



Digital I/O Conversion Module

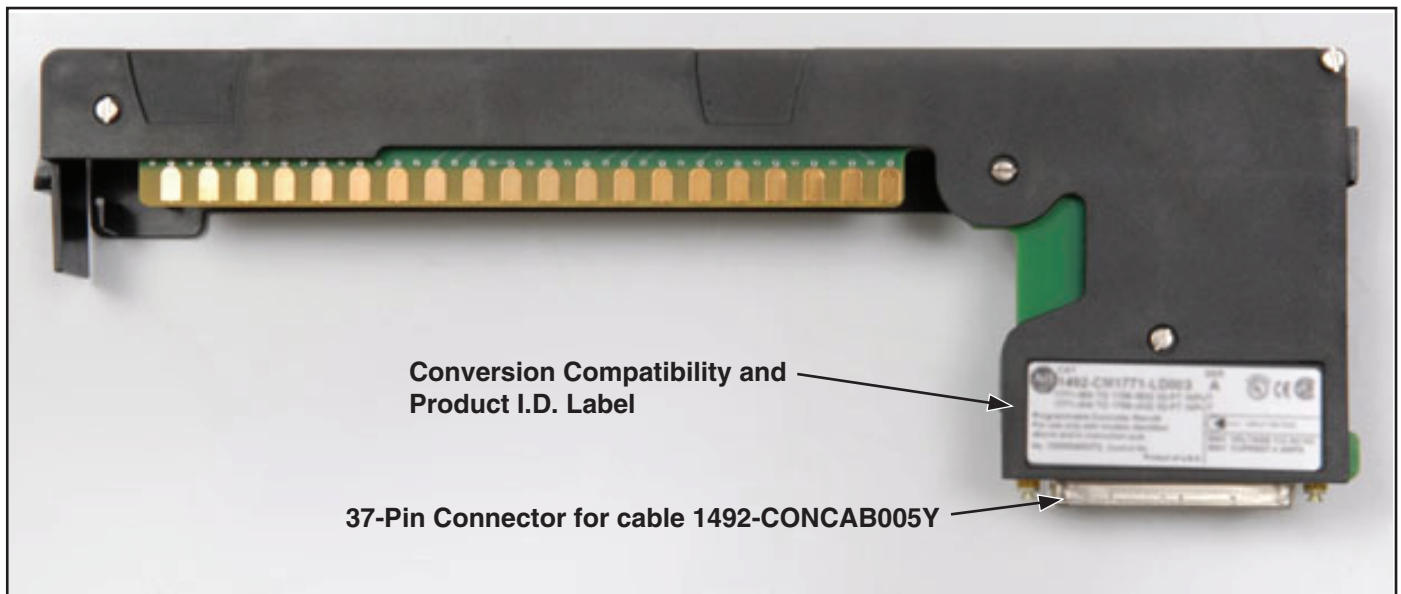
(Cat 1492-CM1771-LD010F)

I. Module

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

- (1) **1771 Module (16pt) to (1) 1756 Module (16pt)**
- (2) Conversion Module: 1492-CM1771-LD010F
- (1) Cable: 1492-CONCAB005Y (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 is the Removable Terminal Block (RTB) for the 1756 I/O module, 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 1756 I/O module 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-LD010F 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.

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

Table 2: Bulletin 1771 to 1756 Conversion Modules and Cables

1771 Digital I/O Module	1756 Digital I/O Module ^①	1492 Conversion Module	1492 Cable ^②
1771-ODD	1756-OA16I	1492-CM1771-LD010F	1492-CONCAB005Y
1771-OD16	1756-OA16I	1492-CM1771-LD010F	1492-CONCAB005Y
1771-OQ16	1756-OB16I	1492-CM1771-LD010F	1492-CONCAB005Y

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.
- ② The 3 numbers indicate the cable length of each portion of the 1492 Cable. Recommended cable lengths of 0.5M are shown. Additional cable lengths are as follows:
1.0M = 1492-CONCAB010Y

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	271.9 g (0.60 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	132 Vac at 47 to 63Hz 4 Amps
Max. Module Operating Current	
Per Point:	1 Amp
Per Module:	4 Amps
	NOTICE Refer to the Wiring Diagram(s) for current limits for a specific configuration.
Fusing	Sixteen, 1.5 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-LD010F conversion module has sixteen (16) mechanical fuse holders with fuses located on the circuit board inside the modules plastic case. The following explains how to replace the fuses.

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

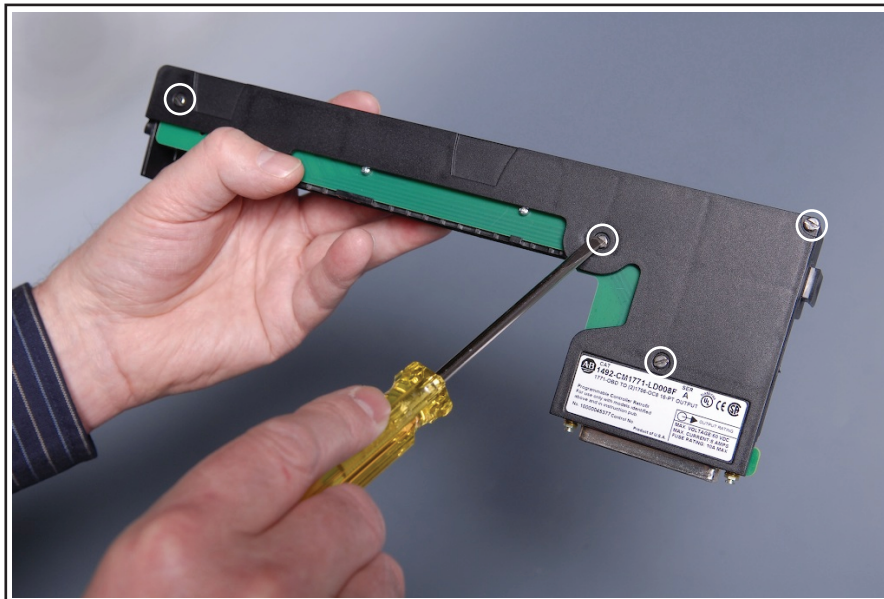


FIGURE A

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

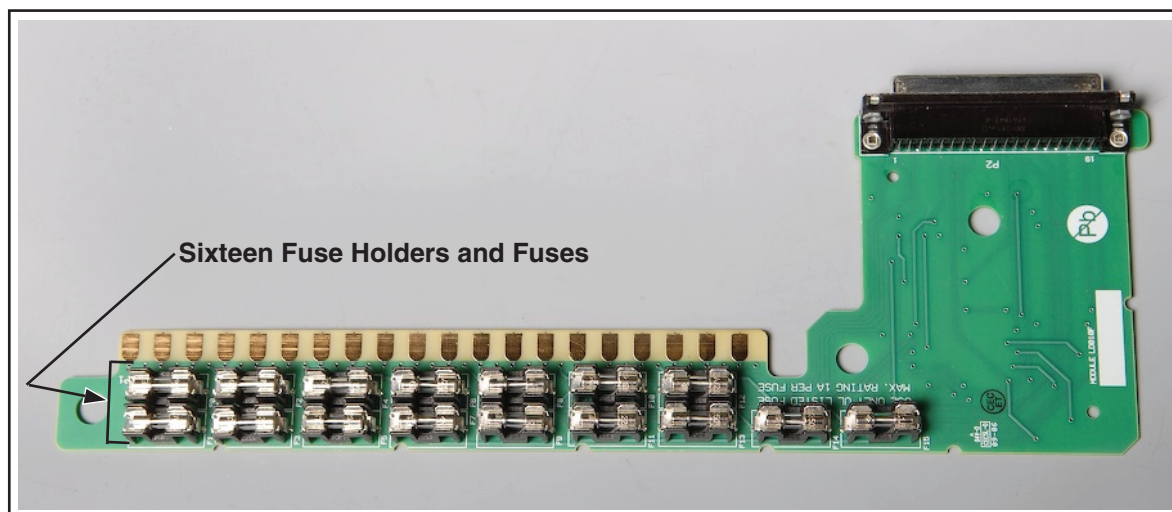


FIGURE B

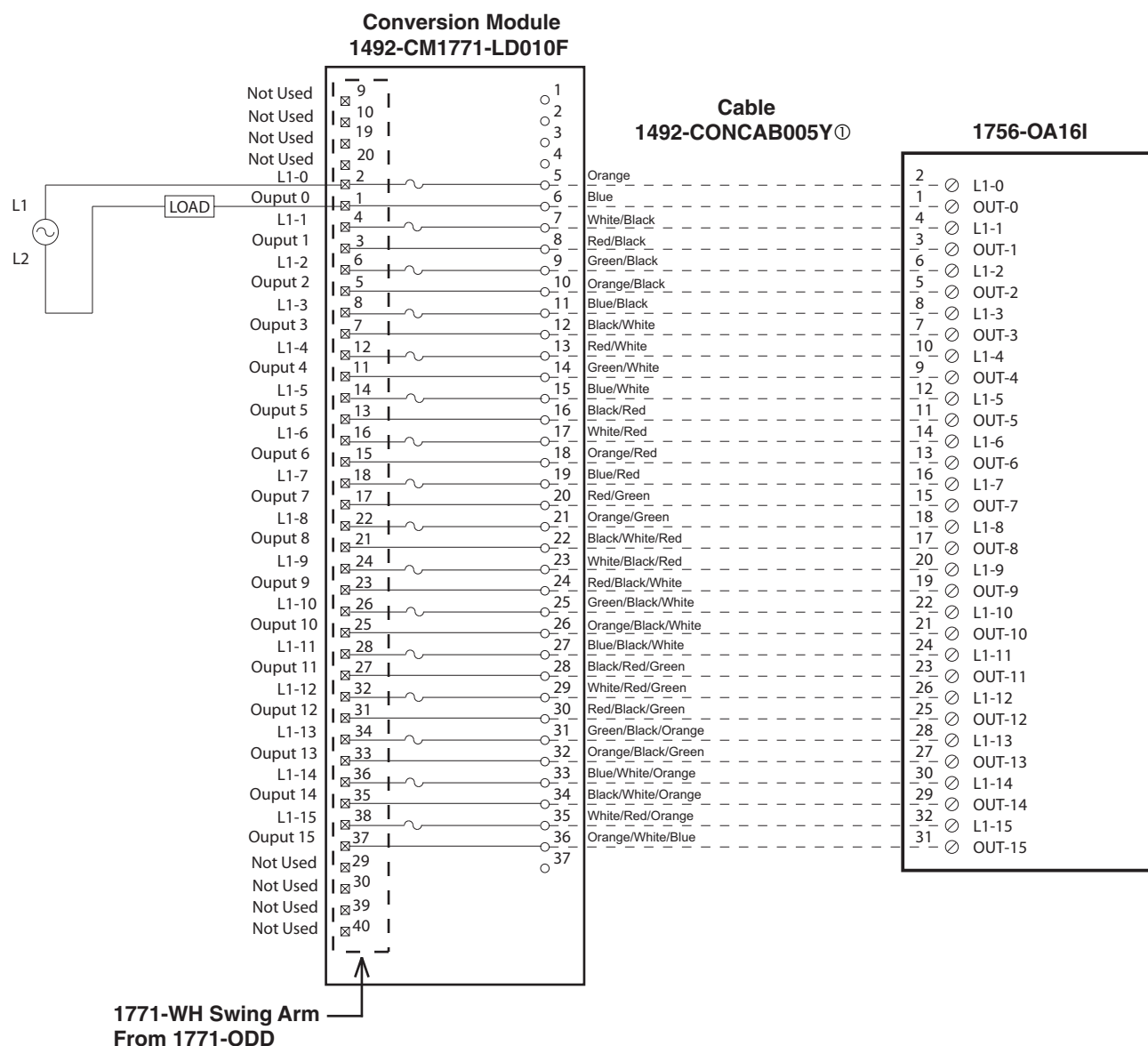
- 3) Reassemble the two case halves to the circuit board and replace the four screws that hold the case together. Do NOT over torque the screws (Maximum torque is 5.0 in-lbs.)

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: 22901.5P)
- 4) Maximum Fuse Current rating based on Conversion System Components: 1.5 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 one 1756-OA16I 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-ODD module output current limits versus 1756-OA16I limits are as follows:

	1771-ODD	1756-OA16I w/ 1492-CONCAB005Y
a) Current/Point	2A	2A
b) Current/Module	8A	5A
c) Surge Current/Point	20A for 100ms	20A for 43ms

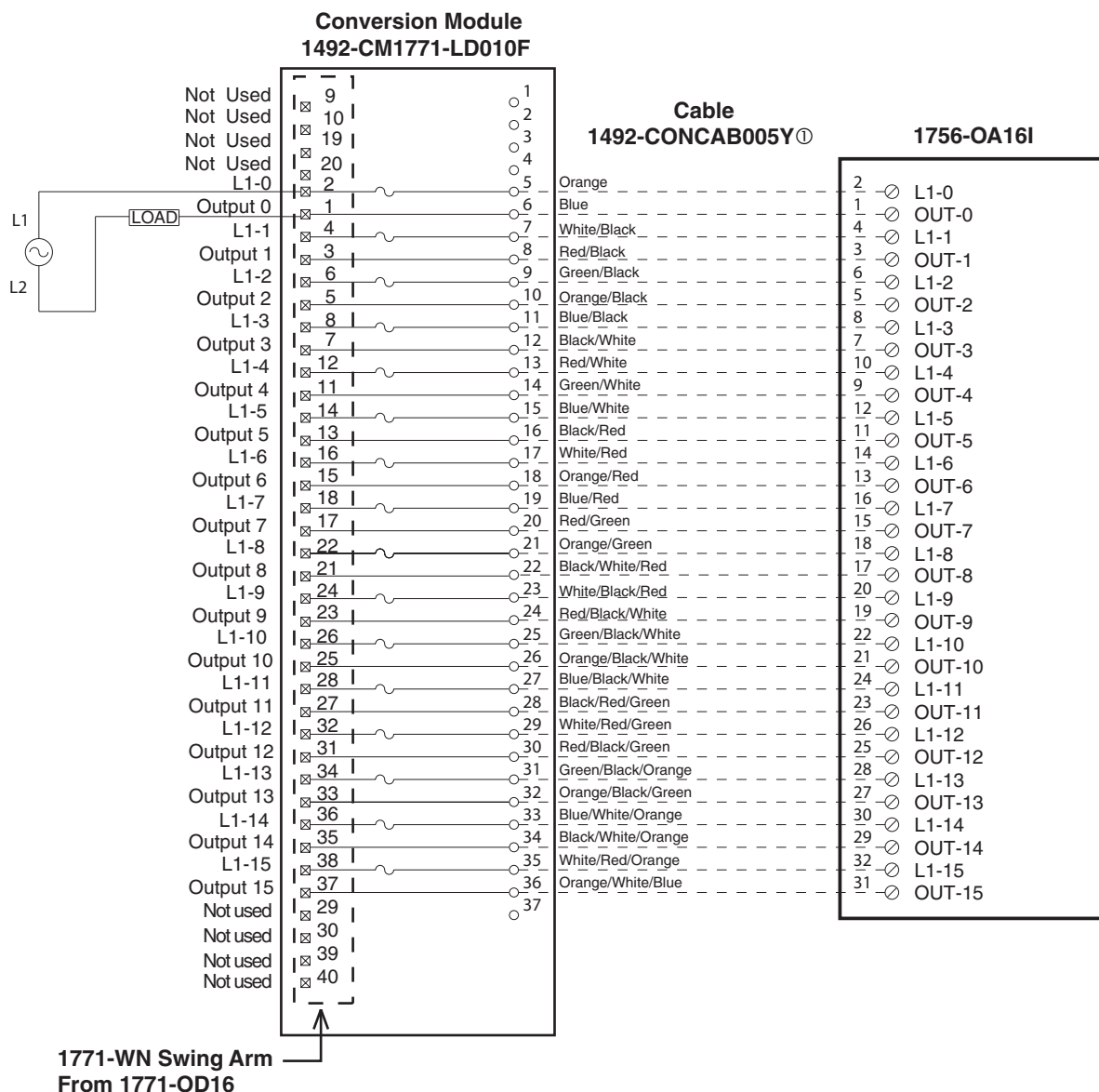
③ The 1771-ODD has sixteen (16) 3A, 250V rectifier fuses. The 1756-OA16I is NOT fused, as such sixteen(16) 2AG fuses and clips are provided on the 1492-CM1771-LD010F conversion module. Max fuse rating is 1.5A based on 1756-OA16I.

④ The 1771-ODD is rated 74V to 138V AC. The 1756-OA16I is rated 74V to 265V AC.

⑤ Refer to your 1771-ODD and 1756-OA16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.
[Reference Doc: 41171-009 (Version 00)]

**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 one 1756-OA16I 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-OD16 module output current limits versus 1756-OA16I limits are as follows:

	1771-OD16	1756-OA16I w/ 1492-CONCAB005Y
a) Current/Point	2A	1A
b) Current/Module	8A	4A
b) Surge Current/Point	20A for 100ms	20A for 43ms

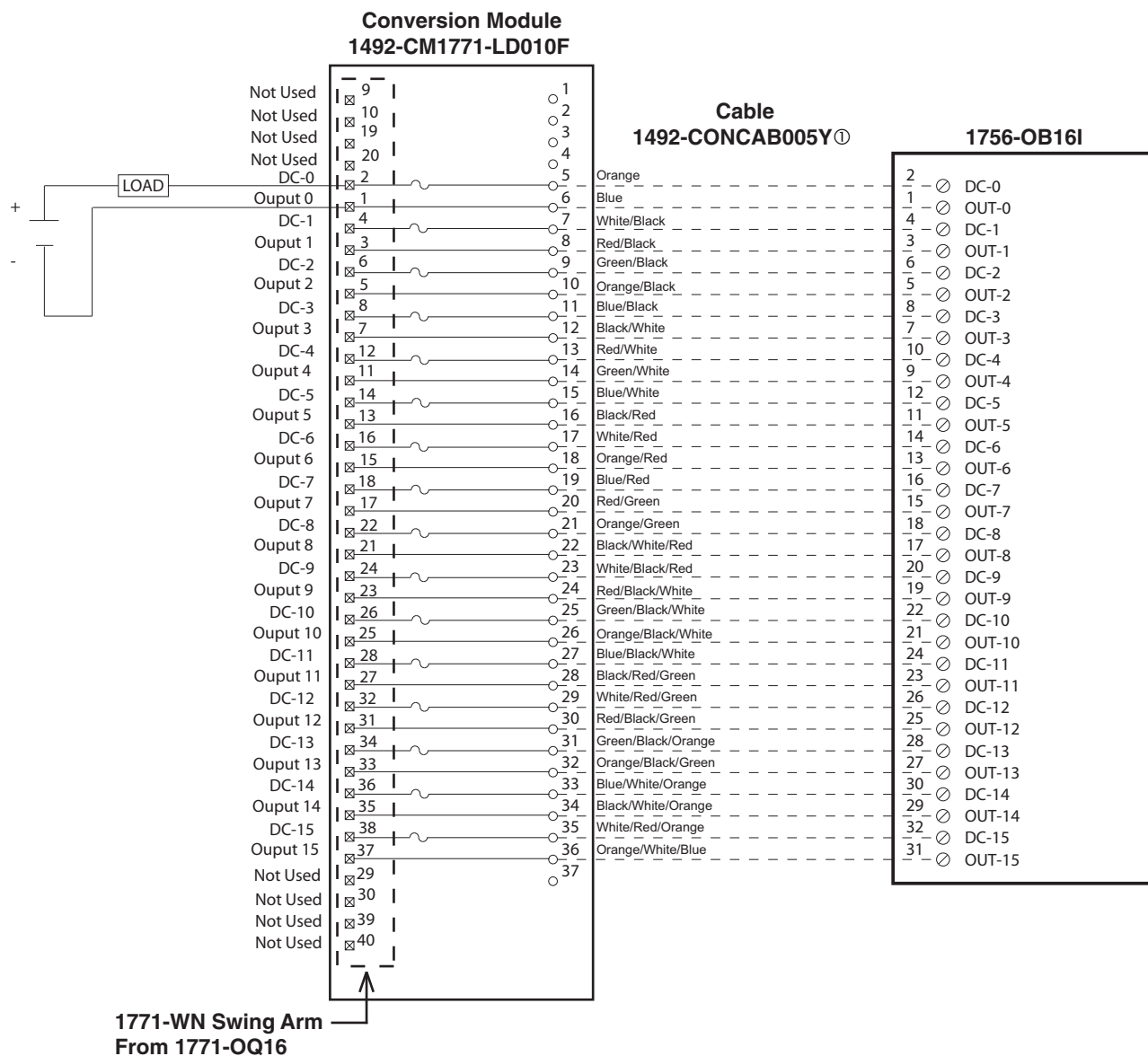
③ The 1771-OD16 has sixteen (16) 3A ,250V recifier fuses. The 1756-OA16I is NOT fused, as such sixteen (16) 2AG fuse clips are provided on the 1492-CM1771-LD010F conversion module. Max fuse rating is 1.5A based on 1756-OA16I.

④ The 1771-OD16 is rated 74V to 138V AC and 105V to 138V DC. The 1756-OA16I is rated 74V to 265V AC. A 1756 isolated output module with an equivalent DC voltage range to convert the 1771 -OD16 is not available.

⑤ Refer to your 1771-OD16 and 1756-OA16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module rating are not exceeded.
[Reference Doc: 41170-939 (Version 01)]

**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 one 1756-OB16I 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-OQ16 module output current limits versus 1756-OB16I limits are as follows:

	1771-OQ16	1756-OB16I w/ 1492-CONCAB005Y
a) Current/Point	2A	2A
b) Current/Module	32A	8A
c) Surge Current/Point	4A for 10ms	4A for 10ms

③ The 1771-OQ16 has sixteen (16) 3A, 250V rectifier fuses. The 1756-OB16I is NOT fused, as such sixteen(16) 2AG fuses and clips are provided on the 1492-CM1771-LD010F conversion module. Max fuse rating is 1.5A based on 1756-OA16I.

④ The 1771-OQ16 is rated 10V to 32V DC. The 1756-OB16I is rated 10V to 30V DC.

⑤ Refer to your 1771-OQ16 and 1756-OB16I Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-010 (Version 00)]

