

INSTALLATION INSTRUCTIONS FOR THE DCP-SCI SHORT CIRCUIT ISOLATOR MODULE

The information contained in this installation instruction is a quick reference guide. For detailed system information refer to the panel manufacturers installation manual. This instruction is generic and will not address specific programming procedures.

GENERAL DESCRIPTION:

This instruction applies to the DCP Short Circuit Isolator Module (DCP-SCI) which is to be connected to a DCP Signaling Line Circuit (SLC).

The SCI circuit will prevent entire loop failure in case of a short. In the event of a short on the S-SC line, the DCP-SCI circuit will activate and its Yellow LED indicator will be turned on steady. The DCP-SCI has a fast response time but the Control Panel will momentarily detect a short before the SCI circuit breaks open if the short occurs during normal operation. Upon removal of the short condition, the SCI will automatically restore the entire loop to normal operating state.

OPERATION: For the best performance of DCP-SCI short circuit isolator, use class A configuration with multiple DCP-SCI modules.

CLASS A CONFIGURATION WIRING

Wire the DCP-SCI short circuit isolator between any devices on the S-SC line. In the event of a short on the S-SC line, the two adjacent isolators (closest isolators to the left and right of the shorted section) will activate and their respective LED indicators will be turned on. All devices between the active short circuit isolators will stop communication with the panel. This will prevent total loop failure. Upon removal of the short condition, the DCP-SCIs will automatically restore the entire loop to the normal operating state. A short between the panel and DCP-SCI will result in total loop failure.

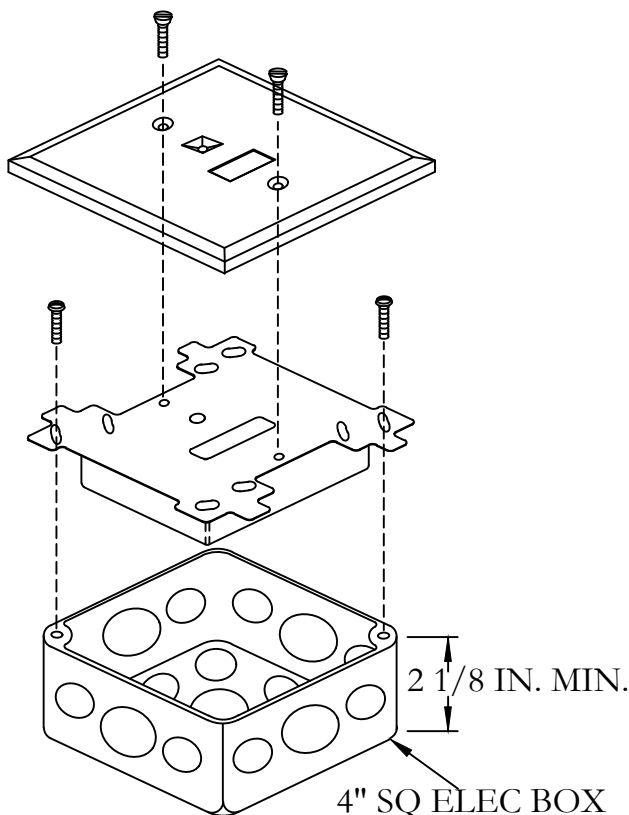
CLASS B CONFIGURATION WIRING

Wire the DCP-SCI short circuit isolator between any devices on the S-SC line. In the event of a short on the S-SC line, the isolator closest to the shorted section will activate and the respective LED indicator will be turned on. All devices beyond the activated SCI will stop communication with the panel. This will prevent total loop failure. Upon removal of the short condition, the DCP-SCI will automatically restore the entire loop to the normal operating state. A short between the panel and DCP-SCI will result in total loop failure.

SPECIFICATIONS	
SLC Applied Voltage	Rated Range 25.3 - 39 VDC
SLC Current Consumption	Maximum - 10mA (SCI ACTIVE) Nominal - 270µA
S OUT ON Resistance	1Ω (Max.)
Visual Indicator (status LED)	Yellow Led - (SCI version only) LED on indicates SCI circuit is ACTIVE
Operating Temperature Range	0°C (32°F) ~ 49°C (120°F)
Storage Temperature	-30°C (-22°F) ~ 70°C (158°F)
Maximum Relative Humidity	Up to 90% RH non-condensing
Environment	For dry Indoor use only
Dimensions	4.2"W x 4.7"H x 1.4"D
Weight	Approximately 20.0 ounces

MOUNTING REQUIREMENTS:

Mount short circuit isolators as shown in Figure 1 of these instructions.



**FIGURE 1
DCP-SCI MOUNTING**

Note:

An average of 6.75mA (communication current) per loop of SLC devices, must be factored into the panel battery backup calculations.

Note:

Radio Frequency Interference and Electro-Magnetic Interference are sources of noise that can adversely affect the fire alarm systems installation. Avoid running SLC circuits in the same conduit as power lines. Utilize twisted pair and shielded wire in environments where excessive noise is expected. When installing fire alarm system devices, avoid placing devices or wiring close to potential noise sources such as:

- Transmitters or antennas;
- Ballast lighting;
- Electrical motors;
- Large power transformers;
- Large machines.

WIRING:

NOTE: All wiring must conform to local codes, ordinances and regulations.

- 1) Install module wiring in accordance with the job drawings and appropriate wiring diagram (see Fig. 3)
- 2) Secure the module to a U.L. listed electrical box (supplied by installer) as shown in Fig. 1

TABLE 1: WIRING LIMITATIONS

Maximum Distance Between Module and EOL Device	
14 AWG	1500 Ft.
16 AWG	900 Ft.
18 AWG	550 Ft.

CAUTION !!!
 IF THIS MODULE WILL BE INSTALLED IN AN EXISTING OPERATIONAL SYSTEM, INFORM THE OPERATOR AND LOCAL AUTHORITY THAT THE SYSTEM WILL BE TEMPORARILY OUT OF SERVICE. DISCONNECT POWER TO THE CONTROL PANEL BEFORE INSTALLING THE MODULE.

Note: SLC circuit is in reference to S, and SC

NOTE: Only the same size wire from 12 to 22 AWG may be connected terminal block TB1 when more than one conductor is being connected under each terminal. Maximum of 2 conductor per terminal.

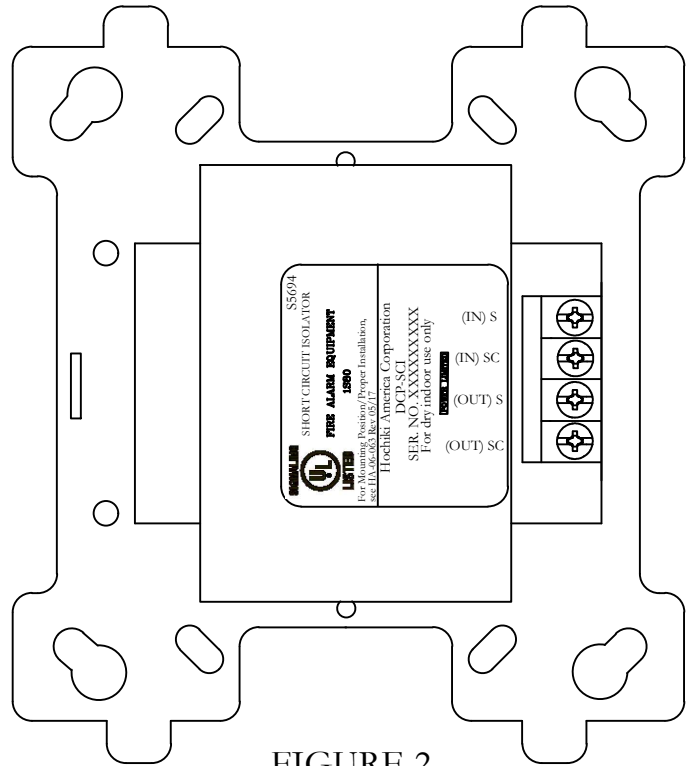


FIGURE 2
DCP-SCI

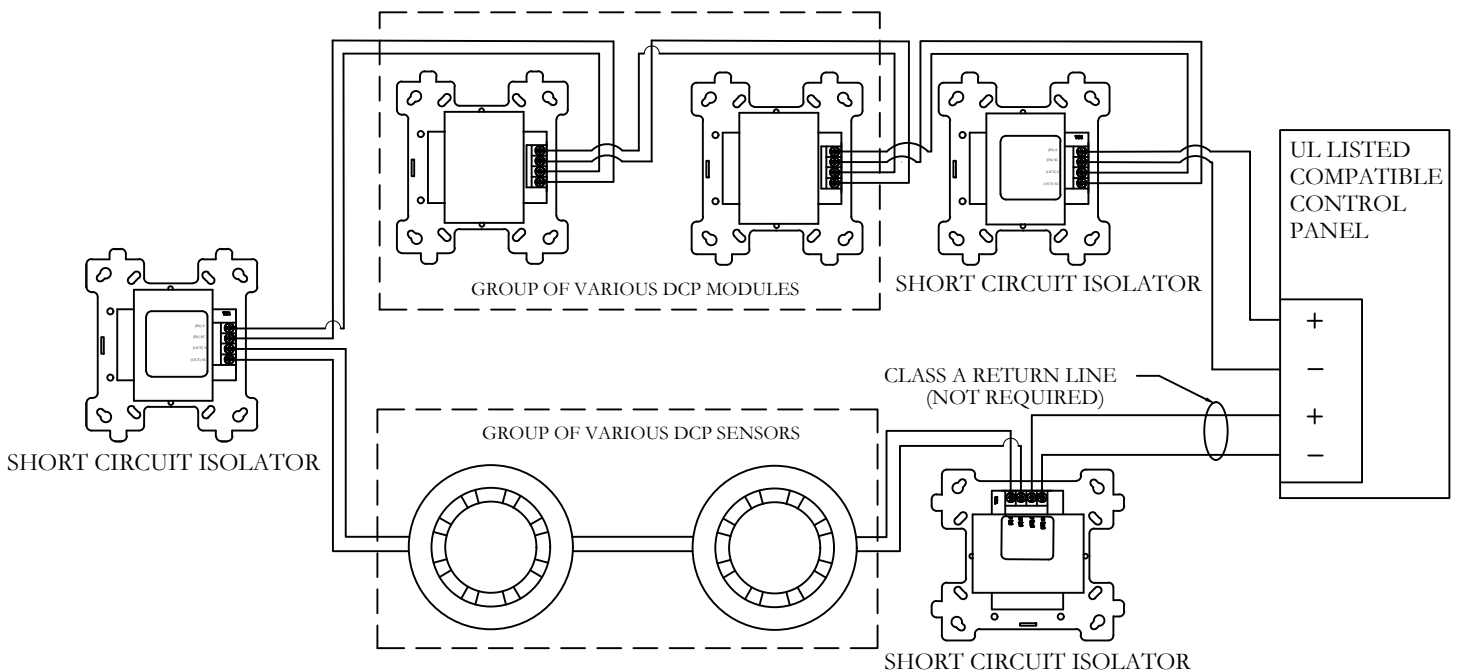


FIGURE 3
 TYPICAL WIRING DIAGRAM EXAMPLE, CONNECTED TO A COMPATIBLE LISTED CONTROL PANEL

TB1 SHOWN IS SUPERVISED AND INHERENTLY POWER LIMITED. ANY COMBINATION OF MODULES AND/OR SENSORS MAY BE PLACED BETWEEN ISOLATORS

One Year Limited Warranty

Hochiki America (HA) warrants its digital communication modules to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for a period of one (1) year from date of delivery. All warranties are void and HA is not obligated to repair or replace equipment which has been repaired by others, abused, improperly installed, altered or otherwise misused or damaged or exposed to conditions outside the products specifications in any way. HA will not be responsible for any dismantling, reassembling or re-installation charges. Please contact HA's Sales department for proper procedure for claims and return of merchandise. This warranty is in lieu of all other warranties expressed or implied.