Siemens 16137-114

Marshalled Interconnect I/O Cable Assembly

Siemens 16137-114 is the terminated 9.8 ft (3 m) Marshalled Interconnect I/O Cable Assembly listed for the APACS+ Voltage Input Module installation. It links the VIM position in the rack to the corresponding VIM Marshalled Termination Assembly while retaining the documented J1/P2 identification, mechanical keying and service sequence.

Product class	Marshalled Interconnect I/O Cable Assembly
Published order number	16137-114
Published length	9.8 ft (3 m)
Termination distinction	Terminated assembly; 16137-118 is the separately listed unterminated 3 m assembly
Documented installation context	APACS+ Voltage Input Module (VIM)

EXACT ORDER ENTRY

Use 16137-114 for the terminated 9.8 ft (3 m) assembly. The separate 16137-118 entry is unterminated and is not the same service part.

INSTALLATION SCOPE

The cable is one element of the VIM installation, not a source of channel count, input range or module accuracy ratings. Match the physical J1/P2 connectors, keying pattern, node/rack/slot labels and 3 m length to the installed VIM path before service.

FIGURE / TABLE CROSS-CHECK

Important Notice: Figure 2-6 depicts the cable-keying method for the installation family; the exact 16137-114 length is established separately by Table 5-2. Do not import the figure's other listed cable lengths into this order number.

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Rack-side connector designation	J1
Termination-assembly connector designation	P2
P2 mating location	A (J1) connector on the VIM Marshalled Termination Assembly
J1 lower attachment	Pin mounting hole over the lower captive screw
J1 upper attachment	Connector groove engages the extruded rear backplane spacer
J1 seating reference	Alignment pin engaged, flush with or slightly above the connector surface
J1 retention	Lower captive mounting screw

UPPER GROOVE

Engage the rear backplane spacer before applying retention force.

ALIGNMENT PIN

Confirm the connector is seated flush or slightly above the surface reference.

LOWER CAPTIVE SCREW

Retains J1 after the upper groove and alignment pin are engaged.

P2 DESTINATION

Mates with the A (J1) connector on the VIM Marshalled Termination Assembly.

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P2 mistake prevention	Connector keying pins installed to the VIM pattern in Figure 2-6
Keying kit referenced by the manual	16056-435 Cable Keying Kit
Required service identification	Match and record MODULNET node, rack and slot at both cable ends
P2 shell securing-screw limit	50 inch-pounds maximum
Removal sequence	Disconnect labeled P2, loosen J1 captive screw, clear the alignment pin, then withdraw the grooved upper edge
Replacement sequence	Route between cabinets, restore labels and keying, connect the cable, then reinstall the VIM
Redundant installation boundary	A redundant VIM arrangement uses a separately routed cable for each VIM path
Electrical safety before service	Remove power from all wires and terminals and verify hazardous voltage is absent
Hazardous-atmosphere service rule	Isolate power and signals before disconnecting cable or inserting/removing a module

KEYING

Retain the VIM pattern. Do not copy a keying layout from a different I/O type.

LABELING

Record the MODULNET node, rack and slot at both ends before removing the route.

P2 SHELL SCREW

The 50 inch-pound maximum is specific to this securing screw.

REDUNDANT PATHS

Each VIM path requires its own identified cable in a redundant arrangement.

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What distinguishes Siemens 16137-114 from the 16137-118 entry?

16137-114 is listed as a terminated Marshalled Interconnect I/O Cable Assembly with a 9.8 ft (3 m) length. The same table lists 16137-118 as an unterminated 9.8 ft (3 m) assembly, so they must not be treated as the same service item.

Which end of 16137-114 connects to the VIM rack?

The molded J1 end mounts at the VIM position in the rack. Its lower pin mounting hole, upper groove, alignment pin and captive screw control the mechanical seating; P2 is the termination-assembly end.

Where is the P2 end of 16137-114 installed?

P2 connects to the A (J1) connector on the VIM Marshalled Termination Assembly. The cable labels at both ends should retain the same MODULNET node, rack and slot identity before service.

Why must the P2 keying pattern be preserved?

The manual uses connector keying pins to prevent the cable from mating with a termination assembly assigned to another I/O type. Install the pins in the documented VIM pattern with the referenced 16056-435 kit; do not improvise a pattern from a neighboring module.

Does the 50 inch-pound value apply to every terminal in the installation?

No. The stated maximum applies to the securing screw on top of the P2 connector shell. It is not a general field-terminal torque value and must not be transferred to unrelated terminals.

What is the controlled removal sequence for 16137-114?

After the process is secured and hazardous voltage is absent, label and disconnect P2, loosen the J1 captive screw, arc the lower connector clear of the alignment pin, and withdraw the upper grooved edge from the backplane spacer before removing the route.

Does one 16137-114 cable make a VIM installation redundant?

No. Redundancy is an installed system arrangement. The manual calls for a separate cable path for each VIM used in a redundant arrangement; this single cable does not create module redundancy by itself.

What safety condition is required before disconnecting 16137-114?

Remove power from all wires and terminals and verify hazardous voltage is absent. In a hazardous atmosphere, isolate power and signals before any cable disconnection or module insertion or removal, and follow the installed equipment's approval markings.

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01 / Remove power from all wires and terminals, then verify hazardous voltage is absent before disconnection.

02 / In hazardous atmospheres, isolate power and signals before disconnecting the cable or inserting or removing a module.

03 / Record the MODULNET node, rack and slot on the J1 and P2 end labels before disturbing the routing.

04 / Confirm the replacement is the terminated 16137-114 3 m assembly, not the unterminated 16137-118 entry.

05 / Keep the connector keying pins in the documented VIM pattern so the P2 end cannot mate with a different I/O type.

06 / Seat J1 by engaging the upper groove and alignment pin before tightening its lower captive screw.

07 / Connect P2 to the termination assembly's A (J1) position and limit its shell securing screw to 50 inch-pounds.

08 / After cable replacement, reinstall the VIM and verify the intended channel response under the approved commissioning procedure.

VIM-to-marshalling interconnection

Routes the documented VIM cable path between the module rack and its VIM Marshalled Termination Assembly.

Exact 3 m cable renewal

Restores the published terminated 9.8 ft (3 m) assembly without substituting the separately listed unterminated version.

Controlled cabinet service

Retains the recorded node, rack and slot identity while the keyed connectors are removed and reinstalled.

Redundant VIM maintenance

Supports one separately identified cable path per VIM when the installed redundancy arrangement requires it.

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SOURCE LEDGER

Installation and Service Instruction SD39VIM-2, Rev 3

Siemens Energy & Automation, Inc.; July 1998, updated April 2012; original pp1-5,22-23,27,34-36,52-53,60,69.

The manufacturer excerpt preserves 15 unchanged original pages covering source identity, safety, cable installation, keying, service removal/replacement and the exact 16137-114 order-table entry; it is not the complete manual.

Order table	p60
Installation	pp34-36
Service	pp52-53
Safety	pp5,69

SIEMENS APACS CATALOG

Siemens APACS portfolio browsing only. These catalogue links do not assert cable compatibility, substitution or a valid installed-system pairing.

View Siemens 39SAMCAN 16133-71/04 page

View Siemens 39ACM24BEN 16139-215/1 page

View Siemens 39ACM24BAN 16139-76/09 page

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