

STAR-PAN™



JTAC-TOUGH™

STAR-PAN™

USB HUB / POWER DISTRIBUTION SYSTEMS

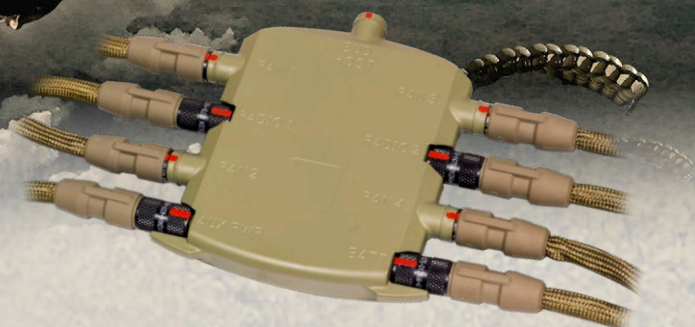
The Battle-Tested C4ISR Smart Hub and Cable Solution

OCTOBER 2017



JTAC-TOUGH™

STAR-PAN™



Multiport power and data hubs for digitally aided close air support

Ruggedized soldier-worn electronics have revolutionized mission effectiveness. But the ongoing evolution of Digitally Aided Close Air Support (DACAS) missions, including precision targeting, tactical radio communications, real-time video downlink, night vision technologies, GPS/navigation, blue force tracking, personal computing and smart phones has added significant mission weight to the dismounted soldier ensemble. Battery power management for this broad range of electronic gear is a significant challenge in terms of mission time, weight and supply logistics. The Glenair STAR-PAN™ data hub and power distribution system enables soldiers—particularly in Joint Terminal Attack Controller (JTAC) roles—to make the most of C4ISR devices, improving situational awareness, surveillance, intelligence and reconnaissance while optimizing power monitoring, conditioning, and distribution performance. Importantly, all STAR-PAN™ technologies, from the high-density Glenair Mighty Mouse quick-disconnect connectors and cables to the low-profile hub enclosure itself are designed for optimal size, weight, and ruggedized mil-spec performance with battle-tested environmental and EMC sealing and shielding.

STAR-PAN™ packaging reduces heat and increases power efficiency and battery life

- Versatile 2 and 6-port USB high-speed hub configurations
- Compatible with USB 1.1, USB 2.0, and SMBus
- Embedded power charging/conditioning electronics in all designs
- Smart power monitoring for longer mission life
- Robust circuit protection
- Sealed IAW the MIL-STD-810 harsh-environment standard



Glenair's Tactical Interconnect Solutions team is backed by six decades of proven, made-in-America interconnect industry performance in service of US and allied armed forces.

Export of STAR-PAN™ USB Hub/Power Distribution systems is restricted and/or controlled by U.S. Department of Commerce Export Administration Regulations

JTAC-TOUGH™

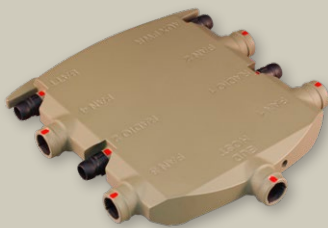
STAR-PAN™

Multiport USB Hub / Power Distribution Technology for DACAS Applications



STAR-PAN™ II 2-PORT USB DATA / POWER HUB

Universal C4ISR system hub with compliant ports for up to 2 peripheral devices and dedicated support for host/End User Device (EUD), video downlink receiver, and dismantled soldier radio. Available STAR-PAN II core kit adds MOLLE pouch, USB host adapters, accessory cables, and AC/DC power adapter



STAR-PAN™ VI MULTIPOINT USB DATA / POWER HUB

Universal JTAC system hub with compliant ports for up to 6 peripheral devices plus Personal Area Network (PAN) support for host/EUD and dismantled soldier radio. Available STAR-PAN VI core kit adds MOLLE pouch, STAR-PAN extension cable, USB host adapters, accessory cables, and AC/DC adapter



STAR-PAN™ SYSTEM HOST / EUD CABLES, ADAPTERS, AND ACCESSORIES

Broad, open-system cable support for all popular special forces/DACAS host computers and ruggedized dismantled soldier devices



STAR-PAN™ SYSTEM PERIPHERAL DEVICE AND STANDARD PROTOCOL DATA CONVERSION CABLES

The industry's broadest network/cable support for DACAS mission C4ISR peripherals including DAGR, PLRF, TacRover-e, TacRover-p, and others



STAR-PAN™ SYSTEM RADIO CABLES AND ADAPTERS

Ruggedized, small form-factor radio cables and adapters for the broad range of current signal communication systems including AN/PRC-152A, AN/PRC-154, AN/PRC-117G, PRC-148, Wave Relay, RT-1922, and others



STAR-PAN™ SYSTEM POWER CABLES AND BATTERY ADAPTERS

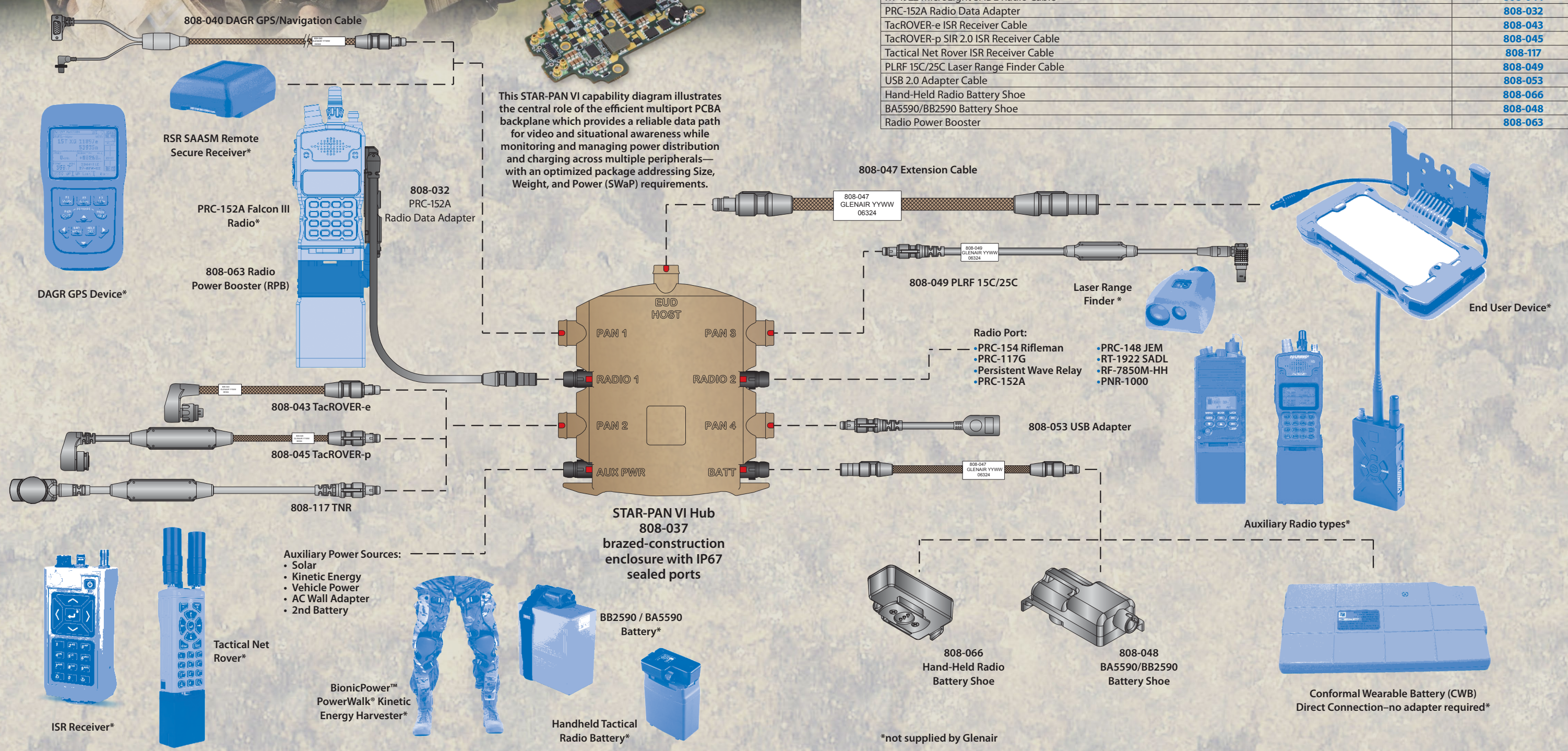
Complete power sourcing for BA5590 / BB2590 batteries, hand-held radio batteries, and other primary batteries and direct current auxiliaries

JTAC-TOUGH™
STAR-PAN™

**Multiport USB Data and Power
 Distribution Technology for C4ISR**



STAR-PAN CAPABILITY DIAGRAM (STAR-PAN VI SYSTEM SHOWN)



GLENAIR STAR-PAN TECHNOLOGY ILLUSTRATED IN THIS CAPABILITY DIAGRAM

STAR-PAN VI Multiport USB and Power Distribution Hub	808-037
STAR-PAN General-Purpose Extension Cable	808-047
DAGR GPS/Navigation Cable	808-040
RT-1922 MicroLight SADL Radio Cable	808-044
PRC-152A Radio Data Adapter	808-032
TacROVER-e ISR Receiver Cable	808-043
TacROVER-p SIR 2.0 ISR Receiver Cable	808-045
Tactical Net Rover ISR Receiver Cable	808-117
PLRF 15C/25C Laser Range Finder Cable	808-049
USB 2.0 Adapter Cable	808-053
Hand-Held Radio Battery Shoe	808-066
BA5590/BB2590 Battery Shoe	808-048
Radio Power Booster	808-063



JTAC-TOUGH POWER DISTRIBUTION AND MANAGEMENT



Symbiotic radio / battery power utilization and management for JTAC and other battery-power-intensive mission profiles



Smart Power = Longer Missions, Lighter Load

Board-level, embedded system power monitoring, conditioning and charging makes STAR-PAN the most powerful tool for extended mission life and operational effectiveness. Smart power equals longer missions, lighter load by significantly reducing the number of batteries that must be carried by the soldier. Available interconnect cabling and power adapter accessories facilitate accelerated charging of the EUD, radio and peripherals as well as scavenged power from conditioned DC power sources such as vehicles.

SUPPORTED BATTERIES AND DC AUXILIARIES

STAR-PAN is compatible with a wide range of military power sources and provides charge capability for supported batteries. Power scavenging is supported from a variety of sources. Trickle charging of radio batteries and radio holdup to hub enabled with optional STAR-PAN radio power booster.



Handheld radio battery



BB-2590 / BA-5590 batteries



Conformal Wearable Battery (CWB)

UNIVERSAL POWER AND DATA CONNECTOR INTERFACE



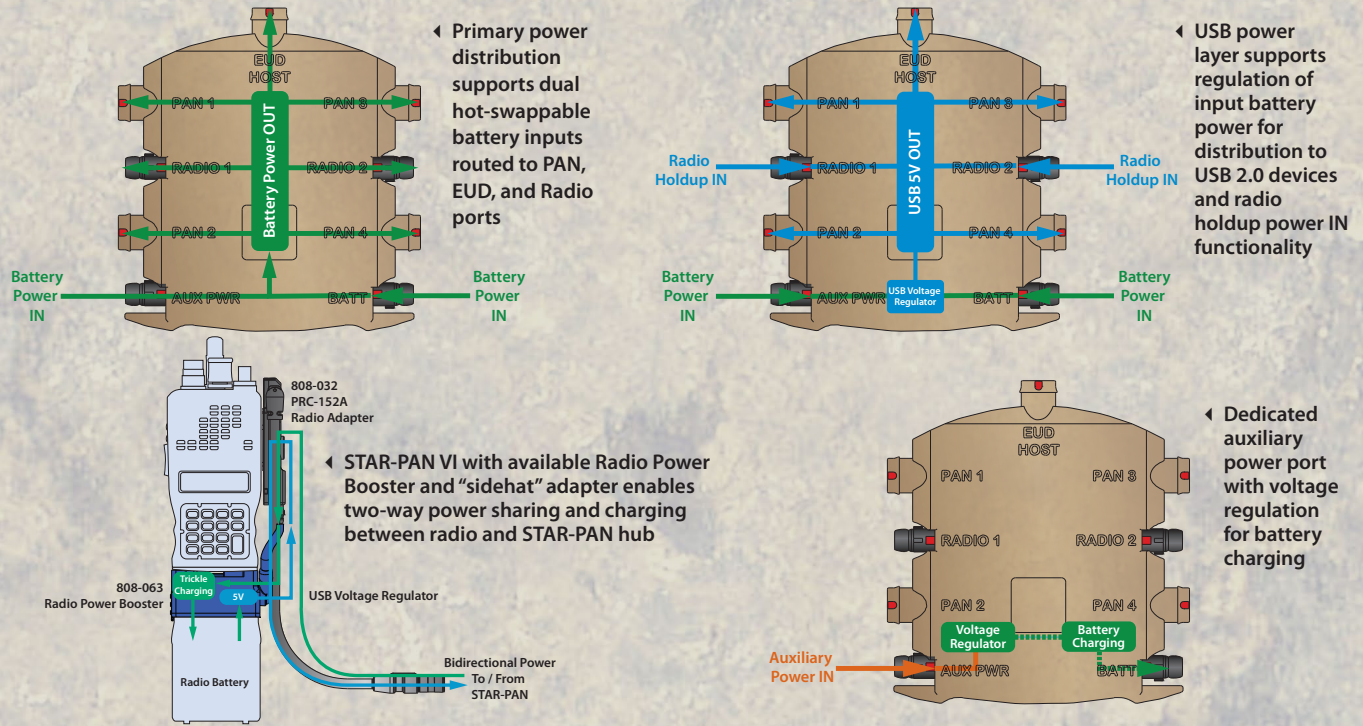
Glenair Mighty Mouse Series 804: fully-compliant to US and NATO standards for EUDs, radios, batteries, and C4ISR peripherals.

STAR-PAN EMBEDDED SYSTEM POWER MANAGEMENT

- Charge circuitry for a wide range of smart batteries
- Port priority, charge state, system battery state, and temperature protection
- API interface for user-controlled power management



STAR-PAN POWER DISTRIBUTION / CHARGING ARCHITECTURE (STAR-PAN VI SYSTEM SHOWN)

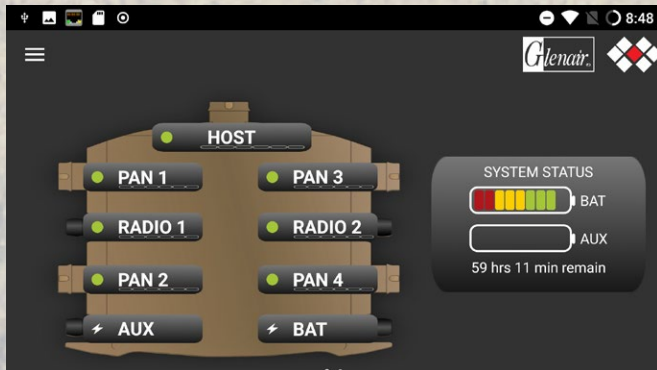


STAR-PAN VI CORE POWER DISTRIBUTION AND MANAGEMENT FUNCTIONS

- Battery power and USB 5V power for up to 4 USB devices plus 2 dedicated USB radio ports
- Robust fault protection circuitry
- Embedded level 2 charge control circuitry for smart battery interface
- Compatible with a range of DC power sources
- AUX port for system power or main system battery charging
- Power efficient electronics
- Radio port system holdup

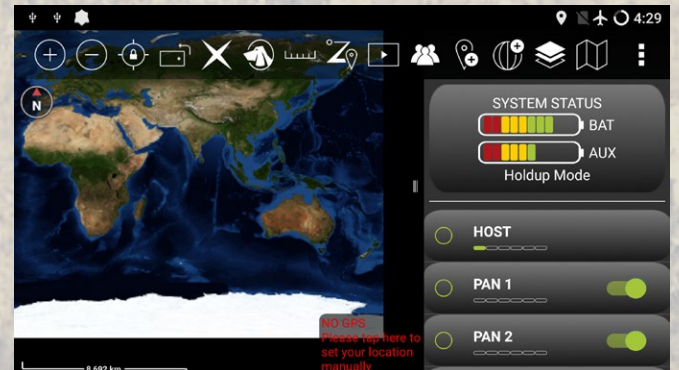
STAR-PAN ANDROID REMOTE (SPAR)

Each STAR-PAN power and data hub is supported with an Android-based power management app displaying system battery status and power usage by port/device. Touch-screen functionality allows user to easily turn power on and off to individual ports. Requires Android 4.4.4.



STAR-PAN ATAK PLUG-IN

A STAR-PAN power management system status plug-in is also available for Android Tactical Assault Kit (ATAK) software which enables the user to quickly monitor hub and battery status without leaving the main ATAK application.





STAR-PAN™ II

Integrated USB data/power distribution hub for radio communications, video downlink and other mission-critical dismounted soldier applications



Lightweight, non-reflective, power and data hub for tactical radios and peripheral devices

STAR-PAN™ II

- Universal PAN compliant ports (up to two devices)
- 1 designated host/EUD port
- 1 designated radio peripheral port
- 1 expandable PAN port for up to two USB peripherals
- Hot-swappable power sources
- Radio-supplied backup power
- Glenair power port management
- Brazed construction, integrated connectors



STAR-PAN™ HUB AND BOARD TECHNOLOGIES



Glenair multiport STAR-PAN™ USB hub and power distribution systems are engineered and manufactured under one ISO 9001:2008 and AS9100C certified quality system in our 1,000,000 sq. ft Southern California factory. All components, from the I/O interconnects to the precision-machined enclosures are produced in-house by Glenair. The STAR-PAN™ system is designed for maximum compatibility with non-proprietary Ethernet* and USB data interfaces, and is capable of smart charging and power distribution for the broad range of military batteries, as well as from Direct Current (DC) power sources including vehicle power, solar panels, kinetic energy devices and fuel cells.

* Requires STAR-PAN™ Ethernet Adapter

WARFIGHTER TOUGH

STAR-PAN™ II

808-057

2+ port smart power and data hub / cable



STAR-PAN™ II



808-057 STAR-PAN II hub with dedicated host and radio cables

RECOMMENDED CORE CAPABILITIES KIT

Part No. SPK808-057-001 contains:

- 1x Micro-B USB 2.0 Adapter (808-092)
- 1x Type A USB Host Adapter (808-079)
- 1x USB-A Accessory Cable (808-053)
- 1x AC/DC Power Adapter (808-064)
- 1x MOLLE Pouch (808-057-MP)



The Glenair STAR-PAN™ II Hub is a lightweight, durable, compact data and power distribution hub, ruggedized for harsh environment dismounted soldier applications. The hub provides a data backplane with power monitoring and management to connected external peripherals. The hub is compatible with USB1.1, USB2.0 (full and high-speed), and SMBus protocols.

The Glenair STAR-PAN™ II contains two power inputs for extended missions or battery substitution to minimize down time. Power distribution manages power to host devices such as a smart phone or tablet as well as downstream USB devices.

KEY FEATURES/BENEFITS

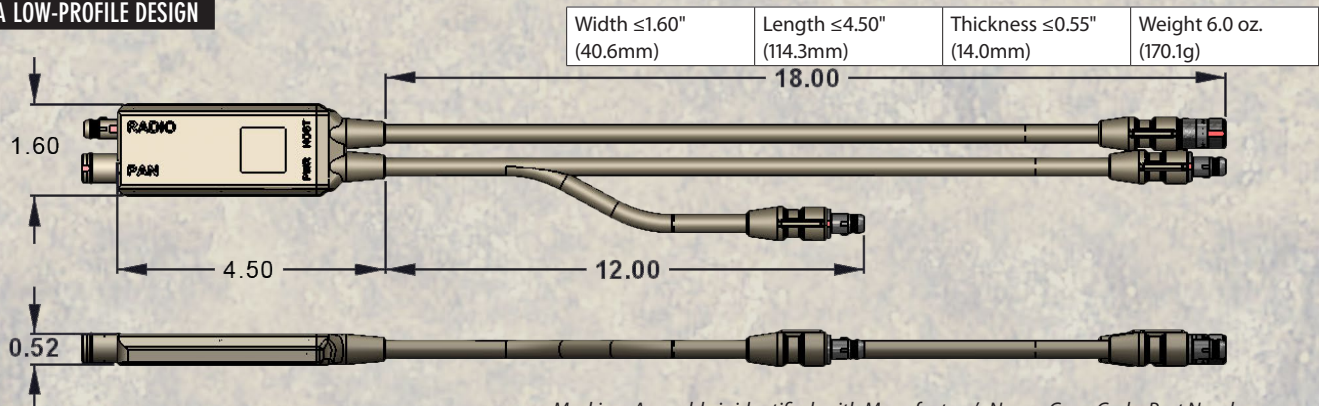
- Provides battery power and +5VBus power to up to 3 USB peripheral devices (requires 808-081 for 3rd device)
- Heat-efficient electronics packaging to optimize efficiency and extend battery life
- 2 power input ports for extended missions or battery hot swap
- SMBus, USB2.0 (full and high-speed), USB1.1 compatible interface
- Glenair's power monitoring and management for each voltage rail and port
- Compatible Personal Area Network (PAN) pin configuration and Smart Battery interface
- Built-in SMBus to USB converter to USB host devices
- IP67 rated dust and water resistant

APPLICATIONS

- Military tactical radio ensembles
- Video download
- Law enforcement data communications
- Fire rescue field communications and logistics
- Underground, highwall, and surface mining wireless communications

Export of STAR-PAN™ USB Hub/Power Distribution systems is restricted and/or controlled by U.S. Department of Commerce Export Administration Regulations

ULTRA LOW-PROFILE DESIGN



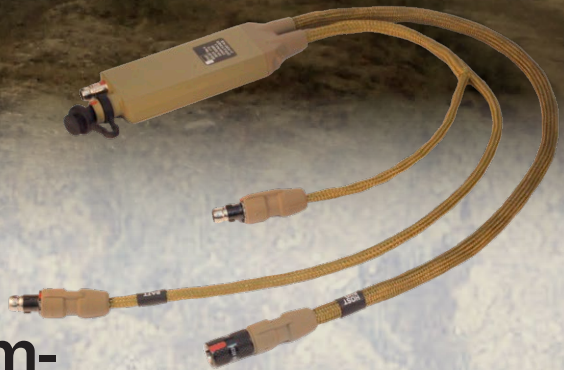
Marking: Assembly is identified with Manufacturer's Name, Cage Code, Part Number, Date Code and Serial Number. Dimensions are for reference only.

MISSION PROFILE

STAR-PAN™ II

Ultra-lightweight, small form-factor USB data / power hub for dismounted soldier applications

Mission flexibility is key in meeting the warfighter's ever-evolving duties in the field. The STAR-PAN™ II USB data/power hub is designed for core C4ISR capabilities including End User Device (EUD) integration, radio comm support, video downlink (Rover) as well as robust management of battery and auxiliary power sources.



- Multi-mission flexibility
- Open-system USB 2.0 support
- Video downlink receiver support for advanced situational awareness
- Turnkey radio comms and power management

TYPICAL RANGE OF SUPPORTED EUD AND PERIPHERALS (STAR-PAN™ II)



USB 2.0 compatible tablets and smart phones



TacROVER ISR receiver



AN/PRC-154 Rifleman radios



STAR-PAN™ II incorporates embedded charge control circuitry for smart battery interface within a wide charge voltage range.

WARFIGHTER TOUGH

STAR-PAN™ II

808-057 2+ port smart power and data hub / cable
DATA DOWNLOAD



STAR-PAN™ II

PERFORMANCE SPECIFICATIONS

Operating Conditions					
Parameter	Min	Typ	Max	Units	Notes
Storage Temperature	-40		+80	°C	
Operating Temperature	-32		+49	°C	
Operation Altitude			9754	m	
Storage Altitude			15240	m	
Water Immersion, Mated	MIL-STD-810, Method 512, 1 meter for 1 hour; IP67 rated dust and water resistant				
Host & Pan					
Battery Voltage	10.0	14.8	20.0	V	
Battery Supply Current			3.5	A	Maximum per individual port
Battery Supply Total Current			5	A	Total system
5VUSB Supply Voltage	4.75	4.90	5.1	V	
5VUSB Supply Current			3	A	Maximum per individual port
USB +/USB -	-0.5		+3.5	V	
Radio Port					
Battery Voltage	10.0	14.8	20.0	V	Highest Priority for Power Management
Battery Supply Current			5	A	Maximum per individual port
+5V Back Up Supply Current		1.2	3	A	Based on Radio Supply, Radio 1 Primary
+5V Back Up Supply Current			.5	A	Per port
USB +/USB -	-0.5		+3.5	V	
Battery Port					
Battery Input Voltage	10		20	V	
Battery Supply Current			5	A	Maximum system supply current
SMBus Data	-0.5		+3.5	V	P5 Only

COMPATIBLE CABLES AND ADAPTERS

Part Number	Description	Part Number	Description
808-032	PRC-152A Radio Data Adapter	808-055	HH Radio Battery Shoe
808-039	PRC-148 JEM Radio Adapter	808-048	BA5590/BB2590 Battery Shoe
808-051	PRC-154 Rifleman Radio Adapter	808-047	STAR-PAN General-Purpose Extension Cable
808-035	PRC-117G Radio Adapter	808-092	Micro-B USB 2.0 Adapter
808-043	TacRover-e ISR Receiver Cable	808-080	Radio Adapter
808-045	TacROVER-p SIR 2.0 ISR Receiver Cable	808-053	USB-A Peripheral Cable
808-040	DAGR GPS/Navigation Cable	808-079	Type A USB Host Adapter
808-049	PLRF 15C/25C Laser Range Finder Cable	808-057-MP	MOLLE Pouch
808-117	Tactical Net Rover Cable	808-132	PNR-1000 Radio Cable
808-067	TacRover-p SIR 2.5 Cable	808-041	Vector-21 B LRF Cable

MATERIALS AND FINISHES

Hub body and interface connector shells: Aluminum alloy
Corrosion-resistant/conductive plating: Electroless nickel
Chemical agent resistant coating: Epoxy, desert tan
Fasteners: Stainless steel with desert tan CARC
Electrical contacts: Copper alloy, gold plated
Connector dielectric: Liquid crystal polymer
Mighty Mouse plug interfacial seals: Fluorosilicone elastomer
Environmental seals/O-rings: Fluorosilicone
EMI ground spring: Gold plated beryllium copper
Protective connector cover: Santoprene

Hub sealing gasket: Silver-filled fluorosilicone
Connector backpotting: Hysol 2%
Solder type: RoHS compliant Sn95/Sb5 (232°C melting temp) and RoHS compliant Sn96.5/Ag3.0/Cu0.5 (217°C Melting)
Cable overmold compound: Santoprene
Electrical wires: TPU insulated high flex wire
EMI/RFI braided shielding: Tin-plated copper
EMI/RFI shield termination band: Stainless steel
Abrasion-resistant overbraid: Tubular Nomex®

WARFIGHTER TOUGH

STAR-PAN™ II

808-057 2+ port smart power and data system
TURNKEY INTEGRATION



WARFIGHTER TOUGH

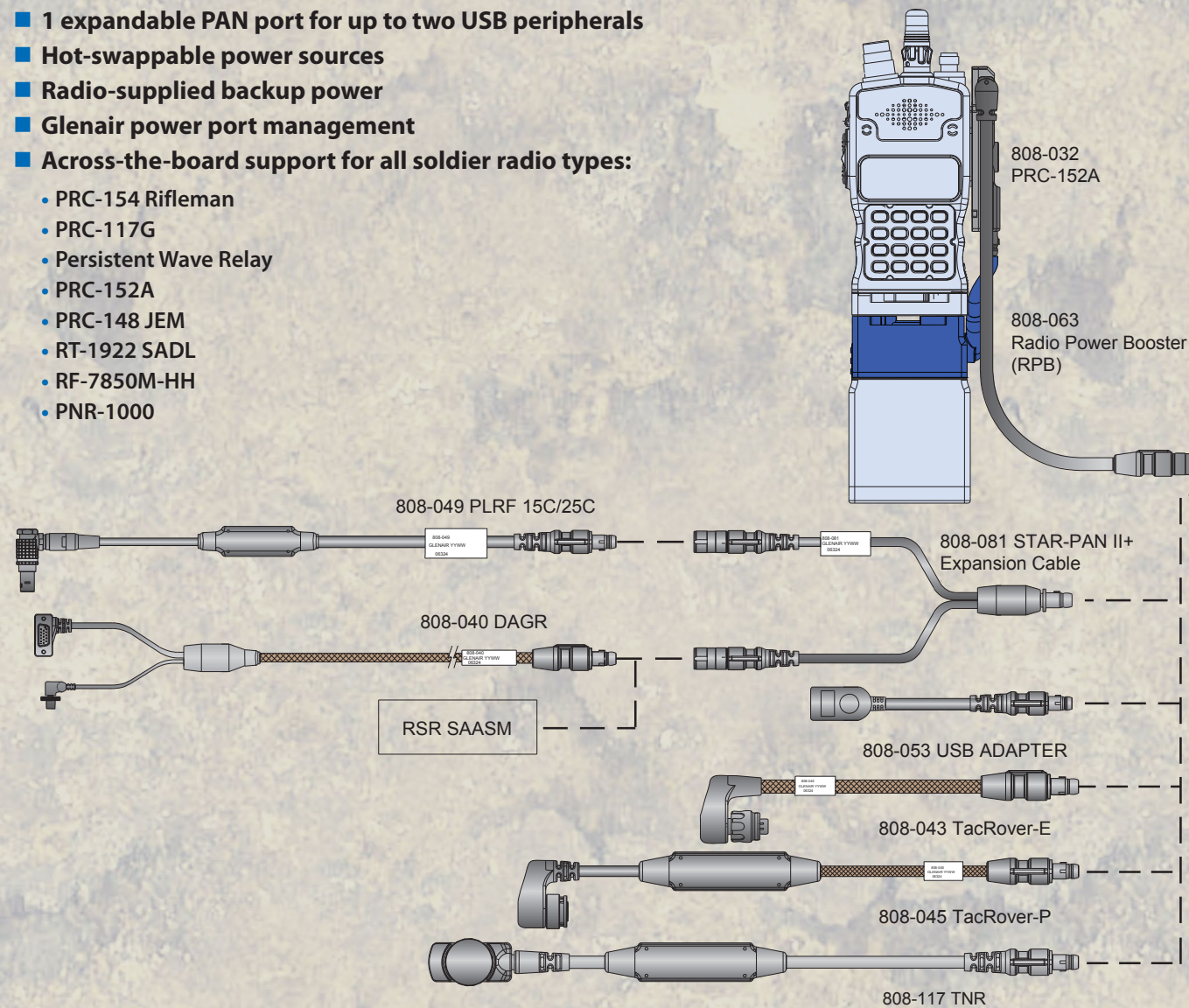
STAR-PAN™ II

808-057 2+ port smart power and data system
TURNKEY INTEGRATION



STAR-PAN II CAPABILITY DIAGRAM

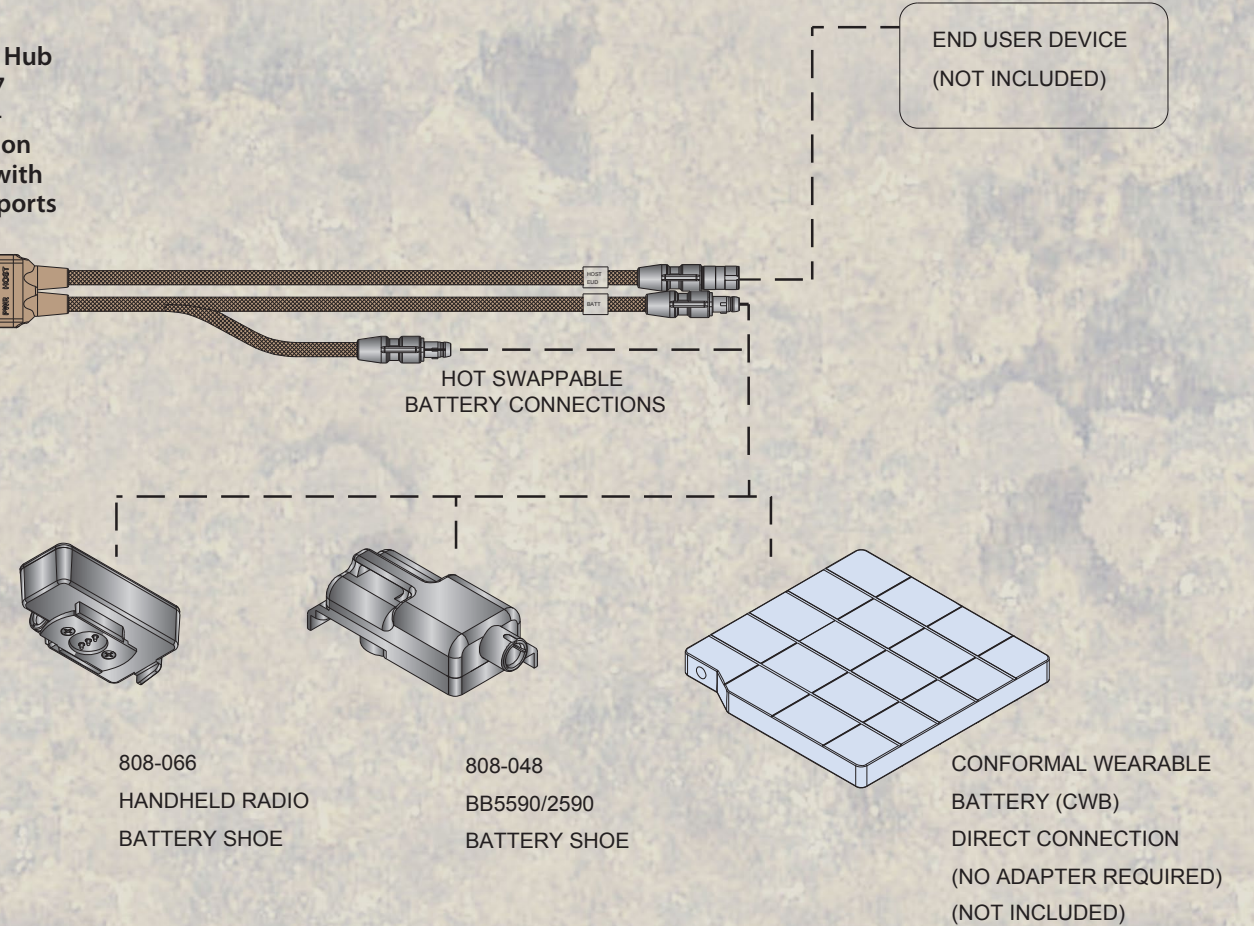
- Universal PAN compliant ports (up to two devices)
- 1 designated host/EUD port
- 1 designated radio peripheral port
- 1 expandable PAN port for up to two USB peripherals
- Hot-swappable power sources
- Radio-supplied backup power
- Glenair power port management
- Across-the-board support for all soldier radio types:
 - PRC-154 Rifleman
 - PRC-117G
 - Persistent Wave Relay
 - PRC-152A
 - PRC-148 JEM
 - RT-1922 SADL
 - RF-7850M-HH
 - PNR-1000



GLENAIR STAR-PAN TECHNOLOGY ILLUSTRATED IN THIS CAPABILITY DIAGRAM

STAR-PAN Component Description	Part Number
STAR-PAN II Multiport USB and Power Distribution Hub	808-057
STAR-PAN Expansion Cable	808-081
PRC 152A Radio Data Adapter	808-032
DAGR GPS/Navigation Cable	808-040
PLRF 15C/25C Laser Range Finder Cable	808-049
TacROVER-p SIR 2.0 ISR Receiver Cable	808-045
TacROVER-e ISR Receiver Cable	808-043
Tactical Net Rover ISR Receiver Cable	808-117
USB 2.0 Adapter Cable	808-053
Hand-Held Radio Battery Shoe	808-066
BA5590/BB2590 Battery Shoe	808-048
Radio Power Booster	808-063

STAR-PAN II Hub
808-057
brazed-
construction
enclosure with
IP67 sealed ports



STAR-PAN™ VI

Integrated USB data/power distribution hub for digitally aided close air support (DACAS) and other complex multimission dismounted soldier applications



STAR-PAN™ VI

- Universal PAN compliant ports (up to six devices)
- 1 designated host/EUD port
- 2 designated radio peripheral ports
- 4 PAN receptacles for up to four peripherals
- Battery and auxiliary power source input
- Glenair power port management
- Radio-supplied backup power
- Smart battery charging from auxiliary power
- Up to 5A battery power per port, 5A system total
- Up to 3A 5 Volt VBUS power per port, 5A system total
- Brazed construction, integrated connectors



The ultimate data backplane, power monitoring and distribution hub for tactical soldier systems

Export of STAR-PAN™ USB Hub/Power Distribution systems is restricted and/or controlled by U.S. Department of Commerce Export Administration Regulations

STAR-PAN™ HUB AND BOARD TECHNOLOGIES



Glenair multiport STAR-PAN™ USB hub and power distribution systems are engineered and manufactured under one ISO 9001:2008 and AS9100C certified quality system in our 1,000,000 sq. ft Southern California factory. All components, from the I/O interconnects to the precision-machined enclosures are produced in-house by Glenair. The STAR-PAN™ system is designed for maximum compatibility with non-proprietary Ethernet* and USB data interfaces, and is capable of smart charging and power distribution for the broad range of military batteries, as well as from Direct Current (DC) power sources including vehicle power, solar panels, kinetic energy devices and fuel cells.

* Requires STAR-PAN™ Ethernet Adapter

JTAC-TOUGH™

STAR-PAN™ VI

808-037

6 port smart power and data hub system



STAR-PAN™ VI

STAR-PAN™ VI



808-037 STAR-PAN VI hub with six PAN ports, two battery/auxiliary battery ports, and one universal host/EUD port

RECOMMENDED CORE CAPABILITIES KIT

Part No. SPK808-037-001 contains:

- 1x STAR-PAN Extension Cable (808-047)
- 1x Micro-B USB 2.0 Adapter (808-092)
- 1x Type A USB Host Adapter(808-079)
- 1x USB-A Accessory Cable (808-053)
- 1x AC/DC Power Adapter (808-064)
- 1x MOLLE Pouch (808-037-MP)



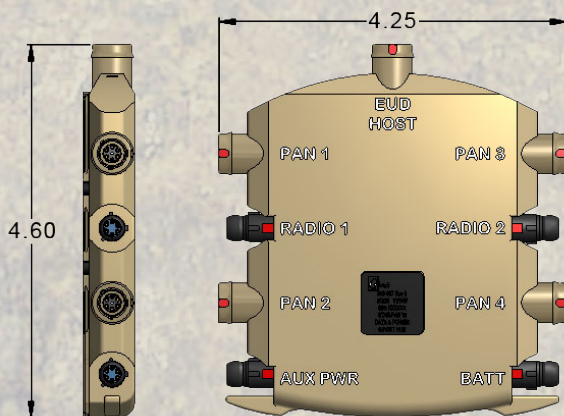
808-037-001 STAR-PAN VI core capabilities kit

The Glenair STAR-PAN™ VI Hub is a lightweight, durable, compact data and power distribution hub, ruggedized for harsh environment dismounted soldier applications. The hub provides a data backplane with power monitoring and management to connected external peripherals used in Digitally Aided Close Air Support (DACAS) and other mission applications. The hub is compatible with USB1.1, USB2.0 (full and high speed), and SMBus protocols. STAR-PAN™ VI contains two power inputs for extended missions. Two radio ports capable of powering up the USB Data backplane and host connection. A dedicated charge port for use with smart batteries and auxiliary power sources including multiple DC power sources such as vehicle power, solar panels, kinetic energy devices or fuel cells.

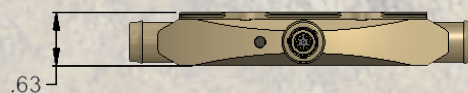
KEY FEATURES/BENEFITS

- Battery Power and +5VBus power to up to 4 USB devices, 2 dedicated Radio ports
- Power monitoring and management for each voltage rail and port
- Robust fault mode protection circuitry for surge, reverse voltage, and over current
- Embedded level 3 charge control circuitry for smart battery interface, within a wide charge voltage range
- Compatible with DC power sources
- APS port for system power and main system battery charging on extended missions
- Heat efficient electronics packaging optimizes efficiency and extends battery life
- Radio Port Vbus System Hold Up for extended mission time and weight reduction
- Compatible Personal Area Network (PAN) pin configuration and Smart battery interface
- Built-in SMBus to USB converter to USB host device
- Power-on Night Vision Goggle (NVG) compatible LED Signal
- IP67-rated dust and water resistant

ULTRA LOW-PROFILE DESIGN



Length ≤4.60" (116.9mm)	Width ≤4.25" (108.0mm)	Thickness ≤0.65" (16.5mm)	Weight 12.50 oz.* (354.4g)
----------------------------	---------------------------	------------------------------	-------------------------------



Tolerance: 0.xx ± 0.03 · 0.xxx ± 0.005. * Weight does not include MOLLE POUCH or dust caps. Dimensions are for reference only.

APPLICATIONS

- Digitally Aided Close Air Support (DACAS)
- Video data uplink
- SATCOM GPS
- Search and rescue
- Strategic UAV support

MISSION PROFILE STAR-PAN™ VI

Supported peripherals, radios, hosts, and power supplies

EXAMPLES OF STAR-PAN™ SUPPORTED PERIPHERALS / EUDs



Connectorized Juggernaut.Case™



Connectorized Kägwerks EUD case



Laser range finders and IR goggles



DAGR and other GPS / navigation systems

TacROVER ISR receiver



EXAMPLES OF STAR-PAN™ SUPPORTED RADIOS



PRC-117G manpack and vehicle-mounted radios

AN/PRC-154 Rifleman radios



MBITR PRC-148 radios



Hand-held tactical PRC-152A radios



STAR-PAN™ SUPPORTED PRIMARY BATTERIES AND DIRECT CURRENT AUXILIARIES

STAR-PAN™ incorporates embedded charge control circuitry for smart battery interface with a wide charge voltage range.



BB-2590 or BA-5590 battery



Conformal Wearable Battery (CWB)



Universal field charging station



Handheld radio battery

JTAC-TOUGH™

STAR-PAN™ VI

808-037 6 port smart power and data hub system
DATA DOWNLOAD



STAR-PAN™ VI

PERFORMANCE SPECIFICATIONS

Operating Conditions					
Parameter	Min	Typ	Max	Units	Notes
Storage Temperature	-40		+80	°C	
Operating Temperature	-32		+49	°C	
Operation Altitude			9754	m	
Storage Altitude			15240	m	
Water Immersion, Mated	MIL-STD-810, Method 512, 1 meter for 1 hour; IP67 rated dust and water resistant				
Host & Pan 1-4					
Battery Voltage	10.0	14.8	20.0	V	
Battery Supply Current			3.5	A	Maximum per individual port
Battery Total Supply Current			5	A	Total System
5VUSB Supply Voltage	4.75	4.90	5.1	V	
5VUSB Supply Current			3	A	Maximum per individual port
USB +/USB -	-0.5		+3.5	V	
Radio 1 and 2 Ports					
Battery Voltage	10.0	14.8	20.0	V	Highest Priority for Power Management
Battery Supply Current			5	A	Maximum per individual port
+5V Back Up Total Supply Current			.5	A	Based on Radio Supply, Radio 1 Primary
USB +/USB -	-0.5		+3.5	V	
Auxiliary Power Supply Port					
Auxiliary Voltage Source	10		36	V	
Auxiliary Supply Current			5	A	Max system supply current
Battery Port					
Battery Input Voltage	10		20	V	
Battery Supply Current			5	A	Max system supply current
Battery Charge Current			3	A	

COMPATIBLE CABLES AND ADAPTERS

Part Number	Description	Part Number	Description
808-032	PRC-152A Radio Data Adapter	808-055	HH Radio Battery Shoe
808-039	PRC-148 JEM Radio Adapter	808-048	BA5590/BB2590 Battery Shoe
808-051	PRC-154 Rifleman Radio Adapter	808-047	STAR-PAN General-Purpose Extension Cable
808-035	PRC-117G Radio Adapter	808-092	Micro-B USB 2.0 Adapter
808-043	TacRover-e ISR Receiver Cable	808-080	Radio Adapter
808-045	TacROVER-p SIR 2.0 ISR Receiver Cable	808-053	USB-A Peripheral Cable
808-040	DAGR GPS/Navigation Cable	808-079	Type A USB Host Adapter
808-049	PLRF 15C/25C Laser Range Finder Cable	808-037-MP	MOLLE Pouch
808-117	Tactical Net Rover Cable	808-132	PNR-1000 Radio Cable
808-067	TacRover-P SIR 2.5 Cable	808-041	Vector-21 B LRF Cable

MATERIALS AND FINISHES

Hub body and interface connector shells: Aluminum alloy
Corrosion-resistant plating: Black chromate over zinc nickel
Chemical agent resistant coating: Epoxy, desert tan
Fasteners: Stainless steel with desert tan CARC
Electrical contacts: Copper alloy, gold plated
Connector dielectric: Liquid crystal polymer
Mighty Mouse plug interfacial seals: Fluorosilicone elastomer
LED: Green/NVG compatible per MIL-L-85762A and MIL-STD-3009

Environmental seals/O-rings: Fluorosilicone
EMI ground spring: Gold plated beryllium copper
Protective connector cover: Santoprene
Hub sealing gasket: Silver-filled fluorosilicone
Connector backpotting: Hysol 2%
Solder type: RoHS compliant Sn95/Sb5 (232°C melting temp) and RoHS compliant Sn96.5/Ag3.0/Cu0.5 (217°C Melting)

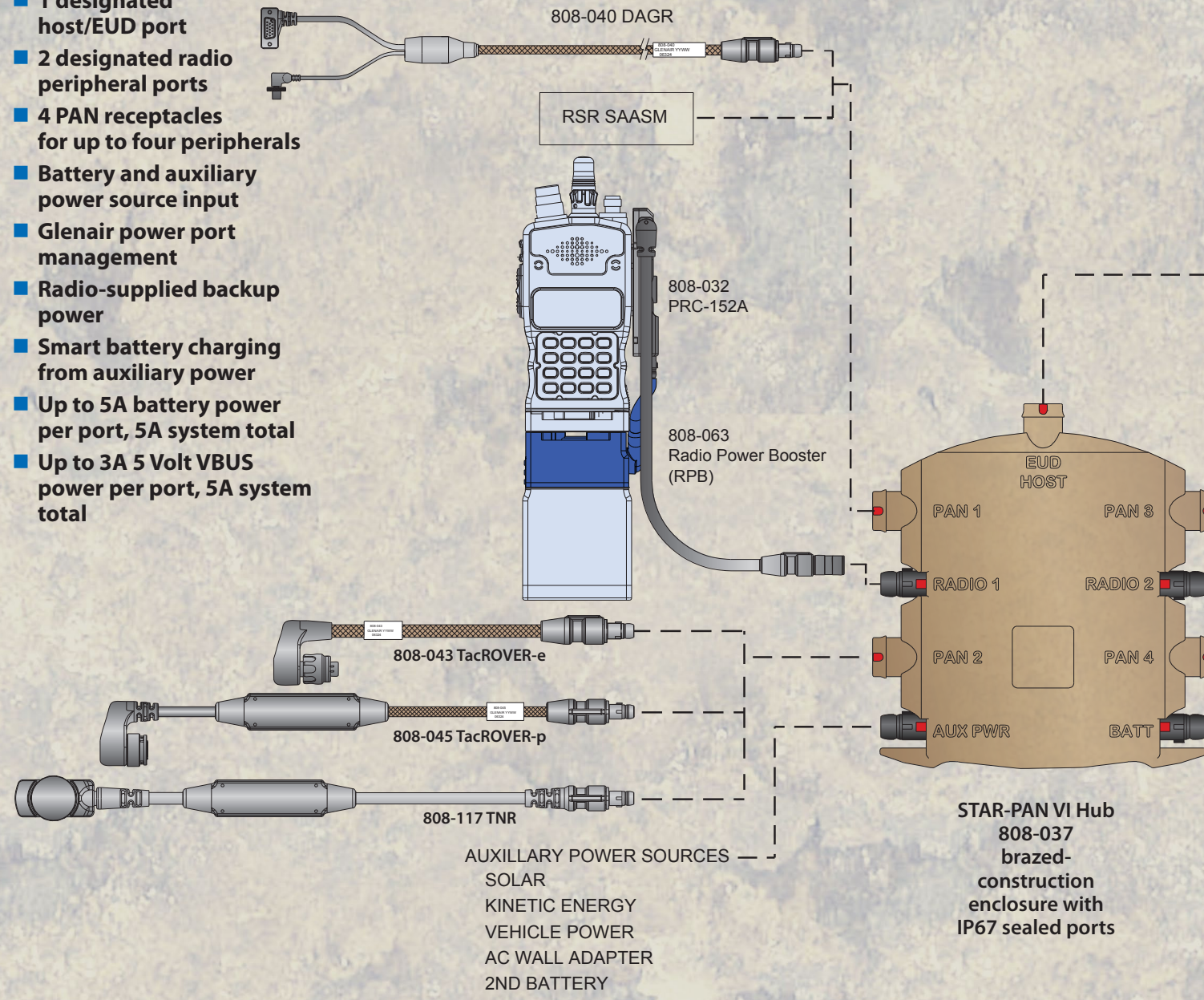


STAR-PAN™ VI

STAR-PAN™ VI

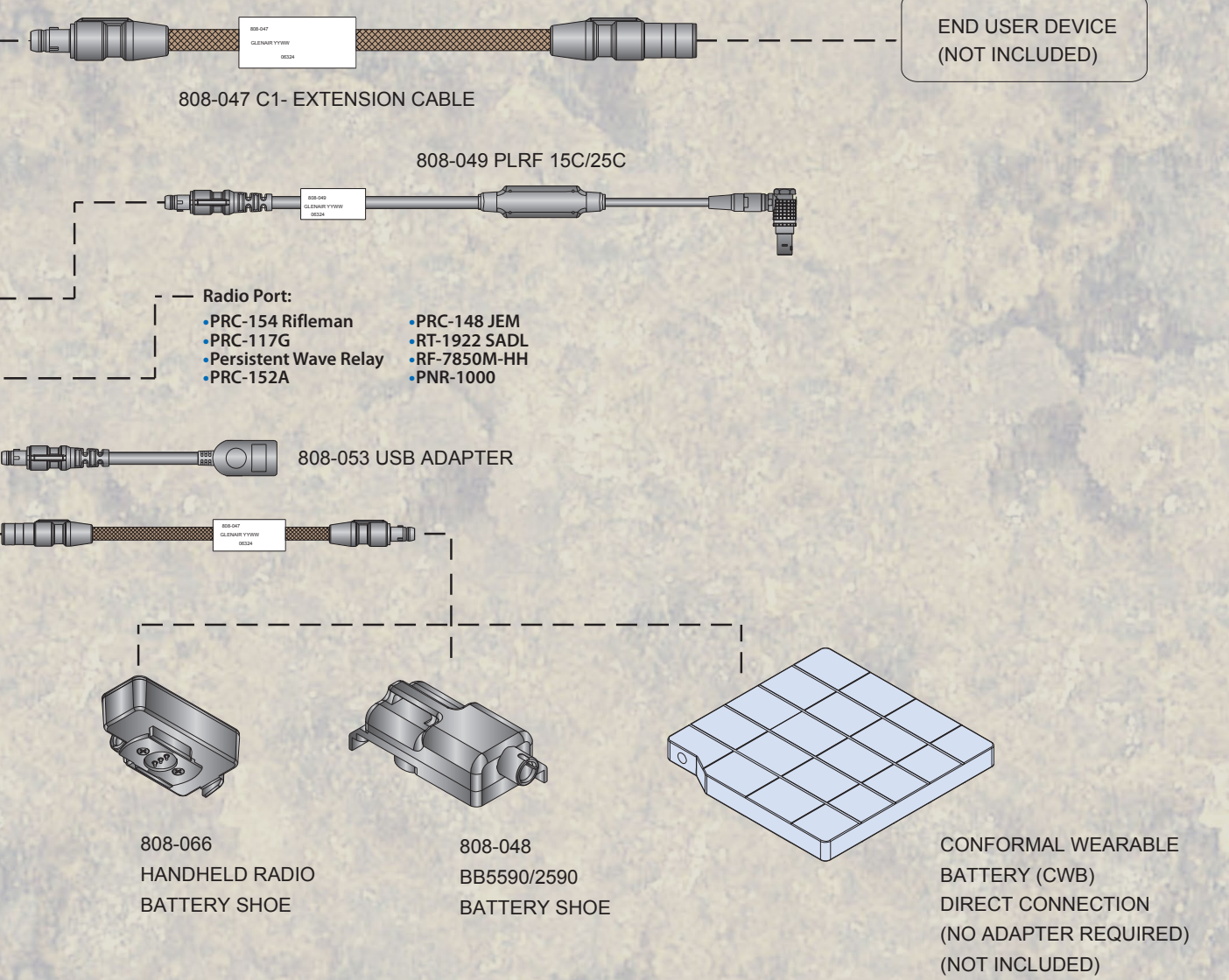
STAR-PAN VI CAPABILITY DIAGRAM

- Universal PAN compliant ports (up to six devices)
- 1 designated host/EUD port
- 2 designated radio peripheral ports
- 4 PAN receptacles for up to four peripherals
- Battery and auxiliary power source input
- Glenair power port management
- Radio-supplied backup power
- Smart battery charging from auxiliary power
- Up to 5A battery power per port, 5A system total
- Up to 3A 5 Volt VBUS power per port, 5A system total



GLENAIR STAR-PAN TECHNOLOGY ILLUSTRATED IN THIS CAPABILITY DIAGRAM: BILL OF MATERIALS

STAR-PAN Component Description	Part Number
STAR-PAN VI Multiport USB and Power Distribution Hub	808-037
STAR-PAN General-Purpose Extension Cable	808-047
DAGR GPS/Navigation Cable	808-040
RT-1922 MicroLight SADL Radio Cable	808-044
PRC 152A Radio Data Adapter	808-032
TacROVER-e ISR Receiver Cable	808-043
TacROVER-p SIR 2.0 ISR Receiver Cable	808-045
Tactical Net Rover ISR Receiver Cable	808-117
PLRF 15C/25C Laser Range Finder Cable	808-049
USB 2.0 Adapter Cable	808-053
Hand-Held Radio Battery Shoe	808-066
BA5590/BB2590 Battery Shoe	808-048
Radio Power Booster	808-063



JTAC-TOUGH™ STAR-PAN™

Host/EUD cables



STAR-PAN-TO-HOST/EUD CABLES, ADAPTERS, AND ACCESSORIES

Part No. / Description	Used For	Page No.
808-047 STAR-PAN Extension Cable	General-purpose STAR-PAN extension	19
808-091 STAR-PAN EMI/RFI Filtered Extension Cable	General-purpose STAR-PAN extension with EMI/RFI noise reduction	19
808-081 STAR-PAN II Expansion Cable	Turn your 2-port hub into a 3-port hub	19
808-079 Type A USB Host Adapter	STAR-PAN to USB host device	20
808-092 STAR-PAN to Micro-B USB 2.0 Adapter	For Micro-B USB-equipped End User Devices	20
808-093 STAR-PAN to Micro-B USB 3.0 Adapter	For use with Samsung Galaxy S5	20
808-135 STAR-PAN to USB Type C cable	For USB-C equipped End User Devices	21
808-111 On-The-Go STAR-PAN USB A Receptacle Adapter Cable	Plug-and-play USB 2.0 to EUD adapter	21
808-139 On-The-Go Micro-B USB Adapter Cable	Plug-and-play USB 2.0 to EUD adapter	21
808-140 USB C STAR-PAN Host Adapter	For host and charging USB-C equipped End User Devices	22
808-053 USB 2.0 Adapter Cable	STAR-PAN interconnection to COTS USB 2.0-compatible devices	22
808-074 EUD Host Charging Cable	Power EUD or host devices directly from battery sources	23
808-145 Type A USB Charge Sync Cable	EUD charging or PC synchronization	23
808-096 Series 804 Mighty Mouse Host Mode Adapter	On-The-Go host mode adapter	23
808-101 STAR-PAN to FZ-M1/FZ-B2 Tablet Adapter	STAR-PAN interconnection to Panasonic Toughpad FZ-M1/FZ-B2	24
808-123 X-Frame with Integrated Cable Assembly	For use with Samsung Galaxy S7 with Otterbox	24
808-129 STAR-PAN Plug Flying Lead Assembly	User-terminateable for fast prototyping and non-standard support	25
808-130 STAR-PAN Receptacle Flying Lead Assembly	User-terminateable for fast prototyping and non-standard support	25

Glenair STAR-PAN host/EUD cables are fabricated using high-density, small form-factor Mighty Mouse series 804 connectors, abrasion-resistant jacketing and overbraiding materials, durable ergonomically-designed strain reliefs and junctions

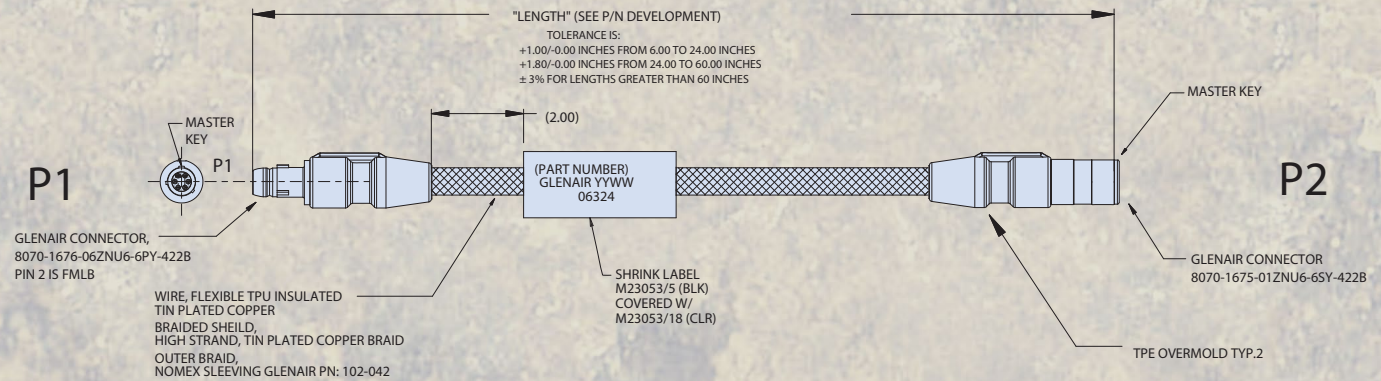


When commercial interconnects are required, such as the USB 2.0 shown at left, Glenair selects ruggedized, shielded/grounded technologies for optimal field performance

808-047 STAR-PAN EXTENSION CABLE

100% electrical tested for shorts, continuity, and dielectric withstanding voltage at 100V

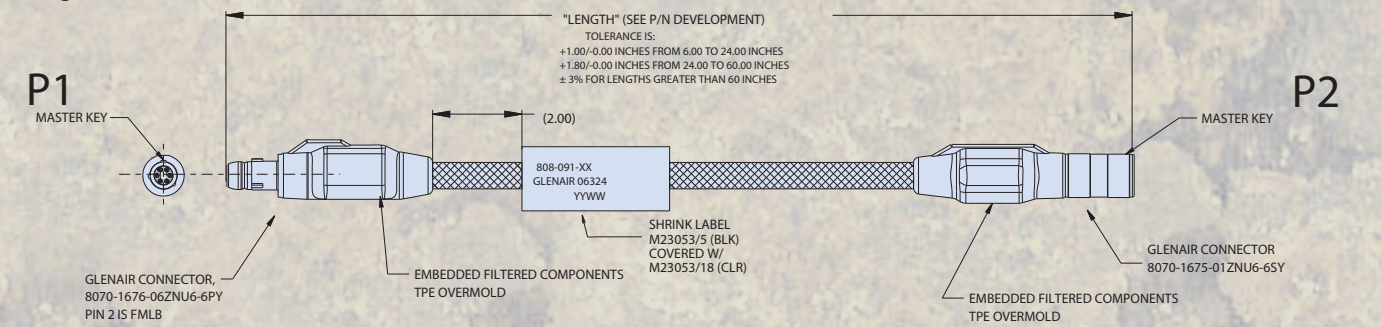
HOW TO ORDER		
Sample Part Number	808-047	-XX
Overall Length	In inches. Omit for default length of 24.00"	



808-091 C6 STAR-PAN EMI/RFI FILTERED EXTENSION CABLE

100% electrical tested for shorts, continuity, and dielectric withstanding voltage at 100V

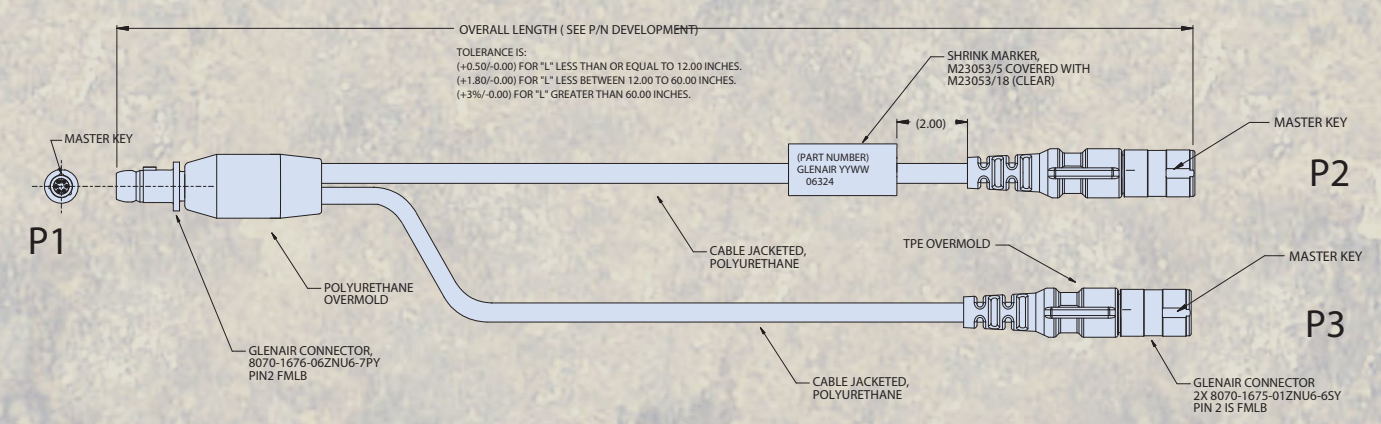
HOW TO ORDER		
Sample Part Number	808-091	-XX
Overall Length	In inches. Omit for default length of 20.00"	



808-081 STAR-PAN II EXPANSION CABLE

100% electrical tested for shorts, continuity, and dielectric withstanding voltage at 500VAC and insulation resistance at 500VDC/200 megohms

HOW TO ORDER		
Sample Part Number	808-081	-XX
Overall Length	In inches. Omit for default length of 12.00"	

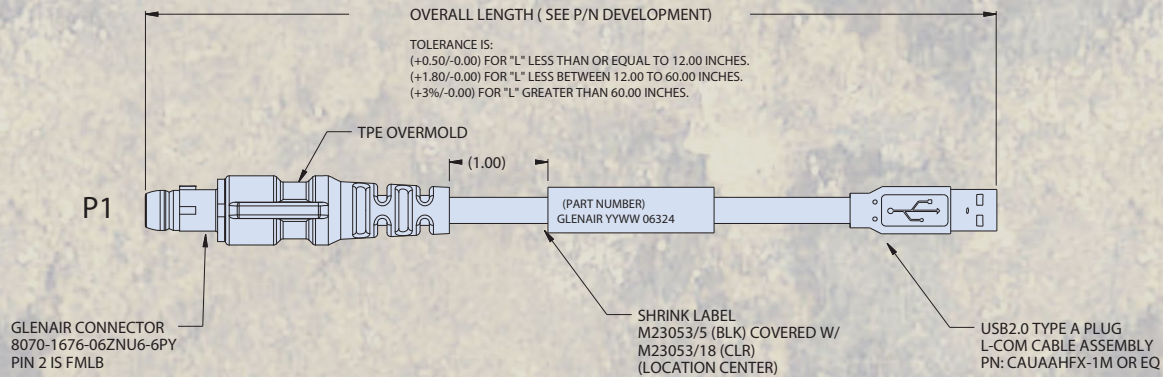


808-079 TYPE A USB HOST ADAPTER CABLE

100% electrical tested for shorts, continuity, and DWV at 60VDC and insulation resistance at 10 megohms min.

HOW TO ORDER

Sample Part Number	808-079	-XX
Overall Length	In inches. Omit for default length of 18.00"	

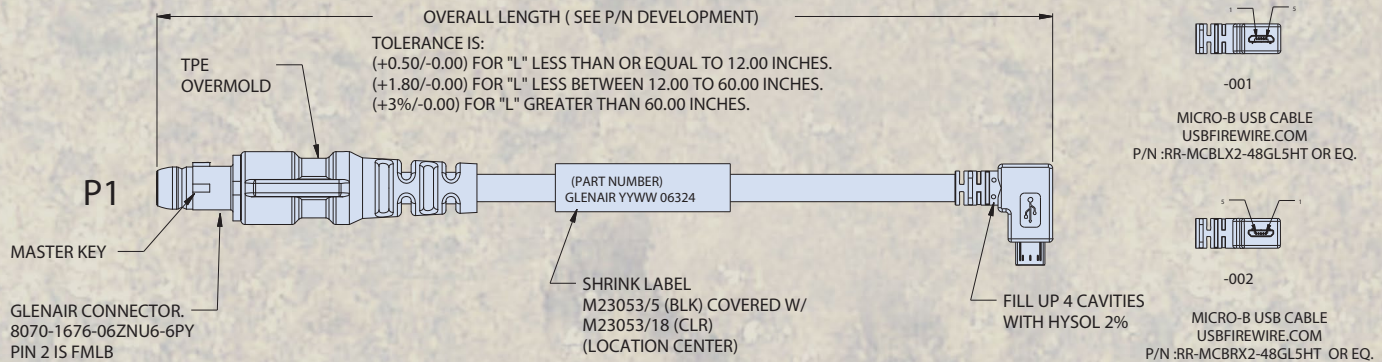


808-092 STAR-PAN TO MICRO-B USB 2.0 ADAPTER CABLE

100% electrical tested for shorts, continuity, and DWV at 60VDC and insulation resistance at 10 megohms min.

HOW TO ORDER

Sample Part Number	808-092	-001	-XX
Interface Orientation	-001 = left -002 = right		
Overall Length	In inches. Omit for default length of 18.00"		

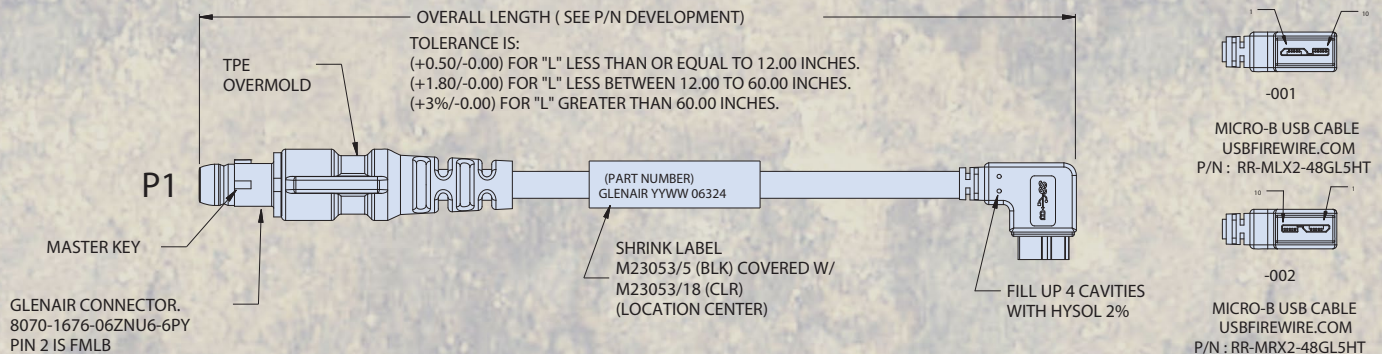


808-093 STAR-PAN TO MICRO-B USB 3.0 ADAPTER CABLE

100% electrical tested for shorts, continuity, and DWV at 60VDC and insulation resistance at 10 megohms min.

HOW TO ORDER

Sample Part Number	808-093	-001	-XX
Interface Orientation	-001 = left -002 = right		
Overall Length	In inches. Omit for default length of 18.00"		



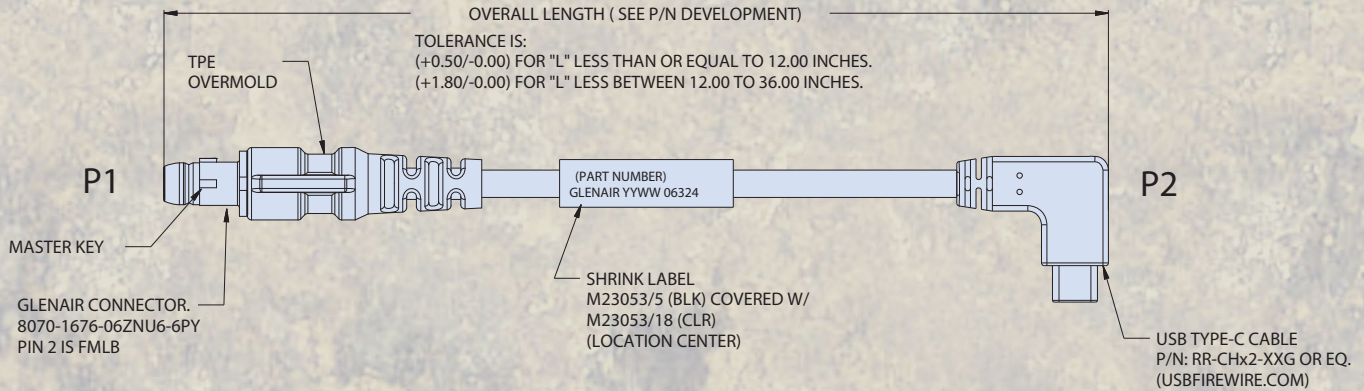


808-135 STAR-PAN TO USB TYPE C CABLE

100% electrical tested for shorts, continuity, and DWV at 60V and insulation resistance at 10 megohms min.

HOW TO ORDER

Sample Part Number	808-135	-XX
Overall Length	In inches. Omit for default length of 19.00"	

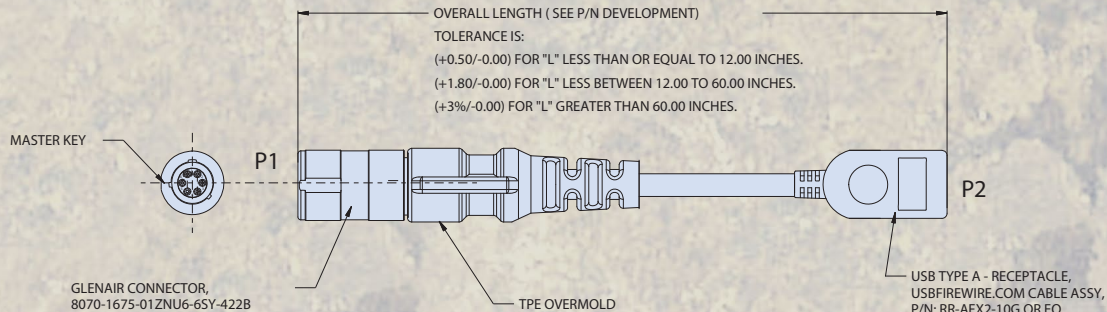


808-111 OTG STAR-PAN USB A RECEPTACLE ADAPTER CABLE

100% electrical tested for shorts, continuity, and DWV at 60VDC and insulation resistance at 10 megohms min.

HOW TO ORDER

Sample Part Number	808-111	-XX
Overall Length	In inches. Omit for default length of 5.00"	

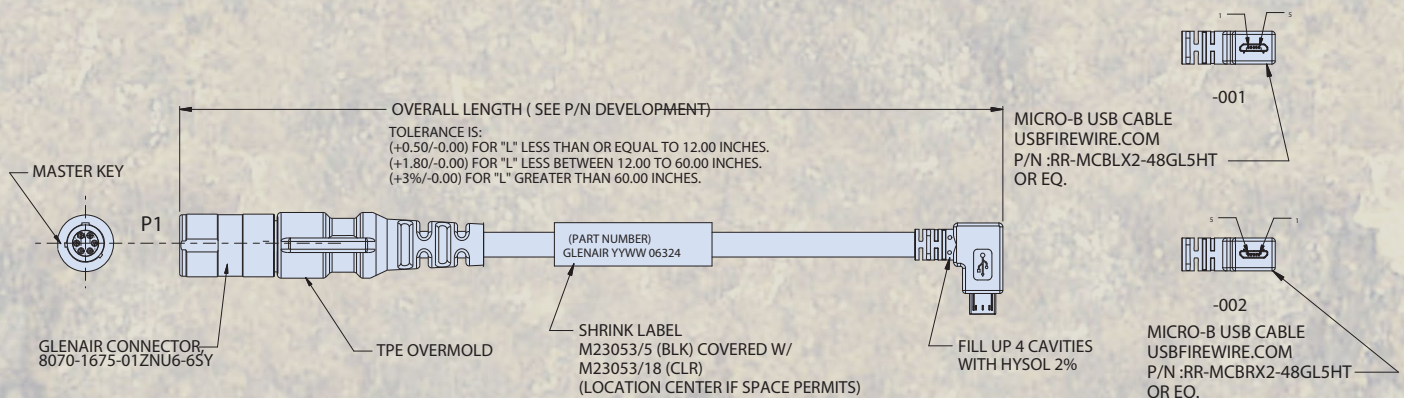


808-139 OTG STAR-PAN MICRO-B USB ADAPTER CABLE

100% electrical tested for shorts, continuity, and dielectric withstanding voltage at 500V and insulation resistance at 500VDC/200 megohms min.

HOW TO ORDER

Sample Part Number	808-139	-001	-XX
Interface Orientation	-001 = left -002 = right		
Overall Length	In inches. Omit for default length of 24.00"		

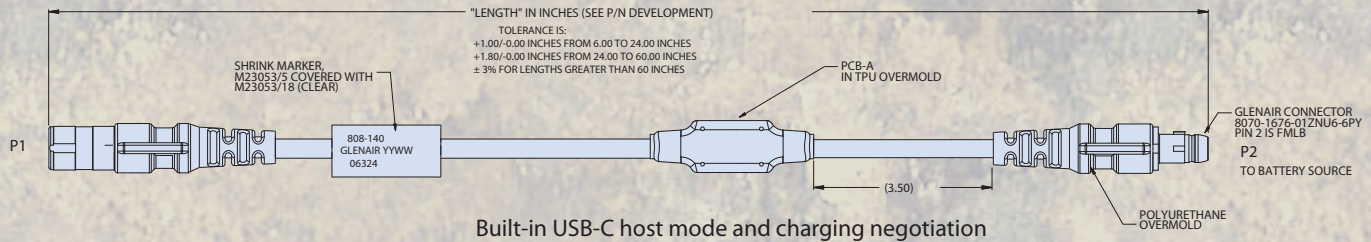


808-140 USB C STAR-PAN HOST ADAPTER

100% electrical tested for basic circuit functionality and continuity

HOW TO ORDER

Sample Part Number	808-140	-XX
Overall Length	In inches. Omit for default length of 18.00"	

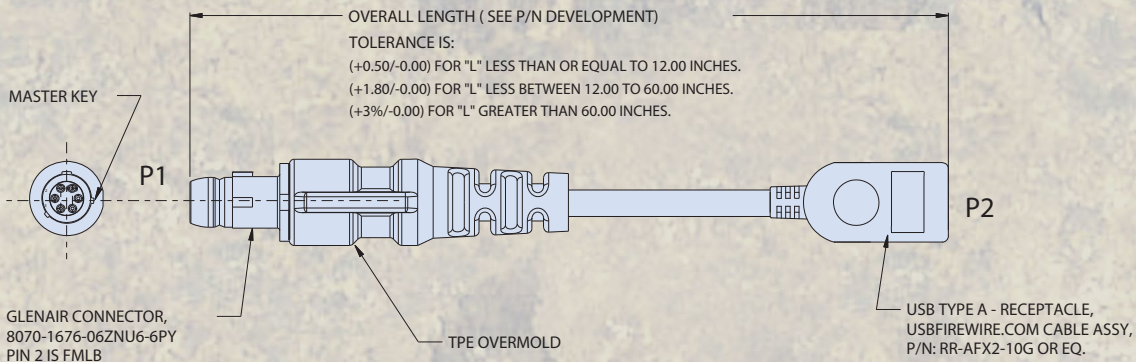


808-053 USB 2.0 ADAPTER CABLE

100% electrical tested for shorts, continuity, DWV at 60VDC, and insulation resistance at 10 Meghoms minimum

HOW TO ORDER

Sample Part Number	808-053	-XX
Overall Length	In inches. Omit for default length of 5.00"	

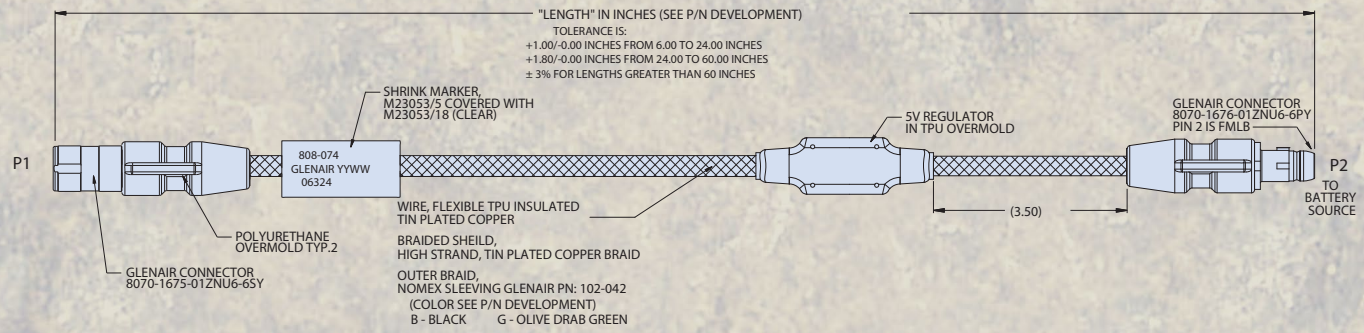


808-074 EUD HOST CHARGING CABLE

100% electrical tested for basic circuit functionality and continuity

HOW TO ORDER

Sample Part Number	808-074	-XX
Overall Length	In inches. Omit for default length of 24.00"	

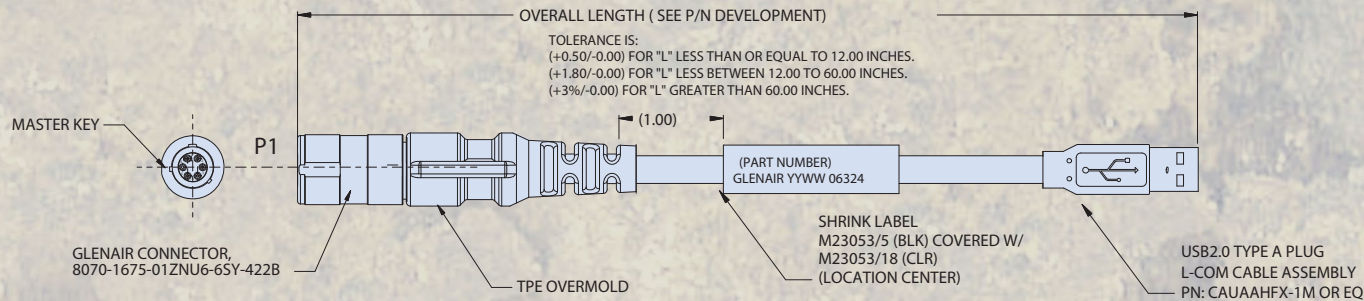


808-145 TYPE A USB CHARGE SYNC CABLE

100% electrical tested for shorts, continuity, and DWV at 60VDC and insulation resistance at 10 megohms min.

HOW TO ORDER

Sample Part Number	808-145	-XX
Overall Length	In inches. Omit for default length of 18.00"	

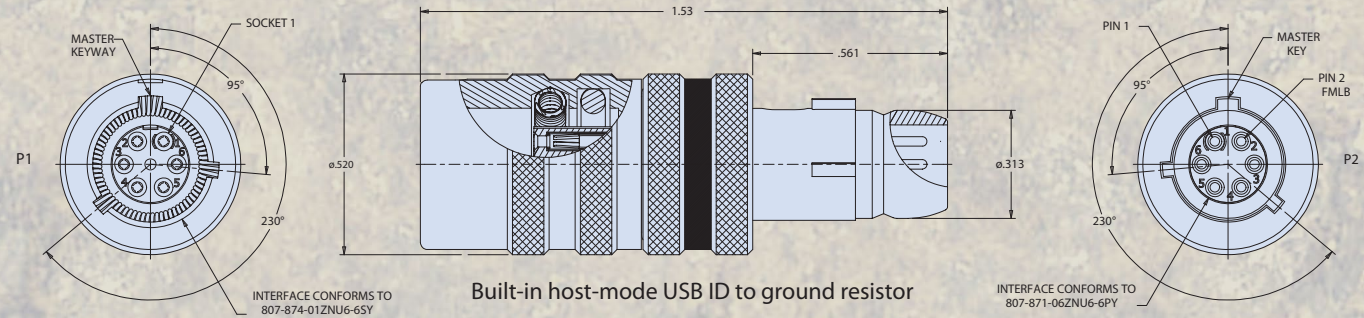


808-096 SERIES 804 MIGHTY MOUSE HOST MODE ADAPTER

Aluminum alloy, black zinc nickel finish, fluorosilicone O-ring seal.

HOW TO ORDER

Part Number	808-096
--------------------	----------------



JTAC-TOUGH™ STAR-PAN™

Host/EUD cables, adapters, and accessories



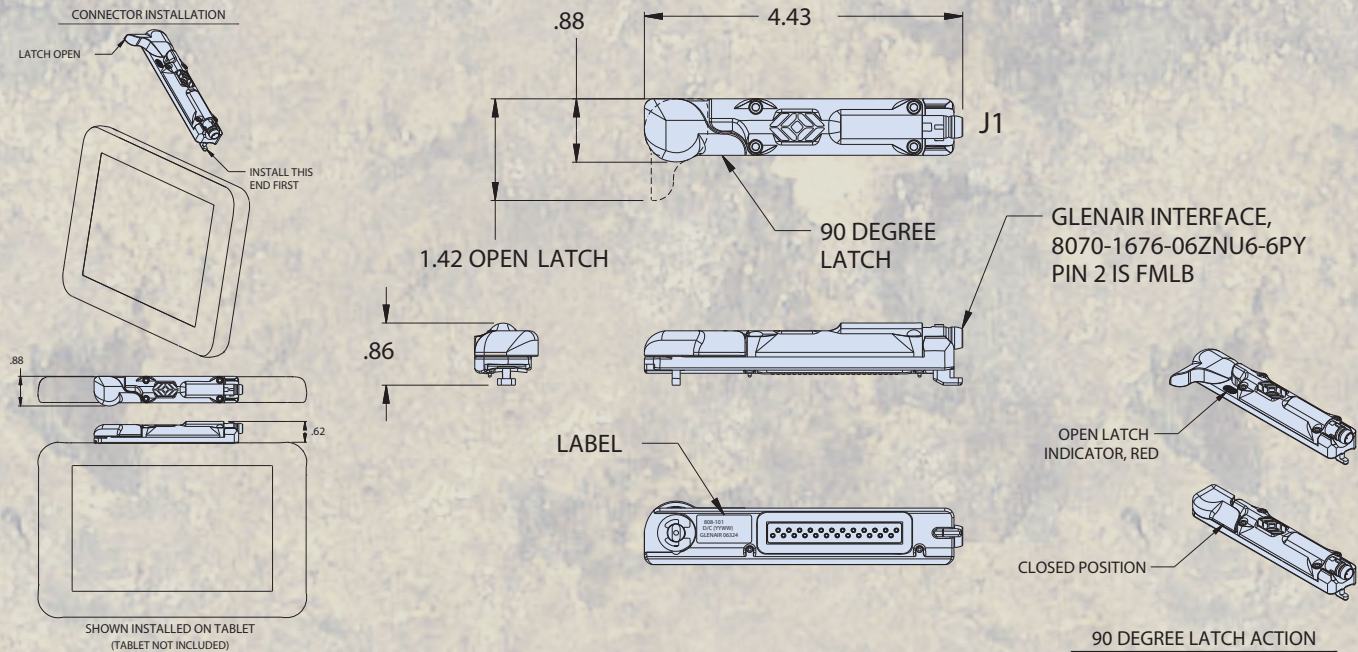
HOST/EUD CABLES, ADAPTERS, AND ACCESSORIES

808-101 STAR-PAN TO FZ-M1/FZ-B2 TABLET ADAPTER

100% electrical tested for shorts, continuity, and DWV at 60V and insulation resistance at 10 megohms min. Al alloy with black zinc-nickel finish.

HOW TO ORDER

Part Number	808-101
--------------------	----------------

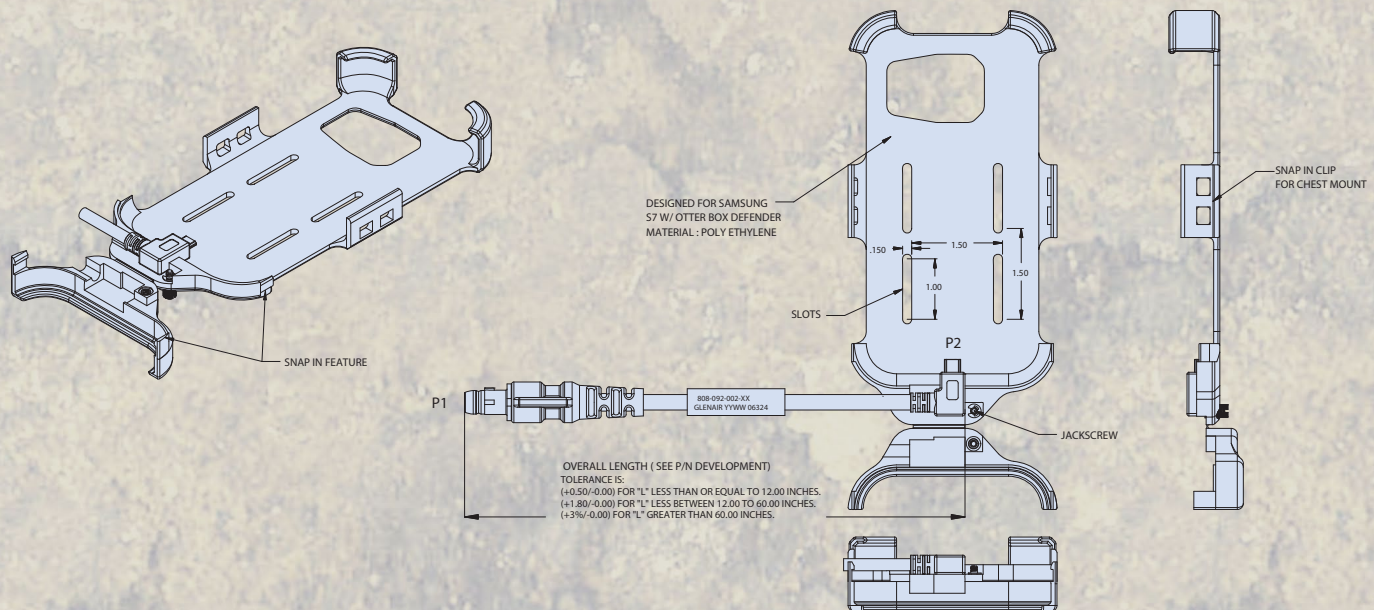


808-123 X-FRAME WITH INTEGRATED CABLE ASSEMBLY

100% electrical tested for shorts, continuity, and DWV at 60V and insulation resistance at 10 megohms min. Polyethylene case with 808-092-002 cable assembly.

HOW TO ORDER

Sample Part Number	808-123	-XX
Overall Length	In inches. Omit for default length of 18.00"	

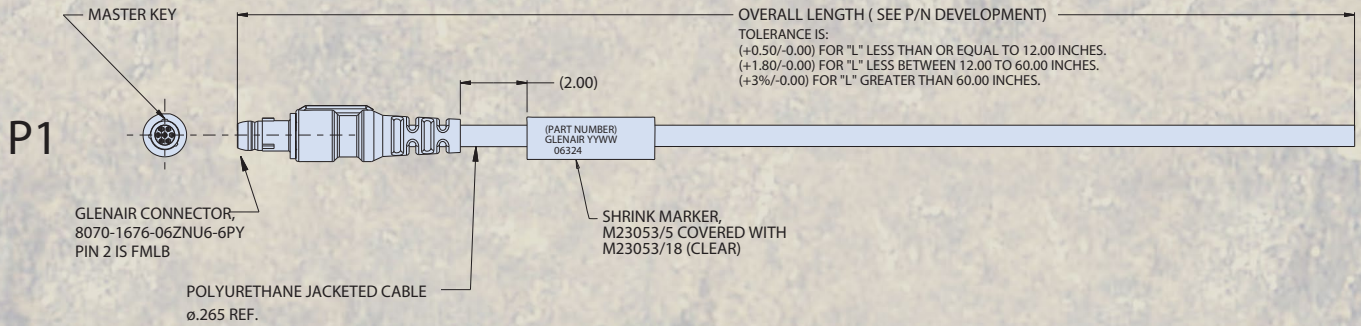


808-129 STAR-PAN PLUG FLYING LEAD ASSEMBLY

100% electrical tested for shorts, continuity, and dielectric withstanding voltage at 500V and insulation resistance at 500VDC/200 megohms min.

HOW TO ORDER

Sample Part Number	808-129	-XX
Overall Length	In inches. Omit for default length of 24.00"	

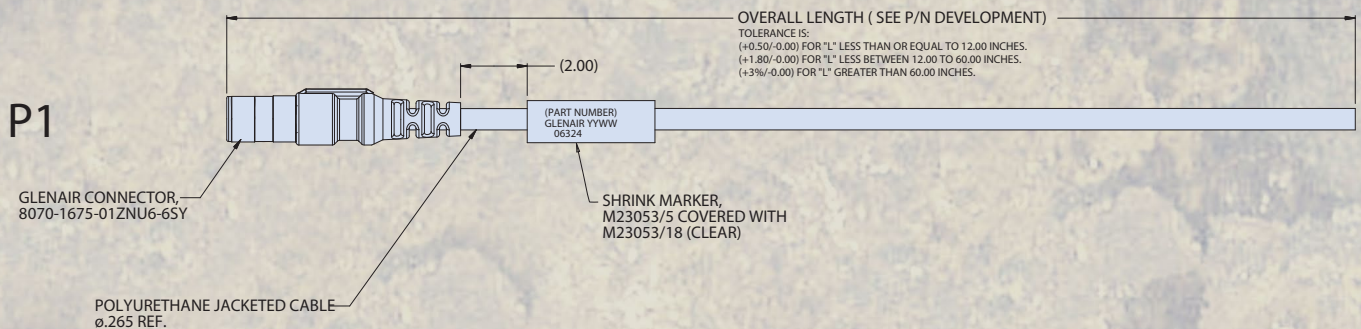


808-130 STAR-PAN RECEPTACLE FLYING LEAD ASSEMBLY

100% electrical tested for shorts, continuity, and dielectric withstanding voltage at 500V and insulation resistance at 500VDC/200 megohms min.

HOW TO ORDER

Sample Part Number	808-130	-XX
Overall Length	In inches. Omit for default length of 24.00"	





JTAC-TOUGH™

STAR-PAN™

Peripheral/data conversion cables



C4ISR PERIPHERAL AND DATA CONVERSION CABLES

Part No. / Description	Used For	Page No.
808-040 STAR-PAN DAGR GPS/Navigation Cable	For DAGR external power and data	27
808-041 STAR-PAN Vector 21/23 B Adapter	Used for Vector 21/23 data and trigger	27
808-049 STAR-PAN PLRF 15C/25C Laser Range Finder Cable	For data with Portable Laser Range Finder	27
808-116 STAR-PAN Moskito Adapter	For data transmission from Moskito Laser Range Finder	28
808-045 STAR-PAN TacROVER-p SIR 2.0 ISR Receiver Cable	For SIR 2.0 USB-to-Ethernet video downlink	28
808-067 STAR-PAN TacRover-p SIR 2.5 adapter	For SIR 2.5 USB-to-Ethernet video downlink and external power	28
808-082 STAR-PAN TacRover-p SIR 2.5 adapter	For SIR 2.5 USB-to-Ethernet video downlink	29
808-043 STAR-PAN TacRover-e ISR Receiver Cable (U option)	For TacRover-e USB video downlink	29
808-068 STAR-PAN TacRover-e ISR Receiver Cable	For TacRover-e USB video downlink	29
808-117 STAR-PAN TNR Adapter	For Tactical Net Rover USB-to-Ethernet video downlink	30
808-078 STAR-PAN to RJ45 Plug	For USB-to-Ethernet RJ45 plug applications	31
808-084 STAR-PAN to RJ45 Receptacle	For USB-to-Ethernet RJ45 receptacle applications	31
808-110 STAR-PAN to DB-9 RS232 Ports	For RS232-to-USB standard applications	30
808-114 STAR-PAN to Safran Vectronix STERNA Cable	For connection to Safran Vectronix targeting systems	30
808-115 STAR-PAN to Safran Vectronix JIM LR Cable	For connection to Safran Vectronix targeting systems	31



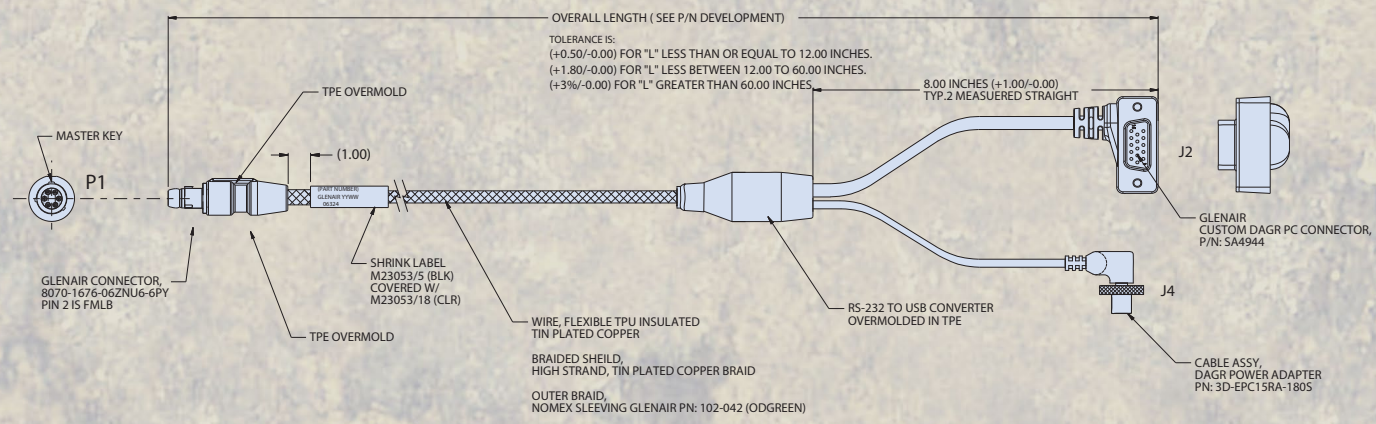
Glenair STAR-PAN peripheral/data conversion cables are fabricated using high-density, small form-factor Mighty Mouse series 804 connectors, abrasion-resistant jacketing and overbraiding materials, durable ergonomically-designed strain reliefs and junctions. Special-purpose and customer-specified connectors may be incorporated according to application requirements.

Proven ruggedized package for data conversion, RS232, Ethernet, and/or voltage regulation for universal device compatibility with STAR-PAN.

808-040 STAR-PAN DAGR GPS/NAVIGATION CABLE

100% electrical tested for shorts, continuity, and insulation resistance at 100 megohms min.

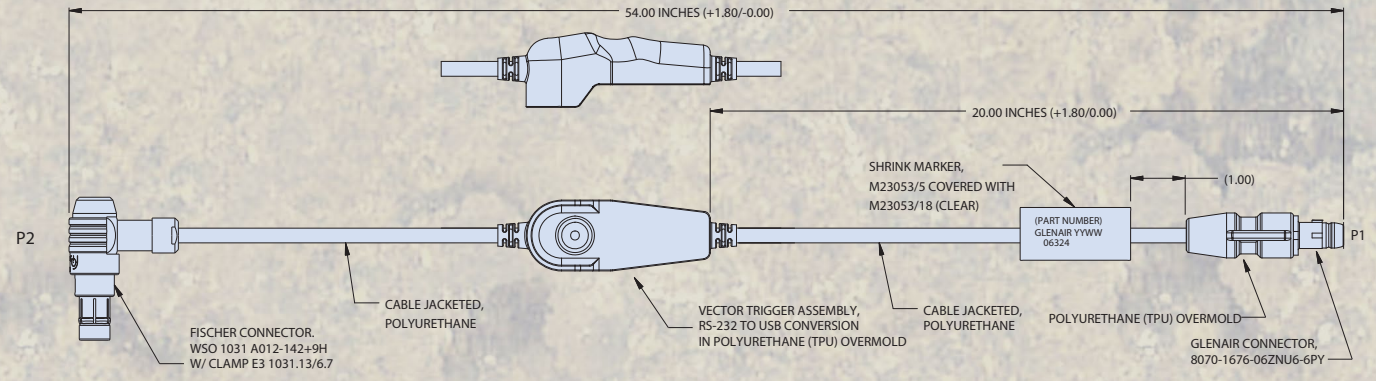
HOW TO ORDER		
Sample Part Number	808-040	-XX
Overall Length	In inches. Omit for default length of 32.00"	



808-041 STAR-PAN VECTOR 21/23 B ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 100 megohms min.

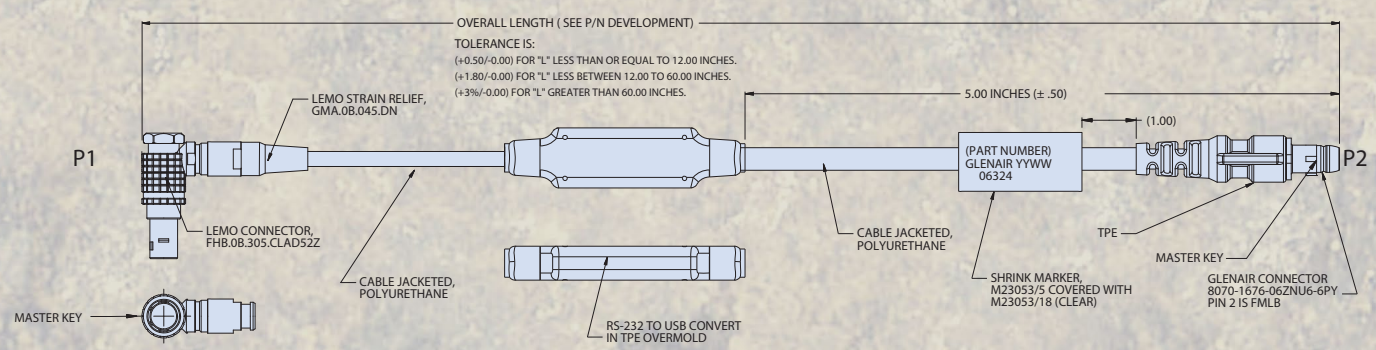
HOW TO ORDER	
Part Number	808-041



808-049 STAR-PAN PLRF 15C/25C LASER RANGE FINDER CABLE

100% electrical tested for shorts, continuity, and insulation resistance at 100 megohms min.

HOW TO ORDER		
Sample Part Number	808-049	-XX
Overall Length	In inches. Omit for default length of 45.00"	

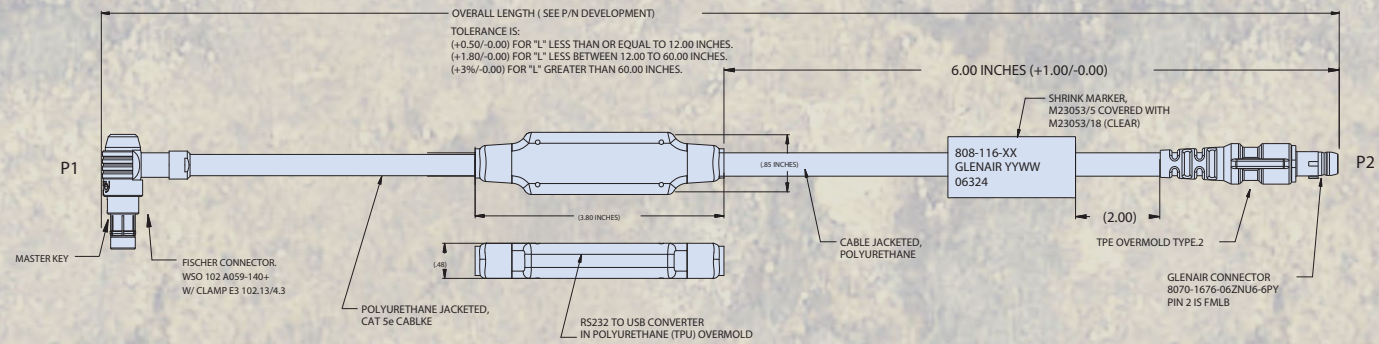


808-116 STAR-PAN MOSKITO ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-116	-XX
Overall Length	In inches. Omit for default length of 24.00"	

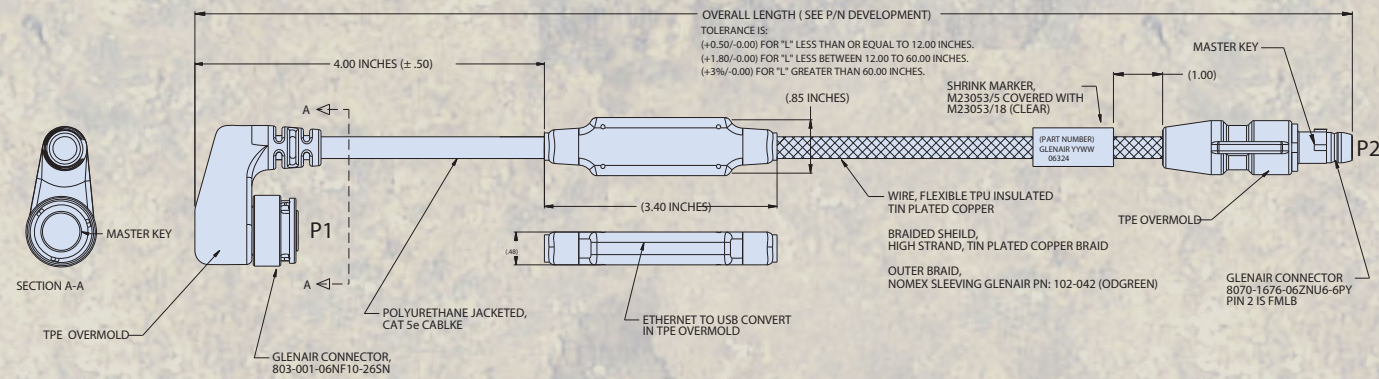


808-045 STAR-PAN TACROVER-P SIR 2.0 ISR RECEIVER CABLE

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-045	-XX
Overall Length	In inches. Omit for default length of 32.00"	

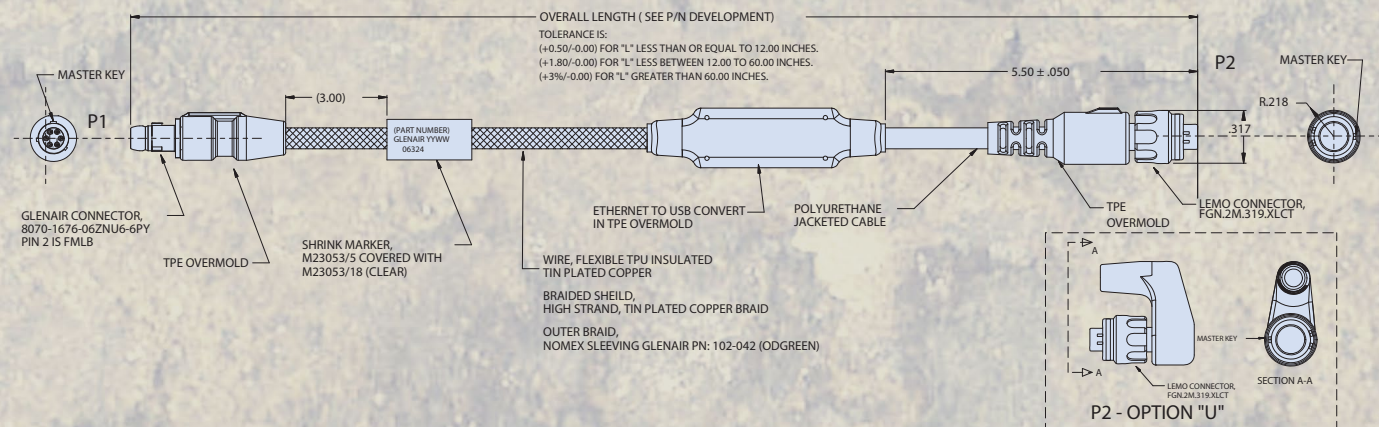


808-067 TACROVER-P SIR 2.5 ADAPTER (W/ EXTERNAL POWER)

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-067	-XX
Overall Length	In inches. Omit for default length of 33.00"	

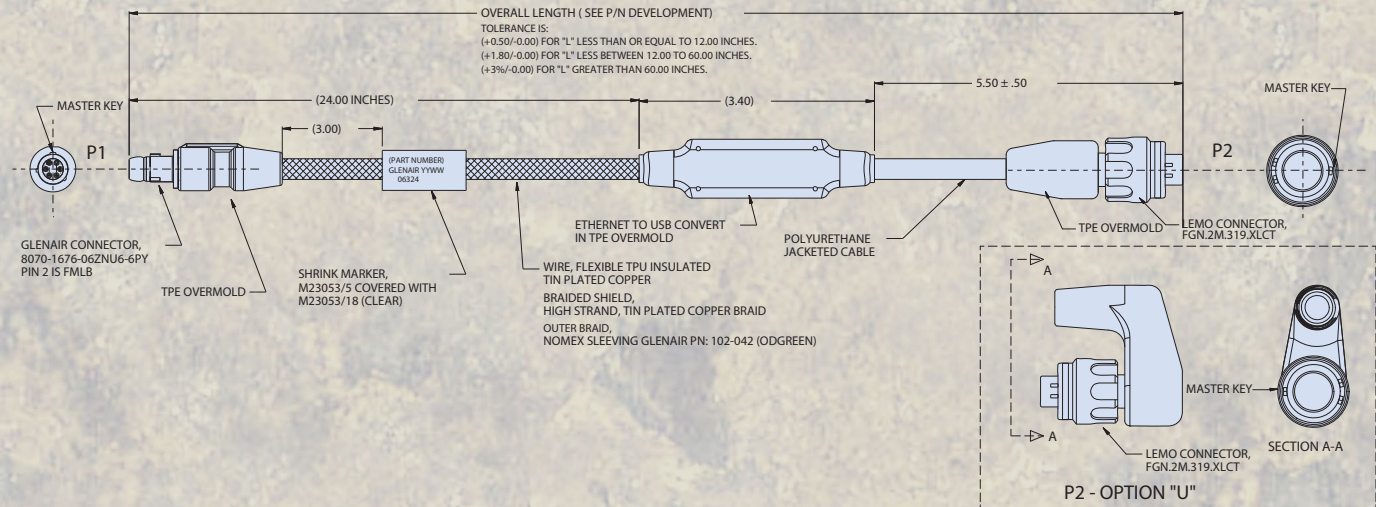


808-082 TACROVER-P SIR 2.5 ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-082	-P2	-XX
Bend	P2 = "U" bend option Omit for straight		
Overall Length	In inches. Omit for default length of 33.00"		

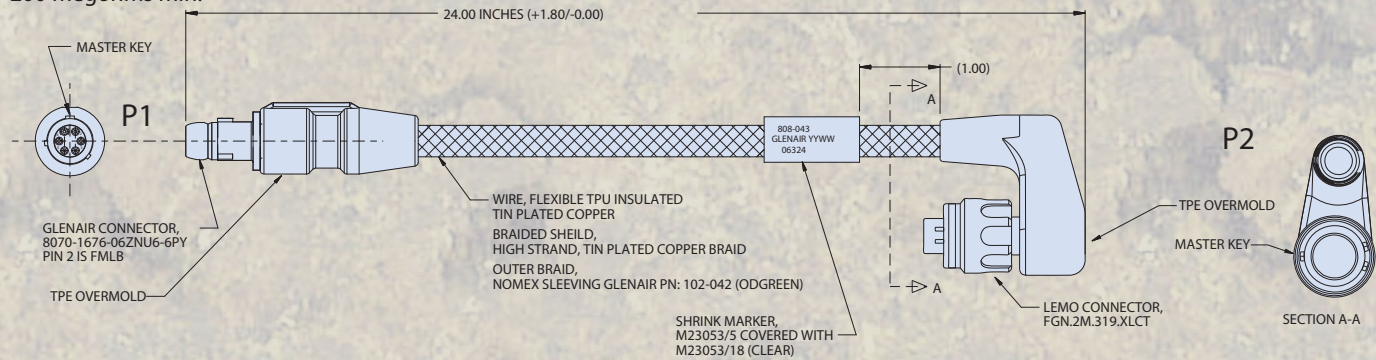


808-043 STAR-PAN TACROVER-E ISR RECEIVER CABLE (U OPTION)

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Part Number	808-043
--------------------	----------------

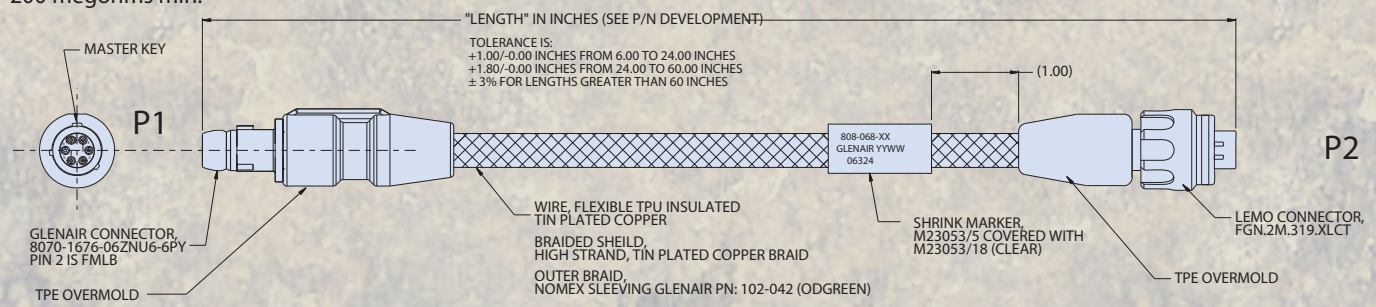


808-068 STAR-PAN TACROVER-E ISR RECEIVER CABLE (STRAIGHT)

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-068	-XX
Overall Length	In inches. 6.00" minimum	

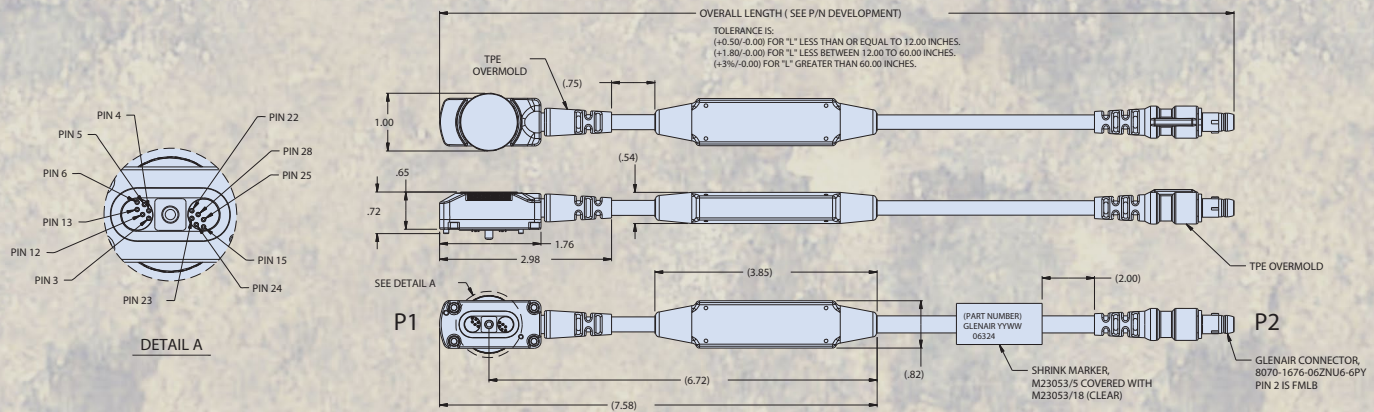


808-117 STAR-PAN TNR ADAPTER

100% electrical tested for shorts, continuity, and basic functionality

HOW TO ORDER

Sample Part Number	808-117	-XX
Overall Length	In inches. Omit for default length of 24.00"	

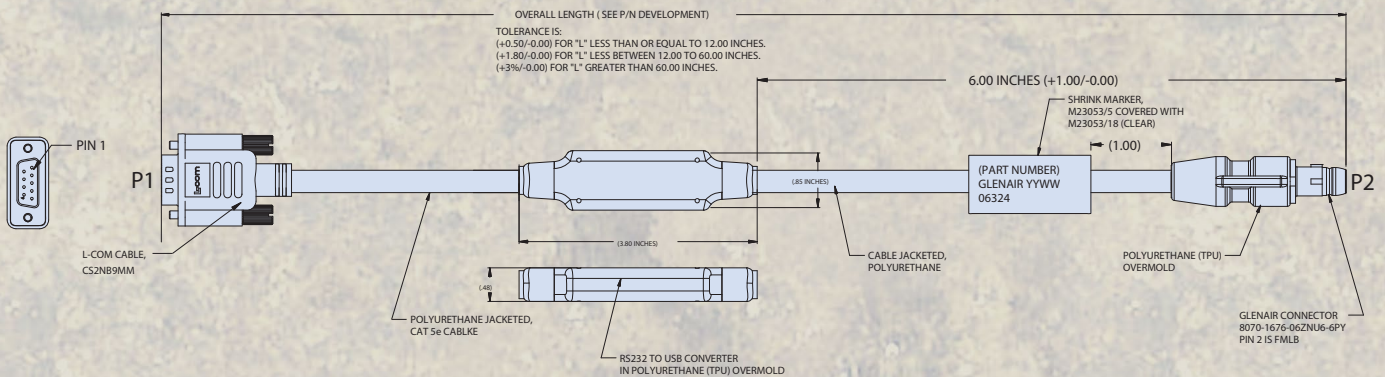


808-110 STAR-PAN TO DB-9 RS232 PORTS

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms minimum

HOW TO ORDER

Sample Part Number	808-110	-XX
Overall Length	In inches. Omit for default length of 24.00"	

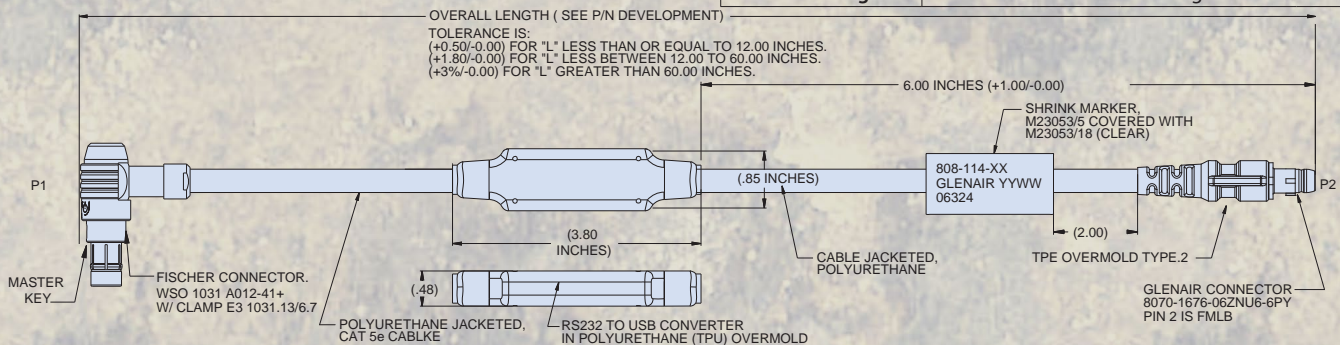


808-114 STAR-PAN TO SAFRAN VECTRONIX STERNA CABLE

100% electrical tested for shorts, continuity, and basic functionality.

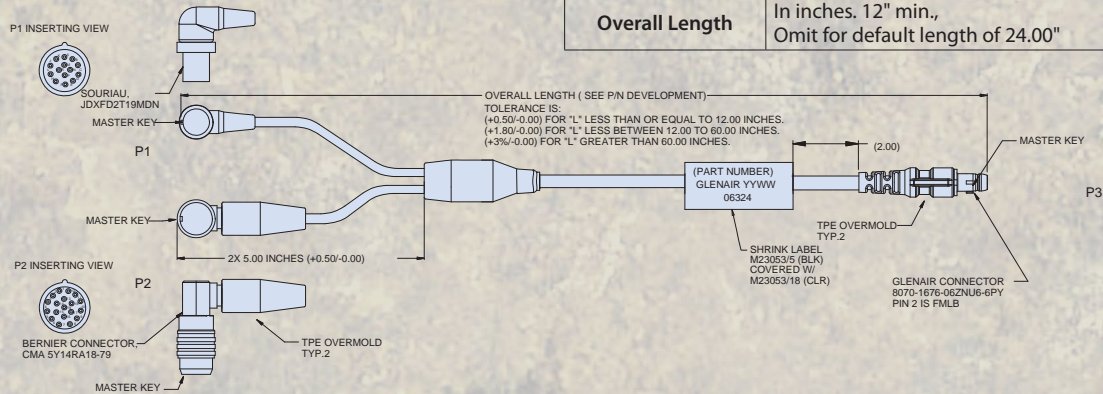
HOW TO ORDER

Sample Part Number	808-114	-XX
Overall Length	In inches. Omit for default length of 24.00"	



808-115 STAR-PAN TO SAFRAN VECTRONIX JIM LR CABLE

100% electrical tested for shorts, continuity, and basic functionality.

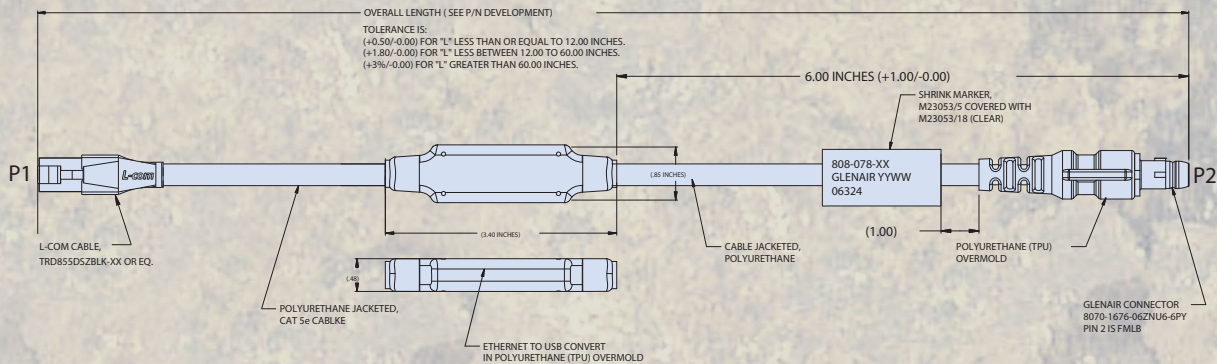


HOW TO ORDER

Sample Part Number	808-115	-XX
Overall Length	In inches. 12" min., Omit for default length of 24.00"	

808-078 STAR-PAN TO RJ45 PLUG

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms minimum

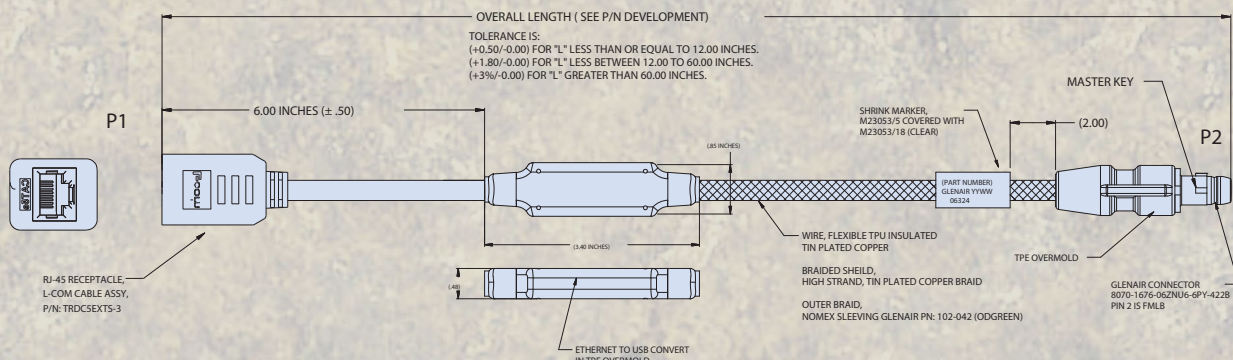


HOW TO ORDER

Sample Part Number	808-078	-XX
Overall Length	In inches. Omit for default length of 24.00"	

808-084 STAR-PAN TO RJ45 RECEPTACLE

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms minimum



HOW TO ORDER

Sample Part Number	808-084	-XX
Overall Length	In inches. Omit for default length of 30.00"	

C4ISR PERIPHERAL AND DATA CONVERSION CABLES

JTAC-TOUGH™ STAR-PAN™

Radio cables and adapters



STAR-PAN RADIO CABLES AND ADAPTERS

Part No. / Description	Used For	Page No.
808-063 STAR-PAN Power Booster	Provides trickle charge to radio battery, and 5V output	33
808-032 STAR-PAN PRC-152A Radio Data Adapter	For PRC-152A USB data, 5 volts holdup, and Radio Power Booster access port	33
808-080 STAR-PAN Radio Adapter	For adapting a radio cable to a PAN port	34
808-039 STAR-PAN to PRC-148 JEM Radio Adapter	For PRC-148 JEM radio interface with Radio Power Booster access port	34
808-051 STAR-PAN to PRC-154 Rifleman Radio Adapter	For PRC-154 data and radio 5 volt	35
808-035 STAR-PAN to PRC-117G Radio Adapter	For Harris PRC-117G J4 USB data port	35
808-044 STAR-PAN to RT-1922 Microlight SADL Radio Cable	For Microlight data and power	36
808-088 STAR-PAN to Harris Radio Adapter	For USB datalink with Harris data ports	36
808-087 STAR-PAN to PRC-117F Radio Adapter	For Sync Serial data downlink from PRC-117F	36
808-121 STAR-PAN to PRC-152 Radio Adapter	For sync serial data downlink from PRC-152	37
808-132 STAR-PAN to PNR-1000 Radio Adapter	For PNR-1000 USB data	37



Glenair STAR-PAN cabled radio adapters are fabricated using high-density, small form-factor Mighty Mouse series 804 connectors, abrasion-resistant jacketing and overbraiding materials, durable ergonomically-designed strain reliefs and junctions. Glenair-engineered radio sidehat connectors and other adapter technologies are precision machine fabricated for precise compatibility with JTAC/dismounted soldier radios

JTAC-TOUGH™
STAR-PAN™

Radio cables and adapters



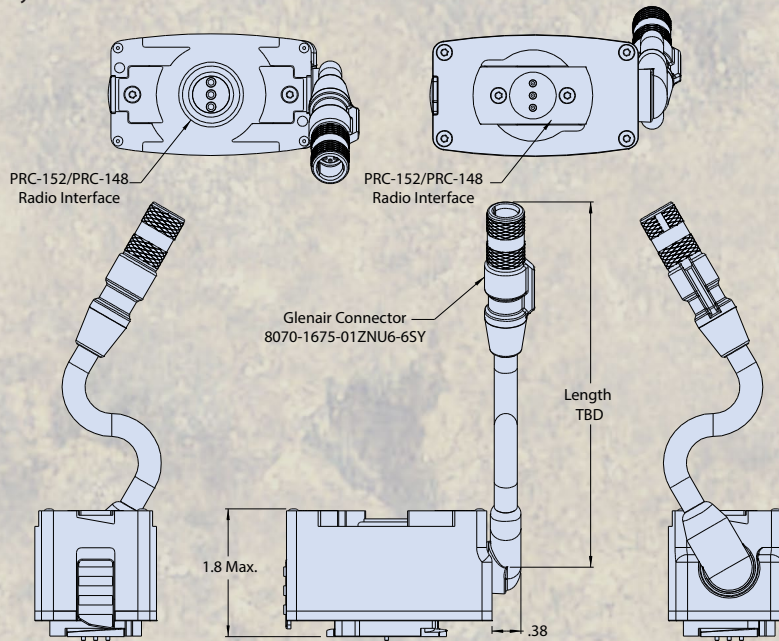
RADIO CABLES AND ADAPTERS

808-063 POWER BOOSTER

100% basic bench functionality test

HOW TO ORDER

Part Number	808-063
--------------------	----------------

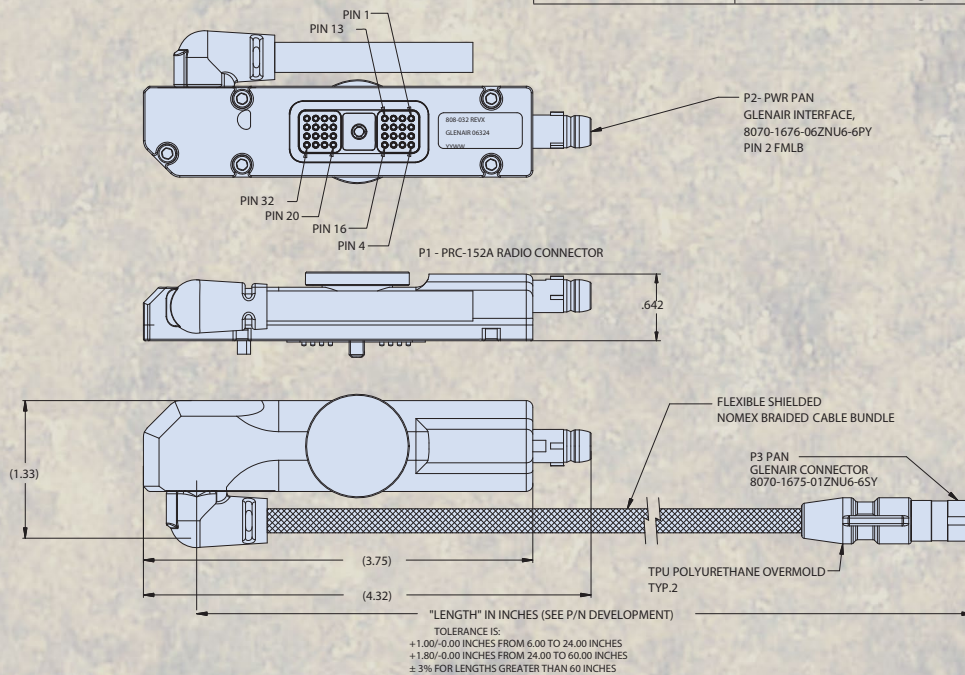


808-032 STAR-PAN PRC-152A RADIO DATA ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms minimum

HOW TO ORDER

Sample Part Number	808-032	-XX
Overall Length	In inches. 6.00" min. Omit for default length of 24.00"	



Radio cables and adapters

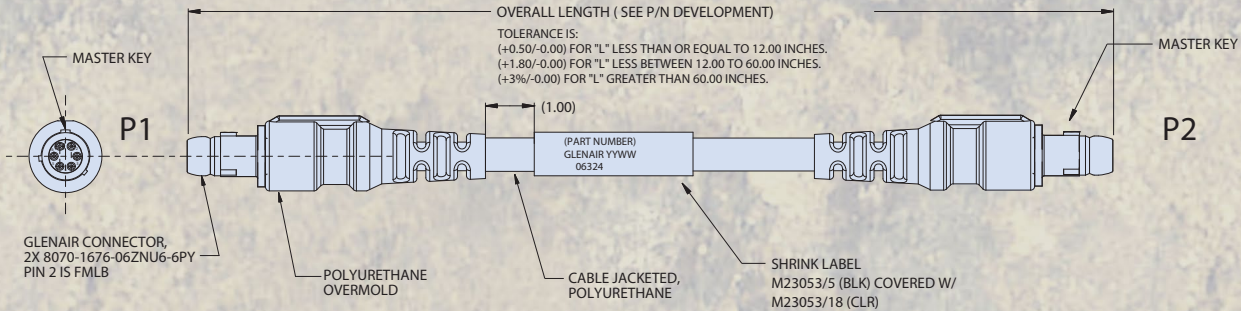
RADIO CABLES AND ADAPTERS

808-080 STAR-PAN RADIO ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms minimum

HOW TO ORDER

Sample Part Number	808-080	-XX
Overall Length	In inches. Omit for default length of 8.00"	

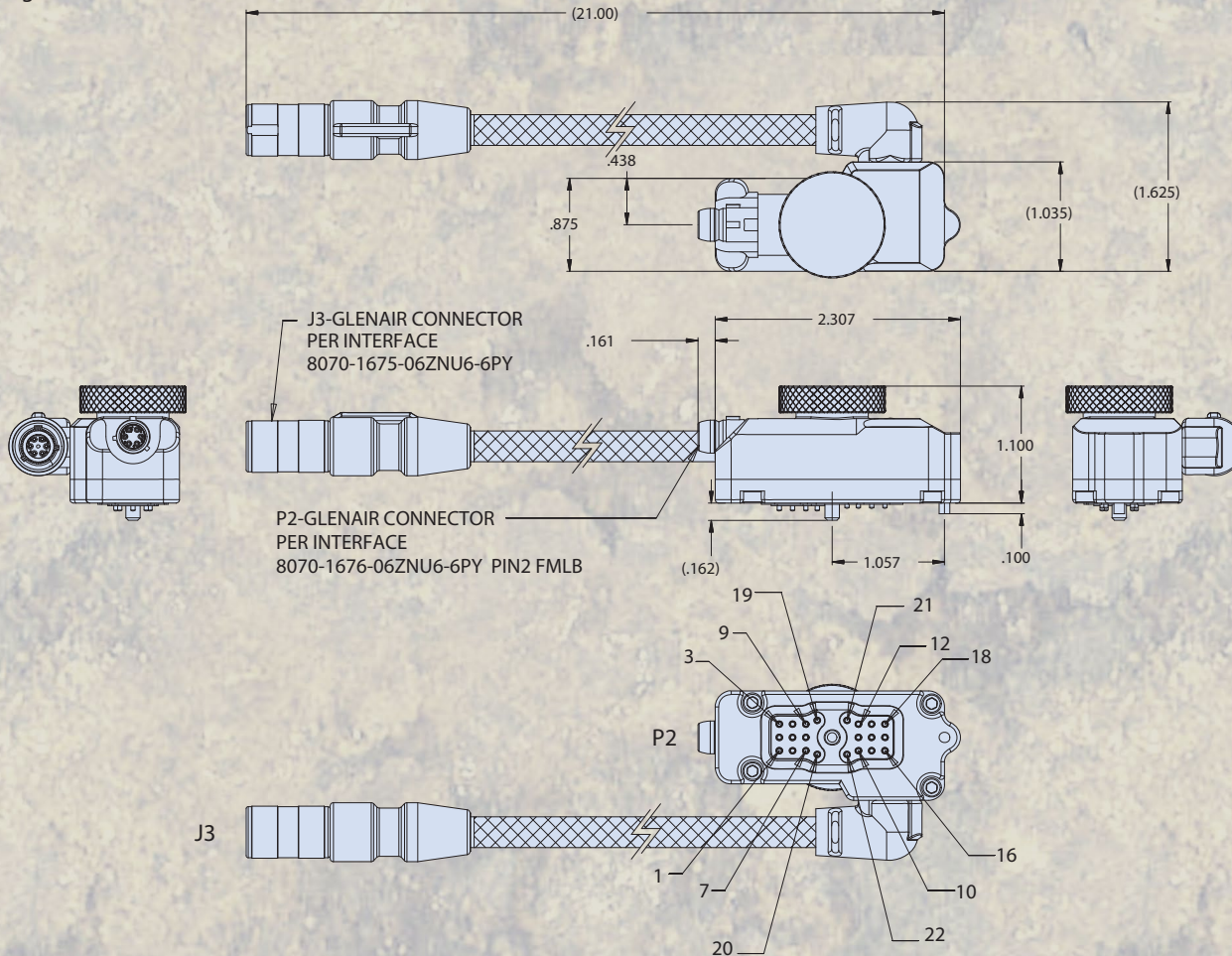


808-039 STAR-PAN TO PRC-148 JEM RADIO ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms minimum

HOW TO ORDER

Part Number	808-039
--------------------	----------------



JTAC-TOUGH™ STAR-PAN™

Radio cables and adapters

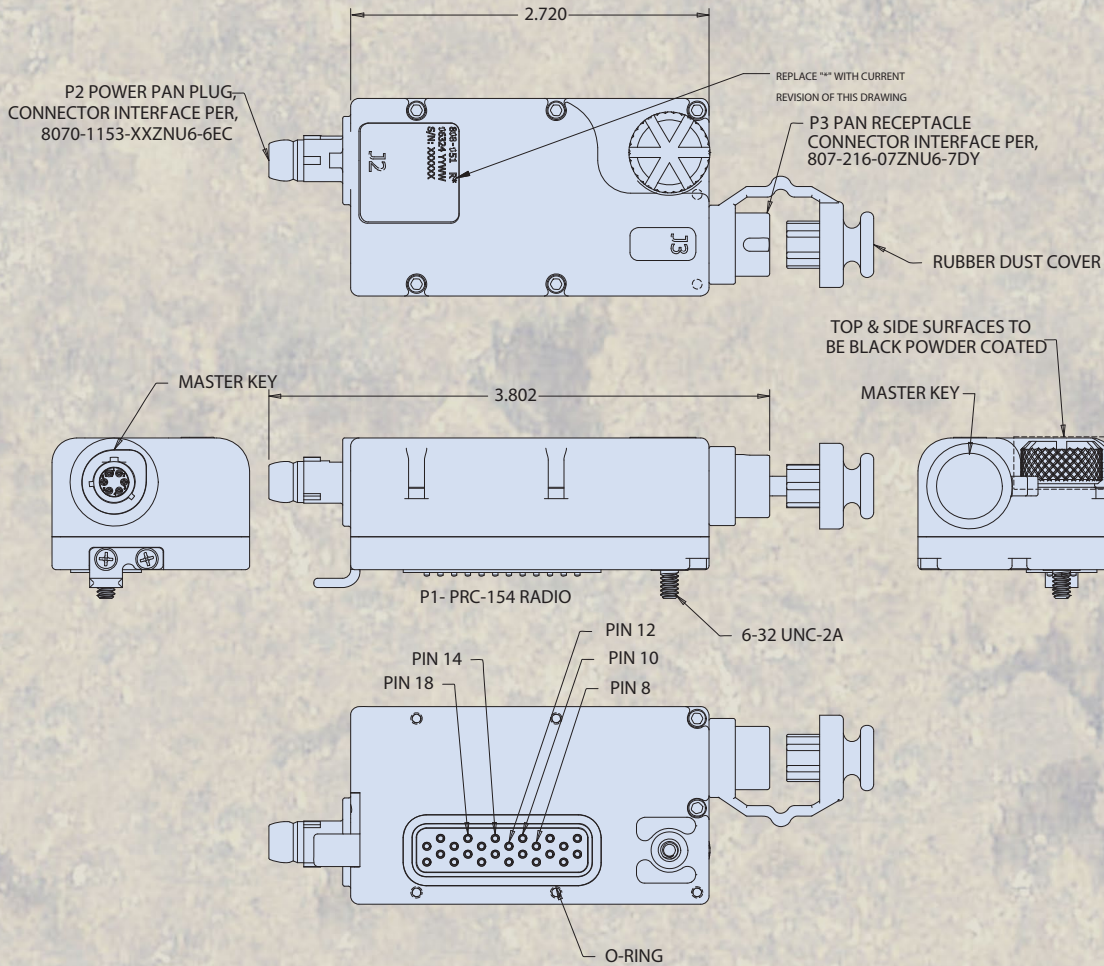


808-051 STAR-PAN TO PRC-154 RIFLEMAN RADIO ADAPTER

100% electrical test for shorts, continuity, DWV at 500VAC, and insulation resistance at 5 00V/200 megaohm min). Basic curcuit functionality test.

HOW TO ORDER

Part Number	808-051
-------------	---------

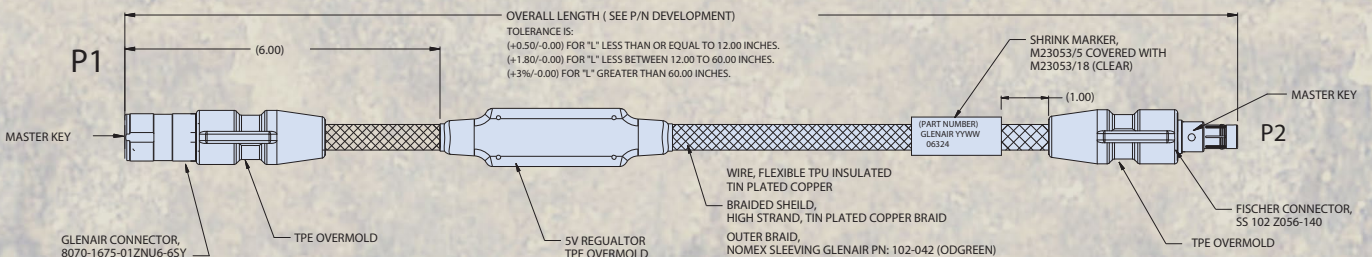


808-035 STAR-PAN TO PRC-117G RADIO ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-135	-XX
Overall Length	In inches. Omit for default length of 32.00"	



JTAC-TOUGH™ STAR-PAN™

Radio cables and adapters



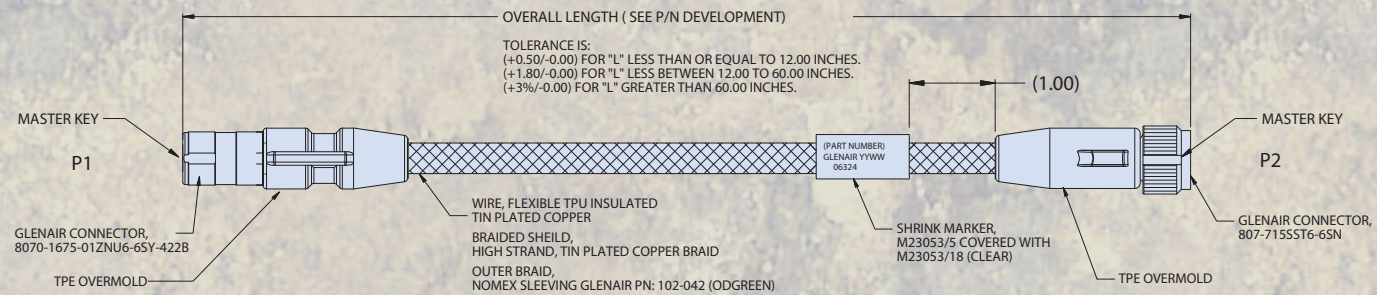
RADIO CABLES AND ADAPTERS

808-044 STAR-PAN TO RT-1922 MICROLIGHT SADL RADIO CABLE

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-044	-XX
Overall Length	In inches. Omit for default length of 24.00"	

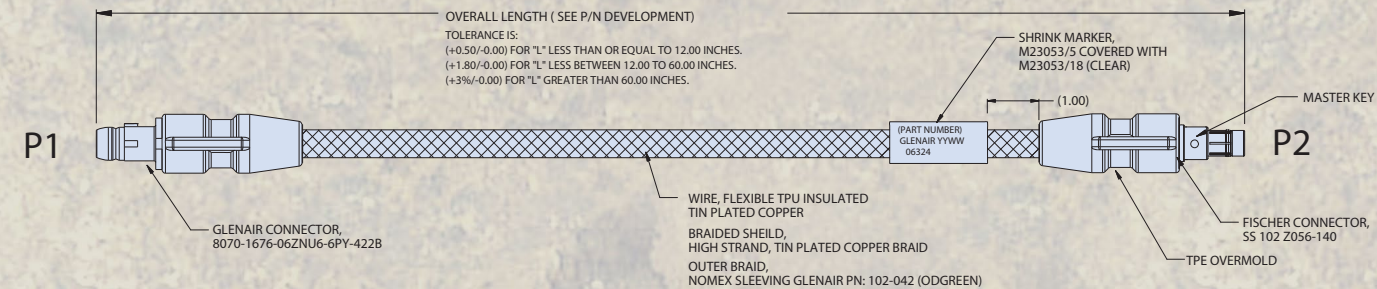


808-088 STAR-PAN TO HARRIS RADIO ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-088	-XX
Overall Length	In inches. Omit for default length of 32.00"	

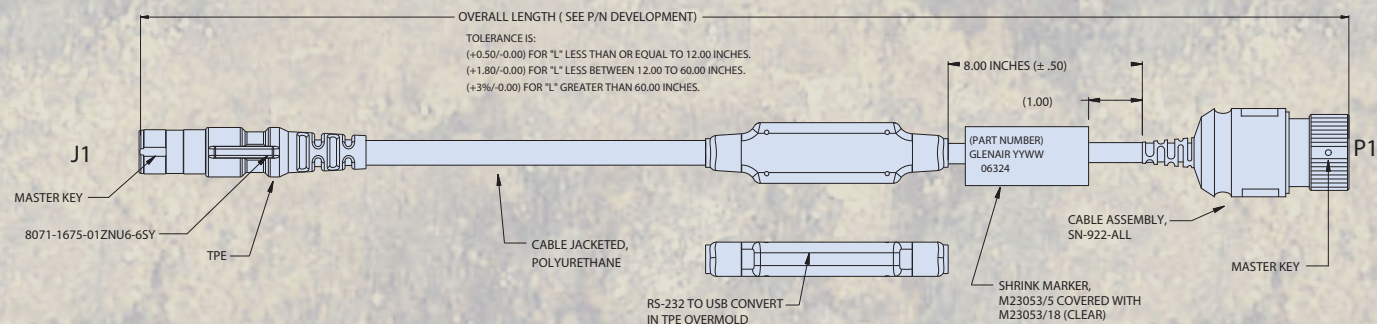


808-087 STAR-PAN TO PRC-117F RADIO ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-087	-XX
Overall Length	In inches. Omit for default length of 36.00"	

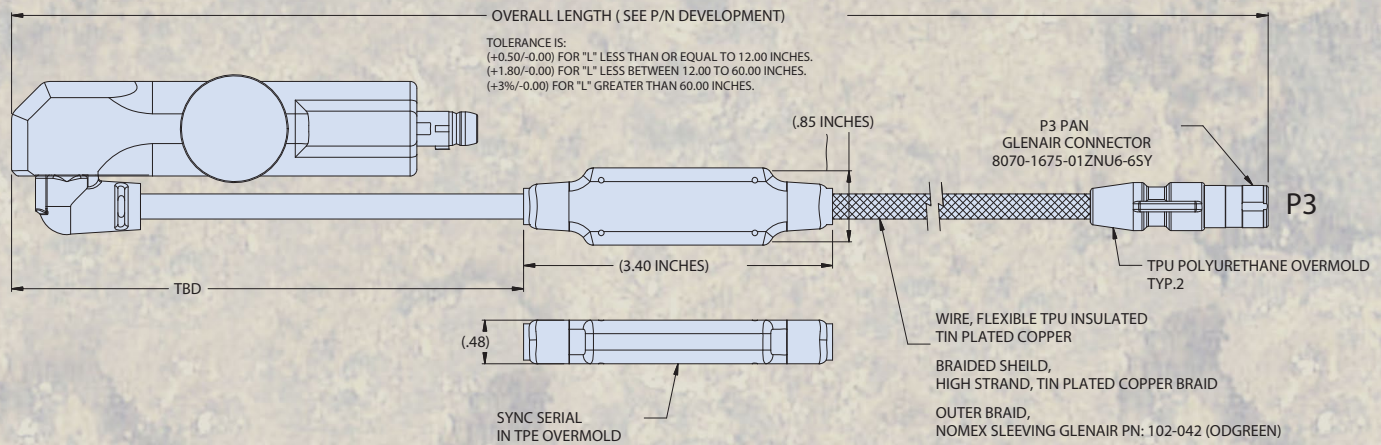
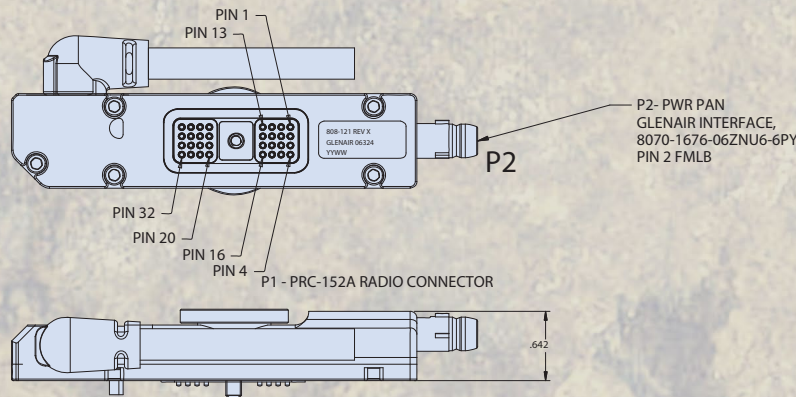


808-121 STAR-PAN TO PRC-152 RADIO ADAPTER

100% electrical tested for shorts, continuity, DWV at 500VAC, and insulation resistance at 500V/200 megohms min. Basic circuit functionality test.

HOW TO ORDER

Sample Part Number	808-121	-XX
Overall Length	In inches. Omit for default length of 32.00"	

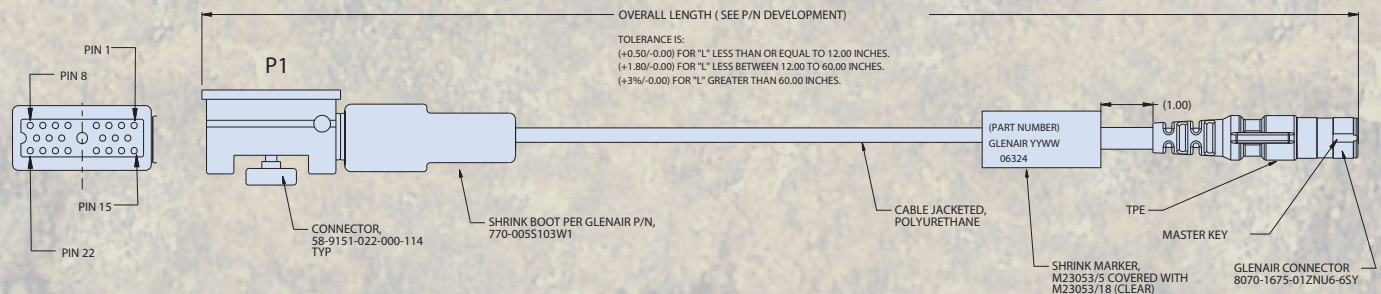


808-132 STAR-PAN TO PNR-1000 RADIO ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

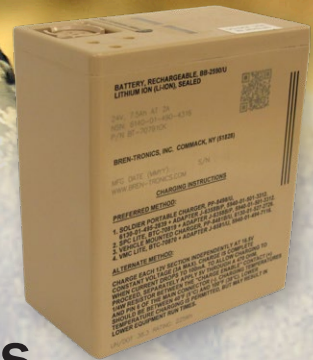
HOW TO ORDER

Sample Part Number	808-132	-XX
Overall Length	In inches. Omit for default length of 21.00"	



JTAC-TOUGH™ STAR-PAN™

Power / battery cables and adapters



STAR-PAN POWER CABLES AND BATTERY ADAPTERS

Part No. / Description	Used For	Page No.
808-048 STAR-PAN to BA5590/BB2590 Battery Shoe	BB2590 or BA5590 batteries	39
808-066 STAR-PAN Hand-Held Radio Battery Shoe	For use with flywheel radio batteries	40
808-133 STAR-PAN to BT-70838 battery adapter	For use with BT-70838 series batteries	40
808-059 STAR-PAN to cigarette lighter	For conditioned vehicle power	41
808-064 STAR-PAN AC/DC power adapter	For use with AC wall outlets / worldwide wall outlet compatibility	41
808-047 STAR-PAN extension cable	For connection to conformal battery	41



Glenair STAR-PAN power / battery cables and adapters are fabricated using high-density, small form-factor Mighty Mouse series 804 connectors, abrasion-resistant jacketing and overbraiding materials, durable ergonomically-designed strain reliefs and junctions

JTAC-TOUGH™

STAR-PAN™

Power cables and battery adapters



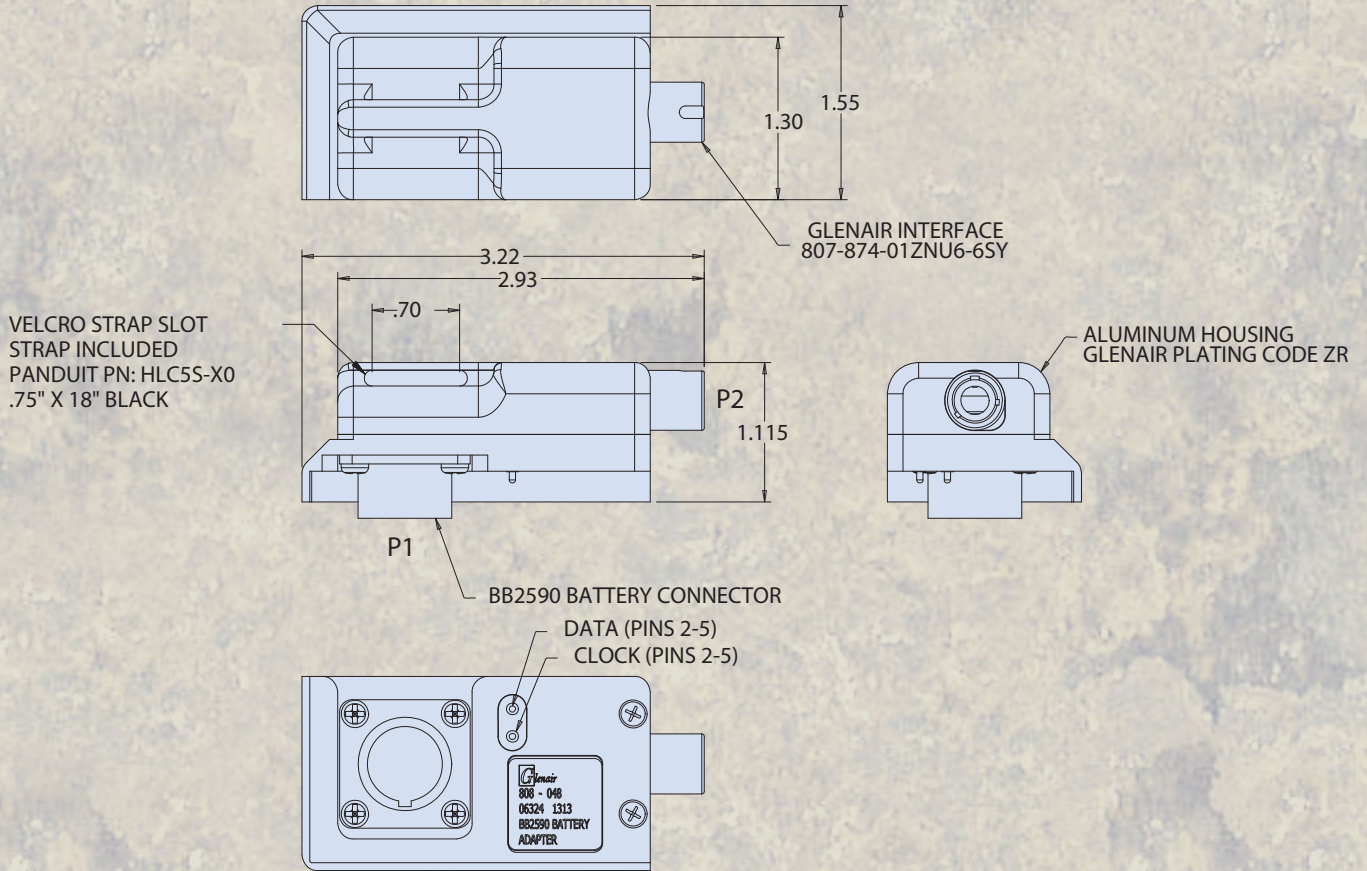
808-048 STAR-PAN TO BA5590/BB2590 BATTERY SHOE

100% electrical tested for shorts, continuity, basic functionality and IR

HOW TO ORDER

Part Number	808-048
--------------------	----------------

POWER AND BATTERY ADAPTERS



JTAC-TOUGH™
STAR-PAN™

Power cables and battery adapters



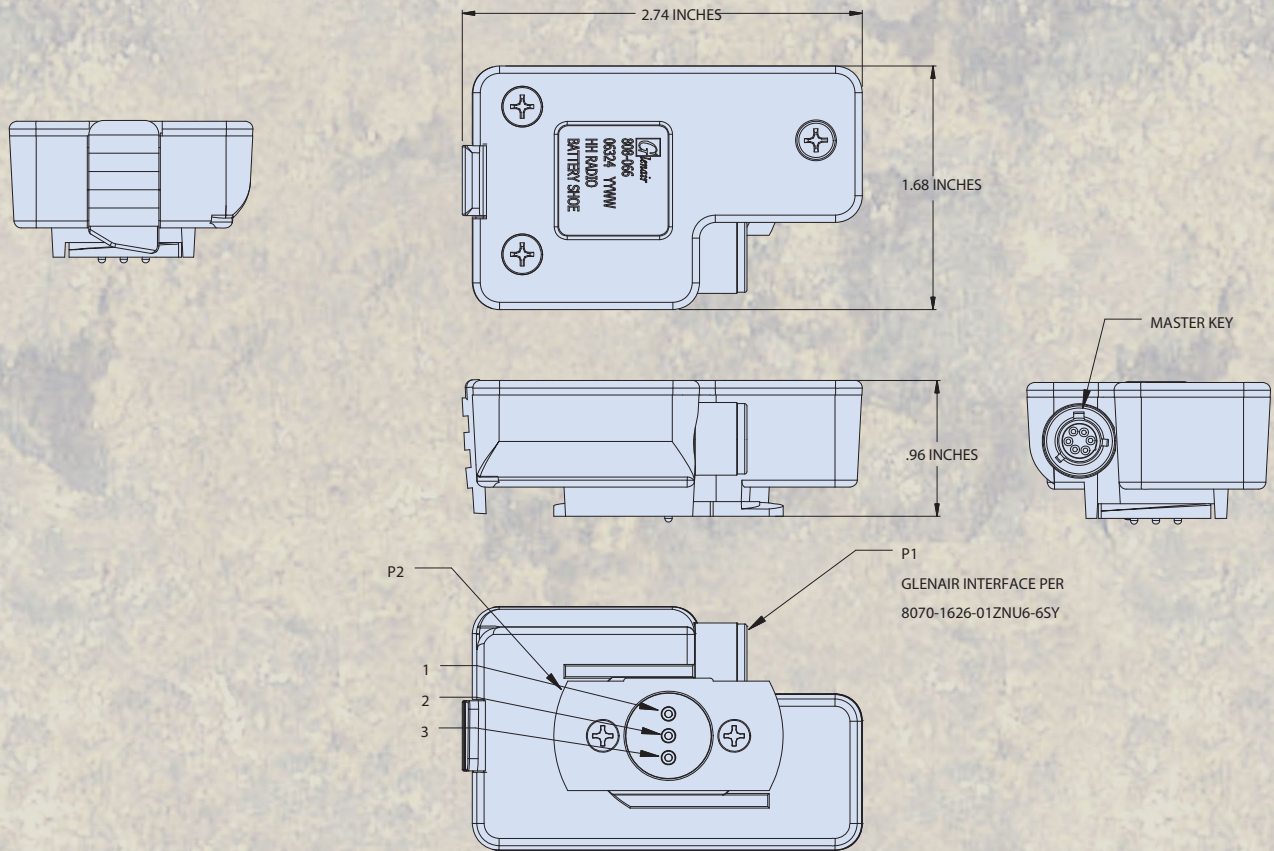
POWER AND BATTERY ADAPTERS

808-066 HAND-HELD RADIO BATTERY SHOE

100% electrical tested for shorts, continuity, basic functionality and IR

HOW TO ORDER

Part Number	808-066
--------------------	----------------

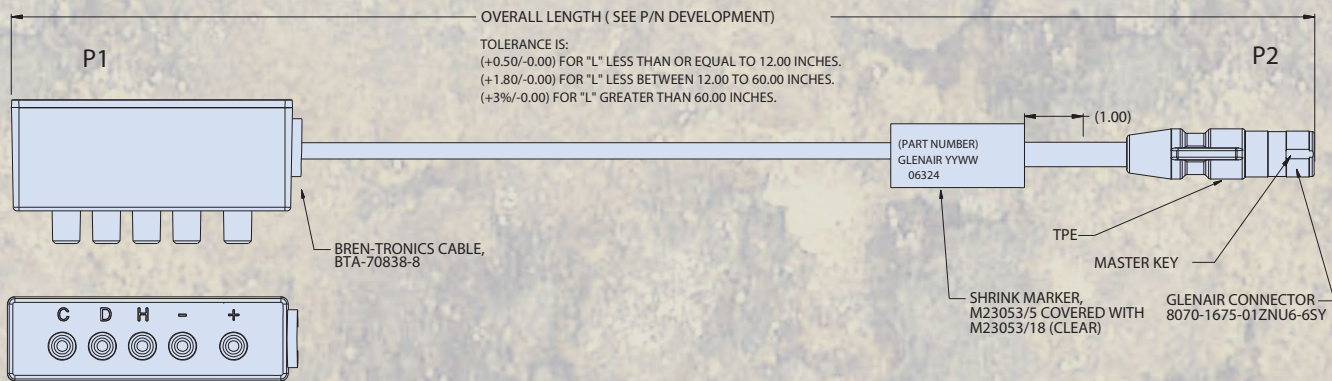


808-133 STAR-PAN TO BT-70838 BATTERY ADAPTER

100% electrical tested for shorts, continuity, DWV at 500VAC, and insulation resistance at 500V/200 megohms min.

HOW TO ORDER

Sample Part Number	808-133	-XX
Overall Length	In inches. Omit for default length of 21.00"	

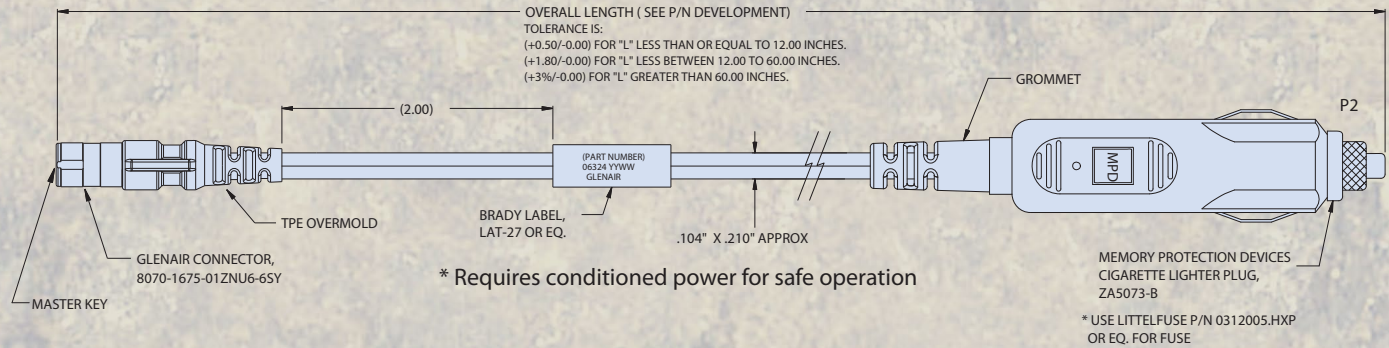


808-059 STAR-PAN CIGARETTE LIGHTER POWER ADAPTER

100% electrical tested for shorts, continuity, and insulation resistance at 200 megohms min.

HOW TO ORDER

Sample Part Number	808-059	-XX
Overall Length	In inches. Omit for default length of 72.00"	

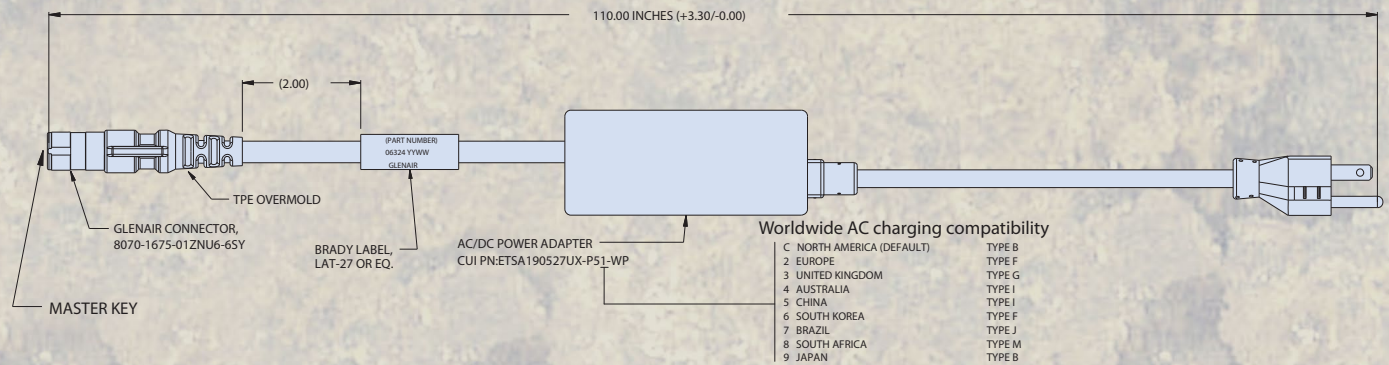


808-064 STAR-PAN AC/DC POWER ADAPTER

100% electrical tested for continuity

HOW TO ORDER

Sample Part Number	808-064	-X	-XX
Plug Type Option	B, F, G, I, J, M. Omit for default "C" type		
Overall Length	In inches. Omit for default length of 110.00"		

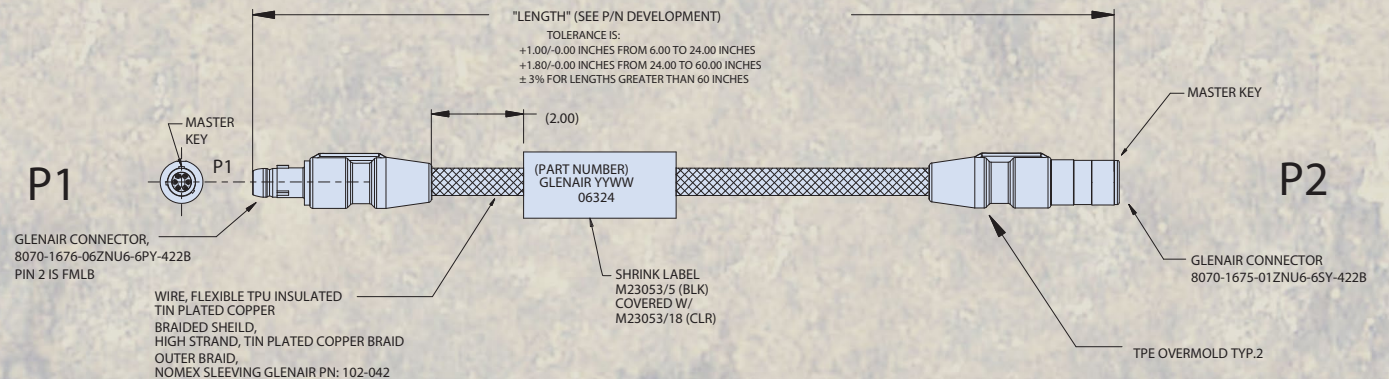


808-047 STAR-PAN EXTENSION CABLE

100% electrical tested for shorts, continuity, and dielectric withstanding voltage at 100V

HOW TO ORDER

Sample Part Number	808-047	-XX
Overall Length	In inches. Omit for default length of 24.00"	



JTAC-TOUGH™ STAR-PAN™

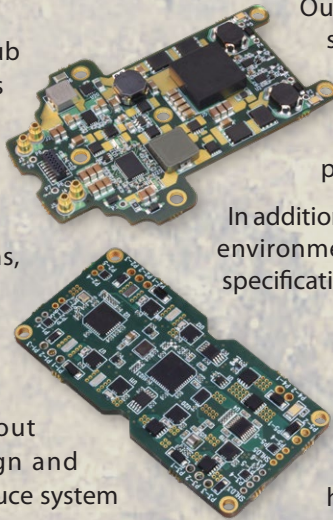


In-house embedded subsystem design and fabrication

STAR-PAN™ RUGGEDIZED SMART POWER AND DATA HUB PCB TECHNOLOGY

GOING ALL-IN FOR THE WARFIGHTER

The heart of the Glenair STAR-PAN™ USB hub and power distribution interconnect system is a micro-controlled embedded system with surge and voltage protection, temperature sensors, smart-charge controllers, and USB/SMBus management circuits. Glenair provides complete system design solutions, from connectorized printed circuit boards, mechanical packaging (including stack-up, thermal, and vibration analysis), software, firmware and FPGA development. Glenair system engineers are available throughout the process with real-time, on-site design and troubleshooting support to dramatically reduce system integration design and cost.



Our design team is laser focused on optimized systems suited for applications such as ground soldier systems, unmanned aerial vehicles, robotic systems, field sensors, and other systems where attention to SWaP and rugged performance are paramount.

In addition, our PCB technologies are designed to stringent environmental, electromagnetic, and mechanical stress specifications including:

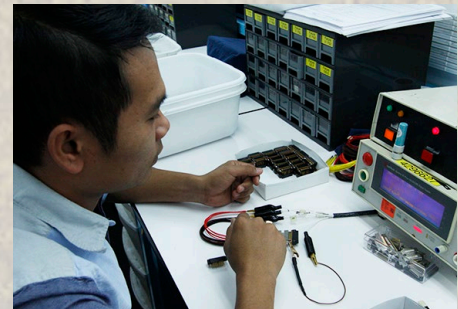
- MIL-STD-810G harsh environment
- MIL-STD-461 electromagnetic compatibility
- MIL-STD-1275 land vehicle power

Acceptance test stations and software, leveraging LabView, Visual Basic and other tools, have been developed in-house by Glenair to support comprehensive board qualification and testing.

> STAR-PAN™ ruggedized technology includes tactical nylon packaging built for easy integration and maximum durability



> Our Tactical Interconnect Solutions Team includes mechanical and electrical engineers who manage PCBA design and fabrication, FPGA / firmware programming, PCB layout, wet processing and more. System debug and acceptance test professionals also play key roles in every program.



ISO 9001:2008
AS9100C
Registered

Glenair certified Nadcap assembly technicians support both rapid prototyping as well as full-production programs. Our dedicated team ensures final subsystem assemblies meet every rugged performance requirement, including resistance to vibration, shock, and other mechanical stress factors.



JTAC-TOUGH™

STAR-PAN™

In-house tactical interconnect design and fabrication

GLENAIR



STAR-PAN™

TACTICAL SOLDIER-SYSTEM INTERCONNECT SOLUTIONS

Unlike most suppliers of soldier C4ISR interconnect technology, Glenair is not just a system integrator. We design and manufacture all of the core components in our STAR-PAN™ hubs, ruggedized cable assemblies, flex circuit assemblies, and enclosures. This page presents six tactical Glenair connector series, field-proven in a broad range of warfighter applications.

**MIGHTY
MOUSE**



Series 824 locking quick-disconnect

Series 804 breakaway quick-disconnect

SuperFly®



The ultimate nanominiature tactical connector

MOUSEPOD™



Low-profile, snap-lock, trigger-release connector for wearable soldier systems

HiPer 55116



HiPer 55116 advanced-performance audio frequency connectors
Mil-qualified and Glenair signature solutions

**BB-2590
BA-5590 Battery
CONNECTORS AND CABLES**

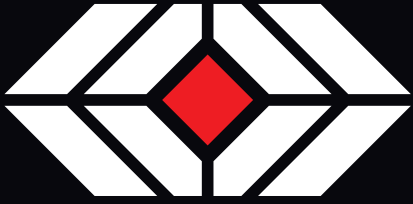


Military battery connectors and cables

**RJ45/USB
SUPER
SEAL™**



Small form-factor field USB connectors



TACTICAL INTERCONNECT SOLUTIONS

The Glenair Tactical Interconnect Solutions Team is backed by a company of scale with over 3000 technical employees, 1,000,000 sq. feet of manufacturing space, and over 60 years of experience designing and building interconnect solutions for military customers. Here is a quick tour of some of our core capabilities.

Our connector machining and box milling facilities are the largest in the interconnect industry, with ample capacity for both small and large production runs.



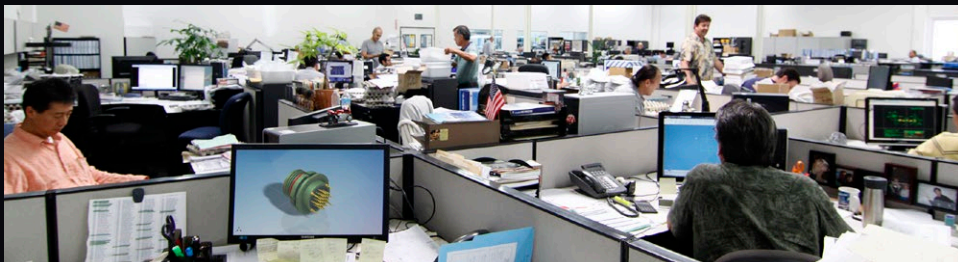
Glenair STAR-PAN™ hub assemblies feature integrated / welded I/O interconnects—the ultimate in low-profile, rugged design.



The Tactical Interconnect team runs its own dedicated STAR-PAN™ termination, assembly, and overmolded cable cell.



In-house clean room facilities for PCB and flex circuit fabrication as well as EMI/RFI filter array assembly distinguish Glenair from virtually every other supplier of tactical hubs and interconnect power systems.



Just a small slice of the engineering talent at work at Glenair. In addition to their interconnect design work, the team generates acceptance test requirements for printed circuit boards as well as complete systems.





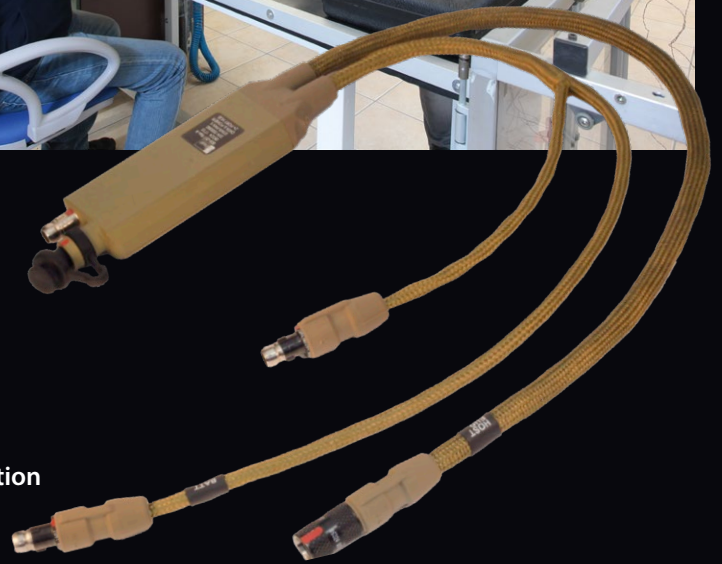
In-house PCB/Flex and cable overmolding lines enable Glenair to quickly respond to high volume production orders



The largest U.S. based machining and milling capacity in the interconnect industry (top)



Comprehensive in-house test labs



Glenair's entire operation, from design engineering to connector and hub fabrication is quality-controlled under a single ISO 9001:2008 certified quality system.



Joint Terminal Attack Controllers (JTACs): The reason everyone in Glenair's Tactical Interconnect Solutions Team takes their work so seriously



For more information contact Glenair at 818-247-6000 or visit our website at www.glenair.com U.S. CAGE code 06324



MISSION-CRITICAL INTERCONNECT SOLUTIONS

Glenair, Inc.

1211 Air Way • Glendale, California • 91201-2497

Telephone: 818-247-6000 • Fax: 818-500-9912 • sales@glenair.com

www.glenair.com

Glenair Power Products Group

20 Sterling Drive
Wallingford, CT
06492

Telephone:
203-741-1115
Facsimile:
203-741-0053
sales@glenair.com

Glenair UK Ltd

40 Lower Oakham Way
Oakham Business Park
Mansfield, Notts
NG18 5BY England

Telephone:
+44-1623-638100
Facsimile:
+44-1623-638111
sales@glenair.co.uk

Glenair Microway Systems

7000 North Lawndale Avenue
Lincolnwood, IL
60712

Telephone:
847-679-8833
Facsimile:
847-679-8849

Glenair Nordic AB

Gustav III : S Boulevard 46
SE-169 27 Solna
Sweden

Telephone:
+46-8-50550000
sales@glenair.se

Glenair Electric GmbH

Schaberweg 28
61348 Bad Homburg
Germany

Telephone:
06172 / 68 16 0
Facsimile:
06172 / 68 16 90
info@glenair.de

Glenair Iberica

C/ La Vega, 16
45612 Velada
Spain

Telephone:
+34-925-89-29-88
Facsimile:
+34-925-89-29-87
sales@glenair.es

Glenair Italia S.p.A.

Via Del Lavoro, 7
40057 Quarto Inferiore –
Granarolo dell'Emilia
Bologna, Italy

Telephone:
+39-051-782811
Facsimile:
+39-051-782259
info@glenair.it

Glenair France SARL

7, Avenue Parmentier
Immeuble Central Parc #2
31200 Toulouse
France

Telephone:
+33-5-34-40-97-40
Facsimile:
+33-5-61-47-86-10
sales@glenair.fr

Glenair Korea

B-1304 Gunpo IT Valley
148 Gosan-Ro, Gunpo-Si
Kyunggi-Do, Korea
435-733

Telephone:
+82-31-8068-1090
Facsimile:
+82-31-8068-1092
sales@glenair.kr

