

Custom Solutions

Cabling, Connectivity, Kitting, Bundling and more





USA Manufacturing: Made-to-Order Connectivity Solutions

Black Box has been helping customers solve their custom cabling and connectivity needs for over 40 years, building the majority of our solutions at our headquarters just outside Pittsburgh in southwest Pennsylvania.

Experience

Black Box has been building custom solutions since 1976 and has earned a reputation in the industry as the place to go for custom cabling and connectivity solutions. Our dedicated and experienced team can handle your custom inquiries and work with you to ensure that you get a solution designed specifically to meet your needs. When you're looking for specialized cables and connectivity solutions and "off-the-shelf" won't do, come to Black Box for solutions you can trust. We can also create bundles and kits to expedite shipping and installation.

High-Quality Custom Cables

Black Box only uses trusted, high-end cabling and components when building your custom solutions, with every product we produce being tested and inspected by our experienced technicians to ensure delivery of the premium performance you require. And with constant maintenance and investment in technology, we ensure that our facilities will continually be able to provide the cutting edge technologies needed by the industries we serve.

Fast Response Time

We know that when you need a custom solution, you do not always have time to wait. Black Box responds to all custom requests within one business day to fulfill your request as soon as possible. Have a particularly urgent request? Talk directly to one of our custom solutions experts at 1-877-877-2269.



No Order Minimum, Fair Pricing

Black Box has no minimum order requirements. We are happy to assist you with any custom cabling project, no matter how big or how small – at a fair price that fits into your budget.

Fast Turnaround

When it comes to your special projects, we know time is of the essence. That's why we'll turn your custom order around fast, usually from our in-house manufacturing facility outside of Pittsburgh, PA.

Prototypes

Need to ensure your custom solution works in your application first? Black Box and our experienced technicians can work with you to get a prototype designed, built, and sent out to you for testing.

Kitting and Bundling

Have special kitting, bundling, labeling, and shipping needs? We can help. We assemble kits with specific components and even custom-built components for specific installs. Contact us for bundles with volume packs of one or multiple items. And with kitting, you can save time and make sure all needed equipment is complete and arriving on schedule.

ISO Certified

We are an ISO 9001-2015 certified manufacturer and take pride in the products we produce, cutting no corners, testing to ensure premium performance, and making sure that you have confidence in the quality of the solution you receive.

Our Custom Cable Capabilities

No matter how unique your application or environment may be, we can help. Not only can we modify stock cables, we can engineer a one-of-a-kind custom connectivity solution for you. So, whether you need a single cable for a specific application or have special connectivity requirements for an ongoing project, turn to Black Box. We also offer world-class support plus a complete inspection of all solutions with a hundred percent performance guarantee. Tell us what you want to connect. We'll make it happen.

Our Custom Cables Solutions include:

- **Custom Copper Networking**
 - CAT5e/6/6A Patch Cables ([page 5](#))
- **Custom Fiber Networking**
 - Multi-Color Fiber Patch Cables ([page 6](#))
 - Multi-Strand Fiber Trunk Cables ([page 7](#))
 - Cut-to-Length Bulk Fiber ([page 8](#))
- **Specialty Cables ([page 9](#))**
 - Military specification communication cables and customized fiber and coaxial cable
 - Healthcare cables, such as no-adhesive and nurse-call options
 - Retail cables, including harness, POS, PoE, and more
 - Industrial cables and adapters
 - Serial, Telco, Twinax Cables, and more
- **Individual labeling, kitting, and bundling**



Misys Healthcare Systems: Custom Adapters

Misys Healthcare Systems provides healthcare organizations with software and instrumentation for medical laboratories as well as many other products and services. Misys developed a new system for one of its clients that involved new instrumentation and software for three different sites. For the system to be properly connected, it required adapters with custom pinning.

The Misys rep called Black Box and explained what type of adapters were needed. Black Box provided the quote and said the custom adapters would be delivered in a week or more. Unfortunately, critical system testing was about to begin in a few days. When the Black Box rep heard about the tight time frame, she went the extra mile to get the adapters produced and shipped in two days – plenty of time for the system launch.

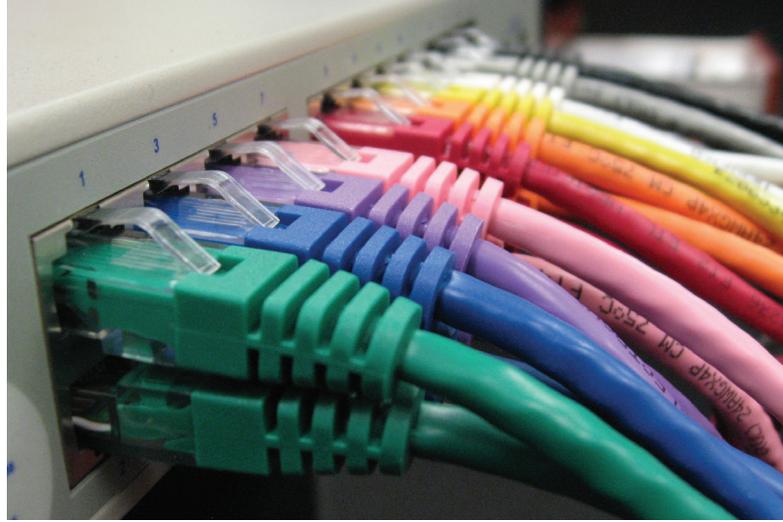
“The crunch was on when the Black Box rep called back. She worked her magic and was able to get the custom adapters out to us in two days – literally! Not only were we ecstatic, but the client was very happy and relieved. Awesome teamwork!”

Jaime Schisel
Instrument Specialist
Misys Healthcare Systems

Custom Copper Network Cables

Custom-Length Ethernet Patch Cable

Why compromise your work by using the wrong cable length? Call Black Box and order the custom-length Ethernet cables you need right away. Black Box eliminates long lead times for custom cables by offering fast turnaround. Best of all, you won't sacrifice quality because we test every custom cable we build.



CAT5e/CAT6/CAT6A Cable Assembly Options					
C6	S	-R	-SB	-STR	-BL
1	2	3	4	5	6
Type	Shielding	Jacket	Connector	Conductor	Color
CAT5e (C5)	Shielded (S)	PVC (R)	Snagless Boot (SB)	Solid (SLD)	Blue (BL)
CAT6 (C6)	Unshielded (U)	Plenum (P)	Basic Connector (BC)	Stranded (STR)	White (W)
CAT6A (C6A)					Black (BK)
<p>Custom-Length Patch Cable Part Number Examples: C6S-R-SB-STR-BL = CAT6 shielded cable with a PVC jacket, snagless boot, stranded conductor in blue. C6U-P-BC-SLD-BL = CAT6 unshielded cable with plenum jacket, basic connector, solid conductor in blue.</p>					Gray (GY)
					Green (GN)
					Orange (OR)
					Red (RD)
					Yellow (YL)
					Violet (VT)

Note: Standard Copper Networking Solutions

When used with our extensive line of copper panels, jacks and hardware, Black Box can serve as your one-stop-shop for all of your networking needs. Check our [CATx cable selector](#) if you're looking for standard Ethernet cables, too.

Custom-Length CAT5e/CAT6/CAT6A Patch Cable

Ordering Custom-Length Copper Patch Cables Has Never Been Easier

1. Build your cable part number using the guide above
2. Call 877-877-2269 to place your order
3. Specify your cable length when ordering
4. Need individual labeling, kitting, bundling or special shipping – just let us know

Individual Expert Support

Do you have any questions concerning your application, or you can't find the cable or requirement you need? Contact our Support Team for help. Call 1-877-877-2269, [chat with us](#), or [request a call back](#) through our contact us form. We can engineer a one-of-a-kind solution for you.



Custom Fiber Cables

Multi-Color Fiber Patch Cables

Don't worry about too short or too long cables. Order them in the exact length you need. Select from multimode and singlemode fiber cables in standard colors, or choose from nine additional colors to identify different security levels, applications, and departments. With more than 23,000 variations to choose from, you can color code your network with the largest cable selection in the industry.



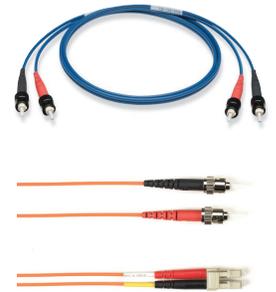
Build your multi-colored fiber optic patch cable					
FO	CMR	50	001M	STST	BL
1	2	3	4	5	6
	Select the Type of Jacket	Select an Appropriate Core Size	Determine Length	Select the Connector Type	Choose your Color
Constant for fiber optic (FO)	PVC OFNR (CMR)	62.5 Micron (62)	1 Meter (001M)	ST to ST (STST)	Blue (BL)
	Plenum OFNP (CMP)	50 Micron (50)	2 Meters (002M)	SC to SC (SCSC)	Orange (OR)
		Low-Smoke (LZH)	SMF OS2 9/125 (SM)	3 Meters (003M)	LC to LC (LCLC)
	MMF OM3 50/125 (10)		4 Meters (004M)	MT-RJ to MT-RJ (MTMT)	Brown (BR)
			MMF OM4 50/125 (M4)	5 Meters (005M)	ST to SC (STSC)
	6 Meters (006M)			ST to LC (STLC)	White (WH)
	7 Meters (007M)			ST to MT-RJ (STMT)	Red (RD)
	8 Meters (008M)			SC to LC (SCLC)	Black (BK)
	10 Meters (010M)			LC to MT-RJ (LCMT)	Yellow (YL)
	15 Meters (015M)			SC to MT-RJ (SCMT)	Violet (VT)
	20 Meters (020M)				Pink (PK)
	25 Meters (025M)				Aqua (AQ)
	30 Meters (030M)				

Examples of Fiber Optic Cable Codes:

Examples of Fiber Optic Cable Codes:

FOCMR62-011M-LCLC-RD: OM1 cable with a PVC jacket, 62.5-micron core, 11-meter length, LC-LC connectors in red
 FOCMP50-005M-STSC-OR: OM2 cable with a plenum jacket, 50-micron core, 5-meter length, ST-SC connectors in orange

Every cable is tested going through a hundred percent inspection to guarantee performance. Need individual labeling, kitting or bundling? Just let us know, and we will make it for you.



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Multi-Strand Fiber Trunk Cabling

Who has time to fool around terminating fiber cables in the field? Whether you're deploying a LAN or a large data center, save time and eliminate all performance worries with custom pre-terminated multistrand fiber cables from Black Box. You will get top-quality fiber cable that's built to your exact specs, fully tested, and shipped ready for installation.



Ordering Multi-Strand Fiber Trunks Has Never Been Easier.

1. Build your cable part number using the guide below
2. Call 877-877-2269 to place your order
3. Specify your cable length when ordering
4. Need individual labeling, kitting, bundling or special shipping – just let us know



Build your Pre-Terminated Multi-strand Fiber Part Number

[X][X]	[X]	[X][X]	[X][X]	[X][X]	[X][X]	[X][X]
1	2	3	4	5	6	7
Select Cable Type	Select Cable Flame Rating	Select Number of Fiber Strands	Select Fiber Type	Select Connector for Side A (Outside/pulling end)	Select Connector Type for Side B (Inside end)	Select Pulling Eye Option
Indoor Tight Buffered (ID)	Riser - OFNR (R)	4-Fiber (04)	OM1 (M1)	LC UPC (LC)	LC UPC (LC)	No pulling Eye (N)
		6-Fiber (06)	OM3 (M3)	SC UPC (SC)	SC UPC (SC)	Pulling Eye side A - outside end (A)
Indoor/Outdoor Tight Buffered (IO)	Plenum - OFNP (P)	12-Fiber (12)	OM4 (M4)	ST UPC (ST)	ST UPC (ST)	Pulling Eye side B - inside end (B)
		24-Fiber (24)	Single-mode (SM)			
Indoor Interlocking Armored Tight Buffered (IA)						Pulling eye both sides (C)
Indoor/Outdoor Interlocking Armored Tight Buffered (HA)						

Note: Break-out lengths on each end of the cable are 24 inches by default.

Get your pre-term fiber quote instantly online.

Visit our Custom [Preterm Cable Configurator](#) now.

Individual Expert Support

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Cut-to-Length Fiber Bulk Cables

Black Box offers a wide selection of high-quality indoor and outdoor fiber cable. Costly 500- and 1,000-meter minimum length cables are a thing of the past. When you order from Black Box, you get maximum value because you specify the length of your cable with no minimums. With the extensive selection of cables in stock at our U.S.-based warehouse, there is no need to wait weeks for delivery.

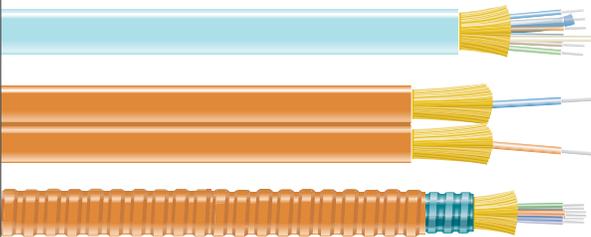
Fiber Bulk Options

Indoor Fiber Cables

Designed for backbone, horizontal, patching, and harsh-environment runs.

Options include:

- Distribution-style cable tight buffered
- General purpose zipcord cable
- Interlocking armored



Indoor/Outdoor Fiber Cable

Ideal for campus network cabling runs between and within buildings.

Options include:

- Distribution-style cable
- General purpose zipcord cable
- Interlocking armored



Plan Your Fiber Channel

Complete your fiber infrastructure with patch cables, connectors, adapters, panels, and enclosures available on our [web shop](#).

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Serial, Telco, Coax, Twinax, and Specialty Cables

Tell us what you want, and we make it happen.

Any environment, any application. Black Box stands ready to create a solution that meets exactly your specific needs.

Our custom connectivity capabilities include:

Custom Services

- Design
- Engineering
- Prototypes
- Schematics
- Labeling
- Kitting
- Packaging
- Shipping

Cable Media

- RS-232
- Serial
- Coax
- Twinax
- Legacy

Connectivity Solutions

- M12
- Y & Octopus
- Ribbon
- Adapters
- Connectors
- Pinning
- Jumpers
- D-Style
- RJ and MMJ



DB25 TO BNC
OCTOPUS CABLE



CUSTOM
OCTOPUS CABLE



DB15 ADAPTER
MODIFIED WITH BNCs



CUSTOM MODULAR
TO 3.5-MM ADAPTER



RJ-45 TO DB9/WIRE
FERRULES OCTOPUS
CABLE



CUSTOM RJ
LOOPBACK

Our customer applications span virtually every sector.

Some of our solutions include:

- Military specification communication cables and customized fiber and coaxial cable
- Industrial cable and adapters for harsh environments
- Retail cables, including harness, POS, PoE, and more
- Healthcare cables, including no-adhesive and nurse-call cables for patient monitoring
- Serial, Telco, Twinax Cables

Use Cases

Healthcare

A long-term customer that handles patient monitoring systems had a unique challenge where they needed to find cable covers made without adhesive that stay within a certain price point to secure a project with an end user. Black Box developed a solution in cooperation with a partner and provided the cable design with the exact customer specs at the required price point. Our customer not only secured this project but also further rollout of this same setup.



Retail

A customer approached Black Box for a special POS-kit that would enable a more efficient process whenever they have a new business contract. The custom team created a kit for them with custom-length CAT6 Ethernet cables, Velcro harnesses, phone cables, and other equipment suiting the deployment of one cabinet. The cables are individually labeled, ensuring a proper installation. Now the customer can order all the components they require under a single part number, benefiting from less administration while having the guarantee that all components arrive complete and in time for each rollout.



Military

A federal customer reached out to Black Box to support their strategic sourcing agreement with an aircraft company. Our custom cable team worked closely with the customer and designed an infrastructure solution that fully supports the ambitious simulation trainings rolled out in multiple training academies.



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WHY BLACK BOX

Expertise

Black Box project engineers can assist with system assessment, design, deployment and training.

Breadth

Black Box offers the most comprehensive suite of engineered AV, KVM and infrastructure solutions in the industry.

Support

Reflecting our commitment to complete satisfaction, our dedicated team of highly trained support technicians is available by phone free of charge, every day of the year.

Experience

Providing leading technology solutions since 1976, Black Box helps more than 175,000 customers in 150 countries build, manage, optimize and secure IT infrastructures.

Warranties

Multi-year warranties with multi-year extensions and replacement options are available.

Center of Excellence

Black Box offers a Center of Excellence, featuring professional services and support agreements that help optimize customers' systems and maximize uptime.

