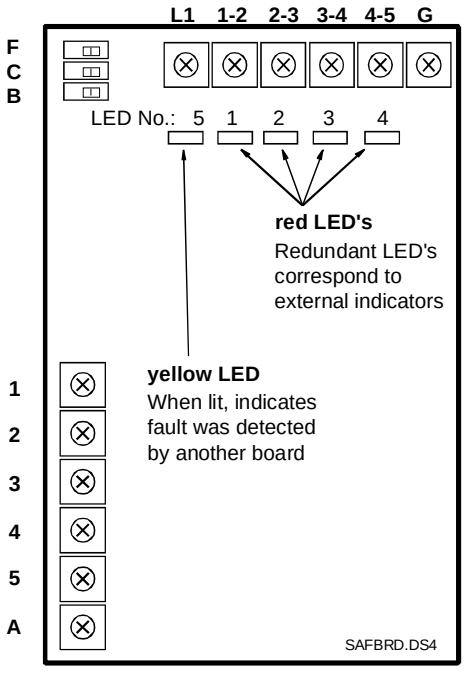
INSTALLING THE SOLID-STATE SAFETY CIRCUIT MONITOR BOARD AS A REPLACEMENT FOR THE RELAY-TYPE SAFETY CIRCUIT BOARD

The solid-state Safety Circuit Monitor (SCM) board (part no. 056-1931-7) replaces the relay-type SCM board (part no. D03-0233). The solid state SCM board provides improved reliability for shutdown fault detection. The SCM board is equipped with four red LED and one yellow LED indicators. The four red LED's provide a redundant monitor light function. Each red LED on the board has a corresponding external indicator. When the board detects a fault, one red LED and one external lamp will be turned on. The yellow LED on the SCM board indicates that the fault was not detected by that particular board. This indicator is useful when several SCM boards are used together. The yellow indicator will light on all boards except for the board that detected the fault.

Terminals F, C, and B have been added to the SCM boards. Connection to these terminals are not necessary if replacing the relay style safety monitor board or earlier solid-state SCM designs. (These terminals are used to link other similar SCM boards that have the additional terminals.) The connections allow the boards to communicate with each other. If an SCM board detects a fault, it will send a signal to the other SCM boards in the system to stop functioning, thus preventing additional fault indicators from activating, helping to narrow the cause of shutdown.

NOTE: The Safety Circuit Monitor board only monitors the safety circuit and does not shut down the dryer.

For replacing boards in single fan dryers, proceed to step 1 below. For replacing boards in 2 and 3 fan C series dryers, see the heading *Replacing Boards in 2 and 3 Fan C Series Dryers* before proceeding to step 1. For replacing boards in S, LS and MS series dryers, see the heading *Replacing Boards in S, LS and MS Series Dryers* before proceeding to step 1.



WIRING CONNECTIONS	
New Safety Circuit Board (056-1931-7 Rev. A)	Old Safety Circuit Board (D01-0233)
terminal 1	terminal 1
terminal 2	terminal 2
terminal 3	terminal 3
terminal 4	terminal 4
terminal 5	terminal 5
terminal A	terminal A
terminal G	terminal G
no connection	terminal B
no connection	terminal C
terminal I - 2	terminal I - 2
terminal 2 -3	terminal 2 -3
terminal 3 - 4	terminal 3 - 4
terminal 4 - 5	terminal 4 - 5
L1 - connect to control fuse	no connection

Fig. I Solid state safety circuit board and wiring connection chart.

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1. Disconnect all wires leading to the old SCM board to be replaced. If there is a jumper between terminals 1 and B on the board, remove and discard.
2. Remove the old SCM board, but leave the mounting track in place.
3. Snap the new SCM board into the mounting track.
4. Reconnection of the wires is almost directly terminal-for-terminal. Locate the safety circuit monitor on your General Control Circuit or Safety Circuit schematic for correct wire numbers and terminal connections. Also see Wiring Reconnection chart in Fig. 1. Note that the new board lacks terminals B and C. The wires formerly connected to these terminals can be discarded or capped. (S, LS and MS series dryers may have a use for these wires. See the following NOTE.)

NOTE: Although the wires previously connected to the old board's B and C terminals are no longer needed, boards located within the S, LS or MS series Branch boxes may use one of these wires for the new L1 power connection. See *REPLACING BOARDS IN S, LS and MS SERIES DRYERS* for details.

5. Connect an 18-ga. wire from the new SCM board's L1 terminal to the load side of the 110VAC secondary control fuse (this fuse connects directly to the control transformer on 3-phase models). For S, LS and MS series dryers, which have additional safety circuit boards in Branch box(es), see the information under the heading L1 POWER CONNECTIONS WITHIN BRANCH BOXES before connecting the L1 terminal.

Replacing Boards in S, LS and MS Series Dryers

Since relay-type boards must be replaced in order of lowest priority, it is necessary to identify the priority of S, LS or MS series SCM boards before replacing them. Refer to Figs. 2 to determine board priority. Also refer to the Operator Manual electrical schematic to check the priority of the board(s) being replaced. In general, the farther a board is from the power source, the lower its priority.

Note: Each Branch box has two SCM boards, an A and a B, with the B board being lower in priority. If you are replacing a board that is not in the last board position (lowest priority), you must first move the

IMPORTANT! Always wire a new solid-state replacement SCM board into the lowest priority position that is not already using a solid-state board. To accomplish this, swap boards as required (see text).

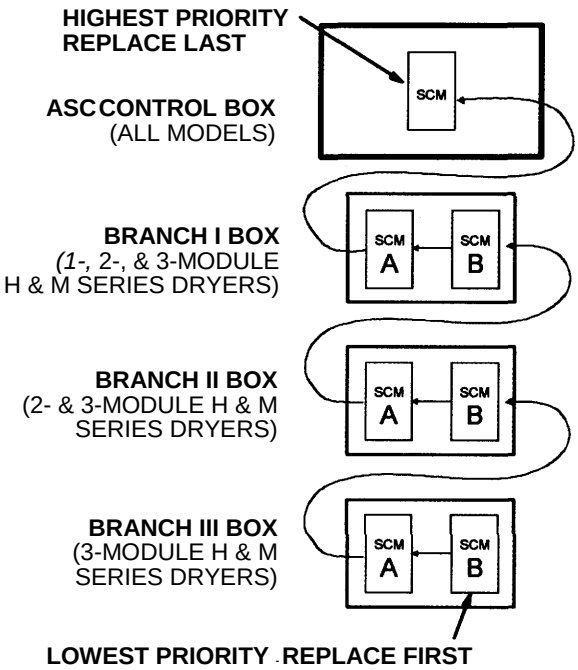

Fig. 2 S, LS and MS series SCM board priority.

lowest priority relay-type board to that position, then wire the new board into the lowest priority position that is not already a solid-state board.

L1 POWER CONNECTIONS WITHIN BRANCH BOXES

Replacing a board within a Branch circuit box requires a wire connecting the new board's L1 power terminal to the dryer's 110VAC secondary control fuse. A new wire can be run for this purpose, but the most convenient method of connection would be to use the black wire previously connected to terminal B or C of the old board. After connecting this wire to the new board's L1 terminal, find the other end of the wire at the terminal strip in the ASC box and reconnect to the control fuse using an extension wire if required.

Replacing Boards in 2 and 3 fan C Series Dryers

Dryers having more than one SCM board in the control box include the 410C, 510C, 610C, 710C, 425C, 525C and 625C series dryers.

If the board to be replaced is in position B:

a. Remove the wire between the A board's terminal C and the B board's terminal B.

b. Wire as described in step 4.

If the board to be replaced is in position A:

a. First replace the A board with the B board.

b. Remove the wire previously connected between the A board's terminal C and the B board's terminal B.

c. Wire as described in step 4.

IMPORTANT! Always wire a new solid-state replacement SCM board into the lowest priority position that is not already using a solid-state board. To accomplish this, swap boards as required (see text).

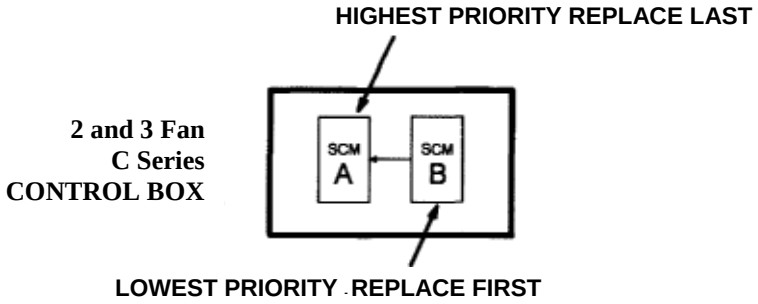

Fig. 3 ASC Panel with multiple SCM Boards

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