PUSH-PULL CONTROLS GLOSSARY

LEXCO

Lexco Cable aims to delight customers by supplying value added wire rope related products.

Wire Rope Hardware & Tools Glossary

INTRODUCTION

Push-Pull - This term is usually used to describe any conduit assembly. When the assembly is installed, the conduit is fixed in place enabling the inner cable to travel when actuated.

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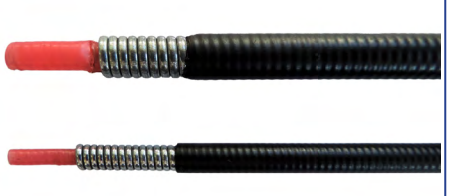
Push-Pull Controls

Push-Pull Control		A flexible assembly that can actuate with both push and pull motion without the inner-cable buckling. The inner-cable is guided through conduit and support tubes for assisting the push motion. Typically, the ends of the inner-cable have end rods with UNF thread.
Pull-Only Control		Some conduit assemblies are designed for the inner-cable to be pulled (not pushed) during actuation. At the output end, there could be an adjustable fitting such as a wire stop. Also, the inner cable can be more flexible compared to a push and pull control. In this type of control, the inner-cable is returned to resting position either manually or with spring assistance.
Conduit Nickname: housing, casing		Conduit is designed to have an inner-cable installed through it. Typically, the conduit has a plastic liner and a plastic cover with steel wire in between. We supply conduit specifically for mechanical cable applications. These include bicycle, bowden and long lay conduit.

Push-Pull Controls Glossary

Bicycle Conduit		The wire inside this type of conduit is flat which creates high flexibility. The flat wire is less crush resistant compared to round wire. This type of conduit is great for light duty applications such as a bicycle brake cable.
Bowden Conduit		Round wire is spiraled like an extension spring. It's heavier duty than bicycle conduit and more economical than long lay conduit. This type of conduit is widely used in industrial applications. Common examples include lawn mowers and snow blowers.
Long Lay Conduit		Longitudinally laid wires are inside this type of conduit. For high performance push-pull controls a binder wire is wrapped around the long lay wires. Advantages of long lay conduit include kink resistance and higher load capability which make it the best option for a push-pull control with demanding functional requirements.
Innermember Nickname: inner cable		This term describes the wire, strand or cable that gets installed inside the conduit. Armor core is an innermember where a flat wrap of wire surrounds a wire strand for reinforcement. In some cases, an innermember can have a plastic jacket.

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Adjusters Nickname: bulk head, conduit cap		A conduit end fitting with external thread that provides a way to mount and adjust an assembly. It is typically assembled with jam nuts. Most adjusters are crimped to conduit but we can also provide one that is uncrimped, meaning it can rotate freely. In addition to models shown on our website, we can custom manufacture adjusters to meet your requirements.
Non-Threaded (add 5000-4)		If you want a conduit end fitting but don't need an adjuster, we offer alternatives that include caps, ferrules, snap rings and grooves. We can also make you a conduit elbow. An elbow is usually used when a cable exits conduit at a 90-degree radius due to routing.
Wire Stops Nickname: throttle stop		The inner cable goes through the hole on the body of the wire stop and the set screw gets tightened into place. They are compatible with both solid and stranded wire. Wire stops are designed to be field installed on one side of a pull control.

Push-Pull Controls Glossary

Boots/Bellows		Rubber, accordion-like fitting that's mounted in between the conduit and cable end fittings. It provides protection of dust, dirt or moisture from contacting inner cable assembly and mounted.
Equalizer		An adapter plate that allows you to connect three push-pull controls together. Two controls connect on one side of the plate, while the third control connects from the opposite side of the plate.
Clevis Nickname: fork end, yoke end		One feature that all clevis' have in common is a U-shape end fitted with a clevis pin. One way to integrate a clevis on a push-pull control is to thread it on. In this case, the clevis must be tapped. Another way clevis' are installed is with a ball or button end fitting to secure the clevis on the cable. This type of clevis is often called a strap fork or a strap clevis. In this case, the clevis can either toggle or pivot. When the ears of the strap clevis are straight, it can be referred to as an open strap clevis. When the ears taper toward each other, it's referred to as a step strap clevis. If the ears of the strap clevis touch, it's called a closed strap clevis or strap eye clevis.

Cablecraft® Push-Pull Controls

INTRODUCTION

Cablecraft push-pull controls are of the highest quality on the market, hands down and Lexco Cables is a proud Cablecraft Assembler. We are well positioned to not only make replacement push-pull assemblies, but we're also well suited for manufacturing of new OEM push-pull controls.

Push-Pull Standard Control		The assembly has a support tube on both sides. Meaning the assembly can be pushed from either direction.
Pull-Only Brake		Brake conduit is not longitudinal, it's a bowden style. They do not have a support tube, that is why they are not designed for pushing, hence 'pull only'. You can incorporate a spring so it will return the assembly position.
Hand Control Assembly		The push-pull control is connected to a hand lever.
Foot Control Assembly		The push-pull control is connected to a foot lever.

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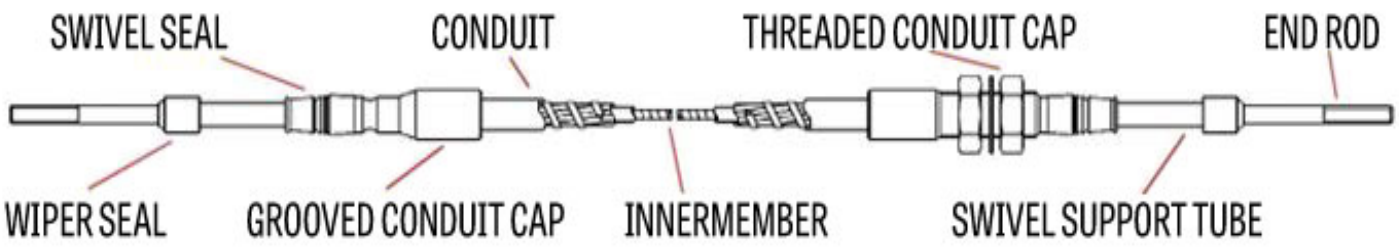
CABLECRAFT INNERMEMBER & CONDUIT REFERENCE CHART

	Commercial/ Bristow							
	Pull-Only	Push-Pull	Utility	Low-Friction EXT	Low-Friction	Blue Max	High-Temp	Brake
Cablecraft Innermember Construction	Solid Spring Wire	Strand + Armor Wrap	Strand + Armor Wrap	Strand + Armor Wrap	Strand + Armor Wrap	Strand + Armor Wrap	Strand + Armor Wrap	Strand
Cablecraft Innermember Poly Cover	N/A	N/A	N/A	NYLON	PTFE	N/A	N/A	Nylon
Cablecraft Conduit Construction	Long Lay	Long Lay	Long Lay + Binder Wrap	Long Lay + Binder Wrap	Long Lay + Binder Wrap	Long Lay + Binder Wrap	Long Lay + Binder Wrap	Flat Wire Bowden
Cablecraft Conduit Liner Material	HDPE	HDPE	HDPE	HDPE	PET Polyester	TFE	TFE	HDPE
Cablecraft Conduit Cover Color	Black	Black	Gray	Green	Green	Blue	Black	Black



CABLECRAFT STANDARD PUSH-PULL SIZES

	End Rod		Conduit Cap	
Size	UNF	METRIC	THREADED	GROOVED ROOT DIA
VLD	10-32	M5	7/16-20	1/4
LD	1/4-28	M6	5/8-18	0.41
MD	5/16-24	M8	11/16-16	0.47
HD	3/8-24	M10	7/8-14	1/2
EHD	1/2-20	N/A	1-14	3/4

Cablecraft® Push-Pull Controls

Control Heads		The assembly has either a knob on one side (round, T, or micro adjust) on the control head side, there's isnt a support tube but there is a conduit fitting and that's the head tube.
Control Heads: Non Lock		Designed for remote engine shutdown/choke, latch/valve operation, and numerous other applications and are intended for light to moderate loads. They are cost effective solutions when space is limited or rod linkage and bell cranks are not suitable choices.
Control Heads: Twist Lock		Control head assembly with turn to lock feature.
Control Heads: Micro Adjust		You can set the travel at a specific point, then turn the knob to lock it. A push button and a knob allows you to dial in an exact locking point.

Push-Pull Contorls Glossary

Ball Joints		Has internal thread on one side and an external on the other. In the middle is a 90 deg pivot that is used for linkage.
Rod Ends		Are available in male external thread or female internal thread. In the head is a ball bearing that rotates. Also used for linkage.

Have questions? Need information? CONTACT US TODAY!

Wire rope products are utilized in vastly diverse industries and environments. Our job at Lexco Cable is to guide our customers' decisions in selecting the optimal combination of wire rope products for their unique applications.

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