



Installation Instructions

AC (220V) Output Module Cat. No. 1771-OMD Series B

To The Installer

This document provides information on:

- important pre-installation considerations
- power supply requirements
- initial handling
- installing the module
- using the indicators for troubleshooting
- replacing the fuses
- troubleshooting
- module specifications

Pre-installation Considerations

This module must be used with a 1771 Series B I/O chassis. If you are using a 1/2-slot or 1-slot addressing you may use any combination of I/O modules. Otherwise, make sure no other output module or single card block transfer module is placed in the same I/O group.

European Union Directive Compliance

If this product is installed within the European Union or EEA regions and has the CE mark, the following regulations apply.

EMC Directive

This apparatus is tested to meet Council Directive 89/336/EEC Electromagnetic Compatibility (EMC) using a technical construction file and the following standards, in whole or in part:

- EN 50081-2 EMC – Generic Emission Standard, Part 2 – Industrial Environment
- EN 50082-2 EMC – Generic Immunity Standard, Part 2 – Industrial Environment

The product described in this manual is intended for use in an industrial environment.

Low Voltage Directive

This apparatus is also designed to meet Council Directive 73/23/EEC Low Voltage, by applying the safety requirements of EN 61131-2 Programmable Controllers, Part 2 – Equipment Requirements and Tests.

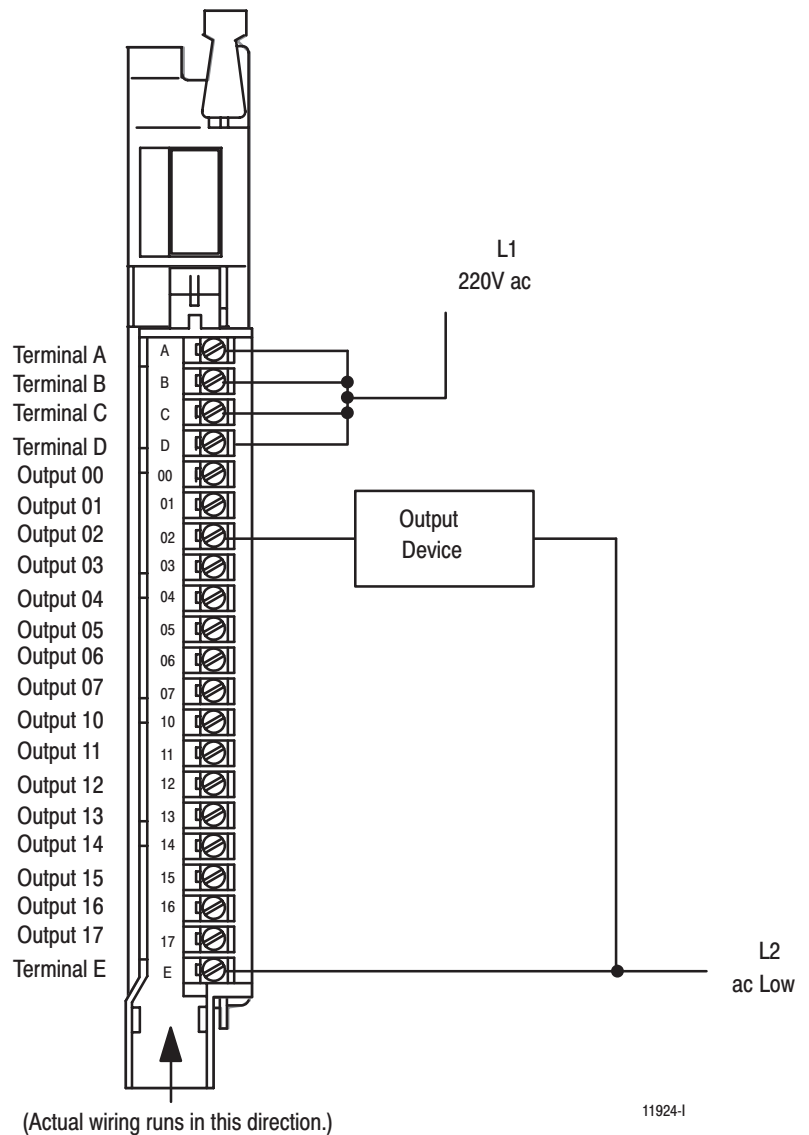
ALLEN-BRADLEY-1771-OMD

Connecting Wiring to the Output Module

Connections to the output module are made to the 21-terminal field wiring arm (cat. no. 1771-WH) shipped with the module. Attach the wiring arm to the pivot bar on the bottom of the I/O chassis. The wiring arm pivots upward and connects with the module so you can install or remove the module without disconnecting the wires.

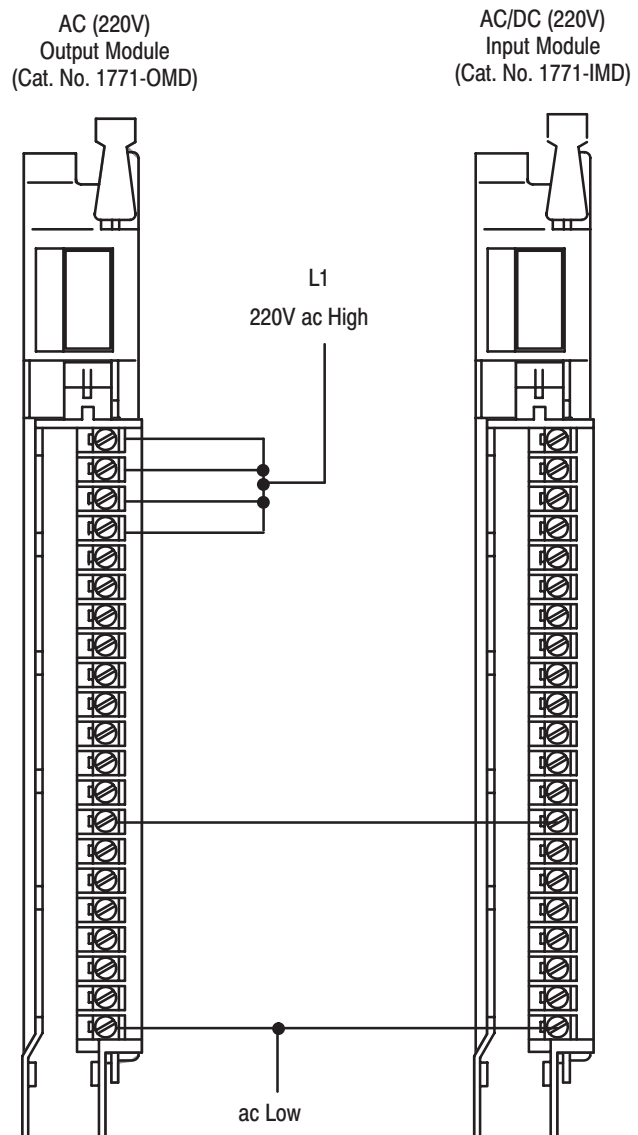
You must supply ac (L1) at terminals A through D on the wiring arm. You need four ac connections to accommodate the total required surge rating on the module without overstressing any single connection on the field wiring arm. Jumper all ac (L1) connections together to prevent module damage.

1771-OMD/B Connection Diagram



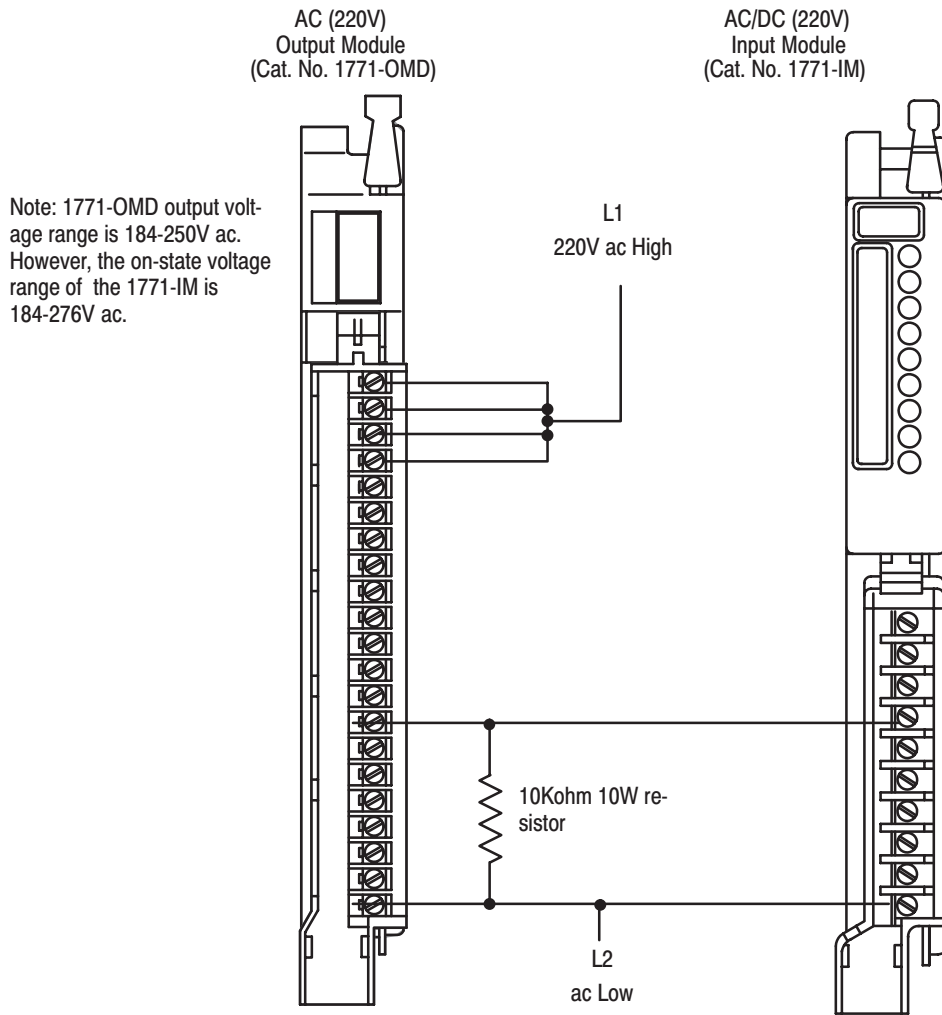
Important: You can use an AC (220V) Output Module (cat. no. 1771-OMD) to directly drive terminals on an AC/DC (220V) Input Module (cat. no. 1771-IMD). You can also use a 1771-OMD Output module to drive an AC/DC (220V) Input Module (cat. no. 1771-IM) but you must connect a 10K ohm, 10W resistor between the output terminal and L2 (common) as shown below. **Use the same ac power source to power both modules to ensure proper phasing and prevent module damage.**

Driving a 1771-IMD Module with a 1771-OMD Module



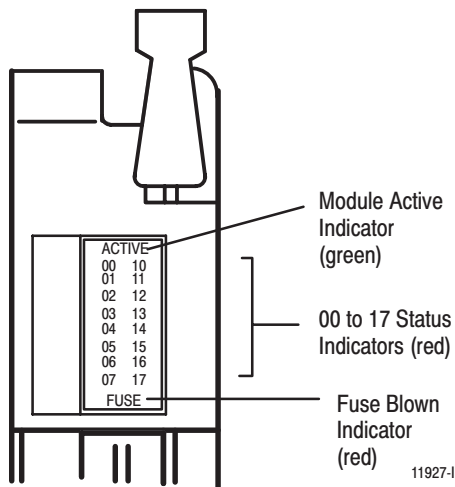
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Driving an Input with an Output



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Interpreting the Status Indicators



The front panel of your module contains one green, module active indicator, 16 red status indicators and one red fuse-blown indicator. The 1771-OMD/B performs diagnostics in a handshaking mode when first powered up. Upon successful completion of the diagnostics, the green module active indicator lights. It turns off if a fault occurs in the data paths or the opto-isolators.

The red status indicators are provided for system logic side indication of individual outputs. When a red status indicator lights, voltage is present on the terminal.

The red fuse-blown indicator is lit when the fuse in the module has cleared or been removed.

Specifications

Outputs per Module	16
Module Location	1771-A1B thru -A4B or later I/O chassis; 1771-AM1, -AM2 I/O chassis
Output Voltage Range	184 to 250V ac @ 47 - 63Hz
Output Current Rating	2A per output - not to exceed 8A per module
Surge Current (maximum)	25A per output for 100msec, repeatable every 1 second 25A per module for 100msec, repeatable every 1 second
Minimum Load Current	10mA per output @ 220V ac, 60Hz
On State Voltage Drop (max.)	1.5V at 2A (maximum)
Off State Leakage Current (max.)	4mA per output @ 220V ac
Signal Delay	1.0ms
Off to On	8.3-9.1ms @ 60Hz
On to Off	
Power Dissipation	17.3 Watts (max.), 3.7 Watts (min.)
Thermal Dissipation	59.0 BTU/hr (max.), 12.6 BTU/hr (min.)
Backplane Current	700mA @ 5V dc \pm 5%
Isolation Voltage	Isolation meets or exceeds UL Standard 508, and CSA Standard C22.2 No. 142.
Environmental Conditions	
Operational Temperature	0° to 60°C (32° to 140°F)
Storage Temperature	-40° to 85°C (-40° to 185°F)
Relative Humidity	5 to 95% (without condensation)
Conductors	Wire Size
	14 gauge stranded maximum
	3/64 inch insulation maximum
	1 ¹
Category	
Fuse	10A, 250V rectifier fuse (1/4 x 1-1/4 inch), Littelfuse PN 322010 3AB
Keying	Between 2 and 4 Between 6 and 8
Field Wiring Arm	Standard
	Optional Fused
	Cat. No. 1771-WH Cat. No. 1771-WHF (3A fuses) or Cat. No. 1771-WHFB (1.5A fuses)
Wiring Arm Screw Torque	7-9 inch-pounds
Agency Certification (when product is marked)	<ul style="list-style-type: none"> • CSA certified • CSA Class I, Division 2, Groups A, B, C, D certified • UL listed • CE marked for all applicable directives • C-Tick marked for all applicable acts

¹ Refer to publication 1770-4.1, Programmable Controller Wiring and Grounding Guidelines.



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