

SOFTWARE VERSION v1.0

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GroundControl™ Multi

Quick Start Guide (rev. A)

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GroundControl[™] Multi Quick Start Guide

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GroundControl™ Multi Quick Start Guide

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REVISION HISTORY	
This manual has been revised as follows	
Version Release Da	e Notes
1.0 (revA) August x, 20	4 Initial Release



This user manual provides necessary information regarding the operation of the GroundControl Multi software. This guide is provided to explain the features in the GroundControl Multi software in detail.

Additional Documentation

For more information about DMX512 and sACN protocols, refer to the following documents available from the American National Standards Institute (ANSI) at www.ansi.org:

- + ANSI E1.11 2008 (R2013): Entertainment Technology USITT DMX512-A, Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories
- + ANSI E1.31 2009: Entertainment Technology Lightweight streaming protocol for transport of DMX512 using ACN

The above documents are also available in electronic format free for PLASA members at www.plasa.org

For more information about Art-Net, refer to the following document available from Artistic Licence Engineering at www. artisticlicence.com:

+ Specification for the Art-Net Ethernet Protocol

Customer Service

For technical assistance, contact your nearest PRG office. Contact information for all PRG offices can be found on our website at: www.prg.com

For additional resources and documentation, please visit our website at: www.prg.com

GENERAL OPERATION

About GroundControl Multi

GroundControl Multi enables up to 16 fixtures from any manufacturer to be linked to an existing GroundControl system and follow a single target. Control over fixtures can be easily swapped between a lighting console and the GroundControl Multi system.



The GroundControl Multi System

A GroundControl Multi system contains:

- + A GroundControl controller linked to a MacOS computer running GroundControl Multi software
- + A GroundControl camera fixture
- + Up to 16 additional moving light fixtures of any kind on any sACN universe
- + Any lighting console (optional)

About Calibration

To link additional fixtures, GroundControl calibrates their location in 3D space using four custom Target Points.

Once the fixtures have been patched in the GroundControl Multi software, the system can take control to calibrate.

During calibration, each fixture is aimed at each of the Target Points, and the GroundControl Multi software stores and calculates their positions. This calibration can be completed from either a lighting console or the GroundControl controller itself.

Once calibrated, these fixtures will follow wherever the primary GroundControl fixture is aimed.



Figure 1: Single Controller System

Multiple Controller System Drawing

When creating a system using multiple GroundControl Multi servers over the same network, each controller and their corresponding fixtures must be assigned to sACN universes unique to that server. For example, as shown in Figure 2, Server 1 communicates over Universes 1, 3, and 5, while Server 2 communicates over universes 2, 4, and 6. As shown in Figure 3, the system will not work properly if fixtures controlled by separate servers are plugged into the same universe.



Figure 2: Successful System Configuration



Figure 3: Unsuccessful System Configuration

Hanging Fixtures

Fixture Layout

Fixtures must be hung outside of Target Point boundaries. See more on Target Point placement in the following section.



Fixture Orientation

Fixtures can only be hung conventionally (with the upper enclosure at the top) or sitting on its base and with the base level to the ground. The orientation of a fixture must be specified in the Patch section of the Configuration window.





A Target Point is a measured point of reference within the performance area used by the GroundControl Multi application to calibrate the location of fixtures. GroundControl Multi uses four Target Points to calibrate.

Choosing Target Points

The following steps should be considered prior to configuring your GroundControl Multi System.

Step 1. Select a Point of Origin within your Performance Area.

- The Point of Origin is an arbitrary reference point used by the GroundControl Multi Application to calibrate the 3D position of fixtures in the GroundControl Multi System.
- Step 2. Select four Target Points within the boundaries of your Performance Area as described in the previous chapter.
 - Note the X and Y distances of each Target Point from the Point of Origin. These dimensions will be crucial to the System's calibration.
 - Ensure your Target Points are clearly marked.
- Step 3. Assign each Target Point a label: 'Alpha,' 'Bravo,' 'Charlie,' or 'Delta.
 - The labels' order is arbitrary and should be assigned based on the preferences of the system's operators.



Correct Layouts

Target Points can be arranged anywhere within the boundaries of the GroundControl Multi Fixtures.

Please note that GroundControl Multi Fixtures must pan at least 1° between Target Points in order to avoid a failed calibration. Focus Points should therefore not be placed directly in-line, horizontally or vertically, with fixtures. Depending on the placement of your fixtures, any horizontal or vertical line of all four Focus Points may not be suitable.





In the example above, Focus Points are placed on either side of a truss with GroundControl Multi Fixtures. Focus points must only be on a single side of each truss.



In the example above, Focus Points are placed on both the outside and inside of these trusses with GroundControl Multi Fixtures. Focus points must only be on a single side of each truss.



In the example above, multiple Focus Points are placed directly in line with a fixture GroundControl Multi Fixture. No pan data can be recognized by the GroundControl Multi application, resulting in a failed calibration.



CONFIGURATION

Please follow the steps below to configure your GroundControl Multi application and prepare for calibration.

- Step 1. Set up a standard GroundControl Remote Followspot System. See the <u>User Manual</u> for more in-depth instructions.
- Step 2. Load GroundControl Multi Firmware Version 1.0 onto your GroundControl Controller. See the <u>User Manual</u> for more in-depth instructions.
- Step 3. Install the GroundControl Multi application onto a MacOS computer.
 - a. Ensure your computer at least meets the following requirements:
 - 1) 2 Network Interface Cards:
 - Your Mac's Native Ethernet Port
 - An additional USB-C to Ethernet Interface
 - 2) M1 Processing Unit
 - 3) MacOS Sonoma Version 14.0
 - 4) 16 GB of RAM
- Step 4. Open the GroundControl Multi application.
- Step 5. License your GroundControl Multi application.
 - a. Enter a Valid License Key in the "Licensing" Window.

Ground Cont	rol File	Edit	•••	On-Line Configuration
About Ground	d Control			Ground Control Boquires a License Key, Contac
Licensing				PRG Technical Support for more information.
Licensing				Serial Number: 3059140101
Services		>	Curi	rent License Key: 0000 0000 0000 0000
e Hide Ground	Control	жH		Expiration Date:
Hide Others		∼жн		Enter Key
Show All			The	
ti a in a sha				
	Control	жQ		

• Please contact PRG if you are in need of a Valid License Key.



- a. Use an Ethernet Cable to connect your computer from its Native Ethernet port to your Lighting System.
- b. Use an Ethernet Cable to connect your computer from the USB-C Interface to your GroundControl Controller.
- c. Open System Settings on your MacOS computer.



d. In the "Network" Menu of System Settings, create a new Network Location called "GC Multi."



e. Manually configure the connection to your GroundControl Controller as shown below.

USB 10/100/1000 LAN • Connected	Details
IPv4 Configured	Manually
IP address	10.1.101.1
Subnet mask	255.255.0.0

f. Manually configure the connection to your Lighting System as shown below.

Ethernet • Connected	Details
IPv4 Configured	Manually
IP address	10.66.201.1
Subnet mask	255.255.0.0

- Step 7. Configure your GroundControl Controller's Network Settings.
 - a. Using the display of your GroundControl Controller, open the "Options" menu in the "Configuration" window.

DMX ADDRESS 1011150 Fixture GC Uni	MULTI-FIXTURE SETUP MULTI SERVER: OK	anfig	
CONH DMX	status/INFO Truss box: OK	OPTIONS INTENSITY SCRLING N BLACKOUT BUTTON Y FADERS DEFAULT SHAP IRIS & ZOON N	
SETTINGS P&T sensitivity: 01	PRESETS	RETICLE BUTTON Y FRANING PAGING N CAMERA FOCUS AUTO DMX FUNCTN SELECT Y More Options	

b. Navigate to the second page.

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Framing Paging DISABLED	Reti But ENAE	cle ton BLED	Page (1/2)	×0pt

c. Enable the "Multi Fixture" option and return to the "Configuration" window.

Multi Fixture ENABLED	MULTI Multi-Z Fader DISABLED	Z-Height Settings DISABLED	(2/2)
Active Units IMPERIAL			ions
	Camera Focus AUTO	Page (2/2)	×0pt

d. Enter the "Multi-Fixture Setup" menu.

DHX ADDRESS 1011150 Fixture GC Uni	MULTI-FIXTURE SETUP MULTI SERVER: OK		onfig
сони DMX	STATUS/INFO TRUSS BOX: OK	OPTIONS INTENSITY SCALING N BLACKOUT BUTTON Y FADERS DEFRULT SWAP IRIS & ZOOM N	0
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	1	2	3		0	Add		
	4	5	6			iter		
	7	8	9		Enter	×Er		

- Step 8. Configure the Network Interfaces in the GroundControl Multi application.
 - a. Open the "Configuration" window found on the main Status Screen of your GroundControl Multi application.

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Networking																										
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Status																										
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b. Set the "Ground Controller" network connection to your USB-C Interface (10.1.101.1).

				Configuration				
Show file: Untitled				6 D Metric System	Interface	IP Address	Active	Ground Control Detected
Network Interfac	es				Automatically Detect			
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Lighting System	Ethernet (10.66.201.1)	10.66.x.x	Link Active	GC ONLY, Plugged in, sACN Not Detected	Ethernet Adapter (en7)	(Disabled)		
					Ethernet Adapter (en8)	(Disabled)		
Focus Target Po	nts			Log pan/tilt flips		Z Height Options	J	12

c. Set the "Lighting System" network connection to the native Ethernet port (10.66.201.1).

				Configuration		and a fair		
Show file: Untitled				s 🕖 Metric System				
Network Interfac	es							
	Ethernet Interface	Subnet	Link	notes	Interface	IP Address	Active	sACN Detected
Ground Controller	USB 10/100/1N (10.1.101.1)	10.1.x.x	Link Active		Automatically Detect			
Lighting System	Ethernet (10.66.201.1)	10.66.x.x		GC ONLY, Plugged in, sACN Not Detected	✓ Ethernet	(10.66.201.1)		
					USB 10/100/1000 LAN	(10.1.101.1)		
Focus Target Po	ints			Log pan/tilt flips	Ethernet Adapter (en7)	(Disabled)		

- Step 9. Configure Target Points in the GroundControl Multi application.
 - a. Use the Measurement Toggle at the top of the "Configuration" window to specify if you will be using Imperial or Metric Units to define your Target Points.



b. Enter the X and Y coordinates of each of the four Target Points in the "Focus Target Point" section of the "Configuration" window.

Focus Target Points			Log pan/tilt flips	
Target Points	x	У	notes	
Alpha	4'	24'		
Bravo	12'	24'		
Charlie	20'	24'		
Delta	26'	24'		

- c. Input the "Default Calibration Height" in the Z Height Options menu of the "Configuration" window.
 - This dimension is the height of your Target Points from the floor of the Performance Area.

				7 -	leight Ontions							
(Contro	(Controller Online)											
Default Operating Height 3' 6" Default Calibration Height 0'												
Ena	Enable Multi-Z height on Controller											
Min	0'	Max	10'									

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Configuring Lighting Console Control

The following section only applies if control of the GroundControl Multi system is to be shared with a lighting console.

Patching Your Lighting Console

Please follow the following steps to ensure full functionality of joint system control.

- Step 1. Patch your GroundControl Camera Fixture into your Lighting Console.
 - a. Patch the fixture using its standard profile.
 - b. Assign the fixture a secondary channel number, and patch it as a 'GC Universal 2' fixture.
 - The GC Universal 2 Profile can either be found at prg.com and Standard Fixture Share websites or be created using the DMX Maps below.

1 Controller Configuration Controller mechanism selection Home:0 0% 2 Camera Exposure Camera exposure control 0 0% 3 Camera Zoom Camera zoom control Home:0 0% 4 Camera Zoom Camera zoom control Home:0 0% 4 Camera WB+ Reticle Camera white balance + reticle Home:0 0% 4 Camera WB+ Reticle Camera white balance + reticle Home:0 0% 4 Camera WB+ Reticle Camera white balance + reticle Home:0 0% 5 Control Selection GC or Console Control 1 1% 3200K 2 1% 2% 1 1% 4 Camera white balance + reticle Home:0 0% 1 2% 5 Control Selection GC or Console Control 10 3% 16 10 3% 6 Store Target Point Apha 56 22% 10 0% 10 2% 6 No Charge (lea	Chan	Function		Descrip	tion		8-Bit \	/alue	DMX %	
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126-130 Zoom	121-125					Zo	om	F	rost	
	126-130					Zo	om			
131-135 Frost	131-135				=	0.771		F	rost	

- Step 2. Patch all additional GroundControl Multi system fixtures into your Lighting Console.
 - a. Patch each fixture onto an individual channel using its standard profile.
 - b. Assign each fixture a secondary channel number, and patch it as a 'GC-MT' fixture.
 - GC-MT is short for 'Ground Control-Multi Toggle'.
 - GC-MT Profiles enable your console to control the GroundControl Multi application in the following two ways:
 - 1. Enables a user to toggle control of each fixture between the lighting console and the GroundControl Multi system.
 - 2. Enables a user to focus to Target Points and store Pan/Tilt data into the application from the lighting console.
 - The GC-MT Profile can either be found at prg.com and Standard Fixture Share websites or be created using the DMX Map below.

Chan	Function	Description	8-Bit Value	DMX %
1	Control Selection	GC or Console Control	Home:0	0%
		Console Control	0	0%
		GC Control	10	3%
2	Store Target Points	Idle	Home:0	0%
	All values must be held for	Idle	0	0%
	a minimum of 1 seconds	Store Target Point Alpha	56	21%
	followed by an immediate	Store Target Point Bravo	58	22%
	snap to DMX 0 to take	Store Target Point Charlie	60	23%
	effect	Store Target Point Delta	62	24%
3	Reserved		Home:0	0%

 GC-MT Fixtures can be patched in any sACN Universe, regardless of its corresponding fixture's Patch.

Toggle Control from the GroundControl Multi Application

To enable control of the GroundControl Multi system from the Lighting Console, use the toggle in the Configuration window.

Main G	Main GroundControl Fixture								
channel	profile	mode	fixture univ	fixture addr	priority	notes			
Main	Ground Control 💲	Best Boy (49ch) 🗘	1	101 -149	N/A				
Fixture	s Under Multi Contro	add fixture de	elete GC		GC + Con	isole ?			
channel	profile	mode	fixture	fixture addr	priority	notes			

"GC + Console" must be selected to output control and calibrate the system using your lighting console.

"GC Only" will disable communication between your Lighting Console and the GroundControl Multi application.

Patching the GroundControl Multi Software

Please follow the following steps regardless of whether or not a Lighting Console is being used for control.

- Step 1. Patch your GroundControl Camera Fixture to match your Lighting Console, in the case of Joint Control.
 - a. Enter the Channel number.
 - b. Select and choose the Fixture Profile.
 - c. Select the Fixture Control Mode.
 - d. Enter the Fixture's sACN Universe.
 - e. Enter the Fixture's Starting Address.
 - f. Enter the GC Universal2 Channel number, sACN Universe, and Starting Address.
 - g. Enter Notes as required.
- Step 2. Patch all additional GroundControl Multi system fixtures to match your Lighting Console, in the case of Joint Control.
 - a. Repeat all steps above for each additional fixture, patching each Lighting Fixture with its corresponding GC-MT Fixture.

Show file: F	Red Dawn T	he Musical					es 🌒 Metric	: System								
Netwo	rk Interfac	es														
		Ethe	ernet Interface		Subnet	Link	notes									
Ground C	ontroller	USB 10/10	00/1N (10.1	.101.1) 1	10.1.x.x	Link Active						USB 10/100/1000 LAN	(10.1.101.1)	~	\checkmark	:
Lighting S	System	Ethernet	(10.66.201.1) 1	10.66.x.x	Link Active	Plugged in, s	ACN Detected	. Rcv univ 2,3,	4. Send un	iv 2,3,4,31	Ethernet	(10.66.201.1	Rcv	univ 2.3.4.	/ :
Focus	Target Poi	ints							Log	g pan/tilt flip	os		Z Height C	Options		
Target Poi	ints	×		v		notes						(Controller Online)				
Alpha		4		24'								Default Operating Height	3' 6" Defau	t Calibration	Height O	
Bravo		1:	2'	24'								Enable Multi-7 beight	on Controller			
Charlie		2	0'	24'								Min Ol May 40				
Delta		2	6'	24'								Min U Max IC				
Main G	GroundCor	trol Fixtur	e											Overric	le 3d calibra	tion x,y,z
channel	profile		mode		fixture	fixture	Universal2	Universal2	Universal2	priority	notes		1		1 7	rotate
b d = i =	Oracine d (Deet Deer	(40-1-) •	univ	addr	desk chnl	univ	addr	bita	notes		~	,	- 01	07.00
main	Ground C	Sontrol 🗘	Best Boy	(49ch) 🗸		101-149			150-156	N/A			U [.]	0.	0.	-37.0*
Fixture	es Under N	Iulti Contr	ol add	fixture d	lelete G	C ONLY	GC + Console	?						Overrid	e 3d calibra	tion x,y,z
channel	profile		mode		fixture	fixture addr	GC-MT desk chnl	GC-MT univ	GC-MT addr	priority	notes					rotate
21	Scenius	Unico ≎	Vector (4	4ch) 🗘	3	201-244	31		501 -503	200			0'	0'	0'	0.0°
22	Halcyon ⁻	Titani 🗘	Standard	(60ch) 🗘		301 -360	32		504 -506	200						0.0°
23	MAC Enc	ore P 💲	Warm (38	3ch) 🗘	3	401 -438	33		507-509	200			0'	0'	0'	0.0°
41	Robin Fo	rte 🗘	Mode 1 (§	54ch) 🗘	2	1-54	51	2	401 -403	200			0'	0'	0'	0.0°
42	Diablo	÷	Extended	(56ch) ≎	2	61-116	52	2	404-406	200			0'	0'	0'	0.0°
43	MAC VID	er Per 😳	Extended	(3/cn) 🗘	2	121-157	53	2	407-409	200			0 ¹	0.	0.	0.0*
44	Mythos		Standard	(40ch) V	2	221-250	55	2	410-412 413-415	200			0'	0'	0'	-37.0*
45	Icon Star	10 Č	Evtended	(58ch) \$	2	261-318	56	2	416-418	200			0'	0'	0'	0.0
61	Robin BM	IFL BL C	M1 (49ch) 3	4	1-49	71	4	401-403	200			0'	0'	0'	0.0°
62	VL3600	Profile 🗘	16-Bitd	, • (54ch) ≎	4	61-114	72	4	404-406	200			0'	0'	0'	0.0°
63	Impressio	on X4 🗘	Extended	(21ch) 🗘		121 -141	73		407-409	200			0'	0'	0'	0.0°
64	Proteus N	∕laxim ≎	Extended	(61ch) \$		164-224	74	4	410-412	200			0'	0'	0'	0.0°
65	ICON Ed	ge ≎	Ext 36ch	(36ch) 🗘		241 -276	75		413 -415	200					0'	0.0°
66	5L		default (2	3ch) 🗘		281 -303	76		416 -418	200				0'		0.0°
101	Domino I	Profile 🗘	Extended	(66ch) 🗘	31	1-66	102	31	401 -403	200						0.0°

Step 3. SAVE THE FILE in the GroundControl Multi application. This is a required step to store all settings.

CALIBRATION

Calibration From Your Lighting Console

The following section only applies if control of the GroundControl Multi system is to be shared with a lighting console. Please follow the following steps to calibrate your Lighting Fixtures 3D Positions.

Step 1. Calibrate the Main GroundControl Fixture.

- a. Make sure the GroundControl Multi Application Control Toggle is set to "GC + Console."
- b. On your console, select the GroundControl Fixture and its corresponding GC Universal 2 Fixture.
- c. Set the GC Universal 2 Fixture to "Console Control" Mode.
- d. Focus the GroundControl Fixture directly on Target Point 'Alpha.'
- e. On the GC Universal2 fixture, select Store point 'Alpha,' wait for at least 1.5 seconds, and toggle back to 'Idle.'

		Saved Fixture 'Main'	Target Point 'Alpha' (4.00,24.00) pan 35310 tilt 15548.
Networking			
Ground Controller Lighting System	Link Active Link Active	Plugged in, sACN Detecteduniv 2,3,4. Send univ 2,3,4	Configuration

- f. Repeat steps "d" and "e," focusing to and storing data for Target Points 'Bravo,' 'Charlie,' and 'Delta.'
 - A successful calibration will result in the message shown below and the population of XYZ dimensions into the Patch controls.

m	Link Active Link Active	Plugge	d in, sACN	Detected	duniv 2,3	3,4. Send univ	/ 2,3,4 C	onfiguration									
•	2								Configurat	ion							
ow file:	: Red Dawn The	Musical					es 🔵 Metri	c System									
Netwo	ork Interfaces																
		Ethe	rnet Interface		Subnet	Link	notes										
Bround (Controller	ISB 10/10	0/1 N (10.1	101 1)	101 v v	Link Active						USB 10/10	0/1000 LAN	(10 1 101 1)	1	1	
iahtina	System F	SSD 10,10	10.66.201.1)	101.1)	10.66.x.x	Link Active	Plugged in s	ACN Detected	Rev univ 2.3	4. Send un	niv 2.3.4	Ethernet	0,1000 2,111	(10.66.201.1)	Povi	niv 234 ./	
												Ethernet		(10.00.201.1)	1107 0	1110 2,0,4, 0	
Focus	s Target Point	\$								nan/tilt flir	DS.			7 Height Opt			
		1								, p.a.,,		(Controll)	or Oplino)				
larget Po	oints	×		У		notes						(Controllin	er Online)				
Alpha		4'		24'								Default C	perating Height	3' 6" Default C	alibration	Height 0'	
Bravo		12		24'								Enable	e Multi-Z height o	on Controller			
Snarile		20	J.	24								Min 0	" Max 10				
Delta Main (GroundContro	26 ol Fixture	5' 9	24'											Override	3d calibrati	ion x,y
Delta Main (channel Main	GroundContro profile Ground Cor	2€ ol Fixture ntrol ≎	6' e mode Best Boy (24' (49ch) ≎	fixture univ 1	fixture addr 101-149	Universal2 desk chnl	Universal2 univ 1	Universal2 addr 150-156	priority N/A	notes		cal detail Show	x 14' 8"	Override y -1' 2"	3d calibration z 10' 7"	ion x,y ro -1
Delta Main (channel Main	GroundContro profile Ground Cor	26 ol Fixture htrol ≎	5' mode Best Boy (24' (49ch) ≎	fixture univ 1 delete 0	fixture addr 101-149 GC ONLY	Universal2 desk chnl GC + Console	Universal2 univ 1	Universal2 addr 150-156	priority N/A	notes		cal detail Show	x 14' 8"	Override y -1' 2" Override	3d calibration z 10' 7" 3d calibration	ion x,y ro -1
Delta Main (channel Main Fixture channel	GroundContro profile Ground Cor res Under Mul profile	26 ol Fixture htrol ≎ Iti Contro	6' mode Best Boy Dl add 1 mode	24' (49ch) ≎ ixture	fixture univ 1 delete fixture univ	fixture addr 101-149 GC ONLY	Universal2 desk chnl GC + Console GC-MT desk chnl	Universal2 univ 1 GC-MT univ	Universal2 addr 150-156 GC-MT addr	priority N/A priority	notes		cal detail Show	x 14' 8" x	Override y -1' 2" Override y	3d calibrati z 10' 7" 3d calibrati z	ion x,y, ro –1: ion x,y, ro
Delta Main (channel Main Fixturi channel 21	GroundContro profile Ground Cor res Under Mul profile Scenius Un	26 ol Fixture ntrol ≎ Iti Contro ico ≎	o mode Best Boy b add f mode Vector (44	24' 49ch) ≎ ixture	fixture univ 1 delete fixture univ 3	fixture addr 101-149 GC ONLY fixture addr 201-244	Universal2 desk chnl GC + Console GC-MT desk chnl 31	Universal2 univ 1 GC-MT univ 3	Universal2 addr 150-156 GC-MT addr 501-503	priority N/A priority 200	notes		cal detail Show	× 14' 8" × 0'	Override y -1' 2" Override y 0'	3d calibrati z 10' 7" 3d calibrati z 0'	ion x,y, ro -1: ion x,y, ro 0.0
Delta Main (channel Main Fixturn channel 21 22	GroundContro profile Ground Cor res Under Mul profile Scenius Un Halcyon Tita	26 ol Fixture ntrol ≎ Iti Contro ico ≎ ani ≎	mode Best Boy b add 1 mode Vector (44 Standard	24' (49ch) ≎ ixture) 4ch) ≎ (60ch) ≎	fixture univ 1 delete fixture univ 3 3	fixture addr 101-149 GC ONLY fixture addr 201-244 301-360	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32	Universal2 univ 1 GC-MT univ 3 3	Universal2 addr 150-156 GC-MT addr 501-503 504-506	priority N/A priority 200 200	notes		cal detail Show	x 14' 8" x 0' 0'	Override y -1' 2" Override y 0' 0'	3d calibrations of the second	ion x,y ro -1 ion x,y ro 0.' 0.'
Delta Main (Main Main Fixture channel 21 22 23	GroundContro profile Ground Cor res Under Mul profile Scenius Un Halcyon Tita MAC Encore	26 ol Fixture ntrol ≎ Iti Contro ico ≎ ani ≎ a P ≎	mode Best Boy ol add 1 mode Vector (44 Standard Warm (38	24' (49ch) ≎ ixture (40ch) ≎ (60ch) ≎ ch) ≎	fixture univ 1 delete univ 3 3 3 3	fixture addr 101-149 GC ONLY fixture addr 201-244 301-360 401-438	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32 33	Universal2 univ 1 GC-MT univ 3 3 3	Universal2 addr 150-156 GC-MT addr 501-503 504-506 507-509	priority N/A priority 200 200 200	notes		cal detail Show	x 14' 8" x 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0'	3d calibrations of the second	ion x,y, ro -1: ion x,y, ro 0.0 0.0
Delta Main (Main Fixture channel 21 22 23 41	GroundContro profile Ground Cor res Under Mul profile Scenius Un Halcyon Tits MAC Encore Robin Forte	2€ ol Fixture htrol ≎ Iti Contro ico ≎ ani ≎ a P ≎	o mode Best Boy b add 1 mode Vector (44 Standard Warm (38 Mode 1 (5	24' (49ch) ≎ ixture (60ch) ≎ ch) ≎ 4ch) ≎	fixture univ 1 delete 3 3 3 3 2	fixture addr 101-149 GC ONLY fixture addr 201-244 301-360 401-438 1-54	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32 33 51	Universal2 univ 1 GC-MT univ 3 3 3 2	Universal2 addr 150-156 GC-MT addr 501-503 504-506 507-509 401-403	priority N/A priority 200 200 200	notes		cal detail Show	× 14' 8" × 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0'	3d calibrati z 10' 7" 3d calibrati z 0' 0' 0' 0'	ion x,y, ro -1: ion x,y, 0.0 0.0
Delta Main (channel Main Fixture channel 21 22 23 41 42	GroundContri profile Ground Cor res Under Mul profile Scenius Un Halcyon Tita MAC Encore Robin Forte Diablo	26 ol Fixture htrol ≎ iti Contro ani ≎ a P ≎	mode Best Boy b add f mode Vector (44 Standard Warm (38 Mode 1 (5 Extended	24' (49ch) ≎ ixture (60ch) ≎ ch) ≎ (56ch) ≎ (56ch) ≎	fixture univ 1 delete 0 fixture univ 3 3 3 2 2 2	fixture addr 101-149 GC ONLY fixture addr 201-244 301-360 401-438 1-54 61-116	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32 33 51 52	Universal2 univ 1 GC-MT univ 3 3 3 2 2	Universal2 addr 150-156 GC-MT 501-503 504-506 507-509 401-403 404-406	priority N/A priority 200 200 200 200 200	notes		cal detail Show	x 14' 8" x 0' 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0' 0' 0' 0'	3d calibrations z 10' 7" 3d calibrations z 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	ion x,y, ro -1: ion x,y, ro 0.0 0.0 0.0
Delta Main (channel Main Fixture channel 21 22 23 41 42 43	GroundContre profile Ground Cor res Under Mul profile Scenius Un Halcyon Titt MAC Encore Robin Forte Diablo MAC Viper I	26 ol Fixture htrol ≎ Iti Contro ani ≎ ₽ P ≎ Per ≎	s' mode Best Boy bl add 1 mode Vector (44 Standard Warm (38 Mode 1 (5 Extended Extended	24' (49ch) ≎ ixture (60ch) ≎ (56ch) ≎ (56ch) ≎ (37ch) ≎	fixture univ 1 delete C fixture 3 3 3 2 2 2 2 2	fixture addr 101-149 GC ONLY fixture addr 201-244 301-360 401-438 1-54 61-116 121-157 261-005	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32 33 51 52 52 53	Universal2 univ 1 ? GC-MT univ 3 3 3 3 2 2 2 2	Universal2 addr 150-156 GC-MT addr 501-503 504-506 507-509 401-403 404-406 407-409	priority N/A priority 200 200 200 200 200 200 200	notes		cal detail Show	x 14' 8" x 0' 0' 0' 0' 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	3d calibrations of the second	ion x,y ro -1 ion x,y ro 0. 0. 0. 0. 0.
Delta Main (channel Main Fixture channel 21 22 23 41 42 43 44 45	GroundContri profile Ground Cor res Under Mul profile Scenius Un Haleyon Tit MAC Encore Robin Forte Diablo MAC Viper I Best Boy LE	26 ol Fixture htrol ≎ Iti Contro ani ≎ a P ≎ Per ≎ ED ¢	mode Best Boy I mode Vector (44 Standard Warm (38 Mode 1 (5 Extended Extended Standard	24' (49ch) ≎ ixture (60ch) ≎ (60ch) ≎ (56ch) ≎ (37ch) ≎ (37ch) ≎	fixture univ 1 delete C fixture univ 3 3 3 3 2 2 2 2 2 2 2 2 2 2	fixture addr 101-149 GC ONLY fixture addr 201-244 301-360 401-438 1-54 61-116 121-157 161-206	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32 33 51 52 53 54 54 55	Universal2 univ 1 GC-MT univ 3 3 3 2 2 2 2 2 2	Universal2 addr 150-156 GC-MT addr 501-503 507-509 401-403 404-406 407-409 410-412	priority N/A priority 200 200 200 200 200 200 200 200	notes		cal detail Show	x 14' 8" x 0' 0' 0' 0' 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	3d calibration 2 2 10' 7" 3d calibration 2 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	ion x,y ro -1 ion x,y ro 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
Delta Main (channel Main Fixturi channel 21 22 23 41 42 43 44 45 46	GroundContre profile Ground Cor res Under Mul profile Scenius Un Haleyon Tit MAC Encore Diablo MAC Viper I Best Boy LE Mythos	2€ ol Fixture htrol ≎ Iti Contro ani ≎ a P ≎ Per ≎ ED ≎ x	mode Best Boy (D) add 1 mode Vector (4/ Standard Warm (38 Mode 1 (5 Extended Standard Standard	24' (49ch) ≎ ixture (ach) ≎ (60ch) ≎ (ach) ≎ (56ch) ≎ (37ch) ≎ (37ch) ≎ (37ch) ≎	fixture 1 delete C fixture 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	fixture addr 101-149 3C ONLY fixture addr 201-244 301-360 401-438 1-54 61-116 121-157 161-206 221-250 261-318	Universal2 desk chni GC + Console GC-MT desk chni 31 32 33 51 52 53 54 55 55 55	Universal2 univ 1 GC-MT 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Universal2 addr 150-156 GC-MT addr 501-503 507-509 401-403 404-406 407-409 410-412 413-415 416-418	priority N/A priority 200 200 200 200 200 200 200 200 200 20	notes		cal detail Show	x 14' 8" x 0' 0' 0' 0' 0' 0' 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	3d calibration 2 2 10' 7" 3d calibration 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ion x,y ro -1 ion x,y 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
Delta Main (channel Main Fixture channel 21 22 23 41 42 43 43 44 45 46 61	GroundContra profile Ground Cor res Under Mul profile Scenius Un Haleyon Tit MAC Encore Robin Forte Diablo MAC Viper I Best Boy LE Mythos Icon Stage Robin BMFI	26 ol Fixture htrol ≎ Iti Contro ani ≎ a P ≎ a P ≎ Per ≎ ED ≎ ED ≎ ED ≎ ED ≎	s ³ mode Best Boy I mode Vector (44 Standard Warm (38 Mode 1 (5 Extended Standard Standard Standard M (149eh)	24' (49ch) ≎ ixture (60ch) ≎ (60ch) ≎ (56ch) ≎ (36ch) ≎ (46ch) ≎ (30ch) ≎ (58ch) ≎	fixture 1 delete C fixture univ 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	fixture addr 101-149 SC ONLY fixture addr 201-244 301-360 401-438 1-54 61-116 121-157 161-206 221-250 261-318 1-49	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32 33 51 52 53 54 55 55 56 71	Universal2 univ 1 GC-MT univ 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Universal2 addr 150-156 6C-MT addr 501-503 504-506 507-509 401-403 404-406 407-409 410-412 418-415 416-418 401-403	priority N/A priority 200 200 200 200 200 200 200 200 200 20	notes		cal detail Show	x 14'8" x 0' 0' 0' 0' 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	3d calibratii z 10' 7" 3d calibratii z 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	ion x,y ro -1 ion x,y 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
Delta Main (channel Main Fixture channel 21 22 23 41 42 43 44 45 46 52	GroundContro profile Ground Cor res Under Mul profile Scenius Un Halcyon Tita MAC Encorr Robin Forte Diablo MAC Viper I Best Boy LE Mythos Icon Stage Robin BMFL VI. 3600 Prof	2€ ol Fixture ntrol ≎ Iti Contro a P ≎ a P ≎ ED ≎ ED ≎ EB ≎	mode Best Boy I mode Mode Vector (4/ Standard Warm (38 Kode 1 (5 Extended Extended Standard Standard Standard M (149ch) 16-Bit, d (149ch)	24' (49ch) ≎ ixture (60ch) ≎ (56ch) ≎ (56ch) ≎ (37ch) ≎ (30ch) ≎ (58ch) ≎ ≎ 54ch) ≎	fixture 1 delete fixture univ 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 4 4	fixture addr 101-149 3CC ONLY fixture addr 201-244 301-360 401-438 1-54 61-116 121-157 161-206 221-250 261-318 1-49 61-114	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32 33 51 53 53 54 55 56 71 72	Universal2 univ 1 GC-MT univ 3 3 3 2 2 2 2 2 2 2 2 2 2 4 4	Universal2 addr 150-156 GC-MT addr 501-503 504-506 507-509 401-403 404-406 407-409 410-412 413-415 416-418 401-403	priority N/A priority 200 200 200 200 200 200 200 200 200 20	notes		cal detail Show	x 14' 8" x 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	3d calibration z 10' 7" 3d calibration z 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	ion x,y ro -1 ion x,y ro 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
Delta Main (channel Main Fixtur channel 21 22 23 41 42 43 44 45 46 51 53	GroundContro profile Ground Cor res Under Mul profile Scenius Un Haleyon Titi MAC Encore Robin Forte Diablo MAC Viper I Best Boy LE Mythos Icon Stage Robin BMFL V1.3600 Prr Impression	2€ ol Fixture introl ≎ iti Contro ani ≎ a P ≎ c c Per ≎ c c c c c c c c c c c c c c c	mode Best Boy I mode Vector (44 Standard Ward (38 Mode 1 (5 Extended Standard Extended Standard Extended Standard M1 (49ch) 16-Bitd (24' (49ch) ≎ ixture (ach) ≎ (ach) ≈ (ach) ≈ (fixture univ 1 delete fixture 1 fixture 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	fixture addr 101-149 3C ONLY addr 201-244 301-360 401-438 1-116 121-157 161-206 221-250 261-318 1-49 61-114 1221-141	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32 33 51 52 53 54 55 55 56 71 72 73	Universal2 1 6 6 6 - 4 2 2 2 2 2 2 4 4 4	Universal2 addr 150-156 C-MT addr 501-503 404-406 407-409 410-412 413-415 410-412 410-412 410-412 410-412 410-412 410-412 410-412 410-412	priority N/A priority 200 200 200 200 200 200 200 200 200 20	notes		cal detail Show	x 14'8" x 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	3d calibration z 10' 7" 3d calibration z 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	ion x,y, ro -1 ion x,y, 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Delta Main (channel Main Fixture channel 21 22 23 41 42 23 41 42 43 43 44 45 46 46 51 52 53 54	GroundContre profile Ground Cor res Under Mul profile Scenius Un Haleyon Tit MAC Encor Robin Forte Diablo MAC Viper I Best Boy LE Mythos Icon Stage Robin BMFL VL3600 Pro Impression Proteus Ma	26 ol Fixture introl ≎ iti Control ani ≎ ani ≎	s ³ mode Best Boy (b) add f mode Vector (4/ Standard Warm (38 Mode 1 (5 Extended Extended Standard Standard Standard Extended Extended Extended Extended Extended	24' (49ch) ≎ ixture (4ch) ≎ (56ch) ≎ (56ch) ≎ (37ch) ≎ (46ch) ≎ (37ch) ≎ (58ch) ≎ (58ch) ≎ (58ch) ≎ (21ch) ≎	fixture univ 1 delete fixture univ 3 3 3 2 2 2 2 2 2 2 2 2 2 2 4 4 4 4	fixture addr 101-149 3C ONLY 201-244 301-360 401-433 1-54 61-116 121-157 161-206 221-250 261-318 1-49 61-114 121-141 164-224	Universal2 desk chnl GC + Console GC-MT desk chnl 31 32 33 51 52 53 54 55 54 55 54 55 54 55 57 72 73 74	Universal2 univ 1 8 6C-MT univ 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 4 4 4 4	Universal2 addr 150-156 501-503 504-506 507-509 401-403 400-409 400-409 410-412 413-415 416-418 404-406 404-406 404-408	priority N/A priority 200 200 200 200 200 200 200 200 200 20	notes		cal detail Show	x 14'8" x 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	Override y -1' 2" Override y 0'	3d calibration z 10:7" 3d calibration z 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	ion x,y, ro 0.0. 0.0. 0.0. 0.0. 0.0. 0.0. 0.0. 0
Delta Main 0 channel Main Fixture channel 21 22 23 41 42 43 44 45 46 51 52 53 54 53 54 55	GroundContro profile Ground Cor res Under Mul Scenius Un Haleyon Tit MAC Encor Diablo MAC Viper Best Boy L Moto Stage Robin BMFL V.3600 Prc limpression BMFL V.3600 Prc limpression Proteus Mar	2€ ol Fixture introl ≎ iti Contro introl ≎ iti Contro introl ≎ iti Contro introl ≎ introl ≎ iti Contro introl ≎ introl ≈ introl ≈ i	s mode Best Boy a add 1 mode Vector (44 Standard Warm (38 Mode 1 (5 Extended Standard Extended Standard Extended Extended Extended Extended Extended	24' (49ch) ≎ ixture 4ch) ≎ ≎ (56ch) ≎ (56ch) ≎ (37ch) ≎ (46ch) ≎ (30ch) ≎ (54ch) ≎ (54ch) ≎ (54ch) ≎ (54ch) ≎ (54ch) ≎	fixture univ doloto fixture univ 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 4 4 4 4	fixture addr 101-149 201-244 201-244 201-244 401-438 1-54 61-116 21-157 161-206 221-250 261-318 1-49 61-114 121-141 164-224 241-276	Universal2 desk chnl 32 33 55 54 55 56 71 72 73 74 75	Universal2 univ Contr Sontr 2 2 2 2 2 2 2 2 2 4 4 4 4	Universal2 addr 150-1503 501-509 401-403 404-406 407-409 410-412 413-415 416-418 401-403 404-406 407-409 410-412 413-415	priority N/A priority 200 200 200 200 200 200 200 200 200 20	notes		cal detail Show	x 14'8" x 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	Override y -1' 2" Override y 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'	3d calibrati	ion x,y, ro 0.1 ion x,y, 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2

- Step 2. Calibrate all additional GroundControl Multi system fixtures.
 - a. Repeat all steps from Main GroundControl Fixture calibration, selecting each Fixture and corresponding GC-MT Fixture you wish to calibrate.
 - Fixtures can be calibrated individually or as a group.
 - A successful calibration will result in the population of XYZ dimensions into the Patch controls.

•••										Configurat	ion							
Show file: F	Red Dawn The	e Music	cal					es 🌒 Metri	c System									
Networ	k Interfaces	6																
		E	Ether	net Interface		Subnet	Link	notes										
Ground C	ontroller	USB 10	0/100	0/1N (10.1.10		10.1.x.x	Link Active						USB 10/100	/1000 LAN (10	.1.101.1)			\$
Lighting S	System	Ethern	et (1	0.66.201.1)		10.66.x.x	Link Active	Plugged in, s	SACN Detected	. Rcv univ 2,3,	4. Send ur		Ethernet	(10	.66.201.1)	Rcv un	iv 2,3,4, √	:
Focus	Target Point	ts									a pan/tilt fli	26			7 Height Opt			
Tocus											g punytite in	55	(Controllor	(Online)				
Target Poi	nts		×		у		notes						(Controller					
Alpha			4'		24'								Default Op	erating Height 3' 6"	Default C	alibration H	eight 0'	
Charlie			20		24'								Enable	Multi-Z height on Co	ntroller			
Delta			26		24								Min 0'	Max 10'				
Main G	BroundContr	rol Fix	ture													Override 3	3d calibratio	n x,y,z
channel	profile			mode		fixture	fixture	Universal2 desk.chnl	Universal2 univ	Universal2 addr	priority	notes		cal detail				rotate
Main	Ground Co	ntrol	0	Best Boy (4)	9ch) 🗘		101-149			150 -156	N/A			Show	14' 8"	-1' 2"	10' 7"	-180.9°
Fixture	s Under Mu	ilti Co	ntro	add fixt				GC + Console								Override 3	3d calibratio	n x,y,z
channel	profile			mode		fixture univ	fixture addr	GC-MT desk chnl	GC-MT univ	GC-MT addr	priority	notes		cal detail				rotate
21	Scenius Un	nico :	\$	Vector (44c	h) 🗘		201-244	31		501-503	200			Show	-1' 1"	29' 3"	17' 4"	152.1°
22	Halcyon Tit	tani :	\$	Standard (6	0ch) 🗘		301 -360	32		504 -506	200			Show	13' 6"	30' 1"	17' 4"	1.9°
23	MAC Encor	e P :	\$	Warm (38ch		3	401-438	33	3	507 -509	200			Show	28' 2"	29' 10"	14' 5"	0.8°
41	Robin Forte	e :	\$	Mode 1 (54d	:h) ≎	2	1-54	51	2	401 -403	200			Show	2' 10"	-2' 8"	12' 1"	5.2°
42	Diablo		\$	Extended (5	6ch) 🗘	2	61-116	52	2	404-406	200			Show	0' 3"	1' 5"	11' 7"	-185.0°
43	MAC Viper	Per	ê.	Extended (3	7ch) 🗘	2	121-157	53		407-409	200			Show	5' 4"	-0' 1"	11' 4"	179.1°
44	Best Boy L	ED :	ç.	Standard (4	6ch) 🗘	2	161-206	54	2	410-412	200			Snow	22' 10"	-1' 5"	10' 9"	-180.2°
45	Mythos		Ŷ.	Standard (3	0ch) ≎	2	221-250	55	2	413-415	200			Snow	31'9"	-4' 7"	11' 4"	-38.0°
46	Icon Stage		Ŷ	Extended (5	8ch) 🗘	2	261-318	56	2	416-418	200			Snow	28' 7"	1'5"	10' 5"	29.7*
61	Robin BMFI	L Bl :	2	M1 (49ch)		4	1-49	71	4	401-403	200			Show	1' 5"	12' 9"	14' 10"	-90.3*
62	VL3600 Ph	ofile	<u> </u>	16-Bitd (54	acn) 🗘	4	61-114	72	4	404-406	200			Show	T	18.	13' 3"	-92.6*
64	Impression	74	ž	Extended (2		4	121-141	73	4	407-409	200			Show	201.01	151.01	01.21	-115.0*
65	Proteus Ma	ixim	×	Extended (b	Roh) 🗘	4	241.276	74	4	410-412	200			Show	29'9"	10' 2"	12' 0"	-02:8*
66	EUN Edge		ž	default (22a	b) A	4	241-276	76	4	413-415	200			Show	31 3	10 2	12 9	95.5
00	0L		~	default (230	·'') ~		201-303			410-418	200			0.001	51 10	10-5	11-5	30.0

Step 3. SAVE THE FILE in the GroundControl Multi application. This is a required step to store all settings.

Congratulations! The system is now calibrated.

On your console, set the GC-MT Fixtures to GC Control. The fixtures will now follow the Main GroundControl Fixture!

Calibration From the GroundControl Controller

The following section only applies if the GroundControl Multi System is to be operated without a Lighting Console. Please follow the following steps to calibrate your Lighting Fixtures 3D Positions.

- Step 1. Prepare to Calibrate Fixtures.
 - a. Make sure the GroundControl Multi Application Control Toggle is set to "GC Only."
 - b. Lamp On Arc Fixtures.
 - The "Start Lamp" button can be found on the main Status Screen of the GroundControl Multi Application.

Netwo	orking																												
Ground Lighting	Controller System	Lin Lin	k Acti k Acti	ve ve	Plugg	ed in, sACN Detec	tedniv 1,2,3 ,4	. Send uni	v 2,3,4	Config	guratior																		
Status																													
Chan	Device	l	Jniv	Addr	Priori	Console Control	MT-DMX	Inten	Pan	Tilt	Cyan	Yellow	Magen	Wheel	Beam	Edge	Frost	Zoom	Strobe	Gobo	R Go	Effect	Prism	Index	E Index	P Index	Wheel	Colo	Colo
Main	Best G	iC	1	101	200	GC ONLY	0/0	255	33118	17967	0	0	0	0	7	45040		0	0		0	0	146	24575	24575	24575		0	50
21	Sceniu	JS	3	201	200	GC ONLY	0/0	255	28799	39067	0	0	0	0	3	45040	0	0	105		0	0	0	0	0	0			0
22	HicynTtn	m	3	301	200	GC ONLY	0/0	26	32642	18793	255	255	255	0	7	45040	0	0	255	0			0	32767	32767	32767	48		255
23	MACEncorep	be	3	401	200	GC ONLY	0/0	26	37279	16740	0	0	0	0	248	45040	0	65535	30		0		128						0
41	For	te	2	1	200	GC ONLY	0/0	26	27276	48097	0	0	0	0	47559	45040	0	65535	32		0	20	0	128	128	128	0	128	0
42	Diab	lo	2	61	200	GC ONLY	0/0	26	26487	17373	0	0	0	0	47559	45040	0	0	15		0	0	0	0		0			0
43	ViperP	Prf	2	121	200	GC ONLY	0/0	26	37399	18162	0	0	0	0	248	45040	0	65535	20		0		0	0		0			0
44	BestBoyLE	D	2	161	200	GC ONLY	0/0	26	36759	16653	0	0	0	0	7	45040		0	0		0	0	146	24575	24575	24575		0	0
45	Mytho	os	2	221	200	GC ONLY	0/0	26	26495	51341	0	0	0	0		45040	0	0	105	0	0	0	0	0	128	0	0		0
46	Istag	je	2	261	200	GC ONLY	0/0	26	25654	49238	0	0	0	0	63743	45040	0	0	32	0	0	0	0	0		0			0
61	Blac	le	4	1	200	GC ONLY	0/0	26	31448	44397	0	0	0		44820	45040	0	65535	255		0					0	0		0
62	VL3600)P	4	61	200	GC ONLY	0/0	26	29369	46542		0	0		195	45040	0	0						32767	32767	0		0	
63	ImpX4	hr	4	121	200	GC ONLY	0/0	26	20753	17734	65535	65535	65535					255	255										
64	ProteusMa	ax	4	164	200	GC ONLY	0/0	26	34153	15539		0	0	0	1337	45040	0	0	32	0						0			0
65	ICON E	d	4	241	200	GC ONLY	0/0	26	30233	48345	0	0	0	0		45040	0	0	50	0	0				0	0			
66	5	5L	4	281	200	GC ONLY	0/0	26	52389	16277	65535	65535	65535				0												
Start La	amp Douse	Lam	np	Home	e/Reset		•								-														

- Step 2. Calibrate the Main GroundControl Camera Fixture.
 - a. Enter the "Multi-Fixture Setup" menu on your GroundControl Controller

DMX ADDRESS 101 150 Fixture GC Uni	MULTI-FIXTURE SETUP MULTI SERVER: OK		onfig
DMX	STATUS/INFO TRUSS BOX: OK	OPTIONS INTENSITY SCALING N BLACKOUT BUTTON Y FADERS DEFAULT SWAP IRIS & 2004 N	0
SETTINGS P&T sensitivity: 01	PRESETS 1 2 3 4 5 6 7 8	RETICLE BUTTON Y FRAMING PAGING N CAMERA FOCUS AUTO DHX FUNCTN SELECT Y More Options	×

b. Select "Calibrate GC Fixture"

Welcome to Complete be Step 1: Con Step 2: Con IP Address:	Multi Setup! low steps in figure the M nect to Mult 10.1.255.255	order: ulti Server i Server	iFixture	
Ster 3: SET Outbound IP Address	Stee 4: Calibrate GC Fixture	Ster 5: Calibrate Multi Fixtures	× Mult	

- c. Using the Controller's Pan and Tilt, focus the Main GroundControl Camera Fixture on Target Point 'Alpha.'
- d. Either select "Next" on the Controller Display or press the "Blackout" button.

		0 0 0 0 0	
To calibrate the center beam preci Focus Point. Hit the Fixture posit	Multi System, sely on the next to save ion. on pt.	librate GC	
PREVIOUS	NEXT	Ca	
PAN TI	LT EDGE	×	

- e. Repeat steps "c" and "d," focusing to and storing data for Target Points 'Bravo,' 'Charlie,' and 'Delta.'
 - A successful calibration will result the message shown below in the "Multi-Fixture Setup" menu.
- Step 3. Calibrate all additional GroundControl Multi system fixtures.



- a. Select "Calibrate Multi Fixtures"
- b. Repeat all steps from Main GroundControl Camera Fixture calibration, using the Controller's encoders to manipulate Pan and Tilt.
 - After Target Point 'Delta' has been calibrated, the application will advance to the next fixture automatically.
- c. Repeat this process for each fixture patched in the GroundControl Multi application.
- d. Select "Return to Calibration" in the event of any errors, or else select "Finished, Exit Wizard".



Step 4. SAVE THE FILE in the GroundControl Multi application. This is a required step to store all settings.

Congratulations! The system is now calibrated. The fixtures will now follow the Main GroundControl Fixture!



GroundControl™ Multi Quick Start Guide

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