Digital I/O Conversion Module
(Cat 1492-CM1771-LD006)

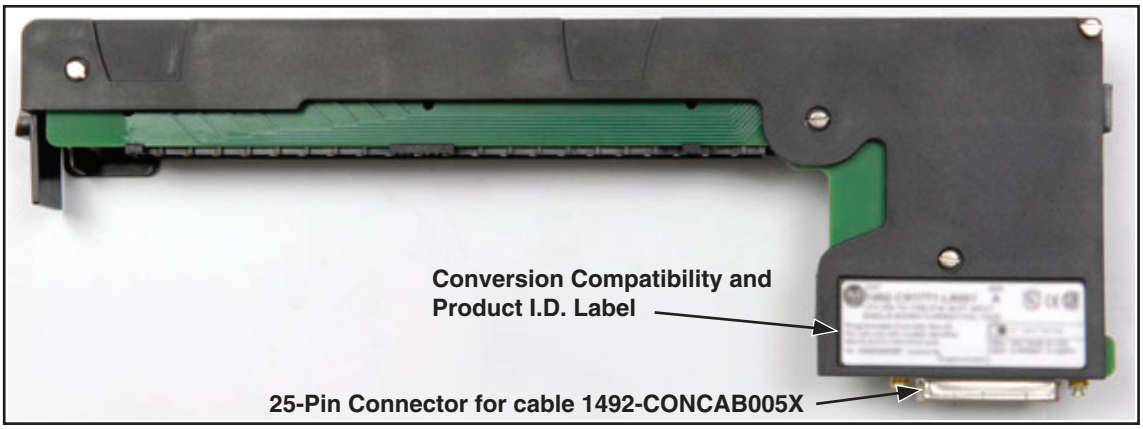
I. Description

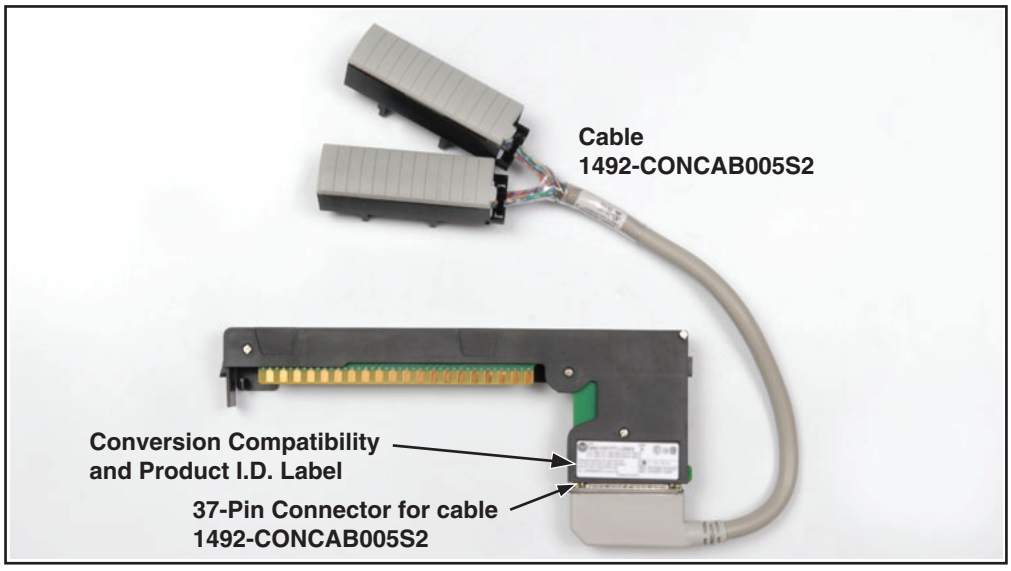
This Digital I/O Conversion Module provides for the conversion of (1) 1771, 16 point I/O modules to be converted to (1) 1756, 16 point I/O module OR (1) 1771, 16 point I/O module to (2) 1756, 8 point I/O modules, and consists of the following:

(1) 1771 Module (16pt) to (1) 1756 Module (16pt)
(1) Conversion Module: 1492-CM1771-LD006
(1) Cable: 1492-CONCAB005X (Table 2)
(1) Conversion Mounting Assembly: 1492-MUA… (Table 1)

(1) 1771 Module (16pt) to (2) 1756 Module (8pt)
(1) Conversion Module: 1492-CM1771-LD006
(1) Cable: 1492-CONCAB005S2 (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 Arms. The existing 1771 Swing Arm fits directly onto the edge connectors of the 1492 Conversion Module. On one end of the 1492 Cable is (1) connector for the Conversion Module. On the other end are (1) or (2) Removable Terminal Blocks (RTBs) for the 1756 I/O module(s), as shown in the photos 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(s) per the Wiring Diagrams in Section V. As standard, the 1492 Cables are 0.5M long, but we also offer a 1.0M cable length. Refer to the footnotes in Table 2 for further details.





1492-CM1771-LD006 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.

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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 Width[2] without Power Supply	Chassis Width[2] with Power Supply	Cat. No.	Max Slots for I/O	Chassis Width	Cat. No.	Max Slots for Conversion Modules	Chassis Width
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-A3B1[1]	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 Module①	1756 Digital I/O Module①	1492 Conversion Module	1492 Cable ②
1771-IGD	1756-IG16	1492-CM1771-LD006	1492-CONCAB005X
1771-OAD	1756-OA16	1492-CM1771-LD006	1492-CONCAB005X
1771-OBD	1756-OB16E	1492-CM1771-LD006	1492-CONCAB005X
1771-OBDS	1756-OB16E	1492-CM1771-LD006	1492-CONCAB005X
1771-OGD	1756-OG16	1492-CM1771-LD006	1492-CONCAB005X
1771-OMD	1756-OA16	1492-CM1771-LD006	1492-CONCAB005X
1771-OND	1756-ON8 (Qty 2)③	1492-CM1771-LD006	1492-CONCAB005S2

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.

②The 3 numbers indicate the cable length of each portion of the 1492 Cable. Recommended cable length of 0.5M is shown. Additional cable lengths are as follows:
1.0M = 1492-CONCAB010X or 1492-CONCAB010S2

③The two 1756 modules must be located directly next to each other in the 1756 chassis.

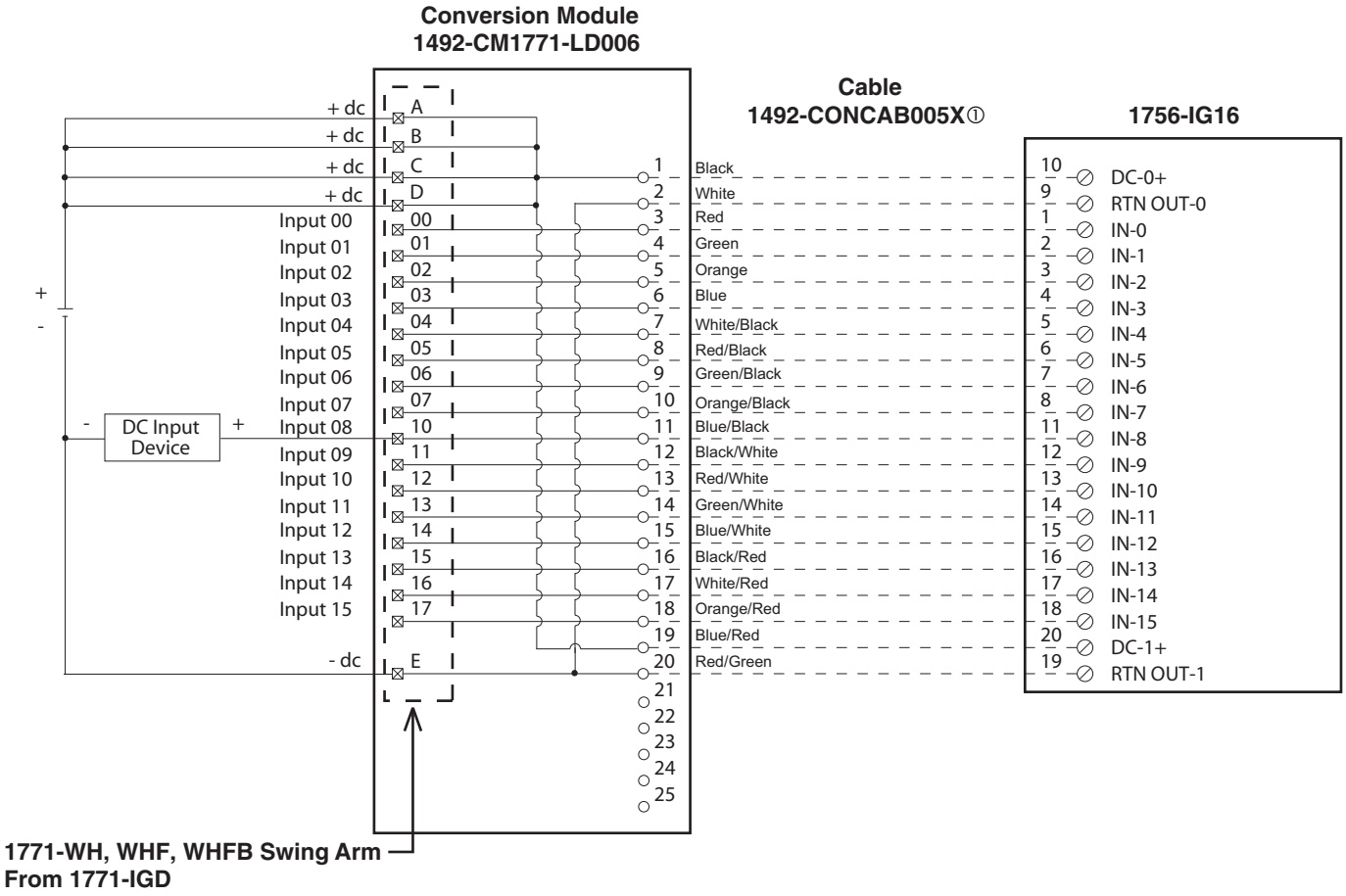
V. Conversion Module Specifications

(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	250.6 g (0.55 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 Operating	 50g 30g
Operating Vibration	2g at 10 to 500Hz (Agrees with 1756 I/O module specifications)
Maximum Operating Voltage	132 Vac at 47 to 63Hz or 132 Vdc
Max. Module Operating Current Per Point: Per Module:	 2 Amps 4 Amps ***NOTICE*** Refer to the Wiring Diagram(s) for current limits for a specific configuration.
Agency Certifications	UL Classified: Under UL File Number E113724 CSA CE: compliant for all applicable directives
Pollution Degree	2
Environmental Rating	IP20

Conversion: 1771-IGD to 1756-IG16

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-IG16 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-IGD module output current limits versus 1756-IG16 limits are as follows:

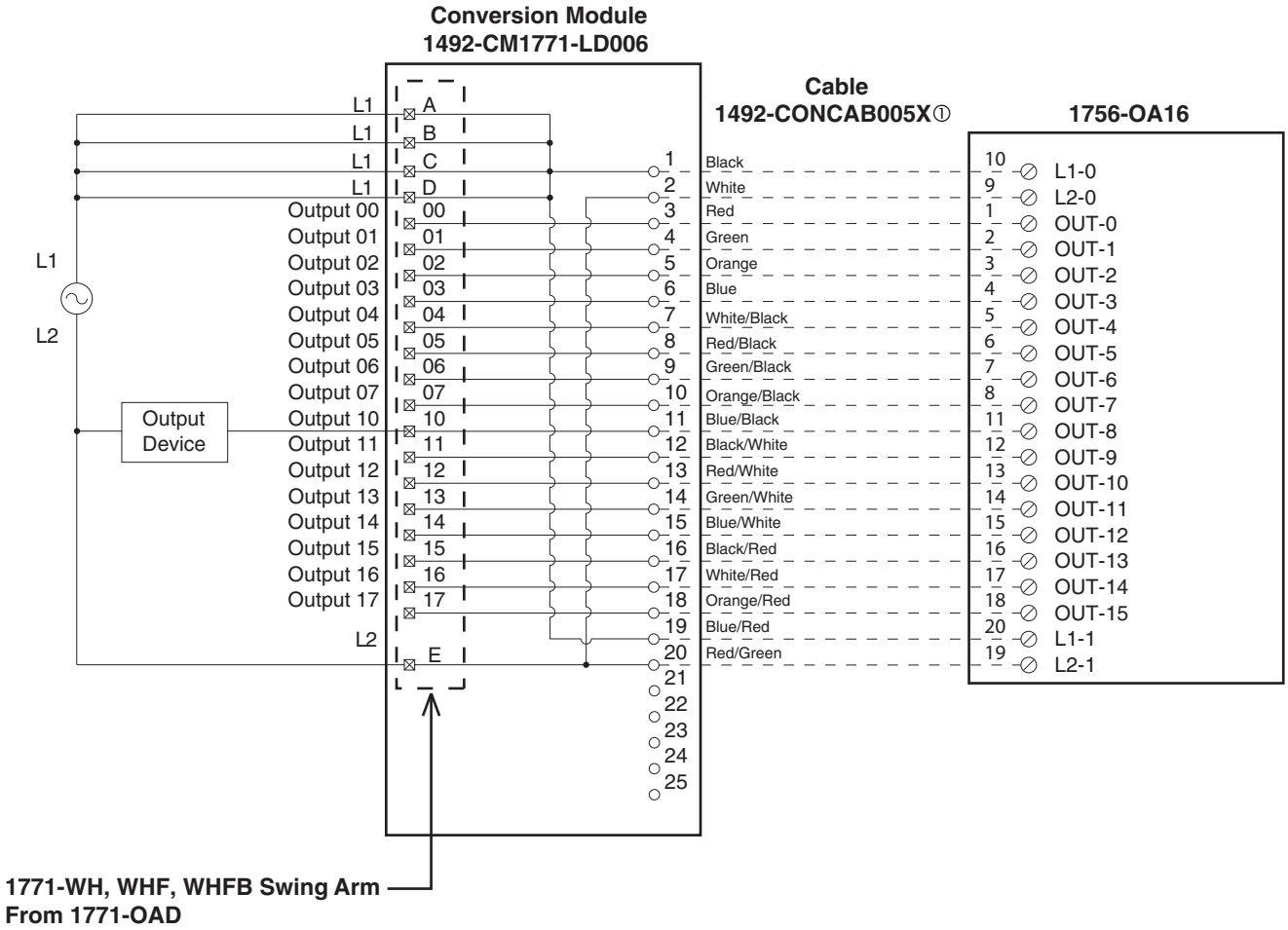
	1771-IGD	***1756-IG16 w/ 1492-CONCAB005X***
a) Current/Point	122mA	110mA
b) Current/Module	500mA	110mA

③ The 1771-IGD is rated 5V DC. The 1756-IG16 is rated 4.5V to 5.5V DC.

④ Refer to your 1771-IGD and 1756-IG16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-004 (Version 00)]

Conversion: 1771-OAD to 1756-OA16

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-OA16 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-OAD module output current limits versus 1756-OA16 limits are as follows:

	1771-OAD	*1756-OA16 w/ 1492-CONCAB005X*
a) Current/Point	2A	0.5A
b) Current/Module	8A	4A
c) Surge Current/point	25A for 100ms	5A for 43ms

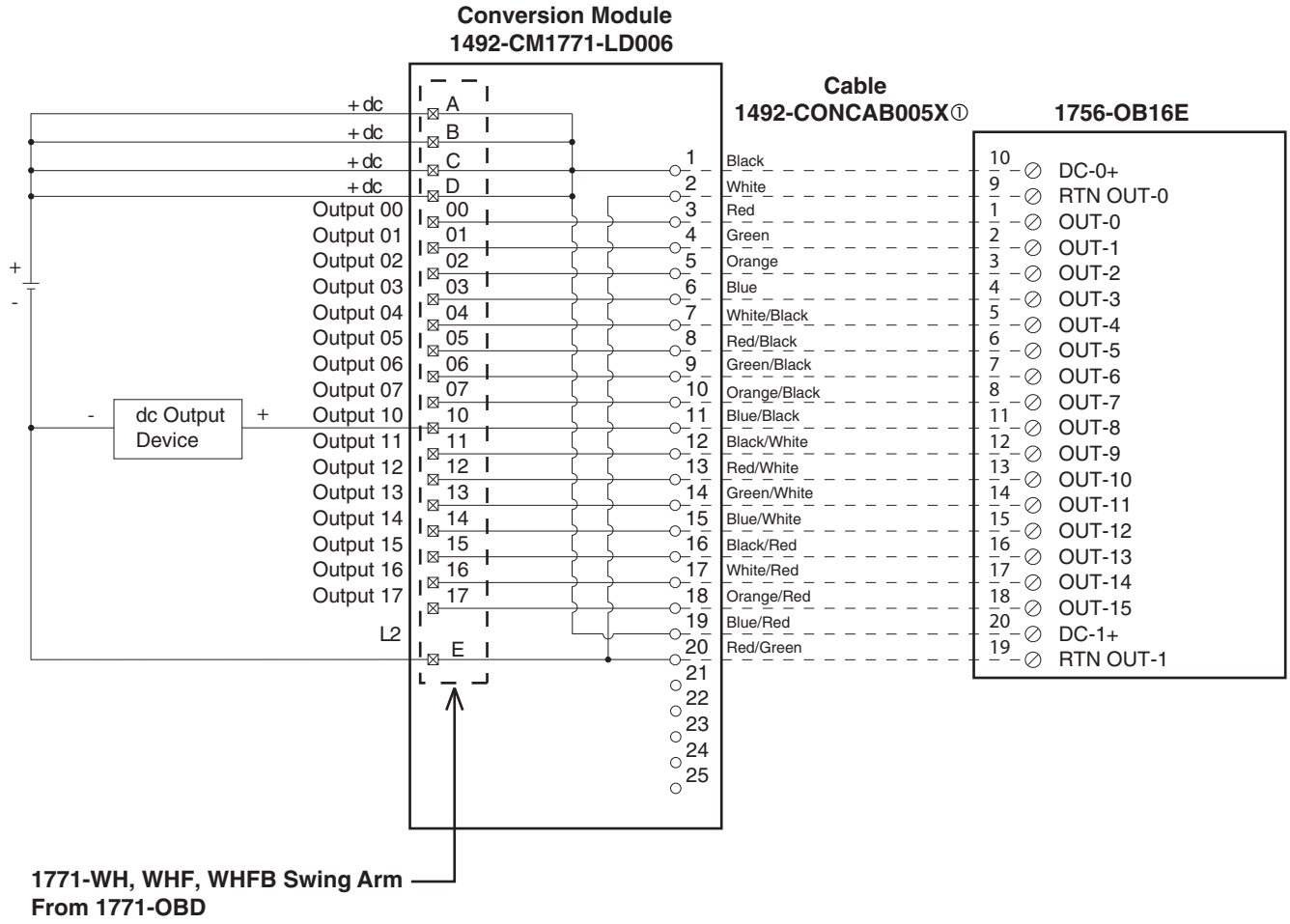
③ The L2 terminal (Terminal E) on the 1771-OAD module was an optional connection, but it is required for the 1756-OA16. This connection must be added if it was not connected.

④ The 1771-OAD is rated 10V to 138V AC. The 1756-OA16 is rated 74V to 256V AC.

⑤ Refer to your 1771-OAD and 1756-OA16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41170-935 (Version 01)]

Conversion: 1771-OBD to 1756-OB16E

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-OA16 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-OB16E limits are as follows:

	1771-OBD	***1756-OB16E w/ 1492-CONCAB005X***
a) Current/Point	2A	1A
b) Current/Module	8A	4A
c) Surge Current/point	4A for 10ms	2A for 10ms

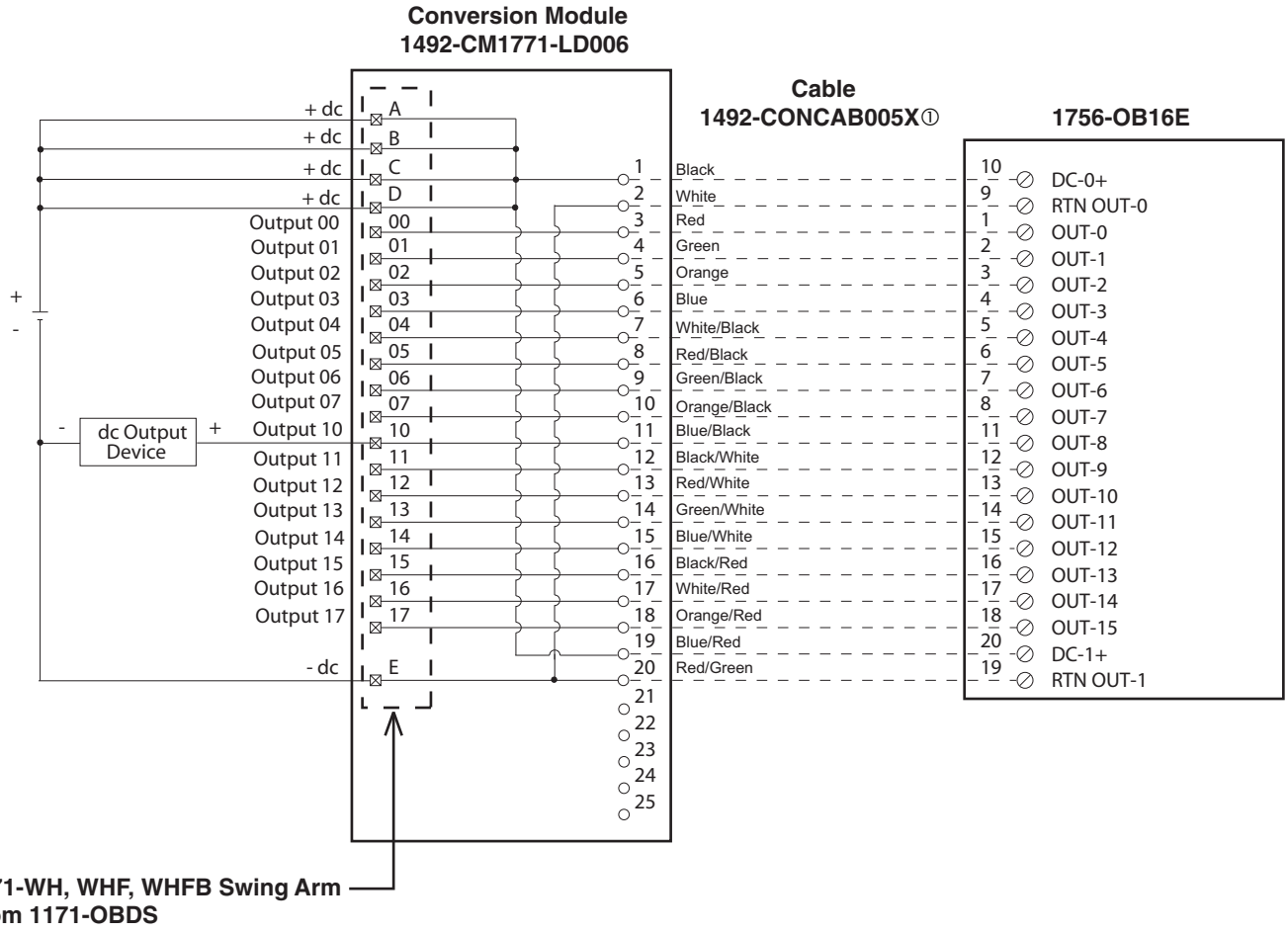
③ The 1771-OBD has a single 10A, 250V rectifier fuse (1/4 x 1 1/4 inch). The 1756-OB16E is electronically fused per group. Refer to the 1756-OB16E Installation Manual for details on electronic fusing.

④ The 1771-OBD is rated 10V to 60V DC. The 1756-OB16E is rated 10V to 31.2V DC. If the load source voltage is greater than 30V DC, then use the 1756-OC8 with the 1492-CM1771-LD008F conversion module.

⑤ Refer to your 1771-OBD and 1756-OB16E Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41170-936 (Version 01)]

Conversion: 1771-OBDS to 1756-OB16E

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-OB16E 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-OBDS module output current limits versus 1756-OB16E limits are as follows:

	1771-OBDS	*1756-OB16E w/ 1492-CONCAB005X*
a) Current/Point	1A	1A
b) Current/Module	8A	8A
c) Surge Current/Point	4A for 10ms	2A for 10ms

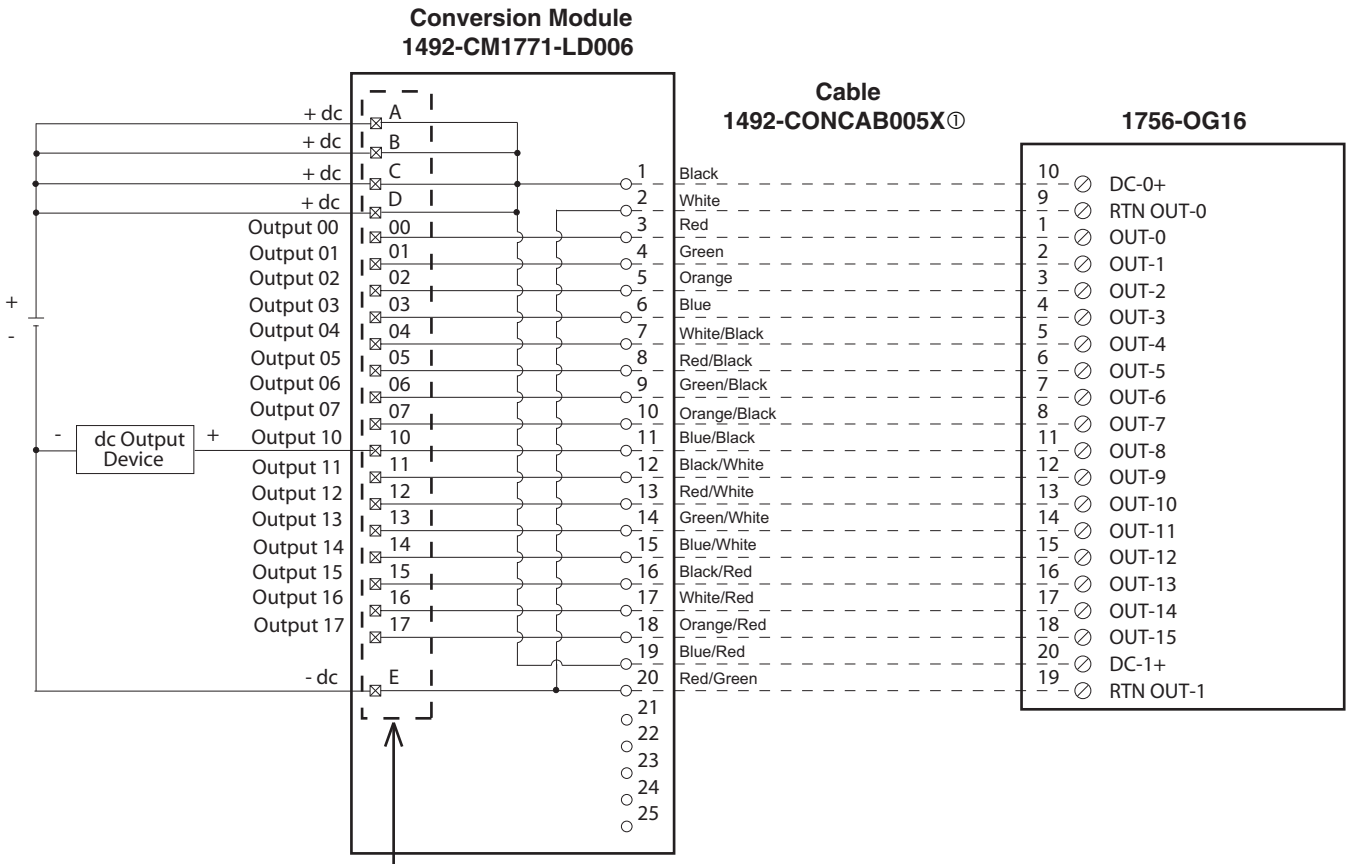
③ The 1771-OBDS has a single 12A, 250V rectifier fuse (1/4 x 1-1/4 inch). The 1756-OB16E is electronically fused per group. Refer to the 1756-OB16E Installation Manual for details on electronic fusing.

④ The 1771-OBDS is rated 10V to 40V DC. The 1756-OB16E is rated 10V to 31.2V DC. If the load source voltage is greater than 30V DC, then use the 1756-OC8 with the 1492-CM1771-LD008F conversion module.

⑤ Refer to your 1771-OBDS and 1756-OB16E Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-005 (Version 00)]

Conversion: 1771-OGD to 1756-OG16

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-OG16 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-OGD module output current limits versus 1756-OG16 limits are as follows:

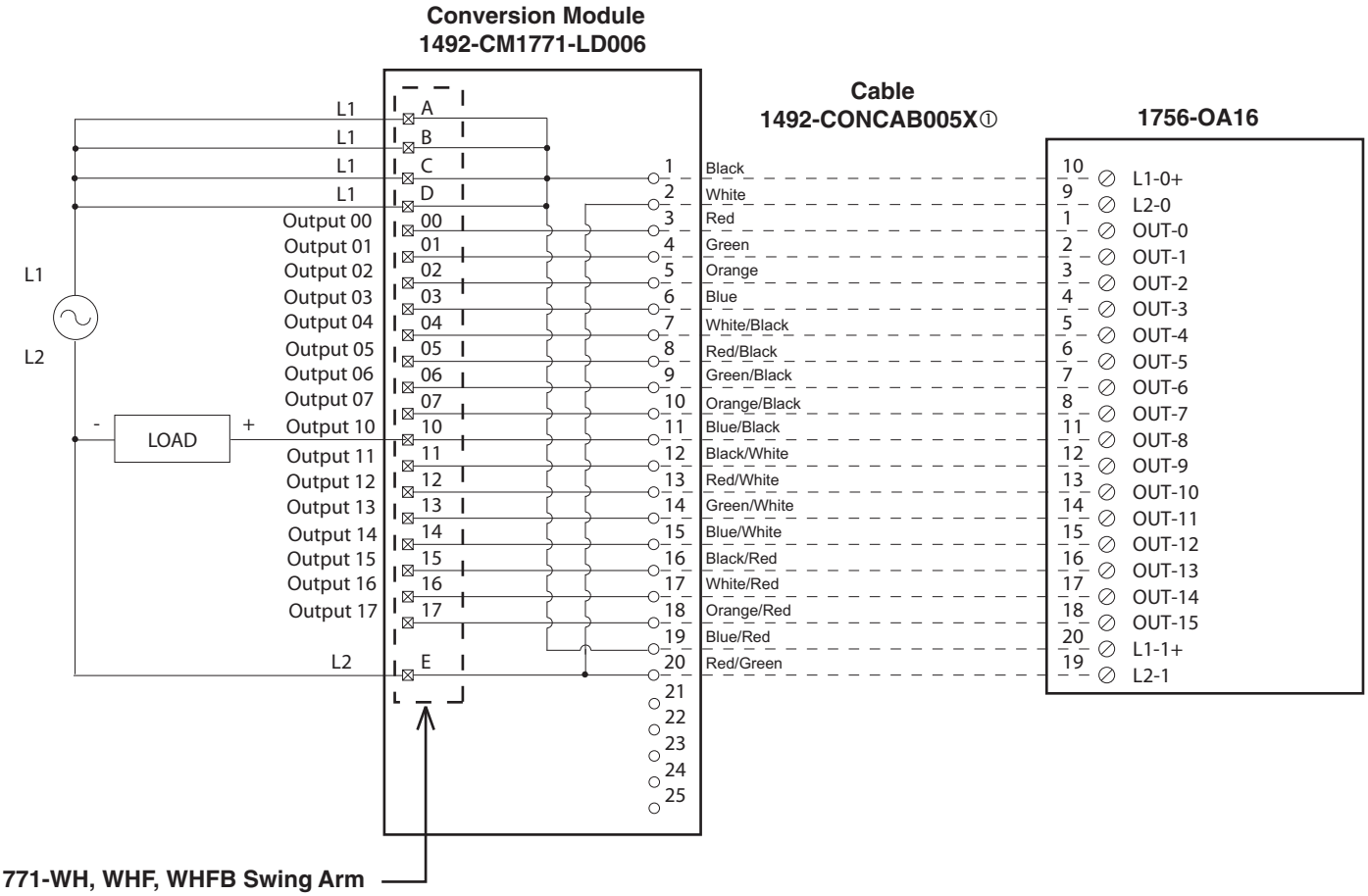
	1771-OGD	***1756-OG16 w/ 1492-CONCAB005X***
a) Current/Point	1mA	24mA
b) Current/Module	310mA	384mA

③ The 1771-OGD has a single 10A, 250V rectifier fuse (1/4 x 1-1/4 inch). The 1756-OG16 is electronically fused per group. Refer to the 1756-OG16 Installation Manual for details on electronic fusing.

④ The 1771-OGD is rated 10V to 60V DC. The 1756-OG16 is rated 10V to 31.2V DC.

⑤ Refer to your 1771-OGD and 1756-OG16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-006 (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-OA16 RTB. Recommended cable lengths of0.5M or 1.0M (005=0.5M, 010=1.0M). See table 2 for other lengths.

② The 1771-OMD module output current limits versus 1756-OA16 limits are as follows:

	1771-OMD	***1756-OA16 w/ 1492-CONCAB005X***
a) Current/Point	2A	0.5A
b) Current/Module	8A	4A
c) Surge Current/Point	25A for 100ms	5A for 43ms

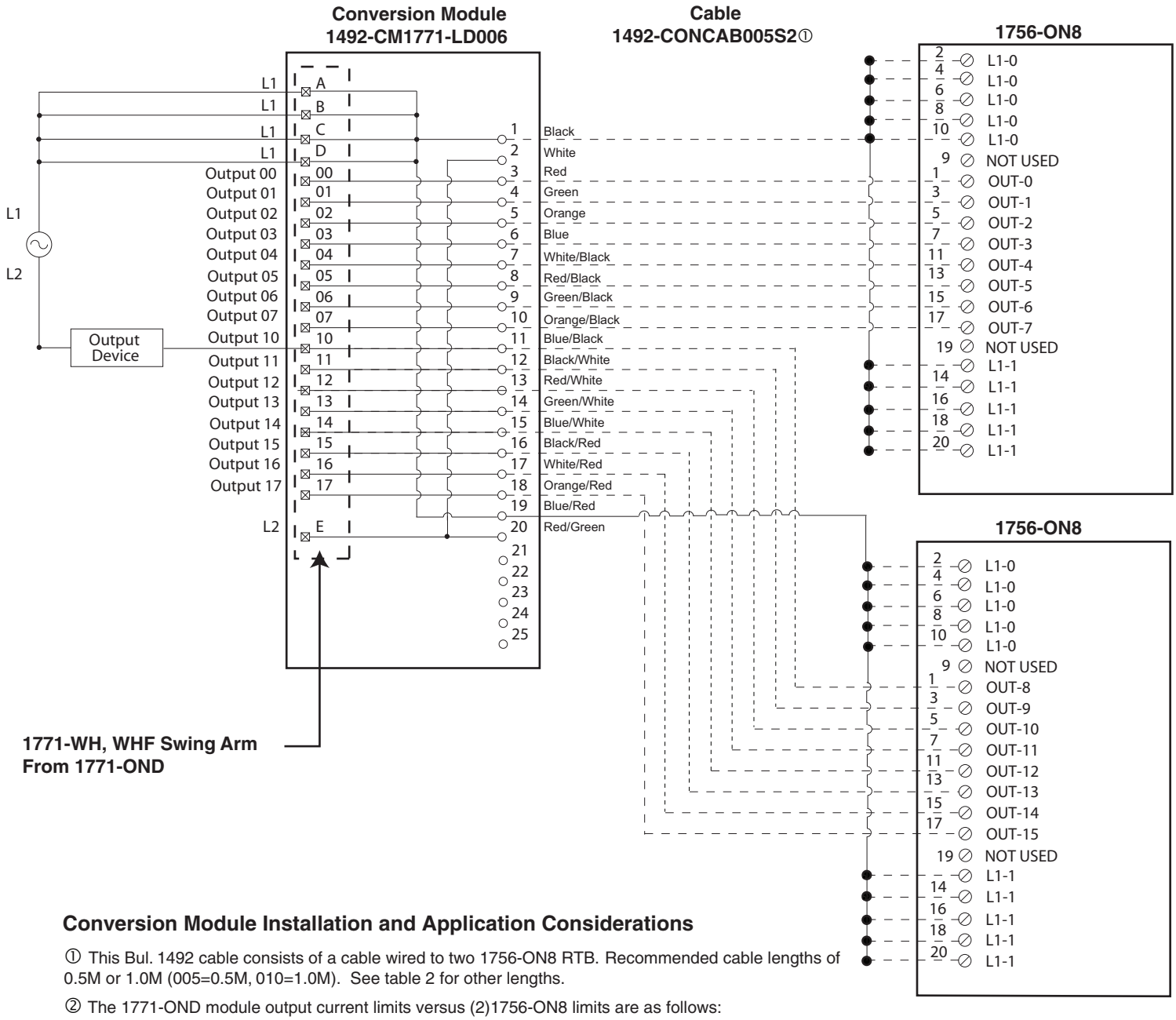
③ The 1771-OMD has a single 10A, 250V rectifier fuse (1/4 x 1 1/4 inch). The 1756-OA16 has a mechanical 3.15A @250V AC slow blow fuse. Refer to the 1756-OA16 Installation Manual for details on electronic fusing.

④ The 1771-OMD is rated 184V to 250V AC. The 1756-OA16 is rated 74V to 265V AC. If the load source voltage is greater than 30V DC, then use the 1756-OC8 with the 1492-CM1771-LD008F conversion module.

⑤ Refer to your 1771-OMD and 1756-OA16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-007 (Version 00)]

Conversion: 1771-OND to 1756-ON8 (2)

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-ON8 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-OND module output current limits versus (2)1756-ON8 limits are as follows:

	1771-OND	***1756-ON8 w/ 1492-CONCAB005S2***
a) Current/Point	2A	2A
b) Current/Module	8A	5A
c) Surge Current/Point	25A for 100ms	20A for 43ms

③ The L2 terminal (Terminal E) on the 1771-ON8 module was an optional connection, but it is required for the 1756-OA16. This connection must be added if it was not connected.

④ The 1771-OND is rated 24V AC. The 1756-ON8 is rated 10V to 30V AC.

⑤ Refer to your 1771-OND and 1756-ON8 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded. [Reference Doc: 41171-008 (Version 00)]

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