



Pro Cable System

Plug and Play System for Permanent Installations

www.gantom.com
Updated: March 28, 2018

Distributor:

The Techni-Lux logo consists of a blue triangle pointing to the right, with a white globe icon inside the top right corner. Below the triangle, the word 'Techni-Lux' is written in a black, serif font. Underneath the company name, the website address 'www.techni-lux.com' is written in a smaller, black, sans-serif font.

Techni-Lux
www.techni-lux.com

Phone: 407-857-8770
Fax: 407-857-8771
Email: sales@techni-lux.com

All Precision Series and Gantom Series fixtures are available in a Pro Cable compatible connector option. This option has both low voltage power and DMX signal integrated into a single locking connector for easy and secure installation. Pro Cable connectors are sealed water-tight and securely lock together for either temporary or permanent installations in both indoor and outdoor environments. Fixtures with Pro Cable connectors are compatible with Pro Cable G8 Distribution Boxes (home run layout) and T Connectors (daisy chain layout).

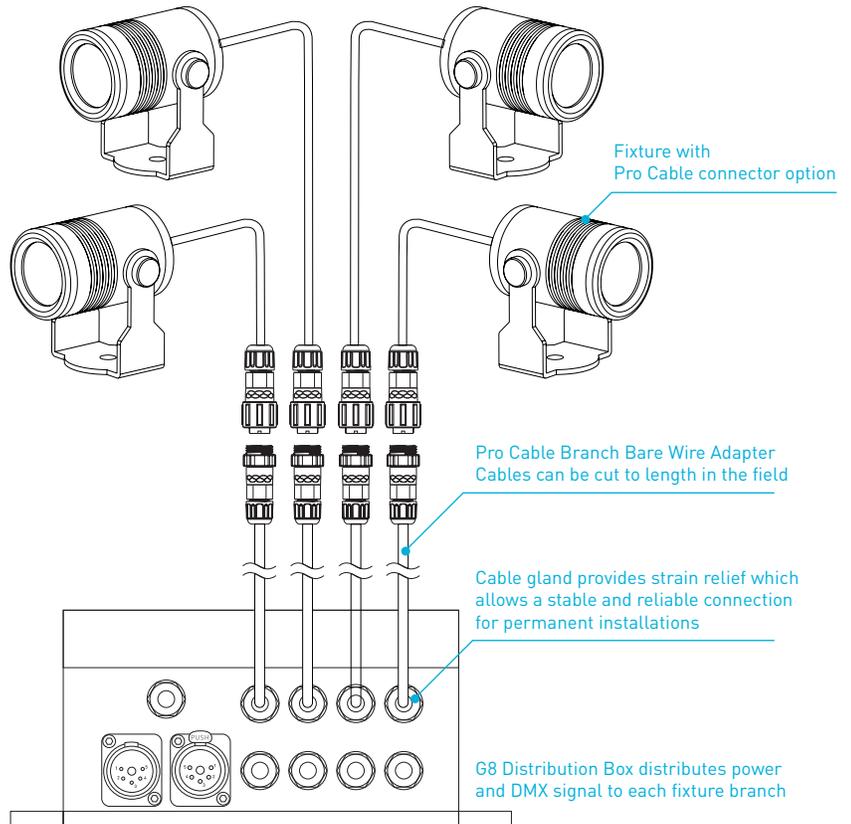
Home Run Layout (pages 2-7)

The home run (aka star) layout provides power and DMX signal to multiple fixtures from a centralized distribution box. Each individual light fixture has a branch cable running back to a G8 Distribution Box. Power and DMX signal are provided to the distribution box, which then outputs power and DMX signal to up to 8 fixtures.

Each of the 8 outputs on the G8 Distribution Box has an active DMX signal repeater which ensures that a strong and reliable DMX signal is being sent to each fixture. The G8 Distribution Box is available in either an option with cables which can be cut to length in the field and connected to the distribution box using screw terminal connections (**GP001 and GP002**) OR a fully connectorized plug-and-play option (**GP003**).

Advantages:

- Centralized distribution box makes maintenance easy
- Easy to expand the system 8 fixtures at a time
- Exact cable lengths are not required to be known prior to installation since cables can be trimmed down to the proper length in the field (GP001 and GP002) or extended using branch cable extensions (GP003)



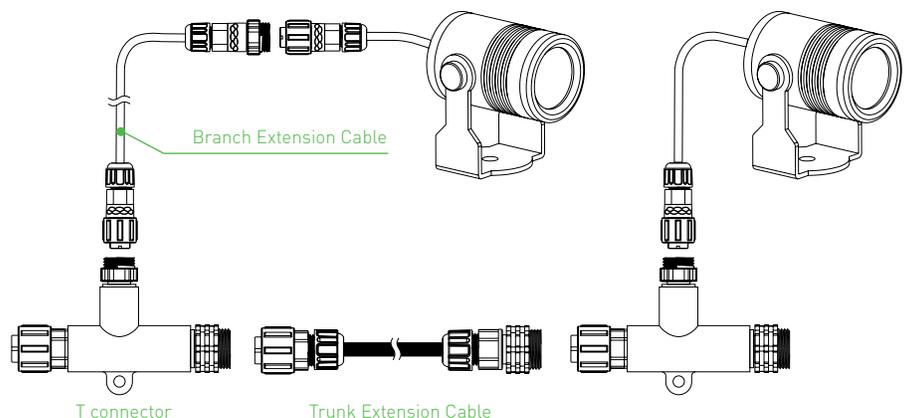
Daisy Chain Layout (page 8)

The daisy chain layout allows for light fixtures to be connected together in series using T connectors which branch off to each light fixture. The T Connectors are joined together using a thick **Trunk Cable** which carries the electricity for all of the light fixtures on the line.

Each T connector is then connected to a single light fixture using our more compact **Branch Cable**. An integrated DMX repeater built into each T connector allows for reliable extensions of the branch cable without signal loss.

Advantages:

- Minimizes the total amount of cabling needed for a system
- Modular design allows for easy adaptation to application environment
- Supports up to 160 Watts of Gantom light fixtures at 24VDC



Power and Signal Distribution Made Easy



G8 Distribution Box - Indoor Field Install GP001

The G8 Distribution Box provides power and an electrically isolated DMX signal to up to 8 light fixtures at the same time from a central location. The G8 Distribution Box is intended for both semi-permanent and permanent applications. 12 VDC power can be provided to the G8 Distribution Box from one of our **PowerPak 5000 (PP31 or PP33)** power supplies. A DMX control signal can be provided from any standard DMX512 compatible controller. Inside the G8 Distribution Box, both power and signal are combined and distributed to each of the 8 branch ports. The user does not need to worry about DMX signal reflection issues because each branch port has an active and independent DMX repeater sending an electrically isolated signal to each output. Each fixture can be located as far as 100 meters away from the G8 Distribution Box using our Pro Cable system of cables. The system can easily be expanded with additional distribution boxes having their DMX signal inputs and outputs daisy chained together.

The **GP001** model features screw terminal connections for power input and standard XLR-5 connections for DMX input and output. Each light fixture is also connected using screw terminal connections.

The **GP002** model features screw terminal connections for all inputs and outputs including the DMX signal. This version is suitable for outdoor installations since all inputs and outputs have cable glands that prevent water from entering the distribution box*.

Both GP001 and GP002 allow the installer to cut a Branch Bare Wire Adapter Cable to the appropriate length in the field which then connects to the distribution box using screw terminal connectors. The chassis has a larger design to allow for easy hand access to the screw terminal adapters within.

The **GP003** model is fully connectorized and does not require any manual wiring of screw terminals. The DMX input and output use standard XLR5 connectors, power input uses a standard 2.1mm DC barrel jack, and each of the branch outputs use the Pro Cable Branch connector, making it excellent for installations where the system may need to be reconfigured. Its smaller form factor also makes it great for applications where space is limited.



G8 Distribution Box - Outdoor Field Install GP002

FEATURES

- ✓ Distributes 12 VDC power and DMX signal to up to 8 fixtures
- ✓ Actively repeated DMX signal to each branch output
- ✓ Fixture can be up to 100 meters (328 feet) away from distribution box
- ✓ Reliable and low maintenance connections
- ✓ Available in both field install and plug-and-play options
- ✓ Cables available in various lengths to adapt to any fixture layout
- ✓ Easy installation saves time and money

SPECIFICATIONS

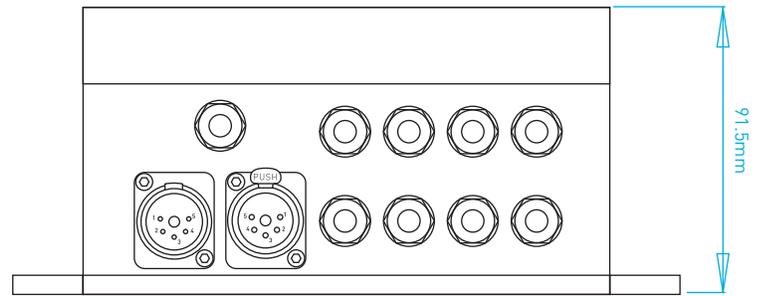
Input	12VDC (PP31 or PP33 recommended)
Output	8 branch ports with 5 pin phoenix style screw terminal connectors (GP001 / GP002) or sealed locking connectors (GP003) 10W max per branch, 60W max total
DMX Signal In and Thru	XLR-5 (GP001 / GP003) or 3 pin phoenix style screw terminal connectors (GP002)
Material	Grey ABS Plastic
IP Rating	IP60 (GP001 / GP003), IP65* (GP002)
*The cables entering the GP002 must have a diameter from 3mm-6mm in order for the cable gland to fully seal the cable entry for water ingress protection. The cable gland must be properly tightened to in order to seal the cable entry.	



G8 Distribution Box - Indoor Plug and Play GP003

SKU NUMBER

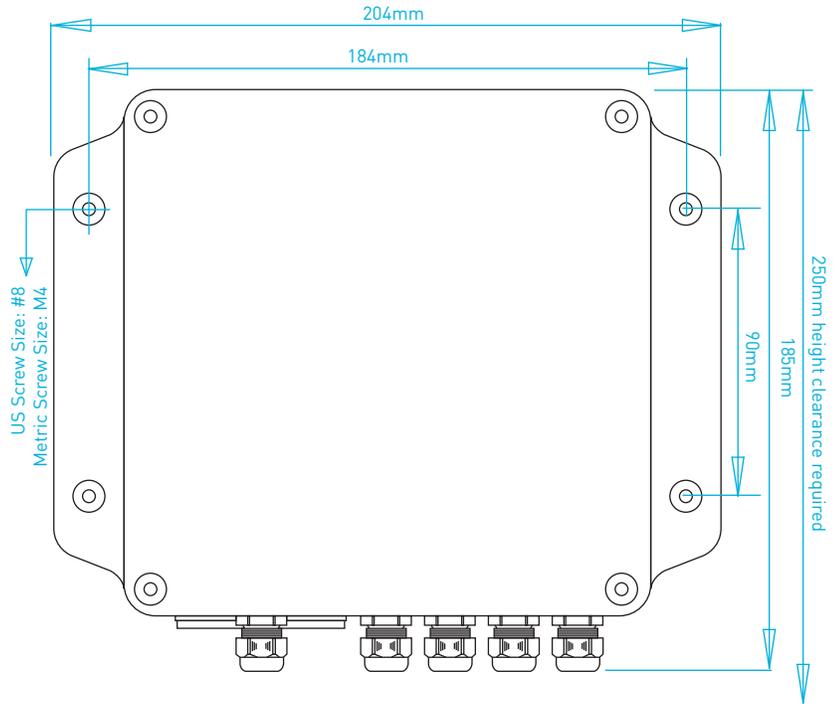
GP001	G8 Distribution Box - Indoor Field Install
GP002	G8 Distribution Box - Outdoor Field Install
GP003	G8 Distribution Box - Indoor Plug and Play



Indoor Field Install Option

The GP001 model features screw terminal connections for power input and standard XLR-5 connections for DMX signal input and output. Each light fixture is connected using screw terminal connections for each of the 8 branch outputs. This version of the distribution box has a larger size, with adequate space to allow for easy access to the screw terminals within. All circuitry is located beneath the internal printed circuit board so that it is protected from the installer. Each connection is also clearly labeled on the printed circuit board to ease installation.

A Pro Cable **Branch Bare Wire Adapter Cable** runs from each fixture back to the distribution box. The cable enters the distribution box through a cable retention gland and is then trimmed to the required length. Once trimmed, each of the 5 wires (2 for power, 3 for DMX signal) are connected to the board using a phoenix style screw terminal connector. Each screw terminal can be unplugged from the board to ease installation. Once all screw terminals are properly fitted, the installer cinches down the cable glands to provide strain relief for the cables.

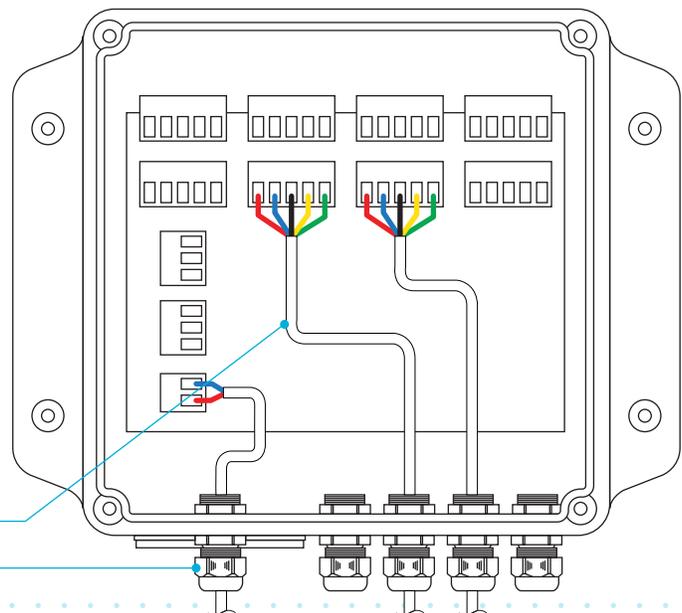


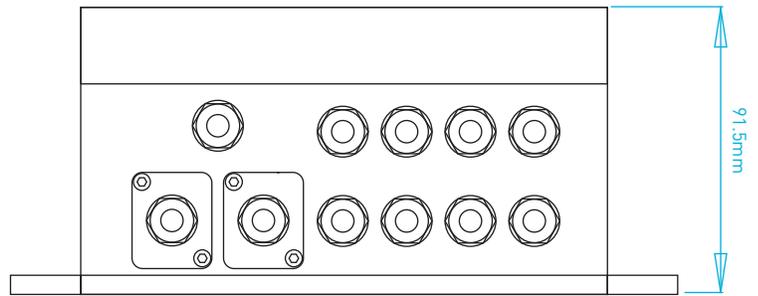
Compatible Cables

CB138	2m Branch Bare Wire Adapter Cable
CB132	5m Branch Bare Wire Adapter Cable
CB133	15m Branch Bare Wire Adapter Cable
CB134	30m Branch Bare Wire Adapter Cable

The Branch Bare Wire Adapter Cable can be cut to length in the field and wired into the GP001/GP002 internal screw terminals. Enough space is provided within the box for easy access.

Cable gland and strain relief

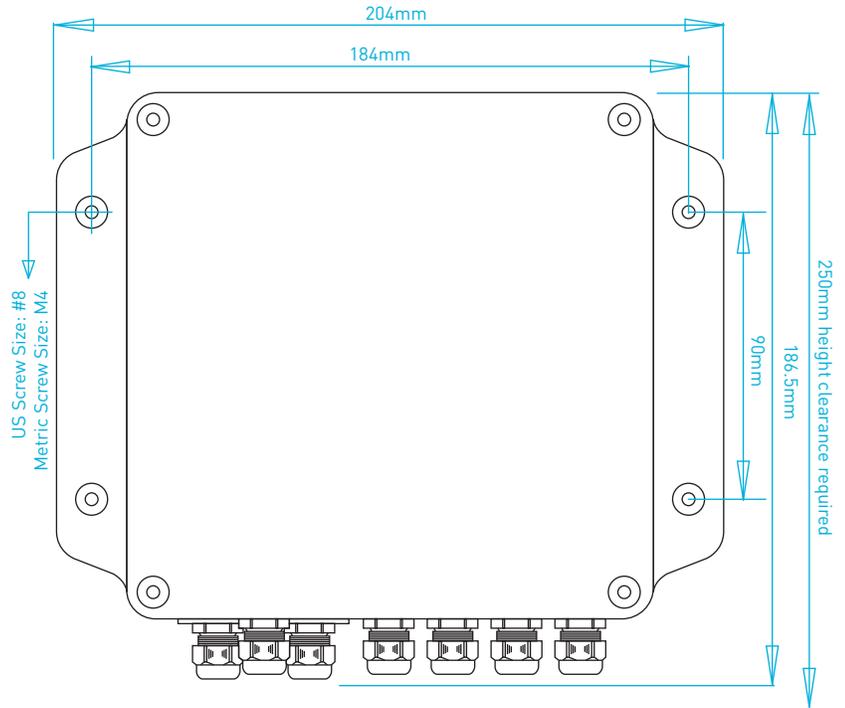




Outdoor Field Install Option

On the GP002 model, all connections for power input, DMX signal input, DMX signal thru output, and the outputs for each light fixture enter the distribution box through cable glands and are connected to the printed circuit board with screw terminal connections. This version of the distribution box has a larger size, with adequate space to allow for easy access to the screw terminals within. All circuitry is located beneath the internal printed circuit board so that it is protected from the installer. Each connection is also clearly labeled on the printed circuit board to ease installation.

A Pro Cable **Branch Bare Wire Adapter Cable** runs from each fixture back to the distribution box. The cable enters the distribution box through a cable retention gland and is then trimmed to the required length. Once trimmed, each of the 5 wires (2 for power, 3 for DMX signal) are connected to the board using a phoenix style screw terminal connector. Each screw terminal can be unplugged from the board to ease installation. Once all screw terminals are properly fitted, the installer cinches down the cable glands to provide strain relief for the cables. When properly tightened, the cable gland will provide water ingress protection for cables with diameter 3mm-6mm (round cross-section cables only, flat cables will not be adequately sealed).

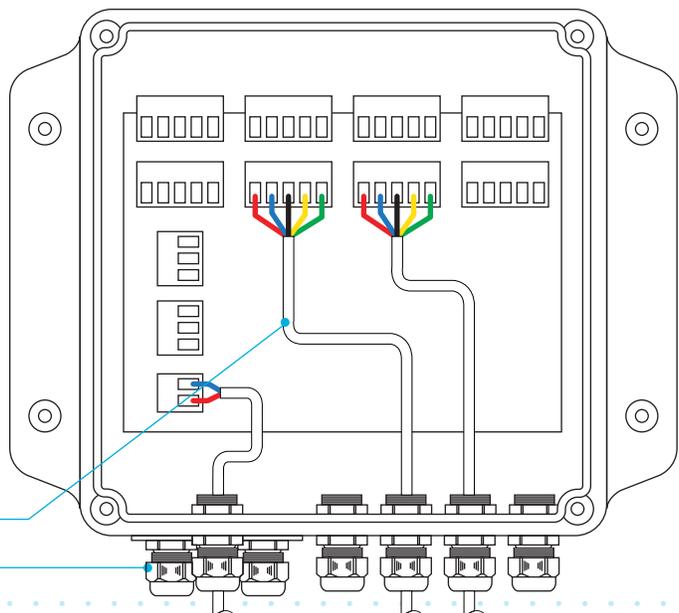


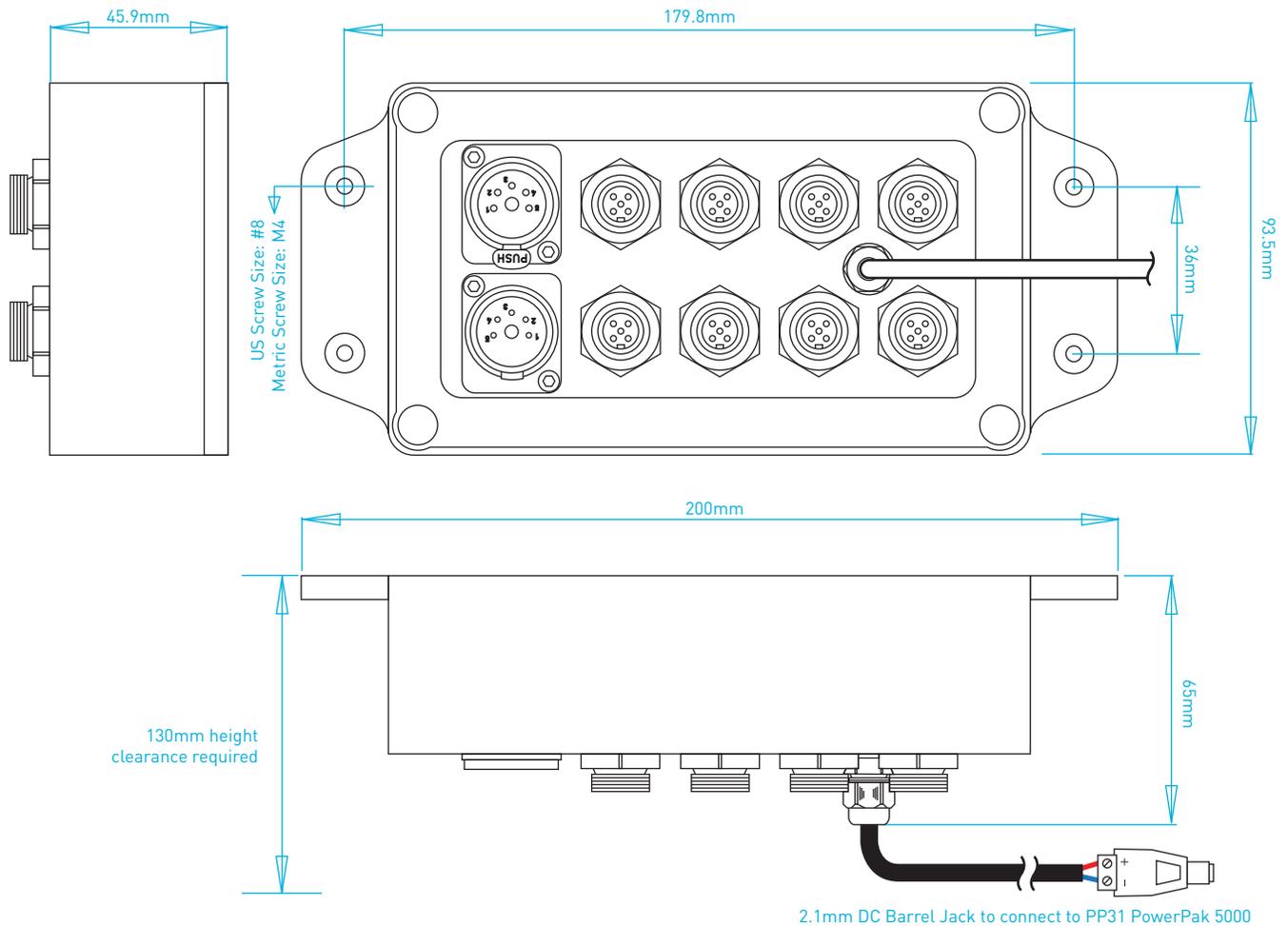
Compatible Cables

CB138	2m Branch Bare Wire Adapter Cable
CB132	5m Branch Bare Wire Adapter Cable
CB133	15m Branch Bare Wire Adapter Cable
CB134	30m Branch Bare Wire Adapter Cable

The Branch Bare Wire Adapter Cable can be cut to length in the field and wired into the GP001/GP002 internal screw terminals. Enough space is provided within the box for easy access.

Cable gland and strain relief





Indoor Plug and Play Option

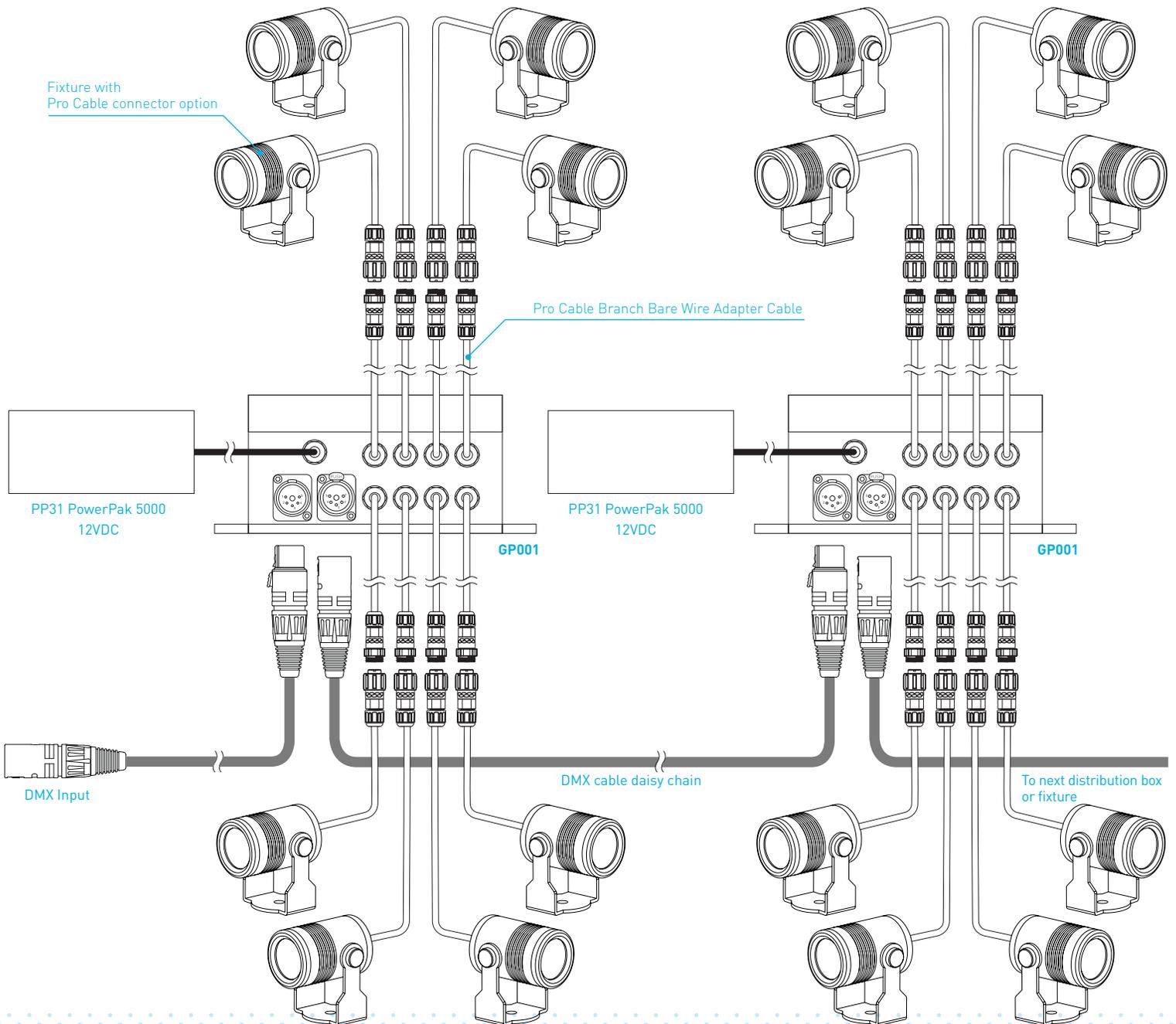
The GP003 model was designed for theatrical or other semi-permanent applications where reconfiguration is needed. This model features standard XLR5 panel mount connectors for DMX input and DMX thru output. 12VDC power which can be provided from our **PP31 PowerPak 5000** power supply. There is a locking panel mount connector for each of the 8 branch outputs which run to the light fixtures. Pro Cable **Branch Extension Cables** are available in 1m, 2m, and 5m increments so the user can modularly extend the cable run as needed (up to 100m per branch). Since the GP003 does not require access to the internal circuit board, this model has a housing which is as compact as possible in order to fit into a wide variety of space-constrained applications.

Compatible Cables

CB139	1m Branch Extension Cable
CB130	2m Branch Extension Cable
CB131	5m Branch Extension Cable

Increasing Fixture Count with G8 Distribution Box

Each G8 Distribution Box can reliably provide power and DMX signal for up to 8 fixtures. When more fixtures are required for an installation, the DMX signal can be daisy chained between multiple G8 Distribution Boxes. The DMX thru output of one G8 Distribution Box can be connected to the DMX input of the next. Each G8 Distribution Box will require a separate power source (PP31 or PP33 recommended). Up to 32 G8 Distribution Boxes (256 fixtures) can be daisy chained together in a single system. We recommend connecting a standard XLR5 DMX terminator (120 Ohm resistor) to the DMX thru output of the final distribution box in the chain in order to prevent signal reflection issues.

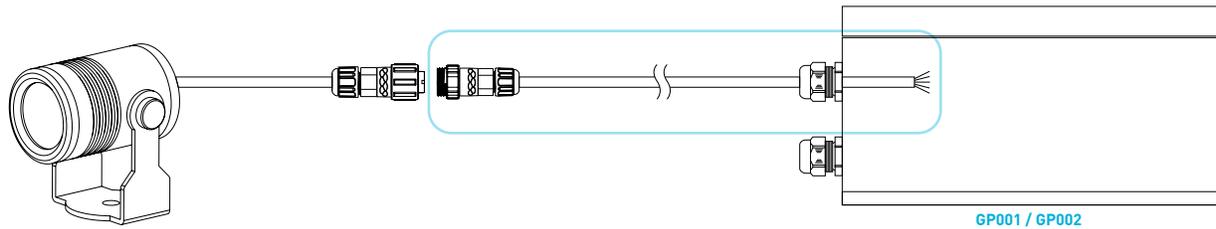


Branch Bare Wire Adapter Cables

Branch Bare Wire Adapter Cables are compatible with the GP001 and GP002 models. These cables have a female Pro Cable connector on one end and 5 bare wires on the other end. The cables are designed to be cut to the appropriate length in the field to provide a custom fit for every installation. Branch Bare Wire Adapter Cables are available in 2m, 5m, 15m, and 30m lengths.

Part Numbers

CB138	2m Branch Bare Wire Adapter Cable
CB132	5m Branch Bare Wire Adapter Cable
CB133	15m Branch Bare Wire Adapter Cable
CB134	30m Branch Bare Wire Adapter Cable



Fixture with Pro Cable connector option

GP001 / GP002



Female Pro Cable branch connector

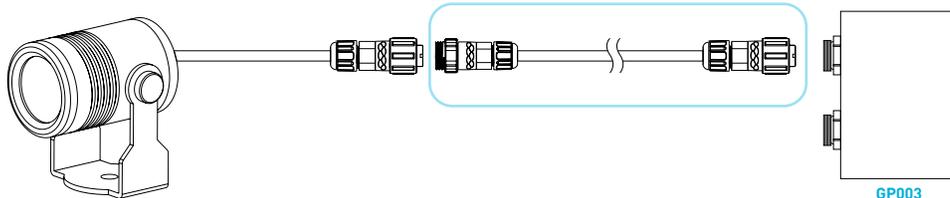
5 bare wires to be connected to screw terminal

Branch Extension Cables

Branch Extension Cables are designed to be used with the GP003 plug and play system. Each cable has a female locking branch connector on one end and a male locking branch connector on the other end. Multiple cables can be chained together to create a longer cable run. Branch Extension Cables are available in 1m, 2m, and 5m lengths.

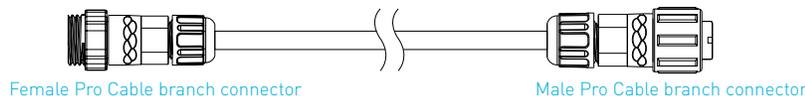
Part Numbers

CB139	1m Branch Extension Cable
CB130	2m Branch Extension Cable
CB131	5m Branch Extension Cable



Fixture with Pro Cable connector option

GP003



Female Pro Cable branch connector

Male Pro Cable branch connector

Trunk Cable

In addition to the home run layout provided by the G8 Distribution Box, it is also possible to daisy chain Gantom fixtures with Pro Cable connectors on a single line using T Connectors and Trunk Cable. Trunk Extension Cables are available in 2m, 5m, and 15m lengths.

Trunk Cable and Branch Cable, what's the difference?

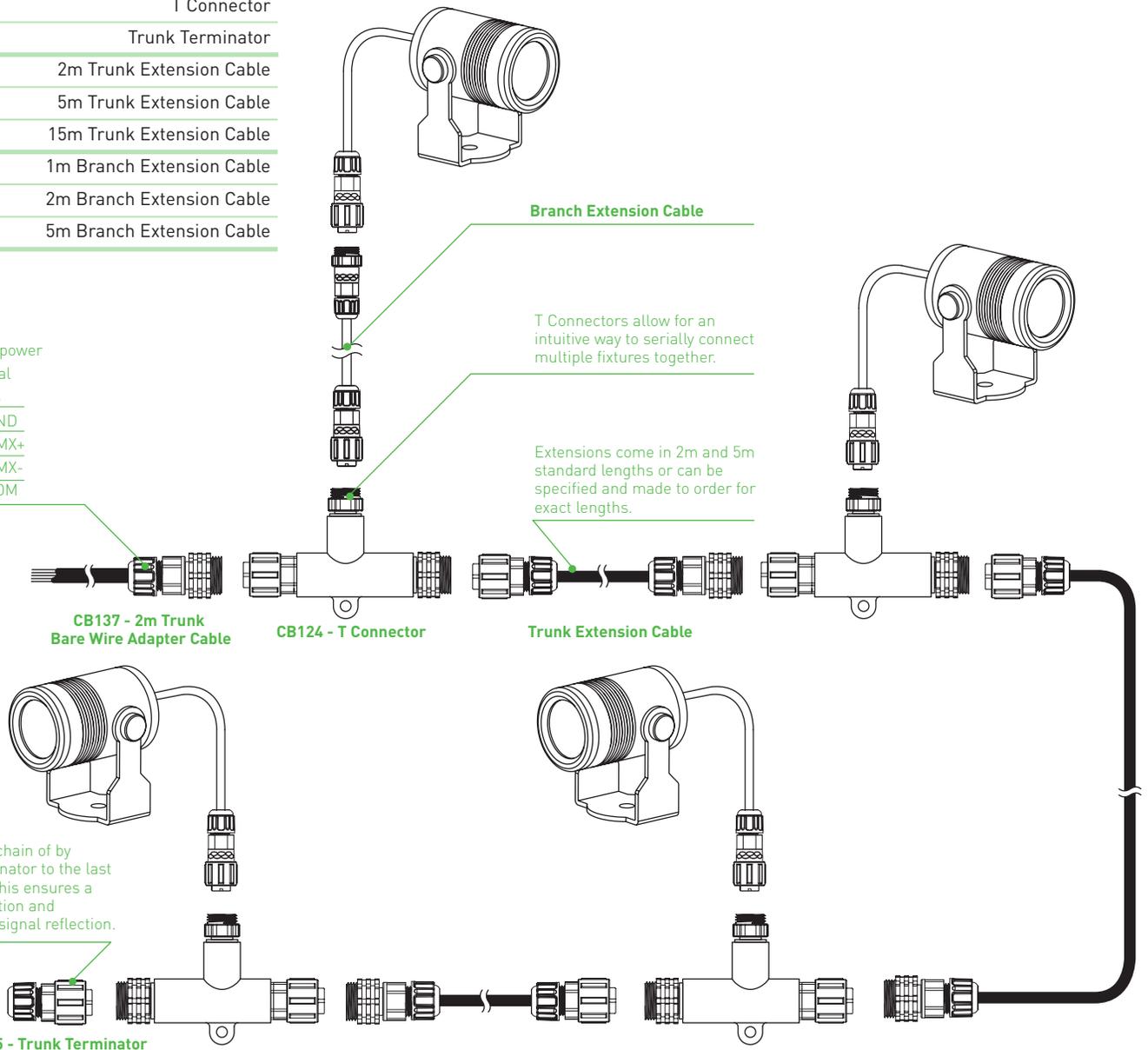
The Trunk Cable in a daisy chain system must carry significantly more electrical current than the Branch Cables which run from the T Connector to each fixture. For this reason, the Trunk Cable must be larger than the branch cable. Branch Cable is much thinner than Trunk Cable because it only needs to carry enough electricity for a single light fixture. The Trunk Cable also has a larger locking connector than the Branch Cable. This helps to prevent an installer from incorrectly wiring the system together which could result in a Branch Cable receiving excessive electrical load.

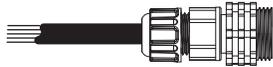
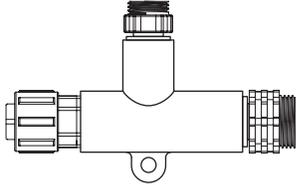
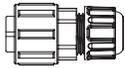
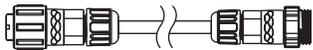
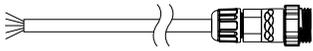
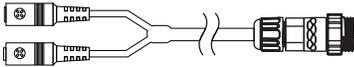
Part Numbers

CB137	2m Trunk Bare Wire Adapter Cable
CB124	T Connector
CB105	Trunk Terminator
CB120	2m Trunk Extension Cable
CB121	5m Trunk Extension Cable
CB122	15m Trunk Extension Cable
CB139	1m Branch Extension Cable
CB130	2m Branch Extension Cable
CB131	5m Branch Extension Cable

Inject 24 VDC power and DMX signal

Red	V+
Blue	GND
Green	DMX+
Yellow	DMX-
Black	COM



	Part Number	Description
	CB137	2m Trunk Bare Wire Adapter Cable
	CB124	T Connector
	CB105	Trunk Terminator
	CB120	2m Trunk Extension Cable
	CB121	5m Trunk Extension Cable
	CB122	15m Trunk Extension Cable
	CB139	1m Branch Extension Cable
	CB130	2m Branch Extension Cable
	CB131	5m Branch Extension Cable
	CB138	2m Branch Bare Wire Adapter Cable
	CB132	5m Branch Bare Wire Adapter Cable
	CB133	15m Branch Bare Wire Adapter Cable
	CB134	30m Branch Bare Wire Adapter Cable
	CB107	Pro Cable Programming Adapter (one unit required for each system)