

# Important System Notes!

- Bidi's will **ONLY** work with latest generation of Via12's that have **SFP+** ports and VIA 24's!
- All switches **MUST** have at least Software Version 6.3.3 loaded
- Bidi's enable signal to be transmitted and received on a single strand of Single Mode Fiber. This is accomplished through different colors of light. The Bidi transmits signal on one wavelength and receives signal on a different wavelength.
- Because each Bidi transmits and receives on different wavelengths of light they **MUST** be used in pairs, **Purple** connects to **Blue**. **Purple to Purple** or **Blue to Blue WILL NOT WORK!**
- Although Bidi Color can be determined by the color on the SFP's tag, **VERIFY** that the wavelengths listed, 1490 & 1310, are the **SAME** on **BOTH** Bidi's, as well as the distance, 20Km.
- Bidi's are expendable and must be purchased new for each job.
- LC to ST Single Mode jumpers are used to connect switches/Bidi's to building patch panels and are expendable. They must be purchased new for each job. For **EVERY** Bidi there needs to be one LC to ST jumper.
- Any job using Bidi's **MUST** have a Prep Day in the shop. The System Tech **MUST** set up the switches, load software if needed, configure the switches, install Bidi's, attach LC to ST jumpers, and connect everything together so as to verify compatibility and operation.
- Failure to follow any of the above can result in system failure on show site!!!**
- RSTP Should be **ENABLED** on all Via 12's
- VLAN = Virtual Local Area Network (VLANS are like groups they only talk to other ports configured as the same VLAN
- Management VLAN = 1.
- When using SFP/Fiber, Ports must be set to **TAGGED/UPLINK** so as to pass **ALL** VLAN traffic
- All S400 equipment should be running Version 7.0.3 (Rack 1/25/2023, BO 11/19/2019, SuperNode 7/27/2023, Node+ 5/07/2010, HydraNode 1.1.8)
- NO ETHERCON or CAT5E COUPLERS!!
- S400 Nodes should be set to "Merge2" to avoid any conflicts during a system failure.
- Do NOT use RDM in show conditions. DMX data is not reliable while RDM is discovering. If RDM must be used, leave "incremental" unchecked.
- eLINK's only output Universe's assigned to them and prevent all other data from back flowing into the system
- Gaff Tape is the Universal Life Force! It has a light side, a dark side, and it holds everything together.

### KEY

**MA3 FULL SIZE x 3**  
Ecode: 360FF

**VIA24 Gigabit Switch x 8**  
Ecode: U503Y

**Hydranode x 14**  
Ecode: 3799D

**MA3 XL PU x6**  
Ecode: 360C6

**VIA12 SFP+ Gigabit Switch x 20**  
Ecode: U503K

**Supernode x 6**  
Ecode: 3799C

**MACBOOK x 1**  
W/S400 Tools & Pathscape

**"PURPLE" Bidi x 20**  
Ecode: 540-123189  
SFP-GE-BX 20km  
1490-TX / 1310-RX

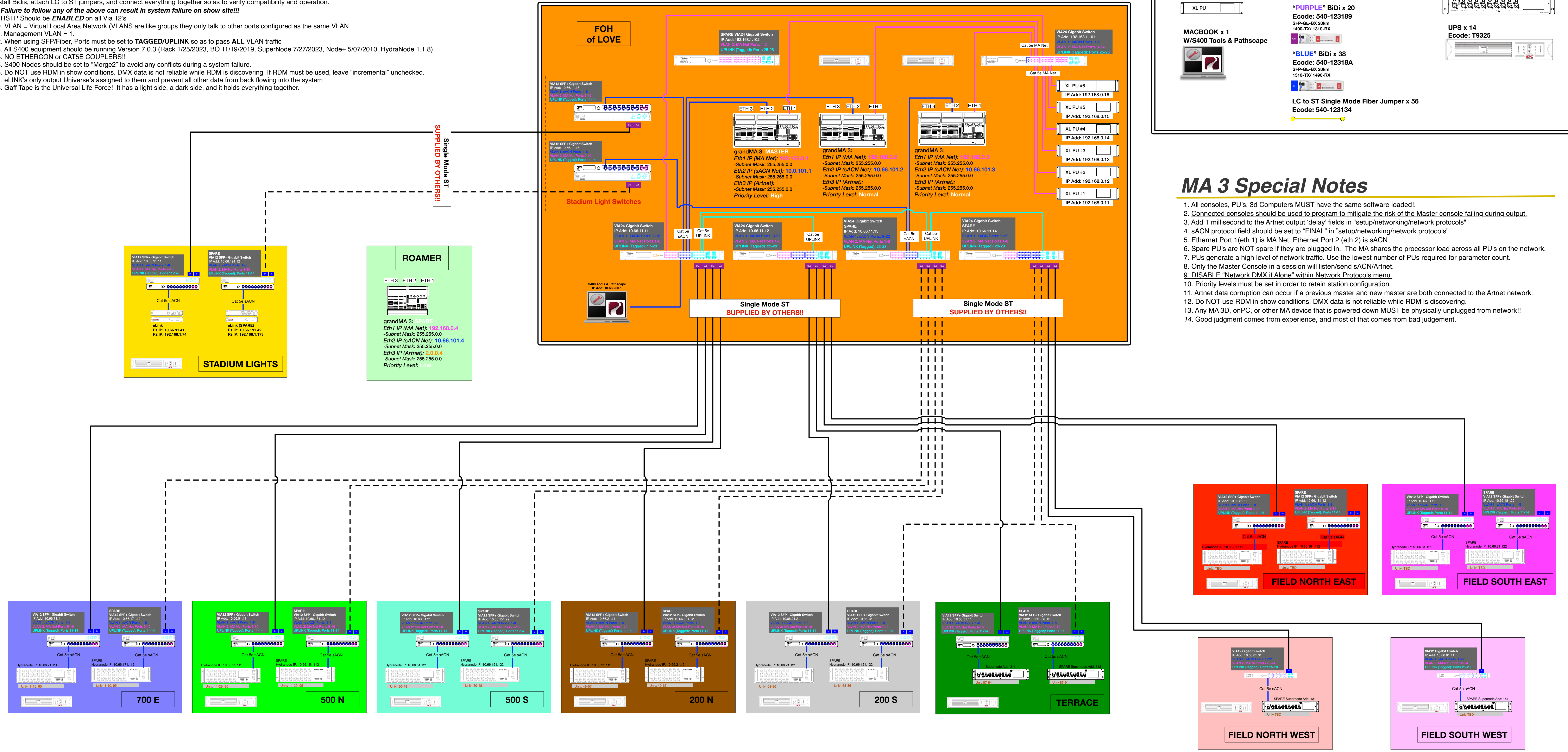
**UPS x 14**  
Ecode: T9325

**"BLUE" Bidi x 38**  
Ecode: 540-12318A  
SFP-GE-BX 20km  
1310-TX / 1490-RX

**LC to ST Single Mode Fiber Jumper x 56**  
Ecode: 540-123134

## MA 3 Special Notes

- All consoles, PU's, 3d Computers **MUST** have the same software loaded!.
- Connected consoles should be used to program to mitigate the risk of the Master console failing during output.
- Add 1 millisecond to the Artnet output 'delay' fields in "setup/networking/network protocols"
- sACN protocol field should be set to "FINAL" in "setup/networking/network protocols"
- Ethernet Port 1(eth 1) is MA Net, Ethernet Port 2 (eth 2) is sACN
- Spare PU's are NOT spare if they are plugged in. The MA shares the processor load across all PU's on the network.
- PU's generate a high level of network traffic. Use the lowest number of PU's required for parameter count.
- Only the Master Console in a session will listen/send sACN/Artnet.
- DISABLE "Network DMX if Alone" within Network Protocols menu.**
- Priority levels must be set in order to retain station configuration.
- Artnet data corruption can occur if a previous master and new master are both connected to the Artnet network.
- Do NOT use RDM in show conditions. DMX data is not reliable while RDM is discovering.
- Any MA 3D, onPC, or other MA device that is powered down **MUST** be physically unplugged from network!!
- Good judgment comes from experience, and most of that comes from bad judgement.



This document and the ideas and design incorporated herein, as an instrument of professional service, is the property of Professional Research Group, LLC. PRG may use the information contained herein for other projects without the express written consent of PRG. PRG and its employees shall not be held liable for any damages, including consequential damages, arising from the use of this document or the information contained herein without the express written consent of PRG. The design and construction of this system is subject to change without prior written consent of PRG.

This design or drawing represents visual concepts only. PRG or its affiliates is not a licensed engineer and is not responsible for the structural integrity of the design or its implementation. A weight calculation and structural analysis should be performed by a licensed structural engineer. A weight calculation and structural analysis should be performed by a licensed structural engineer. A weight calculation and structural analysis should be performed by a licensed structural engineer.

SB60 LIGHTING CONTROL SYSTEM Version 6

CONCEPT SHOWN FOR DISCUSSION ONLY!