

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Rockwell / Allen-Bradley 1771-OM* at our website: *Click HERE*

Installation Instructions

AC (220/240V) Output Module Cat. No. 1771-OM

To The Installer

This document provides information on:

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

Pre-installation Considerations

This module may be used with either 1771 Series A or B I/O chassis. If you are using 1/2-slot or 1-slot addressing you may use any combination of I/O modules.

European Union Directive Compliance

If this product has the CE mark it is approved for installation within the European Union and EEA regions. It has been designed and tested to meet the following directives.

EMC Directive

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

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

This product is intended for use in an industrial environment.

Low Voltage Directive

This product is tested 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.

Publication 1771-2.18

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

For specific information required by EN 61131-2, see the appropriate sections in this publication, as well as the following Allen-Bradley publications:

- Industrial Automation Wiring and Grounding Guidelines For Noise Immunity, publication 1770-4.1
- Guidelines for Handling Lithium Batteries, publication AG-5.4
- Automation Systems Catalog, publication B111

Power Requirements

Your module receives its power through the 1771 I/O chassis backplane from the chassis power supply. The module requires 225mA from the output of this supply. Add this to the requirements of all other modules in the I/O chassis to prevent overloading the chassis backplane and/or backplane power supply.

Initial Handling

The ac output module is shipped in a static-shielded bag to guard against electrostatic discharge damage. Observe the following precautions when handling the module.

Electrostatic Discharge Damage



ATTENTION: Under some conditions, electrostatic discharge can degrade performance or damage the module. Observe the following precautions to guard against electrostatic damage.

- Wear an approved wrist strap grounding device, or touch a grounded object to discharge yourself before handling the module.
- Do not touch the backplane connector or connector pins.
- If you configure or replace internal components, do not touch other circuit components inside the module. If available, use a static-free work station.
- When not in use, keep the module in a static-shielded bag.

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Installing Your Module

In this section we tell you how to key your I/O chassis, install your module and make your wiring connections.

Keying Your I/O Chassis

Use the plastic keying bands, shipped with each I/O chassis, to key the I/O slots to accept only this type of module.

The module circuit board is slotted in two places on the rear edge. The position of the keying bands on the backplane connector must correspond to these slots to allow insertion of the module. You can key any connector in an I/O chassis to receive this module except for the left-most connector reserved for adapter or processor modules. Place keying bands between the following numbers labeled on the backplane connector:

- Between 6 and 8
- Between 28 and 30

You can change the position of these keys if system redesign and rewiring makes insertion of a different module necessary.

Installing Your Output Module

To install the ac output module in your 1771 I/O chassis, follow the steps listed below.



ATTENTION: Remove power from the 1771 I/O chassis backplane and wiring arm before removing or installing an I/O module.

- Failure to remove power from the backplane or wiring arm could cause module damage, degradation of performance, or injury.
- Failure to remove power from the backplane could cause injury or equipment damage due to possible unexpected operation.

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

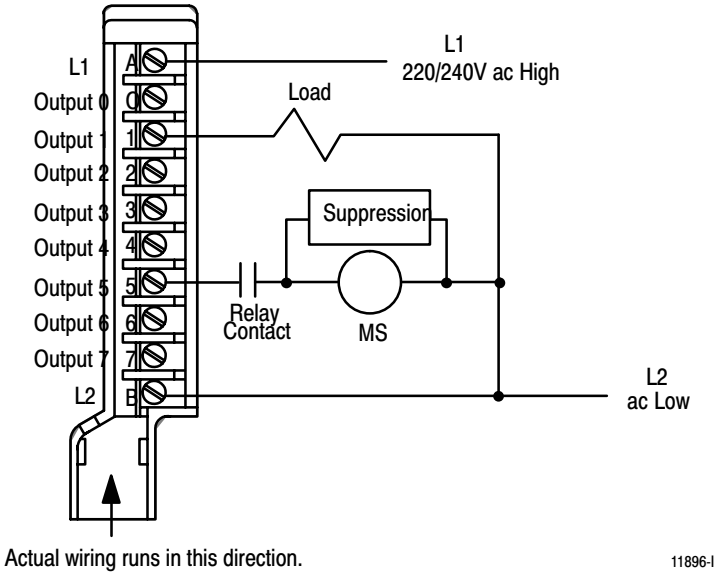
1. Turn off power to the I/O chassis.
2. Place the module in the plastic tracks on the top and bottom of the slot that guides the module into position.
3. Do not force the module into its backplane connector. Apply firm, even pressure on the module to seat it properly.
4. Snap the chassis latch over the top of the module to secure its position.
5. Connect the wiring arm to the module.
6. Make wiring connections to the field wiring arm as indicated below.

Connecting Wiring to the Output Module

Connections to the output module are made to the 10 terminal field wiring arm (cat. no. 1771-WA) 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 high (L1) at terminal A on the wiring arm. Connect ac low (L2) to terminal B. Connect your equipment to the output terminal (numbered 0-7) and to ac low (terminal B). The front module label identifies these connections and provides space for you to identify them.

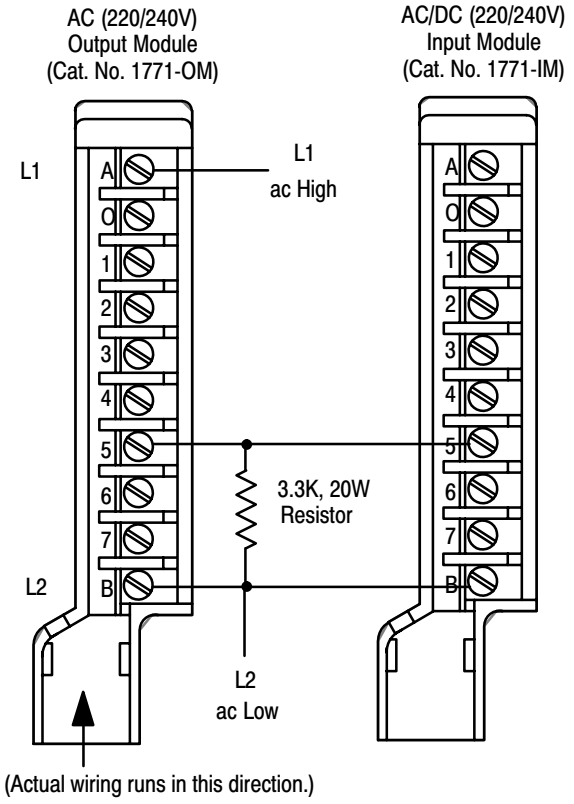
Connection Diagram



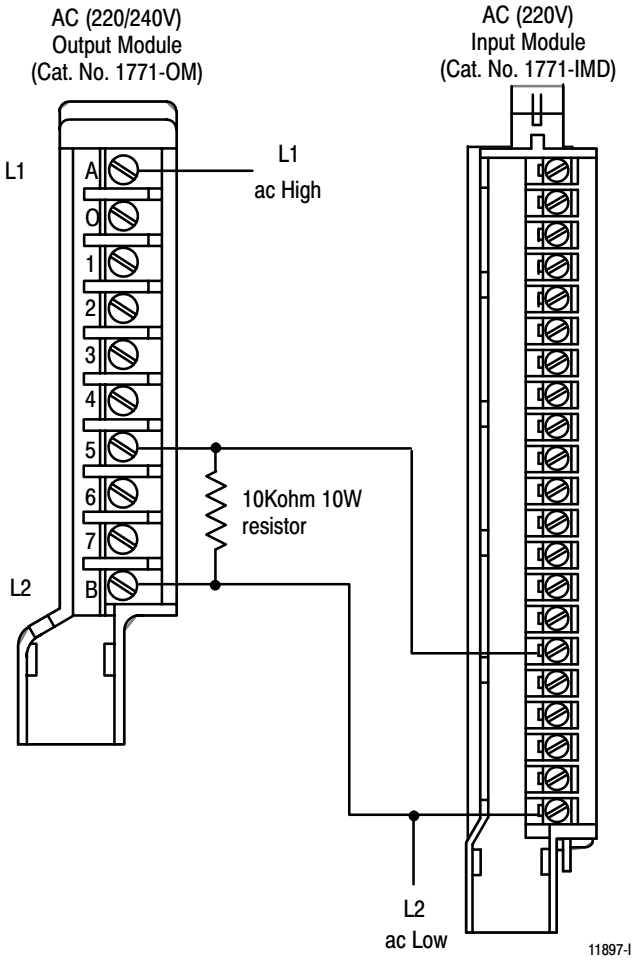
Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

You can use an AC (220/240V) Output Module (cat. no. 1771-OM) to drive terminals on an AC (220/240V) Input Module (cat. no. 1771-IM), but you must connect a 3.3K, 20 Watt resistor between the output terminal and L2 (common). You can also use an AC (220/240V) Output Module (cat. no. 1771-OM) to drive terminals on an AC (220V) Input Module (cat. no. 1771-IMD), but you must connect a 10K, 10 Watt resistor between the output terminal and L2 (common). **In either case, use the same power source to power both modules to ensure proper phasing, and prevent module damage.**

Driving a 1771-IM Module with a 1771-OM Module



Driving a 1771-IMD with a 1771-OM



Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Interpreting the Status Indicators

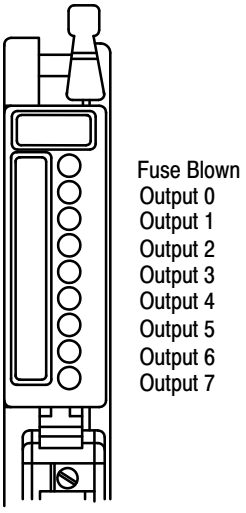
The front panel of your module contains 8 status indicators and one fuse blown indicator. The fuse blown indicator lights when any of the 8 fuses in the module is blown.

The status indicators light when the corresponding output energizes.

NOTE: An output terminal need not be connected to a load in order for its status indicator to light.

The module circuitry signals an open fuse condition as long as line power (L1, L2) is supplied to the field wiring arm and the module is powered from the chassis.

Status Indicators



11898-I

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Replacing the Fuse

The module's output circuitry is protected from overloads or shorts by fuses. You can replace the fuses as outlined below.

1. Turn off all power to the I/O chassis and all output device power to the field wiring arm.

ATTENTION: Remove power from the 1771 I/O chassis backplane and wiring arm before removing or installing the module.

- Failure to remove power from the backplane or field wiring arm could cause module damage, degradation of performance, or injury.
- Failure to remove power from the backplane could cause injury or equipment damage due to possible unexpected operation.

---

2. Pivot the wiring arm away from the module and remove the module from the chassis.
3. Remove the cover (nearest the front of the module) from the side of the module by removing the two screws on the component side.
4. Replace the blown fuse with a 2A, 250V, type 3AG normal blow fuse.
5. Reinstall the protective cover and install the module in the I/O chassis.
6. Reposition the field wiring arm and restart system.

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Specifications

Outputs per Module	8
Module Location	1771 I/O chassis
Output Voltage Range	184 to 276V ac @ 47 - 63Hz
Output Current Rating	2A per output - not to exceed 6A per module
Surge Current (maximum)	20A per output for 100ms, repeatable every 10 seconds
Minimum Load Current	60mA per output @ 220V ac, 60Hz
On State Voltage Drop (max.)	1.6V at 2A
Off State Leakage Current (max.)	2mA per output @ 220V ac
Delay Times	1.0ms ON delay (max) 8.3ms OFF delay (max)
Power Dissipation	13.2 Watts (max.), 1.2 Watts (min.)
Thermal Dissipation	45.1 BTU/hr (max.), 4.1 BTU/hr (min.)
Backplane Current	225mA @ 5V dc $\pm$5%
Isolation Voltage	1500V ac (RMS)
Environmental Conditions Operational Temperature Storage Temperature Relative Humidity	 0º to 60ºC (32º to 140ºF) -40º to 85ºC (-40º to 185ºF) 5 to 95% (without condensation)
Conductors Wire Size Category	14 gauge ($2mm^2$) stranded maximum 3/64 inch (1.2mm) insulation maximum 2[1]
Keying	Between 6 and 8 Between 28 and 30
Fuse	2A, 250V 3AG Normal Blow (1 per output)
Field Wiring Arm	Catalog Number 1771-WA
Wiring Arm Screw Torque	7-9 inch-pounds
Agency Certification (when product or packaging is marked)	• CSA certified • CSA Class I, Division 2, Groups A, B, C, D certified • UL listed • CE marked for all applicable directives

[1] Refer to publication 1770-4.1, Industrial Automation Wiring and Grounding Guidelines.

Rockwell Automation
Allen-Bradley

Allen-Bradley, a Rockwell Automation Business, has been helping its customers improve productivity and quality for more than 90 years. We design, manufacture and support a broad range of automation products worldwide. They include logic processors, power and motion control devices, operator interfaces, sensors and a variety of software. Rockwell is one of the world's leading technology companies.

Worldwide representation.

Argentina • Australia • Austria • Bahrain • Belgium • Brazil • Bulgaria • Canada • Chile • China, PRC • Colombia • Costa Rica • Croatia • Cyprus • Czech Republic • Denmark • Ecuador • Egypt • El Salvador • Finland • France • Germany • Greece • Guatemala • Honduras • Hong Kong • Hungary • Iceland • India • Indonesia • Ireland • Israel • Italy • Jamaica • Japan • Jordan • Korea • Kuwait • Lebanon • Malaysia • Mexico • Netherlands • New Zealand • Norway • Pakistan • Peru • Philippines • Poland • Portugal • Puerto Rico • Qatar • Romania • Russia–CIS • Saudi Arabia • Singapore • Slovakia • Slovenia • South Africa, Republic • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • United Arab Emirates • United Kingdom • United States • Uruguay • Venezuela • Yugoslavia

Allen-Bradley Headquarters, 1201 South Second Street, Milwaukee, WI 53204 USA, Tel: (1) 414 382-2000 Fax: (1) 414 382-4444

Publication 1771-2.18 - April 1992
Supersedes publication 1771-2.18 - May 1990

PN 955111-48
Copyright 1992 Allen-Bradley Company, Inc. Printed in USA

Artisan Scientific - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisan-scientific.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP