



Digital I/O Conversion Module

(Cat 1492-CM1771-LD008F)

I. Description

This Digital I/O Conversion system provides for the conversion of (1) 1771, 16 point I/O modules to be converted to (2) 1756, 8 point I/O module and consists of the following:

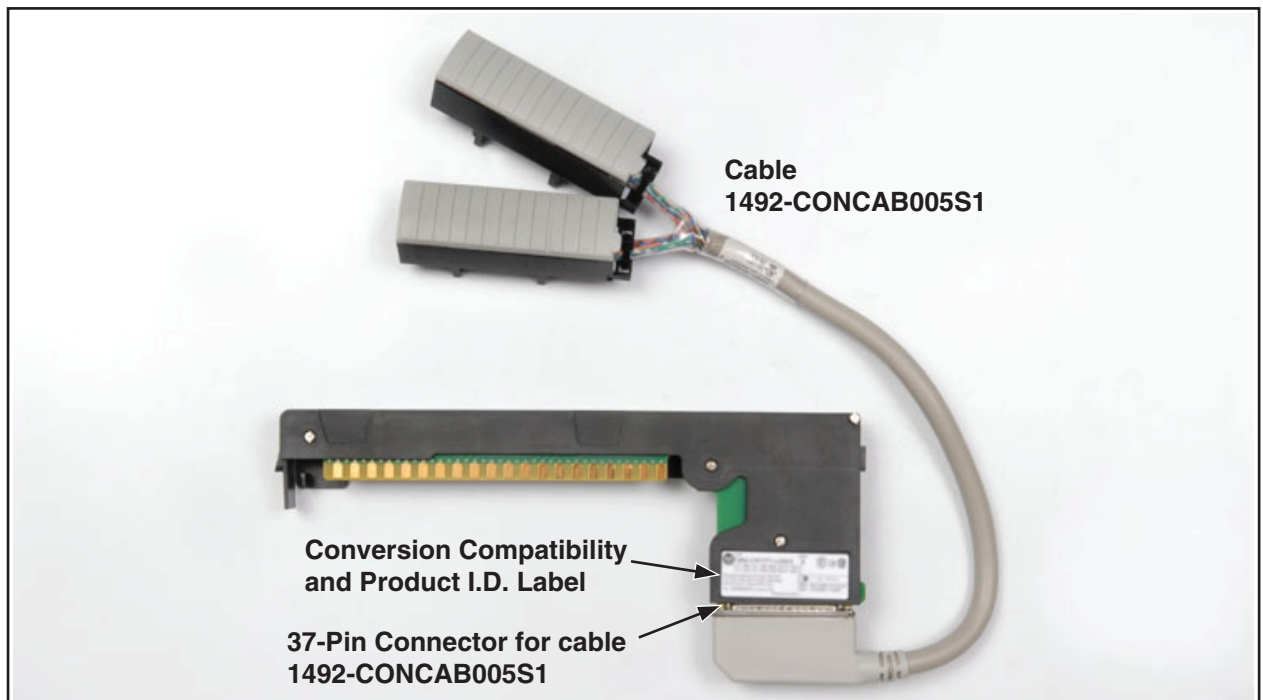
(1) 1771 Modules (16pt) to (2) 1756 Module (8pt)

(1) Conversion Modules: 1492-CM1771-LD008F

(1) Cable: 1492-CONCAB005S1 (Table 2)

(1) Conversion Mounting Assembly: 1492-MUA... (Table 1)

This conversion is accomplished without the removal of any field wires from the existing 1771 Swing Arm. The existing 1771 Swing Arm fits directly onto the edge connector of the 1492 Conversion Module. On one end of the 1492 Cable is (1) connector for the Conversion Module. On the other end are (2) Removable Terminal Blocks (RTBs) for the (2) 1756 I/O modules, as shown in the photo below. The I/O signals are routed through the 1492 Conversion Module and the 1492 Cable to the appropriate terminals on the (2) 1756 I/O modules per the Wiring Diagrams in Section VI. As standard, both portions of the 1492 Cables are 0.5M long, but we also offer a 1.0M cable length. Refer to the footnotes in Table 2, Section III for further details.



1492-CM1771-LD008F Conversion Module



WARNING

De-energize and lockout any and all power to all I/O field devices connected to the A-B 1771 I/O chassis, and the power to the 1771 I/O chassis itself. Ensure all power is de-energized and locked out to any device in the control cabinet where the conversion is to be performed. Ensure work is performed by qualified personnel.

II. Installation

The 1492 Conversion Modules must be installed in a 1492 Conversion Mounting Assembly (see Table 1 below). A complete System Installation Manual ships with the 1492 Conversion Mounting Assembly.

1) Determine the quantity of each type of 1771 I/O modules used in the 1771 I/O Chassis to be converted.

2) Select the applicable 1492 Conversion Modules from Table 2, Section III.

3) Review the Max Slots for I/O and Chassis Width data from the Table 1 below.

4) Select a 1756 I/O Chassis which has enough I/O Slots.

NOTE: (2) I/O slots are required in the 1756 Chassis for conversions where (1) 1771 I/O module converts to (2) 1756 I/O modules.

5) Select the 1492 Conversion Mounting Assembly which has enough Conversion Module slots.

NOTE: (2) Conversion Module slots are required in the 1492 Conversion Mounting Assembly for conversions where (2) 1771 I/O module convert to (1) 1756 I/O modules.

NOTE: The 1492 Conversion Mounting Assembly has the same Height & Width foot-print as the 1771 Chassis and is designed to use the same mounting hardware. The combined Depth of the 1492 Conversion Mounting Assembly with the 1756 Chassis mounted on top is 10.25 inches (Controller w/key) or 10.0 inches (Controller w/o key). Dimension drawings are included in the System Installation Manual that ships with the 1492 Conversion Mounting Assembly.

Table 1: Bulletin 1771 to 1756 Chassis Conversion

1771 Chassis				1756 Chassis			Conversion Mounting Assembly		
Cat. No.	Max Slots for I/O	Chassis Width②		Cat. No.	Max Slots for I/O	Chassis Width	Cat. No.	Max Slots for Conversion Modules	Chassis Width
		without Power Supply	with Power Supply						
1771-A1B	4	9.01	12.61	1756-A4	3	10.35	1492-MUA1B-A4-A7	4	9.01
				1756-A7	6	14.49			
1771-A2B	8	14.01	17.61	1756-A7	6	14.49	1492-MUA2B-A7-A10	8	14.01
				1756-A10	9	19.02			
1771-A3B1①	12	19.01		1756-A10	9	19.02	1492-MUA3-A10-A13	12	19.01
				1756-A13	12	23.15			
1771-A4B	16	24.01		1756-A13	12	23.15	1492-MUA4-A13-A17	16	24.01
				1756-A17	16	29.06			

Foot Notes:

① 1771-A3B is not listed as it is used for 19 inch wide instrumentation panels.

② Notice that the 1756 Chassis Width sometimes exceeds the 1771 Chassis Width, with or without the Power Supply. The Cover-Plate of the 1492 Conversion Mounting Assembly allows the 1756 Chassis to be Left justified, Right justified or Centered. A complete System Installation Manual ships with the 1492 Conversion Mounting Assembly.

III. Compatibility

1771 Digital I/O Module ^①	1756 Digital I/O Module ^①	1492 Conversion Module	1492 Cable ^②
1771-OB D	1756-OC8 (Qty 2)	1492-CM1771-LD008F ^③	1492-CONCAB005S1

Foot Notes:

- ① To understand any issues concerning I/O module compatibility, refer to the Installation Manuals for the specific 1771 and 1756 I/O modules involved. The (2) 1756 modules must be located directly next to each other in the 1756 chassis.
- ② The 3 numbers indicate the cable length of the 1492 Cable. Recommended cable length of 0.5M is shown. Alternative cable lengths are as follows:
1.0M = 1492-CONCAB010S1
- ③ The "F" at the end of the 1492 I/O Conversion Module Catalog Number indicates it is fused to match the functionality of the 1771 module being replaced.

IV. Conversion Module Specifications

(Operating specifications are when installed in the Conversion System base / cover-plate assembly)

Specification	Value
Dimensions	11.81 in. (height) x 4.38 in. (depth) x 1.5 in. (width) 300 mm. (height) x 111.25 mm (depth) x 38.1 mm (width)
Approximate Shipping Weight	265.4 g (0.58 lbs) (includes carton)
Storage Temperature	-40 to +85°C (-40 to +185°F)
Operating Temperature	0 to 60°C (32 to 140°F)
Operating Humidity	5 to 95% at 60°C (non-condensing)
Shock	
Non operating	50g
Operating	30g
Operating Vibration	2g at 10 to 500Hz (Agrees with 1756 I/O module specifications)
Maximum Operating Voltage	60 Vdc
Max. Module Operating Current	
Per Point:	2 Amps
Per Module:	8 Amps
	NOTICE Refer to the Wiring Diagram(s) for current limits for a specific configuration.
Fusing	One, 10 Amps (maximum current based on conversion components)
Agency Certifications	UL Classified: Under UL File Number E113724 CSA CE: compliant for all applicable directives
Pollution Degree	2
Environmental Rating	IP20

V. Fuse Installation and Replacement

The 1492-CM1771-LD008F conversion module has one mechanical fuse holder with the fuse located on the circuit board inside the modules plastic case. The following explains how to replace the fuse:

- 1) Remove the 4 screws that hold both halves of the conversion module case together (refer to the following Figure A).

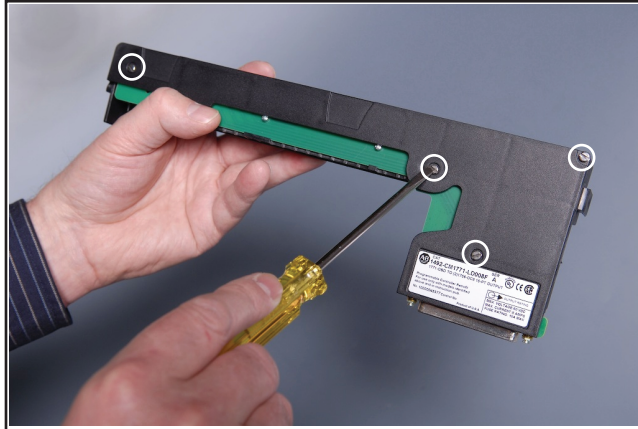


Figure A

- 2) Disassemble both case halves so you can access the module's circuit board. Remove and replace the fuse (refer to the below Figure B).

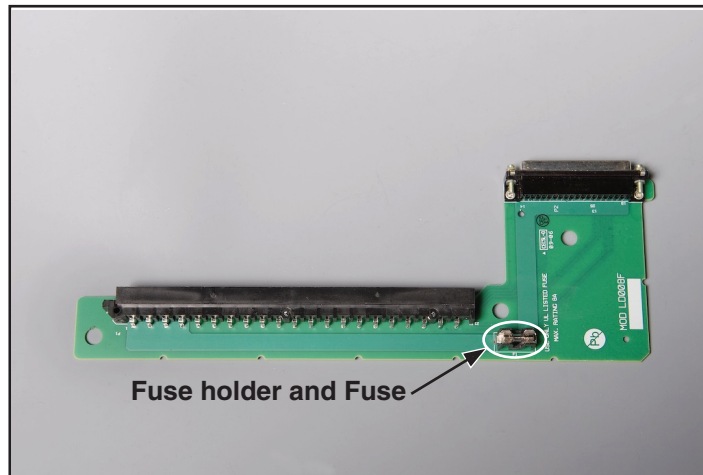


Figure B

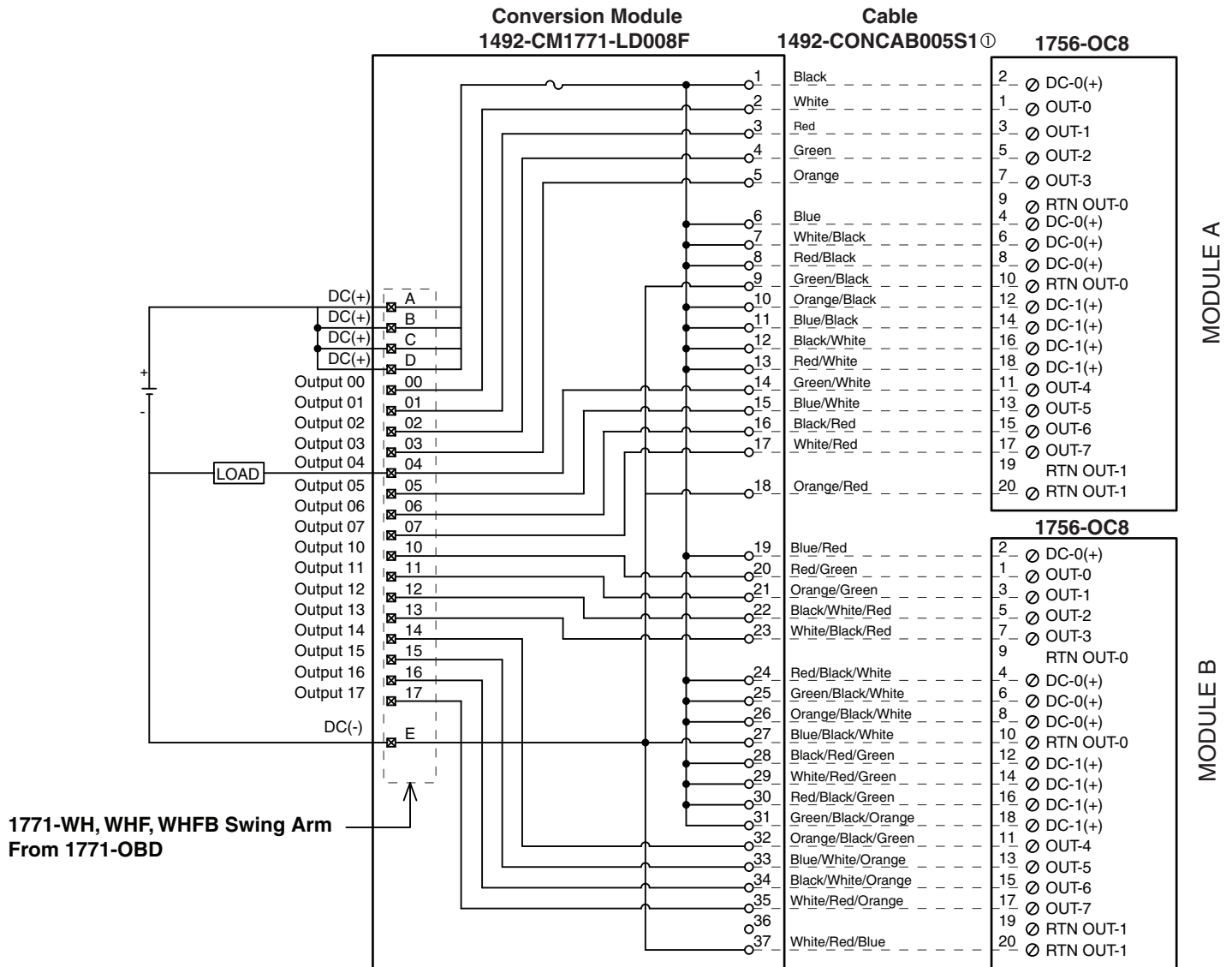
- 3) Reassemble the two case halves to the circuit board and replace the four screws that hold the case together (Do NOT over torque the screws (Maximum torque is 5.0 in-lbs.)

NOTES:

- 1) For module operation a fuse must be inserted into the fuse holder
- 2) Physical Fuse Size: 2AG
- 3) Possible Fuse Supplier: Littelfuse (Part Number: 225010P)
- 4) Maximum Fuse Current rating based on Conversion System Components: 10.0 Amps

**WARNING**

There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and input module). Read and understand these considerations before installation.

**Conversion Module Installation and Application Considerations**

① This Bul. 1492 cable consists of a cable wired to two 1756-OC8 RTB. Recommended cable lengths of 0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OBD module output current limits versus 1756-OC8 limits are as follows:

	1771-OBD	1756-OC8 w/ 1492-CONCAB005S1
a) Current/Point	2A	2A
b) Current /Module	8A	8A
c) Surge Current /Point	4A for 10ms	4A for 10ms

③ The 1771-OBD has a single 10A, 250V rectifier fuse (1/4 x 1 1/4 inch). The 1756-OC8 is NOT fused ,as such a 2AG fuse clip and 10A fuse is provided on the 1492-CM1771-LD008F conversion module.

④ The 1771-OBD is rated 10V to 60V DC. The 1756-OC8 is rated 30V to 60V DC. If the load source voltages is less than 30V DC, then use 1756-OB16E with the 1492-CM1771-LD006 conversion module.

⑤ This configuration uses two(2) 1756-OC8 output modules to replace a single 1771-OBD output module. This may require the use of a larger 1756 I/O chassis and conversion mounting assembly. Ensure there is sufficient panel space to allow for this possibility.

⑥ Refer to your 1771-OBD and 1756-OC8 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41170-937 (Version 01)]

