

## GANTOM 7: COMPACT SEVEN COLOR DMX SPOTLIGHT

### USER GUIDE



The Gantom 7 packs seven-color output into a tiny package. With a native 15 degree beam angle, this LED spotlight produces a punchy yet soft beam with homogeneous color mixing even at a close distance. Included micro-lens diffusers and the magnetic accessory holder offer easy beam control solutions; diffusing the spotlight to a floodlight is literally a snap. Native DMX control and a balanced, non-linear dimming curve satisfies the most demanding theming tasks. This compact spotlight features lime, amber, and ultraviolet beyond the common RGBW to achieve colors unavailable in standard LED fixtures. With the Gantom 7, lighting designers obtain a virtually unlimited color palette in a compact and efficient 7-Watt LED fixture. The Gantom 7 is configured using our DMX Programmer app, available free for Apple and Android devices, or using our DarkBox Programmer standalone programming device.

#### **Features**

- Full spectrum output with 7 LED colors. Multiple color profiles selectable (RGB, RGBA, RGBW, RGBAWUv, RGBAWLUv).
- Color control via DMX512 or DMX Programmer app.
- Precision-tuned non-linear dimming curve and color balance algorithm.
- Standalone mode allows set and forget operation without DMX signal (requires DMX Programmer app or DarkBox Programmer device).
- DMX address and configuration stored in memory.
- Low voltage and minimal heat for improved safety over incandescent sources.
- Internal constant current driver gives highly efficient and consistent output.
- Minimal maintenance required with over 50,000 hour lamp life.

#### **Available Models**

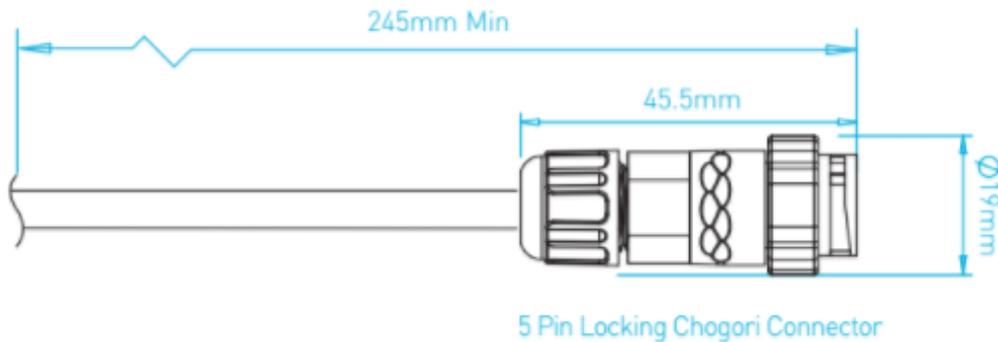
The Gantom 7 is available with two options for connectors:

Product Name	Item Number
Gantom 7 - Seven Color Spotlight - Pro Cable Connector	GP277

## POWER AND WIRING REQUIREMENTS

The Gantom 7 has a maximum wattage of 7.5W and an operating voltage range of 12-24VDC.

The Gantom 7 includes a single locking connector which combines both power and data into one compact cable. This connector is compatible with our **Gantom Pro Cable System**, including our G8 Power/Data Distribution Box. A single cable for power and data greatly simplifies installation and the locking connector gives a secure connection for long term use. This makes the **Gantom Pro Cable System** ideal for permanent installations. For more information on this system, please visit <https://www.gantom.com/accessories/gantom-pro-cable/>



BARE WIRE PINOUT		
Power	+	RED
	-	BLUE
DMX signal	D+	GREEN
	D-	YELLOW
	COM	BLACK

**Note: all fixtures must be installed with the low voltage supply power OFF. Hot plugging (connecting to a live power supply) is not supported.**

Hot plugging a fixture into a system with a running power supply will increase the load on the power supply, which can generate voltage spikes that more than double of the standard input voltage. This causes an out-of-spec and out-of-warranty voltage condition which may result in damage to the fixture. While Gantom fixtures have internal protections against voltage spikes, it is recommended that installers handle them with care to prevent these spikes from happening in the first place.

**Installing all fixtures in the system before turning on power to the low voltage power supply assures that the power supply has a “soft start” which is free from harmful voltage spikes.**

## CONFIGURING THE LIGHT FIXTURE

Due to its compact size, the Gantom 7 cannot use a physical DIP switch for addressing. Instead, the Gantom 7 is programmed using the **DMX Programmer App** by Gantom or by using the **DarkBox Programmer V2** programming device (part# DB32, pictured right). In addition to setting the DMX starting address for the fixture, this will allow you to save a default color and brightness for the fixture if the application does not require any DMX control.



### Configuring light fixtures with the DarkBox Programmer V2 Device:

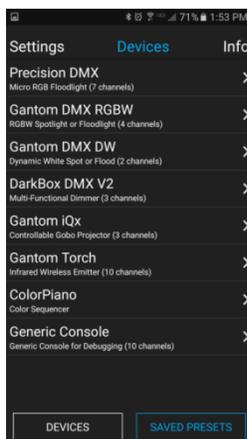
For details on how to configure your fixture using the **DarkBox Programmer V2**, please consult the user guide for that product. The DarkBox Programmer V2 device is the easiest and most reliable way to configure Gantom fixtures and is the preferred option when available.

### Configuring the light fixture with the DMX Programmer App:

When the DarkBox Programmer V2 standalone programming device is unavailable, it is also possible to configure the settings of the device using our free app for iOS and Android devices.

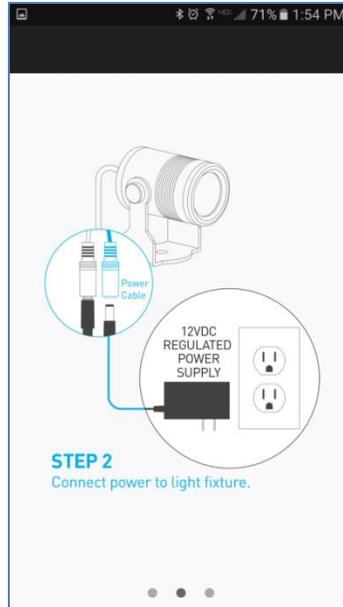
#### **What you need:**

- A CB107 Pro Cable Programming Adapter
- An Android or iOS device for running the Gantom Programmer app. Please note that a headphone port is required to connect to the device to the fixture. The iPhone7 does work with, but you will need to use the headphone port adapter that is included with the phone.
- A male-to-male 3.5mm audio 3.5mm cable. This is the same type of cable that you would use to connect your Android or iOS device to headphones or to an AUX port.
- Power supply for the fixture. All Gantom fixtures accept 12v DC power. We recommend using one of our PowerPak Mini units if you are just going to power a single fixture.
- The free **DMX Programmer** app by Gantom. This can be found by searching “Gantom” in iTunes for an Apple device or Google Play for an Android device

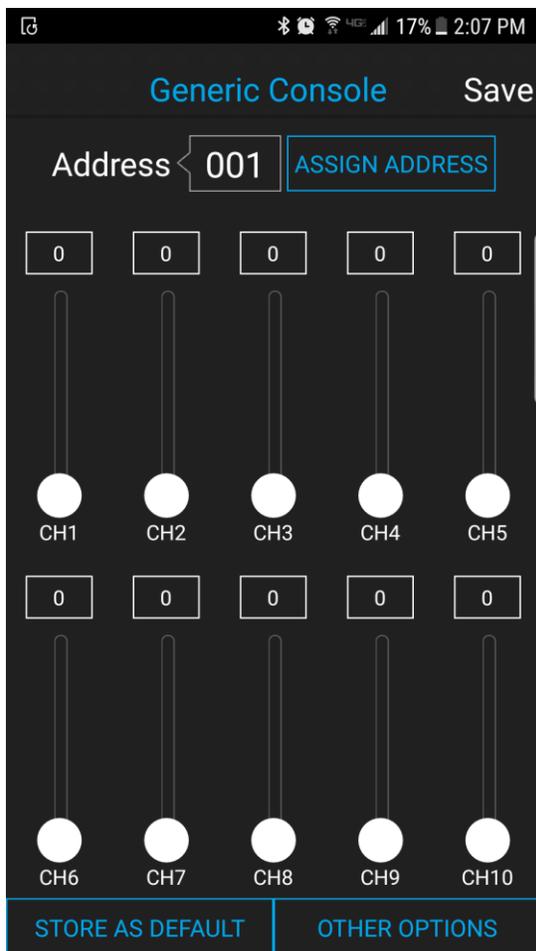


First, open the **DMX Programmer** app by Gantom. The app will open to the screen you see here. From this screen, select **Generic Console**.

The app will then provide you instructions on how to connect the light fixture to the tablet or smartphone. Please note the order in which the cables should be connected. First connect the headphone cable to the light fixture and to the tablet/smartphone. Next, connect the power to the fixture. When prompted by the app, tap the “Next” button and you will be taken to the control screen.



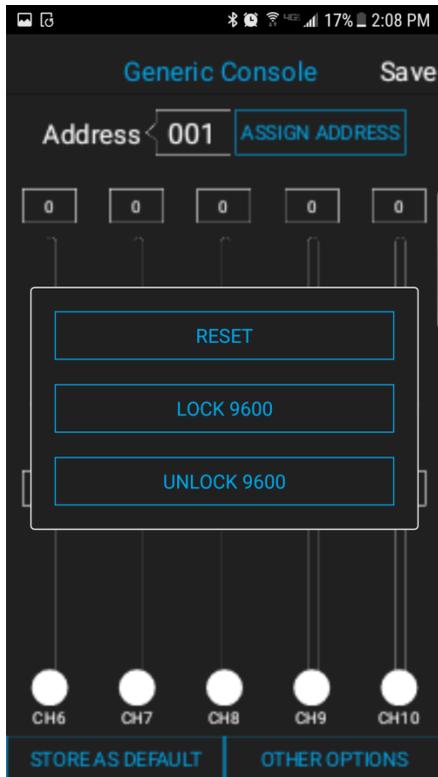
## CONTROL SCREEN



- **Address** – This box shows the address that will be assigned to the fixture if you hit the “Assign Address” button
- **Assign Address** – Hitting this button will assign the selected address to the fixture. The light fixture should blink in response to having a new address assigned.
- **Save button** – this will allow you to save a settings profile into the app. Use this if you need to configure many fixtures to have the exact same settings. Please note that this button DOES NOT save the current profile or address to the fixture.
- **Console Sliders** – These sliders allow you to set intensity levels for each channel. There are several different channel mapping options which are covered in the DMX Controlled Operation section of this document.
- **Store as Default** – hitting this will save the current color and brightness to be the default state for the light when it turns on. If the light does not see DMX signal when it is powered on, it will go to this state.

## OTHER OPTIONS SCREEN

If you hit the “Other Options” button on the control screen, the following menu appears:



- **Reset** - selecting this will reset the fixture to its default factory settings. Do this if you are running into programming issues.
  
- **Lock/Unlock 9600** – The Gantom DMX fixture can listen to either a standard DMX signal OR to the special control signal that comes from the app. Lock 9600 will turn OFF the fixture’s ability to listen to DMX and ONLY allow it to be controlled through the app interface. For most applications it is recommended that you keep “UNLOCK 9600” selected.

## BOOT SEQUENCE FLASHING

When the fixture first receives power, before it enters normal operation, it will first report its channel mapping profile and second report its DMX address through a sequence of flashes.

**Profile Report:** Though the Gantom 7 has seven colors available, not all DMX consoles have the ability to utilize all seven of them. Some users may prefer to operate the Gantom 7 as though it were an RGBW or RGBA fixture because there are readily available preset profiles for those fixtures on many existing DMX control environments. The Gantom 7 has five channel mapping profiles available: RGB, RGBA, RGBW, (MASTER)RGBAWU, and (MASTER)RGBAWLU. More information on these can be found later in the DMX Controlled Operation section. The Gantom 7 will report the profile it has selected by rapidly flashing through the colors of that profile. There will be a slight pause, then the fixture will report its DMX address.

**Address Report:** After reporting which channel mapping profile is selected, The Gantom 7 will report its DMX address by flashing through another sequence of colors which represent its DMX address. Red flashes indicate the first digit, green flashes indicate the second digit, and blue flashes indicate the third digit of the DMX address. For example, if the Gantom 7 is assigned to address 245 it will indicate its channel mapping profile, then report its address by flashing red 2 times, then flashing green 4 times,

then flashing blue 5 times. If it is assigned to DMX address 038, it will report its channel mapping profile then report its address by flashing red 0 times, then flashing green 3 times, then flashing blue 8 times.

**TURN OFF/ON boot sequence flashing:** You may not want your fixture to report its channel mapping profile and address every time it receives power. In order to toggle the boot sequence flashes on/off, follow these steps. First, tap the number field next to the word “Address”. A new screen will appear asking you to enter a DMX start address. Enter the number 512. Finally, hit the “Assign Address” button. This will not actually change the DMX address of the light fixture, it will simply toggle the boot sequence flashing either on or off.

### **STANDALONE OPERATION**

Some applications may not require live DMX control. In order to configure your Gantom 7 for standalone operation, all you must do is use the channel sliders on the Generic Console screen to set the desired levels for each channel. Once the light has the desired output, tap the “STORE AS DEFAULT” button at the lower left portion of the screen to save this setting directly into the light fixture. Now, when the light fixture receives power it will automatically go to this newly saved DEFAULT setting once it’s boot sequence is complete.

Please note that if DMX signal is passed to the fixture while it is operating in standalone mode, the DMX signal will override the standalone setting.

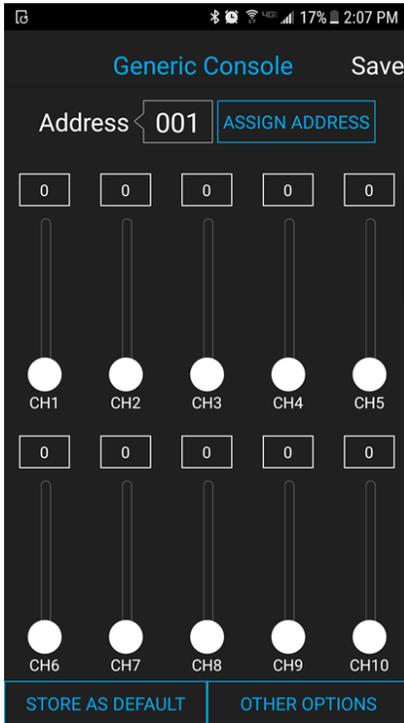
### **DMX CONTROLLED OPERATION**

The Gantom 7 was designed for use with standard DMX512 control systems. In order to maximize compatibility with existing control hardware and software, the Gantom 7 has several different DMX channel mapping profiles available. Some users may prefer to operate the Gantom 7 as though it were an RGBW or RGBA fixture because there are readily available preset profiles for those fixtures on many existing DMX control environments. The Gantom 7 has five channel mapping profiles available: RGB, RGBA, RGBW, (MASTER)RGBAWU, and (MASTER)RGBAWLU.

<b>DMX Channel Mapping Profiles</b>					
	<b>RGB</b>	<b>RGBA</b>	<b>RGBW</b>	<b>(M)RGBAWU</b>	<b>(M)RGBAWLU</b>
<b>CH1</b>	Red (0-100%)	Red (0-100%)	Red (0-100%)	MASTER DIMMER (0-100%)	MASTER DIMMER (0-100%)
<b>CH2</b>	Green (0-100%)	Green (0-100%)	Green (0-100%)	Red (0-100%)	Red (0-100%)
<b>CH3</b>	Blue (0-100%)	Blue (0-100%)	Blue (0-100%)	Green (0-100%)	Green (0-100%)
<b>CH4</b>		Amber (0-100%)	White (0-100%)	Blue (0-100%)	Blue (0-100%)
<b>CH5</b>				Amber (0-100%)	Amber (0-100%)
<b>CH6</b>				White (0-100%)	White (0-100%)
<b>CH7</b>				Ultraviolet (0-100%)	Lime (0-100%)
<b>CH8</b>					Ultraviolet (0-100%)

## ADDRESSING YOUR GANTOM DMX

The Gantom 7 can be given any DMX address from 1-506. To set your DMX address, first connect the Gantom 7 to the DMX Programmer app by Gantom as was outlined earlier in this document. With the Generic Console screen open, you should have full control of the fixture through the channel sliders. If the light fixture is connected to the app but is not responding, try power cycling the light fixture.



Once you have verified that the light fixture is responding to control signal from the app, tap the number field next to the word “Address”. A new screen will pop up, prompting you to enter a DMX address. After you enter your desired DMX address, the app will return to the Generic Console screen. Finally, you must hit the **ASSIGN ADDRESS** button in order to save the new address into the fixture. Hitting the “Save” button will not save anything to the light fixture’s memory.

## SELECTING A DIFFERENT DMX CHANNEL MAPPING PROFILE

In order to select the preferred DMX channel mapping profile, you will need to follow the same procedure for addressing the fixture, but instead of a fixture address you will enter one of the numbers from the following table:

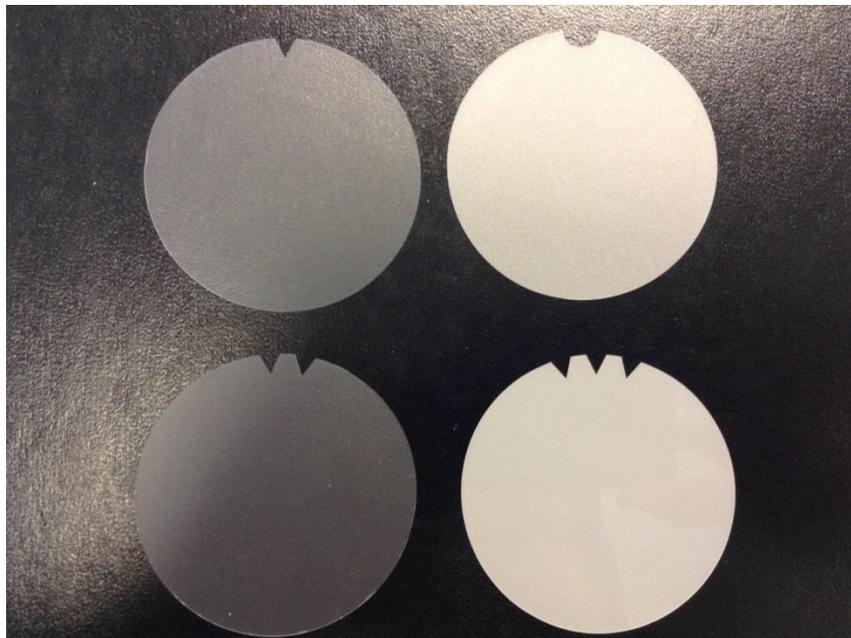
<b>Channel Mapping Profiles</b>					
	<b>RGB</b>	<b>RGBA</b>	<b>RGBW</b>	<b>(M)RGBAWU</b>	<b>(M)RGBAWLU</b>
<b>Address to Enter:</b>	507	508	509	510	511

Once you have entered the address corresponding to the desired profile, hit the “ASSIGN ADDRESS” button. The light fixture should then cycle through a sequence of color flashes that matches the profile you have selected. Please note that this will NOT actually change the DMX address of the fixture, since the fixture can only be set to address 1-506.

## BEAM SHAPING DIFFUSERS

The Gantom 7 has a beam angle of 15° and a field angle of 35°. For increasing the width of the beam, included with the Gantom 7 is a set of Brightview diffusers which are pre-cut to fit the fixture. Also included is a magnetic ring which can be used to attach the diffusers to the face of the light fixture. Each diffuser is marked by having notches cut into the outside of it. The diffusers are described in the following table:

Notches	Description	Brightview part number
1 V notch	Symmetric diffuser (Narrow, 60 mm diameter)	C-HE10
2 V notch	Symmetric diffuser (Medium, 60 mm diameter)	C-HE30
3 V notch	Symmetric diffuser (Wide, 60 mm diameter)	C-HE80
1 U notch	Elliptical diffuser (Asymmetric, 60 mm diameter)	E-1560



### **Product Support:**

We hope that this guide has been effective for learning how to use your Gantom 7 light fixture. However, if you run into a wiring issue, a bug in the software, or just a light that doesn't seem to want to cooperate, we at Gantom are ready to help you out! Just send an email to [Support@GANTOM.com](mailto:Support@GANTOM.com) and we will get back to you as soon as possible.