



Kinetix 5700 iTRAK Power Supply and iTRAK Bus Conditioner Module

Catalog Numbers 2198T-W25K-ER and 2198T-WBCMOD

Topic	Page
Summary of Changes	1
Unpack	2
Parts List	2
Product Dimensions	3
Enclosure Requirements	4
Power Configuration	7
Install the iTRAK Power Supply	8
Drill Hole Patterns	9
Connector Data	10
Wiring Requirements	12
Wire the iTRAK Power Supply	14
Cable Preparation for iTRAK Power Supply Output Power Cables	16
Apply the iTRAK Power Cable Shield Clamp	20
Install the iTRAK Bus Conditioner Module	20
Power Wiring Examples	22
Commission	26
Fuse Replacement	27
Additional Resources	28

Summary of Changes

Change	Page
Updated the section titled Bus Conditioner Module Mounting Options (2198T-L16xx Motor Modules).	5
Added information to the Power Configuration section.	7
Updated wiring information.	22...26

The Kinetix® 5700 iTRAK® power supply with 458...747V DC input provides continuous output power and current to iTRAK motor modules by using two controlled DC outputs with continuous current of 12.5 A and peak current of 25 A. The iTRAK bus conditioner module provides additional DC bus stiffness with local capacitance to the track. Use it whenever you use iPS with medium frame iTRAK unless advised by Rockwell Automation.

See the Kinetix 5700 Servo Drives User Manual, publication [2198-UM002](#) and iTRAK System User Manual, publication [2198T-UM001](#) for detailed information on how to wire, apply power, troubleshoot, and integrate with ControlLogix® EtherNet/IP communication modules or CompactLogix™ 5370 controllers.

Unpack

Remove all packing material, wedges, and braces from within and around the components. After unpacking, check the item nameplate catalog number against the purchase order.

Parts List

The iTRAK power supply ships with the following:

- DC bus-bar link, 100 mm
- Wiring-plug connector set with 24V control input power (CP), digital inputs (IOD), iTRAK power supply ready (IR) output, two iTRAK 24V output (ICP), and two iTRAK bus output (IDC) connectors
- These installation instructions, publication 2198T-IN001



Replacement connector sets are also available. See the iTRAK System Technical Data, publication [2198T-TD001](#), for more information.

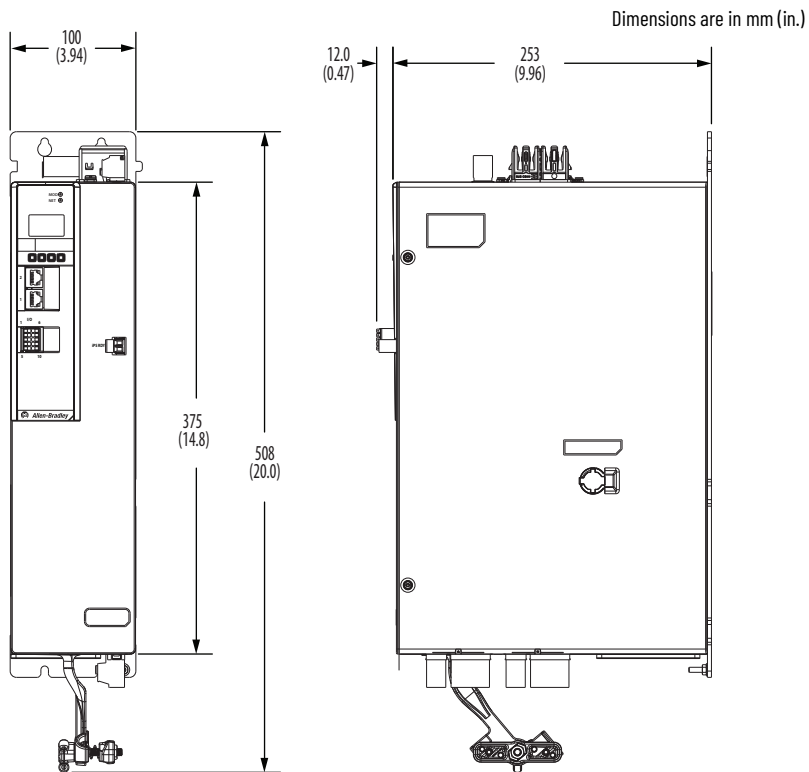
The iTRAK bus conditioner module ships with the following:

- M6 x 1, 30 mm mounting screws, quantity 4.

Product Dimensions

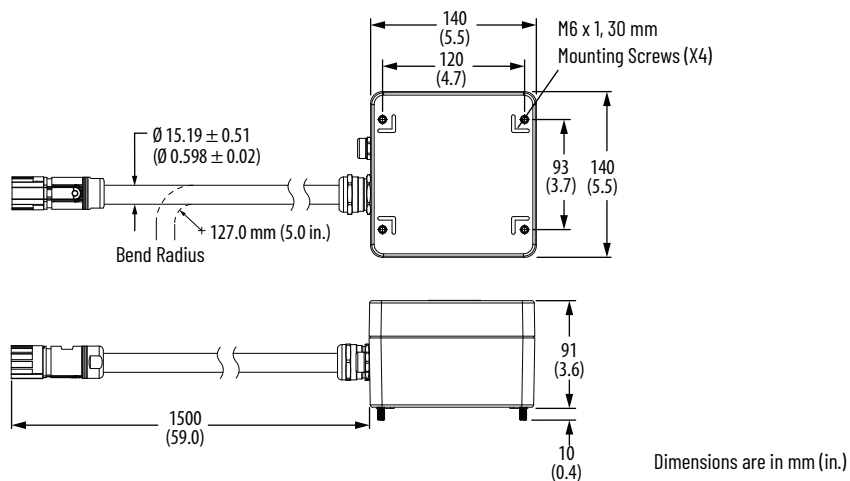
See the Kinetix Servo Drives Technical Data, publication [KNX-TD003](#), for product dimensions of all Kinetix 5700 drive modules.

iTRAK Power Supply Dimensions



2198T-W25K-ER
Kinetix 5700 iTRAK power supply is shown.

iTRAK Bus Conditioner Module Dimensions

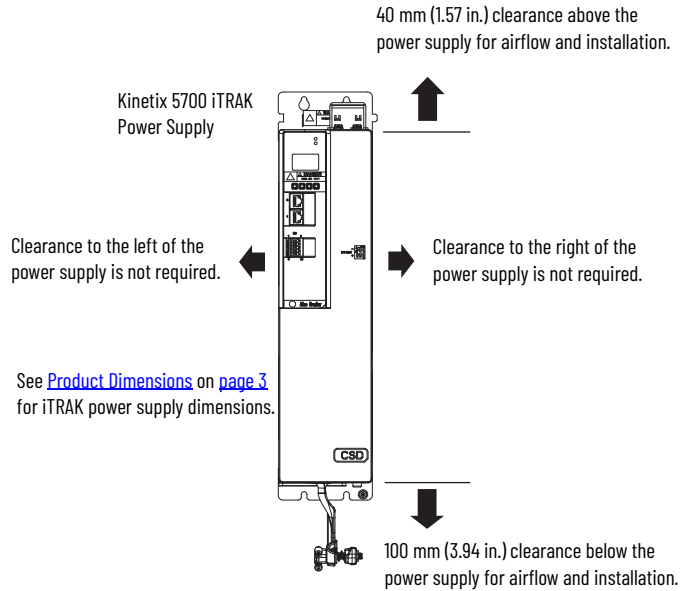


2198T-WBCMOD
iTRAK Bus Conditioner Module is shown.

Enclosure Requirements

The recommended minimum cabinet depth is 300 mm (11.81 in.).

iTRAK Power Supply Minimum Clearance Requirements

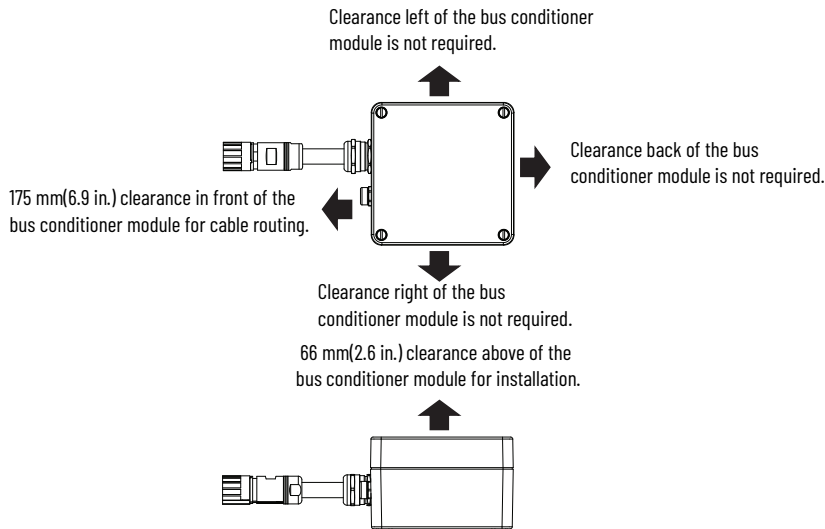


Observe these additional clearance requirements when mounting the iTRAK power supply:

- Additional clearance is required for cables and wires or the shared-bus connection system that is connected to the top of the power supply.
- Additional clearance is required if other devices are installed above and/or below the power supply and have clearance requirements of their own.
- Additional clearance to the left and right of the power supply is required when mounted next to noise sensitive equipment or clean wireways.

IMPORTANT Mount the iTRAK power supply in an upright position as shown. Do not mount the power supply on its side.

iTRAK Bus Conditioner Module Minimum Clearance Requirements

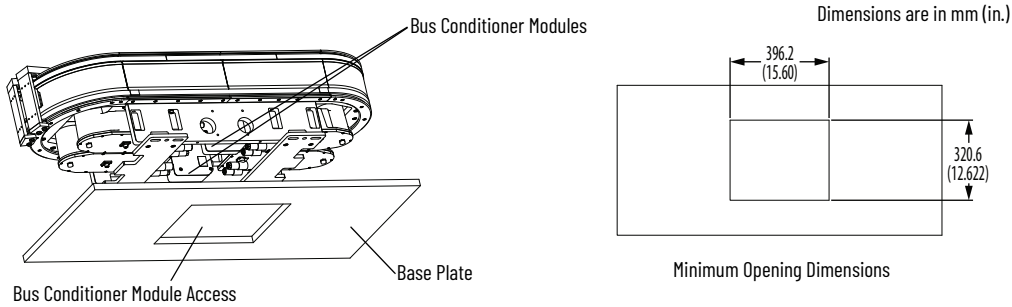


Bus Conditioner Module Mounting Options (2198T-L16xx Motor Modules)

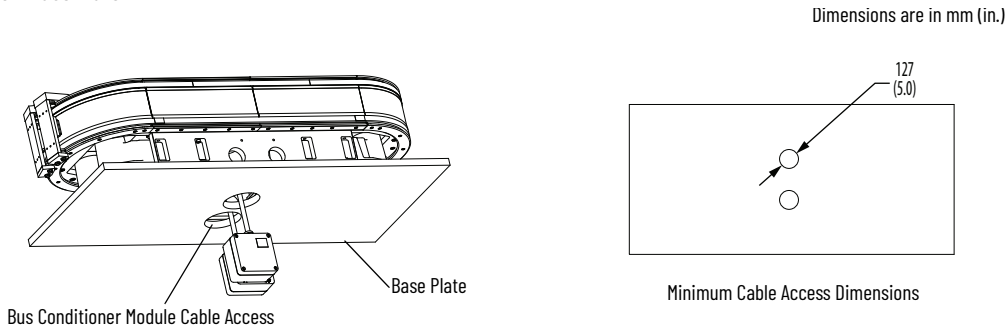
We recommend that you use pre-drilled and tapped holes on the iTRAK spine bars for mounting the bus conditioner module. If your system configuration requires you to relocate the bus conditioner module, here are other mounting options.

Mount Bus Conditioner Modules on an 2198T-Exxx800000, iTRAK System, 0.8 m (2.6 ft), Oval

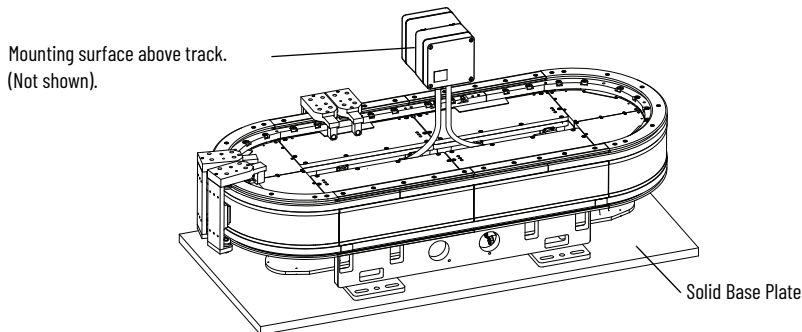
Mount on Spine Bars (Recommended)



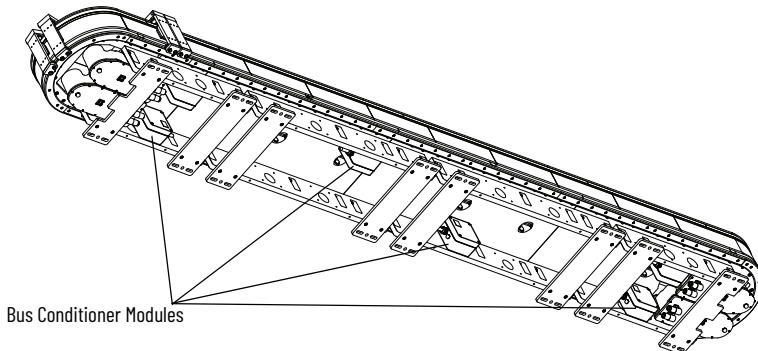
Mount Below Base Plate



Mount Above Track

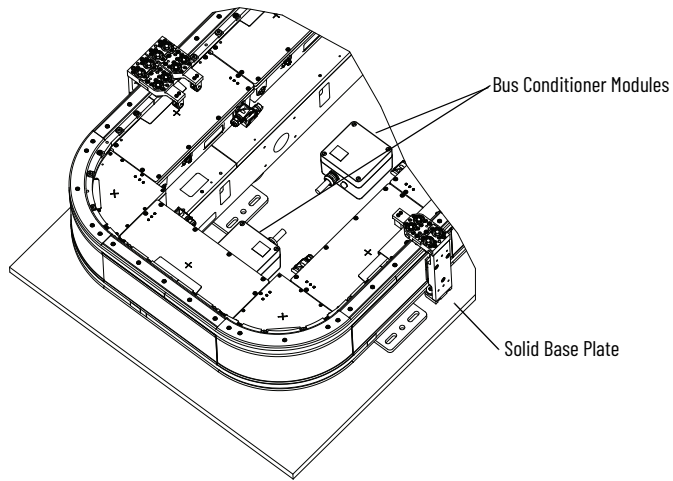


Mount Bus Conditioner Modules on an Oval Multi-section Open Frame iTRAK System

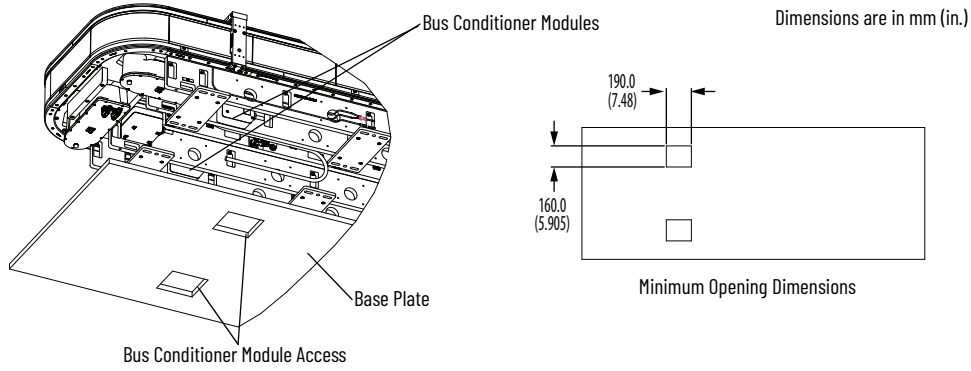


Mount Bus Conditioner Modules on an 2198T-Exxx800400, iTRAK System, 0.8 x 0.4 m (2.6 x 1.3 ft) Rectangle or Larger

Mount on Base Plate



Mount on Spine Bars



Power Configuration

The iTRAK power supply can operate from any valid Kinetix 5700 input power configuration.

Grounding Screw

The grounding screw setting on the iTRAK power supply is dependent on the type of converter (DFE) and the source configuration, as shown in the following table. When using L16 motor modules, only the grounded Y configuration is allowed.

Ground Screw/Jumper Setting for 2198-iTRAK Power Supply

AC Power Source Type	iTRAK Power Supply Ground Jumper Setting Based on Selected Power Supply
	2198-Pxxx ⁽¹⁾ DC-bus Power Supply
Grounded (wye)	Inverter ground screw/jumper installed.
<ul style="list-style-type: none"> • AC-fed ungrounded • Corner grounded • Impedance grounded 	Inverter ground screw/jumper not installed.

(1) 2198-Pxxx DC-bus power supply when 2198-DB20-F, 2198-DB42-F, 2198-DB80-F, or 2198-DB290-F AC line filter is used.

IMPORTANT If you have grounded-wye power distribution and the 2198-Pxxx DC-bus power supply with:

- 2198-DB20-F, 2198-DB42-F, 2198-DB80-F, or 2198-DB290-F AC line filters, install the ground jumper in the iTRAK power supply. EMC performance can be affected if the ground jumper is not installed.
- 2198-DBR20-F, 2198-DBR40-F, 2198-DBR90-F, or 2198-DBR200-F AC line filters, remove the ground jumper in the iTRAK power supply. Ground jumper removed is preferred when using the 2198-DBRxx-F AC line filters. EMC performance is achieved with or without the ground jumper installed.

IMPORTANT EMC performance can be affected if you remove the grounding screw.



ATTENTION: If you remove the grounding screw, the risk of equipment damage exists because the unit no longer maintains line-to-neutral voltage protection.



ATTENTION: To avoid personal injury, the grounding-screw access door must be kept closed when power is applied. If power was present, and then removed, wait at least 5 minutes for the system voltage to dissipate, and verify that no voltage exists before accessing the grounding screw.



SHOCK HAZARD: Avoid hazard of electrical shock; mount and wire the power supply before power is applied. Once power is applied, connector terminals can have voltage present even when not in use.

Install the iTRAK Power Supply

These procedures assume that you have prepared your panel and understand how to bond your system. For installation instructions regarding equipment and accessories that are not included here, refer to the instructions that came with those products.



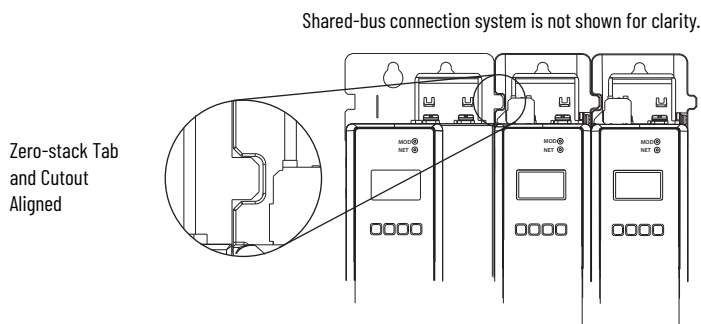
ATTENTION: Plan the installation of your system so that you can cut, drill, tap, and weld with the system that is removed from the enclosure. Because the system is of the open type construction, be careful to keep any metal debris from falling into it. Metal debris or other foreign matter can become lodged in the circuitry and result in damage to components.

System Mounting Requirements

- The iTRAK power supply must be enclosed in a grounded conductive enclosure that offers protection as defined in standard EN 60529 (IEC 529) to IP54 such that they are not accessible to an operator or unskilled person. A NEMA 4X enclosure exceeds these requirements providing protection to IP66.
- The panel that you install inside the enclosure for mounting your system components must be on a flat, rigid, vertical surface that is not subjected to shock, vibration, moisture, oil mist, dust, or corrosive vapors in accordance pollution degree 2 (EN 61800-5-1) because the product is rated to protection class IP20 (EN 60529).

Mount the iTRAK Power Supply

The iTRAK power supply must be spaced by aligning the zero-stack tab and cutout. To mount, size, and configure shared-bus configurations, see the Kinetix 5700 Servo Drives User Manual, publication [2198-UM002](#).



Mount the iTRAK power supply to the cabinet subpanel with M5 (#10-32) steel bolts that are torqued to 4.0 N•m (35.4 lb•in), max.

Drill Hole Patterns

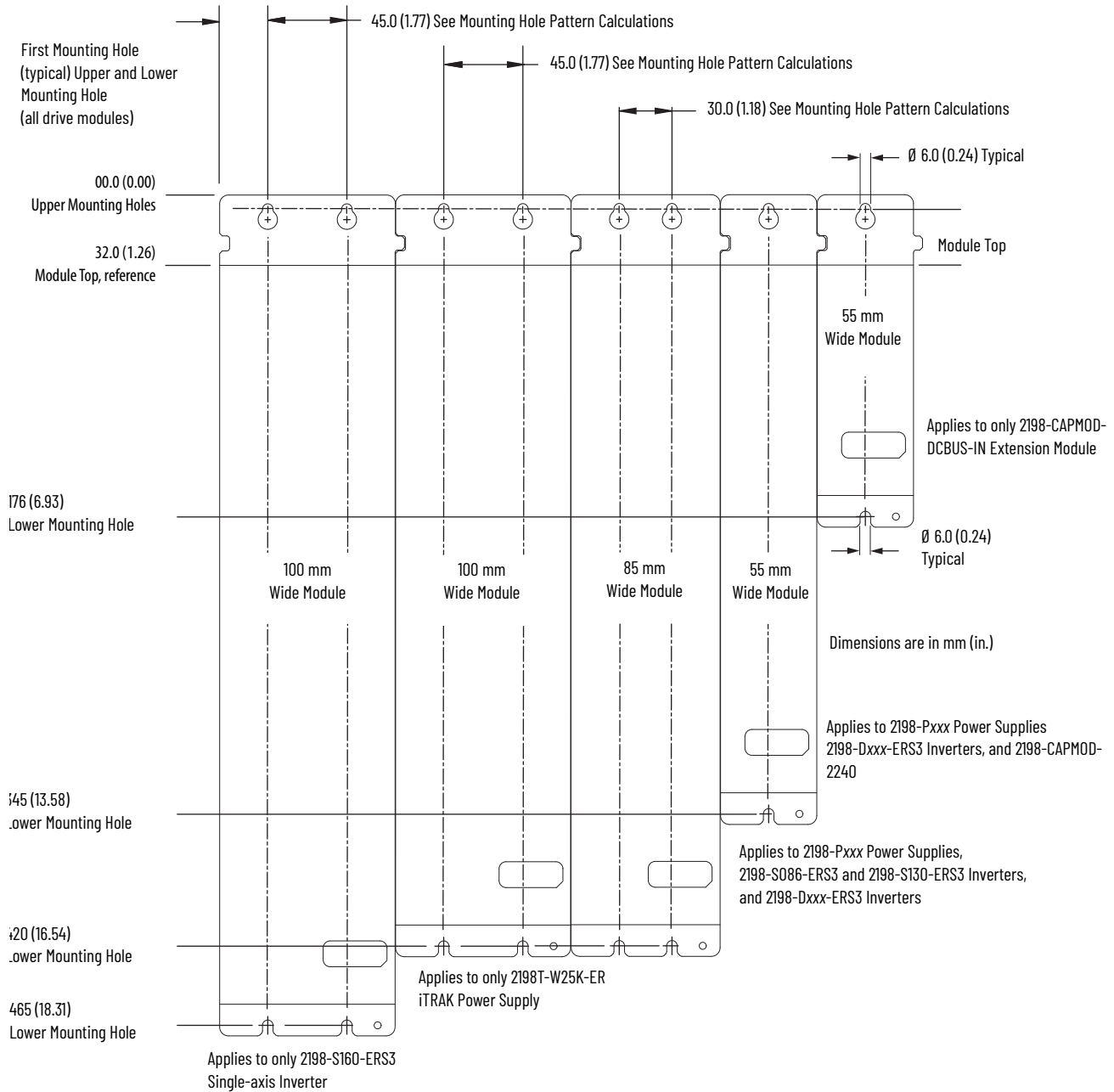
This section provides hole patterns for Kinetix 5700 drives and power supplies that are mounted in zero-stack (shared-bus) configurations.

The iTRAK power supply is always mounted to the right of the Kinetix 5700 DC-bus power supply.

Calculate the left-to-right hole pattern for any Kinetix 5700 drive configuration by following these steps.

1. The first hole location is zero.
2. The second hole location is module width minus 55 mm (2.17 in.).
3. The next hole location is 55 mm (2.17 in.).
4. Repeat step 2 and step 3 for the remaining holes.

Kinetix 5700 Mounting Hole Patterns

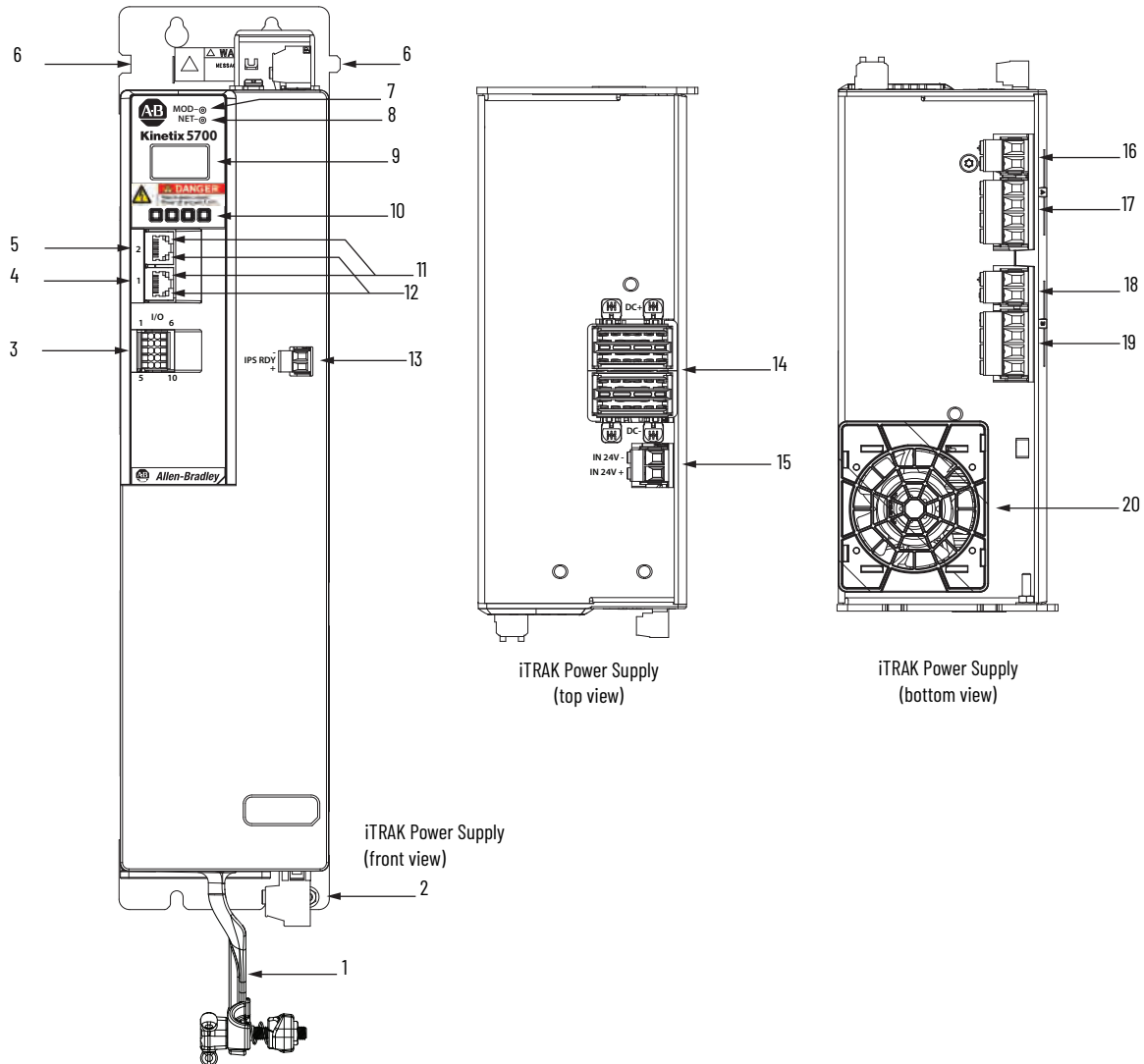


The Kinetix 5700 System Mounting Toolkit, catalog number 2198-K5700-MOUNTKIT, is available to assist you with mounting holes.

Connector Data

Use this illustration to identify the iTRAK power supply features and indicators.

iTRAK Power Supply Features and Indicators (2198T-W25K-ER)



Item	Description
1	Power bus cable clamp
2	Ground lug
3	Digital inputs (IOD) connector
4	Ethernet (PORT1) RJ45 connector
5	Ethernet (PORT2) RJ45 connector
6	Zero-stack mounting tab/cutout
7	Module status indicator

Item	Description
8	Network status indicator
9	LCD display
10	Navigation push buttons
11	Link speed status indicators
12	Link/Activity status indicators
13	iTRAK power supply ready (IR)
14	DC bus input (DC) connector

Item	Description
15	24V control input power (CP) connector
16	24V control output power (ICP) connector - A
17	DC bus output (IDC) connector - A
18	24V control output power (ICP) connector - B
19	DC bus output (IDC) connector - B
20	Cooling fan

iTRAK Power Supply Connectors

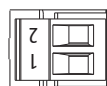
Designator	Description	Connector
DC	DC common bus power	DC-bus links and end caps
CP	24V control input power	2-position plug, terminal screws
IDC	iTRAK DC bus output A and B	4-position plug, terminal screws
ICP	iTRAK 24V control output power A and B	2-position plug, terminal screws
IOD	Digital inputs	10-position plug, spring terminals
IR	iTRAK power supply ready	2-position plug, terminal screws
PORT1, PORT2	Ethernet communication ports	RJ45 Ethernet

DC Bus Input Power Connector

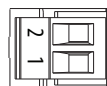
DC Pin	Description	Signal
Bus bar	DC bus connections	DC- DC+

Control Input Power (CP) and Control Output Power A and B (ICP) Connectors Pinout

Pin	Description	Signal
2	24V common	24V-
1	24V power supply, customer-supplied	24V+



Control Input Power (CP) Connector



Control Output Power A and B (ICP) Connectors

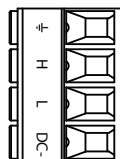
iTRAK Power Supply Ready (IR) Connector Pinout

IR Pin	Description	Signal
2	iTRAK power supply ready	RDY-
1		RDY+



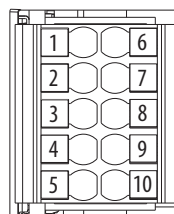
DC Power Bus Output A and B (IDC) Connectors Pinout

IDC Pin	Description	Signal
4	Chassis ground	GND
3	DC high voltage	H
2	DC low voltage	L
1	DC-bus	DC-



Digital Inputs (IOD) Connector Pinout

IOD Pin	Description	Signal
1	Digital input #1	Enable
2	I/O common for customer-supplied 24V supply	COM
3	Digital input #2	Fault Clear
4	I/O common for customer-supplied 24V supply	COM
5	I/O cable shield termination point	SHLD
6	Digital input #3	IN3
7	I/O common for customer-supplied 24V supply	COM
8	Digital input #4	IN4
9	I/O common for customer-supplied 24V supply	COM
10	I/O cable shield termination point	SHLD



Wiring Requirements

The wire must be copper with 75 °C (167 °F) minimum rating. Phasing of mains AC power is arbitrary and earth ground connection is required for safe and proper operation.

IMPORTANT The National Electrical Code and local electrical codes take precedence over the values and methods provided.

iTRAK Power Supply (2198T-W25K-ER) Wiring Requirements

Description	Connects to Terminals		Wire Size mm ² (AWG)	Strip Length mm (in.)	Torque Value N•m (lb•in)
	Pin	Signal			
DC-bus input power	Bus bar	DC- DC+	N/A ⁽¹⁾	N/A ⁽¹⁾	N/A ⁽¹⁾
SELV/PELV rated 24V power (connector plug)	CP-1	24V+	1.5...4 ⁽²⁾ (16...12)	10.0 (0.39)	0.5...0.6 (4.4...5.3)
	CP-2	24V-	6 ⁽²⁾ (10)	10.0 (0.39)	0.7...0.8 (6.1...7.0)
iTRAK power supply ready	IR-1 IR-2	RDY+ RDY-	0.05...2.5 (30...12)	7.0 (0.28)	0.4...0.5 (3.5...4.4)
24V iTRAK control power ⁽³⁾	ICP-1 ICP-2	24V+ 24V-	1.5...6 (16...10)	10.0 (0.39)	0.7...0.8 (6.1...7.0)
DC-bus output power A and B ⁽³⁾	IDC-1 IDC-2 IDC-3 IDC-4	DC- L H GND	2.5...6.0 (12...10)	10.0 (0.39)	0.7...0.8 (6.1...7.0)
Digital inputs	IOD-1 IOD-2 IOD-3 IOD-4 IOD-5 IOD-6 IOD-7 IOD-8 IOD-9 IOD-10	Enable COM Clear Fault COM SHLD IN3 COM IN4 COM SHLD	0.20...1.31 (24...16)	10.0 (0.39)	N/A ⁽⁴⁾

(1) Shared DC-bus power connections are always made from power supply to power supply over the bus-bar connection system. These terminals do not receive discrete wires.

(2) Use sufficient wire size to support the complete control power load, including Kinetix 5700 modules and pass-through current for the attached motor modules.

(3) The iTRAK control power (ICP) and iTRAK DC bus output (IDC) connections must be made using catalog number 2198T-CHBFLS8-12AAxx.

(4) This connector uses spring tension to hold wires in place.



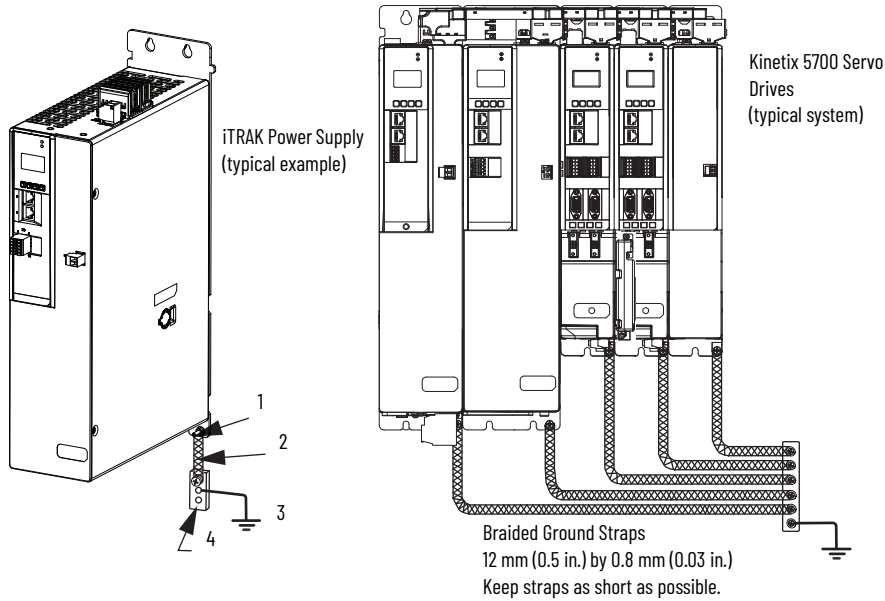
ATTENTION: To avoid personal injury and/or equipment damage, observe the following:

- Make sure that installation complies with specifications regarding wire types, conductor sizes, branch circuit protection, and disconnect devices. The National Electrical Code (NEC) and local codes outline provisions for safely installing electrical equipment.
- Use motor power connectors only for connection purposes. Do not use them to turn on or off the unit.
- Ground shielded power cables to prevent potentially high voltages on the shield.

Ground the Power Supply to the Subpanel

Ground Kinetix 5700 iTRAK power supply to a bonded-cabinet ground bus with a braided ground strap. Keep the braided ground strap as short as possible for optimum bonding.

Connect the Braided Ground Strap



Item	Description
1	Ground screw (green) 2.0 N•m (17.5 lb•in), max
2	Braided ground strap (customer supplied)
3	Ground grid or power distribution ground
4	Bonded-cabinet ground bus (customer supplied)

Wire the iTRAK Power Supply

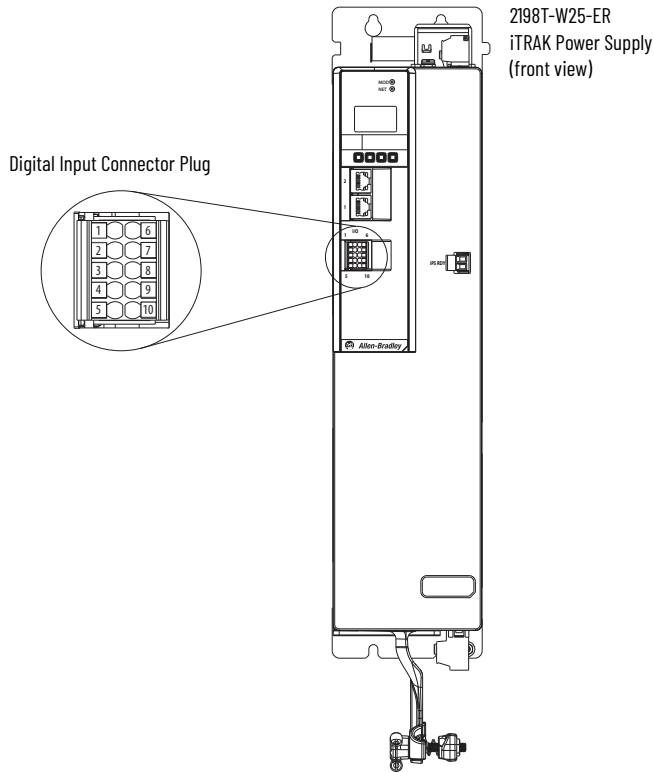
The following sections cover wiring the iTRAK power supply to an iTRAK system.

For information on how to wire to the input control power (CP) connector and connect the DC-power bus links, see the Kinetix 5700 Servo Drives User Manual, publication [2198-UM002](#).

Wire the Digital Input Connector

The digital inputs are part of a required I/O interface with the gateway. The digital inputs are connected to the gateway through the digital USB I/O module.

Digital Input Connector Wiring



Digital Input Connector Plug Specifications

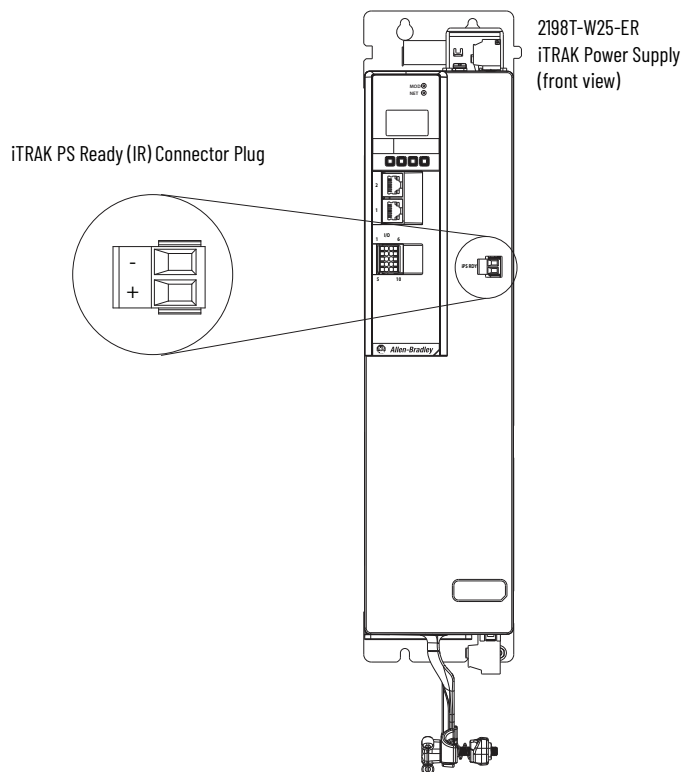
Description	Pin	Signal	Recommended Wire Size mm ² (AWG)	Strip Length mm (in.)
Digital inputs	10D-1 10D-2 10D-3 10D-4 10D-5	Enable COM Clear Fault COM SHLD	0.20...1.31 (24...16)	10.0 (0.39)

See [Connect an iTRAK Power Supply to a System on page 22](#) for wiring diagram information.

Wire the iTRAK PS Ready (IR) Connector

The iTRAK PS relay output is part of a required I/O interface with the gateway and is connected to the gateway through the digital USB I/O module.

iTRAK PS Ready (IR) Connector Wiring - Connector Plug



iTRAK PS Ready (IR) Connector Plug Specifications

Description	Pin	Signal	Recommended Wire Size mm ² (AWG)	Strip Length mm (in.)	Torque Value N•m (lb•in)
iTRAK power supply ready	2	-	0.14...2.5 (26...12)	7.0 (0.28)	0.4...0.5 (3.5...4.4)
	1	+			

See [Connect an iTRAK Power Supply to a System on page 22](#) for wire diagram information.

Cable Preparation for iTRAK Power Supply Output Power Cables

Follow these instructions to prepare the wires to create custom length 2198T-CHBFLS8-12Axx cables.

These instruction steps assume that the cable has already been cut to the desired length.

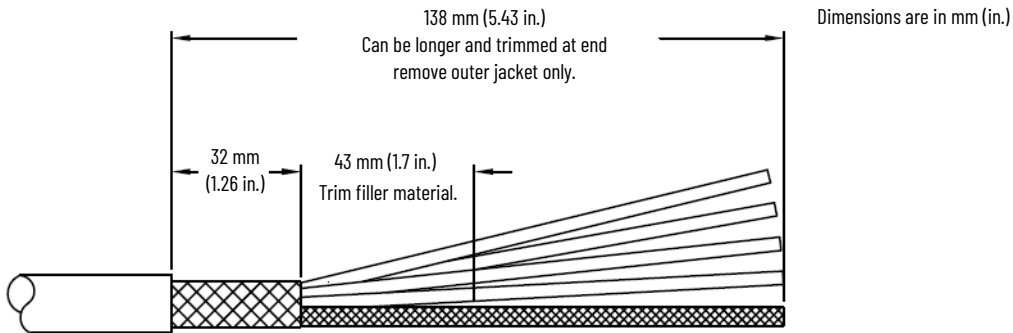
1. Mark the cable at 138 mm (5.4 in.) from the end.
2. Carefully cut away the outer jacket at the mark.

Be mindful not to damage the braided shield underneath.

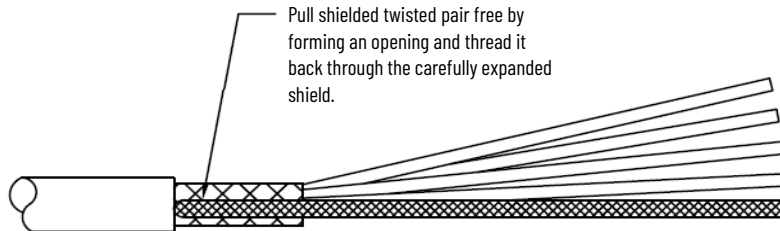
3. Measure 32 mm (1.26 in.) from where the outer jacket ends and cut and remove the braided metal shield.

Save the braided metal piece that was trimmed for use in [step 8](#).

4. Measure 75 mm (3 in.) from where the outer jacket ends or 43 mm (1.7 in.) from where the shield ends, and trim the blue filler material.

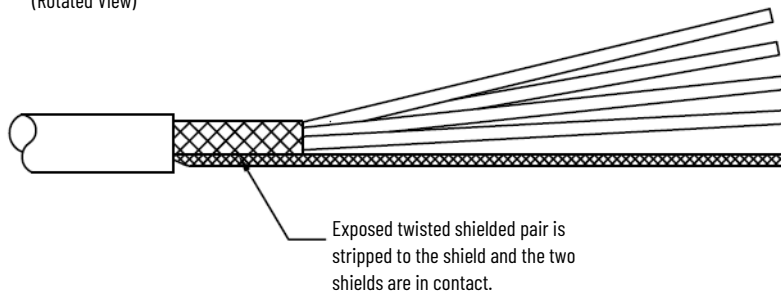


5. Pull back the outer braided shield and carefully create an opening in the braid as close as possible to where the outer jacket ends.
6. Feed the internal shielded twisted pair through the opening in the outer braided shield, and pull it through tight.

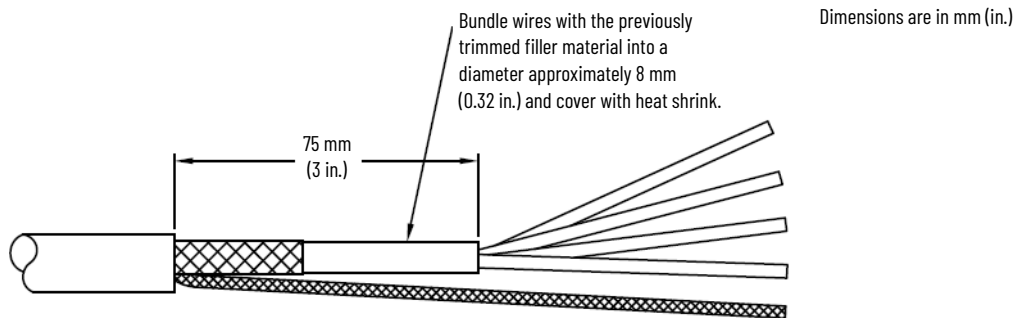


The shielded twisted pair is now outside of the main braided shield and the two shields are in contact.

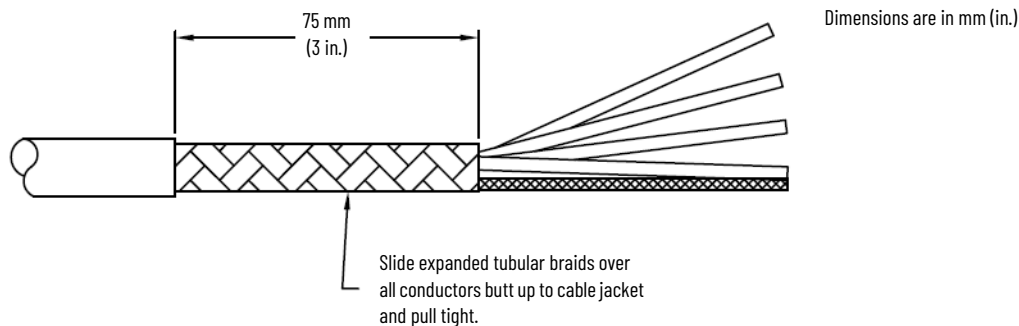
(Rotated View)



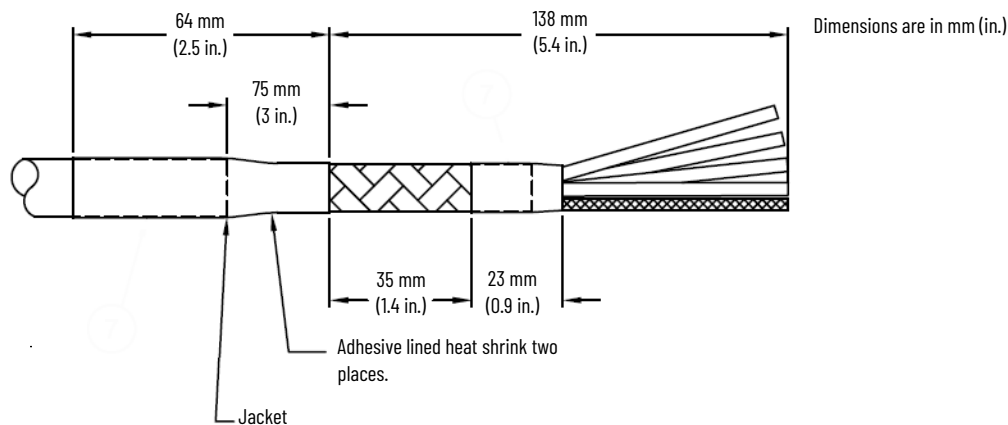
- To hold the wires together, bundle the group of four wires with the previously trimmed filler material and slip on a 45 mm (1.8 in.) length piece of shrink tube.



- Slide previously trimmed piece of the outer braided shield over the entire bundle, butt it up to the cable jacket, pull tight, then trim the piece so it is approximately 75 mm (2.9 in.) long.

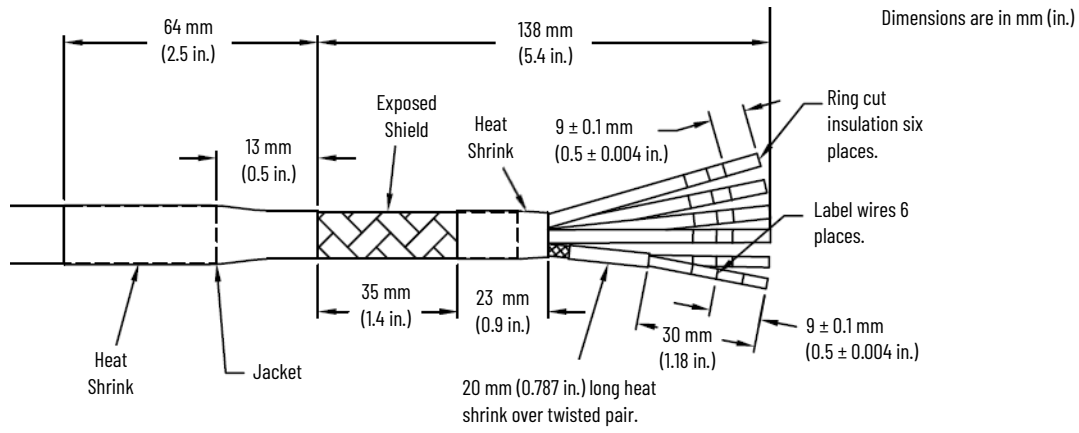


- Place a 64 mm (2.5 in.) length of adhesive-lined shrink tube over the cable located 113 mm (4.4 in.) from the end of the wires.
- Place a 23 mm (0.9 in.) length piece of adhesive-lined shrink tube over the cable so that a 35 mm (length of shielded braid is left exposed).



- Trim the braided shield on the twisted-pair shield back 40 mm (1.6 in.) from the end of the wires.
- Place a 20 mm (0.79 in.) length piece of shrink tube over the twisted pair approximately 30 mm (1.18 in.) from the end of the wires.

13. Strip the individual wires back 9 mm (0.35 in.)



Label wire with the signal names as shown here.

Power Supply Wire Labels

Color	Gauge	Signal
Brown	12	H
Black		L
Blue		DC-
Green/Yellow		PE
Red	14	+24V
White		-24V

Wire the iTRAK Power Supply DC Bus and Control Power Output Connectors

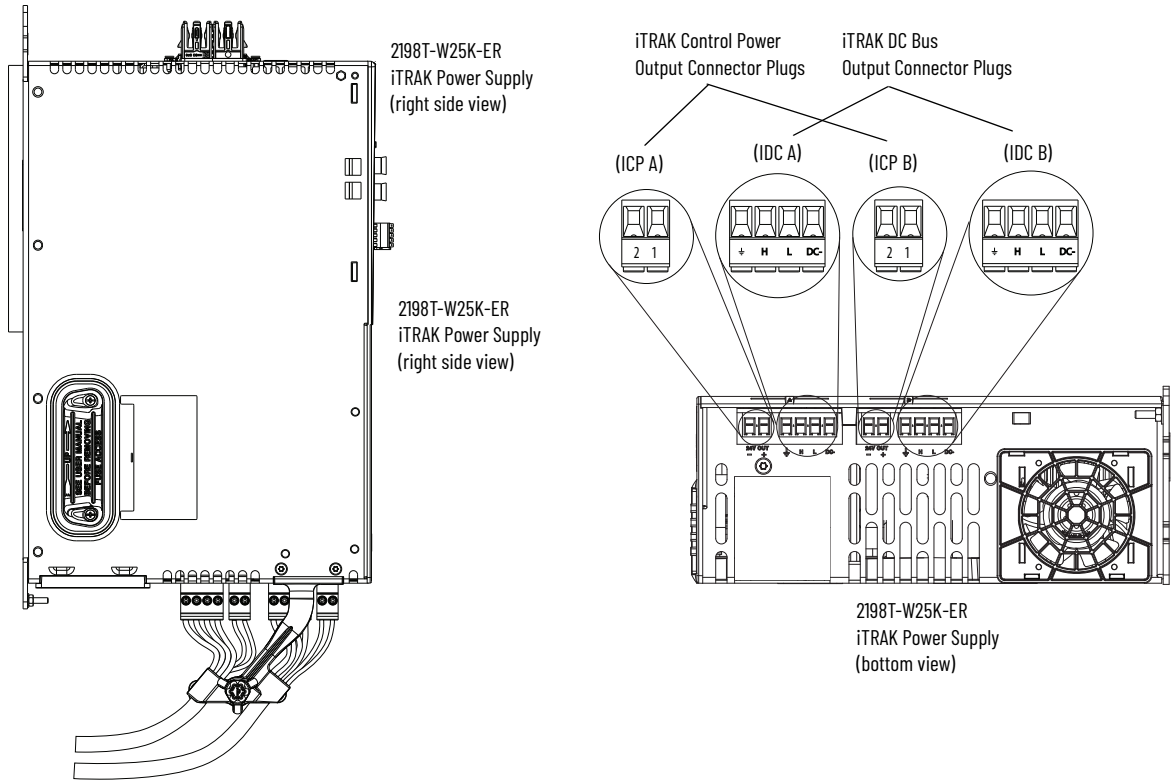
The iTRAK power supply uses one cable, 2198T-CHBFLS8-12AAxx, to connect to the iTRAK system. The single cable terminates at two connectors on the iTRAK power supply: one for iTRAK control power (ICP) and one for iTRAK DC bus power (IDC). Two sets of these connectors, referenced as A and B, are provided on the iTRAK power supply to allow using two cables for larger iTRAK systems.



ATTENTION: Make sure that the iTRAK power connections are correct when wiring the plugs and that the plug is fully engaged in the module connector. Incorrect wiring, polarity, or loose wiring can cause an explosion or damage equipment.

Choose a cable length that is appropriate for your application requirements. You can create custom cable lengths by cutting a 2198T-CHBFLS8-12AAxx to length, remove the flying lead end and preparing new leads. See [Cable Preparation for iTRAK Power Supply Output Power Cables on page 16](#) for instructions.

IDC and ICP Connector Wiring



IDC and ICP Connector Wiring

Description	Connects to Terminals		Wire Color	Wire Size mm ² (AWG)	Strip Length mm (in.)	Torque Value N·m (lb·in)
	Pin	Signal				
24V iTRAK control power ⁽¹⁾	ICP-1 ICP-2	24V+ 24V-	White Red	1.5...6 (16...10)	10.0 (0.39)	0.7...0.8 (6.1...7.0)
DC-bus output power A and B ⁽³⁾	IDC-4 IDC-3 IDC-2 IDC-1	GND H L DC-	Green/Yellow Brown Black Blue	2.5...6.0 (12...10)	10.0 (0.39)	0.7...0.8 (6.1...7.0)

(1) The iTRAK control power (ICP) and iTRAK DC bus output (IDC) connections must be made using catalog number 2198T-CHBFLS8-12AAxx.

Apply the iTRAK Power Cable Shield Clamp

Factory-supplied 2198T-CHBFLS8-12AAxx iTRAK cables are shielded. The braided cable shield must terminate at the iTRAK power supply when installed. A small portion of the cable jacket has been removed to expose the shield braid. The exposed area must be clamped by using the clamp on the bottom front of the iTRAK power supply.

This procedure assumes that you have completed wiring your IDC and ICP connectors and are ready to apply the cable shield clamp.

To apply the iTRAK power-supply cable-shield clamp, do the following.

1. Loosen the clamp knob.
2. Position the exposed portion of each cable braid directly in line with the clamp.
3. Hand tighten the clamp knob.

Only finger-tight torque on the clamp knob is required. The cable must not move within the clamp under its own weight or when slight pressure is applied by hand.

Install the iTRAK Bus Conditioner Module

If you have a 2198T-ExxxxxxxxxxxxxC iTRAK system, the bus conditioner module is already installed.

To install the iTRAK bus conditioner module, do the following.

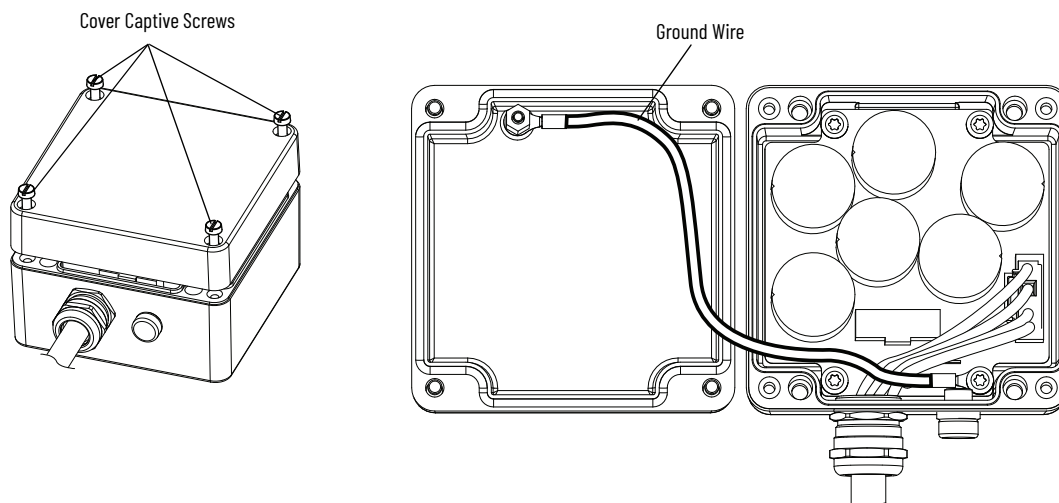
1. Determine the location for the bus conditioner module.

We recommend that you use the pre-drilled and tapped holes on the iTRAK spine bars for mounting the bus conditioner module. If your system configuration requires you to relocate the bus conditioner module see [Bus Conditioner Module Mounting Options \(2198T-L16xx Motor Modules\) on page 5](#).

2. To gain access to the bus conditioner module mounting holes, remove the cover by loosening the four screws that attach the cover to the bus conditioner module enclosure.

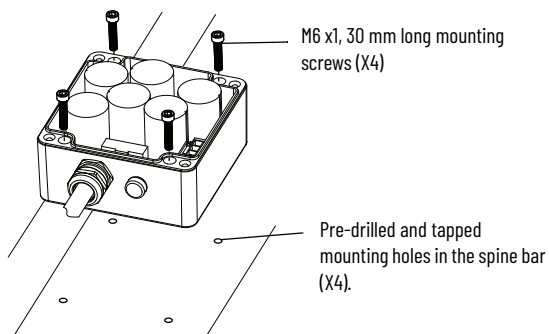
These screws are captive and remain with the cover.

IMPORTANT A ground wire connects the cover to the enclosure. When removing the cover, be careful not to stress the ground wire and do not disturb any of the wiring or components within the bus conditioner module enclosure.



Four M6 x1, 30 mm long screws are shipped with the bus conditioner module. Use these screws to mount the bus conditioner module.

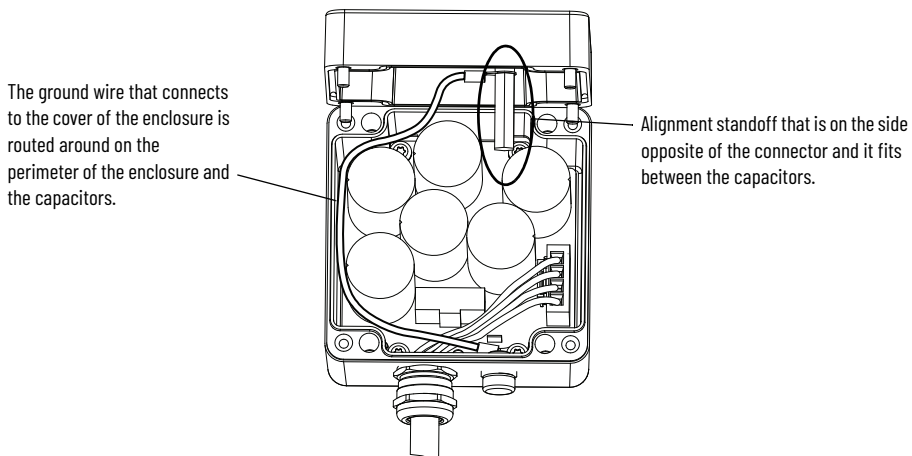
- Orient the bus conditioner module on over the four mounting holes in the iTRAK spine bar as shown.



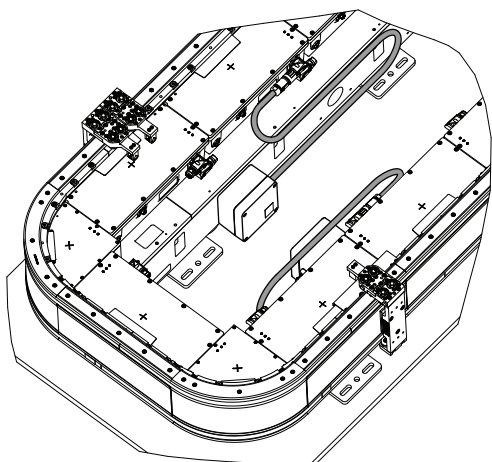
- Apply Loctite 222 to the four M6 x1, 30 mm screws.
- Insert the four screws and torque them to 2.5...3 N•m (1.8...2.2 lb•ft)
- Replace the bus conditioner module cover by routing the ground wire as shown while installing the cover.

IMPORTANT The cover must be oriented correctly for proper installation. Incorrect installation causes an improper environmental seal. To aid in correct orientation, the cover does not lie flush when incorrectly placed.

- Torque the four screws to 2.5...3 N•m (1.8...2.2 lb•ft).



- Route and connect the bus conditioner module cable to the iTRAK motor module by using the example that is shown.



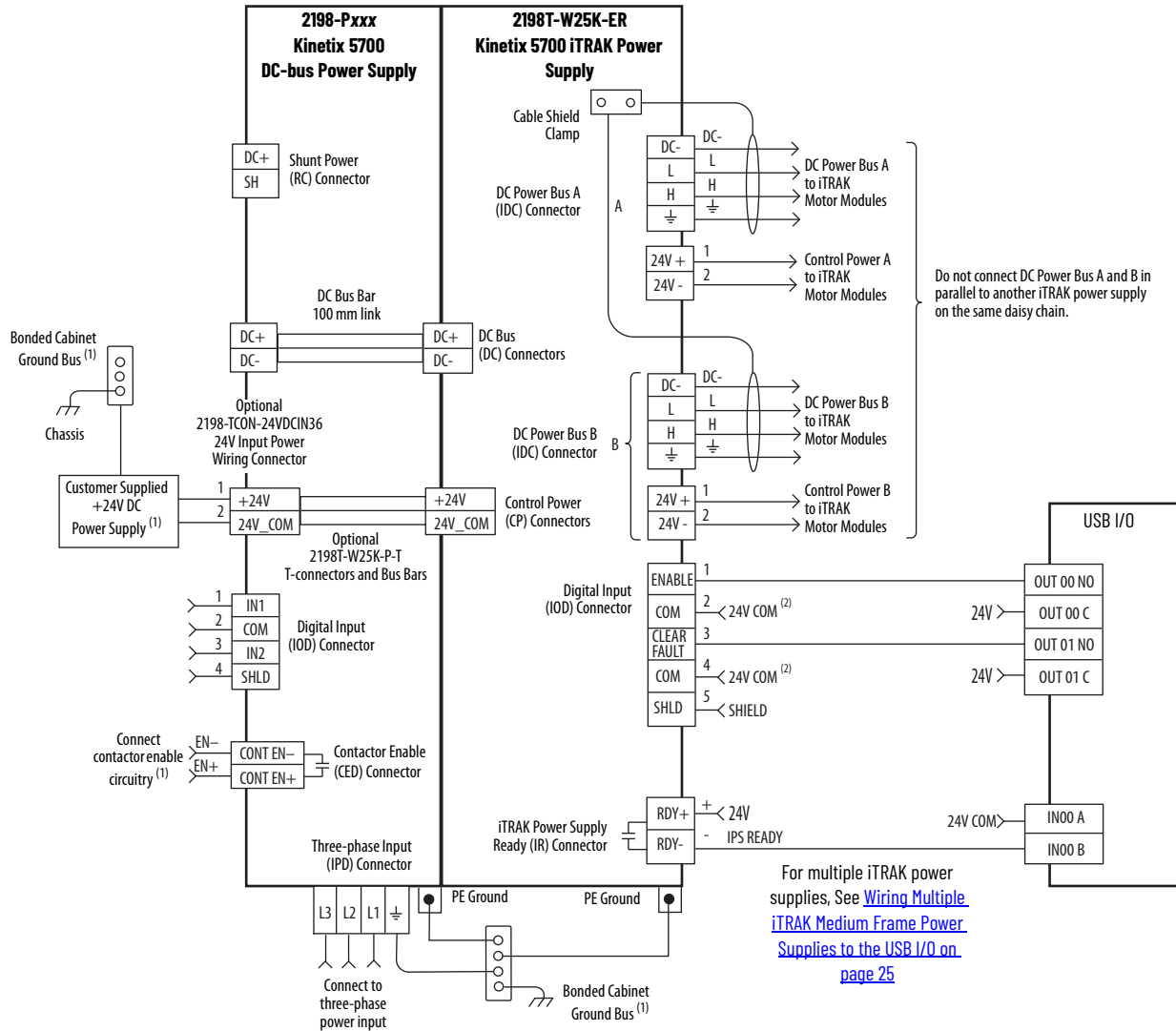
Power Wiring Examples



ATTENTION: Capacitors on the DC bus can retain hazardous voltages after input power has been removed. Before working on the iTRAK power supply, wait the full-time interval as indicated in the warning on the power supply. Failure to observe this precaution could result in severe bodily injury or loss of life.

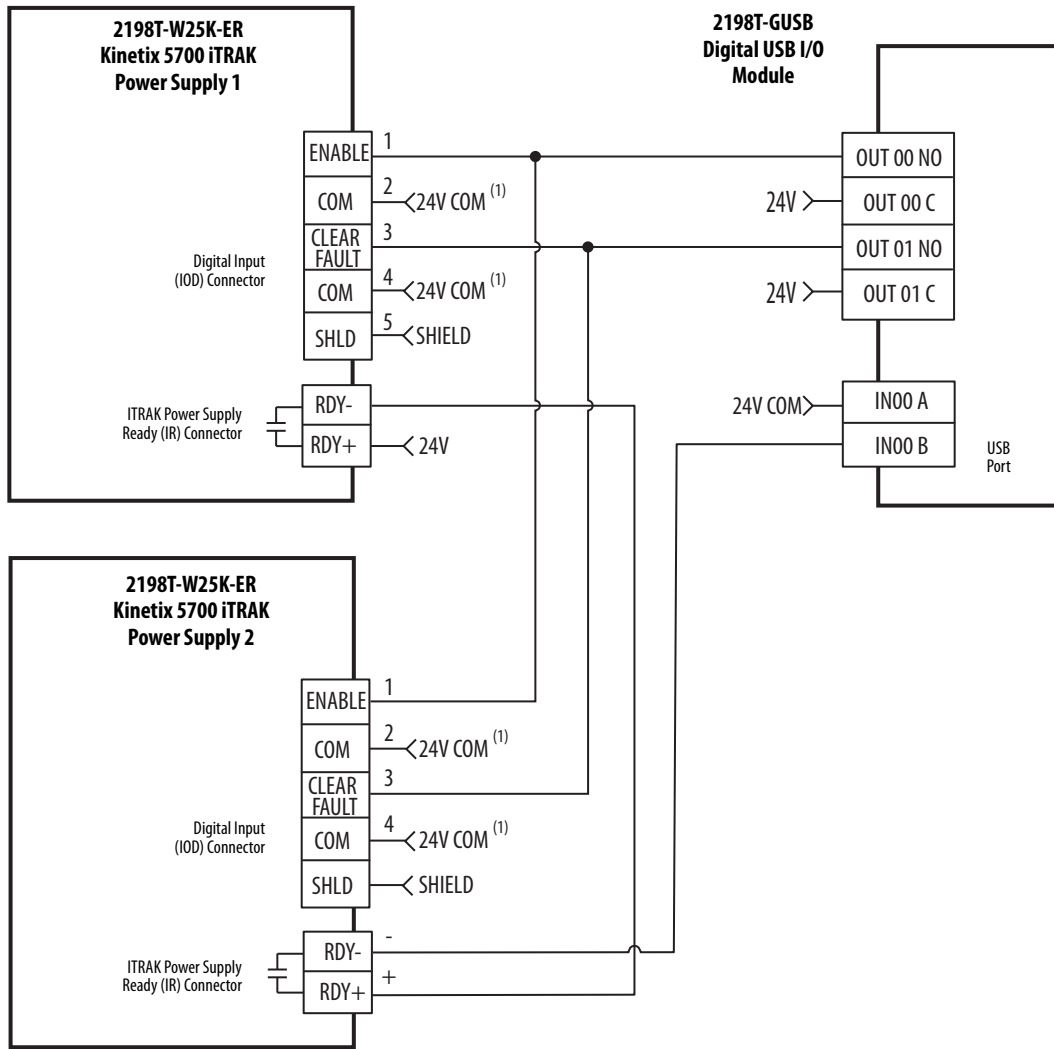
Use the following wiring diagrams to connect your iTRAK power supply.

Connect an iTRAK Power Supply to a System



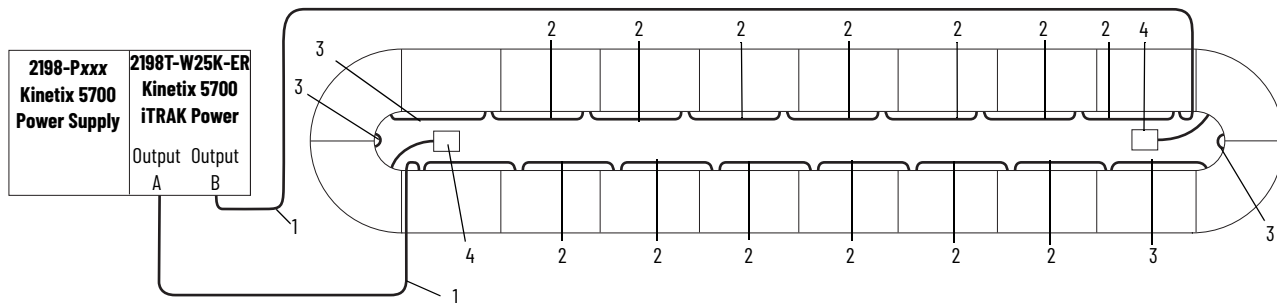
- (1) Customer supplied.
- (2) Make only one of these 24V COM

One gateway can interface to multiple iTRAK power supplies through the Digital USB I/O Module. When you use this configuration, connect the Enable and Clear Fault signals in parallel, and connect the IPS Ready signal in series through all iTRAK power supplies as shown in the following diagram. Wiring Multiple iTRAK Power Supplies to the Digital USB I/O Module.

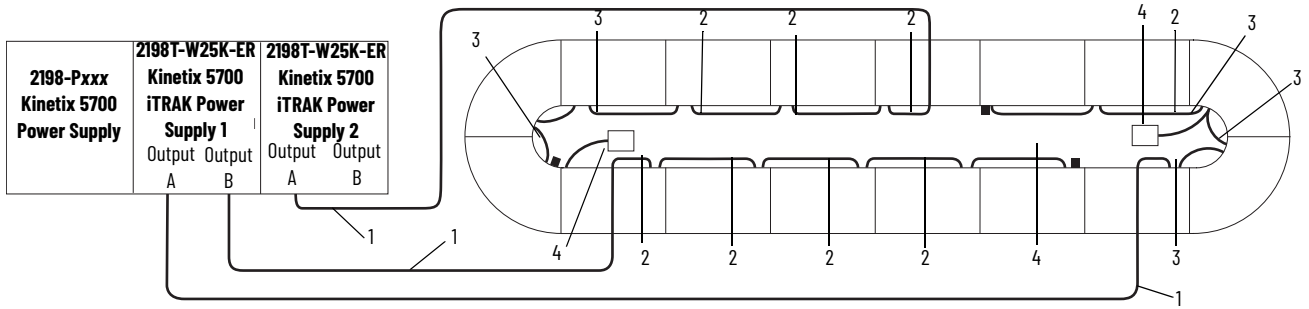


¹ Only one connection to 24V Com is required for each iTRAK power supply. Either pin 2 or pin 4 must be connected, it is not necessary to connect both.

Wire an iTRAK Power Supply and iTRAK Bus Conditioner Modules to an iTRAK Medium Frame System



Wire Multiple iTRAK Power Supplies and iTRAK Bus Conditioner Modules to an iTRAK Medium Frame System



Item	Description
1	2198T-CHBFLS8-12AAxx, iTRAK power supply to motor module cable
2	2198T-CHBP8S8-12P3, power cable
3	2198T-CHBP8S8-12P6, power cable
4	2198T-WBCMOD, iTRAK bus conditioner module

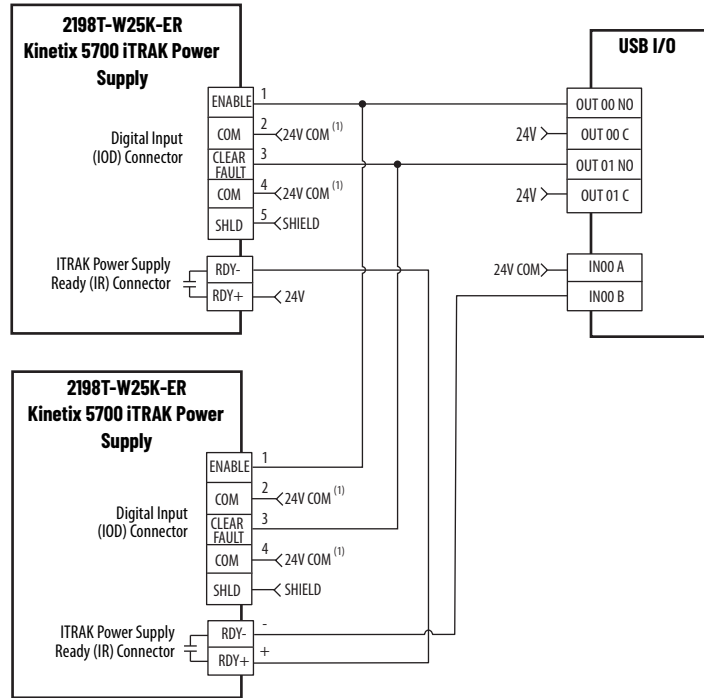


ATTENTION: Power from iTRAK power supply 1 must not be connected to the power from iTRAK power supply 2.

Wiring Multiple iTRAK Medium Frame Power Supplies to the USB I/O

When multiple iTRAK power supplies are connected to the same 2198-Pxxx DC-bus power supply, follow these guidelines.

- Connect each iTRAK power supply to the same USB I/O module.
- Connect each iTRAK Power Supply Ready relay output string serially through all iTRAK power supplies.
- Connect the OUT 00 NO output on the USB I/O module to the ENABLE input of all iTRAK power supplies.
- Connect the OUT 01 NO output from the USB I/O module to the CLEAR FAULT input of all iTRAK power supplies.



Using Multiple iTRAK Power Supplies with the 5730 System

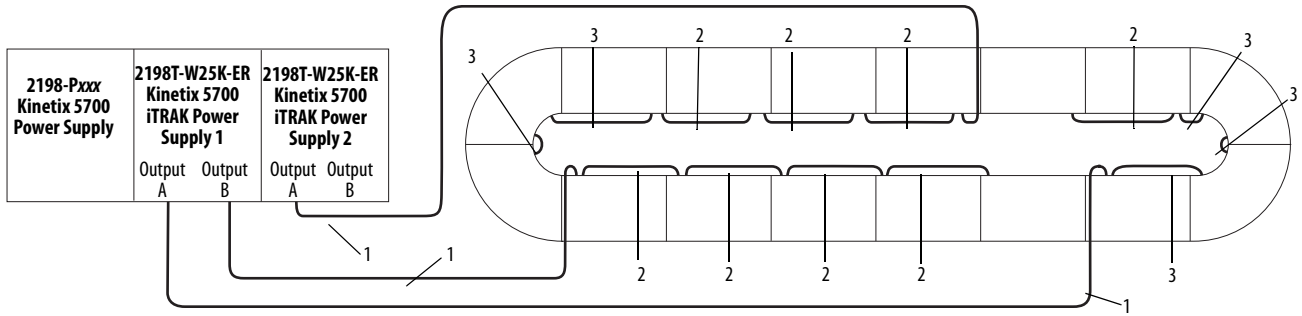
When using multiple iTRAK power supplies in an iTRAK system, follow these guidelines.

- When using multiple iTRAK power supplies, the system must be parsed into separate electrical pieces for each of the iTRAK power supplies.
- The iTRAK power supply is not designed to have the output buses of multiple power supplies connected together to create one bus of higher current capacity.

IMPORTANT In systems that use multiple iTRAK power supplies, make sure that the output bus of one power supply is never connected to the output bus of another power supply.

Use the following scenario to understand the use of multiple iTRAK power supplies for systems that require a higher current draw. In this example, part of the track has a high-power demand, and the rest of the track has a lower power demand. In this case iTRAK power supply 1 powers the first group of ten motor modules, while iTRAK power supply 2 provides power to the remaining six motor modules. The DC buses of these two groups are electrically isolated from each other as shown in the diagram.

Connecting Multiple iTRAK Power Supplies in a System



Item	Description
1	2198T-CHBFLS8-12AAxx, iTRAK power supply to motor module cable
2	2198T-CHBP8S8-12P3, power cable
3	2198T-CHBP8S8-12P6, power cable



ATTENTION: Power from iTRAK power supply 1 must not be connected to the power from iTRAK power supply 2.

Commission

To assist you when you commission your power supply, sample Studio 5000 Logix Designer® application is available through the Rockwell Automation Knowledgebase. Follow these steps to access the sample code.

1. From a browser window type <https://rockwellautomation.custhelp.com/>.
2. Under What Do You Need Help With?, click Answer ID.
3. In the search dialog box, type [778917](#) and click the search icon.

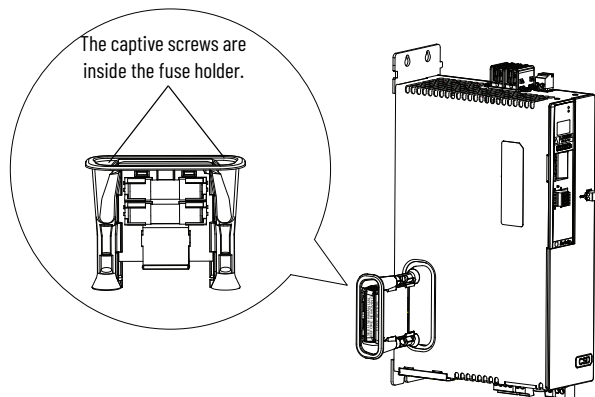
Fuse Replacement

The iTRAK power supply uses internal fuses (see figure) for short-circuit protection of the DC bus.

Recommended Fuses

Application	Fuse
UL/CSA	Bussmann FWP-50A14Fa
IEC (Non-UL/CSA)	Type aR, 50 A rms, (Diameter x Length) approx 14.30 x 50.80 mm (0.563 x 2.0 in.)

Power Supply Internal Fuse



ATTENTION: Capacitors on the DC bus can retain hazardous voltages after input power has been removed. Before working on the iTRAK power supply, wait the full-time interval as indicated in the warning on the power supply. Failure to observe this precaution could result in severe bodily injury or loss of life.

To replace the fuses, follow these steps.

1. Make sure that all input power has been removed.
2. Wait the full recommended time-interval as indicated in the warning on the power supply.
3. Remove power supply from mounting.
4. Loosen the captive screws.

There are two captive screws, one on either side of the fuse holder.

5. Grasp the top and bottom edges of the fuse holder and pull straight out.
6. Replace the fuses.
7. Insert fuse holder.
8. Tighten captive screws to 0.6 N•m (5 in•lb).
9. Install power supply per normal mounting instructions.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
iTRAK System Technical Data, publication 2198T-TD001	Provides product specifications for the iTRAK system.
Kinetix Servo Drives Specifications Technical Data, publication GMC-TD003	Provides product specifications for the Kinetix Integrated Motion over EtherNet/IP network, Integrated Motion over SERCOS interface, EtherNet/IP networking, and component servo drive families.
Kinetix Motion Accessories Specifications Technical Data, publication GMC-TD004	Provides product specifications for Bulletin 2090 motor and interface cables, low-profile connector kits, drive power components, and other servo drive accessory items.
iTRAK System User Manual, publication 2198T-UM001	Information on how to install, configure, start, and troubleshoot your iTRAK system.
Kinetix 5700 Servo Drives User Manual, publication 2198-UM002	Information on how to install, configure, start, and troubleshoot your Kinetix 5700 servo drive system.
iTRAK System Programming Manual publication 2198T-PM001	Information on iTRAK system motion commands, core functions, tuning, data types and the parameter interface.
Kinetix 5000 Shared-bus Connector Kit Installation Instructions, publication 2198-IN005	Information on how to install shared-bus connector kits that are designed for Kinetix 5500 and Kinetix 5700 servo drive systems.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation® industrial system.
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications a rok.auto/literature.

Notes:

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, and product notification updates.	rok.auto/support
Knowledgebase	Access Knowledgebase articles.	rok.auto/knowledgebase
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Get help determining how products interact, check features and capabilities, and find associated firmware.	rok.auto/pcdc

Documentation Feedback

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at rok.auto/docfeedback.

Waste Electrical and Electronic Equipment (WEEE)







At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental information on its website at rok.auto/pec.

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at rok.auto/docfeedback.
For technical support, visit rok.auto/support.

Rockwell Otomasyon Ticaret A.Ş. Kar Plaza İş Merkezi E Blok Kat:6 34752 İçerenköy, İstanbul, Tel: +90 (216) 5698400 EEE Yönetmeliğine Uygundur

Connect with us.    

rockwellautomation.com

expanding human possibility™

AMERICAS: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

EUROPE/MIDDLE EAST/AFRICA: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

ASIA PACIFIC: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Allen-Bradley, ControlLogix, CompactLogix, expanding human possibility, iTRAK, Kinetix, Rockwell Automation, Rockwell Software, and Studio 5000 Logix Designer are trademarks of Rockwell Automation, Inc.

Trademarks not belonging to Rockwell Automation are property of their respective companies.

Publication 2198T-IN001D-EN-P - October 2020 | Supersedes Publication 2198T-IN001C-EN-P-October 2019

Copyright © 2020 Rockwell Automation, Inc. All rights reserved. Printed in the U.S.A.



PN-590629