POINT I/O Address Reserve Module

(Cat. No. 1734-ARM, Series C)
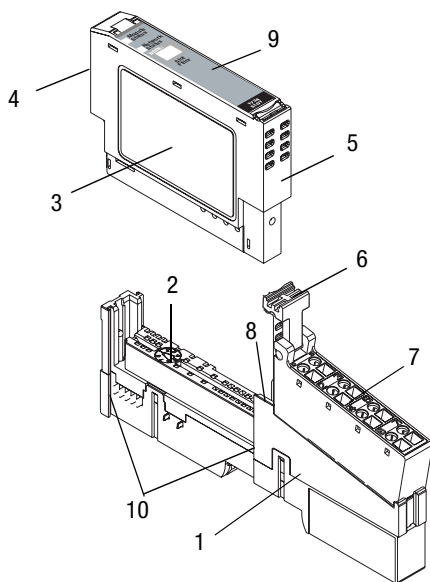
	Description		Description
1	Mounting Base[1]	6	RTB Removal Handle
2	Mechanical Keying (orange)	7	Removable Terminal Block (RTB)[1]
3	Module Wiring Diagram	8	DIN Rail Locking Screw (orange)
4	Module Locking Mechanism	9	Slide-in Writable Label
5	Insertable I/O Address Reserve Module	10	Interlocking Side Pieces

[1] Wiring Base Assembly consists of item 1) mounting base, 1734-MB and item 7) removable terminal block, 1734-RTB or -RTBS.

This Series C product can be used with DeviceNet and PROFIBUS adapters. It can be used with ControlNet and Ethernet adapters using RSLogix 5000, version 11 (or higher) software.

General

The 1734-ARM address reserve module retains a node address for later insertion of any future option. It can be installed in any slot with any key position. However, we recommend that the key position be that of the module that is intended to be installed in that position at a later date.

Important User Information

Solid state equipment has operational characteristics differing from those of electromechanical equipment. *Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls* (Publication SGI-1.1 available from your local Rockwell Automation sales office or online at http://www.literature.rockwellautomation.com) describes some important differences between solid state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.

In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

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Throughout this manual we use notes to make you aware of safety considerations.

WARNING	Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.

Important User Information

ATTENTION ⚠	Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you: • identify a hazard • avoid a hazard • recognize the consequence
IMPORTANT	Identifies information that is critical for successful application and understanding of the product.
SHOCK HAZARD	Labels may be located on or inside the equipment (e.g., drive or motor) to alert people that dangerous voltage may be present.
BURN HAZARD	Labels may be located on or inside the equipment (e.g., drive or motor) to alert people that surfaces may be dangerous temperatures.

ATTENTION

Environment and Enclosure

This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC publication 60664-1), at altitudes up to 2000 meters without derating.

This equipment is considered Group 1, Class A industrial equipment according to IEC/CISPR Publication 11. Without appropriate precautions, there may be potential difficulties ensuring electromagnetic compatibility in other environments due to conducted as well as radiated disturbance.

This equipment is supplied as "open type" equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

See NEMA Standards publication 250 and IEC publication 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosure. Also, see the appropriate sections in this publication, as well as the Allen-Bradley publication 1770-4.1 ("Industrial Automation Wiring and Grounding Guidelines"), for additional installation requirements pertaining to this equipment.

WARNING

EXPLOSION HAZARD

- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.
- Substitution of components may impair suitability for Class I, Division 2.
- If this product contains batteries, they must only be changed in an area known to be nonhazardous.

ATTENTION

Preventing Electrostatic Discharge

This equipment is sensitive to electrostatic discharge, which can cause internal damage and affect normal operation. Follow these guidelines when you handle this equipment:

- Touch a grounded object to discharge potential static.
- Wear an approved grounding wriststrap.
- Do not touch connectors or pins on component boards.
- Do not touch circuit components inside the equipment.
- If available, use a static-safe workstation.
- When not in use, store the equipment in appropriate static-safe packaging.

ATTENTION	This product is grounded through the DIN rail to chassis ground. Use zinc plated, yellow chromated steel DIN rail to assure proper grounding. Using other DIN rail materials (e.g. aluminum, plastic, etc.) which can corrode, oxidize or are poor conductors can result in improper or intermittent platform grounding.

Install the Mounting Base

To install the mounting base on the DIN rail, proceed as follows.

1. Position the mounting base vertically above the installed units (adapter, power supply or existing module.

2. Slide the mounting base down allowing the interlocking side pieces to engage the adjacent module or adapter.

3. Press firmly to seat the mounting base on the DIN rail. The mounting base will snap into place.

4. To remove the mounting base from the DIN rail, remove the module, and use a small bladed screwdriver to rotate the base locking screw to a vertical position. This releases the locking mechanism. Then lift straight up to remove.

Install the I/O Address Reserve Module

Use the 1734-ARM address reserve module to retain a node address for later insertion of any future option. It can be installed in any slot with any key position. However, we recommend that the key position be that of the module that is intended to be installed in that position at a later date.

The module can be installed before, or after base installation. Make sure that the mounting base is correctly keyed before installing the module into the mounting base. In addition, make sure the mounting base locking screw is positioned horizontal referenced to the base.

WARNING

When you insert or remove the module while backplane power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. Repeated electrical arcing causes excessive wear to contacts on both the module and its mating connector. Worn contacts may create electrical resistance that can affect module operation.

1. Using a bladed screwdriver, rotate the keyswitch (2) on the mounting base clockwise until the number required for the type of module being installed aligns with the notch in the base.

2. Make certain the DIN rail locking screw is in the horizontal position. (You cannot insert the module if the locking mechanism is unlocked.)

3. Insert the module straight down into the mounting base and press to secure. The module will lock into place.

Install the Removable Terminal Block (RTB)

A removable terminal block is supplied with your wiring base assembly. To remove, pull up on the RTB handle. This allows the mounting base to be removed and replaced as necessary without removing any of the wiring. To reinsert the removable terminal block, proceed as follows.

1. Insert the end opposite the handle into the base unit. This end has a curved section that engages with the wiring base.

2. Rotate the terminal block into the wiring base until it locks itself in place.

3. If an I/O module is installed, snap the RTB handle into place on the module.

Remove a Mounting Base

To remove a mounting base, you must remove any installed module, and the module installed in the base to the right. Remove the removable terminal block (if wired).

1. Unlatch the RTB handle on the I/O module.

2. Pull on the RTB handle to remove the removable terminal block.

3. Press on the module lock on the top of the module.

4. Pull on the I/O module to remove from the base.

WARNING	When you insert or remove the module while backplane power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. Repeated electrical arcing causes excessive wear to contacts on both the module and its mating connector. Worn contacts may create electrical resistance that can affect module operation.

5. Repeat steps 1, 2, 3 and 4 for the module to the right.

6. Use a small bladed screwdriver to rotate the orange base locking screw to a vertical position. This releases the locking mechanism.

7. Then lift straight up to remove.

Communicate with Your Module

I/O messages are sent to (consumed) and received from (produced) the POINT I/O modules. These messages are mapped into the processor's memory. This POINT I/O address reserve module produces one byte of I/O data. It does not consume I/O data.

1734-ARM Default Data Map

	7	**6**	**5**	**4**	**3**	**2**	**1**	**0**
Produces (Rx)	0	0	0	0	0	0	0	0
Consumes (scanner Tx)	No consumed data							
Where: 0 = Off, 1 = On								

Wire the Address Reserve Module

The address reserve module requires no external wiring.

Use the Address Reserve Module

After creating the ControlLogix or CompactLogix systems I/O configuration and user program, any I/O module in your system can be removed and replaced by an address reserve module once the removed module is inhibited using RSLogix 5000 programming software.

Inhibiting a module creates an I/O configuration and user program removing all references to that module.

To use a 1734-ARM module in a MicroLogix system, configure a generic module using RSLogix 500 programming software. Any user program references to the slot position occupied by the 1734-ARM module must not use another module's parameters.

ATTENTION

⚠

Use the RSLogix 5000 program software to inhibit the 1734-ARM module or the I/O module replaced by the 1734-ARM module. Failure to do so will result in the controller continually trying to connect to a noncommunicating module, thereby wasting connections.

Troubleshoot with the Indicators

1734-ARM

Module Status

Network Status

No wiring is required for the Address Reserve Module.

NC = No connection

NC   NC
NC   NC
NC   NC
NC   NC

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Indication	Probable Cause
Module Status	
Off	No power applied to device.
Green	Device operating normally.
Flashing Green	Device needs commissioning due to configuration missing, incomplete or incorrect.
Flashing Red	Recoverable fault.
Red	Unrecoverable fault may require device replacement.
Flashing Red/ Green	Device is in self-test.

Indication	Probable Cause
Network Status	
Off	Device is not on line. - Device has not completed dup_MAC_id test. - Device not powered - check module status indicator.
Flashing Green	Device is on line but has no connections in the established state.
Green	Device on line and has connections in the established state.
Flashing Red	One or more I/O connections in timed-out state.
Red	Critical link failure - failed communication device. Device detected error that prevents it communicating on the network.
Flashing Red/ Green	Communication faulted device - the device has detected a network access error and is in communication faulted state. Device has received and accepted an Identify Communication Faulted Request - long protocol message.

Safety Approvals

North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations:	Informations sur l'utilisation de cet équipement en environnements dangereux:
Products marked "CL I, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.	Les produits marqués "CL I, DIV 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.
WARNING **EXPLOSION HAZARD -** • Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous. • Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product. • Substitution of components may impair suitability for Class I, Division 2. • If this product contains batteries, they must only be changed in an area known to be nonhazardous.	**AVERTISSEMENT** **RISQUE D'EXPLOSION -** • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement. • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit. • La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe 1, Division 2. • S'assurer que l'environnement est classé non dangereux avant de changer les piles.

Specifications - 1734-ARM Address Reserve Module

Module Location	1734-TB or -TBS wiring base assembly
Indicators	1 green/red network status indicator, logic side 1 green/red module status indicator, logic side
Keyswitch Position	Use the keyswitch position of the removed module
Pointbus Current	75 mA maximum @ 5V dc
Power Dissipation	0.375 W maximum @ 5V dc
Thermal Dissipation	1.3 BTU/hr maximum @ 5V dc
Dimensions Imperial (Metric)	2.2H x 0.47W x 2.97L in. (56H x 12W x 75.5L mm)
Environmental Conditions	
Operational Temperature	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): -20…55 °C (-4…131 °F)
Storage Temperature	IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock): -40…85 °C (-40…185 °F)
Relative Humidity	IEC 60068-2-30 (Test Db, Unpackaged Nonoperating Damp Heat): 5…95% noncondensing

Shock
   Operating
   Non-operating
	IEC 60068-2-27 (Test Ea, Unpackaged Shock)
	30 g
	50 g

Vibration	IEC 60068-2-6, (Test Fc, Operating) 5 g @ 10…500 Hz
ESD Immunity	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges
Radiated RF Immunity	IEC 61000-4-3: 10 V/m with 200 Hz 50% Pulse 100% AM at 1890 Mhz 10 V/m with 200 Hz 50% Pulse 100% AM at 900 Mhz 10 V/m with 1 kHz sine-wave 80% AM from 30 MHz to 2000 MHz
Emissions	CISPR 11 Group 1, Class A
Enclosure Type Rating	None (open-style)
Weight, Imperial	1.0 oz
Weight, Metric	28.3 grams
Field Wiring Terminations	None required.

Certifications (when product is marked)[1]	**C-UL-US -**	UL Listed for Class I, Division 2, Groups A, B, C and D Hazardous locations, certified for US and Canada
	CE -	European Union 89/336/EEC EMC Directive, compliant with: EN 61000-6-4; Industrial Emissions EN 50082-2; Industrial Immunity EN 61326; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity
	CE -	European Union 73/23/EEC LVD Directive, compliant with: EN61131-2 Programmable Controllers
	C-Tick -	Australian Radiocommunications Act compliant with AS/NZS CISPR 11, Industrial Emissions

1   See the Product Certification link at www.ab.com for Declaration of Conformity, Certificates, and other certification details.

POINT I/O is a trademark of Rockwell Automation
DeviceNet is a trademark of ODVA, Inc.

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