receipt of the CR/LF, the SAM will process any characters in the incoming command buffer and respond as necessary.
- The maximum message length is 64 characters, including the CR/LF.
- A message timeout will be invoked and the receive buffer reset if a five-second delay occurs between received characters.
- A NAK reply will be sent if it takes the SAM more than five seconds to build a response message from the received data.

General Message Formatting:

- All messages are formatted using a "drill down" system hierarchy where the system number is requested first.
- Hierarchy is as follows:

Level 1:

System (S1 or S2 - up to 2 systems supported) Level 2:

Zone (Z1 thru Z8 - up to 8 zones supported) Level 3:

User settings (accessible from the normal screens) Service settings

- Two systems are supported by each SAM. Additional systems will be addressed as system 1 or 2 to a separate PIN number.
- Section 3 describes each command and the expected response.

Abnormal Conditions and Responses:

- Mis-wired Rx and Tx connections to the RS232 port must not cause electrical damage, loss of CCN communications, or loss of wireless communications to the SAM module.
- It is the responsibility of the home automation provider or designated representative to ensure proper wiring.
- · Communication errors will be reported as follows:

Invalid command:	Echo command with :NAK CMD
Invalid parameter:	Echo command with :NAK VAL
CCN Error:	Echo command with :NAK
Response Timeout:	Echo command with :NAK

Response Timeout

The SAM module shall send a response within five seconds of receiving an ASCII command.

If the SAM is unable to send a response within five seconds, it will ignore the command, return a NAK, and wait for the external device to resend the command.

SAM ASCII PROTOCOL DEFINITION

Message Definitions

- The notation SnZn is used to indicate a specific system and zone.Where S1 or Z1 appears in the messages shown below replace 1 with the appropriate system or zone number.
- If the specified system or zones do not exist, a NAK will be returned.

ASCII Message Examples

This section contains sample protocol commands and responses. The commands below are assumed to be terminated by the CRLF (carriage return, line feed) terminating character.

#	COMMAND	RESPONSE	DESCRIPTION
1.	S1MODE?	S1MODE:COOL2	The current mode for System 1 is Cool. A demand currently exists for cooling, and number of cool stages is 2.
2.	S2MODE!AUTO	S2MODE: ACK	Sets mode for System 2 to Auto.
3.	S1Z2HOLD?	S1Z2HOLD:OFF	Program hold is inactive for System 1, Zone 2
4.	S1Z2HOLD!ON	S1Z2HOLD: ACK	Sets hold to active for System 1, Zone 2.
5.	S1DAY?	S1DAY: TUESDAY	Current day of the week for System 1 is Tuesday.
6.	S1DAY!0	S1DAY: ACK	Sets current day for System 1 to Sunday
7.	S2TIME?	S2TIME:01:59 P	Current time of day for System 2 is 1:59 PM.
8.	S2TIME!08:10A	S2TIME: ACK	Sets current time for System 2 to 8:10 AM.
9.	S2TIME! 8:10A	S2TIME: NAK VAL	Invalid value; the 8 must be preceded by a leading 0.
10.	S1Z5HTSP?	S1Z5HTSP:60°F	Heat setpoint for System 1, Zone 5 is 60°F.
11.	S1Z5HTSP!68, 01:30	S1Z5HTSP: ACK	Sets heat setpoint for System 1, Zone 5 to 68 at current system units. An override timer is initiated at 1 hour 30 minutes.
12.	S1CFGEM?	S1CFGEM: C	Current thermostat units is Metric.
13.	S1CFGEM!M	S1CFGEM:ACK	Sets the units of the thermostat to Metric.
14.	S1Z1PGMMONWAKE?	S1Z1PGMMONWAKE:06:00 A, 68°F, 76°F, AUTO	Time for System 1, Zone 1, Monday Wake Period is 6:00 AM. Heat setpoint is 68°F, cool setpoint is 76°F and fan is set to Auto.
15.	S1Z1PGMMON- WAKE!06:30 A, 70, 72, AUTO	S1Z1PGMMONWAKE:ACK	Sets time for the Monday Wake Period to 6:30 AM. Heat setpoint is set to 70 and cool setpoint to 72, at current system units. Fan is set to Auto.
16.	S1Z5RT?	S1Z5RT:NAK CMD	Zone 5 is not present.
17.	S1Z1RT!	S1Z1RT:NAK CMD	Set command not supported.
18.	S1Z1MODE?	S1Z1MODE:NAK CMD	Command does not include the zone parameter.
19.	S1MODE!AUTO	S1MODE!NAK VAL	System is a heat only configuration, AUTO is invalid for the system.
20.	S2MODE?	S2MODE:NAK CMD	System 2 not present.
21.	S1MODE:HEAT	S1MODE:HEAT:NAK CMD	Invalid command, missing '!'
22.	S1DAY!9	S1DAY:NAK VAL	Invalid parameter, valid values are 0 to 6.

ASCII Command Set

Shown below are the ASCII commands starting with Status Commands.

Status Commands				
	INFINITY SAM DATA REQUESTS: STATUS COMMANDS (2)			
DESCRIPTION	COMMAND	RESPONSE	NOTES	
Retrieve displayed room temperature	S1Z1RT?	S1Z1RT: xxx°F/C	Returns room temperature as displayed for the specified zone.	
Retrieve Displayed Humidity	S1Z1RH?	S1Z1RH: XX%	Returns room humidity as displayed. There is currently only one humidity sensor in the Infinity system. The Zone Designation will remain for future expansion.	
Retrieve outdoor temperature	S1OAT?	S1OAT: xxx°F/C	Returns the outdoor temperature as displayed for the speci- fied system.	
Retrieve fan setting	S1Z1FAN?	S1Z1FAN: (AUTO, LOW, MED, HIGH)	Returns the fan setting for the specified zone.	
Retrieve Mode	S1MODE?	S1MODE: (HEAT, COOL, AUTO, OFF, EHEAT) #	Returns the current mode setting for the specified system. A numeric value after the mode will indicate that there is a demand for that mode – the value will indicate the number of heat or cool stages. The Zone parameter is omitted for this command.	
Retrieve Hold Status	S1Z1HOLD?	S1Z1HOLD: ON/OFF	Returns the hold status for the specified zone. ON indicates that program hold is active (the thermostat is not following the program settings and is held at the current temperature settings). OFF indicates that program HOLD is inactive (the thermostat is following the programmed temperature set- tings).	
Retrieve Unoccupied Status	S1Z1UNOCC?	S1Z1UNOCC: ON/OFF	Returns the unoccupied status of the specified zone. ON indicates that the zone is configured as an unoccupied space and is using the unoccupied temperature settings. OFF indicates that the zone is set to occupied (the thermostat is following the programmed temperature settings if hold is OFF). In an unzoned system this command has no value and will always return OFF.	
Retrieve the current Heat Setpoint	S1Z1HTSP?	S1Z1HTSP: xxx°F/C	Returns the active Heating Setpoint for the specified zone.	
Retrieve the current Cool Setpoint	S1Z1CLSP?	S1Z1CLSP: xxx°F/C	Returns the active Cooling Setpoint for the specified zone.	
Retrieve the current Humidification Target	S1Z1RHTG?	S1Z1RHTG: XX%	Returns the humidification target for the specified zone. Currently the system supports a single humidification set- point. The zone number is intended for future expansion.	
Retrieve the current humidifier State	S1HUMID?	S1HUMID: ON/OFF	Returns the state of the humidifier output for the specified system.	
Retrieve the Current day	S1DAY?	S1DAY: (MONDAY, TUESDAY, etc.)	Returns the day of the week for the specified system, as displayed on the thermostat.	
Retrieve the current time	S1TIME?	S1TIME: HH:MM A/P	Returns displayed time in 12-hour format for the specified system.	
Retrieve the override state	S1Z1OVR?	S1Z1OVR: ON/OFF	Returns the state of the override timer for the specified zone. A value of ON indicates that the override timer is active.	
Retrieve the override timer	S1Z1OTMR?	S1Z1OTMR: HH:MM	Returns the value of the override timer in HH (hour) MM (Minutes) format. The command will return a value of 00:00 if the override timer is not active.	
Retrieve the Current Zone number	S1ZONE?	S1ZONE: 1-8	Returns the zone number of the zone currently displayed on the thermostat (a value of $1-8$) for the specified system. In an unzoned system this command will always return 1.	
Retrieve the Zone name for Zone #	S1Z1NAME?	S1Z1NAME: 12 characters max	Returns the ASCII name of the specified zone.	
Retrieve Filter Life	S1FILTRLVL?	S1FILTRLVL: XX%	Returns the filter use percentage of the specified system.	
Retrieve UV Lamp Life	S1UVLVL?	S1UVLVL: XXX%	Returns the UV lamp use percentage of the specified system.	

Status Commands(cont)

Infinity SAM Data Requests CONTINUED:			
Status Commands (?	?)		
Retrieve Humidifier Pad life	SIHUMLVL?	S1HUMLVL: XXX%	Returns the humidifier lamp use percentage of the specified system.
Retrieve Filter Reminder Setting	S1FILTRRMD?	S1FILTRRMD: ON / OFF	Returns the advance setting configuration for filter reminder. ON indicates that the Filter Reminder is active.
Retrieve UV Lamp Reminder Setting	S1UVRMD?	S1UVRMD: ON / OFF	Returns the advance setting configuration for the UV lamp reminder. ON indicates that the UV lamp reminder is active.
Retrieve Humidifier Pad Reminder Setting	S1HUMRMD?	S1HUMRMD: ON / OFF	Returns the advance setting configuration for the Humidifier Pad reminder. ON indicates that the Humidifier Pad Remind- er is active.
Retrieve the Backlighting setting	S1BLIGHT?	S1BLIGHT: ON / OFF	Returns the advance setting configuration for the backlight option for the specified system. ON indicates continuous backlighting is active.
Retrieve the Vacation State	S1VACAT?	S1VACAT: ON / OFF	Returns vacation state. ON indicates that the thermostat is operating using vacation settings.
Retrieve the Vacation Days	S1VACDAYS?	S1VACDAYS: ###	Returns the number of vacation days remaining.
Retrieve the Vacation Minimum Temperature	S1VACMINT?	S1VACMINT: ## xxx°F/C	Returns the minimum vacation temperature setting for the specified system.
Retrieve the Vacation Maximum Temperature	S1VACMAXT?	S1VACMAXT: ## xxx°F/C	Returns the maximum vacation temperature setting for the specified system.
Retrieve the Vacation Minimum Humidity	S1VACMINH?	S1VACMINH: ## xxx%	Returns the minimum vacation humidity setting for the speci- fied system.
Retrieve the Vacation Maximum Humidity	S1VACMAXH?	S1VACMAXH: ## xxx%	Returns the maximum vacation humidity setting for the spe- cified system.
Retrieve the Vacation Fan Setting	S1VACFAN?	S1VACFAN: (AUTO, LOW, MED, HIGH)	Returns the fan setting for vacation operation for the speci- fied system.
Retrieve Units of the thermostat.	S1CFGEM?	S1CFGEM: F/C	Returns the units configuration $(F - English/C - Metric)$ of the thermostat.
Retrieve the Auto Configuration of the thermostat	S1CFGAUTO?	S1CFGAUTO: ON / OFF	Returns the configuration for the Auto Mode enabled option of the thermostat. ON indicates that Auto Mode is enabled. OFF indicates that Auto mode has been disabled and can- not be selected.
Retrieve the System Type	S1CFGTYPE?	S1CFGTYPE: COOL / HEAT / HEATCOOL	Returns system type (heat only, cool only or heat and cool) for the specified system.
Retrieve the Deadband of the thermostat	S1CFGDEAD?	S1CFGDEAD: #	Returns the configured heat/cool deadband (minimum sepa- ration between heating and cooling setpoints) setting for the thermostat.
Retrieve the Cycles per hour of the ther- mostat	S1CFGCPH?	S1CFGCPH: #	Returns the maximum cycles per hour setting of the thermo- stat.
Retrieve the Programmable Fan Setting	S1CFGFAN?	S1CFGFAN: ON / OFF	Returns the programmable fan setting of the thermostat. ON indicates that Programmable FAN is selected

Programming Information

Programming Infor	mation:		
Description	Command	Response	Notes
Retrieve The current program period	S1PER?	S1PER: WAKE, DAY, EVE, SLEEP	Returns the current programming period of the specified system.
Retrieve The number of periods allowed for programming	S1CFGPER?	SICFGPER: #	Returns the number of periods per day setting (2 or 4) for the specified system.
Retrieve the programming state of the thermostat	S1CFGPGM?	S1CFGPGM: ON / OFF	Returns the programming setting of the thermostat. ON indicates that Programming is enabled.
Retrieve programming information for the Monday Wake Period	S1Z1PGMMONWAKE?	S1Z1PGMMONWAKE: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Monday Wake Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Monday Day Period	S1Z1PGMMONDAY?	S1Z1PGMMONDAY: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Monday Day Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Monday EVE Period	S1Z1PGMMONEVE?	S1Z1PGMMONEVE: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Monday Evening Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Monday SLEEP Period	S1Z1PGMMONSLP?	S1Z1PGMMONSLP: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Monday Sleep Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Tuesday Wake Period	S1Z1PGMTUESWAKE?	S1Z1PGMTUESWAKE: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Tuesday Wake Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Tuesday Day Period	S1Z1PGMTUESDAY?	S1Z1PGMTUESDAY: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Tuesday Day Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Tuesday EVE Period	S1Z1PGMTUESEVE?	S1Z1PGMTUESEVE: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Tuesday Evening Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Tuesday SLEEP Period	S1Z1PGMTUESSLP?	S1Z1PGMTUESSLP: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Tuesday Sleep Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Wednesday Wake Period	S1Z1PGMWEDWAKE?	S1Z1PGMWEDWAKE: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Wednesday Wake Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.

Programming Information (cont)

Programming Infor	mation Continued:		
Retrieve programming information for the Wednesday Day Period	S1Z1PGMWEDDay?	S1Z1PGMWEDDay: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Wednesday Day Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Wednesday Evening Period	S1Z1PGMWEDEvening ?	S1Z1PGMWEDEvening: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Wednesday Evening Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Wednesday SLEEP Period	S1Z1PGMWEDSLP?	S1Z1PGMWEDSLP: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Wednesday Sleep Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Thursday Wake Period	S1Z1PGMTHURWAKE?	S1Z1PGMTHURWAKE: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Thursday Wake Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Thursday Day Period	S1Z1PGMTHURDay?	S1Z1PGMTHURDay: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Thursday Day Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Thursday Evening Period	S1Z1PGMTHUREvenin g?	S1Z1PGMTHUREvening: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Thursday Evening Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Thursday SLEEP Period	S1Z1PGMTHURSLP?	S1Z1PGMTHURSLP: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Thursday Sleep Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Friday Wake Period	S1Z1PGMFRIWAKE?	S1Z1PGMFRIWAKE: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Friday Wake Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Friday Day Period	S1Z1PGMFRIDay?	S1Z1PGMFRIDay: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Friday Day Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Friday Evening Period	S1Z1PGMFRIEvening?	S1Z1PGMFRIEvening: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Friday Evening Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Friday SLEEP Period	S1Z1PGMFRISLP?	S1Z1PGMFRISLP: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Friday Sleep Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Saturday Wake Period	S1Z1PGMSATWAKE?	S1Z1PGMSATWAKE: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Saturday Wake Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Wednesday Day Period	S1Z1PGMWEDDay?	S1Z1PGMWEDDay: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Wednesday Day Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.

Programming Information (cont)

Programming mon	mation Continued:		
Retrieve programming information for the Wednesday Evening Period	S1Z1PGMWEDEvening ?	S1Z1PGMWEDEvening: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Wednesday Evening Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Saturday Day Period	S1Z1PGMSATDay?	S1Z1PGMSATDay: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Saturday Day Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Saturday Evening Period	S1Z1PGMSATEvening?	S1Z1PGMSATEvening: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Saturday Evening Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Saturday SLEEP Period	S1Z1PGMSATSLP?	S1Z1PGMSATSLP: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Saturday Sleep Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Sunday Wake Period	S1Z1PGMSUNWAKE?	S1Z1PGMSUNWAKE: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Sunday Wake Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Sunday Day Period	S1Z1PGMSUNDay?	S1Z1PGMSUNDay: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Sunday Day Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.
Retrieve programming information for the Sunday Evening Period	S1Z1PGMSUNEvening?	S1Z1PGMSUNEvening: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Sunday Evening Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned. If Periods Per Day is set to 2 a NAK will be returned.
Retrieve programming information for the Sunday SLEEP Period	S1Z1PGMSUNSLP?	S1Z1PGMSUNSLP: TIME (HH:MM A/P), HEAT, COOL, FAN	Returns time (12 hour format), heat setpoint, cool setpoint and fan settings for the Sunday Sleep Period for the specified system and zone. If programmable FAN is set to OFF the fan setting will not be returned.

Configuration Commands

Configuration Commands (!)			
Description	Command	Response	Notes
Set fan setting	S1Z1FAN!(AUTO, LOW, MED, HIGH)	S1Z1FAN: ACK / NAK	Sets the fan setting for the specified zone
Set the thermostat Mode	S1MODE!(HEAT, COOL, AUTO, OFF, EHEAT)	S1MODE: ACK / NAK	Sets the current mode setting for the specified system. A NAK will be returned if the system cannot support the mode specified. For example, if the system is a heat only configuration attempting to set mode to AUTO or COOL will result in a NAK.
Set Hold Status	S1Z1HOLD!ON / OFF	S1Z1HOLD: ACK / NAK	Sets the HOLD status of the specified system. ON will set Hold to active.
Set Unoccupied Status	S1Z1UNOCC!ON/ OFF	S1Z1UNOCC: ACK/NAK	Sets the unoccupied status of the specified zone. A NAK will be returned if this command is sent to an unzoned system. ON will set unoccupied to TRUE.
Set the current Heat Setpoint	S1Z1HTSP!XX,HH:M M (Time is optional)	S1Z1HTSP: ACK / NAK	Sets the current heat setpoint for the specified system zone. An override timer will be initiated at the default of 2 hours 00 minutes. Follow with override time if a different value is desired. A NAK will be returned if the heat set- point is not valid for the current unit type. It is the system integrator's responsibility to ensure that correct setpoint values are sent for the current units (English / metric) set- ting. Setpoint, hours and minutes must be sent with a leading zero for values less than 10. E.g.: S1Z1HTSP!06, 01:00 for 6°C and an override of 1 Hour.
Set the current Cool Setpoint	S1Z1CLSP!XX, HH:MM (time is op- tional)	S1Z1CLSP: ACK / NAK	Sets the current cool setpoint. An override timer will be initiated at the default of 2 hours 00 minutes. Follow with override time if a different value is desired. A NAK will be returned if the cool setpoint is not valid for the current unit type. It is the system integrator's responsibility to ensure that correct setpoint values are sent for the current units (English / metric) setting. Setpoint, hours and minutes must be sent with a leading zero for values less than 10. E.g.: S1Z1CLSP!09, 01:00 for 9°C and an override of 1 Hour.
Set the Current day	S1Day!0-6	S1Day: ACK / NAK	Sets the current day for the specified system. Valid values range from 0 to 6 (0 – Sunday, 6 – Saturday). A NAK will be returned for any value outside this range.
Set the current time	S1TIME!HH:MM A/P	S1TIME: ACK/NAK	Sets current time for the specified system. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10. e.g.: S1TIME!09:01P for 9:01 PM.
Set the override timer	S1Z1OTMR!HH:MM	S1Z1OTMR: ACK / NAK	Sets the value of the override timer for the specified sys- tem. A NAK will be returned for values that exceed the maximum allowed value of 23:59. Time must be sent with leading zeros for hour and minute values less than 10. e.g.: S1Z1OTMRI01:05 for 1 hour 5 minutes.
Set the Current Zone number	S1ZONE!1	S1ZONE:ACK / NAK	Changes the thermostat display to the zone specified. Zone numbers must be in the range 1–8. A NAK will be returned for an invalid zone number.
Set the Zone name for Zone #	S1Z1NAME:ABC- DEF123456	S1Z1NAME:ACK / NAK	Changes the zone name for the zone number specified. The zone name may have a maximum of 12 characters and may contain characters in both upper and lower case.
Reset Filter Life	S1FILTRLVL!0	S1FILTRLVL:ACK/NAK	Resets the clean filter monitor to 0% (Note that doing so without actually cleaning the filter can result in a faster accumulation of percentage used and degraded system performance).
Reset UV Lamp Life	S1UVLVL!0	S1UVLVL:ACK / NAK	Resets the UV lamp monitor to 0% (Note that doing so without actually replacing the lamp(s) can result in a faster accumulation of percentage used and degraded system performance).

		Configuration Commands (!) Continued
Description	Command	Response	Notes
Reset Humidifier Pad life	SIHUMLVL!0	S1HUMLVL:ACK/NAK	Resets the humidifier pad monitor to 0% (Note that doing so without actually cleaning the pad will result in a faster accumulation of percentage used and degraded system performance).
Reset Ventilator Fil- ter life	SIVENTLVL!0	S1VENTLVL:ACK/NAK	Resets the ventilator filter life to 0% (Note that doing so without actually cleaning the pad will result in a faster accumulation of percentage used and degraded system performance).
Set Filter Reminder Setting	S1FILTRRMD!ON/ OFF	S1FILTRRMD: ACK/NAK	Sets the filter reminder setting for the specified system. A value of ON will activate the reminder.
Set UV Lamp Re- minder Setting	S1UVRMD!ON/OFF	S1UVRMD:ACK/NAK	Sets the UV lamp reminder setting for the specified system. A value of ON will activate the reminder.
Set Humidifier Pad Reminder Setting	S1HUMRMD!ON/ OFF	S1HUMRMD: ACK/NAK	Sets the humidifier pad reminder setting for the specified system. A value of ON will activate the reminder.
Set Ventilator Pad Reminder Setting	S1VENTRMD!ON/ OFF	S1VENTRMD: ACK/NAK	Sets the ventilator pad reminder setting for the specified system. A value of ON will activate the reminder.
Set the Backlight- ing setting	S1BLIGHT!ON/OFF	S1BLIGHT: ACK/NAK	Sets the backlight setting for the specified system. ON requests continuous backlighting.
Set the Vacation State	S1VACDayS!###	S1VACDayS:ACK/NAK	Sets vacation state to true for the specified system. Num- ber of vacation days will be set to the number specified. Setting days to 0 will terminate an active vacation. Num- ber of days must be sent with leading zeroes for numbers less than 100. e.g.: S1VACDavS!001 for 1.
Set the Vacation Minimum Tempera- ture	S1VACMINT!XX	S1VACMINT: ACK/NAK	Sets minimum temperature for vacation operation for the specified system. A NAK will be returned if the minimum temperature is not valid for the current unit type. Note that the vacation maximum temperature setting may also change in order to satisfy the deadband setting. Correct temperature values must be sent for the current units (English/Metric) configuration. Temperature must be sent with leading zeroes for values less than 10. e.g.: S1VACMINT!06 for 6°C.
Set the Vacation Maximum Temper- ature	S1VACMAXT!XX	S1VACMAXT:ACK/NAK	Sets maximum temperature for vacation operation for the specified system. A NAK will be returned if the maximum temperature is not valid for the current unit type. Note that the vacation minimum temperature setting may also change in order to satisfy the deadband setting. Correct temperature values must be sent for the current units (English/Metric) configuration. Temperature must be sent with leading zeroes for values less than 10.
Set the Vacation Minimum Humidity	S1VACMINH!XXX	S1VACMINH: ACK/NAK	Sets minimum humidity for vacation operation for the spe- cified system. Valid values are 0, 10, 15 and 20. Values less than 100 must be sent with leading zeros.
Set the Vacation Maximum Humidity	S1VACMAXH!XXX	S1VACMAXH: ACK/NAK	Sets maximum humidity for vacation operation for the specified system. Valid values are 55, 60, 65 and 100. Values less than 100 must be sent with leading zeros.
Set the Vacation Fan Setting	S1VACFAN!(AUTO, LOW, MED, HIGH)	S1VACFAN:ACK/NAK	Sets the vacation fan setting for the specified system.
Set Units of the thermostat.	S1CFGEM!E/M	S1CFGEM:ACK/NAK	Sets the units of the thermostat to English (E) or Metric (M)
Set the Auto Con- figuration of the thermostat	S1CFGAUTO!ON/ OFF	S1CFGAUTO:ACK/NAK	Sets the auto mode setting of the thermostat. ON will enable Auto Mode selection. A NAK will be returned for Heat only or Cool only units.
Set the Deadband of the thermostat	S1CFGDEAD!#	S1CFGDEAD: ACK/NAK	Sets the heat/cool deadband (minimum separation be- tween heating and cooling setpoints) of the thermostat. Values may be in the range of $2-6$, values outside this range will result in a NAK response.
Set the Cycles per hour of the thermo- stat	S1CFGCPH!#	S1CFGCPH: ACK/NAK	Sets the cycles per hour of the thermostat. Values may be in the range of $2-6$, values outside this range will result in a NAK response.
Set the Program- mable Fan Setting	S1CFGFAN!ON/OFF	S1CFGFAN: ACK/NAK	Sets programmable FAN setting. If set to ON programmable fan is allowed.

Programming Information

Programming Information:			
Description	Command	Response	Notes
Set The number of periods allowed for programming	S1CFGPER!#	SICFGPER:ACK/NAK	Sets the number of programming periods per day. Valid values are 2 or 4, values outside of this range will result in a NAK response.
Set the programming state of the thermostat	S1CFGPGM!ON/OFF	S1CFGPGM:ACK/NAK	Sets the programming state of the thermostat. If set to ON programming is enabled.
Set programming information for the Monday Wake Period	S1Z1PGMMONWAKE! TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMMONWAKE:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Monday Wake Period. If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set programming information for the Monday Day Period	S1Z1PGMMONDay!TI ME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMMONDay:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Monday Day Period If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Retrieve programming information for the Monday Evening Period	S1Z1PGMMONEvenin g!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMMONEvening:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Monday Eve Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set programming information for the Monday SLEEP Period	S1Z1PGMMONSLP!TI ME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMMONSLP:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Monday Sleep Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set programming information for the Tuesday Wake Period	S1Z1PGMTUESWAKE! TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMTUESWAKE:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Tuesday Wake Period. If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set programming information for the Tuesday Day Period	S1Z1PGMTUESDay!TI ME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMTUESDay:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Tuesday Day Period If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set programming information for the Tuesday Evening Period	S1Z1PGMTUESEvenin g!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMTUESEvening:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Tuesday Eve Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set programming information for the Tuesday SLEEP Period	S1Z1PGMTUESSLP!TI ME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMTUESSLP:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Tuesday Sleep Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set programming information for the Wednesday Wake Period	S1Z1PGMWEDWAKE! TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMWEDWAKE:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Wednesday Wake Period. If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set programming information for the Wednesday Day Period	S1Z1PGMWEDDay!TI ME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMWEDDay:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Wednesday Day Period If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.

Description	Command	Response	Notes
Set program- ming information for the Wednes- day Evening Pe- riod	S1Z1PGMWEDEven- ing!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMWEDEvening:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Wednesday Eve Period. If program- mable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Wednes- day SLEEP Peri- od	S1Z1PGMWEDSLP!TI ME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMWEDSLP:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Wednesday Sleep Period. If program- mable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Thursday Wake Period	S1Z1PGMTHUR- WAKE!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMTHURWAKE:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Thursday Wake Period. If program- mable FAN is set to OFF the fan setting will be ig- nored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Thursday Day Period	S1Z1PGMTHUR- Day!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMTHURDay:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Thursday Day Period If program- mable FAN is set to OFF the fan setting will be ig- nored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Thursday Evening Period	S1Z1PGMTHUREven- ing!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMTHUREvening:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Thursday Eve Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Thursday SLEEP Period	S1Z1PGMTHURSLP!TI ME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMTHURSLP:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Thursday Sleep Period. If program- mable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Friday Wake Period	S1Z1PGMFRI- WAKE!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMFRIWAKE:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Friday Wake Period. If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Friday Day Period	S1Z1PGMFRI- Day!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMFRIDay:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Friday Day Period If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Friday Evening Period	S1Z1PGMFRIEven- ing!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMFRIEvening:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Friday Eve Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Friday SLEEP Period	S1Z1PGMFRISLP!TIM E (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMFRISLP:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Friday Sleep Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Saturday Wake Period	S1Z1PGMSAT- WAKE!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMSATWAKE:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Saturday Wake Period. If program- mable FAN is set to OFF the fan setting will be ig- nored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.
Set program- ming information for the Saturday Day Period	S1Z1PGMSAT- Day!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMSATDay:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Saturday Day Period If program- mable FAN is set to OFF the fan setting will be ig- nored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.

Programming Information Continued:					
Description	Command	Response	Notes		
Set program- ming information for the Saturday Evening Period	S1Z1PGMSATEven- ing!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMSATEvening:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Saturday Eve Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.		
Set program- ming information for the Saturday SLEEP Period	S1Z1PGMSATSLP!TIM E (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMSATSLP:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Saturday Sleep Period. If program- mable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.		
Set program- ming information for the Sunday Wake Period	S1Z1PGMSUN- WAKE!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMSUNWAKE:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Sunday Wake Period. If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.		
Set program- ming information for the Sunday Day Period	S1Z1PGMSUN- Day!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMSUNDay:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Sunday Day Period If programmable FAN is set to OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.		
Set program- ming information for the Sunday Evening Period	S1Z1PGMSUNEven- ing!TIME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMSUNEvening:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Sunday Eve Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.		
Set program- ming information for the Sunday SLEEP Period	S1Z1PGMSUNSLP!TI ME (HH:MM A/P), HEAT, COOL, FAN	S1Z1PGMSUNSLP:ACK/NAK	Sets the time, heat setpoint, cool setpoint and fan setting for the Sunday Sleep Period. If programmable FAN is OFF the fan setting will be ignored. Time must be sent in 12-hour format with leading zeros for hour and minute values less than 10.		
Reset factory de- faults	S1CFG!A5A5 S1CFG!RESET	S1CFG:ACK/NAK S1CFG:ACK/NAK	This command sequence restores factory default settings. The commands must be sent in succession. Any commands received in between will abort the reset. If the first command is not followed by the re- set request within 10 seconds the reset will be can- celled.		

Service Commands

Service Commands (?/!)				
Description	Command	Response	Notes	
Retrieve Dealer Name	S1DEALER?	S1DEALER: JOE'S HVAC	Returns the name of the servicing dealer.	
Retrieve Dealer Phone	S1DEALERPH?	S1DEALERPH: 1-800-HVACMAN	Returns the phone number of the servicing dealer.	
Set Dealer Name	S1DEALER!ABCDEF G123456	S1DEALER:ACK/NAK	Sets the servicing dealer name. Dealer name may have a maximum of 19 characters and may contain both upper and lower case characters.	
Set Dealer Phone	S1DEALERPH!1-80 0-HVACMAN	S1DEALERPH:ACK/NAK	Sets the servicing dealer phone number. Phone number may contain a maximum of 19 characters.	



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