GANTOM R4 USER GUIDE

The R4 is a low-profile DMX controllable downlight with the same smooth optics as the Gantom DMX Spotlight. Field swappable diffusers give the user a wide range of beam control options. The R4 is available in RGBW or dynamic white output. The fixture includes three interchangeable trim options: black, white, and silver. Custom color trims can also be specially manufactured. Hex louver accessory included.

Features

- Low-profile (60mm / 2.4" clearance)
- 4.8W RGBW or dynamic white LED
- Constant output algorithm for all colors
- Spring-clip installation
- Field swappable beam control diffusers included
- Black, white, and silver trims are included
- Insulated Contact (IC) rated
- Class 2, low-voltage 12-24VDC input (DO NOT HOT PLUG)
- DMX dimming
- Pro Cable connector (integrated power + data)
- 35mm hex louver accessory included

Available Models

PRODUCT NAME	LED COLOR	DMX CHANNELS	ITEM NUMBER
Gantom R4	Dynamic White (2500k-6500k)	2	GR211
	RGBW	4	GR212

POWER   AND   WIRING   REQUIREMENTS

The Gantom R4 has a maximum wattage of 4.8W and an operating voltage range of 12-24VDC.

The Gantom R4includes 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/

5 Pin Locking Chogori Connector
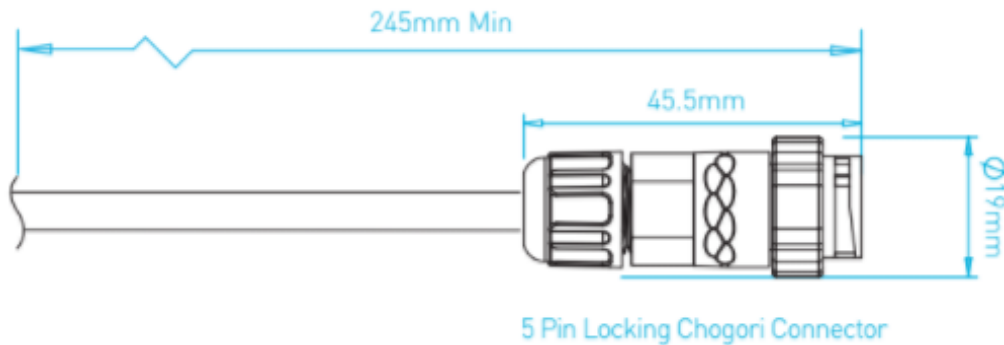
| BARE WIRE PINOUT		
Power	+	RED
	-	BLUE
DMX signal	D+	GREEN
	D-	YELLOW
	COM	BLACK

Note: all fixtures must be installed with the low voltage supply power <u>OFF</u>. 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 <u>before</u> 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.

INSTALLING DIFFUSERS, LOUVERS, AND CHANGING THE FACEPLATE

The Gantom R4 includes a set of Brightview diffusers which are pre-cut to fit the fixture. These diffusers allow you to increase the beam angle to meet different application needs. Each diffuser is marked by having notches cut into the outside of it. The diffusers are described in the following table:
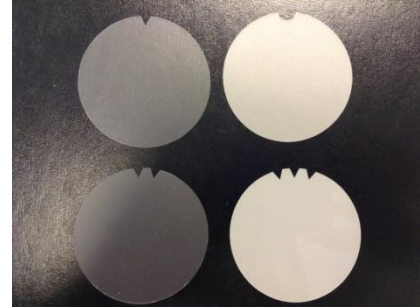
Photometrics at Full Power

	Beam / Field Angle	1m Illuminance (3.3ft)	2m Illuminance (6.6ft)	3m Illuminance (9.8ft)
RGBW Beam / Field Angle Bare optics	16° / 32°	940 lx (87 fc)	260 lx (24 fc)	112 lx (10 fc)
RGBW Beam / Field Angle Narrow diffuser - 1 Notch - (C-HE10)	18° / 36°	771 lx (72 fc)	218 lx (20 fc)	98 lx (9 fc)
RGBW Beam / Field Angle Medium diffuser - 2 Notch - (C-HE30)	30° / 58°	330 lx (31 fc)	99 lx (9 fc)	44 lx (4 fc)
RGBW Beam / Field Angle Wide diffuser - 3 Notch - (C-HE80)	55° / 98°	100 lx (9 fc)	28 lx (3 fc)	13 lx (1 fc)
RGBW Beam / Field Angle Assymmetric diffuser - U Notch	16° / 46° short axis 39° / 67° long axis	230 lx (21 fc)	66 lx (6 fc)	30 lx (3 fc)
DW Beam / Field Angle Bare optics	23° / 44°	1400 lx (130 fc)	360 lx (33 fc)	160 lx (15 fc)
DW Beam / Field Angle Narrow diffuser - 1 Notch - (C-HE10)	24° / 46°	900 lx (84 fc)	263 lx (24 fc)	115 lx (11 fc)
DW Beam / Field Angle Medium diffuser - 2 Notch - (C-HE30)	34° / 63°	460 lx (43 fc)	125 lx (12 fc)	55 lx (5 fc)
DW Beam / Field Angle Wide diffuser - 3 Notch - (C-HE80)	55° / 99°	114 lx (11 fc)	35 lx (3 fc)	16 lx (1 fc)
DW Beam / Field Angle Assymmetric diffuser - U Notch	30° / 50° short axis 46° / 77° long axis	315 lx (29 fc)	83 lx (8 fc)	36 lx (3 fc)

To install a diffuser, install the hex louver, or change the front faceplate of the fixture:
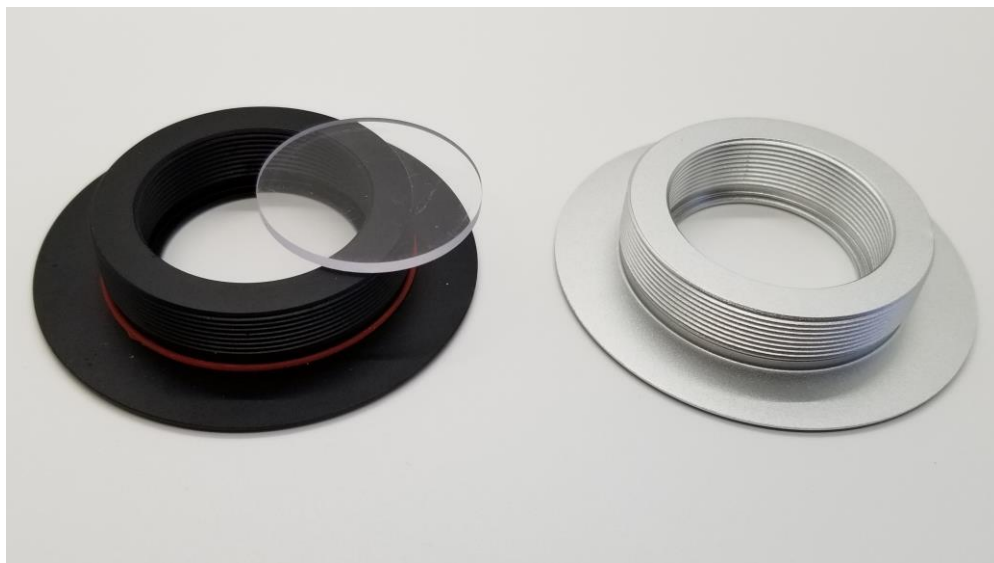
1. **Unscrew the front faceplate of the fixture.**

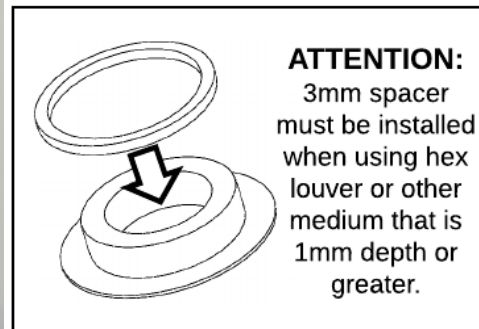2. **Unscrew the lens retainer and remove the lens from the faceplate.**

3. **If you would like to change the faceplate, move the clear polycarbonate lens cover to the new faceplate**

4. **Insert the diffuser into the faceplate if desired.**

5. **If you are inserting a hex louver, install the rubber spacer onto the faceplate. If both a diffuser and a hex louver are being used, the diffuser should be inserted after the hex louver.**

ATTENTION:
3mm spacer must be installed when using hex louver or other medium that is 1mm depth or greater.

6. **Put the lens into the faceplate and screw the lens retainer down snugly against the rubber spacer on the lens. Do not over-tighten the lens retainer.**

7. Screw the front faceplate onto the fixture. Do not over-tighten the faceplate.

CONFIGURING YOUR GANTOM R4

Due to its compact size, the Gantom R4 cannot use a physical DIP switch for addressing. Instead, the Gantom R4 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:
- o A CB107 Pro Cable Programming Adapter
- o 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.
- o 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.
- o 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.
- o The free **DMX Programmer** app by Gantom. This can be found by searching "Gantom" in iTunesfor an Apple device or Google Play for an Android device
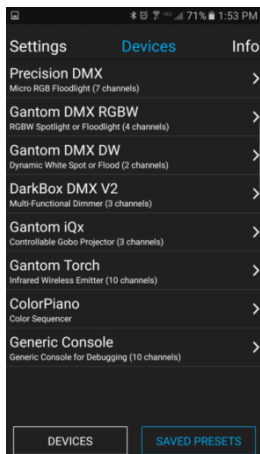
First, open the **DMX Programmer** app by Gantom. The app will open to the screen you see here. From this screen, select either the Gantom DMX RGBW or the Gantom DMX DW.

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.
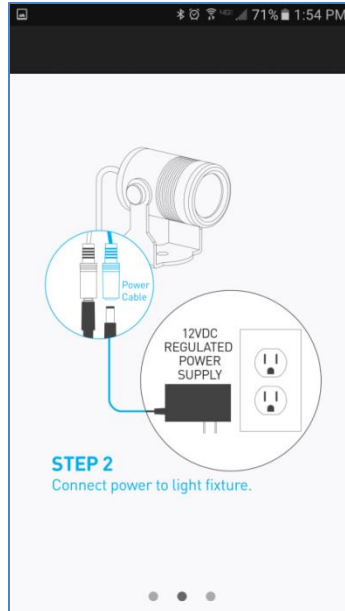
CONTROL SCREEN
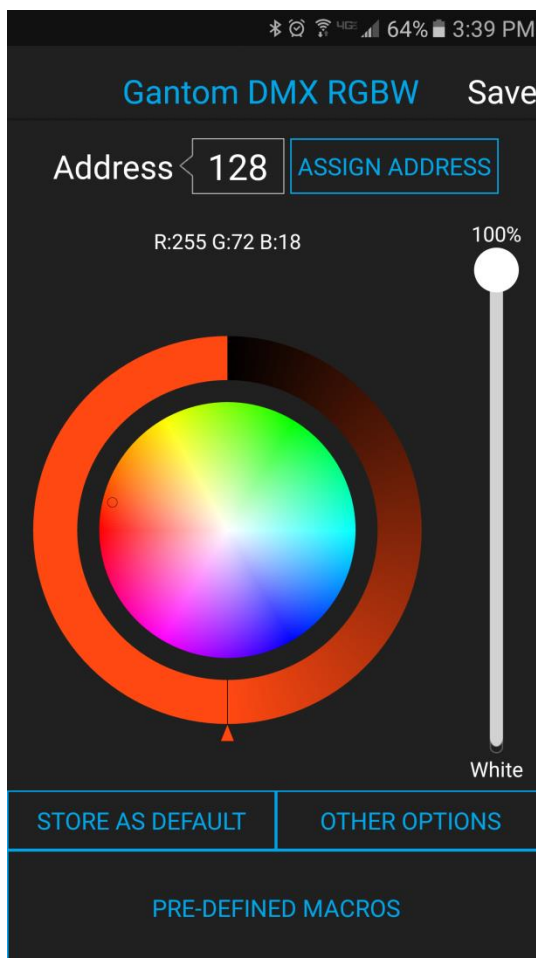
o **Address** – This box shows the address that will be assigned to the fixture if you hit the "Assign Address" button

o **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.

o **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.

o **Color Palette** – the color palette will allow you to set the light to any RGB color. This is useful if you do not need live DMX control and would like to set the fixture to a default color at startup. Please note that for the Gantom DMX DW the color palette is replaced with a color temperature slider.

o **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.

o **Pre-Defined Macros** – Selecting this button will bring up a set of basic colors that can be selected without using the color palette.

OTHER OPTIONS SCREEN

If you hit the "Other Options" button on the control screen, the following menu appears:
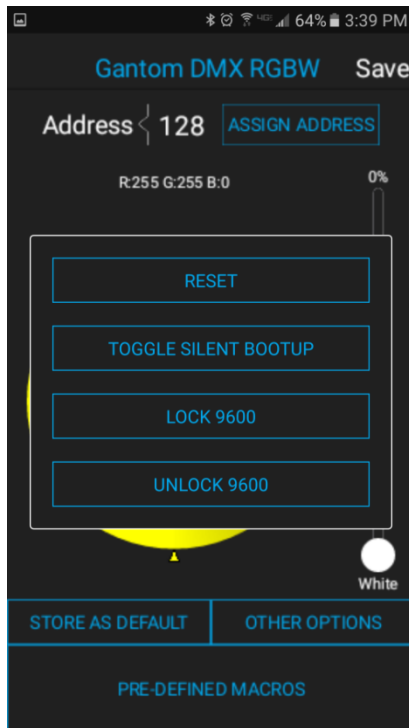
o **Reset** - selecting this will reset the fixture to its default factory settings. Do this if you are running into programming issues.

o **Toggle Silent Bootup** – By default, the fixture will flash to report its DMX address when it is powered on. Hitting the "Toggle Silent Bootup" setting will turn address reporting at startup on or off.

o **Lock/Unlock 9600** – The Gantom R4 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.

By default, the DMX starting address will be 1. The Gantom R4 will flash several times when it is powered on to indicate its starting address. If the Gantom R4 RGBW is assigned to address 245 it will 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 flash red 0 times, then flash green 3 times, then flash blue 8 times. For a Gantom R4 DW fixture, the fixture will flash the cool white LEDs for the first digit, the warm white LEDs for the second digit, and then the cool white LEDs again for the third digit. If the starting address is 358, the fixture will flash the cool white LEDs 3 times, then flash the warm white LEDs 5 times, then flash the cool white LEDs 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. With the fixture connected to the app as previously outlined, tap the "Other Options" button on the Gantom DMX profile. Tap the "Silent Bootup" button. The light should blink to indicate that it has received this new setting.

STANDALONE OPERATION

Some applications may not require live DMX control. In order to configure your Gantom R4 for standalone operation, all you must do is use the sliders on the Gantom DMX control screen to set the desired intensity, color, and white level. 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 R4 was designed for use with standard DMX512 control systems. The Gantom R4 RGBW occupies four DMX channels and can be given any DMX starting address from 1-509. The Gantom R4 DW occupies two DMX channels and can be given any DMX address from 1-511. Please note that the Gantom R4 does not feature any RDM functionality.

ADDRESSING YOUR FIXTURE
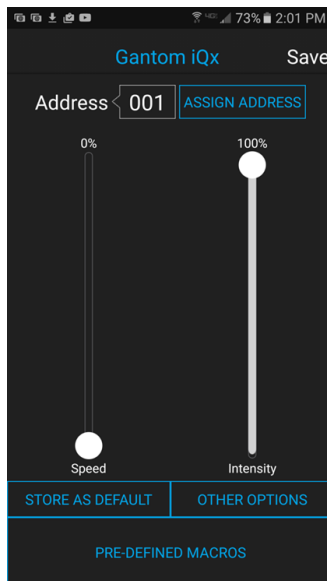
To set the DMX address, first connect the Gantom R4 to the DMX Programmer app by Gantom as was outlined earlier in this document. With the Gantom DMX control screen open, you should have full control of the fixture through the channel sliders. If the light fixture is connected to the app but is not responding, 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.

DMX CHANNEL MAPPING

RGBW DMX Channel Descriptions

Channel	Name	Description
Ch 1	Red	Controls red channel
Ch 2	Green	Controls green channel
Ch 3	Blue	Controls blue channel
Ch 4	White	Controls white channel

DW DMX Channel Descriptions

Channel	Name	Description
Ch 1	CW	Controls cool white channel
Ch 2	WW	Controls warm white channel

MOUNTING THE FIXTURE

Before mounting, be sure that the address for the fixture has been set. The Gantom R4 is made to fit a circular mounting hole with a diameter of 58-64mm (2.3"-2.5"). There must be at least 60mm of clearance behind the faceplate to fit the fixture.

To install the fixture in the hole, bend back the spring clips and insert the fixture into the hole. Once inserted, the spring clips can be released so that they firmly hold the fixture in the mounting hole.
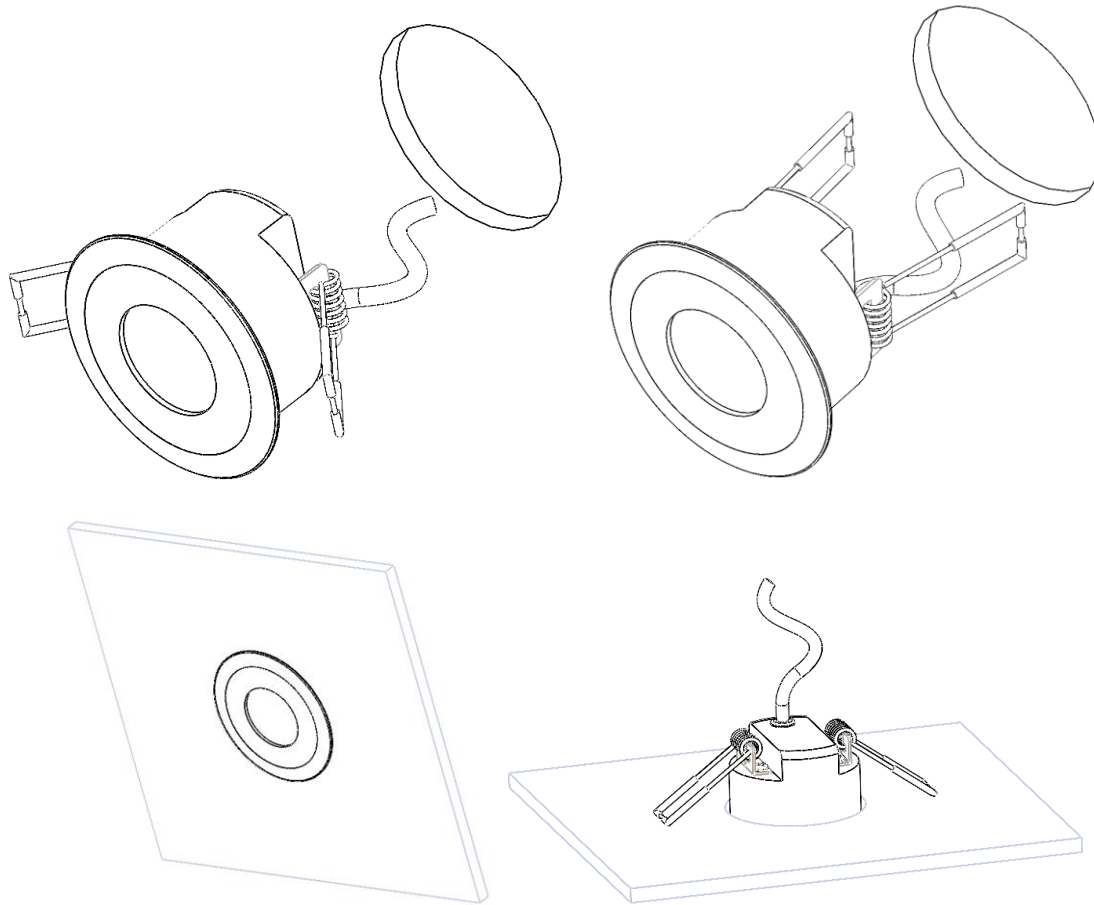
Product Support:

We hope that this guide has been effective for learning how to use your Gantom R4 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 and we will get back to you as soon as possible.