S3C Controls
Startup Guide

SD-476 / 92021   Controller v. A

1. PROGRAMMING

a. The S3C setpoints are programmed by the various OEMs.

    i. Contact Sporlan if a generic setpoint sheet list is needed.

b. They are to be pre-tested by the OEMs.

c. They are to be set in "Charge" mode by the OEMs to enable system evacuation and charging. The S3C will automatically switch to Refrigeration mode once the controller reads pressure from the system via transducer. Changes to monitored setpoints such as case temperature, defrost schedule, and other monitored store conditions are not writable by Sporlan once these devices are connected to a BAS.

    i. Once connected to a BAS, any requests for changes to Case Temp, Defrost start time, Defrosts per day, etc., must be requested through the BAS manufacturer.

d. Changes to control methods such as TEV versus EEV, EEPR or Mechanical PR, Constant On (Rack system) versus Cut In/Cut Out (RCU system), Minimum Suction Pressure, etc., are typically writable by Sporlan.

2. INSTALLATION

a. Equipment installers are responsible for placing the specific case in the designated location in the store following the latest store drawings. OEMs should be providing the CASE ID prominently on the case.

b. The IP address, Device ID, BACnet ID and all underlying setpoints are for that specific location and usage in the store.

c. *Technicians may use the Display Module (Admin pass code required) or the Sporlan Tech Check mobile app to change CASE IDs. Contact Sporlan for additional help.*

d. *Note: OEMs may have the pressure transducer service valve closed to prevent damage during evacuation. Open service valves prior to charging with refrigerant.*

3. COMMUNICATIONS

Reference diagram on the next page of this guide.

a. CAT-5 Ethernet cables must be used to connect all S3C Controls in a comm loop.

    i. Any CAT-5 run longer than 100 meters (328 feet) should be split near the middle and have a network switch (Sporlan Item #2000123) added to boost the signal.

b. If connecting to a BAS, there is a limit of 38 S3C controllers per BAS comm port.

c. Other brands or types of controllers may not be placed on the same comm loop with S3C controllers.

d. The RS-485 line must be landed on a specific controller to meet the store specs and profiles on the BAS (Novar, Emerson, etc).

e. If the RS-485 address of the BAS is to be something other than the default of "7", contact Sporlan. If comm issues exist, installers or EMS technicians should report the CASE ID of the landing point, the BAS comm port, and the BACnet address of that BAS comm port to Sporlan. (EX: CASE ID=B.3.a, Novar comm port=4, RS485 address of BAS comm port=8).

f. All comm lines (CAT-5 and RS-485) should be tested for continuity by the installers or EMS technicians. *Ethernet cable testers offer improved testing to ensure high quality communications exist.*

g. A power cycle is required on any S3C Case Controller that has received changes to CASE ID, BACnet device ID, RS-485 address, etc.

h. A power cycle of the BAS (Novar or Emerson) is also suggested after making any changes to BACnet settings.

4. TOOLS FOR USE

a. Sporlan cellular gateway

    i. Sporlan Item #2000120 (AT&T) or #2000121 (Verizon).

    ii. To be installed at each site for each comm loop.

    iii. Gateway is connected via CAT-5 cable to an open comm port on a S3C Controller. (Beginning or end of CAT-5 comm loop)

    iv. Gateway must be registered with Sporlan via the phone number on the label, powered up, have a good and consistent cellular signal, and be connected to a S3C Controller in the comm loop via CAT-5 cable.

b. Sporlan Tech Check mobile app

    i. Available for iOS (Apple App Store) and Android (Google Play).

    ii. Users must register the app and pass S3C training to gain access to S3C Controls.

    iii. Allows an on-site technician to connect to the S3C Case Control via Bluetooth.

    iv. Can view current measurements and settings.

    v. Can assign a CASE ID, make temporary overrides, download history, etc.

c. Sporlan Tech Check mobile app with "Remote Support"

    i. This is a Zoom-based connection with a Sporlan support representative. (Available only on iOS devices.) Uses an internet connection between Sporlan

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Sporlan S3C Case Control Installation and Operation Manual

For detailed instructions, scan this QR code or go to solutions.parker.com/literature-100 and download Bulletin 100-50-9.1.

representative and the iOS mobile device of the <u>technician on site</u> to connect with S3C Case Control via Bluetooth.

   ii. Allows the approval of certain changes to S3C parameters but will not override any existing supervisory controller (BAS).

d. S3C Display Module

   i. Instructions for the menu may be found in Sporlan S3C I/O Manual Bulletin 100-50-9.1

   ii. Allows users with Technician level or Administrative level password to make changes on their authority level.

   iii. Find manual at http://solutions.parker.com/literature-100.

   iv. Other product literature found at: solutions.parker.com/sporlanliterature

5. RESOURCES

Sporlan Technical Support

a. E-mail: mtsupport@parker.com

b. Phone: **888-920-6284**

   i. Extensive emergency support for S3C Controls.

   ii. Toll free in U.S.

   iii. Dispatcher will send your contact info to a Sporlan representative that will call the number you provide.

      a. Please offer First and Last name, Phone number, Store Number, City, and State along with brief explanation of the issue.

6. QUICK TIPS

- For viewing settings, changing modes, and other technician-level options, press the service (wrench) button and enter the Technician-level password. For setting up the system or making configuration changes, press the wrench button and enter the administrative-level password.

- Depending on the firmware revision of the S3C Controller, the administrative-level passwords may change daily. Contact Sporlan for assistance.

- To manually exit "Test" or "Charge Pro" mode press the "ESC" button on the S3C Display Module for 5 seconds.

- To connect to S3C controller via Bluetooth, hold down "▼" button for 5 seconds until signal indicator begins flashing.

- To initiate a manual defrost, press the snowflake button and enter the technician-level password. Then set DEF to ON.

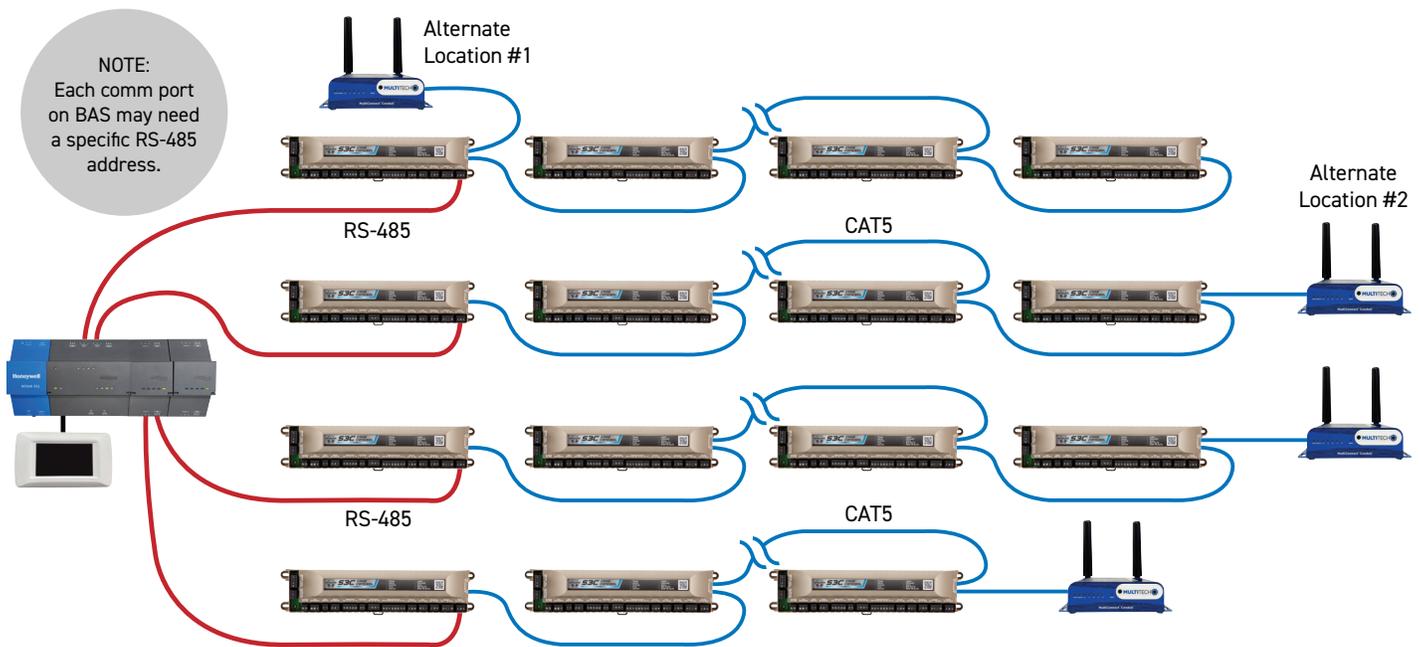## NETWORK DIAGRAM (BAS & RS-485 cables are not required.)

Figure above: Store network showing 4 comm loops into one BAS. A BAS is not required. Sporlan S3C controls can operate cases and/or walk-ins as "stand-alone" controllers.

If multiple comm loops are attached to a single BAS, the RS-485 addresses will need to be determined from store drawings or BAS provider. Default RS-485 address in S3C Controllers is "7", but OEMs or technicians may need to change to "8", "9", etc., as shown above.