Alpha Communications®

AlphaLinQ™ 100 Series

Visual Nurse Call System

APPLICATION: The AlphaLinQ™ Visual Nurse Call System is designed for Nursing Home or individual ward use. The nurse call system provides audible and visual indication of all calls originating in the system, including both calls of normal (routine) and emergency priorities. The expandable Master Station is compact, can be mounted vertically or horizontally, contains long-life, high-intensity LEDS for call indication, a tone-off switch and an audible tone signaling device.

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System Operating Instructions

This section provides complete operating instruction for all AlphaLinQ™ functions, as well as reference drawings for use in locating and describing all controls. System operators must read the following operating instructions concerning system equipment and the terms used in conjunction with the equipment.

Master Station(s)

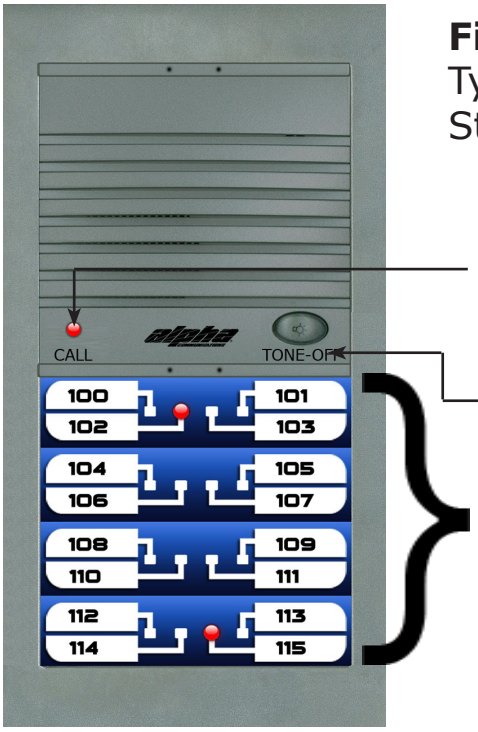


Figure 1
Typical AlphaLinQ™ 100 Series Master Station (16 Point Capacity Shown)

1. **Call Lamp:** Indicates incoming call when illuminated. Indicates emergency call when flashing.
2. **Tone Off Button / Lamp:** The button silences routine priority call tone when depressed. Button illuminates when the tone is silenced.
3. **Station Selector LEDs:** Indicates incoming call from associated remote when illuminated. Indicates emergency call from remote when flashing.

Answering Routine Calls:

Calls must be answered in person and can only be canceled from point of origin. Routine calls are indicated by simultaneous operation of the following signals:

- **Illumination** of the associated station selector LED, which indicates origin of call.
- **Illumination** of **CALL** lamp at Master Station(s).
- **Slowly pulsing** audible tone. The audible call signal may be canceled for routine calls by pressing the **TONE OFF** button. The button will then illuminate to indicate tone silenced. Pressing the **TONE OFF** button again will restore the call tone function.

Answering Emergency Calls:

All emergency calls take precedence over any routine call signal. Calls must be answered in person and can only be canceled from point of origin. Emergency calls are indicated by these simultaneous signals:

- **Flashing** of the associated station selector LED, which indicates origin of call.
- **Flashing** of **CALL** lamp at Master Station(s).
- **Pulsing** audible tone.

Answering Code Calls:

All code calls take precedence over any emergency or routine call signal. Calls must be answered in person and can

only be canceled from point of origin. Code calls are indicated by these simultaneous signals:

- **Rapid Flashing** of the associated station selector LED, which indicates origin of call.
- **Rapid Flashing** of **CALL** lamp at Master Station(s).
- **Rapid pulsing** audible tone.

What to do if a Master Station Functions Improperly

If the AlphaLinQ™ Master Station fails to operate as described, contact qualified service personnel. The AlphaLinQ™ Master Station consists of replaceable modules that can be isolated and swapped without bringing down the entire system. If a malfunction should occur during a call and causes a lack of indication of call origin on the Master Sation, first determine the origin of the call by observing which corridor light and corridor zone light is illuminated, then inform qualified service personnel.

VPS101 and VPS102 Call Stations

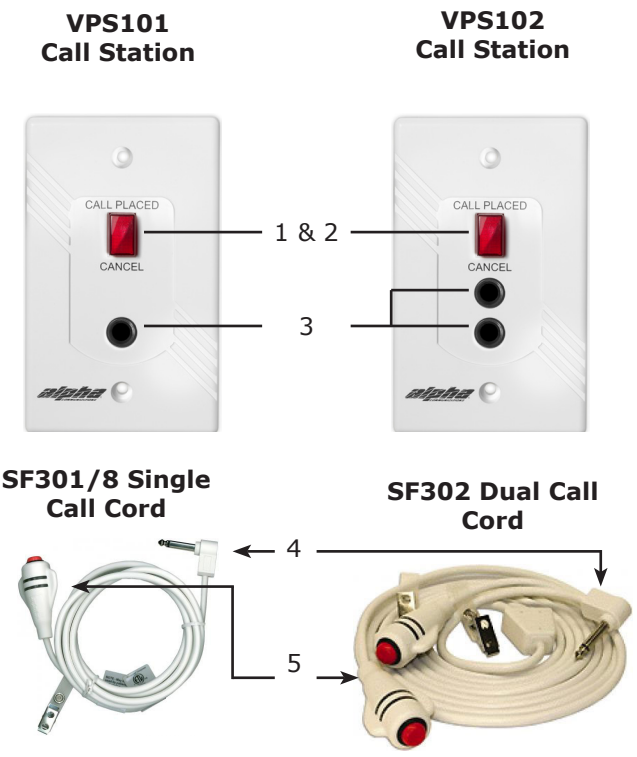


Figure 2
Call Stations and Call Cords

1. **Cancel Button:** Cancels the call when pressed.
2. **Call Placed Lamp:** Indicates a call is placed when flashing.
3. **Call Cord Jack(s):** Receptacle for SF301/8 or SF302 call cord.
4. **Plug:** Connects call cord to patient station when plugged into call cord jack.
5. **Call Button:** Places a call when pressed, if cord is connected to patient station.

Call a Nurse:

Press the CALL button located on the end of the call cord. The **CALL PLACED** lamp will illuminate to indicate call placement. Wait for the nurse. Refer to Figure 2 for locations, names, and functions of call cord controls.

Cancel a Call:

Press the CANCEL button. Indicator will go off. If the call cord is pulled from its receptacle, a call will be placed automatically and cannot be canceled until the call cord is replaced in the receptacle.

Replace Call Cord:

See System Maintenance Instructions for procedures and precautions in replacing defective call cords.

Improper Operation:

If the call station does not operate as described, contact qualified service personnel. There are no user serviceable parts on the VPS101 and VPS102 Call Stations other than call cords.

The EPS155, EPS337, EPS339, VSS110, VDS150 Signaling Stations and The EPS156 Code Call Station

Refer to Figure 3 for locations, names, and functions of controls and indicators.

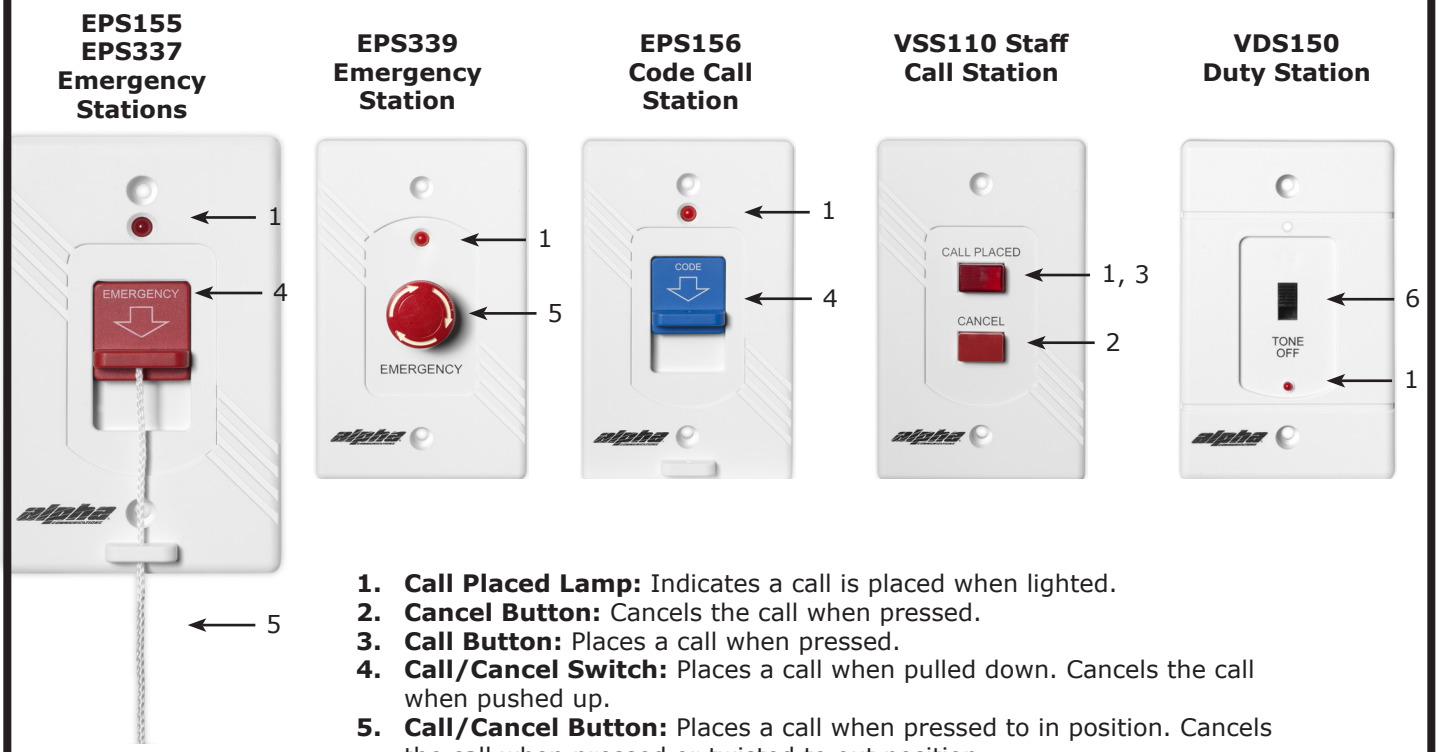
Call a Nurse:

Pull the call cord, slide the call/cancel switch down, or press the call/cancel button. The **CALL PLACED** lamp will flash. Wait for the nurse.

Cancel a Call:

Push the call/cancel switch up, press the call/cancel button, or twist the push button. The **CALL PLACED** lamp will go off.

Figure 3 Emergency, Code Call & Duty Station Control Locations



1. **Call Placed Lamp:** Indicates a call is placed when lighted.
2. **Cancel Button:** Cancels the call when pressed.
3. **Call Button:** Places a call when pressed.
4. **Call/Cancel Switch:** Places a call when pulled down. Cancels the call when pushed up.
5. **Call/Cancel Button:** Places a call when pressed to in position. Cancels the call when pressed or twisted to out position.
6. **Tone Off Switch:** Silences routine audible tone signal when in the down position.

Improper Operation:

If the call station does not operate as described, contact qualified service personnel. There are no user serviceable parts on the EPS155, EPS337, EPS339 Emergency Stations, EPS156 Code Stations, VSS110 Visual Staff Stations, or the VDS150 Visual Duty Stations.

The VDS150 Duty Station

Refer to Figure 3 for locations, names, and functions of controls and indicators.

Code Calls:
Code calls are indicated by a rapidly flashing **CALL PLACED** lamp and a rapidly pulsing audible tone. The audible tone signal cannot be silenced by the **TONE OFF** switch.

Emergency Calls:
Emergency calls are indicated by a flashing **CALL PLACED** lamp and a pulsing audible tone. The audible tone signal cannot be silenced by the **TONE OFF** switch.

Routine Calls:
Routine calls are indicated by steady illumination of the **CALL PLACED** lamp and a slowly repeating audible tone. Slide the **TONE OFF** switch down to silence the audible tone signal. Slide the **TONE OFF** switch up to turn the audible tone signal function on.

Improper Operation:
If the call station does not operate as described, contact qualified service personnel. There are no user serviceable parts on the VDS150 Duty Stations.

CDL101LED Corridor Dome Light

The CLD101LED Corridor Dome Light includes one white/clear routine call indicator LED located in the top half of the housing. The LED light is contained to the top half of the visible display area by use of an opaque divider. If desired, the divider can be removed to allow full illumination of the dome light.

Code Calls:
Code calls are indicated by **rapid flashing** of the corridor light that is associated with the calling station.

Emergency Calls:
Emergency calls are indicated by **flashing** of the corridor light that is associated with the calling station.

Routine Calls:
Routine calls are indicated by **steady illumination** of the corridor light that is associated with the calling station.

LED Replacement:
See System Maintenance Instructions for proper procedures and precautions should you even need to replace defective LED Circuit Boards.

Improper Operation:
If corridor light does not operate as described, contact qualified service personnel. There are no user serviceable parts on the CDL101LED Corridor Zone Lights other than the LED Circuit Board Modules. (See "Replacement Parts" on Page 14)

CDL102LED Corridor Zone Light

The CLD102LED Corridor Zone Light includes 2 indicator LEDs: one white/clear routine call indicator LED, and one red emergency call indicator LED. The LEDs are seperated by an opaque divider for a high level of color contrast.

Code Calls:
Code calls are indicated by **rapid flashing** of the **red** corridor zone light(s) associated with the zone or area from which an emergency call has been placed.

Emergency Calls:
Emergency calls are indicated by **flashing** of the **red** corridor zone light(s) associated with the zone or area from which an emergency call has been placed.

Routine Calls:
Routine calls are indicated by **steady illumination** of the **white** corridor zone light(s) associated with the zone or area from which a routine call has been placed.

Concurrent Code, Emergency and Routine Calls:

If an emergency and routine call are placed in the same zone at the same time, the red light(s) connected to the emergency station from which a call was placed will flash (rapidly if the call is a code call), while the white light(s) associated with the routine call will maintain a steady illumination. If a Code call and Emergency call occur concurrently, the code (rapid flashing) will take priority.

Improper Operation:

If corridor zone light does not operate as described, contact qualified service personnel. There are no user serviceable parts on the CDL102LED Corridor Zone Lights other than the LED Circuit Board Modules. (See "Replacement Parts" on Page 14)

System Operating Principle

Each system uses a series of common conductors to carry the operating and signaling voltage to the various units. In addition, each station capable of calling the master station has individual conductors between it and the master to give the station its own identity. When a call station is activated, switching circuits operate to light various call lights and to energize system call tone. All calls must be reset at the point of origin. Emergency calls are signaled by a different flashing rate at the master station. An emergency call is indicated by an intermittent tone and flashing lights at approximately 1/3-second intervals. A routine call is indicated by a steady lamp and an intermittent tone at approximately 8-second intervals. The AlphaLinQ™ 100 Series Nurse Call System includes three basic units, each essential for operation. These will be discussed individually and are as follows:

- Power & Control Unit
- Master Station
- Call Stations

The use of these basic units, in conjunction with wiring, housings and auxiliary equipment, make up a complete system.

The AC152 & AC153 Power and Control Units

The power & control unit utilizes an SS106 transformer which steps down the 120 VAC input to 24 VAC, 30 VA, which is then rectified, filtered and regulated by the AC152 to provide a stable 24 VDC for the system functions.

Control circuits are provided to detect the presence of routine, emergency and code calls (when used with the AC153 control unit) and to provide steady or intermittent voltages to operate external devices with indications as follows:

Routine calls are indicated by a positive voltage applied to Terminal R by the calling remote station. **Emergency** calls are indicated by a positive voltage applied to terminal Q by the calling remote station. **Code** calls are indicated by a positive voltage applied to terminal V by the calling remote station (provided by the optional AC153).

AlphaLinQ™ 100 Series Master Station

The Master Station includes:

1. Buzzer for audible signals.
2. LED Annunciator lamps for call indication.
3. Additional operating controls, including **TONE OFF** switch and additional code, emergency and routine call indicators.

Please Note: The **TONE OFF** button will temporarily silence the alarm tone at the master until a new call comes in, at which point it will start sounding again. This only applies to Routine level calls. Emergency or Code-Blue calls can not be silenced.

VPS101, VPS102 and VSS110

The VPS101, VPS102 and VSS110 Call Stations are for routine calls that use an LED visual indicator.

The EPS155, EPS337 and EPS339 Emergency Stations and The EPS156 Code Call Station

The EPS155 Toilet Emergency Station, and the EPS337 Water resistant Shower Emergency Stations are for emergency calls. In the emergency position, associated signal lights are disconnected from the normal signal terminals and connected to the emergency signal terminals. The EPS339 Push-Button Emergency Station, EPS156 Code Call Stations have different features, but function in a similar manner.

System Installation

Installation Procedure

1. Read the following instructions concerning system equipment and determine installation methods before proceeding.
2. Determine equipment location.
3. Install wiring.
4. Install housing.
5. Check wires.
6. Connect equipment.
7. Check connections

Equipment Locations

AlphaLinQ™ 100 Series Master Stations: Locate master stations within easy reach of operating personnel. Do not exceed operating temperature of 10° C–30° C.

VPS101, VPS102, VSS110, Call Stations: Locate call stations where convenient for operation. Calls are placed on the VPS101 and VPS102 by means of a call cord switch, permitting easy operation by seated or prone patients. Calls are placed on the VSS110 by means of a Call push button located on the station.

EPS155, EPS339 Emergency Stations and EPS156 Code Station: Locate emergency stations where convenient for operation. Avoid areas where direct contact with water may occur. The EPS155B includes a 6' long pull cord permitting installation high enough to provide easy operation by the nurse and by seated or prone patients. The EPS155 may be used without the cord as a pull down actuated switch. The EPS156 does not come with the optional cord.

EPS337 Water Resistant Emergency Station: Locate emergency stations where convenient for operation. Operates like the EPS155 but for location exposed to water, such as showers.

VDS150 Duty Stations: Locate duty stations as needed and where convenient for operation. Location should provide for unobstructed visibility of the call indicator.

CDL101LED and CDL102LED as Corridor Dome Lights: Locate corridor lights in the corridor above or beside the door of the associated room. Location should provide for unobstructed visibility of the corridor light in both directions.

CDL101LED and CDL102LED as Corridor Zone Lights: Locate corridor zone lights in the corridor area nearest the nurses central monitoring station. Location should provide for unobstructed visibility of each corridor zone light from the central location. Corridor Zone Lights are typically ceiling mounted, but can also be wall mounted.

SF301/8 and SF302 Call Cords: Insert call cord plugs into associated station jacks as indicated on the stations. Call cords provided are 6', 8' or 10' in length (other lengths and configurations available).

AC152 Power & Control Unit: Locate the AC152 and the CEC152 junction box in an accessible area. Do not exceed operating temperature range of 10°C – 30°C. Location should provide for convenient cable runs to remote and master stations. Cable run from the AC152 to the AlphaLinkQ™ 100 Series Master Station must not exceed 100'.

AC153 Third Priority Control Unit: Locate the AC153 in the same location as the AC152 Power & Control Unit, in a seperate CEC152 Juntion Box, no additional SS106 is needed.

Wiring Installation

Run wiring conduit from corridor light to corridor light and terminate at the AC152 Power & Control Unit. Limit each run to 15 corridor lights and 600 feet of wire. Select conduit size to accommodate the following cables:

- 3 cond. #18 common to all call stations (except VDS150 Duty Stations). Add 2 cond. #18 common if CDL102LED Corridor Zone Lights are used.
- Run 3 cond. #18 common from CDL102LED to AC152 Power & Control Unit.

- 1 cond. #22 selective for each EPS155/EPS337/EPS339 Station not used in conjunction with a call station.
- 4 cond. #22 to one VDS150 Duty Station. Use 4 cond. #18 if feeding more than one duty station. Install a maximum of 4 duty stations per AC152 Control Unit. If more are needed, call factory for wiring information.

Station Wiring Layout

AlphaLinQ™ Master Station(s): Run cable or conduit directly from the master station to the AC152 Power & Control Unit and the CEC152 Junction Box. Include the following:

5 conductor #18

VPS101, VPS102, VSS110 Call Stations: Run 4 cond. #22 directly to associated EPS155 Emergency Station. If an emergency station is not used, run cable directly to the associated corridor light. If more than one call station is used in the same room, all stations run directly to the emergency station (if used).

1 cond. #22 for each VPS101/VPS102/VSS110 Call Station, or Room Location.

EPS155 Emergency Stations and EPS337 Water Resistant Emergency Stations: Run 4 cond. #22 for each call station associated with the EPS155/EPS337. Run cable directly to associated corridor light. If no call station is used, only 3 cond. #22 is needed from the EPS155/EPS337 to the corridor light.

1 cond. #22 for each EPS155/EPS337 Emergency Station not used in conjunction with a call station, or Room Location.

VDS150 Duty Stations: Run 4 cond. #22 to the AC152 Power & Control Unit. Use 4 cond. #18 if feeding more than one duty station. Install a maximum of 4 duty stations per system. If more are needed, call factory for wiring information.

Power Wiring: Run conduit and electrical cable from the AC152 Power & Control Unit and the CEC152 Junction Box to 120 VAC - 60 cycle power source. Do not connect power. Make sure to observe all electrical codes.

Refer to Figures 9–10 for typical system wiring and cable sizes.

Housing Installation

AlphaLinQ™ 100 Series Master Station(s):

All AlphaLinQ™ Master Stations can be mounted either vertically or horizontally, since the individual modules are square in shape and can be mounted to your housing in either orientation.

- *Flush Wall Mounting:* Provide wall cutout as shown in Figure 4. Fit back box and frame assembly into prepared opening. Fasten assembly in place using screws.
- *Surface Wall Mounting:* Fasten box and frame assembly to wall through holes provided in back of box. Use suitable fasteners.

Figure 4 Master Station Housing Chart and Wall Cut-Out Details

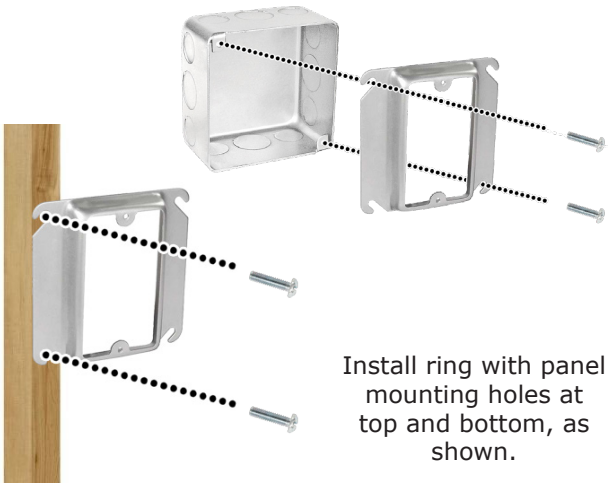
Master Station FLUSH Housings

Model Number	Modules	Outer Dimensions	Frame
UPG2	2 (2x1)	4.40”W X 8.35”H X 1.58”D 112mm W x 212mm H x 40mm D	MT2*x*
UPG3	3 (3x1)	4.40”W X 12.28”H X 1.58”D 112mm W x 312mm H x 40mm D	MT3*x*
UPG4	4 (4x1)	4.40”W X 16.22”H X 1.58”D 112mm W x 412mm H x 40mm D	MT4*x*
UPG4/2	4 (2x2)	8.35”W X 8.35”H X 1.58”D 212mm W x 212mm H x 40mm D	MT4/2*x*
UPG6/2	6 (3x2)	8.35”W X 12.28”H X 1.58”D 212mm W x 312mm H x 40mm D	MT6/2*x*
UPG8/2	8 (4x2)	8.35”W X 16.22”H X 1.58”D 212mm W x 412mm H x 40mm D	MT8/2*x*

Master Station SURFACE Housings

Model Number	Modules	Outer Dimensions	Frame
APG2*T*	2 (2x1)	5.12”W X 9.60”H X 1.00”D 130mm W x 244mm H x 25mm D	MT2T
APG3*T*	3 (3x1)	5.12”W X 13.55”H X 1.00”D 130mm W x 344mm H x 25mm D	MT3T
APG4*T*	4 (4x1)	5.12”W X 17.50”H X 1.00”D 130mm W x 445mm H x 25mm D	MT4T
APG4/2*T*	4 (2x2)	9.06”W X 9.60”H X 1.00”D 230mm W x 244mm H x 25mm D	MT4/2T
APG6/2*T*	6 (3x2)	9.06”W X 13.55”H X 1.00”D 230mm W x 344mm H x 25mm D	MT6/2T
APG8/2*T*	8 (4x2)	9.06”W X 17.50”H X 1.00”D 230mm W x 445mm H x 25mm D	MT8/2T

Figure 5 Ring & Back Box for Call, Emergency, Code & Duty Stations, and Corridor & Zone Lights



Install ring with panel mounting holes at top and bottom, as shown.

Figure 6 SS106 Transformer Installation

VPS101, VPS102, VSS110 Call Stations, EPS155/EPS337/EPS339 Emergency Station, EPS156 Code Call Stations:

Install single gang ring (or single gang ring and double gang box) as shown in Figure 5 for each call and emergency station in the system. Ring and back box must be UL® listed. Minimum dimensions of back box must be not less than 4”×4”×1.5”. Minimum opening on ring must be not less than 1.75”×2.75”. Minimum clearance from live parts on station to dead metal parts must be not less than 0.5”.

VDS150 Duty Stations:

Install single gang ring (or single gang ring and double gang box) as shown in Figure 5 for each duty station. Ring and back box must be UL® listed. Minimum dimensions are the same as for the call/emergency stations listed previously.

CDL101LED Corridor Lights, CDL102LED Corridor Zone Lights

Install double gang ring (or double gang ring and double gang box) as shown in Figure 5 for each corridor light in system. Ring and back box must be UL® listed. Minimum dimensions of back box must be not less than 4”×4”×1.5”. Minimum opening of ring must be not less than 2.75”×2.75”. Minimum clearance from live parts of station to dead metal parts must be not less than 0.5”.

AC152 Power & Control Unit, CEC152 Junction Box:

Fasten CEC152 Junction Box to wall using suitable fasteners. Mount AC152 inside junction box. Any alternate junction box must be UL® listed. Minimum dimensions of junction box must be not less than 12”×12”×4”. Minimum clearance from live parts to dead metal parts on housing must be 1”. Install SS106 Transformer in junction box as shown in Figure 6. **Do not connect transformer primary to power source until entire installation is completed and checked for shorts and grounds.** Install transformer connection box as shown in Figure 6. Transformer box must be UL® listed. Minimum dimensions must be not less than 1.75”×3.75”×1.5”.

Wire Checkout

Use an ohmmeter or other continuity checking device to test wires for shorts or grounds. If shorts or grounds are encountered, find and correct the problem before continuing. Make sure minimum number of conductors needed for all of the equipment being used in the system are available.

Wire Connections

Use crimp-style connectors for all wire connections. Do not use wire nuts.

AlphaLinQ Master Station™:
No internal wiring is necessary for the AlphaLinQ™ Master Station unless you have multiple ELM116 modules and the common connections need to be jumped.

VPS101, VPS102, VSS110 Call Stations:
Connect wires as shown in Figures 8-9.

EPS155/EPS337/EPS339 Emergency Stations:
Connect wires as shown in Figures 8-9.

VDS150 Duty Stations:
Connect wires as shown in Figures 8-9.

CDL101LED Corridor Lights, CDL102LED Corridor Zone Lights:
Connect wires as shown in Figures 8-9.

AC152 Power & Control Unit:
Connect wires as shown in Figures 8-9. Also connect secondary from the SS106 Transformer (24 VAC, 30 VA connections) to the AC152 as shown in Figures 8-9. **Do not connect transformer primary to power source until entire installation is completed and checked for shorts and grounds.**

Connections Checkout

Recheck all connections to equipment. If all wires and connections are satisfactory, connect primary coil of SS106 Transformer to source of 120 VAC 60 cycles (40 watts max.) and operation of system can be checked according to System Test Instructions next in this section.

System Test Instructions

Before proceeding with a system test, all stations should be set to normal conditions as follows:

AlphaLinQ™ 100 Series Master Station
No initialization is necessary.

VPS101, VPS102 Call Stations:
If the call cord push button has been pressed, reset the station by pressing the CANCEL button.

VSS110 Call Stations:
If the call button has been pressed, reset the station by pressing the CANCEL button.

EPS339 Emergency Stations:
If the call/cancel switch is pressed to the IN position, twist the switch to the OUT position to reset the station.

EPS155/EPS337 Emergency Stations and EPS156 Code Station:
If the call cord has been pulled or the switch has been pulled down, reset the station by pushing the switch up.

VDS150 Duty Stations:
Slide the **TONE OFF** switch up.

System Checkout and Testing

VPS101, VSS110, VPS102 Call Stations

Test call stations one at a time. Initiate a call on each station. Press the button on the end of the call cord for VPS101 and VPS102 Call Stations. Press the call button for VSS110 Call Stations. Check for operation of the following signals:

- The **CALL PLACED** lamp on the call station should be illuminated.
- The CDL101LED and/or CDL102LED Corridor Light near the room entrance should be illuminated.
- On the AlphaLinQ™ Master Station, the call lamp should be illuminated and the associated station selector lamp (marked to identify the calling station) should be illuminated. A slowly repeating audible call tone should be heard. The routine call tone may be silenced by the **TONE OFF** button, which should be illuminated to indicate tone silencing.
- On all VDS150 Duty Stations, the **CALL PLACED** lamp should be illuminated, and a slowly repeating audible call tone should be heard. The routine call tone may be silenced by the **TONE OFF** button.
- Reset the call at the call station: Press the **CANCEL** button on the call stations. All signals should be canceled.

EPS155, EPS337, EPS339 Emergency Stations

Test stations one at a time. Initiate a call on each station. Push the switch to the IN position on the EPS339 Emergency Stations. Slide the switch to the DOWN position or pull the call cord on the EPS155/EPS339 Emergency Station. Check for operation of the following signals:

- The **CALL PLACED** lamp should be flashing
- The CDL101LED and/or CDL102LED Corridor Zone Light near the room entrance should be flashing.
- On the AlphaLinQ™ Master Station, the call lamp should be flashing, the emergency lamp should be flashing, and the associated station selecter lamp (marked to indentify the calling station) should be flashing. An intermittent audible call tone should be heard. Pressing the **TONE OFF** button **must not** cancel the emergency call tone.
- On all VDS150 Duty Stations, the call lamp should be flashing, and an intermittent audible call tone should be heard. The **TONE OFF** button must not cancel the emergency call tone.

EPS156 Code Call Stations

Test stations one at a time. Slide the switch to the DOWN position on the EPS156 Code Station. Check for operation of the appropriate signals. This station should act exactly like the EPS155, but all flashing and tones should be RAPID to alert of a higer code priority.

CURRENT DRAWS & SYSTEM CAPACITIES - To calculate maximum number of devices per system, total current draw should not exceed 1.5 Amps when devices are activated.

AC152	Power / Control Unit	24 VDC, 1.50 Amps
AC153	Power / Control Unit	24 VDC, 1.50 Amps
ELM116	16 L.E.D. Master Station Module	24 VDC, 0.02 Amps (per LED)
TSM100	Tone / Speaker Module	24 VDC, 0.10 Amps
VPS101	Visual Pull Station (Single)	24 VDC, 0.03 Amps
VPS102	Visual Pull Station (Double)	24 VDC, 0.03 Amps
EPS155	Emergency Pull Station	24 VDC, 0.06 Amps
EPS156	Emergency Pull Station (Code Blue)	24 VDC, 0.06 Amps
EPS337	Emergency Pull Station (Water Res.)	24 VDC, 0.052 Amps
EPS339	Emergency Push Station (Mushroom Button)	24 VDC, 0.052 Amps
VDS150	Visual Duty Station	24 VDC, 0.03 Amps
CDL101LED	Corridor Dome Light (Single LED)	24 VDC, 0.03 Amps
CDL102LED	Corridor Dome Light (Dual LED)	24 VDC, 0.06 Amps
VSS110	Visual Staff Station	24 VDC, 0.09 Amps

BATTERY BACK-UP CAPACITIES **- The AC152 AlphaLinQ control unit has a maximum rated capacity of 1.5A. Assuming 10% of the system is in use and the power fails, the batteries should provide power for approx. 7 hours. If 100% of the system is in use and the power fails, the batteries should provide power for approx. 4.5 hours. Please be aware that these numbers can vary depending on the number and type of devices used in each location and the number of Master Stations, etc.**

System Maintenance Instructions

Most of the equipment and parts used in the AlphaLinQ™ Nurse Call System are not user serviceable and cannot be replaced or repaired by the end user. Equipment must be repaired by qualified service personnel only. Parts that **are** user serviceable are listed in the following section and their replacement explained.

FZ151 In-Line Fuse Holder

The only user serviceable part is a 4A, 125 VAC fuse (1.25”×0.25”).

1. Disconnect power to the associated SS106 transformer.
2. Once power has been disconnected, firmly grasp both ends of the fuse holder, push in and rotate in opposite directions. Pull out on both ends to expose the fuse.
3. Remove the fuse and insert the new fuse. Put fuse holder back together and verify that both pieces are interlocked. Restore power to the system. For repair or replacement of any other parts, contact qualified service personnel. A list of replacement parts and numbers appears in the Replacements Parts section.

VPS101 and VPS102 Call Stations

The only user serviceable part on these stations are the call cords. To replace:

1. To remove the call cord, grip end of plug firmly and pull straight away from call station.
2. To replace the call cord, hold by end of plug and push straight into call cord jack on call station.
3. To test, push the button at the end of the call cord. The **CALL PLACED** lamp should illuminate. Push the **CANCEL** button to cancel the call.

For repair or replacement of any other parts, contact qualified service personnel. A list of replacement parts and numbers appears in the Replacements Parts section.

Replacement Parts

Model Number	Description	Used For
50T-4A	4A Fuse	FZ151 In-Line Fuse Holder
SF301/8 *	8’ Call Cord	VPS101 and VPS102 Call Station
SF302 *	8’ Dual Call Cord	VPS101 and VPS102 Call Station
LM101W	White LED Circuit Board Module	CDL101LED and CDL102LED Dome/Zone Lights
LM101R	Red LED Circuit Board Module	CDL102LED Dome/Zone Lights

* Call cords of varying length and trigger mechanism are also available.

Figure 7

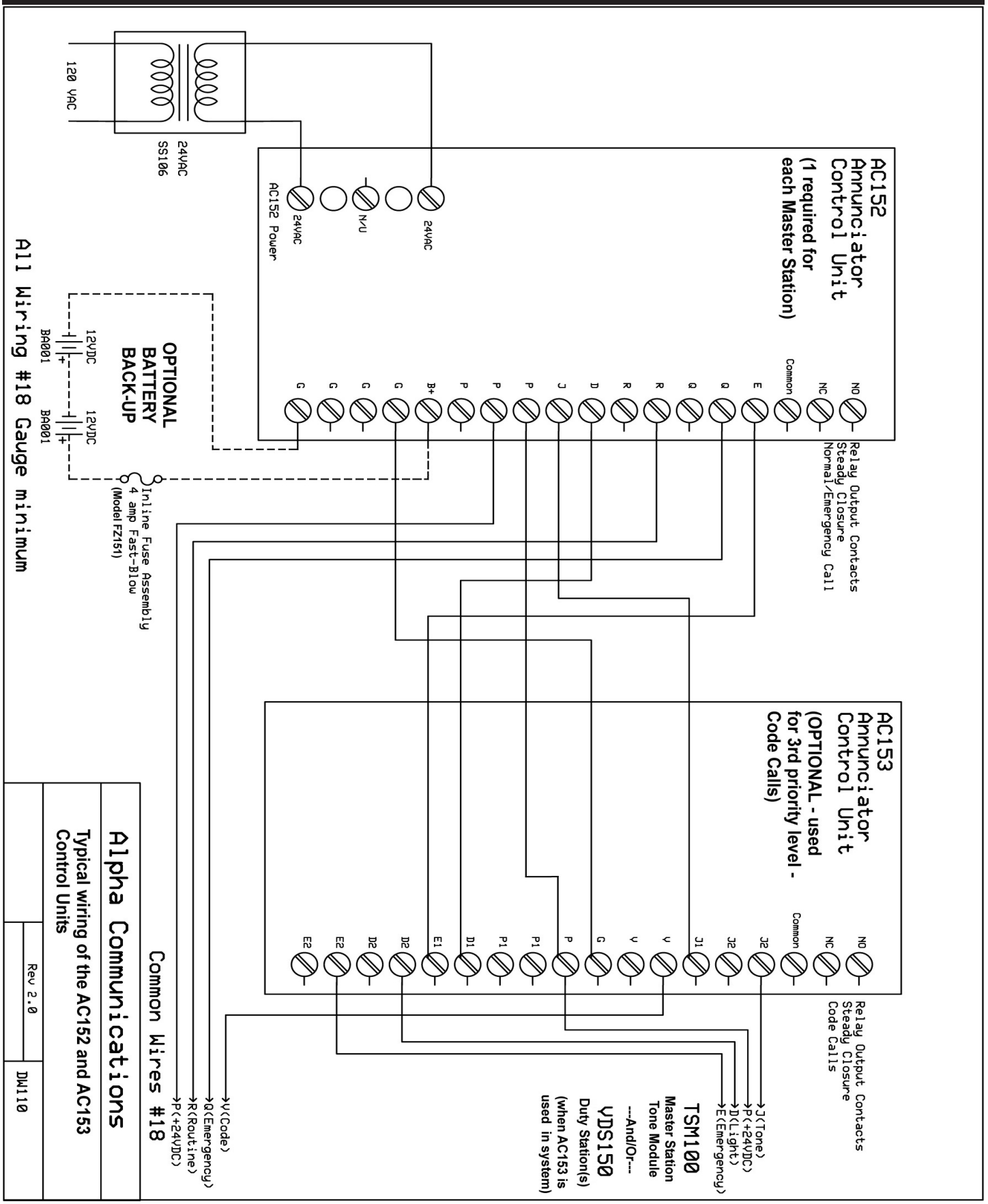

AC152
Annunciator
Control Unit
(1 required for
each Master Station)
NO
NC
Common
E
Q
Q
R
R
D
J
P
P
P
B+
G
G
G
G
G
Relay Output Contacts
Steady Closure
Normal/Emergency Call
24VAC
N/U
24VAC
AC152 Power
120 VAC
24VAC
SS106
OPTIONAL
BATTERY
BACK-UP
12VDC
12VDC
BA001
BA001
Inline Fuse Assembly
4 amp Fast-Blow
(Model FZ151)
All Wiring #18 Gauge minimum
AC153
Annunciator
Control Unit
(OPTIONAL - used
for 3rd priority level -
Code Calls)
NO
NC
Common
J2
J2
J1
V
V
G
P
P1
P1
D1
E1
D2
D2
E2
E2
Relay Output Contacts
Steady Closure
Code Calls
J(Tone)
P(+24VDC)
D(Light)
E(Emergency)
TSM100
Master Station
Tone Module
---And/Or---
VDS150
Duty Station(s)
(when AC153 is
used in system)
Common Wires #18
V(Code)
Q(Emergency)
R(Routine)
P(+24VDC)
Alpha Communications
Typical wiring of the AC152 and AC153
Control Units
Rev 2.0
DW110

Figure 8

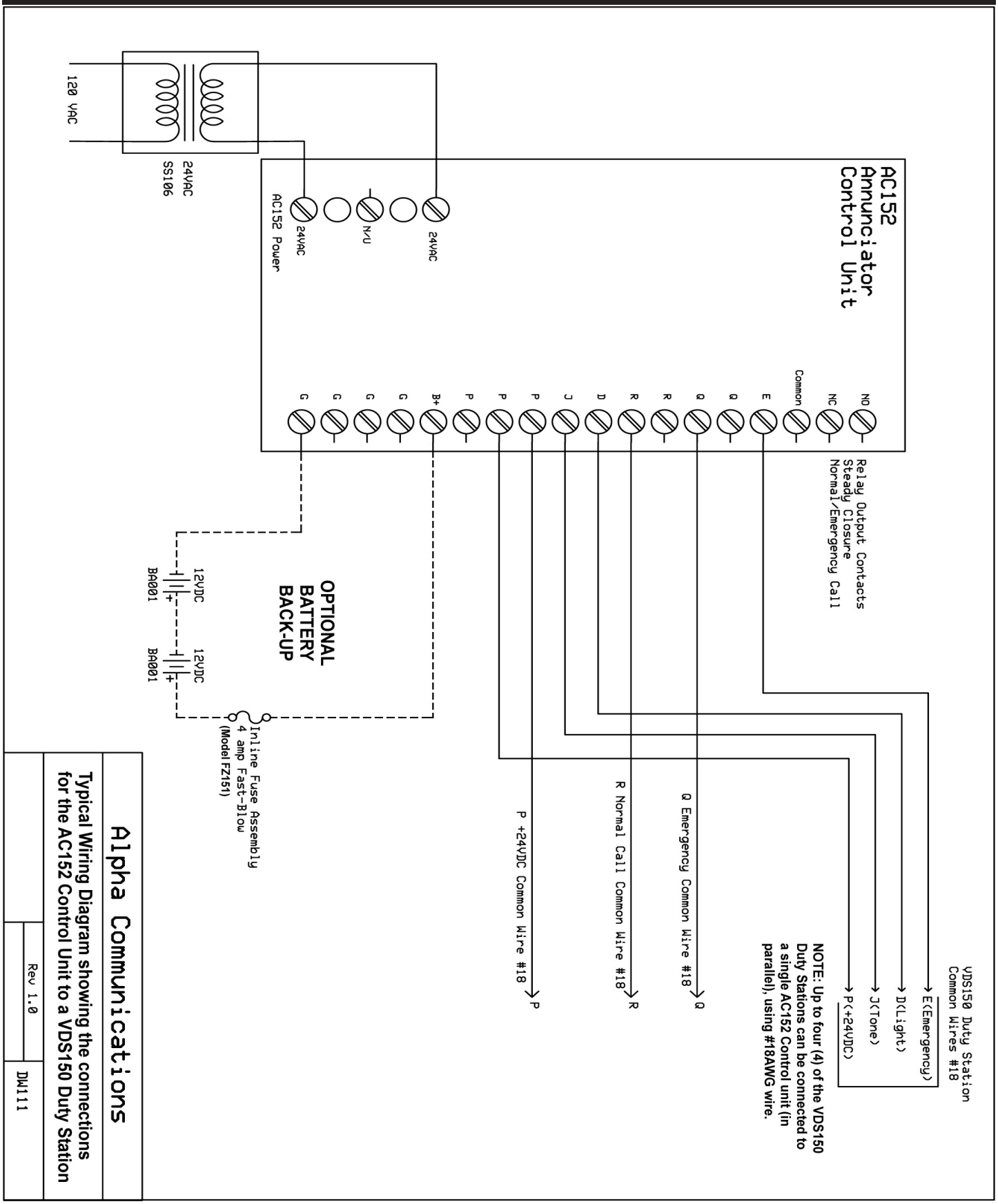
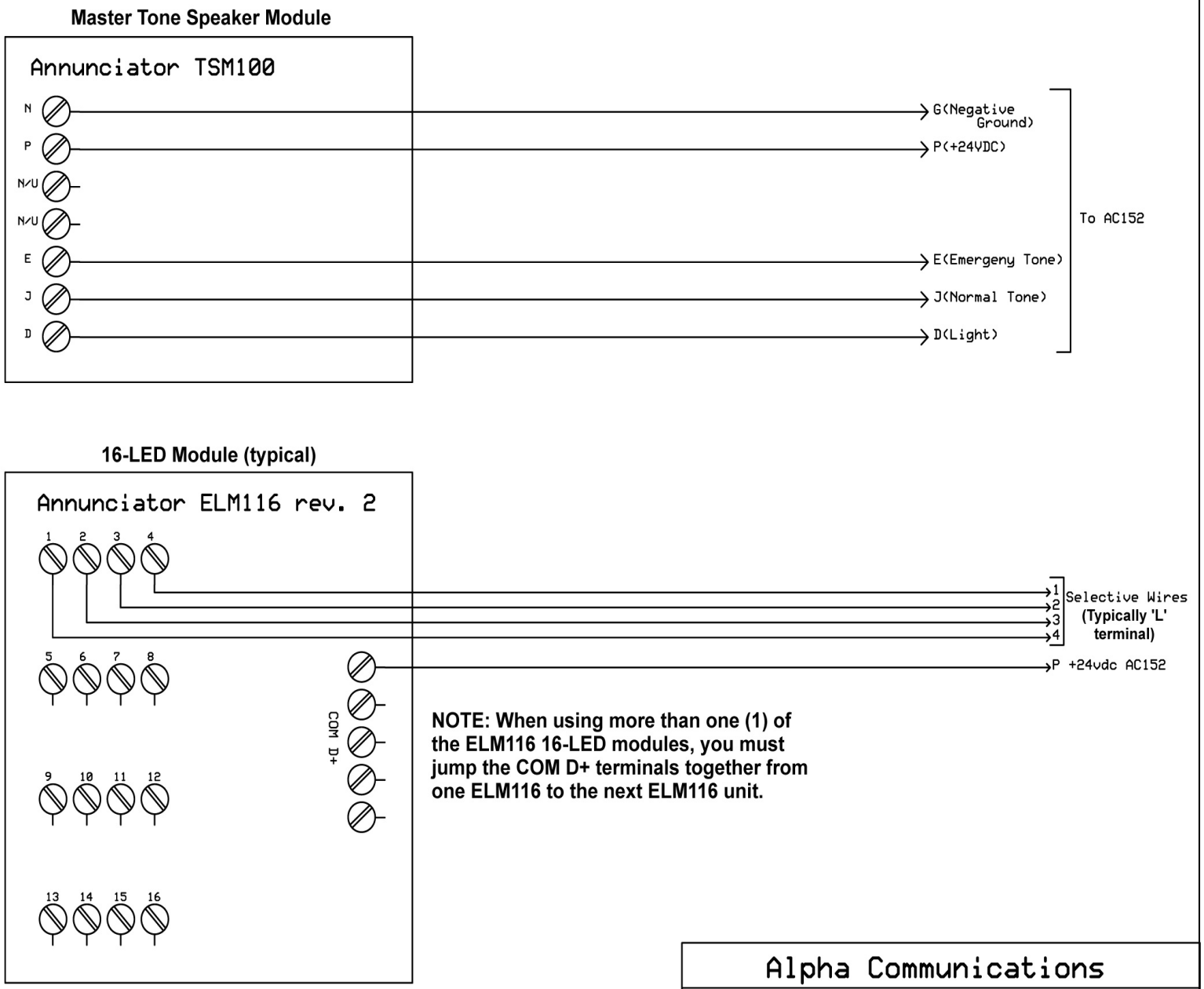

AC152
Annunciator
Control Unit
NO
NC
Common
E
Q
Q
R
R
Q
Q
D
R
J
P
P
P
B+
G
G
G
G
G
24VAC
N/U
24VAC
AC152 Power
24VAC
SS106
120 VAC
Relay Output Contacts
Steady Closure
Normal/Emergency Call
VDS150 Duty Station
Common Wires #18
E(Emergency)
D(Light)
J(Tone)
P(+24VDC)
NOTE: Up to four (4) of the VDS150 Duty Stations can be connected to a single AC152 Control unit (in parallel), using #18AWG wire.
Q Emergency Common Wire #18
R Normal Call Common Wire #18
P +24VDC Common Wire #18
OPTIONAL
BATTERY
BACK-UP
12VDC
BA001
12VDC
BA001
Inline Fuse Assembly
4 amp Fast-Blow
(Model FZ151)
Alpha Communications
Typical Wiring Diagram showing the connections for the AC152 Control Unit to a VDS150 Duty Station
Rev 1.0
DW111

Figure 9



Alpha Communications		
Typical Wiring Diagram showing connections for the TSM100 Master Tone Speaker Module and the ELM116 16-LED Call Indication Module(s)		
	Rev 1.0	DW112

Figure 10

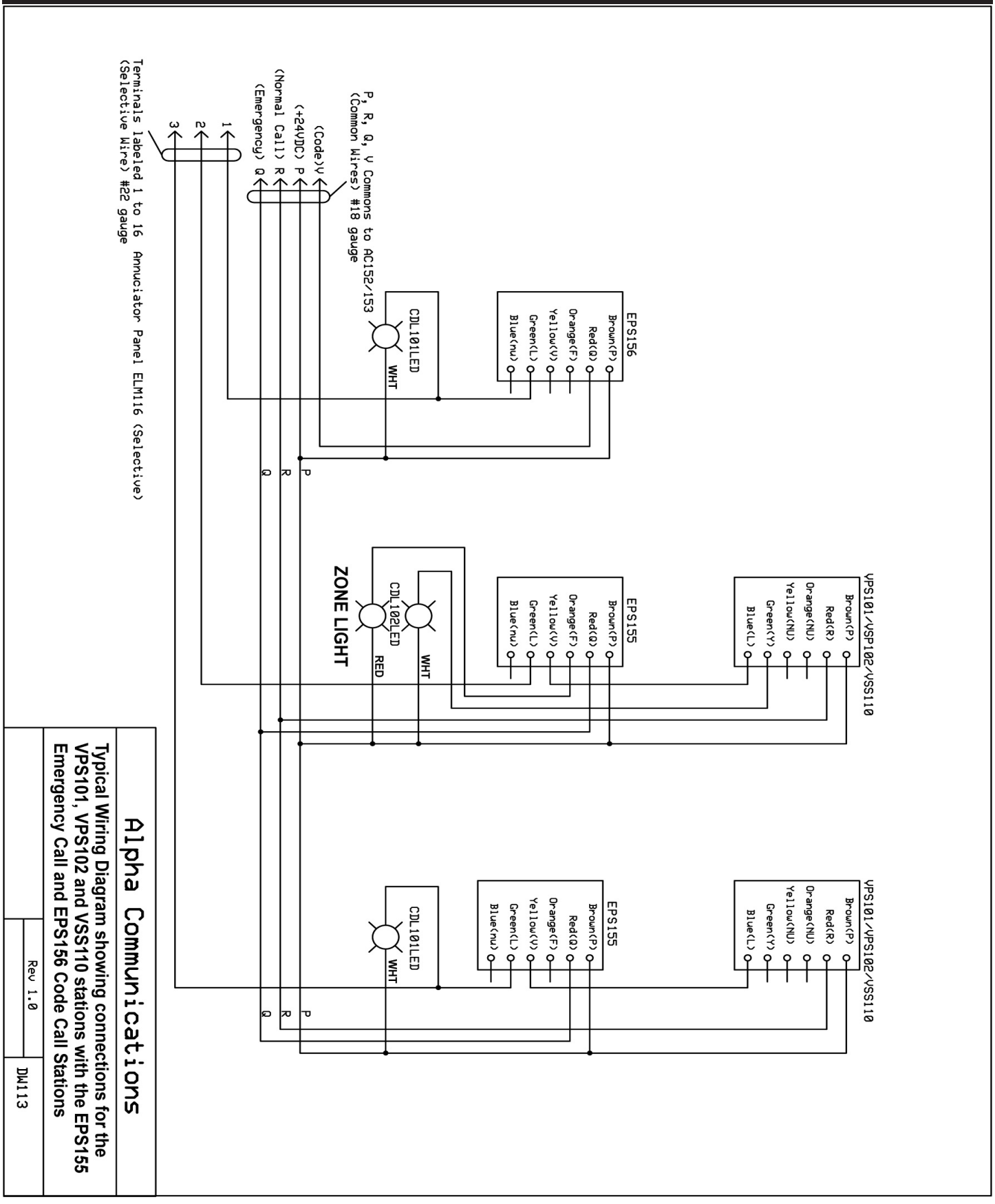

Terminals labeled 1 to 16 Annuciator Panel ELM116 (Selective)
(Selective Wire) #22 gauge
1
2
3
(Emergency) Q
(Normal Call) R
(+24VDC) P
(Code)V
P, R, Q, V Commons to AC152/153
(Common Wires) #18 gauge
CDL101LED
WHT
EPS156
Brown(P)
Red(Q)
Orange(F)
Yellow(V)
Green(L)
Blue(nu)
VPS101/VPS102/VSS110
Brown(P)
Red(R)
Orange(NU)
Yellow(NU)
Green(Y)
Blue(L)
ZONE LIGHT
CDL102LED
WHT
RED
EPS155
Brown(P)
Red(Q)
Orange(F)
Yellow(V)
Green(L)
Blue(nu)
VPS101/VPS102/VSS110
Brown(P)
Red(R)
Orange(NU)
Yellow(NU)
Green(Y)
Blue(L)
CDL101LED
WHT
EPS155
Brown(P)
Red(Q)
Orange(F)
Yellow(V)
Green(L)
Blue(nu)
P
R
Q
P
R
Q
Alpha Communications
Typical Wiring Diagram showing connections for the
VPS101, VPS102 and VSS110 stations with the EPS155
Emergency Call and EPS156 Code Call Stations
Rev 1.0
DW113

Figure 11

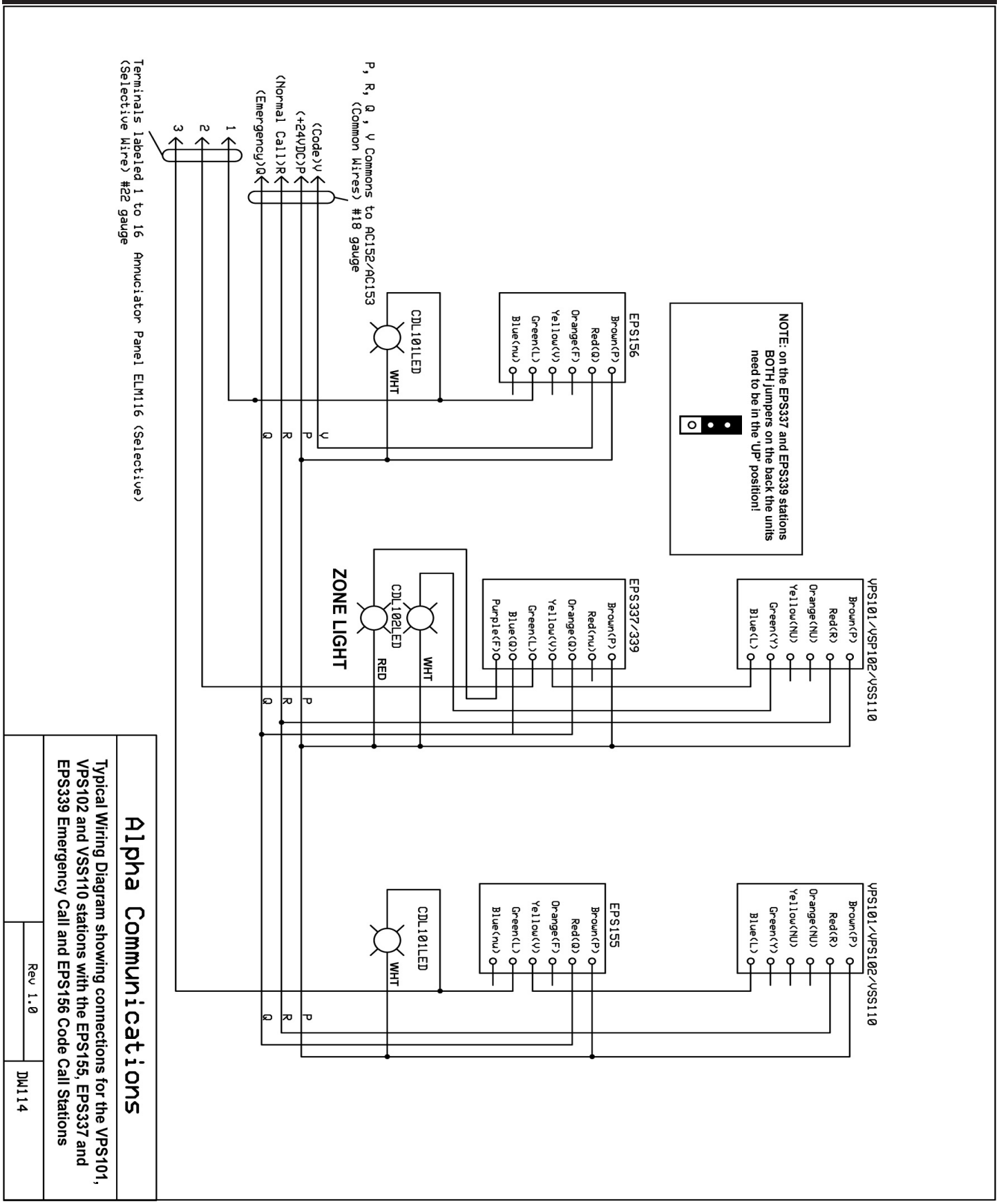

Terminals labeled 1 to 16 Annuciator Panel ELM116 (Selective)
(Selective Wire) #22 gauge
1
2
3
(Emergency)Q
(Normal Call)R
(+24VDC)P
(Code)V
P, R, Q , V Commons to AC152/AC153
(Common Wires) #18 gauge
CDL101LED
WHT
EPS156
Brown(P)
Red(Q)
Orange(F)
Yellow(V)
Green(L)
Blue(nu)
NOTE: on the EPS337 and EPS339 stations
BOTH jumpers on the back the units
need to be in the 'UP' position!
VPS101/VSP102/VSS110
Brown(P)
Red(R)
Orange(NU)
Yellow(NU)
Green(Y)
Blue(L)
EPS337/339
Brown(P)
Red(nu)
Orange(Q)
Yellow(V)
Green(L)
Blue(Q)
Purple(F)
CDL102LED
RED
WHT
ZONE LIGHT
EPS155
CDL101LED
WHT
VPS101/VPS102/VSS110
Alpha Communications
Typical Wiring Diagram showing connections for the VPS101,
VPS102 and VSS110 stations with the EPS155, EPS337 and
EPS339 Emergency Call and EPS156 Code Call Stations
Rev 1.0
DW114

Figure 12

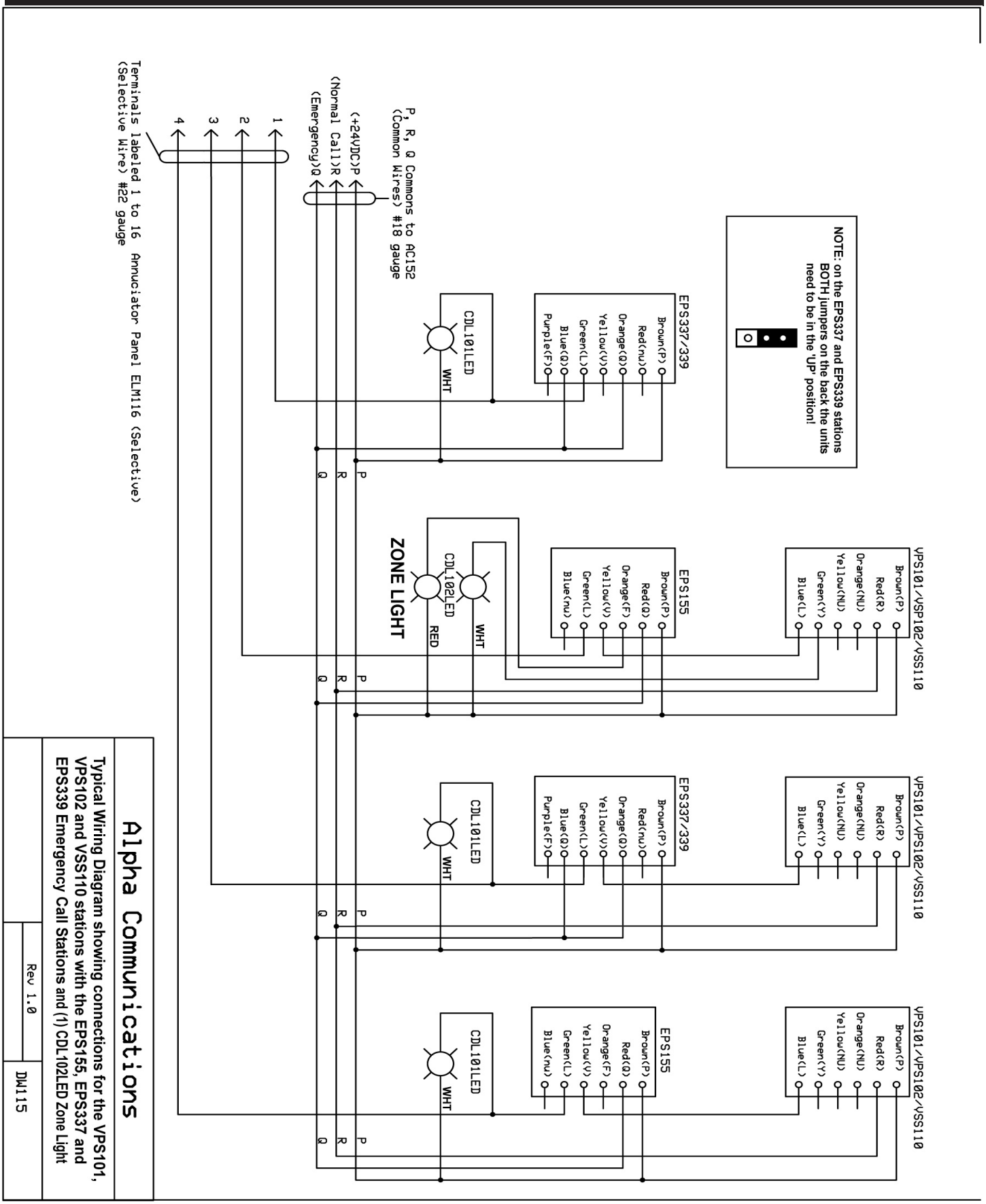

NOTE: on the EPS337 and EPS339 stations BOTH jumpers on the back the units need to be in the 'UP' position!
Terminals labeled 1 to 16 Annuciator Panel ELM116 (Selective)
(Selective Wire) #22 gauge
1
2
3
4
(+24VDC)P
(Normal Call)R
(Emergency)Q
P, R, Q Commons to AC152
(Common Wires) #18 gauge
EPS337/339
Brown(P)
Red(nu)
Orange(Q)
Yellow(V)
Green(L)
Blue(Q)
Purple(F)
CDL101LED
WHT
EPS155
Brown(P)
Red(Q)
Orange(F)
Yellow(V)
Green(L)
Blue(nu)
CDL102LED
WHT
RED
ZONE LIGHT
VPS101/VSP102/VSS110
Brown(P)
Red(R)
Orange(NU)
Yellow(NU)
Green(Y)
Blue(L)
P
R
Q
Alpha Communications
Typical Wiring Diagram showing connections for the VPS101, VPS102 and VSS110 stations with the EPS155, EPS337 and EPS339 Emergency Call Stations and (1) CDL102LED Zone Light
Rev 1.0
DW115

Figure 13

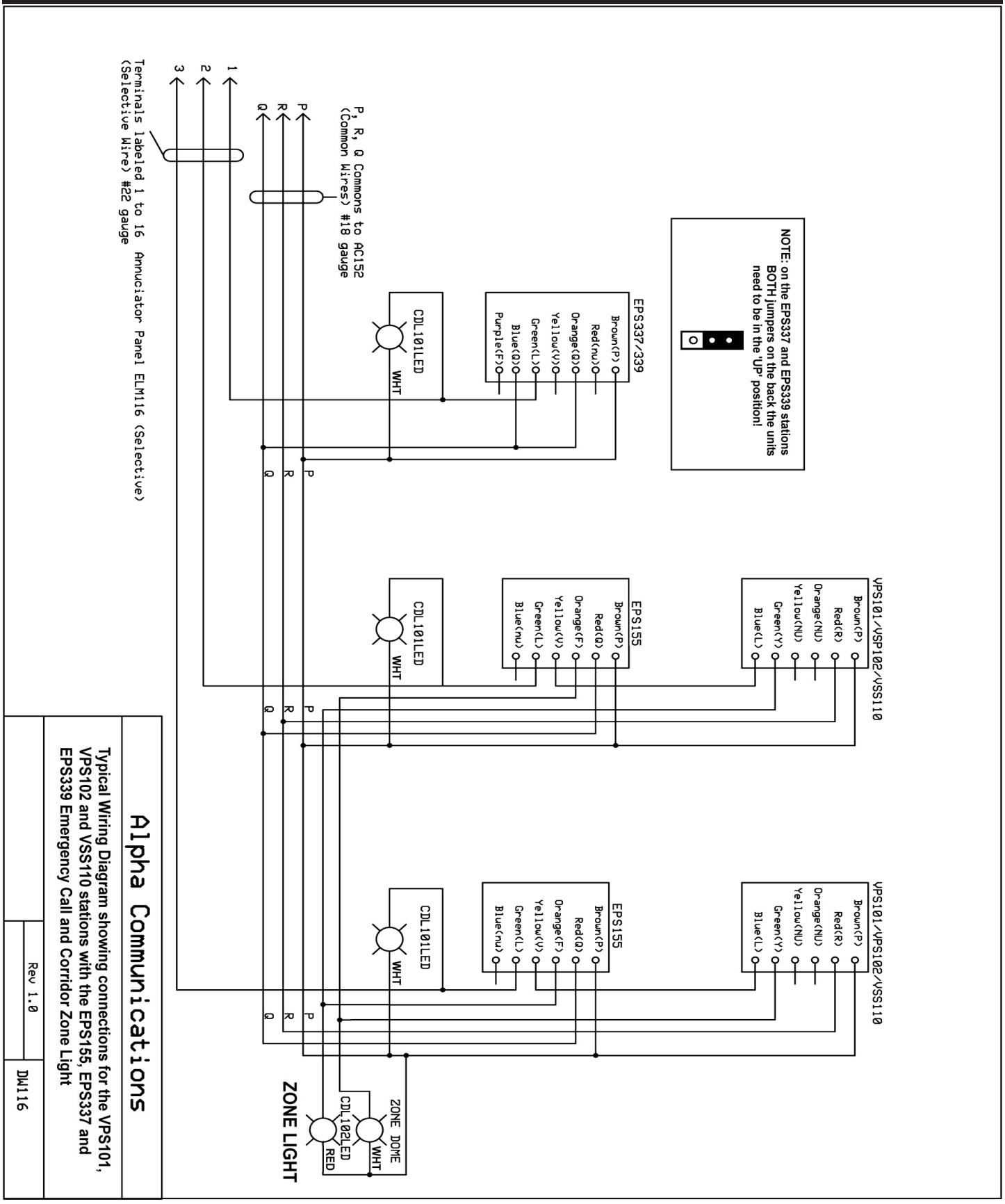

NOTE: on the EPS337 and EPS339 stations BOTH jumpers on the back the units need to be in the 'UP' position!
Terminals labeled 1 to 16 Annunciator Panel ELM116 (Selective)
(Selective Wire) #22 gauge
P, R, Q Commons to AC152
(Common Wires) #18 gauge
1
2
3
P
R
Q
EPS337/339
Brown(P)
Red(nu)
Orange(Q)
Yellow(Y)
Green(L)
Blue(Q)
Purple(F)
CDL101LED
WHT
VPS101/VPS102/VSS110
Brown(P)
Red(R)
Orange(NU)
Yellow(NU)
Green(Y)
Blue(L)
EPS155
Brown(P)
Red(Q)
Orange(F)
Yellow(V)
Green(L)
Blue(nu)
ZONE LIGHT
ZONE DOME
CDL102LED
RED
Alpha Communications
Typical Wiring Diagram showing connections for the VPS101, VPS102 and VSS110 stations with the EPS155, EPS337 and EPS339 Emergency Call and Corridor Zone Light
Rev 1.0
DW116

Figure 14

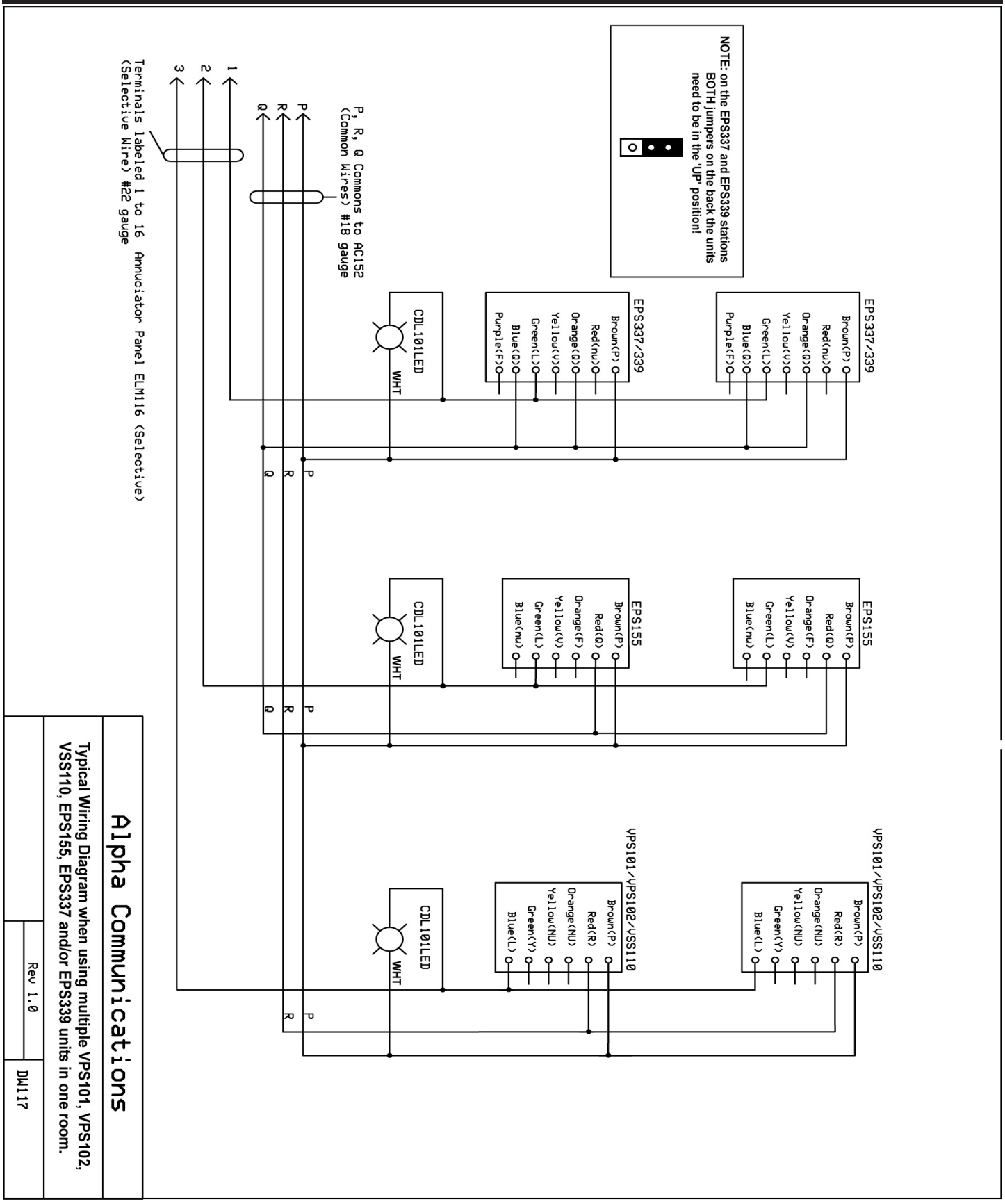
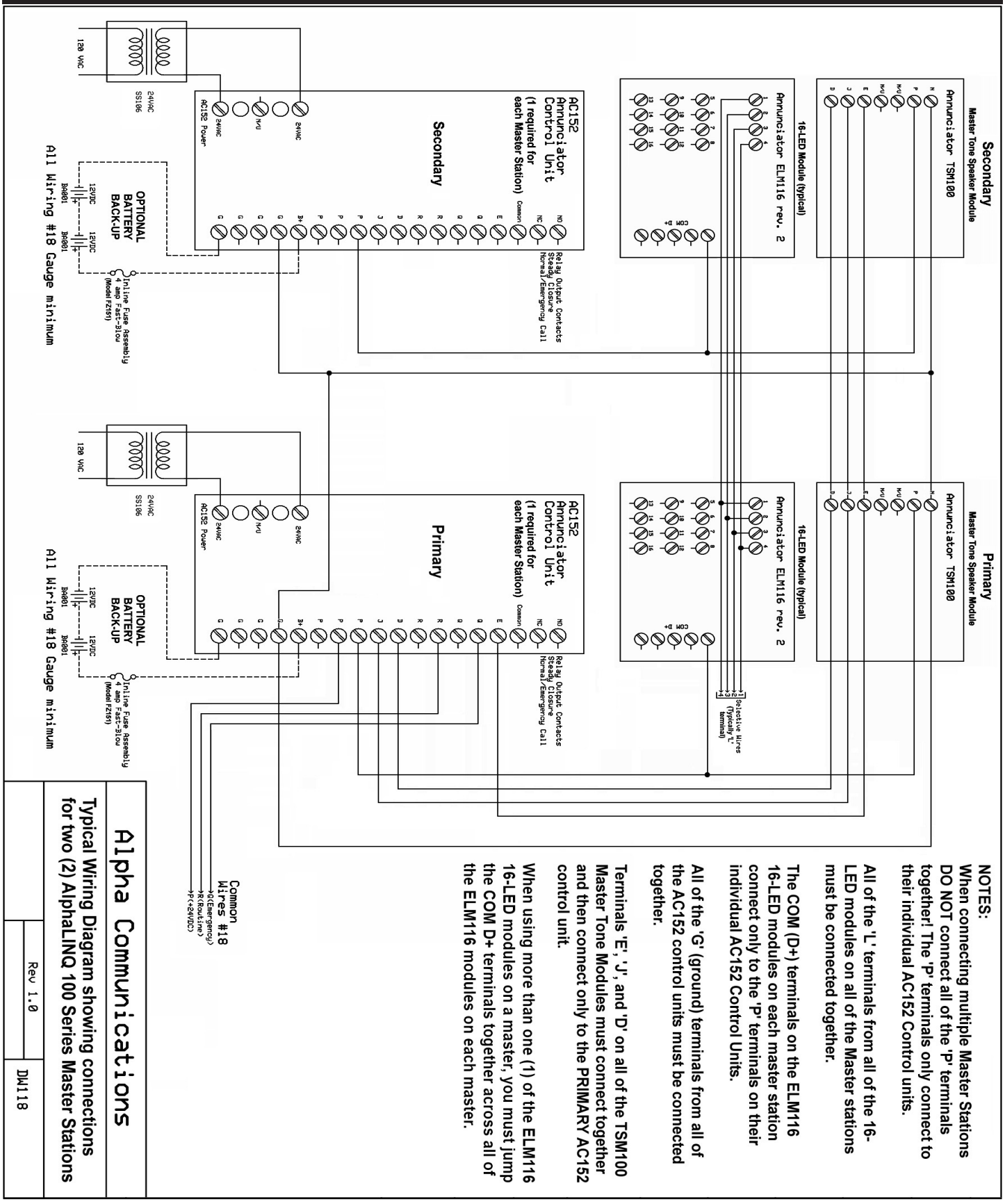

NOTE: on the EPS337 and EPS339 stations BOTH jumpers on the back the units need to be in the 'UP' position!
EPS337/339
Brown(P)
Red(nu)
Orange(Q)
Yellow(V)
Green(L)
Blue(Q)
Purple(F)
EPS155
Brown(P)
Red(Q)
Orange(F)
Yellow(V)
Green(L)
Blue(nu)
VPS101/VPS102/VSS110
Brown(P)
Red(R)
Orange(NU)
Yellow(NU)
Green(Y)
Blue(L)
CDL101LED
WHT
P, R, Q Commons to AC152 (Common Wires) #18 gauge
P
R
Q
1
2
3
Terminals labeled 1 to 16 Annunciator Panel ELM116 (Selective)
(Selective Wire) #22 gauge
Alpha Communications
Typical Wiring Diagram when using multiple VPS101, VPS102, VSS110, EPS155, EPS337 and/or EPS339 units in one room.
Rev 1.0
DW117

Figure 15



NOTES:

When connecting multiple Master Stations DO NOT connect all of the 'P' terminals together! The 'P' terminals only connect to their individual AC152 Control units.

All of the 'L' terminals from all of the 16-LED modules on all of the Master stations must be connected together.

The COM (D+) terminals on the ELM116 16-LED modules on each master station connect only to the 'P' terminals on their individual AC152 Control Units.

All of the 'G' (ground) terminals from all of the AC152 control units must be connected together.

Terminals 'E', 'J', and 'D' on all of the TSM100 Master Tone Modules must connect together and then connect only to the PRIMARY AC152 control unit.

When using more than one (1) of the ELM116 16-LED modules on a master, you must jump the COM D+ terminals together across all of the ELM116 modules on each master.

Alpha Communications

Typical Wiring Diagram showing connections for two (2) AlphaLINQ 100 Series Master Stations

Rev 1.0
DW118