

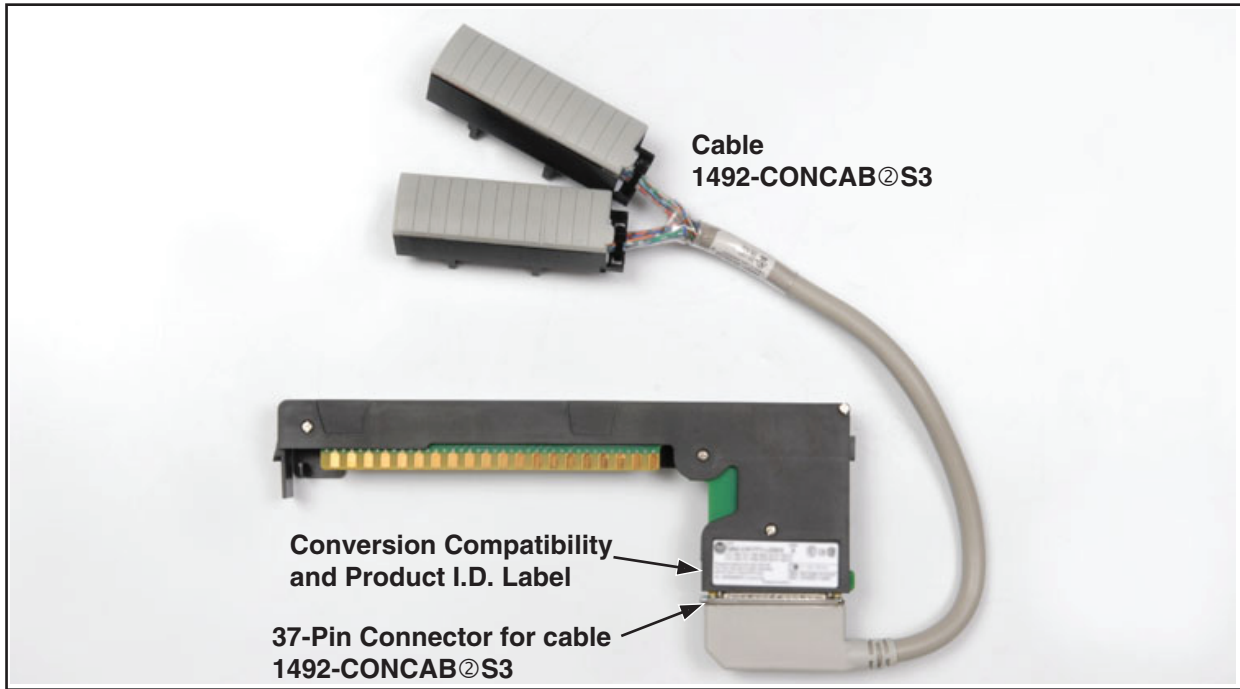


Field Wire Conversion Module for A-B 1771-OAN to two (2) 1756-OA16 (Cat 1492-CM1771-LD013)

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I. Module Description

The 1492-CM1771-LD013 conversion module provides field wire signal conversion from an A-B 1771-OAN, 85 to 264Vac, 32 point output module to two (2) 1756-OA16, 74 to 265Vac^①, 16 point output modules. The conversion module provides the mating connector to the 1771-OAN module swing-arm/terminal block with the attached field wires. It routes those signals via its 37-pin connector and a single 1492-CONCAB^②S3 pre-wired cable to compatible terminals on the two (2) 1756-OA16 modules (refer to the Wiring Diagram on page 2 for details). NOTICE: The two 1756-OA16 modules must be located directly adjacent to each other in the 1756 chassis, due to the orientation of the 1756 terminals on the 1492-CONCAB^②S3 pre-wired cable.



1492-CM1771-LD013 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.

^① Refer to conversion module Specifications Section: Maximum Operating Voltage

II. Module Installation

The 1492-CM1771-LD013 conversion module must be installed in a 1492 conversion base-plate and cover-plate assembly. The installation of the module into the assembly is explained in the Installation Manual that ships with the conversion assembly. For a list of compatible assemblies refer to Appendix A.

III. Conversion Module Compatibility Matrix

Conversion Module	Compatible 1771 Output Module	Compatible 1756 Output Module	Required 1492 Cable
1492-CM1771-LD013	1771-OAN	Two 1756-OA16	1492-CONCAB ^② S3

^② This is cable length in meters. Available lengths are limited to 005 (0.5m) and 010 (1.0m).

IV. Conversion Module Wiring Diagram

The following diagram shows the connection from the existing 1771-OAN swing-arm, through the conversion module, 1492 cable and to the two (2) 1756-OA16 output modules. The diagram can be used as an aid in possible system troubleshooting.

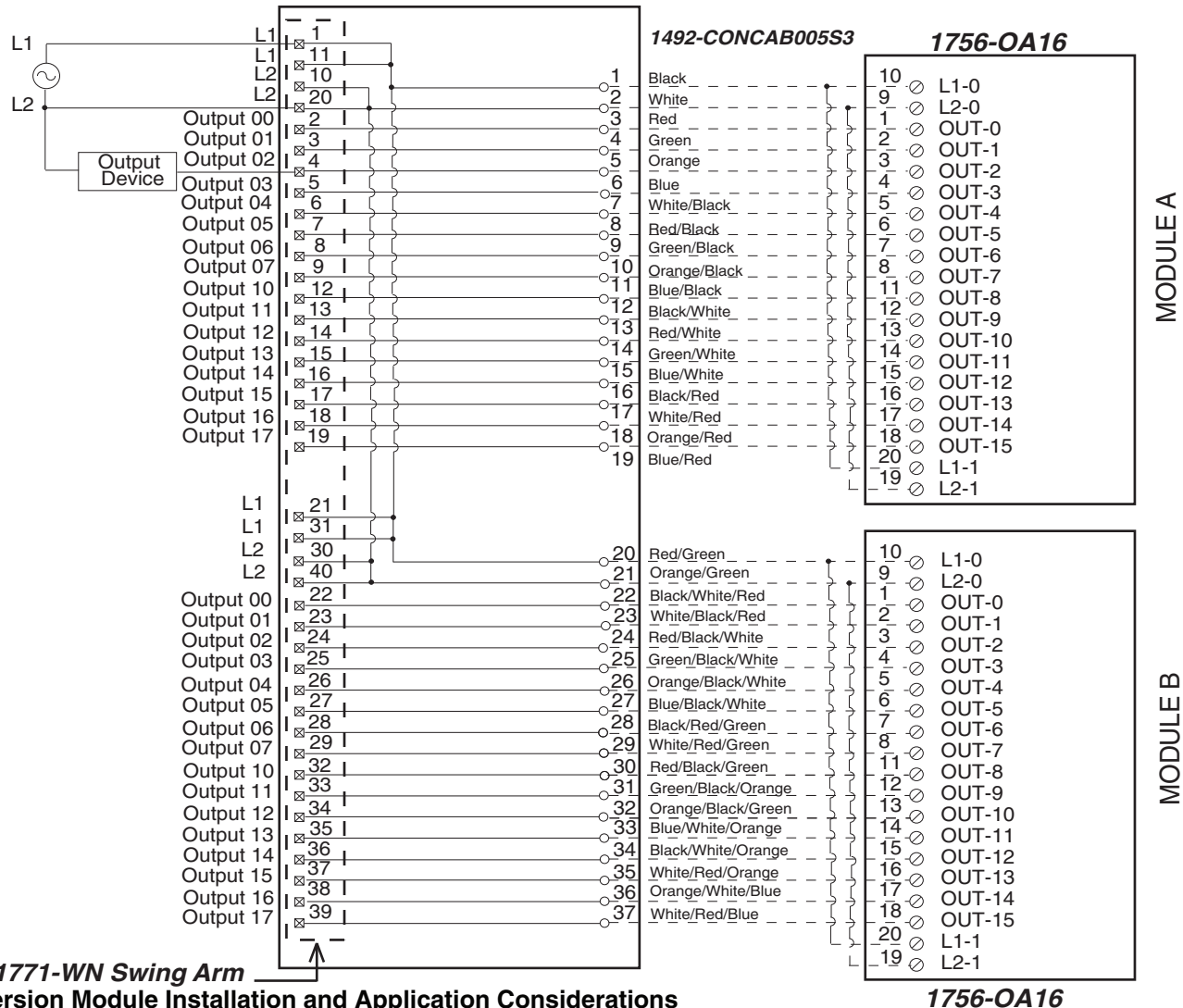


WARNING

There are several key application considerations and system specifications (bottom of drawing) when using these components (conversion module, cable and output module). Read and understand these considerations before installation. In addition, refer to the current draw requirements of the existing loads for this configuration to ensure they are within the current ratings of the 1756 output module.

Conversion: 1771-OAN to 1756-OA16 Qty. 2 with 1492-CM1771-LD013

CM1771-LD013



1771-WN Swing Arm

Conversion Module Installation and Application Considerations

① The 1771-OAN module output current limits versus 1756-OA16 limits are as follows:

	1771-OAN	1756-OA16 w/ 1492-CONCAB005S3
a) Current/Point	1A	0.5A
b) Current/Module	8A (32 pts)	2A (16 pts)
c) Surge Current/Point	10A for 25ms	5A for 43ms

② The 1771-OAN has 4 groups (allowing 4 separate power supplies). This module/cable combination ties all 4 groups from the 1771-OAN together. Field wiring modification must be made to accommodate this if multiple supplies were used. If more than 1 supply was used, all but 1 of the power supplies must be removed.

③ The 1492-CONCAB005S3 is limited to 3A per pin.

④ The 1771-OAN did not allow connections for L2, however the 1756-OA16 requires an L2 connection for proper operation. The 1771-OAN did not use terminals 10, 20, 30, 40. These terminals have been reassigned for an L2 connection in this application. The installer must rewire L2 to one of these terminals.

⑤ Refer to your 1771-OAN and 1756-OA16 Installation Manual wiring schematics and diagrams for more details. Ensure 1756 output module ratings are not exceeded.

⑥ This configuration uses two (2) 1756-OA16 output modules to replace a single 1771-OAN 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.

[Reference Doc: 41170-942 (Version 01)]

V. 1492-CM1771-LD013 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	240 Vac at 47 to 63Hz
Max. Module Operating Current	
Per Point:	2 Amps
Per Module:	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

VI. Appendix A - 1771 chassis to 1756 Chassis Conversion System Selection Process

- 1) Determine the number of 1771 I/O modules used in the 1771 I/O Chassis to be converted to 1756. NOTE: In some cases two 1756 modules may be required for one 1771 module. Select the applicable 1492 conversion modules from the Digital and Analog Conversion Selection Table Matrix.
- 2) Review the Max Slots for I/O and Chassis Width data from the below table, and select a 1756 I/O Chassis which meets your conversion needs from Step 1. Ensure the information from the I/O Conversion module tables are reviewed first.
- 3) Once the 1756 Chassis is selected, select the Conversion Assembly. The Conversion Assembly has the same dimensional foot-print as the 1771 chassis and can use the same mounting hardware. The assembly consists of a base-plate to hold the conversion modules and a cover-plate to protect the modules and to mount the selected 1756 chassis. The combined depth of the conversion assembly with the 1756 chassis mounted is 10.25 inches (Controller w/key) to 10.0 inches (Controller w/o Key).

Chassis Parameter ⁽¹⁾	1771 Chassis		1756 Equivalent Chassis		1771 Chassis		1756 Equivalent Chassis		1771 Chassis	1756 Equivalent Chassis	1771 Chassis	1756 Equivalent Chassis
	-A1B w/o PS	-A1B w/PS	-A4 ⁽³⁾	-A7	-A2B w/o PS	-A2B w/PS	-A7 ⁽⁴⁾	-A10	-A3B1	-A13 ⁽⁵⁾	-A4B	-A17 ⁽⁶⁾
Max Slots for I/O	4	4	3	6	8	8	6	9	12	12	16	16
Chassis Width ⁽²⁾	9.01	12.61	10.35	14.49	14.01	17.61	14.49	19.02	19.01	23.15	24.01	29.06
Conversion Assembly	1492-MUA1B-A4-A7				1492-MUA2B-A7-A10				1492-MUA3-A10-A13		1492-MUA4-A13-A17	

Foot Notes:

- ① 1771-A3B is not listed as it is used for 19 inch wide instrumentation panels
- ② Two 1771 width dimensions are provided as some PLC-5 processors have integrated power supplies. Dimension w/PS includes -P1, -P2, etc. Notice that the width dimension of some 1756 chassis exceed the width of the 1771 chassis with or without the power supply. Cover-plate chassis mounting design allows the excess 1756 chassis width to be evenly distributed to both sides, or excess to right or left. Carefully consider this in the conversion
- ③ 1756-A4 may work in a 1771-A1B application if 4 or less I/O slots were used. Conversion cover-plate is capable to mount -A4 or -A7
- ④ 1756-A7 may work in a 1771-A2B application if 6 or less I/O slots were used. Conversion cover-plate is capable to mount -A7 or -A10
- ⑤ 1756-A10 may work in a 1771-A3B1 application if 10 or less I/O slots were used. Conversion cover-plate is capable to mount -A10 or -A13
- ⑥ 1756-A13 may work in a 1771-A4B application if 13 or less I/O slots were used. Conversion cover-plate is capable to mount -A13 or -A17