

### GROUND TACTICAL FIBER OPTICS CATALOG

SUPPORTING BOTH MILITARY & COMMERCIAL APPLICATIONS

TOOLS
TOOL KITS
CONSUMABLES
REPLACEMENT PARTS
HIGH QUALITY JUMPERS (HQJS)
HIGH QUALITY REFERENCE CABLES (HQRCS)
TRAINING

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Our mission is to be the leading

provider of fiber optic connector-

services to the military and com-

mercial communications industry.

We will do this by exceeding our

customers' expectations for service,

quality and responsiveness in a way

that also benefits our employees, our suppliers and our community.

ization products, training and

# Our Quality

KITCO Fiber Optics will design and deliver products and provide services at the highest standards in our industry, and we will strive to continually improve our business processes to provide our customers a level of service that consistently meets or exceeds expectations.

# Our Mission

All statements, technical information and recommendations related to these products, or any products in this catalog, are based on information believed to be reliable, however the accuracy or completeness thereof is not guaranteed. Before using the product, the user should determine the suitability of the product for its intended use. The user assumes all risks and liability in connection with such use.

KITCO Fiber Optics is a leading provider of fiber optic connectorization products and consulting services to the military and commercial communications industry. We are recognized within the defense industry as fiber optic connectivity experts and for over 13 years have customized our products and services to meet strict military standards.

#### Tools and Tool Kits

- Ground Tactical/TFOCA Connector Termination Kits and Fusion Splicers
- Shipboard MIL-C-83522/16 and MIL-PRF 28876 connector;
   MIL-PRF-29504/14 and MIL-PRF-29504/15 termini
- Aviation MIL-DTL-38999 connector; MIL-PRF 29504/4; MIL-PRF-29504/5
- ViViD, MIL-PRF-28876 connector; MIL-C-83522/16 connector
- ◆ BLOLITE™ Shipboard Blown Optical Fiber

### **Training**

- Ground Tactical/TFOCA Connector Termination Kits and Fusion Splicers
- Shipboard MIL-C-83522/16 and MIL-PRF 28876 connector; MIL-PRF-29504/14 and MIL-PRF-29504/15 termini
- Aviation MIL-DTL-38999 connector; MIL-PRF 29504/4; MIL-PRF-29504/5
- ViViD, MIL-PRF-28876 connector; MIL-C-83522/16 connector
- BLOLITE™ Shipboard Blown Optical Fiber

### Field Services

- Termination for BOF and Conventional MIL-PRF-85045 cables
- Termination of M28876, M83522/16, M29504/14/15
- Termination of M38999, M29504/4/5
- Testing and Troubleshooting
- Certification/License for BOF
- System Repair
- INSURV Inspections

### **Custom Cable Assemblies**

- Measurement Quality Jumpers (MQJs)
- Aerospace Measurement Quality Jumpers (AMQJs)
- MIL-PRF-28876 Connector; TFOCA; Hermaphroditic; ST; FC; SC; LC; FDDI; MIL-DTL-38999
- MIL-STD-2042B

### **Ground Tactical Military/Commercial – Inspection, Cleaning, and Test Platform Kit**

NSN: 5180-01-574-5887

KITCO Fiber Optics designed the 0831-8245 Inspection, Cleaning, and Test Platform Kit with the Warfighter in mind. This unique, comprehensive Test Platform is custom made for the Ground Tactical Warfighter to enable them to discover where the cable reel or fiber run is broken, determine the length of the fiber reel or commercial network links, and evaluate the dB loss and quality of the polish of each termini or connector's endface.

- The 0831-8245 includes the most powerful OTDR (Optical Time Domain Reflectometer) on the market. This sophisticated piece of equipment enables the Warfighter to discover where a fiber reel or commercial link is broken or has an excessive bend. The OTDR will also tell the Warfighter how much fiber is on a reel. Fiber losses for mated pairs of connectors will also be demonstrated by unique traces displayed on the OTDR's monitor.
- The 0831-8245 also contains the JDSU OLS-5 LED Light Source for multimode applications that launches at 850 and 1300 nanometer wavelengths and the JDSU OLS-6 LASER Light Source for singlemode applications that launches at 1310 and 1550 nanometer wavelengths.
  - These Light Sources work in conjunction with the OTDR which contains a module that converts the OTDR to a Power Meter and utilizes its monitor as the power meter's screen. The Power Meter reads all of the wavelengths: 850, 1300, 1310, and 1550.
  - An additional module converts the OTDR's monitor into a microscope display that accepts a USB plug attached to a probe that accommodates probe tips for every TFOCA connector and commercial connector the Warfighter may encounter. All fiber is not created equal.
  - The kit also includes a new handheld video display that provides portability of the video inspection without utilizing the OTDR.
     A separate probe and tips complete this package.
  - All cleaning swabs that allow the Warfighter to clean the TFOCA, Multiple Termini Connector without disassembling are included as well as the non-hazmat fiber optic cleaning fluid.
  - All appropriate High Quality Launch Cables (HQLCs) used to eliminate the OTDR "dead zones", and all High Quality Reference Cables (HQRCs) used to interface with a Light Source and Power Meter are included in this kit for both multimode and singlemode applications.



There is no more comprehensive kit currently on the market that allows the Warfighter to Inspect, Clean, and Test all available Ground Tactical and "military/commercial" fiber optic systems anywhere, anyplace!

Note:

Replacement probe tips and coupling adapters can be found on pages 40-42.



### **Ground Tactical/Military Commercial— Inspection, Cleaning, and Test Platform Kit**

#### NSN 5180-01-574-5841

The 0831-8237 Inspection, Cleaning and Test Platform Kit is used to determine how well the endface of a fiber optic connector is polished (often called component loss or insertion loss of a system).

- The kit contains a JDSU HP3-60-P4 fiber inspection and test unit, which integrates an inspection probe and video display (with the appropriate inspection tips for all Ground Tactical Warfighter applications) and a power meter that detects 850, 1300, 1310, and 1550 nanometer "windows".
- This kit also contains a JDSU OLS-5 LED Multimode Light Source, a JDSU OLS-6 LASER Singlemode Light Source, all High Quality Reference Cables needed to interface between the Light Source and HP3-60 Power Meter to proper check for link loss in accordance with MIL-STD-2042, Modified B. Method.
- The HQJs include all footprints for TFOCA (SG) Second Generation, and all "military/commecial" applications, including ST, SC, and LC.
- The 0831-8237 also contains flexible cleaning swabs, fiber optic cleaning fluid and all appropriate singlemode quality coupling adapters needed to interface with the probes, sources and meter to obtain consistent and reliable link loss and component readings.



#### Note:

An OTDR should not be used to test the loss or the quality of mated pairs. High Quality Reference Cables (HQRCs), Singlemode Quality Coupling Adapters, and properly calibrated Light Sources and Power Meters should be used. The Modified B Method of the MIL-STD-2042 is highly recommended to obtain consistent, repeatable, and reliable testing results. Please refer to the CD-ROM and other sections of this catalog for more clarification.

Power Meter with built-in inspection monitor!



This comprehensive light source/power meter/HQJ kit has every adapter to test any fiber link the Warfighter may encounter!

### **Ground Tactical Quad Fusion Splicing** and Ground Tactical Military/Commercial **Fiber Optic Termination Kit**

### NSN 5180-01-574-5837

The Quad El Fusion splicer, and its companion products, allows the Warfighter to splice factory manufactured "pigtails" of almost any footprint and thereby repair the system in a matter of minutes.

This unique kit was designed especially for the United States Army and TFOCA fiber repair, however, its capabilities have been enhanced to support all aspects of "military/commercial" arenas.

- This fusion splicer is the only machine in the world capable of fusing four 900 micron buffered fibers (singlemode or multimode) at the same time!
- All of the support products such as the thermal stripper, cleave tool, and protection sleeves are included. Since TFOCA M85045-8A Fiber Optic Cable contains four 900 micron buffered fibers this fusion splicer is perfect for this application.



- The 0831-8236 also contains a pair of 250 micron holders for "military/commercial" applications.
- The fusion splicer will also fusion splice one or two fibers at a time if the application warrants.
- The fusion splicer main body is ACU (Army Combat Uniform) camouflage colored and has a built-in oven to shrink the protection sleeves. Note: The fusion splicer main body is also available in a MCCUU (Marine Corps Combat Utility Uniform) camouflaged color.
- The tools provided for connectorization include all tools and consumables necessary to terminate the TFOCA (SG) connectors from every manufacturer (AFSI, AOS, Delphi, Glenair, QPC, and STRAN Technologies) and all "military/commercial" connectors as well. These "military/commercial" connectors include 3M™ Hot Melts, Corning Unicam® (No Epoxy, No Polish) connectors, Tyco Electronics' Epoxy-Style, and Lucent Epoxy-Style connectors.



- The kit also includes the dual purpose oven that is required to terminate the 3M Hot Melt connectors and to cure the epoxy-style connectors.
- A waterproof, military grade case with a pressure release valve safely protects each tool in the harshest environments.





The 0831-8236 is the only kit on the market that will:

- ◆ Terminate EVERY TFOCA (SG) connector the Ground Tactical Warfighter may encounter
- Terminate all "military/ commercial" ST. SC. and **LC** connectors
- Function as a full blown fusion splice kit!

By combining these two technologies the Warfigher is able to instantly field repair reelsTactical Fiber Optic Cable reels or any commercial fiber link that may need repair.



### **Quad EL Fusion Splice Kit**

#### NSN 5180-01-574-5817

The #0831-1116 Quad EL Fusion Splice Kit is the ultimate kit to instantly and proficiently repair broken reels of TFOCA (SG) and/or "Military/Commercial" runs of fiber.

- Unique fiber holders allow the Ground Tactical Warfighter to thermally strip four fibers, cleave four fibers, fuse four fibers, and protect four fibers at the same time. These features can easily save 75% in re-work time.
- An "arc check" is not necessary for each environmental change; the only necessary adjustment is an altitude re-set if significant changes in elevation are encountered.
- This splicer will successfully splice either multimode or singlemode fiber, and will even splice the new hybrid fiber which contains two multimode and two singlemode fibers in the same jacket!
- The Quad EL will easily splice a variety or combination of fibers: singlemode or multimode with minimal loss (approximately .03 dB), as well as either dual or quad 900 micron, breakout style, buffered fibers.
- An additional set of quad holders is included to accommodate 250 micron acrylate coated, distribution style cable.
- All tools and equipment are protected by a fully functioning military grade case. The top is removable to allow the Warfighter to safely place their tools in a clean environment, avoiding contamination from the ground, dirt or sand where they may be working.
- The precision cleave tool and the fusion splicer do not need to be removed from the case and can easily be used within the case to avoid contamination.
- One of the most remarkable features of this amazing machine is that training instructions have been downloaded (video and audio) directly onto the machine itself. All the Ground Tactical Warfighter need do is push a few buttons and an instant video shows how to use the fusion

splicer plays on the splicer and explains in detail how to splice and protect a reel of TFOCA (SG) fiber!





The Quad El is the only fusion splice kit in the world that can splice four 900 µm buffered fibers simultaneously!



### **Ground Tactical Military/Commercial Fiber Optic Termination Kit**

#### NSN 5180-01-574-5828

KITCO understands that the Ground Tactical Warfighter is challenged every day to maintain COTS (Commercial Off the Shelf) products. We have discovered that the Ground Tactical arena includes many other connectors besides the TFOCA (Tactical Fiber Optic Cable Assemblies). While our legacy kits support many ST, SC, and LC connectors they do not support 3M™ Hot Melt connectors (which require a special oven and cure adapters) or the Corning Unicam®, no epoxy, no polish (NENP) connector which is prolific in the Warfighter's arena. We were asked by the Army and the Marines to develop a "Military/Commercial Kit" −

and the result is our 0831-8235 Universal Termination Kit. KITCO diligently researched the Ground Tactical Warfighter arena to make sure exactly which connectors the Warfighter is required to inspect, clean, test, and repair.

- This connectorization kit is a universal kit that will terminate almost any fiber optic connector that the Ground Tactical Warfighter may encounter.
- Not only will this kit support TFOCA (SG) connectors made by AFSI, AOS, Delphi, Glenair, QPC, and Stran Technologies, but it will also support almost every "military/commercial" connector (ST, SC, and LC) currently available.
- All the proper crimp tools and dies are contained in this tool kit as well as the polishing films and other consumables.
- This is the only kit of its kind that will support both multimode and singlemode TFOCA (SG) and multimode and singlemode ST, SC, and even LC "military/commercial" connectors.
- Special polishing fixtures, crimp dies, and polishing pads are placed in the kits to allow this process to occur.
- KITCO's dual purpose oven with two heating blocks is also included to accommodate both the pre-loaded adhesive 3M™ Hot Melt connectors and the epoxy-style connectors from Tyco Electronics and Lucent.
- A fast cure, chemically reactive two-part adhesive and primer is also included that requires no oven to allow for emergency repairs without AC power.
- To complete the package, Corning's Unicam® (NENP or No Epoxy—No Polish) support tools are included in the 0831-8235. This includes the precision cleaver and the activation tool with the built-in visual fault locator which will immediately tell if the connector was successfully installed on the end of the fiber.



After many visits, briefings, training convenings and interviews all over the world we are confident that the 0831-8235 will support every fiber optic connector the Warfighter will encounter for many years to come!

### U.S. Marine Corps, TFOCA Fiber Optic Termination Kit

#### NSN: 5180-01-516-7227

This termination kit was originally designed with input from the U.S. Marine Corps in 1995 to support the connectorization process for the Dual Biconic Hermaphroditic Connector [now commonly

known as TFOCA First Generation (FG)]. The original part number was 0801-8500 but was recently changed as the kit has been upgraded to accommodate TFOCA Second Generation (SG) products.

- This kit allows the Warfighter to replace either a TFOCA (FG) or the new TFOCA (SG) Plugs and/or receptacles.
- The 0801-8510 kit is uniquely designed to equip the Warfighter with all the proper tools and consumables to strictly follow the MIL-STD-2042(B) polishing procedure for the 2.5mm ferruled TFOCA termini. The Defense Logistics Agency analyzed and approved the procedure to assure high quality endfaces, compatibility, and interoper ability even in harsh field environments.
- The TFOCA (FG) Biconic termini's quality is assured by including a new high precision, digital polishing length gauge and an improved polishing fixture.
- All products placed in this kit, such as epoxy, heat curing oven, microscope, scissors etc. are products that are found on the DOD's Recommended Parts List (RPL) or the Qualified Parts List (QPL).



### 0801-8505 TFOCA Upgrade Kit

### NSN: 5180-01-516-7227

This Upgrade Kit allows the Warfighter with the #0801-8500 kit to upgrade to the newer #0801-8510 that supports TFOCA Second Generation (SG) Connectors.

The following is a list of the items in the upgrade kit:

- TFOCA (SG) Spring Compression Insertion and Removal Tool (SCIRT)
- TFOCA (SG) Plate Insertion and Removal Tool (PIRT)
- TFOCA (SG) Spanner Wrench
- Allen Wrenches
- TFOCA (SG) Strip Templates
- ◆ Flare Nut Wrench
- Battery Power Leads for MicroStrip Tool
- ◆ Digital Biconic Length Gauge
- Biconic Polishing Puck

- Crimp Frame
- ◆ TFOCA Termini Die Set
- SC Die Set
- TFOCA Outer Jacket Strip Tool
- 200X Dual Illumination Scope
- Strap Wrenches
- ◆ Kevlar® Shears
- Lanyard Crimp Tool
- Biconic Inserts



### **0731-1115 US Marine Corps, TFOCA Fusion Splice Kit**

NSN: 6080-01-520-8198

The 0731-1115 Fusion Splice Kit is designed especially for Tactical Fiber Optic Cable splicing.

- The small, portable S121M-CUST2 Fusion Splicer was custom designed by the Marines in order to allow the Warfighter to splice two 900 micron buffered fibers at the same time.
- The fiber stripping, cleaving, and glass protection is also a dual process. The Warfighter
  can actually strip two fibers, cleave two fibers and splice two fibers simultaneously.
  This saves the Warfighter literally hours in maintenance costs and re-works.
- The kit's unique case is actually a tool that assists the Warfighter in the fusion process by aligning the fiber and securing it in place. The Warfighter need not remove the cleaver or the splicer itself from the case unless necessary.
- This kit should be used in conjunction with the KITCO Fiber Optics 0731-1170, JPS-400 Splice Protection Sleeve, NSN:6070-01-527-2509.



0831-8200

**TFOCA First Generation (FG) Fiber Optic** 

**Termination Kit** 

### NSN 5180-01-503-8333

This kit was designed for the U.S. Army and will terminate the following connector types:

- TFOCA First Generation (FG) Biconic Connectors: AFSI, AOS, STRAN Technologies and all other TFOCA (FG) Manufacturer
- M83522/16 ST Connectors: AFSI, AOS, Delphi, Glenair, QPC, STRAN Technologies and any other TFOCA (SG) Manufacturer
- SC Connectors



### **TFOCA Second Generation (SG) Fiber Optic Termination Kit**

#### NSN 5180-01-503-8930

This kit was designed for the U.S. Army and will terminate the following connector types:

- TFOCA Second Generation (SG) Connectors: AFSI, AOS, Delphi, Glenair, QPC, STRAN Technologies and any other TFOCA (SG) Manufacturer
- M83522/16 ST Connectors: AFSI, AOS, Delphi, Glenair, QPC, STRAN Technologies and any other TFOCA (SG) Manufacturer
- ST Connectors
- SC Connectors
- LC Connectors



### 0831-8220

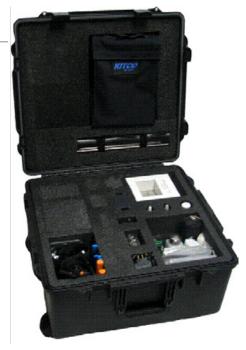
**TFOCA Combination Fiber Optic** 

**Termination Kit** 

#### NSN 5180-01-503-8937

This kit was designed for the U.S. Army and will terminate the following connector types:

- TTFOCA First Generation (FG) Biconic Connectors: AFSI, AOS, STRAN Technologies and all other TFOCA (FG) Manufacturer
- TFOCA Second Generation (SG) Connectors: AFSI, AOS, Delphi, Glenair, QPC, STRAN Technologies and any other TFOCA (SG) Manufacturer
- M83522/16 ST Connectors: AFSI, AOS, Delphi, Glenair, QPC, STRAN Technologies and any other TFOCA (SG) Manufacturer
- SC Connectors
- LC Connectors



# 0831-8230 TFOCA (FG), TFOCA (SG) Fiber Optic Termination and Fusion Splice Kit

#### NSN 5180-01-503-8251

This kit was designed for the U.S. Army and will terminate the following connector types:

- TFOCA First Generation (FG) Biconic Connectors: AFSI, AOS, STRAN Technologies and all other TFOCA (FG) Manufacturer
- TFOCA Second Generation (SG) Connectors: AFSI, AOS, Delphi, Glenair, QPC, STRAN Technologies and any other TFOCA (SG) Manufacturer
- M83522/16 ST Connectors
- SC Connectors
- LC Connectors

#### This kit contains the following Fusion Splice components:

- S121A-CUST2 Dual Fusion Splicer
- Precision One Step Cleaver
- High Capacity Battery
- Dual Thermal Stripper



### 0701-5433 TFOCA Cleaning and Inspection Kit

### **NSN: TBD**

The 0701-5433 Cleaning and Inspection Kit is designed to clean and inspect TFOCA First Generation (FG) and TFOCA Second Generation (SG) Plugs and Receptacles.

- This kit allows the user to inspect termini, ST, SC, and LC endfaces for debris or damage.
- A portable handheld video probe microscope is used to inspect termini endfaces without removing the front insert adapters or disassembling the connector back shell. This video probe microscope saves the technician hours that would be required for the disassembly and reassembly of the connectors and also eliminates the chance of damaging or breaking the termini.
- All cleaning wipes and fiber optic cleaning solvents are included as well.
   The unit can be operated using battery or AC power.



## TBERD 6000, Test Platform w/Touch-Screen Feature, Built In Power Meter, Video Inspection Scope and OTDR Plug-In Modules

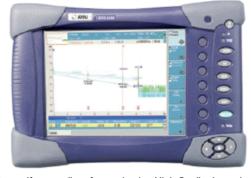
(850, 1300, 1310, and 1550 nm)

#### **NSN TBD**

This state-of-the-art T-BERD 6000 Optical Time Domain Reflectometer (OTDR) is used to determine where the "Military/Commercial" fiber runs or TFOCA reels are broken or exhibit excessive bends.

Even though "traces" may be shown on the OTDR screen depicting connector endface losses, these are inferred losses based on the timed backscattering of the light as it is reflected back to the source. OTDRs are highly accurate for finding fiber breaks and bends but a Light

Source/Power Meter and High Quality Reference Cables (HQRCs) should be used for checking the endface quality of mated pairs. High Quality Launch Cables (HQLCs) should be used to interface in front of this OTDR to eliminate the event and attenuation "dead zones" for the most accurate readings.





# **0705-5466 OLS-5 LED Light Source for Multimode Systems**

#### **NSN TBD**

This LED Light Source launches a light at 850 or 1300 nanometers to enable the Ground Tactical Warfighter to test singlemode fiber systems. Used in conjunction with High Quality Reference Cables (HQRCs) and singlemode quality couplings the Warfighter will achieve consistent, repeatable, and accurate results.

# 0705-5467 OLS-6 LASER Light Source for Singlemode Systems

#### **NSN TBD**

This LASER Light Source launches a light at 1310 or 1550 nanometers to enable the Ground Tactical Warfighter to test singlemode fiber systems. Used in conjunction with High Quality Reference Cables (HQRCs) and singlemode quality couplings the Warfighter will achieve consistent, repeatable, and accurate results.





### **0701-6035 Biconic Digital Length Gauge**

#### NSN 6625-01-562-0546

The 0701-6035 Biconic Digital Length Gauge is designed to accurately measure the height of the Biconic support cone during the polishing process. The gauge reads in both inches and millimeters.



### 0701-6025 **Biconic Polishing Fixture**

#### NSN 5130-01-564-3563

The 0701-6025 Biconic Polishing Fixture has been redesigned to allow the biconic termini to be installed directly into the polishing fixture without assembling the biconic termini. This greatly reduces the risk of breaking the biconic termini.

### 0700-1485 **Biconic Cure Adapter**

#### NSN 5935-01-562-0484

The 0700-1485 Biconic Cure Adapter is manufactured from aluminum for better heat transfer from the oven heater block. In the past cure adapters were made from white Delrin material which could hinder the curing of the epoxy inside the Biconic termini.





### 0701-6050 **Biconic Modified Pliers**

### NSN 5120-01-564-3565

The 0701-6050 Biconic Modified Pliers are used to remove the c-clips from the Biconic termini.

### 0701-6090 **Biconic Installation Fixture**

#### NSN 3465-01-562-0553

The 0701-6090 Biconic Installation Fixture is used during the assembly and disassembly of the dual channel TFOCA (FG) connector.

The fixture allows the user to compress the springs on the Biconic termini for easy installation or removal of the c-clips.





### 0701-6060 **Biconic Insert Tool**

#### NSN 5120-01-564-3561

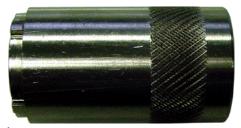
The 0701-6060 is used to install and remove the dual channel Biconic insert for the TFOCA (FG) connector. It threads into the front insert holes.



### 0701-6080 Biconic Spanner Wrench

NSN 5120-01-563-9861

The 0701-6080 Biconic Spanner Wrench is used to install and remove the Biconic ring that holds in the dual Biconic insert.



### 0701-6040 Biconic C-Clip Install Tool



#### NSN 5120-01-564-3564

The 0701-6040 Biconic C-Clip Tool is used to install the c-clips onto Biconic termini.

0731-1132

**Spring Compression Install and Removal** 

Tool (SCIRT)

#### NSN 5120-01-564-3546

The 0731-1132 Spring Compression Install and Removal Tool (SCIRT) is used to install

and remove TFOCA (SG) termini from the retaining plate for TFOCA (SG) connectors.

### 0700-4625 Plate Install and Removal Tool (PIRT)



#### NSN 5120-01-564-3562

The 0700-4625 Plate Install and Removal Tool (PIRT) is used to install and remove the TFOCA insert from TFOCA (SG) connector receptacles.

### 0700-4620 TFOCA (SG) Spanner Wrench

### NSN 5120-01-564-3558

The 0700-4620 TFOCA (SG) Spanner Wrench is used to install and remove the insert nut from the TFOCA (SG) connector receptacle.



### 0700-4610 Flare Nut Wrench

### NSN 5120-01-428-8291



The 0700-4610 Flare Nut Wrench is used to remove the strength member wedge pack from the strain relief housing inside the TFOCA (SG) connector.

### **0700-1830 Crimp Frame**



#### NSN 5120-01-563-6451

The 0700-1830 Crimp Frame is used with the following crimp dies:

PART #	DESCRIPTION	NSN	USE
0700-1850	M83522/16 ST Die Set	NSN 5120-01-563-6450	Military Style ST Connectors
0700-1870	SC Die Set	NSN 5120-01-563-6449	Military Style SC Connectors
0700-1880	LC Die Set		Commercial LC Connectors
0700-1890	TFOCA (SG) Die Set	NSN 5120-01-563-6448	TFOCA (SG) termini on breakout style fiber



0700-1850

### 0700-1875 Crimp Frame with SC Die Set



#### NSN 5120-01-563-6447

The 0700-1875 Crimp Frame with the SC die set is used to crimp both SC connectors and Biconic termini.



### What are High Quality Jumpers (HQJ's)?

HQJ's are reference cables or test jumpers that are manufactured and tested to meet the highest levels of optical performance while allowing repeatability in testing optical fiber cables.

An HQJ is designed to identify a sub-standard fiber optic component, fiber optic link or TFOCA cable reel. HQJ's can be interfaced with an Optical Light Source (OLS), an Optical Power Meter (OPM), and an Optical Time Domain Reflectometer (OTDR). HQJ's come in two categories: High Quality Launch Cables (HQLC) and High Quality Reference Cables (HQRC).

**HQLC**s are launch cables that eliminate OTDR (Optical Time Domain Reflectometer) "dead zones" resulting from the optical light pulse launched into the fiber.

- After extensive research KITCO has determined that the optimum "correct" lengths for multimode HQLCs is 15 meters and 18 meters for singlemode.
- If these lengths are utilized, no matter what OTDR is used, the "dead zone" will be accounted for and the machine's accuracy will be maximized.
- OTDRs operate on the premise of timing the back-scattering of the light as it is reflected back to the source and timed in nanoseconds to locate breaks or excessive bends in the fiber.
- OTDRs should not be relied upon to measure the dB loss of mated pair connectors.
- Using one HQLC is an acceptable method for finding a break or excessive bend. If two HQLCs are used (with one attached at both ends) a more explicit "picture" of the "boxed-in" fiber run or cable reel can be obtained.

**HQLC**s are used to accurately determine link or component loss and to evaluate the quality of a connector's endface polish.

 If an OTDR is used to determine the quality or loss of a mated paired only an inferred loss based on "back-scatter" will be obtained.

For a complete listing of the various HQJ configurations see the HQJ matrix chart on the following page.













### **High Quality Jumper (HQJ) Matrix**

Part Number	Description	Length (m)
KFO 80020	TFOCA (FG) to ST, 50 $\mu$ m Multimode, HQLC used with an OTDR	15
KFO 80040	TFOCA (SG) to ST, 62.5 $\mu$ m Multimode, HQRC used with an OLS & OPM	1
KFO 80045	TFOCA (SG) 9.0 $\mu$ m Singlemode, HQRC used with an OLS & OPM	1
KFO 80050	TFOCA (SG) , 62.5 $\mu$ m Multimode, HQLC used with an OTDR	15
KFO 80055	TFOCA (SG) , $9.0\mu$ m Singlemode, HQLC used with an OTDR	18
KFO 80060	Expanded Beam Hybrid to ST, $50\mu$ m / $9\mu$ m MM/SM HQRC used w/an OLS & OPM	1
KFO 80061	Expanded Beam to ST, 62.5 $\mu$ m Multimode, HQRC used with an OLS & OPM	1
KFO 80062	Expanded Beam to ST, $9.0\mu m$ Multimode, HQRC used with an OLS & OPM	1
KFO 80065	Expanded Beam to ST, $50\mu$ m MM $9.0$ _m SM Hybrid, HQLC used with an OTDR	18
KFO 80066	Expanded Beam to ST, 62.5 $\mu$ m Multimode, HQLC used with an OTDR	15
KFO 80067	Expanded Beam to ST, $9.0\mu m$ Singlemode, HQLC used with an OTDR	18
KFO 80068	Expanded Beam to ST $9.0\mu m$ Singlemode HQLC used with an OTDR	18
KFO 80070	ST to ST, $50\mu m$ Multimode, HQRC used with an OLS & OPM	1
KFO 80071	ST to ST, 62.5 $\mu$ m Multimode, HQLC used with an OTDR	15
KFO 80072	ST to SC, 62.5 $\mu$ m Multimode, HQLC used with an OTDR	15
KFO 80073	ST to LC, 62.5 $\mu$ m Multimode, HQLC used with an OTDR	15
KFO 80075	ST to ST, $9.0\mu\mathrm{m}$ Singlemode, HQLC used with an OTDR	18
KFO 80076	ST to SC, $9.0\mu m$ Singlemode, HQLC used with an OTDR	18
KFO 80077	ST to LC, $9.0\mu m$ Singlemode, HQLC used with an OTDR	18
KFO 80080	ST to SC, 62.5 $\mu$ m Multimode, HQRC used with an OLS & OPM	1
KFO 80081	ST to LC, 62.5 $\mu$ m Multimode, HQRC used with an OLS & OPM	1
KFO 80082	ST to ST, 50 $\mu$ m Multimode, HQRC used with an OLS & OPM	1
KFO 80086	ST to SC, $9.0\mu \mathrm{m}$ Singlemode, HQRC used with an OLS & OPM	1
KFO 80087	ST to LC, $9.0\mu\mathrm{m}$ Singlemode, HQRC used with an OLS & OPM	1
KFO 80088	ST to ST, 62.5 $\mu$ m Multimode, HQRC used with an OLS & OPM	1

### Flexible Cleaning Swabs for TFOCA Pins and Sockets

These cleaning sticks are designed to clean the endfaces of the TFOCA(FG) Dual Biconic and TFOCA (SG) pins and socket termini without removing the front insert nest, saving many hours of labor as well as diminishing the risk of breaking the connector.

A special design allows the lint free tip to slide precisely on top of and around the pin or socket terminus and safely clean the surface without scratching the endface. Each part number includes five packs of 25 cleaning sticks each as contained in the TFOCA kits.

PART #	DESCRIPTION	Company of the last
0700-5390	Flexible Cleaning Swabs for TFOCA (SG) Pins Five (5) packages of 25 swabs	The second
0700-5391	Flexible Cleaning Swabs for TFOCA (SG) Sockets Five (5) packages of 25 swabs	
0700-5394	Flexible Cleaning Swabs for TFOCA (FG) Biconic Pins a Five (5) packages of 25 swabs	and Sockets



### 0700-5175 Fiber Optic Cleaning Fluid

The 0700-5175 is a uniquely formulated fiber preparation and cleaning fluid that is non-pressurized and categorized as a non-hazmat chemical, which eliminates restrictions on air transport and shipping. The chemical is perfect for cleaning the glass during inspection, connectorization or fusion splicing procedures and leaves absolutely no residue or films like traditional alcohol based products.

The formulation cleans at the microscopic particle level and leaves no oils, water spots or static bonds. Since the product is highly stable it has an extremely long shelf life. A special dispenser allows the warfighter to dispense this product either with an attachable tube or by a pumping action which produces a small pool of fluid which can be absorbed by the 0700-5165 Fiber Optic Cleaning Wipes.

### **0700-5165 Fiber Optic Cleaning Wipes**

The 0700-5165 Fiber Wipes are specifically designed to clean the optical and connector endfaces that the Warfighter will encounter in the "Military/Commercial" and TFOCA arenas.

These wipes are perforated for ease of use with the 0700-5175 Fiber Cleaning Fluid companion product described above. The surgically clean, hydro-entangled material is soft and completely "lint-free."



### **0731-1188 Quad Fusion Splice Sleeves**

The 0731-1188 Quad Fusion Splice Sleeves are glass protection sleeves that are designed to protect four fibers at the same time. After the Quad EL accomplishes the fusion splice the Warfighter (having already placed the Quad Glass Protection Sleeve on the fiber) slides the sleeve around the exposed glass and places the protected fiber and sleeve in the built-in oven. Three stainless steel rods, four adhesive liners, and a clear outer shrink tubing jacket shrink in approximately 60 seconds to produce a robust and durable area. The fusion splice is now ready to be completed with the JPS-400 Outer Jacket Protection Sleeve.





### **0731-1186 Dual Fusion Splice Sleeves**

### NSN 6060-01-527-2497

The 0731-1186 Dual Fusion Splice Sleeves are glass protection sleeves that are designed to protect one or two fibers at the same time.

After the Quad EL accomplishes the fusion splice the Warfighter (having already placed the Dual

Glass Protection Sleeve on the fiber) slides the sleeve around the exposed glass and places the protected fiber and sleeve in the built-in oven. Two stainless steel rods, two adhesive liners, and a clear outer shrink tubing jacket shrink in approximately 30 seconds to produce a robust and durable area. The fusion splice is now ready to be completed with the JPS-400 Outer Jacket Protection Sleeve.

### 0831-9010 TFOCA Consumables Kit

### NSN 6080-01-527-6964

The #0831-9010 contains replenishment supplies for all the consumable items found in the following kits:

PART #	DESCRIPTION
0731-1115	Fusion Splice Kit
0801-8510	Fiber Optic Termination Kit
0831-1115	Fusion Splice Kit
0831-8200	Fiber Optic Termination Kit
0831-8210	Fiber Optic Termination Kit
0831-8220	Fiber Optic Termination Kit
0831-8230	Fiber Optic Termination Kit
0831-8231	Fiber Optic Termination Kit

Make sure to check the expiration date on your epoxy and do not use it if it has expired. The hardener and resin will not solidify properly and may cause failures in your system at a later date even if the connector or terminus is successfully terminated. Call or email KITCO and we will immediately replenish your epoxy to make your job easy and professional!



#### The kit contains the following consumables:

- ◆ Polishing Film, 5µm Aluminum Oxide, Foam Backed, 50/Pack
- ◆ Polishing Film, 1µm Aluminum Oxide, Mylar Backed, 50/Pack
- ◆ Polishing Film, 0.50µm Diamond, Mylar Backed, 3/Pack
- ◆ Polishing Film, 0.10µm Diamond, Mylar Backed, 3/Pack
- Replacement Blade Set, Red .008, for MicroStrip Tool. 1 Set
- Cleaning Wire, 1 Each
- Anaerobic Adhesive, 1 Each
- Anaerobic Primer, 1 Each
- ◆ Thread Lock Adhesive, 1 Each
- Epoxy, 3 Packs
- Epoxy Needle Tips, 24 Each
- Epoxy Syringes, 24 Each
- ◆ Lint Free Wipes, 1 Pack
- Alcohol Wipes, 10 Each
- Swab Sticks, 100/Pack
- Fusion Splice Protection Sleeves, 2 Packs
- Permanent Marker, 1 Each
- Masking Tape, 1 Roll



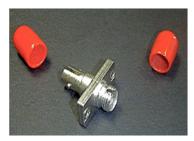
### ST to SC Singlemode/Multimode Hybrid

**Coupling Adapter** 

#### NSN 6060-01-539-3529

These singlemode quality hybrid adapters enable the Warfighter to couple ST connectors with SC connectors, allowing the technician to check patch panels with either style connector. These adapters function with either multimode or singlemode applications.





# **0200-2635 ST to FC Singlemode/Multimode Hybrid Coupling Adapter**

These singlemode quality hybrid adapters enable the Warfighter to couple ST connectors with FC connectors, allowing the technician to check patch panels with either style connector. These adapters function with either multimode or singlemode applications.

0200-2637

### ST to LC Singlemode/Multimode Hybrid Coupling Adapter

These singlemode quality hybrid adapters enable the Warfighter to couple ST connector interfaces with SC connectors, allowing the technician to check patch panels with either style of connector. These adapters function with either multimode or singlemode applications.





# **0204-4070**Singlemode Quality ST to ST Coupling Adapter

The 0204-4070 Coupling Adapters are used to connect two ST-Style connectors or to connect various cables under test to check for mated pair loss and endface polish quality. These coupling adapters interface with a calibrated Light Source/Power Meter and High Quality Reference Cables (HQRCs).



# 0700-8776 Probe Tips for Viewing TFOCA (SG) Pins & Sockets\*

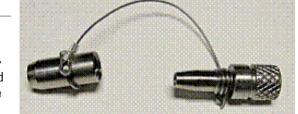
The 0700-8776 Probe Tip is specifically designed to allow the Warfighter to inspect the endface of the TFOCA (SG), four channel, hermaphroditic connector. While each connector must be examined individually the connector need not be disassembled, eliminating the chance of breakage caused by removing the termini and fiber.

\*This can be done without taking apart any of the Multiple Termini Plugs or Receptacles!

0700-8777

Probe Tips for Viewing TFOCA (FG), Dual Biconic Pins & Sockets\*

The 0700-8777 Probe Tip is specifically designed to allow the Warfighter to inspect the endface of the TFOCA (FG), two channel, dual Biconic, hermaphroditic connector. While each connector must be examined individually the connector need not be disassembled, eliminating the chance of breakage caused by removing the termini and fiber.



\*This can be done without taking apart any of the Multiple Termini Plugs or Receptacles!



0700-8780

Probe Tips for 2.5mm (ST, SC, & FC) Patch Cord Configuration

These tips are used with the 0700-8668 Inspection Probe to view the endfaces of patch cords made with 2.5 mm ST, SC, or FC connectors.

0700-8781

Probe Tips for 1.25mm Universal Patch Cord Configuration

These tips are used with the 0700-8668 Inspection Probe to view the endfaces of patch cords made with 1.25mm Universal connectors.



### Probe Tips for ST Patch Panel Configuration

These tips are used with the 0700-8668 Inspection Probe to view the endfaces of patch panels populated with ST bulkhead receptacles.





# **0700-8783 Probe Tips for SC Patch Panel Configuration**

These tips are used with the 0700-8668 Inspection Probe to view the endfaces of patch panels populated with SC bulkhead receptacles.

# 0700-8784 Probe Tips for LC Patch Panel Configuration

0700-8784 Probe Tips for LC Patch Panel Configuration These tips are used with the 0700-8668 Inspection Probe to view the endfaces of patch panels populated with LC bulkhead receptacles.



### 0700-3125 FiberSure Stripper

#### NSN 5110-01-559-9272

This five-in-one tool will strip two ranges (2.8 to 3.0 mm outside jacket, 2.0 to 3.4 mm outside jacket) of outside fiber jacket sizes for "military/commercial" grade fibers. The 2.0 to 3.0 is for loose tube (LT) outside jacketed fiber. The smaller hole sizes will strip the 900 micron buffer only (leaving the acrylate coating), and the smallest micron hole size will strip the 900 micron buffer and the 250 micron acrylate coating at the same time. This truly versatile tool consolidates many tools into one and comes in handy as a backup for the Quad EL thermal stripper.



### 0700-3055 TFOCA Jacket Strip Tool

#### NSN 5110-01-564-3559

The 0700-3055 Jacket Strip Tool was designed from input by the Warfighters to enable them to easily enter and remove the outer jacket of M85045-8A TFOCA ruggedized cable. Two opposing razor-sharp blades sink just deep enough to split the tough jacket without injuring the buffer, tangling the Kevlar, or harming the glass (fiber.)

### **0705-7080 Visual Fault Locator**

#### NSN 3465-01-562-0553

The 0705-7080 Visual Fault Locator (VFL) is a handy Class IIIa LASER that operates at the 650nm Wavelength with < 5mw output. This VFL will check both singlemode and multimode fiber for excessive bends or breaks, and the bright red light can actually be seen through the cable jacket. A slide button enables the Warfighter to exhibit either a steady or pulsating light for easy detection. This product has a range of approximately 7 kilometers over singlemode fiber and 5 kilometers over multimode fiber. The 0705-7080 can be used during troubleshooting to identify breaks and also to isolate broken connectors at the end of a fiber cable. By quickly identifying which connector end is broken the Warfighter immediately knows which end to repair, saving time and money by fixing the damaged end the first time!

# KFO 80090 TFOCA First Generation (FG) to TFOCA Second Generation (SG) Adapter

### **NSN: TBD**

The TFOCA First Generation (FG) to TFOCA Second Generation (SG) Adapter is manufactured with 50 micron core fiber fusion spliced to 62.5 micron core fiber and allows the Warfighter to convert TFOCA (FG) to TFOCA (SG) or TFOCA (SG) to TFOCA (SG) with minimal loss.



### 0700-9150 **Dual Purpose Epoxy** and Hot Melt Oven





### 0700-5226 **Hot Melt Holder for ST** and SC Hot Melts

KITCO Fiber Optics worked with 3M and various connector and epoxy manufacturers to design an oven that would serve as both an epoxy curing oven and a 3M™ Hot Melt oven. A companion set of holders allows the Warfighter to successfully place 3M™ Hot Melt ST or SC connectors in the six-port oven. Eight convenient "cooling ports" allow the Warfighter to place the connector in a safe place until it is cool enough to scribe and polish. If epoxy connectors need to be cured the eight-port block on the opposite side is used to cure any type of epoxy style connector with any appropriate epoxy.



### 0831-9113 **Splicer Maintenance Tool Kit**

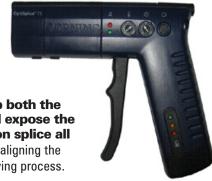
This convenient tubular container found in the **Quad El kit, contains** ten handy tools that assist the Warfighter in the Quad El Fusion and "Military/Commercial" **Fusion Splicing process.** 

#### The kit contains:

- 1. Tool Kit Plastic Tube
- 2. Cleaning brush for fiber holders designed for splice maintenance
- 3. Cleaning Brush
- 4. Torx Wrench, 2.5mm for fiber holders
- 5. Small flat tip screwdriver
- 6. **0700-3196** Teflon Coated Tweezers
- 7. **0831-1115** Spare Protective Lens and Holder
- 8. **0831-9107** Spare Set of Electrodes
- 9. **0831-9105** Quad 250 Micron Fiber Holder (1pr)
- 10. **0831-9115** Electrode Cleaning Tool

### 0831-9104 **Quad Fiber Optic Thermal Stripper**

The Quad Thermal Stripper was designed to strip both the 900 buffer and 250 micron acrylate coatings and expose the 125 micron glass to allow the Warfighter to fusion splice all four fibers simultaneously. Proper markings assist in aligning the glass fiber to obtain the exact length necessary for the cleaving process.





### 0831-9105 **Quad EL 250 Micron Fiber Holders** 0831-9106 **Quad EL 900 Micron Fiber Holders**

These highly unique and precision machined holders are the functional key to success for the Quad EL **Fusion Splice Kit.** In order for the fusion splice to be successfully achieved, a 2000 degree Celsius arc must cross the electrodes to melt the fibers. All eight fiber endfaces must be precisely aligned so that they touch; for this to occur four perfectly shaped grooves must be





machined and set in parallel. A modified screw is utilized to secure the four fibers in place and prevent them from "slipping" when inserted in the splicer. The 0831-9106 holders will accept any combination of 900 micron buffered fiber and the 0831-9105 holders will accept any combination of 250 micron "military/commercial" acrylate coated fiber.



0703-3740 **Corning Pretium™ Cleaver** with Diamond Blade

0703-3745 **Corning Pretium**™ **Installation Tool** 

The 0703-3740 Cleaver is a companion product to the Corning 0703-3745 Pretium™ Unicam installation tool. The Corning Pretium ST, SC, and LC-Style connectors are usually referred to as No Epoxy, No Polish (NENP) products.

These connectors are set with epoxy and "factory polished" which results in extremely low dB loss. An index matching material is also injected into the Pretium™ connectors so when the Warfighter cleaves and inserts the 90 degree angled fiber into the connector (utilizing the Pretium™ installation tool) the connection is automatically completed. The Pretium™ installation tool has a built-in Visual Fault Locator that instantly verifies a successful connector installation. The Warfighter no longer has to wait for an oven to heat up or bother with mixing messy epoxy. An average connector can be completed from start to finish in well under five minutes!



### 0731-3PTFG TFOCA (FG) Pigtail Cable Assembly Kit

**NSN: TBD** 

The 0731-3PTFG is a TFOCA (FG) "Pigtail" Cable Assembly Kit that includes the 0731-JPS 400 Jacket Protection Sleeve and the Dual Glass Protection Sleeves.

Using the 0731-1115 Fusion Splice Kit allows the Warfighter to quickly repair the TFOCA (FG) cable reel.



### 0731-3PTSG TFOCA (SG) Pigtail Cable Assembly Kit

**NSN: TBD** 

The 0731-3PTSG is a TFOCA (SG) "Pigtail" Cable Assembly Kit that includes the 0731-JPS 400 Jacket Protection Sleeve and the Dual Glass Protection Sleeves. Using the 0731-1115 Fusion Splice Kit allows the Warfighter to quickly repair the TFOCA (FG) cable reel

The "Expanded Beam" connector is a multiple termini fiber optic connector that makes use of optical lenses to expand and collimate a beam of light (i.e. collimated light is light whose rays are nearly parallel and do not disperse with distance).

The expanded beam remains collimated across the interface planes until the receiving lens focuses the beam onto the receiving fiber. As seen in Figure 5 below, the tiny lenses, or spheres, in an expanded beam connector DO NOT TOUCH, providing a great advantage when compared to a 'PC' or physical contact connector as shown in Figure 2.

Since the fiber endfaces do not come into actual physical contact with one another, they can be mated and de-mated several thousand times without any degradation. If any contaminants, including sand, mud, water, oil, gasoline, or any foreign debris manages to get between the lenses, it can be flushed away with a stream of water or a quick swipe with a cleaning swab. Expanded beam

connectors are also less sensitive to vibration and shock and are available in either multimode (both 50/125 & 62.5/125) or singlemode. KITCO offers all "footprints" for multimode and singlemode expanded beam HQRCs and HQLCs

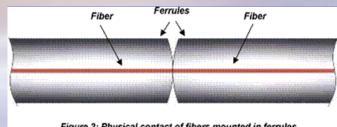


Figure 2: Physical contact of fibers mounted in ferrules

Expanded beam connectors are not new but have been used for many years in Europe and many other NATO countries with great success. The United States Marine Corps has many communication platforms that have already instigated the use of both multimode and singlemode systems that require expanded beam fiber reels and the Army will likely adopt this technology soon. KITCO has been instrumental in

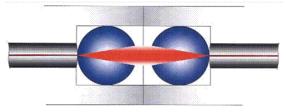
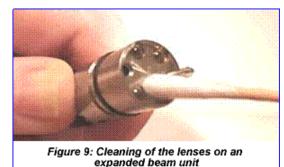


Figure 5: Expanded beam concept

testing systems and fiber reels at Camp Lejuene, NC and documenting the results to prove that expanded beam is a viable product for use by our troops in actual battlefield conditions. KITCO has also successfully manufactured true HQJs for testing all three types of fiber the Warfighter will encounter— singlemode, 50/125 multimode, and 62.5/125

multimode. These are the High Quality Launch Cables (HQLCs) used with an OTDR to pinpoint a break in the fiber, and the High Quality Reference Cables (HQRCs) used with a Light Source and Power Meter to test

the quality of the endface or the mated pair loss of recently polished connectors. All major TFOCA connector manufacturers are working to design their own version of expanded beam connectors, which may one day be used in place of TFOCA (SG) connectors. The Defense Logistics Agency (DLA) is highly recommending fusion splicing and protection of splices in the field. The following KITCO products can be used to accomplish fusion splicing of expanded beam (EB) fiber in the field.



### 0731-3PTEB TFOCA (EB) Pigtail Cable Assembly Kit

**NSN: TBD** 

The 0731-3PTEB is a TFOCA (EB) "Pigtail" Cable Assembly Kit that includes the 0731-1170 JPS-400 Jacket Protection Sleeve and the Dual or Quad Glass Protection Sleeves. Using the 0731-1115 or 0831-1116 Quad Fusion Splice kit allows the Warfighter to quickly repair the TFOCA (EB) cable reel.



### 0731-1170, JPS-400 Jacket Protection Sleeve (TFOCA)

### **NSN: TBD**

The JPS-400 Splice Protection Sleeve was designed by KITCO and the U.S. Marine Corps to allow the Warfighter to properly protect the M85045 Tactical Fiber Optic Cable after it has been spliced. This extremely rugged yet completely flexible jacket protection sleeve assumes the contour of the diameter of the fiber reel. The JPS-400 can be easily disassembled and re-used if a mistake is made during the initial protection process or if re-work is required, making this splice protector perfect for

the battlefield environment. This product should be used in conjunction with the 0731-1115 or the 0831-1116 Quad EL Fusion Splice Kit.



### **KITCO Fiber Optics**

delivers a combined Ground Tactical/Commercial Fiber Optic Training course designed to meet the demanding requirements of the U.S. Marine Corps and U.S. Army's elite 25L Cable Warriors.

This training course was developed in conjunction with the U.S. Army and Marine Corps to provide guidance to the Warfighters who are responsible for installing, troubleshooting and repairing TFOCA reels and many types of fiber optic system configurations. KITCO has conducted extensive "military/commercial" product research directly with the Warfighter and defined the connectors of choice the Warfighter is most likely to encounter in the field.

### KITCO's training includes, but is not limited to:

- Tactical Fiber Optic Cable Assemblies (TFOCA) biconic connectors
- TFOCA Second Generation (SG) four channel connectors
- 3M<sup>™</sup> epoxy and HotMelt ST, SC and LC connectors
- Corning Unicam No Epoxy No Polish (NENP) connectors
- Tyco Electronics and Systimax Epoxy-Style Connectors

In addition to fiber optic theory and the proper termination of fiber optic connectors our course provides in-depth instruction on inspecting, cleaning, testing and troubleshooting fiber topologies.

Our training is conducted utilizing the latest military approved ground tactical and commercial fiber cabling equipment including:

- Video Inspection
- Cleaning Solutions
- Visual Fault Locators (VFL)
- Light Source and Power Meter
- Optical Time Domain Reflectometers (OTDR)
- Precision Cleavers
- Fusion Splicers

Upon completion of KITCO's comprehensive training the Warfighters will have the confidence and know-how to successfully install and maintain any type of fiber optic

configuration they may encounter.

"The greatest school I have been to ever. The instructor kept me interested in every aspect of fiber throughout the entire school. I am now a fiber guy thanks to KITCO."

Part Number	Description	NSN	Page #
0831-8245	Inspection, Cleaning and Test Platform Kit	5180-01-574-5887	2
0831-8237	Inspection, Cleaning and Test Platform Kit	5180-01-574-5841	3
0831-8236	Quad Fusion Splicing and Termination Kit	5180-01-574-5837	4
0831-1116	Quad El Fusion Splicing Kit	5180-01-574-5817	5
0831-8235	Military/Commercial Termination Kit	5180-01-574-5828	6
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0831-8200	TFOCA First Generation (FG) Termination Kit	5180-01-503-8333	8
0831-8210	TFOCA Second Generation (SG) Termination Kit	5180-01-503-8930	9
0831-8220	TFOCA Combination Termination Kit	5180-01-503-8937	9
0831-8230	TFOCA (FG) TFOCA (SG) Terminaton and Fusion Splice Kit	5180-01-503-8251	10
0701-5433	TFOCA Cleaning and Inspection Kit	TBD	10
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0705-5466	OLS-5 LED Light Source for Multimode Systems	TBD	11
0705-5467	OLS-6 LASER Light Source for Singlemode Systems	TBD	11
0701-6035	Biconic Digital Length Gauge	6625-01-562-0546	11
0701-6025	Biconic Polishing Fixture	5130-01-564-3563	12
0700-1485 0700-6050	Biconic Cure Adapter Biconic Modified Pliers	5935-01-562-0484 5120-01-564-3565	12 12
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0701-6060	Biconic Insert Tool	5120-01-564-3561	12
0701-6080	Biconic Spanner Wrench	5120-01-563-9861	13
0701-6040	Biconic C-Clip Install Tool	5120-01-564-3564	13
0731-1132	Spring Compression Install and Removal Tool (SCIRT)	5120-01-564-3546	13
0700-4625	Plate Install and Removal Tool (PIRT)	5120-01-564-3562	13
0700-4620	TFOCA (SG) Spanner Wrench	5120-01-564-3558	13
0700-4610	Flare Nut Wrench	5120-01-428-8291	14
0700-1830	Crimp Frame	5120-01-563-6451	14
0700-1850	M83522/16 ST Die Set	5120-01-563-6450	14
0700-1870	SC Die Set	5120-01-563-6449	14 14
0700-1880 0700-1890	LC Die Set TFOCA (SG) Die Set	5120-01-563-6448	14
0700-1830	Crimp Frame with SC Die Set	5120-01-563-6447	14
0700-1073	Flexible Cleaning Swabs for TFOCA (SG) Pins	3120-01-303-0447	17
0700-5391	Flexible Cleaning Swabs for TFOCS (SG) Sockets		17
0700-5394	Flexible Cleaning Swabs for TFOCE (FG) Biconic Pins and Sockets		17
0700-5175	Fiber Optic Cleaning Fluid		17
0700-5165	Fiber Optic Cleaning Wipes		17
0731-1188	Quad Fusion Splice Sleeves		18
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0831-9104	Quad Fiber Optic Thermal Stripper		23
0831-9105	Quad El 250 Micron Fiber Holders		24
0831-9106	Quad El 900 Micron Fiber Holders		24
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0703-3745	Corning Pretium™ Installation Tool		24
0731-3PTFG	TFOCA (FG) Pigtail Cable Assembly Kit	TBD	25
0731-3PTSG	TFOCA (SG) Pigtail Cable Assembly Kit	TBD	25 26
0731-3PTEB 0731-1170	TFOCA (EB) Pigtail Cable Assembly Kit  Jacket Protection Sleeve (TFOCA)	TBD TBD	26
JPS-400	Jacket Protection Sleeve (TFOCA)	TBD	26



For the fifth consecutive year KITCO Fiber Optics has been named to the Military Training Technology (MT2) Top 100 listing of companies that have made a significant impact in the military training industry!





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