Just Add BPower

AMP MANUAL



Updated v0.5.6

Table of Contents

Overview	1
VLAN Switching	2
VLAN Switching Overview	2
Configure a System with a Single Switch	3
Configure a Multi-Switch System	11
Connect to a System	20
Add Devices On-site	22
Add Devices Off-site	28
Multicast System	31
Multicast Switching Overview	31
Switch Configuration	32
Requirements	
Switch Configuration Files	32
Configure a System	33
Update Firmware	42

Overview

AMP – Advanced Matrix Programmer – is a software that configures 3G and MaxColor Just Add Power devices into an AV over IP system.

AMP is able to build 2 types of systems:

- VLAN switching
- <u>Multicast switching</u>

VLAN switching is preferred because AMP configures both the switch and all Just Add Power devices.

In Multicast switching, AMP configures the Just Add Power devices but *NOT* the switch.

Each system must choose one switching style based on the requirements of the jobsite. Again, we recommend *VLAN switching* for every system that meets the requirements.



VLAN Switching

VLAN Switching Overview

AMP VLAN will configure the switches and all Just Add Power devices. It is the **recommended** installation type for every system that meets these requirements:

- 3G Ultra or MaxColor Just Add Power devices
- Installation uses supported switches dedicated to Just Add Power devices:

VLAN switching describes an AV over IP system that puts each Transmitter in its own unique VLAN to separate video signals.

AV traffic in a VLAN switching system does not interfere with the Data network, and is not even visible on a network scan. A **static route** must be set on the router before Data network devices – like the control system – can communicate with and control the Just Add Power system.



Configure a System with a Single Switch

- 1. Connect the PC running AMP to the switch in 1 of 2 ways:
 - Connect the PC to the network, and connect the network to the **last port** of the switch
 - If the system is being configured offsite, connect the PC running AMP directly to the **last port** of the switch



MP-V05400

2. Open AMP and select the VLAN option.



3. Select the **Configure** option.

4. Enter the **Project Name** and select the **wired** network adapter that the program will use to configure the system. The **Project Name** is only for your records

\equiv	AMP-V0268ETA		— — ×
		Projec	; and Network Adapter VLAN
	Project Name:	New Project	
	Network Adapter:	Ethernet	○ C
		Gol	
Name	: the project for your records, and select the wired network adapte	r being used.	Just Add 8Power

- 5. Select the **Switch Manufacturer** that corresponds to the model of switch in the system.
- 6. Select the **Model** of switch that corresponds to the switch in the system.



- 7. Input the **IP Address**, **Netmask**, and **Gateway** for the switch.
 - The IP Address must be an open IP address on the network
 - The **Netmask** and **Gateway** must match the network that the switch is a member of.
- 8. Click **Generate** once all switch details have been filled out.



 The program will create Discovery Configuration Files that must be loaded onto the switch before AMP VLAN can continue. Click Generate to open a Save dialog.

Generating Discovery Configuration

Discovery Configuration files MUST be loaded on EACH switch manually by you, the user. This special switch configuration allows for a reliable baseline to start from and allows the program to discover Just Add Power devices in the system.

Uploading the Discovery Configuration to the switch will erase ALL previous configuration.

Click the button below to generate and save the Discovery Configuration files to an easy-to-find location.



Switch 1 Discovery Config			
+ + 📕 > This PC > Desktop	*	Search Desktop	,
Organize • New folder			× • (
Decuments # Decuments	No items match your search.		
File name dc_1_4212px_192-168-0-11			
Save as type: Switch Configuration File			
∧ Hide Folders		Save	Cancel

Discovery Config Instructions

1. For EACH switch:

- 1. Login to the web interface of the switch at its current IP address
- 2. Upload the respective discovery-config file to the 'startup-config'
- 3. Reboot the switch to apply the discoveryconfig
- 2. Next, if there are MULTIPLE switches being configured, connect them together via the 10Gb SFP+ uplinks (XG)
 - XG1 and XG2 MUST connect to the SAME neighbor switch
 - XG3 and XG4 MUST connect to the SAME neighbor switch
- 3. Finally, connect your network uplink to the LAST port on your FIRST switch

If you are unsure of how to perform these steps for your switch, please click the "In-Depth Guide Instructions" button below while this computer is connected to the internet.

Please perform these steps now. Once you have completed, click the Discovery Config Uploaded button.



10. Save the **Discovery Configuration File** to an easy-to-find place – like the Desktop – as it will be used immediately.

11. When this popup appears:

- Login to the switch webUI
- Upload the Discovery Configuration File through the switch webUI
 - For specific instructions for each switch model, click the **In-Depth Guide Instructions** button.
- 12. Once the Discovery Configuration File has been applied, click Discovery Config Uploaded to continue.

- 13. Assign Transmitters and Receivers for the **maximum** size of the system:
 - Receiver Count for displays
 - Transmitter Count for sources
 - If there are plans for expansion or you think the customer will want more sources or displays in the future, it is **recommended** to increase the Counts now. Expanding will be much easier if additional ports are assigned at this step.

≡	AMP-V02.6-BETA								- 0 ×
						Assign Transn	nitters a	nd Rece	eivers VLAN
		Unit	IP Address	Max J+P Ports	Receiver Count	Transmitter Count	LAN Ports	10Gb Trunk Ports	
			192.168.0.11	9 (?	0	0	10		
						[Gol	å.	
Assig	n any number of	Transmitte	rs and Receivers to each sv	vitch in the	system.				Just Add 8Power

Ξ ΑΜΡ-VO28087Α ←)				Assign Trans	mitters a	and Rec	eivers VL	AN
	Unit	IP Address	Max J+P Ports	Receiver Count	Transmitter Coun	LAN Ports	10Gb Trunk Ports		
		192.168.0.11	१ ⑦	4	4	2	0		
						Go!	ക്		
Assign any number of	Transmitte	rs and Receivers to each s	witch in the	system.				Just A 8Pow	dd er
							Pat	- D tching VL	× AN
	Sw 13 24	ritch 1 @ 192.168.0.11 5 7 9 6 8 10		Receiver Ports: 1 - 4	l Transm	itter Ports: !	5-8		

- 15. Connect **Receivers** starting on **Port 1**.
- 16. Connect **Transmitters** starting **after the last Receiver**.
- 17. The network should already be connected to the **last port** on the switch. In the diagram, that would be **Port 10**.
- 18. Click **Discover** once all devices are connected to the switch.

Just Add Power - Last updated Nov-22

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14. Click Go! to move to the next screen

- 19. AMP will discover active devices connected to Transmitter and Receiver ports.
- 20. **Optional:** If devices are not on the minimum firmware version, a popup will ask you to update firmware. You must update before moving forward. Click **Update**.
 - Wait for the firmware update to finish. This will take about 8 minutes.
- 21. Active devices will show up on the Discover Devices list, along with a diagram of how they are connected.
 - A device that is ready to be discovered will have a solid Power light and a blinking Data light
 - A device that has been discovered will show a solid green Power light and an unlit Data light on the front of the device.

Note: If devices are connected incorrectly, the port will show red. Fix any devices that are incorrect and then hit **Rescan**.



≡	AMP-V0.3.3	BETA							- • ×
							Discove	er Devices & L	Jpdate VLAN
		Swi	tch 1 @ 1	2.168.0.11	Receiv	ver Ports: 1 - 4	Transmitte	er Ports: 5 - 8	
		13 24	579 681	1					
		Receiver		Transmitte	r 📕 LAN/	Control 🗌 Tru	ink 🧧 C	Correct E	rror
	Model	Device	Unit	Port	IP Address	MAC Address	Firmware	Status	Identify
	3G RX	RX043FEB	1	1	169.254.7.211	48:5D:EB:04:3F:EB	B2.1.0	Searching for Transmitter	0
	3G RX	RX02C46F	1	2	169.254.5.66	C2:00:00:02:C4:6F	B2.1.0	Searching for Transmitter	0
	3G+AVP RX	RX018AF2	1	3	169.254.6.230	C2:00:00:01:8A:F2	B2.1.0	Searching for Transmitter	0
	3G+AVP RX	RX0169CE		4	169.254.5.174	C2:00:00:01:69:CE	B2.1.0	Searching for Transmitter	0
	3G TX	TX02BF92	1	5	192.168.0.143	C2:00:00:02:BF:92	B2.1.0	No Video from Source	\odot
	3G TX	TX01D4C5	1	6	192.168.0.168	C2:00:00:01:D4:C5	B2.1.0	No Video from Source	0
		4 Transr 4 Receiv	mitters vers	Rescan	S		C	Update Required!	
Disc	over Devices a	and Update Firm	ware.						Just Add 8Power

Ξ ΑΜΡ-V03: ←	3-BETA Swit	ch 1 @ 19	2.168.0.11	Recei	ver Ports: 1 - 4	Discove	er Devices & L er Ports: 5 - 8	Jpdate VLAN
	1324	579 6810		_	_			
	Receiver		Transmitter	LAN/	Control Tru	unk 📃 (Correct E	TOT
3G RX	RX043FEB	1	1	169.254.7.211	48:5D:EB:04:3F:EB	B2.1.0	Status Searching for Transmitter	©
3G RX	RX02C46F			169.254.5.66	C2:00:00:02:C4:6F	B2.1.0	Searching for Transmitter	
	TX02BF92				C2:00:00:02:BF:92		Patching Error	0
3G+AVP RX	RX0169CE	1	4	169.254.5.174	C2:00:00:01:69:CE	B2.1.0	Searching for Transmitter	©
3G+AVP RX	RX018AF2	1	5	192.168.0.187	C2:00:00:01:8A:F2	B2.1.0	Patching Error	\odot
3G TX	TX01D4C5	1	6	192.168.0.168	C2:00:00:01:D4:C5	B2.1.0	No Video from Source	©
	4 Transm 4 Receive	itters ers	Rescan	C			Update Arequired!	
Discover Devices	and Update Firmv	/are.						Just Add 8Power

22. When all devices are on the list, click **All Devices Found!** to move forward.



E AMP-W	05.48ETA						- <u> </u>
						Configur	e Devices VLAN
Unit	Port	Model	Device Name	Current IP	New IP	MAC Address	Firmware
1	1	3G RX	RX020A3A	169.254.1.81	172.27.1.1	C2:00:00:02:0A:3A	B2.3.4
1	2	3G RX	RX02C46F	169.254.5.66	172.27.1.2	C2:00:00:02:C4:6F	B2.3.4
1	3	3G+AVP RX	RX018AF2	169.254.6.230	172.27.1.3	C2:00:00:01:8A:F2	B2.3.4
1	4	3G+AVP RX	RX0169CE	169.254.5.174	172.27.1.4	C2:00:00:01:69:CE	B2.3.4
1	5	3G TX	TX016618	169.254.2.20	172.27.101.254	C2:00:00:01:66:18	B2.3.4
1	6	3G TX	TX038C4B	169.254.5.228	172.27.102.254	48:5D:EB:03:8C:48	B2.3.4
1	7	3G+AVP TX	TX038C4C	169.254.1.113	172.27.103.254	48:5D:EB:03:8C:4C	B2.3.4
1	8	3G+AVP TX	TX038C4D	169.254.2.48	172.27.104.254	48:5D:EB:03:8C:4D	B2.3.4
1	9		•	•	•	•	
Configure dev	4 Ti 4 Ri ice network set	ansmitters accivers tings to their perm	anent IP addresses			Configure Devices	Just Add BPower
E AMP-W	D2 GUETA					Configure	Switches VLAN
Model	Devi	e Name Uni	t Port	IP Address	MAC Address	Firmware	Status
							No Video from

3GHAVP TX

2G/3G+ TX

TX016618

TX038C48

5

6

Rescan 💭

172.27.101.254

172.27.102.254

C2:00:00:01:66:18

48:5D:EB:03:8C:4B

B2.1.2

B2.1.2

No V

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23. All active devices show the **New IP** and their connection to the switch. Click **Configure Devices** to move forward and assign IPs to active devices.

24. The next window will show active devices will show with their new **IP Address**. This means the devices have been configured. Click **Configure Switch** to move forward. 25. The popup asks you to confirm that you are done with device configuration and are ready to configure the switch. Once you move forward from this point, there is no going back. Click **Do It!**

System Configuration Confirmation

This process will upload the final switch configuration to the switch. Once this process begins, it CANNOT be interrupted or you risk damage to your system. Click the button below to begin.





26. Once switch configuration is complete, click **Save Report File** to get a printout of all the settings applied to the devices and the switch.

Congratulations!

Your Just Add Power system is ready to rock and roll!

Here is a project Report File that is HIGHLY recommended to download for assistance with Technical Support and control system programming.

Let's check that switching works!



27. To jump straight to the Matrix Control screen, click the **Test Switching** button. This requires a static route to function (step 29). ×

28. Once the Report File has been saved, click Finish! The switch and all Just Add Power devices are configured, but we're not done yet! Continue on...

Congratulations!

Your Just Add Power system is ready to rock and roll!

Here is a project Report File that is HIGHLY recommended to download for assistance with Technical Support and control system programming.

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Let's check that switching works!



System Details									
Project Name:	A Project								
Date:	Feb 15 202	2							
Switch Family:	Luxul								
Username:	admin								
Password:	admin								
Switch Total:		1							
Receiver Total:		4							
Transmitter Total:		4							
Static Boute:	Destinatio	n IP	Netmask	Gateway					
Static Route.	172 27 0.0		255 255 0.0	192 168 0 11					
	172.27.0.0		233.233.0.0	152.100.0.11					
Switch	RX Count		TX Count	IP Address	Netmask	Gateway	Model		
	1	4	4	192.168.0.11	255.255.255.0	192.168.0.1	XMS/AMS-1208		
=== Receivers ===									
Output	Switch		Port	IP Address	Netmask	Gateway	Model	MAC Address	Firmware
	1	1	1	172.27.1.1	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:40	B2.1.2
	2	1	2	172.27.1.2	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:41	B2.1.2
	3	1	3	172.27.1.3	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:42	B2.1.2
	4	1	4	172.27.1.4	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:43	B2.1.2
=== Transmitters ==	-								
Input	Switch		Port	IP Address	Netmask	Gateway	Model	MAC Address	Firmware
	1	1	. 5	172.27.101.254	255.255.0.0	172.27.101.1	3G TX	48:5D:EB:03:8C:4B	B2.1.2
	2	1	6	172.27.102.254	255.255.0.0	172.27.102.1	3G TX	48:5D:EB:03:8C:4C	B2.1.2
	3	1	7	172.27.103.254	255.255.0.0	172.27.103.1	3G TX	48:5D:EB:03:8C:4D	B2.1.2
	4	1	8	172.27.104.254	255.255.0.0	172.27.104.1	3G TX	48:5D:EB:03:8C:4E	B2.1.2

29. To control the system, a Static Route **must** be applied to the router (the device providing internet access). You can find the details for the Static Route in the Report File.

30. Log into the router through the webUl, find the Static Routing section, and enter the Destination IP, Netmask, and Gateway for the Just Add Power system. The Gateway will **always** be the IP address of the Just Add Power switch.



Configure a Multi-Switch System

- 1. Connect the PC running AMP to the first switch in 1 of 2 ways:
 - Connect the PC to the network, and • connect the network to the last port of the first switch.
 - If the system is being configured offsite, connect the PC running AMP directly to the last port of the first switch.



2. Open AMP and select the VLAN option.





Just Add AMP Instructions -

4. Enter the **Project Name** and select the **wired** network adapter that the program will use to configure the system. The **Project Name** is only for your records





- 5. Select the **Switch Manufacturer** for the switches in the system.
- 6. Select the Model of switch 1.

- 7. Click the **+ sign** on the far right to add more switches.
 - To remove a switch, click the sign
- 8. Select the **Model** for each switch.
 - A system can mix **different models** among the switches
 - A system must use the **same manufacturer** for all switches

	м	anufactu	rêr: Netgear				
		Usemar	ne: admin				
Unit	Model	Ports	IP Address	Netmask	Gateway	+/-	
1	4248PX	40	192.168.0.239	255.255.255.0	192.168.0.1	+-	
2	4230PX	26	192.168.0.240	255.255.255.0	192.168.0.1	-	
	4212PX	10	192.168.0.241	255.255.255.0	192.168.0.1		
					Gene	erate	

- Once all switches have been added, input the IP Address, Netmask, and Gateway for Switch 1.
 - The IP Address must be an open IP address on the network
 - The **Netmask** and **Gateway** must match the network that the switch is a member of.
 - The network details of all other switches in the system will be automatically filled. Switch IP addresses are assigned sequentially.

10. Click Generate when all switch details	
have been filled out.	

		Ма	nufactı Usema	ifër: Netgear Me: admin			Add Sw	tches VLAN
	Unit	Model	Passw	ord: netgear1234	Netmask	Gateway	+/-	
	1	4212PX ~	10	192.168.0.11	255.255.255.0	192.168.0.1	+	
	2	4230PX ~	26	192.168.0.12	255.255.255.0	192.168.0.1	-	
	3	4248PX ~	40	192.168.0.13	255.255.255.0	192.168.0.1		
-						Gene	rate	Just Add

≡ ∻	AMP-VO54-BETA							2	Add Swi	− □ × tches VLAN
				Ma	nufactu	rer: Netgear				
					Usemar Passwo	ne: admin ord: netgear1234		(Ì)		
		Unit	Model		Ports	IP Address	Netmask	Gateway	+/-	
			4212PX		10	192.168.0.11	255.255.255.0	192.168.0.1		
			4230PX		26	192.168.0.12	255.255.255.0	192.168.0.1		
			4248PX		40	192.168.0.13	255.255.255.0	192.168.0.1		
								Gener	ate	
										Just Add
Ndd e	switches that will b	e in th	e system.							8Power

11. The program will create a **Discovery Configuration File** for **EACH** switch in the system. It must be uploaded to the switch before AMP VLAN can continue. Click **Generate** to open a **Save dialog**.

Generating Discovery Configuration

Discovery Configuration files MUST be loaded on EACH switch manually by you, the user. This special switch configuration allows for a reliable baseline to start from and allows the program to discover Just Add Power devices in the system.

Uploading the Discovery Configuration to the switch will erase ALL previous configuration.

Click the button below to generate and save the Discovery Configuration files to an easy-to-find location.

Generate

12. Save the **Discovery Configuration File** to an easy-to-find place – like the Desktop – as it will be used immediately.



- Leave AMP open, but open a new web browser.
- Login to the switch webUI for switch 1
- Upload Discovery Configuration File 1 through the switch webUI
 - For specific instructions for each switch model, click the **In-Depth Guide Instructions** button.
- Move the network connection to the last port of the next switch and upload Discovery Configure File 2
- Repeat for each switch in the system
- Return the network connection to the **last port of switch 1** when finished.



No items match your search

1. For EACH switch:

dc_1_4212px_192-168-0-11

Save as type: Switch Configuration File

New fel

Documents #

CEDIA Brightsig

File na

Uropbox BrightSign

Dropbox
 OneDrive
 This PC
 Network

Hide Folder

1. Login to the web interface of the switch at its current IP address

Ö Search Desktop

Save Cancel

- 2. Upload the respective discovery-config file to the 'startup-config'
- 3. Reboot the switch to apply the discoveryconfig
- 2. Next, if there are MULTIPLE switches being configured, connect them together via the 10Gb SFP+ uplinks (XG)
 - XG1 and XG2 MUST connect to the SAME neighbor switch
 - XG3 and XG4 MUST connect to the SAME neighbor switch
- 3. Finally, connect your network uplink to the LAST port on your FIRST switch

If you are unsure of how to perform these steps for your switch, please click the "In-Depth Guide Instructions" button below while this computer is connected to the internet.

Please perform these steps now. Once you have completed, click the Discovery Config Uploaded button.

In-Depth Guide Instructions Discovery Config Uploaded

Discovery Config Instructions

1. For EACH switch:

- 1. Login to the web interface of the switch at its current IP address
- 2. Upload the respective discovery-config file to the 'startup-config'
- 3. Reboot the switch to apply the discoveryconfig
- Next, if there are MULTIPLE switches being configured, connect them together via the 10Gb SFP+ uplinks (XG)
 - XG1 and XG2 MUST connect to the SAME neighbor switch
 - XG3 and XG4 MUST connect to the SAME neighbor switch
- Finally, connect your network uplink to the LAST port on your FIRST switch

If you are unsure of how to perform these steps for your switch, please click the "In-Depth Guide Instructions" button below while this computer is connected to the internet.

Please perform these steps now. Once you have completed, click the Discovery Config Uploaded button.

In-Depth Guide

14. Once the **Discovery Configuration File** has been applied to all switches, click **Discovery Config Uploaded** to continue.

Discovery Config Uploaded

Assign Transmitters and Receivers | VLAN

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Assign Transmitters and Receivers | VLAN

Just Add BPower

Max J+P

16

40

10

IP Addr

192.168.0.11

192,168,0,12

192.168.0.13

192.168.0.11

26

16

- 15. Assign Receivers and Transmitters to each switch in the system:
 - Receiver Count for displays
 - Transmitter Count for sources
 - Each switch can have any number of Receivers and Transmitters
 - If you plan to add devices later, it is highly recommended to increase the Counts now. Expanding will be much easier if extra ports are assigned at this step.

16. Click Go! when devices have been
assigned that reflect the maximum
system size.

- 17. Connect **Receivers** starting on **Port 1**.
- 18. Connect **Transmitters** starting **after the last Receiver**.
 - This pattern continues for all switches
- 19. The network should already be connected to the **last port** on switch 1.
- 20. Connect SFP+ cables between the switches.
 - Match the letter for the port on the SFP+ connector.
- 21. Click **Discover** once all devices are connected to the switches and the switches are connected together.

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smitters and Receivers to each switch in th	e system.		Just Add 8Power
		162	- 🗆 ×
		P	atching VLAN
Switch 1 @ 192 168 0 11	Receiver Ports: N/A	Transmitter Ports: 1 - 8	
Switch 1 @ 192.168.0.11	Receiver Ports: N/A	Transmitter Ports: 1 - 8	\cap
Switch 1 @ 192.168.0.11	Receiver Ports: N/A	Transmitter Ports: 1 - 8	0
Switch 1 @ 192.168.0.11	Receiver Ports: N/A	Transmitter Ports: 1 - 8 Transmitter Ports: 17 - 26	Ø
Switch 1 @ 192.168.0.11 1 2 3 4 5 6 7 8 9 10 Switch 2 @ 192.168.0.12 1 3 5 7 9 11 13 15 17 19 2 4 8 8 19 12 14 16 18 20	Receiver Ports: 1 - 16 22 23 25 22 24 26 8 C	Transmitter Ports: 1 - 8 Transmitter Ports: 17 - 26	
Switch 1 @ 192.168.0.11 1 2 3 4 5 6 7 8 9 10 Switch 2 @ 192.168.0.12 1 3 5 7 9 13 13 15 17 19 2 4 6 8 10 12 14 16 16 10 20 Switch 3 @ 192.168.0.13	Receiver Ports: N/A Receiver Ports: 1 - 16 2223 25 Receiver Ports: 1 - 40	Transmitter Ports: 1 - 8 Transmitter Ports: 17 - 26 Transmitter Ports: N/A	
Switch 1 @ 192.168.0.11 1 2 3 4 5 6 7 8 9 10 Switch 2 @ 192.168.0.12 1 8 5 7 9 11 3 15 17 19 2 6 8 19 13 14 16 13 20 Switch 3 @ 192.168.0.13 1 8 5 7 9 11 18 15 17 19	Receiver Ports: 1 - 16 7 22 29 Receiver Ports: 1 - 16 7 20 29 Receiver Ports: 1 - 40 7 20 29 20 20 30 20 50	Transmitter Ports: 1 - 8 Transmitter Ports: 17 - 26	

Just Add

- 22. AMP will discover active devices connected to Transmitter and Receiver ports.
- 23. **Optional:** If devices are not on the minimum firmware version, a popup will ask you to update firmware. You must update before moving forward. Click **Update**.
 - Wait for the firmware update to finish. This will take about 8 minutes.

Discover Devices list, along with a diagram of how they are connected. An active device on this list will have a solid Power light and no Data light on the front of the device.

24. Active devices will show up on the

25. If devices are connected incorrectly, the port will show red. If devices are missing, the port will show the color of the expected device. Fix any devices that are incorrect and then hit *Rescan*. A device that is ready to be discovered will have a solid Power light and a blinking Data light, and the Data light will go off when the device is discovered.



We found firmware that is out of date on 2 device(s).

Please update the firmware to at least version B2.1.2 to proceed.

Older versions of firmware do NOT have the requisite features to work with AMP VLAN systems.



= AMP-V03 ←	1.3-BETA					Discove	r Devices & L	Jodate I VLA
	Swit	tch 1 @ 1	92.168.0.11	Receiv	ver Ports: 1 - 4	Transmitte	er Ports: 5 - 8	
	1 3 2 4	57 681	0					
	_							
	Receiver		Transmitte	er 📃 LAN/	Control 🗌 Tru	unk 📃 C	Correct E	rror
Model	Device	Unit	Port	IP Address	MAC Address	Firmware	Status	Identify
3G RX	RX043FEB	1	1	169.254.7.211	48:5D:EB:04:3F:EB	B2.1.0	Searching for Transmitter	0
3G RX	RX02C46F	1	2	169.254.5.66	C2:00:00:02:C4:6F	B2.1.0	Searching for Transmitter	0
3G+AVP RX	RX018AF2	1	3	169.254.6.230	C2:00:00:01:8A:F2	B2.1.0	Searching for Transmitter	0
3G+AVP RX	RX0169CE			169.254.5.174	C2:00:00:01:69:CE	B2.1.0	Searching for Transmitter	0
3G TX	TX02BF92		5	192.168.0.143	C2:00:00:02:BF:92	B2.1.0	No Video from Source	0
3G TX	TX01D4C5		6	192.168.0.168	C2:00:00:01:D4:C5	B2.1.0	No Video from Source	0
	4 Transo	oittore		<u> </u>				
	4 Receiv	ers	Rescan	3		L	Required!	
Discover Device	s and Update Firm	ware.						Just Ad BPowe
	3-BETA							
						Discove	r Devices & l	Jpdate VLA
	Swit	tch 1 @ 1	92.168.0.11	Receiv	ver Ports: 1 - 4	Transmitte	er Ports: 5 - 8	
	13	5 7 6 8 1	0					
			_					
	Receiver		Transmitte	er 🚺 LAN/	Control 🗌 Tru	unk 📃 C	orrect 📕 E	rror
Model	Device	Unit	Port	IP Address	MAC Address	Firmware	Status	Identify
3G RX	RX043FEB			169.254.7.211	48:5D:EB:04:3F:EB	B2.1.0	Searching for Transmitter	0
3G RX	RX02C46F			169.254.5.66	C2:00:00:02:C4:6F	B2.1.0	Searching for Transmitter	()
	TX02BF92				C2:00:00:02:BF:92		Patching Error	0
3G+AVP RX	DVALCAOE		4	169.254.5.174	C2:00:00:01:69:CE	B2.1.0	Searching for Transmitter	0
	RX0109CE							
3G+AVP RX	RX0189CE				C2:00:00:01:8A:F2		Patching Error	0
3G+AVP RX	TX0184F2	1	5	192.168.0.187 192.168.0.168	C2:00:00:01:8A:F2	B2.1.0 B2.1.0	Patching Error No Video from Source	
3G+AVP RX 3G TX	TX0184F2	1	5	192.168.0.187 192.168.0.168	C2:00:00:01:8A:F2 C2:00:00:01:D4:C5	B2.1.0 B2.1.0	Patching Error No Video from Source	© ©
3G+AVP RX 3G TX	TX0184F2 TX0184F2 TX01D4C5 4 Transn 4 Receiv	1 1 nitters ers	5 6 Rescan	192.168.0.187 192.168.0.168	C2:00:00:01:8A:F2 C2:00:00:01:D4:C5	B2.1.0 B2.1.0	Patching Error No Video from Source No Video from Update Required	Image: Contract of the second secon
3G+AVP RX 3G TX	TX0184F2 TX0184F2 TX01D4C5 4 Transn 4 Receiv	1 1 nitters ers	5 6 Rescan	192.168.0.187 192.168.0.168	C2:00:00:01:8A:F2 C2:00:00:01:D4:C5	B2.1.0 B2.1.0	Patching Error No Video from Source No Video from Update Required	© ©
3G+AVP RX 3G TX	RX0184F2 TX0184F2 TX0104C5 4 Transn 4 Receiv	1 1 nitters ers	5 6 Rescan	192.168.0.187 192.168.0.168	C2:00:00:01:BAF2 C2:00:00:01:D4:C5	B2.1.0 B2.1.0	Patching Error No Video from Source No Video from Update Required	Just Ad

Transmitter Ports: 5 - 8

Correct

Discover Devices & Update | VLAN

Error

0

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hing for

No

No

26. When all devices are on the list, click All **Devices Found!** to move forward.

	4 Tr 4 Ri	ransmitters eceivers	Rescan]		All Devices Found!	
Discover Devi	ices and Update	e Firmware.					Just Add BPower
≡ amp.v ←	0540ETA					Configur	e Devices VLAN
Unit	Port	Model	Device Name	Current IP	New IP	MAC Address	Firmware
		3G RX	RX020A3A	169.254.1.81	172.27.1.1	C2:00:00:02:0A:3A	82.3.4
1	2	3G RX	RX02C46F	169.254.5.66	172.27.1.2	C2:00:00:02:C4:6F	B2.3.4
1	3	3G+AVP RX	RX018AF2	169.254.6.230	172.27.1.3	C2:00:00:01:8A:F2	B2.3.4
1	4	3G+AVP RX	RX0169CE	169.254.5.174	172.27.1.4	C2:00:00:01:69:CE	B2.3.4
1	5	3G TX	TX016618	169.254.2.20	172.27.101.254	C2:00:00:01:66:18	B2.3.4
1	6	3G TX	TX038C4B	169.254.5.228	172.27.102.254	48:5D:EB:03:8C:4B	B2.3.4
1	7	3G+AVP TX	TX038C4C	169.254.1.113	172.27.103.254	48:5D:EB:03:8C:4C	B2.3.4
1	8	3G+AVP TX	TX038C4D	169.254.2.48	172.27.104.254	48:5D:EB:03:8C:4D	B2.3.4
1	9		•	•		•	
	4 Tr 4 Ri	ransmitters eceivers				Configure Device	
Configure dev	vice network set	ttings to their perma	anent IP addresses				Just Add 8Power

ceiver Ports: 1 - 4

MAC Address

48:5D:EB:04:3F:EB

C2:00:00:02:C4:6F

C2:00:00:01:8A:F2

C2:00:00:01:69:CE

C2:00:00:02:BF:92

C2:00:00:01:D4:C5

Trunk

Fir

B2.3.4

B2.3.4

B2.3.4

LAN/Control

IP Address

169.254.7.211

169.254.5.66

169.254.6.230

169.254.5.174

192.168.0.143

192,168.0.168

Switch 1 @ 192.168.0.11

Transmitter

Port

3

4

1 3 5 7 9 2 4 6 8 10

Unit

1

Recei

Device

RX043FEB

RX02C46F

RX018AF2

RX0169CE

TX02BF92

TX01D4C5

36 82

3G RX

3G+AVF

3G TX

3G TX

3G+AVP RX

27. All active devices show the **New IP** and their connection to the switch. Click **Configure Devices** to move forward and assign IPs to active devices.

28. Active devices will show with their new IP Address. Click Configure Switch to move forward.



and the switch.

29. The popup asks you to confirm that you are done with device configuration and are ready to configure the switch. Click Do lt!

System Configuration Confirmation

This process will upload the final switch configuration to the switch. Once this process begins, it CANNOT be interrupted or you risk damage to your system. Click the button below to begin.

 \mathbf{x}





31. To jump straight to the Matrix Control screen, click the Test Switching button. This requires a static route to function (step 33).

Congratulations! × Your Just Add Power system is ready to rock and roll! Here is a project Report File that is HIGHLY recommended to download for assistance with Technical Support and control system programming. Let's check that switching works! Save Report Test Switching Finish! File

×

32. Click **Finish!** The switch and all Just Add Power devices are configured, but **we're not done yet!** Continue on...

Congratulations!

Your Just Add Power system is ready to rock and roll!

Here is a project Report File that is HIGHLY recommended to download for assistance with Technical Support and control system programming.

Let's check that switching works!



33. To control the system, a Static Route must be applied to the router. You can find the details for the Static Route in the Report File. Without a Static Route, **no control is possible**.

System Details								
Project Name:	A Project							
Date:	Feb 15 2022							
Switch Family:	Luxul							
Username:	admin							
Password:	admin							
Switch Total:	1							
Receiver Total:	4							
Transmitter Total:	4							
Static Route:	Destination IP	Netmask	Gateway					
	172.27.0.0	255.255.0.0	192.168.0.11					
Switch	RX Count	TX Count	IP Address	Netmask	Gateway	Model		
1	4	4	192.168.0.11	255.255.255.0	192.168.0.1	XMS/AMS-1208		
=== Receivers ===								
Output	Switch	Port	IP Address	Netmask	Gateway	Model	MAC Address	Firmware
1	1	1	172.27.1.1	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:40	B2.1.2
2	1	2	172.27.1.2	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:41	B2.1.2
3	1	3	172.27.1.3	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:42	B2.1.2
4	1	4	172.27.1.4	255.255.0.0	172.27.0.1	3G RX	48:5D:EB:03:8C:43	B2.1.2
=== Transmitters ===								
Input	Switch	Port	IP Address	Netmask	Gateway	Model	MAC Address	Firmware
1	1	5	172.27.101.254	255.255.0.0	172.27.101.1	3G TX	48:5D:EB:03:8C:4B	B2.1.2
2	1	6	172.27.102.254	255.255.0.0	172.27.102.1	3G TX	48:5D:EB:03:8C:4C	B2.1.2
3	1	7	172.27.103.254	255.255.0.0	172.27.103.1	3G TX	48:5D:EB:03:8C:4D	B2.1.2
4	1	8	172.27.104.254	255.255.0.0	172.27.104.1	3G TX	48:5D:EB:03:8C:4E	B2.1.2

34. Log into the router through the webUI, find the Static Routing section, and enter the Destination IP, Netmask, and Gateway for the Just Add Power system. The Gateway will **always** be the IP address of the Just Add Power switch.



Connect to a System

Connecting to a VLAN system has 2 main purposes:

- Using Matrix Control switch displays to watch different sources before the control system is setup
- Compare control system programming to AMP VLAN programming so that Transmitters and Receivers are mapped correctly to the control system

Follow the instructions below to Connect to a VLAN system:

1. Open AMP and select the VLAN option.





2. Select the **Connect** option.

- AMP Instructions Just Add

Matrix Switching | VLAN

- 3. Input the IP address of the Receiver in the system being used for Matrix Control. In most systems, this is **172.27.1.1**
- 4. Click Connect.



- 5. A grid will appear that matches the system size. Control the system by:
 - Clicking a box to switch that Receiver to watch that Transmitter.
 - Clicking a TX title at the top to switch all Receivers to that Transmitter.
- 6. Active boxes will light up when selected.
- 7. Click **Done!** when finished.





Just Add

Add Devices On-site

Add Devices On-Site configures a single or group of devices to add to an AMP VLAN system. The ports already exist on the switch and the PC has access to the network that the Just Add Power system is on. The **On-Site** option reads the current system and assigns devices to open ports.

Add Devices On-Site will:

- Read the system size
- Let you select an empty port on the switch for the new device to be added to
- Assign IP settings and firmware to the new device to match the system

Add Devices On-Site will NOT:

- Change a data port into a Transmitter or Receiver port
- Change the switch configuration or system size in any way

Follow the instructions below to add a new device to an already-configured system while on-site:



1. Open AMP and select the VLAN option.

2. Select the Add Devices option.

Just Add Power – Last updated Nov-22



3. Select the On-Site option

 The popup confirms that you are intending to add devices to empty ports that were previously configured for Just Add Power devices. Click Add Devices to move forward.

Note: If the intention is to **add ports** to a system, then you have selected the wrong function. Click the **Re-Configure** button to move to **Configure a New System** instead.

Adding Devices to Existing System

This function is used to add devices to an existing system in which Just Add Power ports were left open for future growth.

If the desire is to expand a system by configuring more ports or adding switches, this function will NOT accomplish this goal. If this is what you are needing to do, please click, "Re-Configure".



- 5. The next popup gives instructions for how to prepare for the next step. Please do these 3 things, then click **Okay**:
 - Find the IP address for an active device in the system (it will be entered on the next page)
 - Connect the new devices to power and to a data port on the network. DO NOT connect them to ports configured for Just Add Power.
 - Connect your PC's wired network to a **data port** on the network.

Instructions

For the JPSW Controller IP, please enter the IP address of ANY Just Add Power device in the system.

Please connect the additional devices directly to the computer with an ethernet cable (you may use a dumb-switch for adding multiple devices).

Select the Ethernet adapter that is connected to the device(s).

Okay

- Enter the IP address for an active device in the system – any Transmitter or Receiver previously configured and working in the system. The default IP of Receiver 1 is 172.27.1.1.
- Select the wired network adapter on your PC that is connected to the data network.

E AMP-VO4.DEETA	
€1	Add Devices to Existing System VLAN
JPSW Controller IP:	172.27.1.1
Network Adapter:	Ethernet C
Enter the IP Address of your JPSW controller, and select the wired network	k adapter being used. Just Add SPower

- 8. The program will login to the active device and read the size of the system and which ports are open for new devices.
- 9. The popup instructs you to click on a port and **Pair** a device to the port. Click **Okay** to move on.

Add Devices

Click on a port in the switch diagrams and "Pair" a device to that port.

Paired devices will be configured once the "Configure" button has been clicked.

Okay

10. Once the switch diagram appears, the program will search for new devices on **data ports**. If new devices do **NOT** show up after a few seconds, confirm that they have a solid Power light and are connected to a **data port**. Devices connected to Transmitter and Receiver ports **WILL NOT** show up in the list.

Note: In the picture here, ports 1, 2, 9, and 10 are occupied by active devices. New devices should be connected to ports 17-23. If new devices are connected to ports 3-8 or 11-16, they **WILL NOT** show up in the list.



×

Transmitter Ports: 9 - 16

No

hing fo

Searching for Transmitter

Home 🚽

Discover Additional Devices | VLAN

Pair

Transmitter Ports: 9 - 16

🗾 Se

B2.2.0

Configure

Paired

Just Add

Pair

Z Selected

B2.2.0

B2.1.2

Discover Additional Devices | VLAN

Paired

11. To add a Receiver, select a Receiver port on the switch diagram. It will highlight white.



48:5D:EB:03:8E:8B

er Ports: 1 - 8

Unavailab

02:00:00:01:03:08

48:5D:EB:03:8E:8B

82.1.2

Configure

172.27.1.3

C

er Ports: 1 - 8

Unavailable

00:01:03:9

48:5D:EB:03:8E-8B

VOADBETA

затх

3G RX

3G RX

затх

3G RX

169.254.7.44

169.254.7.44

1 Transmitt 1 Receivers

ch 1 @ 192.168.0.11

1 11 13 15 0 12 14 16

169.254.7.44

h 1 @ 192.168.0.11

Not Set Not Set Not Set

7 9 11 13 15 3 10 12 14 16

Transmitte

 With the Receiver port selected, click Pair on the line with the new Receiver to be added. The button will change to read Paired and the port on the switch will turn green.

13. To add a Transmitter, select a Transmitter port on the switch diagram. It will highlight white.

Just Add

14. With the Transmitter port selected, click Pair on the line with the new Transmitter to be added. The button will change to read Paired and the port on the switch will turn green.

Discover Additional Devices | VLAN Switch 1 @ 192.168.0.11 mitter Ports: 9 - 16 Ports: 1 - 8 11 13 15 12 14 16 Z Selec Tra Unavailable MAC Address Fim Mode 3G TX 169.254.6.102 172.27.103.254 C2:00:00:01:D3:9E 82.2.0 Paired 169.254.7.4 Not Set Not Se 48 50 EB 03 8E 8B Searching for Transmitter Configure Rescan 💭 Home 🚽 Just Add BPower

Note: If you pair a device **incorrectly**, click on the green port in the diagram and use the popup to clear the pairing.

Port Already Paired		\times
Port 3 on Switch 1 is alr Would you like to clear t	ready paired to a device. this port's pairing?	
Yes	Cancel	

15. Once all new devices have been paired, click **Configure** to move forward.



- 16. A popup will tell you which device is ready to be moved to its final location. Locate the device with a blinking Power and blinking Data light, disconnect it from the data port, and move it to the port described in the popup.
- 17. Click **Patched** once the device has been moved to the correct port.

Patch Device

One of the configured device's status lights are blinking in a distinct pattern.

Please disconnect this device and plug it into JPSW Switch 1 on Port 3

Click "Patched" when this has been completed.

Patched

Patch Device

One of the configured device's status lights are blinking in a distinct pattern.

Please disconnect this device and plug it into JPSW Switch 1 on Port 11

Click "Patched" when this has been completed.

Patched

- 19. When the program returns to the patching page, all devices have been relocated!
- 20. You can continue to connect new devices and add them to the system by connecting them to **data ports**.
- 21. When all devices have been added, click **Home** to finish.

₹	AMP-V04.0	Switch	1 @ 192 5 7 9	2.168.0.11	Rece	iver Ports: 1 - 8	Discove Transmitte	er Additiona r Ports: 9 - 16	al Devices VLAN
	odal	Receiv	ver	Trar	ISMITTER	Unavailable	Selected	Pain Statua	ed Date
30	атх	169.254.6.102	1	11	172.27.103.254	C2:00:00:01:D3:9E	82.2.0	No Video from Source	Paired
30	i RX	169.254.7.44			172.27.1.3	48.5D.EB.03.8E.8B	82.1.2	Searching for Transmitter	Paired
		1 Transmit 1 Receiver:	ters [Rescan	C	Configure	0	Home] Just Add

locations until all devices are relocated.

18. Continue to move devices to their final

Add Devices Off-site

Add Devices Off-Site configures a single or group of devices to add to an AMP VLAN system. The ports must already exist on the switch, and the Off-Site option will discover any devices on the local network to be brought to the jobsite later.

Add Devices Off-Site will:

- Discover Just Add Power devices on the local network
- Ask for the Receiver port connection or Transmitter number
- Assign IP settings to the new device based on user input

Add Devices Off-Site will NOT:

Magically know the details of the system on-site

Follow the instructions below to add a new device to an already-configured system while off-site:



1. Open AMP and select the VLAN option.

2. Select the Add Devices option.

Add Devices to Existing System | VLAN

- 3. Connect the new device(s) to power and to the same network as the PC. Suggestions:
 - Connect the device(s) to a POE switch and connect the PC to the same switch
 - Connect the device directly to the PC's network port and power with a power supply or POE injector
- 4. Select the Off-Site option

5. The popup has you select the wired network adapter on the PC that is connected to the network. Click **Discover** to move forward.

 All devices on the same network as the PC will be discovered. Click the inline Configure button for one of them.



AMP-V05	3-DETA								
						Discover Additional Devices (Off-Site) VL			
Model	Name	IP Address	JPSW IP	MAC Address	Firmware	Status	Identify	Configure	
3G TX	TX2	10.4.127.180	Not Set	C2:00:00:02:8E:0A	B2.1.0	Waiting for Receiver	۲	Configure	
3G+AVP TX	TX4	169.254.5.109	Not Set	C2:00:00:02:80:AE	B2.1.0	Waiting for Receiver	۲	Configure	
3G TX	тхз	10.4.127.181	Not Set	C2:00:00:02:8E:08	B2.1.0	Waiting for Receiver	٢	Configure	
3G+AVP TX	TX5	10.4.127.165	Not Set	C2:00:00:02:81:3E	B2.1.0	Waiting for Receiver		Configure	
3G TX	TX1	10.4.127.100	Not Set	C2:00:00:02:8D:F9	B2.1.0	Waiting for Receiver	٢	Configure	
3G RX	Desktop Right	10.4.127.65	Not Set	C2:00:00:02:8A:97	B2.1.0	Searching for Transmitter	۲	Configure	
3G+AVP RX	RX02F034	10.4.126.120	Not Set	C2:00:00:02:F0:34	B2.2.2	Searching for Transmitter	٢	Configure	
	5 Tra 2 Re	ansmitters ceivers	Rescan /	3			Up Req	date 🔨	
cover device	s to pre-config	ure for existing off	site JPSW sys	items				Just Ad 8Powe	

- 7. If you are prompted to update firmware, please update. The device must have an AMPcompatible firmware to function in the system.
 - Firmware B2.1.2 for 3G devices
 - Firmware v3.3.6 for MaxColor devices

	Firmwa	re Out of Date		×	
	Please u MaxCole	d firmware that is out update the firmware to or firmware v3.3.6 to j	of date on 1 at least vers proceed.	device(s). tion B2.1.2 or	
	Older ve features	rsions of firmware do to work with AMP VL	NOT have th AN systems.	e requisite	
		Not Now	U	pdate	

- 8. A popup will ask to select a **JPSW Subnet** and an **Input/Output Number**.
 - Choose the JPSW Subnet that matches the system this device will be a part of. 172.27.0.0/16 is the default for most systems.
 - Choose the Input/Output # to match the Transmitter/Receiver number for the device when it is deployed in the system.

- 9. The configured device will show **Ready**. The device is configured.
- 10. Repeat to configure additional devices with a JPSW Subnet and an Input/Output #.

	Configure	TX4		×	
	JPSW Su	bnet: 172.27.0.0/16		~	
	Input #:			~	
		R	eady		
	NotSet 0	2.00:00.02.91.95	821.0	Waiting for Receiver	

≡ ≮	AMP-V0	15.3-0ETA				Disc	cover Addi	tional C	Devices (Off-Site	о ЛIVL	×
								1			
	Model	Name	IP Address	JPSW IP	MAC Address	Firmware	Status	Identify	Configure		
	3G TX	TX2	10.4.127.180	Not Set	C2:00:00:02:8E:0A	B2.1.0	Waiting for Receiver	۲	Configure]	
	3G+AVP TX	TX4	169.254.5.109	172.27.101.254	C2:00:00:02:80:AE	B2.1.0	Waiting for Receiver	۲	Ready]	
	3G TX	TX3	10.4.127.181	Not Set	C2:00:00:02:8E:0B	B2.1.0	Waiting for Receiver		Configure]	
	3G+AVP TX	TX5	10.4.127.165	Not Set	C2:00:00:02:81:3E	B2.1.0	Waiting for Receiver	۲	Configure]	
	3G TX	TX1	10.4.127.100	Not Set	C2:00:00:02:8D:F9	B2.1.0	Waiting for Receiver		Configure]	
	3G RX	Desktop Right	10.4.127.65	Not Set	C2:00:00:02:8A:97	B2.1.0	Searching for Transmitter	۲	Configure]	
	3G+AVP RX	RX02F034	10.4.126.120	Not Set	C2:00:00:02:F0:34	B2.2.2	Searching for Transmitter	۲	Configure]	
		5 Tr 2 R	ransmitters eceivers	Rescan C				Upda Requi	ate 个		
Dis	scover devices to pre-configure for existing off-site JPSW systems SPower									dd er	

Multicast System

Multicast Switching Overview

Multicast Switching describes an AV over IP system that puts all Just Add Power devices in a single VLAN and uses Multicast IPs to separate video signals.

Each Transmitter gets a unique Multicast IP – we call them *Channels*. For Matrix Control, the Channel of a Receiver is set to match the Channel of the Transmitter it will watch.

AMP Multicast will configure all Just Add Power devices with these settings:

- Transmitter Name
- Receiver Name
- Management IP Address, Subnet Mask, Default Gateway
- Multicast IP
- Matrix ID

AMP *WILL NOT* configure the network switches that the Just Add Power devices are connected to. Switch configuration is the *responsibility of the Installer*.



Switch Configuration

AMP Multicast only configures Just Add Power Devices. Switch configuration is the *responsibility of the Installer*.

Requirements

The switch must have the following features to support Just Add Power:

- Layer 3 managed network
 - o One dedicated VLAN for all Just Add Power devices
 - o One VLAN for the data network
 - Inter-VLAN routing to move control commands from the data network to the Just Add Power network
- Jumbo Frames MTU greater than 9000
- 500Mbps dedicated bandwidth *per Transmitter* (multi-switch systems)
- IGMPv2
- IGMP Snooping

Switch Configuration Files

Just Add Power provides switch configuration files for switches we have tested in-house and have all the requirements listed above.

https://support.justaddpower.com/kb/section/118/

Configure a System

- 1. Configure the switch so that all Just Add Power devices are on the same VLAN. Leave at least one extra open port.
- Connect all Just Add Power devices to the switch. Connect HDMI cables to the sources and displays. All Just Add Power devices should have a solid Power light and a Data light that is either blinking or solid green.
- 3. Connect the PC running AMP to a switch port in the same VLAN as the Just Add Power devices.

	Key: J+P Device Trunk Port	Control/Data	
4.	Open AMP and select the Multicast option.	E AMP VO21	Home AMP
5.	Choose Configure to build a new system.	Wetcome to Advanced Matrix Programmer (AMP): Let's get started Image: Configure C	Just Add BPower Multicast Update Only Just Add

- 6. Fill in the **Project Name**. All files for this project will be saved in a folder with this name.
- 7. Choose the **Network Adapter** for the **wired** network on the PC. Wireless is not supported
- 8. Click **Discover** to move forward. The program will discover Just Add Power devices on the same network as the PC.
- (Optional) If devices are not on the minimum firmware version, a popup will ask you to update. The popup only appears if your devices are on a firmware that is not compatible with AMP. Select Update if the popup appears.

	AMP-VO2100ETA	Ca	- □ × onfigure System Multicast
	Project Name:	New Project	
	Network Adapter:	Ethernet ~	Q
		Discover 478	
All de	vices should be connected to the switch and powered on before mo	ving forward.	Just Add 8Power



10. **(Optional)** Firmware update will take about 8 minutes to complete. The timer on the button at the bottom-right will count down to indicate remaining time. Please wait while devices update.

AMP-V02.1	OBETA				Dis	cover Device	s Multica:
Model	Device	Matrix ID	IP Address	MAC Address	Firmware	Status	Identify
	clientC2000002007C	404		C2:00:00:02:00:7C	A6.5.5	Firmware Update Pending	۲
3G RX	client828E7C720408	404	169.254.3.21	82.8E-7C-72.04:08	A5.5.5	Firmware Update Pending	0
3G-S TX	TX045321	Un-Assigned	169.254.4.49	48:50:EB:04:53:21	B2.1.2	No Video from Source	۲
3G TX	gateway00001	404	169.254.5.221	C2:00:00:02:8F:92	A6.5.5	Firmware Update Pending	۲
	gateway00002		169.254.6.51	C2:00:00:02:E1:88		Firmware Update Pending	۲
	clientC20000018AF2			C2:00:00:01:8A:F2		Firmware Update Pending	۲
	3 Transmitters 3 Receivers	Rescan	7		Pie	ase Walt 7:50	
cover, Name, a	nd Update Firmware on all o	levices.					Just Ad

11. Once all devices are on a compatible firmware and discovered, click **Configure Device Networks** to move forward. If Transmitter HDMIs were previously disconnected, you can reconnect them here.

≡ ≮	AMP- V02.104	IETA					Discover Device	× es Multicast
	Model	Device	Matrix ID	IP Address	MAC Address	Firmware	Status	Identify
	3G TX	TX028F92	Un-Assigned	169.254.5.221	C2:00:00:02:BF:92	82.1.2	No Video from Source	0
	3G TX	TX02E188	Un-Assigned	169.254.6.51	C2:00:00:02:E1:88	B2.1.2	No Video from Source	0
	3G-S TX	TX045321	Un-Assigned	169.254.4.49	48:50:EB:04:53:21	B2.1.2	No Video from Source	0
	3G RX	RX02007C	Un-Assigned	169.254.2.115	C2:00:00:02:00:7C	B2.1.2	Searching for Transmitter	0
	3G RX	RX043FEB	Un-Assigned	169.254.7.211	48:50:EB:04:3F:EB	B2.1.2	Searching for Transmitter	0
	3G+AVP RX	RX018AF2	Un-Assigned	169.254.6.230	C2:00:00:01:8A:F2	B2.1.2	Searching for Transmitter	۲
3 Transmitters 3 Receivers							Configure Device Networks	
Dis	cover, Name, and	Update Firmware	on all devices.					Just Add 8Power

- 12. Give each Device a Name
- 13. Assign a New IP, New Netmask, and New Gateway to each device. All devices must be in the same subnet.
 - This can be done manually by typing in each IP address (jump to step 17)
 OR
 - Assign IP details to all devices at once by choosing Auto Populate IPs (continue to step 14)

14. In the popup for **Auto Populate IPs** set the Network Address, Subnet Mask, and Default Gateway for the system. We recommend using the default 172.17.0.0 unless you have a specific need to change it. Click **Generate** once entered.



15. Generated IPs for each device will be shown above. Click **Assign IP Addresses** to apply these IPs to all devices.

Device Name Current IP Suggested IP RX1 169/254.7,211 172.17,128.1 RX0007C 169/254.7,211 172.17,128.3 RX018AFZ 169/254.6,230 172.17,128.3 TX02BF9Z 169/254.6,230 172.17,10.1 TX045521 169/254.6,230 172.17,0.2 TX02F188 169/254.6,51 172.17,0.3 Device Galewayn 172.17,255.258.0 Device Galewayn 172.17,255.255.0 Enter your network address and subnet mask. We will generate suggested IP addresses for your devices. The addresses generated are only suggestions. Feel free to change them or start over with different network details. 172.17.0.0 Network Address 172.17.0.0 172.17.0.0 Subnet Mask 255.255.0.0 172.17.0.0					Firmwa
RX1 169/254.7.211 172.17.128.1 RX0007C 169/254.7.211 172.17.128.3 RX018AF2 169/254.6.20 172.17.128.3 RX018AF2 169/254.6.20 172.17.128.3 TX02F92 169/254.6.20 172.17.0.1 TX02F188 169/254.6.51 172.17.0.3 Device Submet:255.255.0.0 Device Submet:255.255.0.0 Device Submet:255.255.0.0 Enter your metwork address and submet mask. We will generate suggested IP addresses for your devices. The addresses generated are only suggestions. Feel free to change them or start over with different network detrails. 172.17.0.0 Submet Mask 255.255.0.0	Device Name	Current IP		Suggested IP	
RX02007C 169 254.2.115 172.17.128.2 RX01BAF2 169 254.6.230 172.17.128.3 TX02BF92 169 254.5.221 172.17.0.1 TX045321 169 254.4.49 172.17.0.2 TX021B8 169 254.6.51 172.17.0.3 Device Subnet255.255.0.0 Period Caleway.172.17.255.254 Enter your network address and subnet mask. We will generate suggested IP addresses for your devices. The addresses generated are only suggestions. Feel free to change them or start over with different network details. 172.17.0.0 Network Address 172.17.0.0 Subnet Mask 255.255.0.0	RX1	169.254.7.2	211	172.17.128.1	3 82.1.2
RX018AF2 169 254 6 230 172.17.128.3 TX028F92 169 254 5 221 172.17.0.1 TX028F92 169 254 5 221 172.17.0.2 TX02188 169 254 6 51 172.17.0.2 TX02F188 169 254 6 51 172.17.0.3 Device Subset255.255.0.0 Device Gateway: 172.17.255.254 Image: 172.17.0.3 Enter your network address and subnet mask. We will generate suggested IP addresses for your devices. The addresses generated are only suggestions. Feel free to change them or start over with different network details. Network Address 172.17.0.0 Image: 172.17.0.0 Subnet Mask 255.255.0.0 Image: 172.17.0.0	RX02007C	169.254.2.1	115	172.17.128.2	
TX028F92 169 254.5.221 172.17.0.1 TX02E188 169.254.5.49 172.17.0.2 TX02E188 169.254.5.01 172.17.0.3 Device Subst255.255.0.0 0 0 Device Gateway: 172.17.255.254 1 1 Assign IP Addresses 1 1 1 Finter your network address and subnet mask. We will generate suggested IP addresses for your devices. 1 The addresses generated are only suggestions. Feel free to change them or start over with different network details. 1 1 Network Address 1 1 1 1 Subnet Mask 255.255.0.0 1 1 1	RX018AF2	169.254.6.3	230	172.17.128.3	r 02.1.2
TX045321 169 254.4.49 172.17.0.2 TX025188 169.254.6.51 172.17.0.3 Device Subset255.55.0.0 0 0 Device Gateway: 172.17, 253.254 0 Lasign IP Addresses 0 Enter your network address and subnet mask. We will generate suggested IP addresses for your devices. The addresses generated are only suggestions. Feel free to change them or start over with different network details. Network Address 172.17.0.0 Subnet Mask 255.255.0.0	TX028F92	169.254.5.3	221	172.17.0.1	9 8212
TX021188 169/254.6.51 172.17.0.3 Device Submet:252.555.0.0 169/254.6.51 172.17.0.3 Device Submet:252.555.0 172.17.0.3 Device Submet:252.555.0 172.17.0.3	TX045321	169.254.4.4	49	172.17.0.2	
Device Subnet:255.256.0.0 Device Gateway:172.17.255.254 Assign IP Addresses Enter your network address and subnet mask. We will generate suggested IP addresses for your devices. The addresses generated are only suggestions. Feel free to change them or start over with different network details. Network Address 172.17.0.0 Subnet Mask 255.255.0.0	TX02E188	169.254.6.	51	172.17.0.3	1 8212
The addresses generated are only suggestions. Feel free to change them or start over with different network details Network Address 172.17.0.0 Subnet Mask 255.255.0.0	Enter your network addr We will generate sugges	ress and subnet mask sted IP addresses for ;	your devices.		82.1.2
Network Address 172.17.0.0 Subnet Mask 255.255.0.0	details.	d are only suggestion	s. Feel free to change the	em or start over with different network	
Subnet Mask 255.255.0.0		Network Address	172.17.0.0		
		Subnet Mask	255.255.0.0		
	details.	Network Address Subnet Mask	172.17.0.0 255.255.0.0		

≡ amp ←	- VO2.108ETA				Con	figure Device	× s Multicast
Mode	I Device	Current IP	New IP	New Netmask	New Gateway	MAC Address	Firmware
() _{3G} RX	RX1	169.254.7.211	172.17.128.1	255.255.0.0	172.17.255.254	48:50:EB:04:3F:EB	82.1.2
()3G RX	RX2	169.254.2.115	172.17.128.2	255.255.0.0	172.17.255.254	C2:00:00:02:00:7C	82.1.2
() 3G+AV RX	P RX3	169.254.6.230	172.17.128.3	255.255.0.0	172.17.255.254	C2:00:00:01:8A:F2	82.1.2
() _{3G}	тх тхз	169.254.6.51	172.17.0.3	255.255.0.0	172.17.255.254	C2:00:00:02:E1:88	B2.1.2
①3G	тх тх1	169.254.5.221	172.17.0.1	255.255.0.0	172.17.255.254	C2:00:00:02:BF:92	82.1.2
() _{3G} . тх	S TX2	169.254.4.49	172.17.0.2	255.255.0.0	172.17.255.254	48:50:EB:04:53:21	B2.1.2

16. Now that all devices have had a Name, New IP, New Netmask, and New Gateway entered, click *Configure Devices* to move forward.

17. On the popup, click **Configure** to confirm that all settings are correct and move to apply them.

	Current	Device Configuration	n	×		
	1652547	Devices will be assign page will Device Disc	ned their New Network Si overy to parse their new	ettings. The values.		
	10.254		Configure			
	ter berti	0 - 129.17,126.9	reserva a	iii yu		

Configure Devic

Just Add

18. A final discovery screen shows the settings applied to all devices. Once all devices have the correct settings, click Configure Transmitters to move forward.

≡	AMP-V02.10	OETA						- • ×
←							Discover Devic	es Multicast
	Model	Device	Matrix ID	IP Address	MAC Address	Firmware	Status	Identify
	3G TX	TX1	Un-Assigned	172.17.0.1	C2:00:00:02:BF:92	82.1.2	No Video from Source	
	3G-S TX	TX2	Un-Assigned	172.17.0.2	48:5D:EB:04:53:21	82.1.2	No Video from Source	
	зд тх	тхз	Un-Assigned	172.17.0.3	C2:00:00:02:E1:88	B2.1.2	No Video from Source	0
	3G RX	RX1	Un-Assigned	172.17.128.1	48:5D:EB:04:3F:EB	B2.1.2	Searching for Transmitter	©
	3G RX	RX2	Un-Assigned	172.17.128.2	C2:00:00:02:00:7C	B2.1.2	Searching for Transmitter	©
	3G+AVP RX	RX3	Un-Assigned	172.17.128.3	C2:00:00:01:8A:F2	B2.1.2	Searching for Transmitter	۲
						r		
		3 Transmi 3 Receiver	tters '\$ Resca	• C			Configure Transmitters	
						L		
Die	cover Name an	d Lindate Firmwar	e oo all devices					Just Add BPower
019	cover, marrie, an	o opoace ratinwa	e on all devices.					

- 19. Each Transmitter needs a unique **Channel Number** that identifies the AV signal on the network. The Matrix TX ID will auto-fill with the same value and is used later when programming the control system. We recommend relating the Channel Number to the IP Address.
 - Assign Transmitters by typing a Channel Number for each one OR
 - Click Auto Assign Channels and IDs to assign Channels automatically.

20. Once all Transmitters have a unique Channel Number, click **Apply Channels & Assign Receivers** to move forward.

=	amp. voz.10.0eta				Assign Transm	- • × nitters Multicast
	Transmitter Name	Channel Number	Matrix TX ID	IP Address	Multicast Address	Model
	тхі	0	Undefined	172.17.0.1	239.92.00.00	3G TX
	TX2	0	Undefined	172.17.0.2	239.92.00.00	3G-S TX
	тхз	0	Undefined	172.17.0.3	239.92.00.00	3G TX
	3 Trar	nsmitters		Auto Assign Charnels and IDs	Apply Channels & Asign Receivers	ŋ
155	ign Unique Channels and M	latrix ID to Transmitters.				Just Add 8Power

=	AMP+V02.108ETA					×
					Assign Transm	itters iviuiticast
	Transmitter Name	Channel Number	Matrix TX I	D IP Address	Multicast Address	Model
	тхі			172.17.0.1	239.92.00.01	3G TX
	TX2	2	2	172.17.0.2	239.92.00.02	3G-S TX
	тхз	3	3	172.17.0.3	239.92.00.03	3G TX
					Ĵ	
	3 Trans	mitters		Auto Assign Channels and ID:	Apply Channels & Assign Receivers	
Ast	ign Unique Channels and Mat	rix ID to Transmitters.				Just Add 8Power

- 21. Each Receiver needs a unique **Matrix ID** to identify it to the control system.
 - Assign Receivers by typing a Matrix ID for each one
 OR
 - Click Auto Assign Matrix IDs to assign IDs automatically.

E AMP-VO2.108ETA					- o x
			A	ssign Receivers	Multicast
Device Name	Matrix ID	IP Address	Multicast Addre	ess Model	
RX1		172.17.128.1	239.92.00.00	3G RX	
RX2		172.17.128.2	239.92.00.00	3G RX	
RX3		172.17.128.3	239.92.00.00	3G+AVP RX	
3 R	eceivers		Auto Assign Matrix IDs	Apply and Test Switching	
ssion Unique Channels and	Matrix IDs to Receivers.			ì	Just Add 3Power

de ID

IP Add

22. Select **Apply and Test Switching** to apply Receiver Matrix IDs and move forward.



Assign Receivers | Multica

Made

3G RX

3G R)

Multicast Add

239.92.00.00

239.92.00.00

23. The popup describes how to use the Matrix Control page. Select the Transmitter, then select Receivers to switch to watch that Transmitter. Blue text indicates active selections. Click **Got It!** to move forward. 24. Use the Matrix Control page to set any display to watch any source, before the control system is setup. Select a Transmitter, then select a Receiver to watch that Transmitter.

25. When finished, select **All Done!** to move forward and get a Report File for the system.

26. The first save dialog is for a Report file, containing information about all devices in the system. Save this with other important files for the jobsite. The file format is .csv.



27. The next popup is for a configuration file that must be loaded into the control system to configure the driver. Click **Save Config**.



28. The second (and last) save dialog is for the control system configuration file. This file is loaded into the control system to teach it how to control the Just Add Power system. The file format is **.JSON**



```
29. The .JSON file is needed to program the
   control system. Without it, you will need to
   run AMP Multicast again.
```

30. Done!

```
🔚 test 2021-10-07.json 🔀
      £
        "project": {
          "projectName": "Test Project 2021-10-07 2",
          "size": {
            "txCount": 5,
            "rxCount": 4
          }.
          "devices": [
           {
                className": "Device",
              "ip": "172.17.0.2",
              "netmask": "255.255.0.0",
              "UUID": "OED9AAD4-0A8F-4499-A64B-CD6DC32FCD33",
              "deviceName": "PC",
              "MAC": "48:5D:EB:03:74:ED",
              "model": "2G/3G+ TX".
              "deviceStatus": "online",
              "channel": "2",
              "deviceId": "TX2"
           },
           {
              " className": "Device",
              "ip": "172.17.128.1",
              "netmask": "255.255.0.0",
              "UUID": "ef9ac8e3-fcf2-49d8-8e3a-730a428086a2",
              "deviceName": "Far Right",
              "MAC": "48:5D:EB:03:97:EC",
              "model": "3G+AVP RX",
              "deviceStatus": "online",
              "channel": "2",
              "deviceId": "RX1"
           },
            {
              " className": "Device",
              "ip": "172.17.0.3",
              "netmask": "255.255.0.0",
              "UUID": "24675df6-8395-43a0-971f-0b0ec2f5ad53",
              "deviceName": "Roku 2",
              "MAC": "C2:00:00:01:E4:AA",
              "model": "3G TX",
              "deviceStatus": "online",
              "channel": "3",
              "deviceId": "TX3"
            1.
            {
              " className": "Device",
              "ip": "172.17.0.4",
              "netmask": "255.255.0.0",
              "UUID": "0490A599-115E-476E-B4B1-C18F7AE57A22",
              "deviceName": "Roku 3",
```

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Update Firmware

1. Connect the **PC running AMP** to an extra port in the same VLAN as the Just Add Power devices.



2. Open AMP and select the **Multicast** option.



3. Choose **Update Only** to update firmware on Just Add Power devices.







≡ ≮	AMP-VO2.104ET	.			Firr	nware Update O	nly Multicast
	Model	Device	IP Address	MAC Address	Firmware	Status	Identify
	3G+4+ TX	тхі	172.17.0.1	02:2C:E2:FC:4D:89	B1.2.1	No Video from Source	
	3G TX	TX2	172.17.0.2	C2:00:00:02:BF:92	81.2.1	No Video from Source	۲
	3G TX	ТХЗ	172.17.0.3	C2:00:00:02:E1:88	81.2.1	No Video from Source	0
	3G RX	RX1	172.17.128.1	C2:00:00:02:00:7C	81.2.1	Searching for Transmitter	0
	3G RX	RX2	172.17.128.2	82:36:7C:81:A4:4A	B1.2.1	Searching for Transmitter	©
	3G+AVP RX	RX3	172.17.128.3	C2:00:00:01:8A:F2	81.2.1	Searching for Transmitter	©
		3 Transmitters 3 Receivers	Rescan n]	Update Devices	Home 🛃	
Discover, Name, and Update Firmware on all devices.							Just Add 8Power



- 5. Wait for devices to be discovered. Once they are all discovered, click Update Devices to move forward.
 - Selecting Home will quit the update process and return to the main screen.

- 6. Remove HDMI cables from all Transmitters.
- 7. On the popup, select:
 - Latest firmware
 - Update all devices
 - Uncheck Force Firmware Update
 - Check I have removed HDMIs
- 8. Click Update.

9. Wait for the firmware update to finish. It takes about **8 minutes**, and a timer shows the remaining time.

≡	AMP-V02.108ET	Ά					- • ×		
÷					Fir	mware Update C	nly Multicast		
	Model	Device	IP Address	MAC Address	Firmware	Status	Identify		
	3G-S TX	TX1	172.17.0.1	48:50:EB:04:53:21	B2.1.2	No Video from Source			
	3G TX	TX2	172.17.0.2	C2:00:00:02:BF:92	B1.2.1	No Video from Source	©		
	3G TX	тхз	172.17.0.3	C2:00:00:02:E1:88	B1.2.1	76%	0		
	3G RX	RX1	172.17.128.1	C2:00:00:02:00:7C	B1.2.1	51%	۲		
	3G RX	RX2	172.17.128.2	82:36:7C:81:A4:4A	B1.2.1	52%	©		
	3G+AVP RX	RX3	172.17.128.3	C2:00:00:01:8A:F2	B1.2.1	49%	©		
		2 Transmittere		ı					
		3 Receivers	Rescan	ļ	Please Wait 4:23	Home			
							Just Add		
Dis	Discover, Name, and Update Firmware on all devices.								

AMP-VO2.108ET	A						
					Firmware Update Only Multicast		
Model	Device	IP Address	MAC Address	Firmware	Status	Identify	
3G-S TX	TX1	172.17.0.1	48:5D:EB:04:53:21	B2.1.2	No Video from Source		
3G TX	TX2	172.17.0.2	C2:00:00:02:BF:92	B2.1.2	No Video from Source		
3G TX	TX3	172.17.0.3	C2:00:00:02:E1:88	B2.1.2	No Video from Source	0	
3G RX	RX1	172.17.128.1	C2:00:00:02:00:7C	B2.1.2	Searching for Transmitter	\odot	
3G RX	RX2	172.17.128.2	48:5D:EB:04:3F:EB	B2.1.2	Searching for Transmitter	۲	
3G+AVP RX	RX3	172.17.128.3	C2:00:00:01:8A:F2	B2.1.2	Searching for Transmitter	۲	
	3 Transmitters		ר ר				
	3 Receivers	Rescan 💭	J	Update Devices	Home		

e, and Update Firmware on all de

10. The update is complete! Select **Home** or close the program to finish.

Just Add 8Power