

PN 21500228 A

RELEASE

DATE: October 1, 2024

MODEL: AirSep® AS-D+™ through AS-P™ (without touchscreen)

ISSUE: Programmable Logic Controller (PLC) Retrofit Instructions

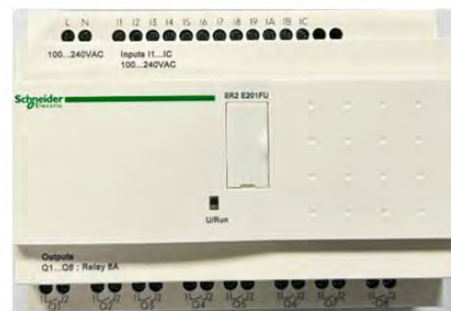
NOTES: The CM081-2 PLC component in the standard AirSep AS-D+ through AS-P (without touchscreen) models has changed due to discontinuation from the vendor.

Please reference below for PLC identification and retrofit instructions for previous model CM081-2 PLC to newer model CM070-1 PLC.

Note: if you currently have the CM070-1 version installed, pictured below (right), these instructions do not apply.



CM081-2



CM070-1

Tools Required:

Slotted head screwdriver (small)

Phillips head screwdriver (small)

Parts Required:

CM070-1 PLC 1 (ea.)

EL427-1 Wire Jumper 1 (ea.)

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Note: Before you attempt to repair or operate the oxygen generator, read and thoroughly understand the instruction manual.

Allow the oxygen generator to enter standby mode during shutdown to ensure the oxygen receiver contains adequate oxygen during the subsequent restart. Ensure the unit shuts down properly. Failure to wait until the oxygen generator enters standby mode may result in reduced oxygen concentration upon restart.

Generator Shutdown:

- 1) Stop the flow of oxygen from the oxygen receiver to your application by fully closing all manual valves between the outlet of the oxygen receiver and the inlet to the application.
- 2) Make sure the AUTO/MANUAL switch on the control panel is set to AUTO.
- 3) Allow the oxygen receiver to repressurize fully. When the oxygen receiver repressurizes, after a time delay of five cycles, the oxygen generator stops cycling and the yellow indicator light on the AUTO/MANUAL switch turns off.
- 4) Set the ON/OFF switch on the control panel to OFF.
- 5) Set the AUTO/MANUAL switch on the control panel to MANUAL.
- 6) Disconnect power.

PLC Removal Procedure:

- 1) Open control panel door and locate the PLC.
- 2) Using a small flathead screwdriver, carefully disconnect all input and output wires to the PLC as shown in Figure 1.



Figure 1

- 3) On the bottom of the CM081-2 PLC there are (2) two yellow tabs. Using a small screwdriver, gently pull each down to unlock and release the PLC from the support rail. Pull the bottom of the PLC out first and then lift off the rail to remove. See Figure 2.

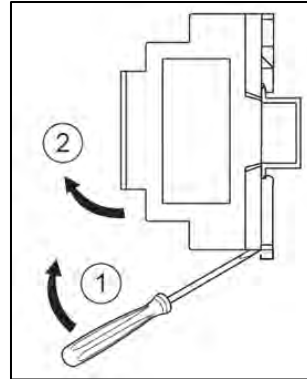


Figure 2

PLC Installation Procedure:

- 1) Locate new CM070-1 PLC and place the top onto the support rail first. Push the bottom onto the rail until the black mounting tab snaps completely onto the rail (“click sound”). The PLC should now be completely engaged and secured onto the rail. See Figure 3.

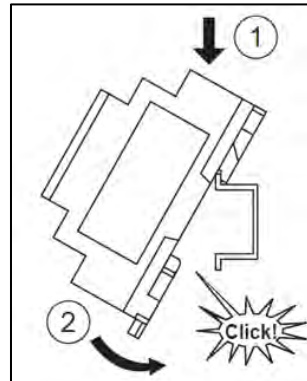


Figure 3

- 2) Using a small flathead screwdriver inserted in the location shown in Figure 4 below, turn counterclockwise to loosen the securing bracket located on the right side of the new PLC. Position the bracket so it is snug against the PLC and tighten bracket screw turning clockwise.

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Figure 4

- 3) Carefully review both Figure 5 and Figure 6 below. Connect the input and output wires to the new PLC as shown. Secure each wire using a small screwdriver.
 - a. Note: An extra jumper wire (EL427-1) is required between Q6-2 and Q7-2 outputs of the new CM070-1 PLC.

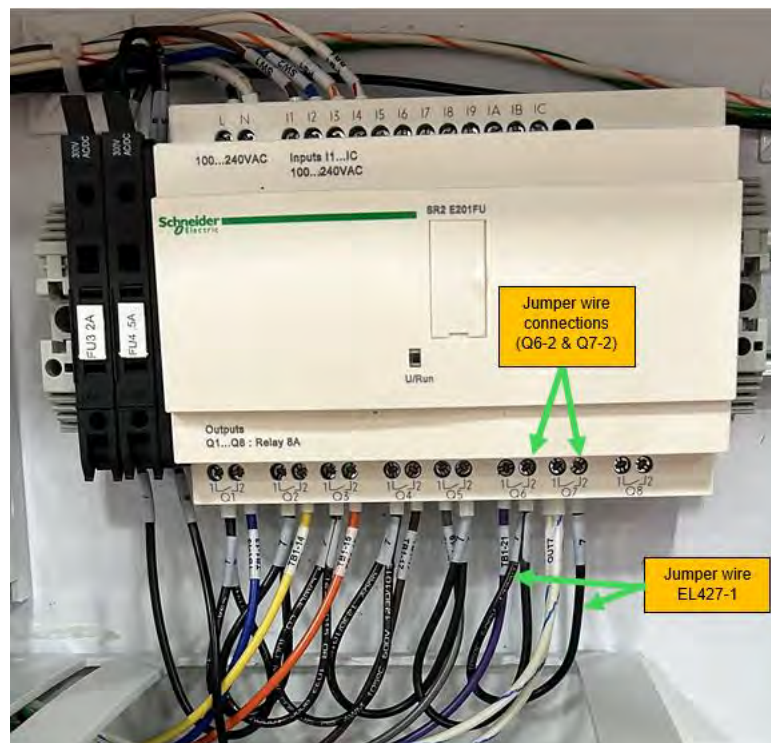


Figure 5

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INPUT (Top)				OUTPUT (Bottom)					
CM081-2	CM070-1	Designation	Wire Color	CM081-2	CM070-1	Designation	Color	Color Wire Position	Black Jumper Wire Position
L	L	LINE	Black	Q0	Q1	V-FA	Blue	Q1-2	Q1-1
N	N	NEUTRAL	White	Q1	Q2	V-FB	Yellow	Q2-2	Q2-1
I0	I1	OFF/ON	Brown/White	Q2	Q3	V-WA	Orange	Q3-2	Q3-1
I1	I2	MAN/AUTO	Blue/White	Q3	Q4	V-WB	Brown	Q4-2	Q4-1
I2	I3	AUTO START/STOP	Orange/White	Q4	Q5	V-EQ	Grey	Q5-1	Q5-2
I3	I4	MANUAL DRAIN	Red/White	Q6	Q6	V-D1	Violet	Q6-1	Q6-2*
I4*	I5*	LOCAL/REMOTE*	Brown/White*	Q7	Q7	Hourmeter	Blue/White	Q7-1	Q7-2*
I5*	I6*	REMOTE SWITCH*	Brown/White*	N/A	Q8	N/A	N/A	N/A	N/A
NC thru I6	I7 thru 1C	N/A	N/A						

*on CP156-1 ONLY

* added EL427-1 jumper needed for CM070-1

Figure 6

Generator Restart/Operation:

- 1) Connect power.
- 2) Set the ON/OFF switch on the control panel to ON.
- 3) Verify PLC functionality.
- 4) Start the flow of product oxygen from the oxygen receiver tank to your application by fully opening all manual valves between the outlet of the oxygen receiver tank and the inlet to your application.
- 5) Set the AUTO/MANUAL switch on the control panel to AUTO.

CONTACT: For technical questions or concerns, contact Technical Service:

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