



Installation Instructions

1747 Open Controller A-B Communication Interface Module

(Catalog Number 1747-OCKTX, -OCKTXD)

Before You Begin

The A-B communication interface module provides connections to A-B remote I/O, DH+™, and DH-485 networks. The number of A-B communication interface modules you can install per open controller chassis depends on the available memory and interrupts.

Important: Before you install the communication interface module, you must have already installed a PCI expansion bus and an open controller CPU in the chassis.

What this package contains

- one 1747-KTX communication interface (one channel)
or
one 1747-KTXD communication interface (two channels)
- one disk with diagnostic utilities

What you need

- 1746 series B I/O chassis with a 1747-OCPCl_x expansion bus and 1747-OCExxx_A open controller CPU already installed
- DH+, DH-485, or remote I/O cable
- grounding wriststrap

Handling the module



ATTENTION: Electrostatic discharge (ESD) might be present whenever you handle the module. ESD can cause internal circuit damage that might not be apparent during installation or initial use. Wear a grounding wriststrap while handling the module.

Take these precautions to guard against ESD damage:

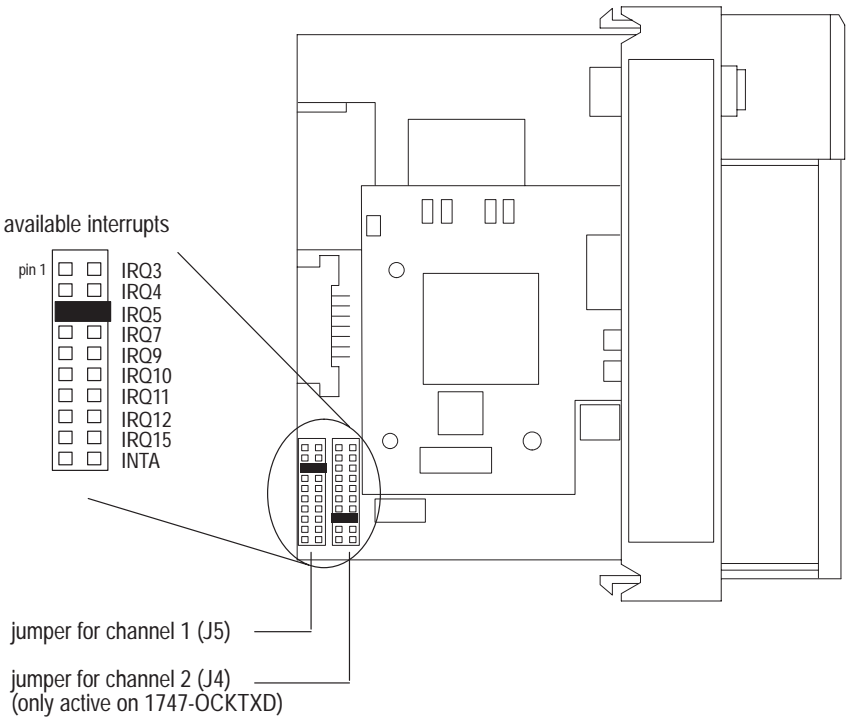
- Before handling the module, wear a grounding wriststrap and touch a grounding object to discharge any built-up static charge.
- Avoid touching the backplane connector or module connector pins on the module.
- If the module is not in use, store it in the anti-static packaging in which it was shipped.

Setting the Interrupts

Before you install the A-B communication module, select the interrupt number for each channel. Move the jumper to select the interrupt.

Important: To avoid interrupt conflicts, select a unique interrupt setting for each channel. If another device is already using a channel's default interrupt, you must select a new interrupt for the channel.

See the A-B Communication Interface Module User Manual, publication 1747-6.18 for details about system settings.



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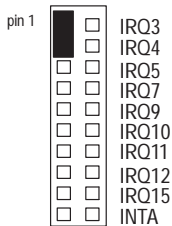
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Table A
Open controller system IRQ assignments

Interrupts:	Default Type:	Typical Assignments:
IRQ 3	ISA	serial port 2
IRQ 4	ISA	serial port 1
IRQ 5	PCI	available
IRQ 7	ISA	parallel port 1
IRQ 9	PCI	
IRQ 10	ISA	
IRQ 11	ISA	
IRQ 12	ISA	available
IRQ 15	ISA	
INTA A	PCI	

The default interrupt setting is “no interrupt.”

this jumper position is for “no interrupt”



Using the PCI interrupt INTA

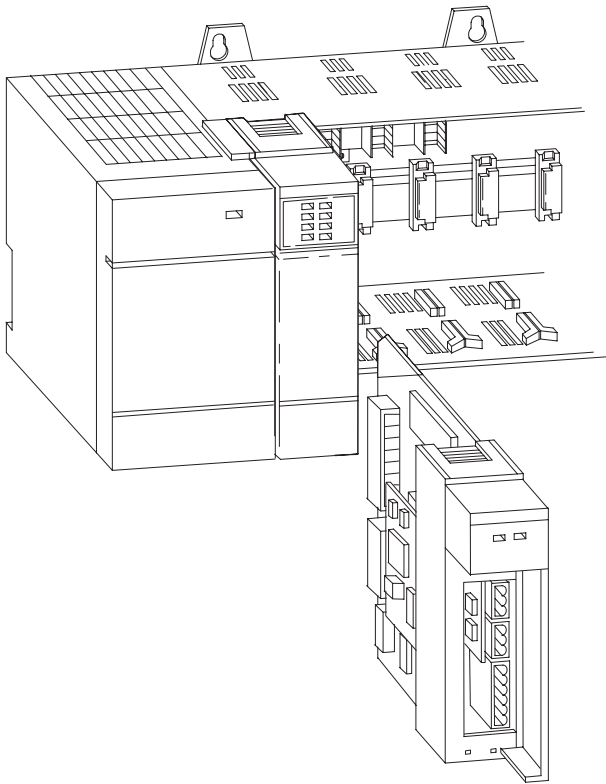
The interrupt INTA is a PCI bus interrupt. When you power up the open controller system, the PCI BIOS automatically assigns an available IRQ number to the INTA. If you need to know the INTA assignment, use the KTXPCI utility that ships with the open controller CPU. For more information, see the Open Controller CPU User Manual, publication 1747-6.16.

Setting the Memory Address

When you power up the open controller system, the PCI BIOS automatically assigns a memory address to each channel on the communication module. If you need to know the memory address assignment, use the KTXPCI utility that ships with the open controller CPU. For more information, see the Open Controller CPU User Manual, publication 1747-6.16.

Installing the A-B Communication Module

1. Turn off power to the open controller chassis.
2. Slide the A-B communication module in any slot of the PCI expansion bus, other than the first slot (far left). The communication module is keyed for PCI slot 2 or greater. The open controller CPU must be in the first slot.



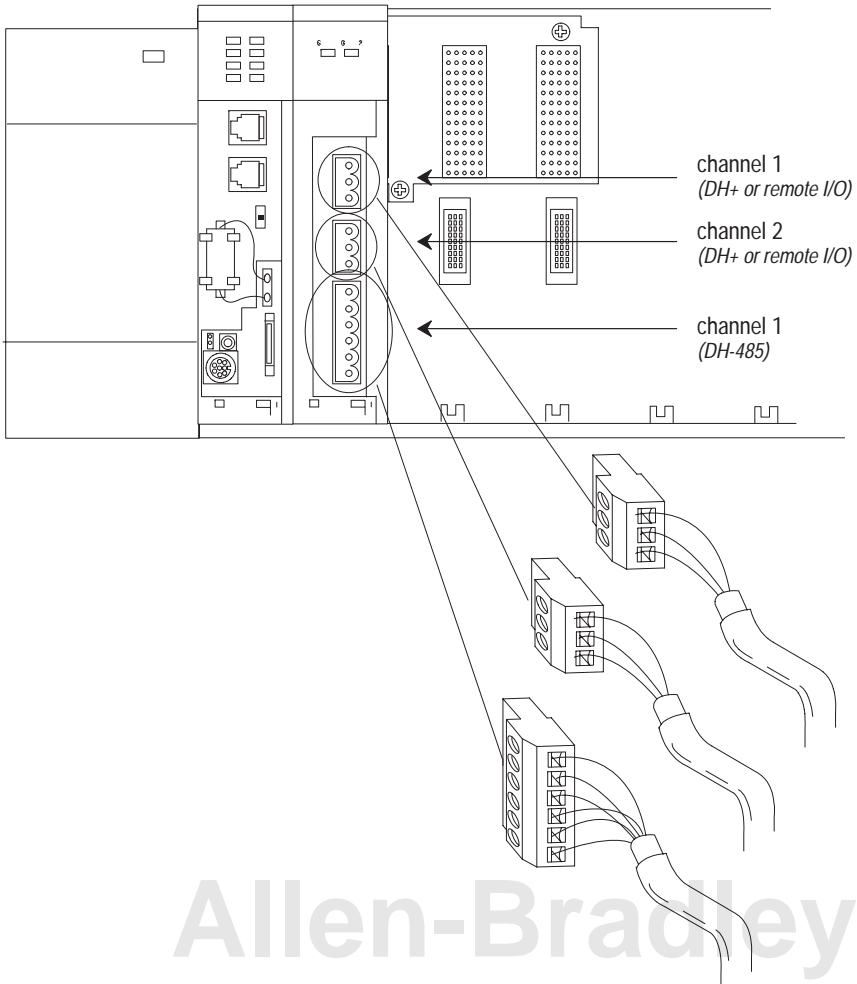
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Connecting to Communication Links

You can connect the communication module to a:

- remote I/O link (through channel 1 or channel 2)
- DH+ link (through channel 1 or channel 2)
- DH-485 link (through channel 1 only)

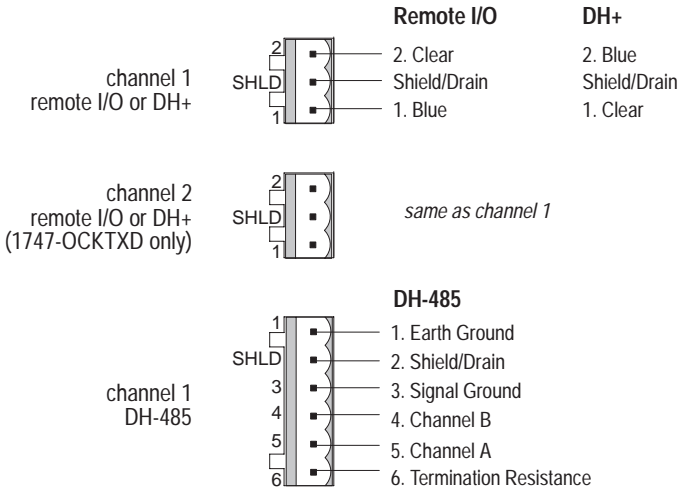
Figure 1
Connecting cables



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Figure 1 shows how to connect the cables. Figure 2 shows the cable pinouts for each communication link.

Figure 2
Cable pinouts



Additional Documentation

The following documents are available for additional information about using the A-B communication module in an open controller system:

This book:	Has this publication number:
Open Controller A-B Communication Interface Module User Manual	1747-6.18
Open Controller User Manual	1747-6.16
Open Controller PCI Expansion Bus Installation Instructions	1747-5.16
Open Controller System Overview	1747-2.22

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 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 Low Voltage, by applying the safety requirements of EN 61131–2 Programmable Controllers, Part 2 – Equipment Requirements and Tests.

For specific information that the above norm requires, see the appropriate sections in this manual, as well as the following Allen-Bradley publications:

- Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1
- Automation Systems Catalog, publication B111

CSA Hazardous Location Approval

CSA Hazardous Location Approval	Approbation d'utilisation dans des emplacements dangereux par la CSA
<p>CSA certifies products for general use as well as for use in hazardous locations. Actual CSA certification is indicated by the product label as shown below, and not by statements in any user documentation.</p>	<p>La CSA certifie les produits d'utilisation générale aussi bien que ceux qui s'utilisent dans des emplacements dangereux. La certification CSA en vigueur est indiquée par l'étiquette du produit et non par des affirmations dans la documentation à l'usage des utilisateurs.</p>
<p>Example of the CSA certification product label</p> 	<p>Exemple d'étiquette de certification d'un produit par la CSA</p> 
<p>To comply with CSA certification for use in hazardous locations, the following information becomes a part of the product literature for CSA-certified Allen-Bradley industrial control products.</p> <ul style="list-style-type: none"> • This equipment is suitable for use in Class I, Division 2, Groups A, B, C, D, or non-hazardous locations only. • The products having the appropriate CSA markings (that is, Class I Division 2, Groups A, B, C, D), are certified for use in other equipment where the suitability of combination (that is, application or use) is determined by the CSA or the local inspection office having jurisdiction. 	<p>Pour satisfaire à la certification de la CSA dans des endroits dangereux, les informations suivantes font partie intégrante de la documentation des produits industriels de contrôle Allen-Bradley certifiés par la CSA.</p> <ul style="list-style-type: none"> • Cet équipement convient à l'utilisation dans des emplacements de Classe 1, Division 2, Groupes A, B, C, D, ou ne convient qu'à l'utilisation dans des endroits non dangereux. • Les produits portant le marquage approprié de la CSA (c'est à dire, Classe 1, Division 2, Groupes A, B, C, D) sont certifiés à l'utilisation pour d'autres équipements où la convenance de combinaison (application ou utilisation) est déterminée par la CSA ou le bureau local d'inspection qualifié.
<p>Important: Due to the modular nature of a PLC control system, the product with the highest temperature rating determines the overall temperature code rating of a PLC control system in a Class I, Division 2 location. The temperature code rating is marked on the product label as shown.</p>	<p>Important: Par suite de la nature modulaire du système de contrôle PLC), le produit ayant le taux le plus élevé de température détermine le taux d'ensemble du code de température du système de contrôle d'un PLC dans un emplacement de Classe 1, Division 2. Le taux du code de température est indiqué sur l'étiquette du produit.</p>

CSA Hazardous Location Approval	Approbation d'utilisation dans des emplacements dangereux par la CSA
<p>Temperature code rating</p> <div style="display: flex; align-items: center;">  <div style="text-align: center;"> <p>CL 1 DIV 2 GP A,B,C,D TEMP</p> <div style="background-color: black; width: 60px; height: 20px; margin: 0 auto;"></div> </div> <div style="margin-left: 20px;"> <p>← Look for temperature code rating here</p> </div> </div>	<p>Taux du code de température</p> <div style="display: flex; align-items: center;">  <div style="text-align: center;"> <p>CL 1 DIV 2 GP A,B,C,D TEMP</p> <div style="background-color: black; width: 60px; height: 20px; margin: 0 auto;"></div> </div> <div style="margin-left: 20px;"> <p>← Le taux du code de température est indiqué ici</p> </div> </div>
<p>The following warnings apply to products having CSA certification for use in hazardous locations.</p>	<p>Les avertissements suivants s'appliquent aux produits ayant la certification CSA pour leur utilisation dans des emplacements dangereux.</p>
<div style="display: flex;"> <div style="flex: 1;">  </div> <div style="flex: 4;"> <p>ATTENTION: Explosion hazard —</p> <ul style="list-style-type: none"> • Substitution of components may impair suitability for Class I, Division 2. • Do not replace components unless power has been switched off or the area is known to be non-hazardous. • Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous. • Do not disconnect connectors unless power has been switched off or the area is known to be non-hazardous. Secure any user-supplied connectors that mate to external circuits on an Allen-Bradley product using screws, sliding latches, threaded connectors, or other means such that any connection can withstand a 15 Newton (3.4 lb.) separating force applied for a minimum of one minute. </div> </div>	<div style="display: flex;"> <div style="flex: 1;">  </div> <div style="flex: 4;"> <p>AVERTISSEMENT: Risque d'explosion —</p> <ul style="list-style-type: none"> • La substitution de composants peut rendre ce matériel inacceptable pour les emplacements de Classe I, Division 2. • Couper le courant ou s'assurer que l'emplacement est désigné non dangereux avant de remplacer les composants. • Avant de débrancher l'équipement, couper le courant ou s'assurer que l'emplacement est désigné non dangereux. • Avant de débrancher les connecteurs, couper le courant ou s'assurer que l'emplacement est reconnu non dangereux. Attacher tous connecteurs fournis par l'utilisateur et reliés aux circuits externes d'un appareil Allen-Bradley à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens permettant aux connexions de résister à une force de séparation de 15 newtons (3,4 lb. - 1,5 kg) appliquée pendant au moins une minute. </div> </div>

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