

RoadMASTER

MULTIPAIR AUDIO SNAKES



FEATURES:

- » Heavy Duty Steel U-Channel Stagebox for Best Shielding and Connector Protection.
- » Pro Co DuraLink Multipair (2 x 24 AWG) Audio Cable
- » Individually Shielded Pairs (100% Coverage Foil Shield)
- » Durable PVC Outer Jacket
- » Color-Coded Fanout for Easy Channel Identification
- » CL2 Rated to Meet NEC Requirements for Safety
- » Cable is Highly Flexible
- » Exclusive Neutrik® Flat Latch Female Panel Mount connector for low profile, snag-free connector field
- » Neutrik® and Amphenol® Metal-shell Connectors for High-use Durability
- » Highly Customizable Many Options Available
- "Any-Excuse, Even Abuse" 5-Year Warranty

DESCRIPTION:

When your multipair system must meet the demands of travelling acts or permanent installation situations where the highest degree of durability is required, the choice is clear. Pro Co RoadMASTER Multipair Audio Snakes are built to withstand the night after night abuse of set-up and tear-down, providing you with a system that you can rely on.

Each RoadMASTER stagebox is constructed of a 16 gauge steel connector panel and a heavy-duty 12 gauge steel U-channel enclosure designed for excellent shielding and protection of connectors. The stagebox is coated with black semi-gloss epoxy paint with white silkscreened channel identification numbers.

Mic inputs are Neutrik® NC3FQL-PW "Flat Latch" Female XLR connectors and returns are Neutrik NC3MQL-PW Male XLR connectors or Neutrik NJ3FP6C 1/4" T/R/S Panel Jacks (as designated). The Flat Latch female XLR panel-mount connector provides a smooth, snag-free connector field and is made exclusively for Pro Co by Neutrik.

The stagebox is wired with CL2-rated PRO CO DURALINK Multipair Audio Cable to a 2, 3 or 4 foot Fanout (determined

by total number of channels) with Neutrik NC3MX-1 Male XLR connectors and Neutrik NC3FX-1 Female XLR connectors or Amphenol® ACPS-GN 1/4"T/R/S Phone Plugs (as designated).

The cable is secured to the stagebox with a heavy-duty wire mesh strain relief and a wire mesh cable grip is provided at the fanout.

The individual channels of the Fanout are protected with colorcoded irradiated polyolefin shrink-tubing for long flex-life and easy channel identification.

Pro Co RoadMASTER Standard Multipair Audio Cables are available in 8, 12, 16, 20, 28, 32, 40, 48, 56 and 64 channel Fan to Box configurations and standard 50, 100 and 150FT. lengths. Standard Fan to Fan configurations include 8 and 12 channels in 25, 50 and 100FT. lengths.

Custom lengths, multipin disconnect and transformered or non- transformered splitting and other custom options are available. Consult the information on the following pages or contact the factory for details.



ROADMASTER CUSTOM CONFIGURATIONS OPTIONS:



HARD WIRED FEED THRU SNAKES

A hardwired feed thru snake is a box to two (2) fan snake. The main trunk and fan is intended to go to the front of house console. It will carry all of your mic inputs and your returns. The second trunk and fan is intended to feed another location. Typically, this would be a monitor console located on or near the stage. The returns are not typically split to run through the second trunk. This hardwired split may be transformer-isolated or direct

BOXES WITH MULTIPIN DISCONNECTS

I/O boxes are offered in two versions, a narrow format floorbox for 12 thru 28 channel constructions and a wide format floorbox (pictured at left) for 32 thru 64 channel constructions. The multipin I/Os are located on a face that is perpendicular to the connector field on the floor boxes. In the event that your box is customized as a 19"rack box, the multipin I/Os are mounted flush to the XLR connector field. Pro Co floorboxes are engineered to provide protection of your critical conection points on both the connector field and multipin dicconnects for years of dependable performance.

Additional space has been provided on both the small and large format Pro Co floor boxes to offer room for customer options as needed. Space for additional hardwired or multipin feeds has been calculated into the design of these components.

Optional Pro Co splitter transformers allow for one direct/one isolated and one direct/two isolated feeds. Ground lift switches are recommended with the purchase of isolated splits. Ground lift switches cab also be added to non-isolated constructions. The large format floor box has 4 handholds provided for easy transport.

FANOUTS

Color-coded fanouts are normally configured with male XLR connectors to input microphone signals into the mixing console and female XLR connectors to output returns back to the stage amplification. Standard splay length is 4 feet. The connectors are tie-wrapped in bundles of 4 or 8 for ease of identification during setup. Additionally, each channel is identified with colored heat shrink tubing and individual channel numbers are hot-stamped on to the heat shrink. The other end of the assembly is typically wired with the appropriate male multipin connector. RoadMASTER Custom Snakes are available in 12, 16, 20, 28, 32, 40, 48, 56 and 64 channels. It would typically mate with the female multipin at the end of a trunk

LINETAILS

A linetail is a long fanout used primarily to connect the box's isolated feed to the monitor console on stage. Linetails are configured exactly like fanouts to perform a slightly different function. They are differentiated from fanouts by the presence odf a typically longer trunk length and the default multipins used are female.

TRUNKS

RoadMASTER Custom Snake Trunks are built to customer specified length using Pro Co Duralink A CL2-rated Multipair Audio Cable. Our 64-channel trunks are constructed with 67-pair wire and 201-pin multipin connectors, providing a full 67 channels if needed. The additional channels in the wire provide "spare for repairs" in our 64 channel versions

RoadMASTER Custom Snakes typically specify male multipins on boxes and female multipins on the cables (exceptions: fanouts use male multipins, extension trunks use both male and female multipins). Use of female multipin connectors allows either end of the main trunk to be pulled from the stage to the front of house, eliminating the embarrassment and hassle the pulling the "wrong end" could create. Of course, male to female gendered trunks are available at the customer's request.

EXTENSION TRUNKS

Extension trunks are available in customer specified lengths. Typical lengths would include 50, 100, 150, 200, 250 and 300 foot lengths. A Male multipin connector is supplied on one end and a female multipin on the other end. It is intended to be used as an extension to a main trunk (female to female multipin configuration).

CustomRoadMASTER

MULTIPAIR AUDIO SNAKES

ROADMASTER CUSTOM CONFIGURATIONS OPTIONS:







Tourline Multipin Connector

MASS Multipin Connector



Fan to Blunt Cut



Quick Link Solution

The configurations and options presented here represent many of the most common customization requests. If the configuration or particular options you require do not appear here, please contact the factory for an immediate quote. Pro Co would be delighted to provide you with the exact multipair audio system you desire.

If you require a digital audio distribution system, Pro Co also produces the Momentum® Digital Audio Distribuition Network. To learn more about Momentum, visit www.procomomentum.com.

INF BOXES

Line boxes provide multiple input points on a stage, "uncluttering" the floor from the mutitude of microphone cables needed for most venues. Line boxes use floorboxes, hardwired to the customer-specified length of Pro Co Duralink wire, terminated to a multipin connector. The multipin connector is then intended to connect to the main system rack or floorbox.

TOURLINE MULTIPIN CONNECTORS

Tourline bayonet-locking connectors have no threads to bind and offer a tri-lock audible, visual and tactile indication of locking. The all-machined construction, thick wall coupling rings and shells and hard-wearing finish promise reliable connections for up to 2,000 insertions. To assure that mating is reliable in the 64 channel system, the 201 pin connectors are equipped with an "overkill" mating scheme using a 5 key/5 keyway system which makes it impossible to mis-mate the connectors.

The multipin connectors are watertight when mated. The gold plated contacts are easily fitted or removed during assembly or repair. Insertion, extraction and crimp tools plus additional pins for emergency repairs are available. Protective caps to secure the connectors for transportation are standard on all assemblies.

MASS MULTIPIN CONNECTORS

MASS 176 connectors are also available in cable- and panel-mount versions. Our MASS connectors provide outstanding multipin connector reliability. The rugged metal shell protects against maoisture and physical abuse. The hermaphroditic design minimizes the number of required parts. All MASS connectors include a heavy-duty dust cap and contacts.

Pro Co can outfit your multipair system with the multipin connectors of your choice. Contact Pro Co for pricing.

BLUNT CUT

Pro Co can leave either end of your cable product unterminated. From time to time, customers may prefer to make terminations in the field or in their own shop. Pro Co can provide your cable product blunt cut and unterminated at either or both ends at your request.

PREP FOR CONDUIT PULL

To facilitate ease of installation of a RoadMASTER Custom Snake, Pro Co can prepare the ends of your cable product for your termination in the field and protect those ends for pulling through conduit. Once you have the cable in place, unwrap the ends and each cable is prepped for your termination.

QUICK LINK SOLUTION (QLS)

Reliable and readily available EDAC E-3 connectors are factory installed and numbered by experienced Pro Co technicians, on plates, pull wires or both. Use of Pro Co's QLS option for field termination of your multipair interconnect can save time and reduce errors. QLS ends can be delivered as shown or prepped for conduit pull. For more information on Pro Co's Quick Link Solution, visit www.procosound.com/snakeworks/qls-snakes.

TRANSFORMER ISOLATED SPLITS

The use of audiophile-grade Pro Co MBT transformers allows RoadMASTER Custom Snakes to provide floating, low-impedance output(s) with wide, flat frequency response, ultra-low distortion, and minimal ringing or overshoot to degrade transient response. The transformer's dual electrostatic shields used in conjunction with a ground lift switch provide isolation and buzz-free operation in virtually any environment. Available options include one direct/one isolated output and one direct and two isolated outputs. Pro Co MBT-1 and MBT-2 transformers are the default components used for transformer isolated splits. Pro Co will gladly quote an alternative transformer at the customer's request.

GROUND LIFT SWITCHES

Ground lift switches are highly recommended for all transformer isolated splitter snakes to provide buzz-free operation in virtually any environment. Ground lift switches can also be added to non-transformer isolated splits as well.

STAGEBOX SPECIFICATIONS: STANDARD CONFIGURATIONS:

CONNECTORS:

MICROPHONE INPUT: NEUTRIK® NC3FOL-PW* XLR Female Panel-mount RETURNS OUT XLR MODEL: NEUTRIK® NC3MQL-PW XLR Male Panel-mount **RETURNS OUT T/R/S MODEL:** NEUTRIK® NJ3FP6C 1/4"T/R/S Panel-mount **U-CHANNEL BASE:** 12-Gauge Cold Rolled Steel CONNECTOR FRAME: 16-Gauge Cold Rolled Steel FEET: Non-skid Rubber (4) FINISH: Black (Semigloss Epoxy) **CHANNEL MARKING:** 0.25 "White (Semigloss Epoxy) Characters STRAIN RELIEF: Wire Mesh (Aircraft-grade Steel)

All stagebox-end terminations are hand soldered in compliance with NASA soldering

* NEUTRIK® NC3FQL-PW XLR Femal Panel-mount "Flat Latch" connectors are a Pro Co exclusive product manufactured by Neutrik.

SPECIFICATIONS:

CONNECTORS:

MICROPHONE OUTPUT: NEUTRIK® NC3MX-1 XLR Male Cable-mount RETURNS INPUT XLR MODEL: NEUTRIK® NC3FX-1 XLR Female Cable-mount RETURNS INPUT T/R/S MODEL: AMPHENOL® ACPS-GN 1/4"T/R/S Cable-mount **CHANNEL INSULATION:** .010" (.254mm) Polyethylene CHANNEL MARKING: Numbered Color-Coded Polyolefin Heat Shrink Tubing **CABLE HANGER:** Wire Mesh (Aircraft-grade Steel)

All fan-end terminations are hand soldered in compliance with NASA soldering

MULTIPAIR AUDIO CABLE:

Pro Co DuraLink Multipair Audio Cable

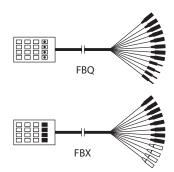
UL RATING:	CL2			
CONDUCTOR GAUGE:	24 AWG	(.20mm ²)		
STRANDING no. strands x AWG:	7 x 32	(7 x .254mm ²)		
INSULATION:	.010"	(.254mm)		
INSULATION MATERIAL:	High Density Polyethylene			
NOMINAL LAY LENGTH:	1.5"	(38.1mm)		
DRAIN WIRE GAUGE:	24 AWG	(.20mm ²)		
DRAIN WIRE STRANDING:	7 x 32	(7 x .254mm ²)		
SHIELD MATERIAL:	Aluminum/Pol	yester Tape Wrap		
SHIELD COVERAGE:		100% coverage		
CAPACITANCE				
- between paired conductors:	23 pF/ft.	(75 pF/m)		
- between one of paired conductors and remaining				
conductor tied to shield):	43 pF/ft.	(141 pF/m)		
CALCULATED IMPEDANCE:	67 ohms/kft	(219.8 ohms/km)		
VELOCITY OF PROPAGATION:	66%			
NOMINAL CONDUCTOR RESISTANCE @ 20°C:	24.6 ohms/kft	(80.7 ohms/km)		
OVERALL DIAMETER:				
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Model	Pairs	O.D.	O.D.mm
DLAC 8	8	.391"	(9.93 mm)
DLAC 12	12	.475"	(12.1 mm)
DLAC 16	16	.546"	(13.9 mm)
DLAC 20	20	.560"	(14.2 mm)
DLAC 28	28	.680"	(17.3 mm)
DLAC 32	32	.710"	(18.0 mm)
DLAC 40	40	.783"	(19.9 mm)
DLAC 48	48	.837"	(21.3 mm)
DLAC 56	56	.890"	(22.6 mm)
DLAC 67	67	.986"	(25.0 mm)

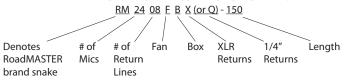
DURALINK DLAC MULTIPAIR AUDIO CABLE IS ROHS COMPLIANT

FAN TO BOX

Available in 8, 12, 16, 20, 28, 32, 40, 48, 56 and 64 channel count and 50, 100 and 150 foot lengths. Available with either XLR or 1/4"T/R/S returns.

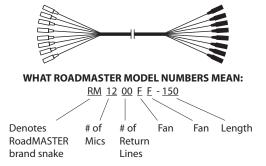


WHAT ROADMASTER MODEL NUMBERS MEAN:



FAN TO FAN

Available in 8 and 12 channel counts and in 25, 50 and 100 foot lengths.



For more information about custom configurations for RoadMASTER Multipair Audio Snakes, consult the inner pages of this document, contact the factory, or see the RoadMASTER Custom Configuration Information available from the Pro Co website http://www.procosound.com/roadmaster-custom>.

Pro Co has chosen to use Tourline Multipin cable- and panel-mount connectors on all of their multipin disconnect products. Your Pro Co Multipair Audio Cable product will come with Tourline Multipin Connectors unless otherwise specified. Pro Co also provides MASS 176 Multipin cable- and panel-mount connectors among other brands and types of multipin connectors. Pro Co will provide your system with the components you require. It is our goal to provide you with exactly what you need, when you need it.

Pro Co limits ther minimum trunk length to 6 ft. and recommends a maximum main trunk length that does not exceed 500 ft. trunk lengths are typically quoted in increments of 5 ft.

Pro Co would be pleased to quote your multipair snake requirements. Contact the factory at (800) 253-7360 to discuss your specific requirements.

