CIM Hardware Kit: Installation Instructions

Revision 1.0 | October 2026

Summary

Starting in November 2026, Aircore EC+ (non-AFE) motors ship with an 18-pin CIM-CIO board, as described in Product Notice PN 26-11. This document describes how to install the optional CIM Hardware Kit (part number: CIM-Hardware-Kit), which adapts the existing wiring harnesses to the board's 18-pin terminal block.



Safety

Installation must be performed only by qualified personnel.

⚠ WARNING

Electric shock

A rotating permanent magnet rotor produces voltage at the motor terminals, even when the motor is disconnected from power. Contact with this voltage could cause death or serious injury.

Do not open electrical compartments or touch unprotected terminals while the rotor is turning.

Disconnect the motor from mains power and apply lockout/tagout (LOTO) before opening the access cover. Wait 3 minutes after disconnecting power before servicing the drive to allow the capacitors to discharge. Ensure 0V is measured on the DC bus from DC+ to DC-.

Kit contents

Item	Quantity
WAGO 221-2401 splicing connector	5
20 AWG, 300 V solid tinned wire	1 x 60in.
3M adhesive tape, 4 in. × 2 in.	1

Note: WAGO accepts 20-12 AWG solid / 18-12 AWG stranded

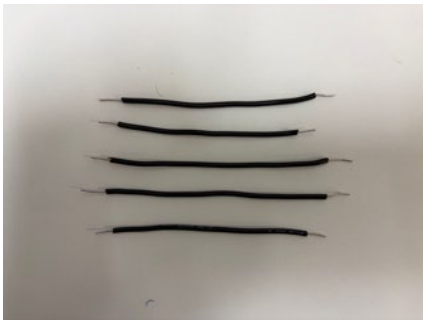
Tools and materials required (not included)

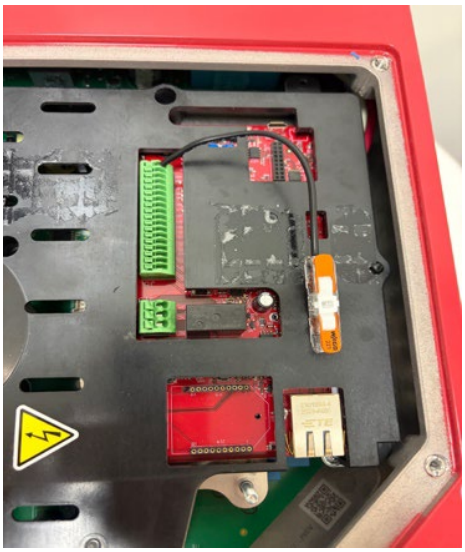
- Wire cutters and wire strippers
- Zip ties
- #1 Phillips or T10 Torx screwdriver for access cover fasteners
- Multimeter or continuity tester

Installation

This procedure describes how to connect the existing wiring harness to the 18-pin terminal block using the CIM Hardware Kit. Before you begin, confirm that all items listed in the Kit Contents are present and that the tools in the Tools and Materials Required section are available.

Step	Instruction	Image
1	Disconnect the motor from mains power and apply LOTO.	
2	Loosen the five fasteners and remove the drive access cover.	
3	Inspect the CIM-CIO terminal block and existing wiring harness. The kit is required if the existing harness was built for a 16-pin terminal block. If the kit is not required, go to step 13.	

4	Determine the number of splicing connectors required. If more than five are needed, order additional kits.	
5	Select a flat, continuous area on the plastic touch plate large enough to mount all required splicing connectors. Using scissors, cut the provided adhesive tape to the required size. Keep the area clear of the light pipes on the access cover.	
NOTICE: To prevent board damage, do not allow wire clippings or debris to fall into the enclosure.		
6	Cut and strip the wires away from the open enclosure. Cut one length of wire for each splicing connector. Strip 9mm for the CIM terminal block and 11mm for the WAGO splice.	
7	Clean the surface and apply the adhesive tape to the location selected in step 5. Press firmly to secure it to the surface.	

8	Insert one end of each wire into the corresponding terminal on the CIM-CIO board and the other end into a splicing connector. Confirm that each wire is fully inserted, then pull gently to verify that it is secure. Route splice wires so there is separation from high-voltage wiring and components and clear of the light pipes on the access cover.	
9	Remove the backing from the adhesive tape. Press the splicing connectors onto the tape side by side and confirm that each is firmly attached.	
10	Connect each wiring harness conductor to the open end of the corresponding splicing connector.	

11	Secure the wiring harness to the touch plate with zip ties. Route the harness through the strain relief on the supplied cable glands.	
12	Check each connection for continuity. Confirm that no wire clippings or debris are in the enclosure.	
13	Confirm that no wires obstruct the light pipes, then reinstall the drive access cover and tighten the five fasteners.	
14	Restore power and perform any required commissioning tests.	

Notes

The images in this document show an Aircore EC+ (non-AFE) motor.

If you need additional kits or technical assistance, please contact your Infinitum representative or support@goinfinitum.com.

Reference Documents

Document	Availability
Aircore EC+ IOM Manual	Available here
Product Notice PN 26-11	Available here