

# Evacuation Intercom System

TYPE: SERIAL BUS

## **IMPORTANT: READ PRIOR TO INSTALLATION**

- Each Landing Speaker supplied should be installed on the designated landing as they are pre-assigned a unique address (Do not change the address as they are assigned from the factory. Contact Windcrest before changing address).
- The Master Switching Panel (with push buttons for each landing) should be installed on the main landing.
- The EURO Switch has a set of contact (via multi-way cable) which can be connected to the lift controller to place the lift in Evacuation Mode. These contacts operate at the same time as the Evacuation intercom is switched ON.
- The basic configuration of the system is that all the speakers and Power Supply Unit are interconnected in a “Daisy Chain”. The Power Supply unit can be installed anywhere in the chain.

To simplify the installation, we recommend the use of RJ45 Connectors on the end of CAT5 cable.

- Check the RJ45 Cables with the RJ45 Cable tester provided with the Kit before powering up the system.
- To interface the Serial Evacuation System to an existing autodialler, there will be a need of Serial Car Speaker Interface Unit.
- Power Supply booster will be required after every 10 outstations.

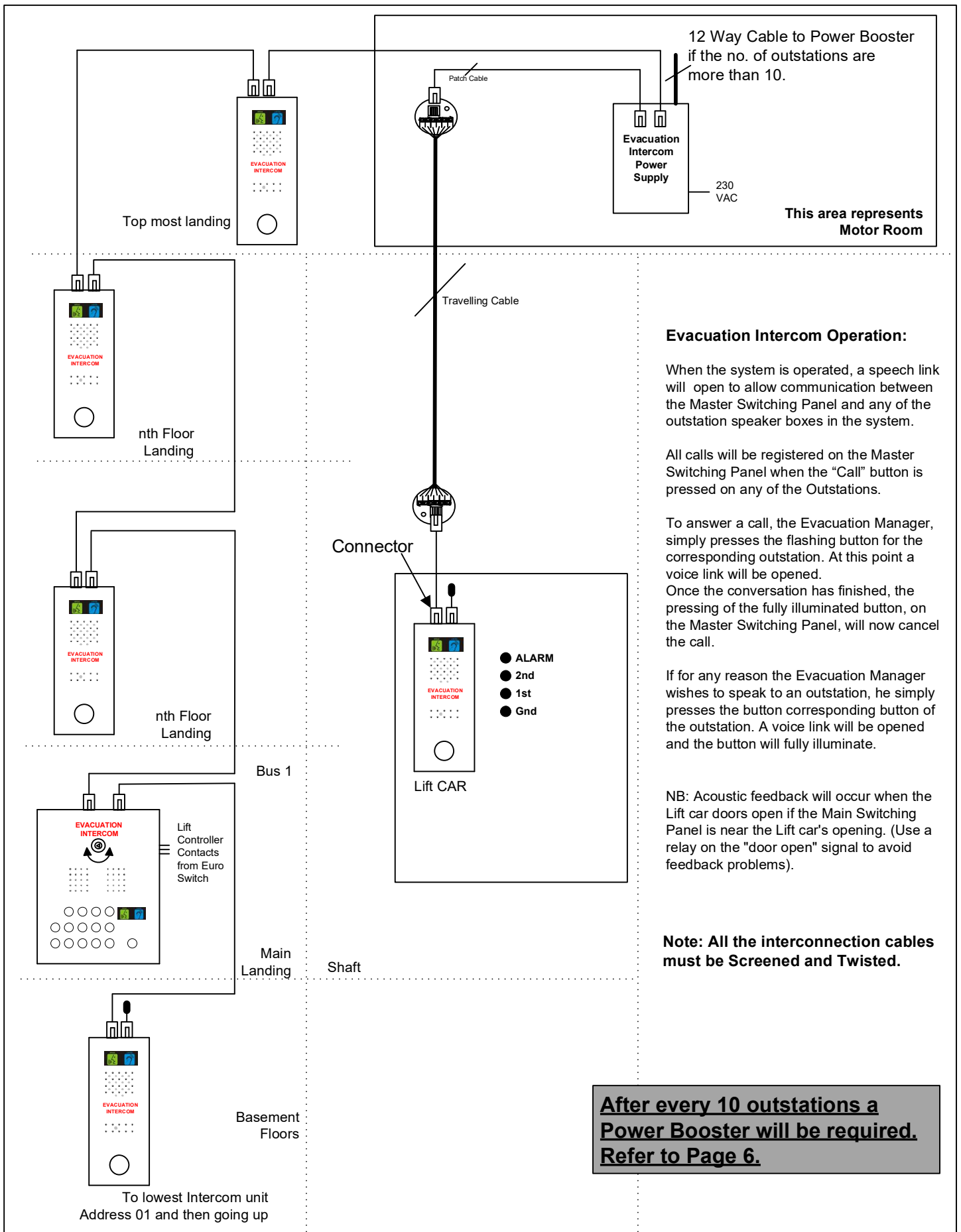
Serial Evacuation System

Drawing: Installation  
08/09/16

Page 1

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**Evacuation Intercom Operation:**

When the system is operated, a speech link will open to allow communication between the Master Switching Panel and any of the outstation speaker boxes in the system.

All calls will be registered on the Master Switching Panel when the "Call" button is pressed on any of the Outstations.

To answer a call, the Evacuation Manager, simply presses the flashing button for the corresponding outstation. At this point a voice link will be opened. Once the conversation has finished, the pressing of the fully illuminated button, on the Master Switching Panel, will now cancel the call.

If for any reason the Evacuation Manager wishes to speak to an outstation, he simply presses the button corresponding button of the outstation. A voice link will be opened and the button will fully illuminate.

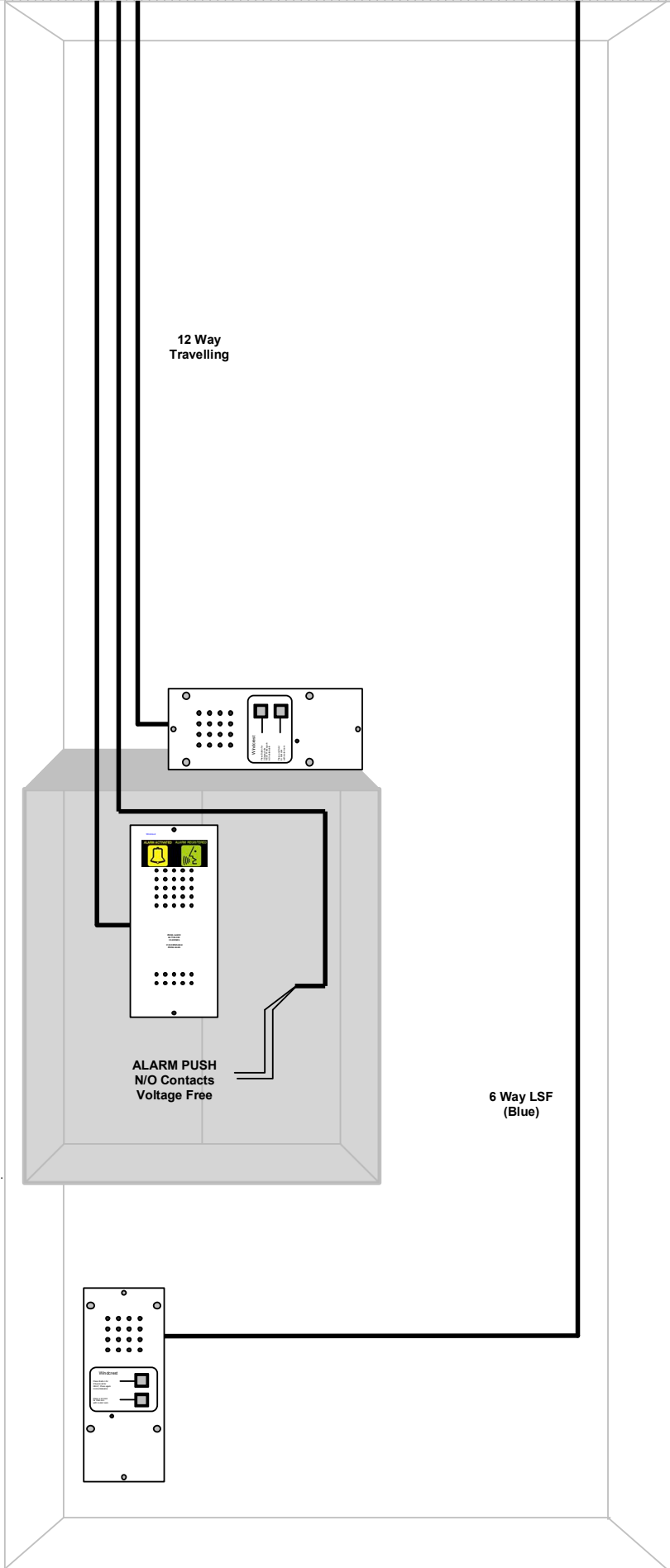
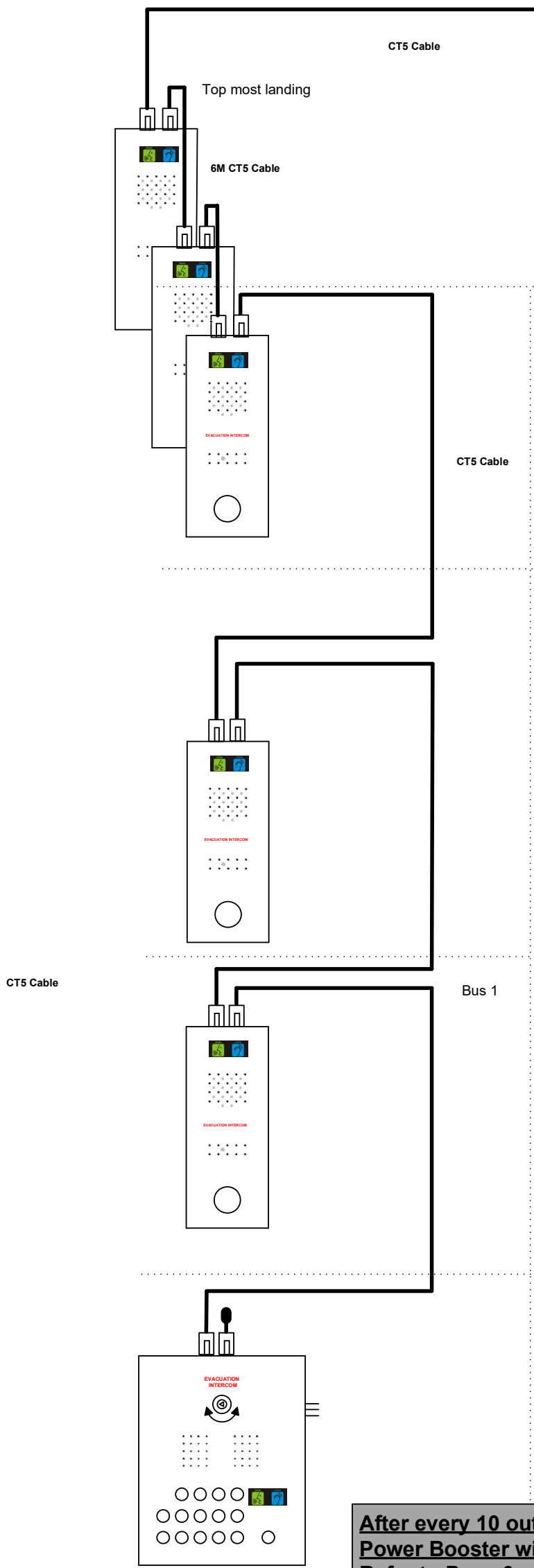
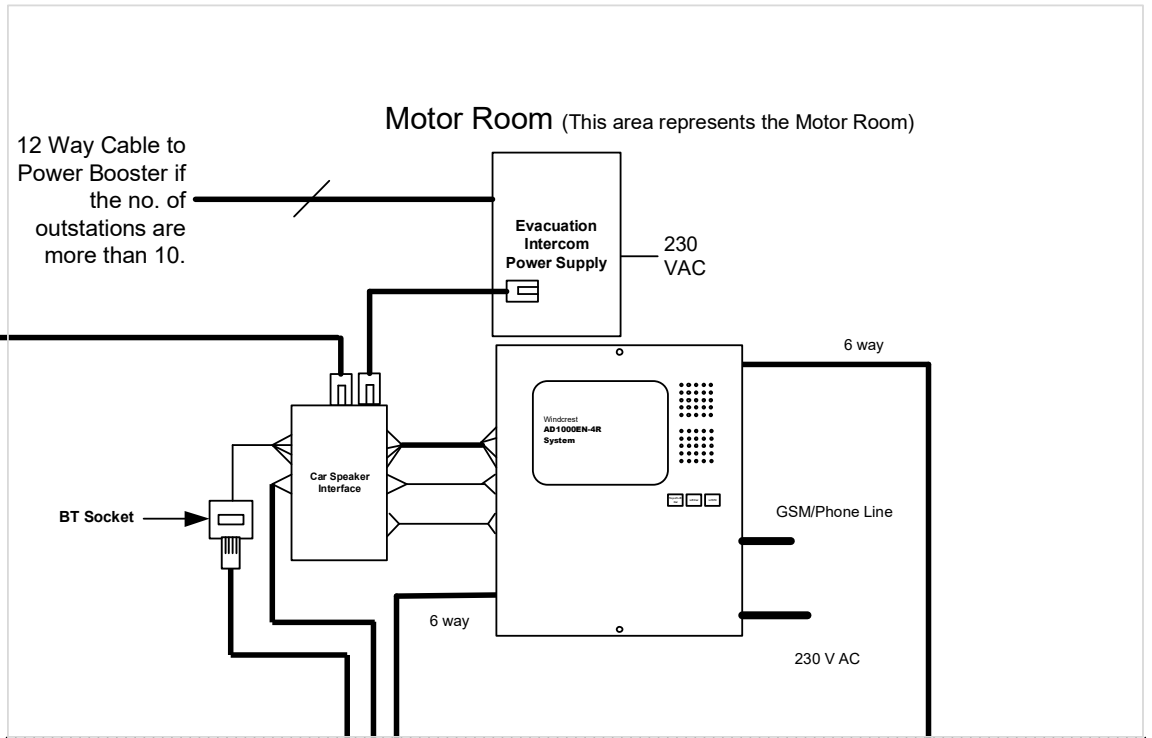
NB: Acoustic feedback will occur when the Lift car doors open if the Main Switching Panel is near the Lift car's opening. (Use a relay on the "door open" signal to avoid feedback problems).

**Note: All the interconnection cables must be Screened and Twisted.**

**After every 10 outstations a Power Booster will be required. Refer to Page 6.**

**Example of Stand-alone  
Serial Evacuation Intercom  
system**

**After every 10 outstations a Power Booster will be required. Refer to Page 6.**



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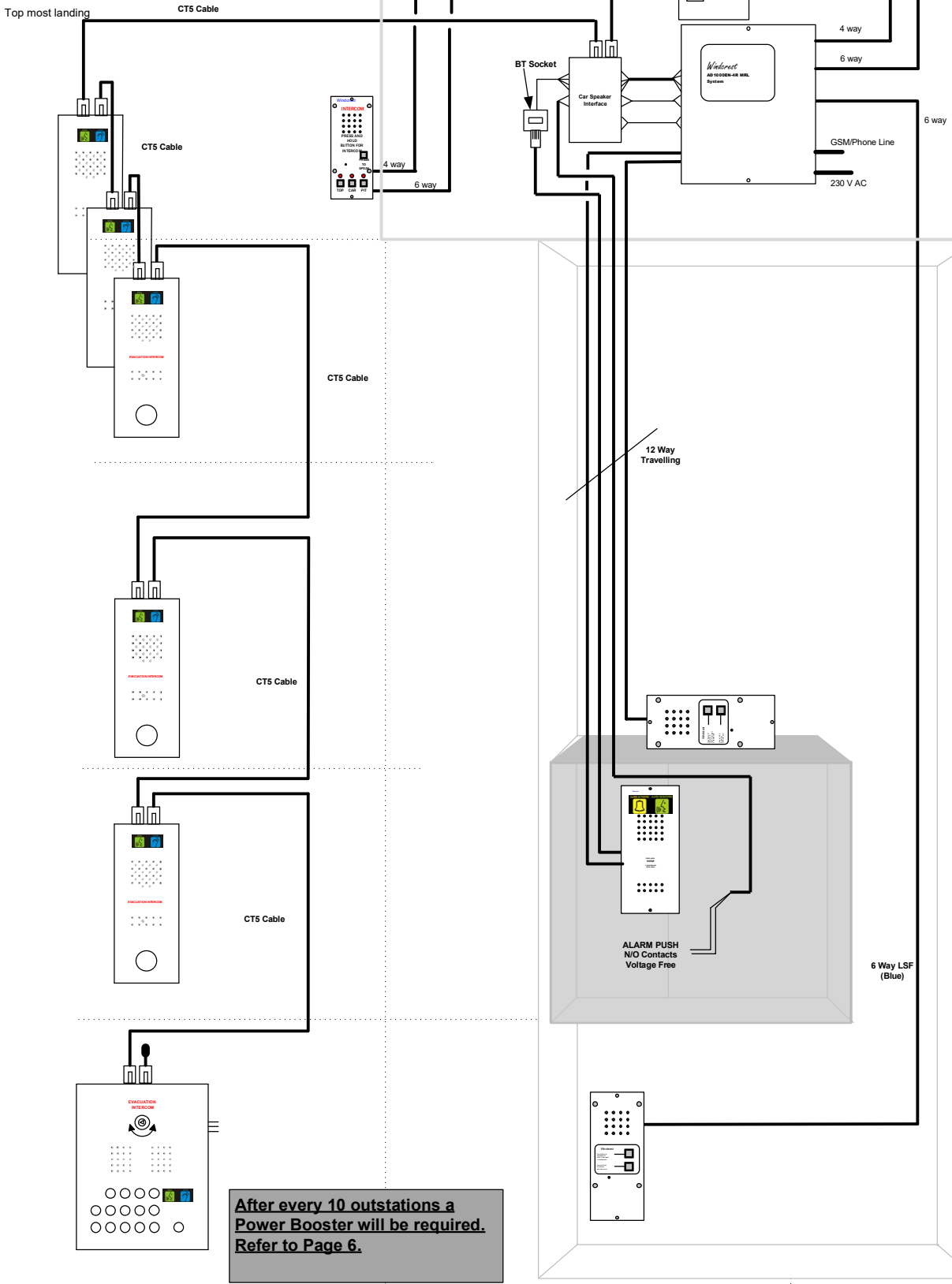
**Example of Evacuation System + EN4 System**

Drawing: SEREVA01 Block 08/09/16

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**After every 10 outstations a Power Booster will be required. Refer to Page 6.**



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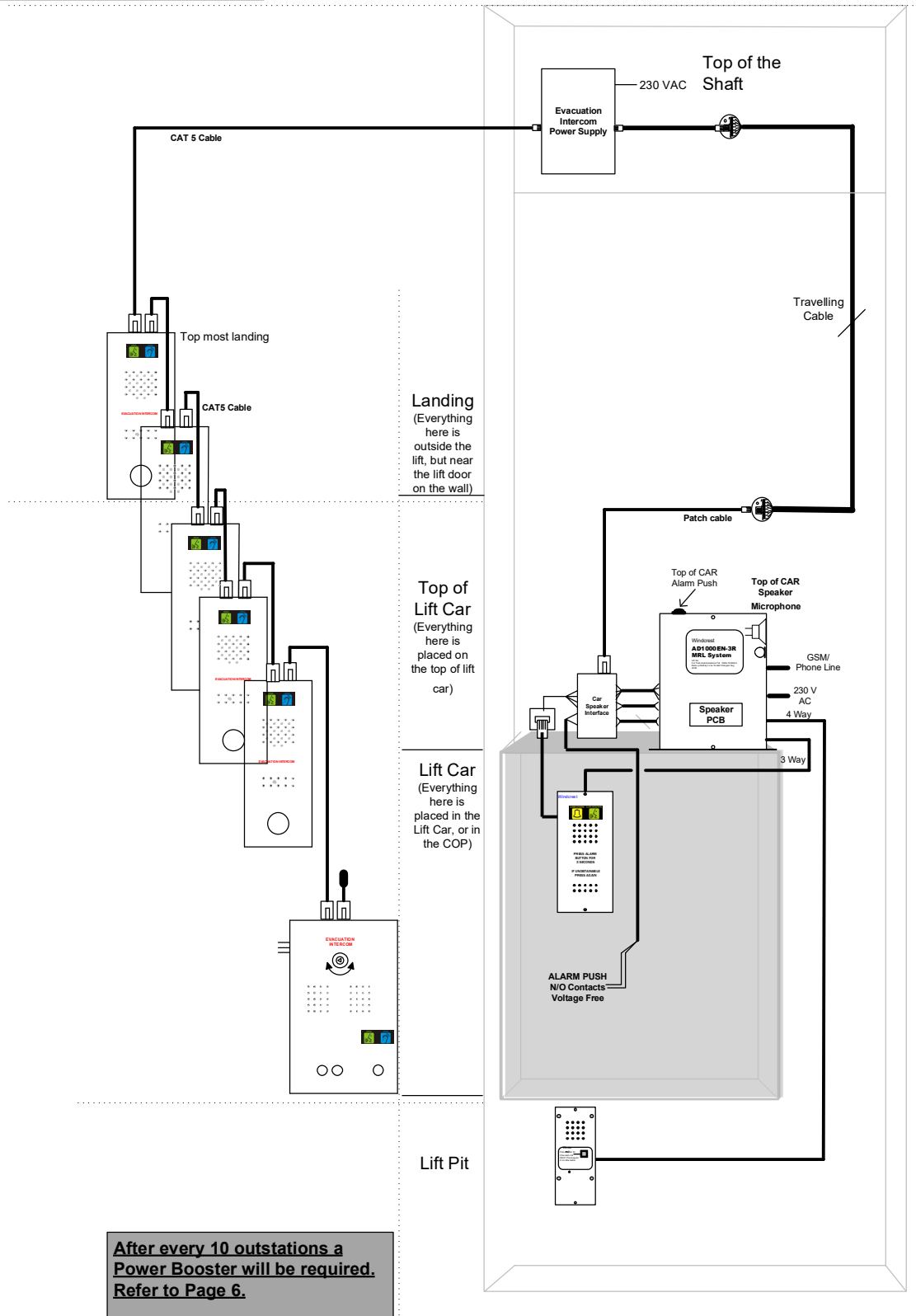
**Example of Evacuation Intercom + EN4 MRL System**

Drawing: SEREVA01 Block 08/09/16

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**After every 10 outstations a Power Booster will be required. Refer to Page 6.**



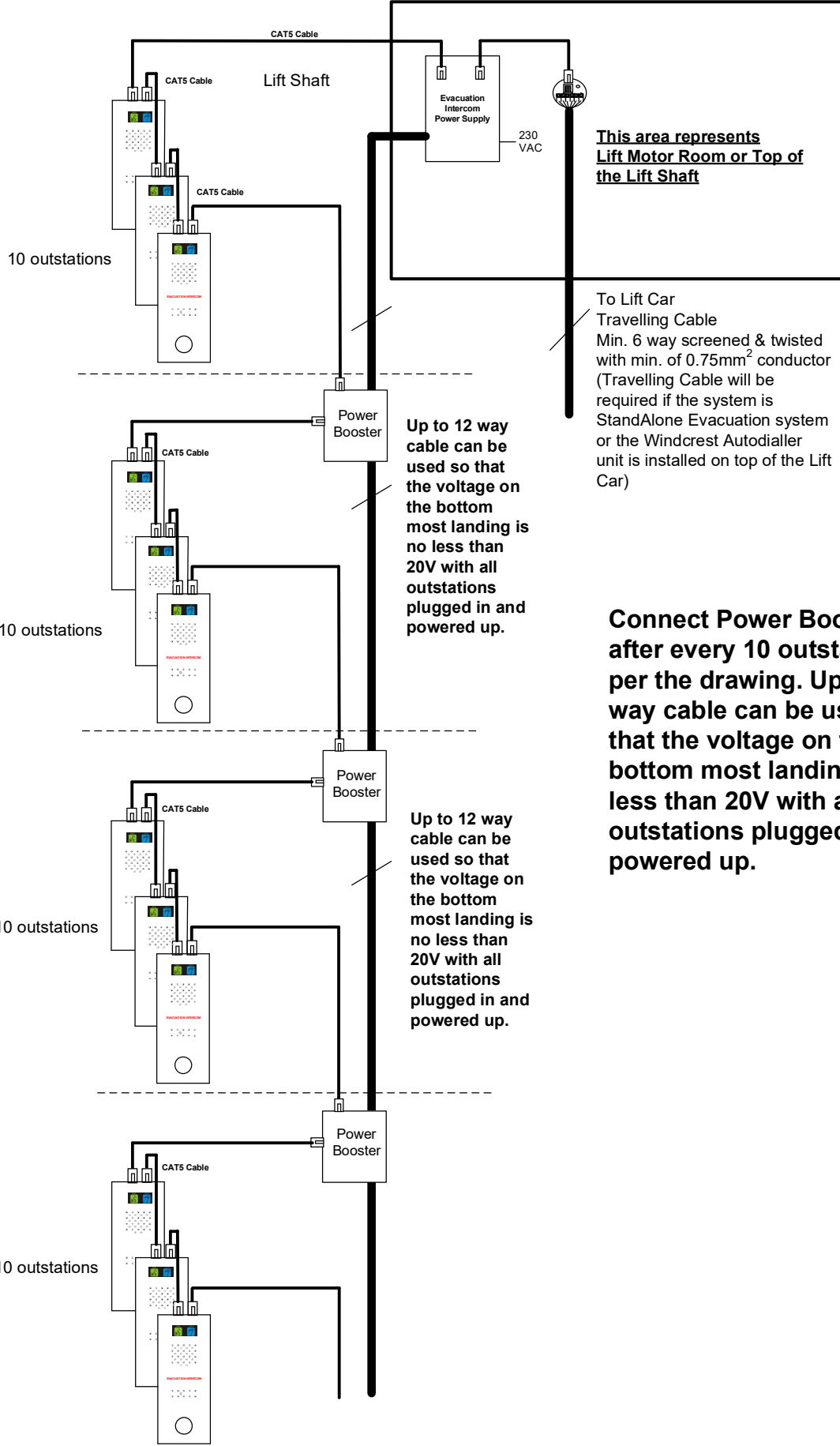
**After every 10 outstations a Power Booster will be required. Refer to Page 6.**

# Example of Evacuation Intercom + EN3 MRL System

Drawing: SEREVA01 Block 08/09/16

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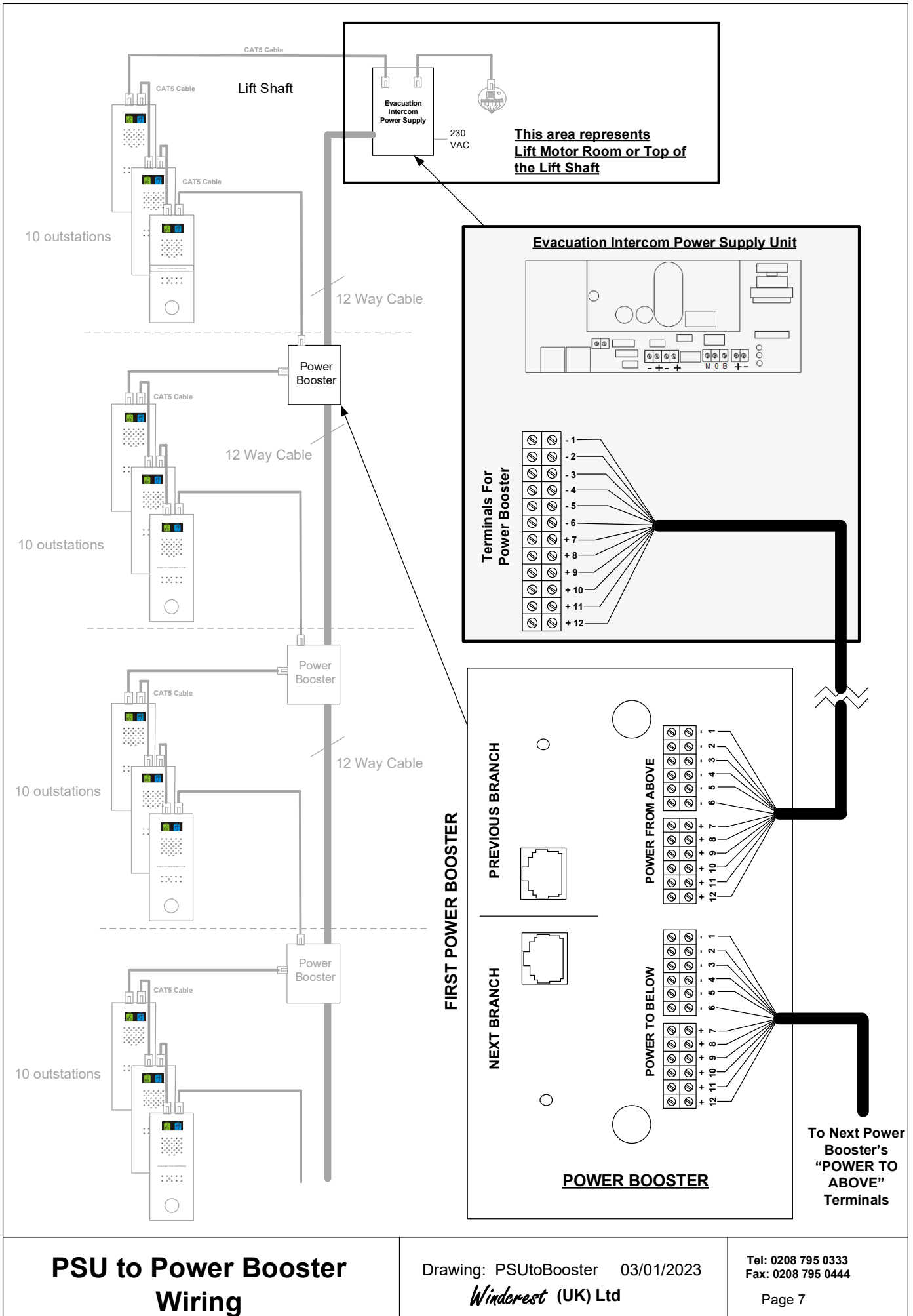
**Connect Power Booster after every 10 outstations as per the drawing. Upto 12 way cable can be used so that the voltage on the bottom most landing is no less than 20V with all outstations plugged in and powered up.**

**Power Booster Wiring**

Drawing: SEREVA01 Block 16/11/19

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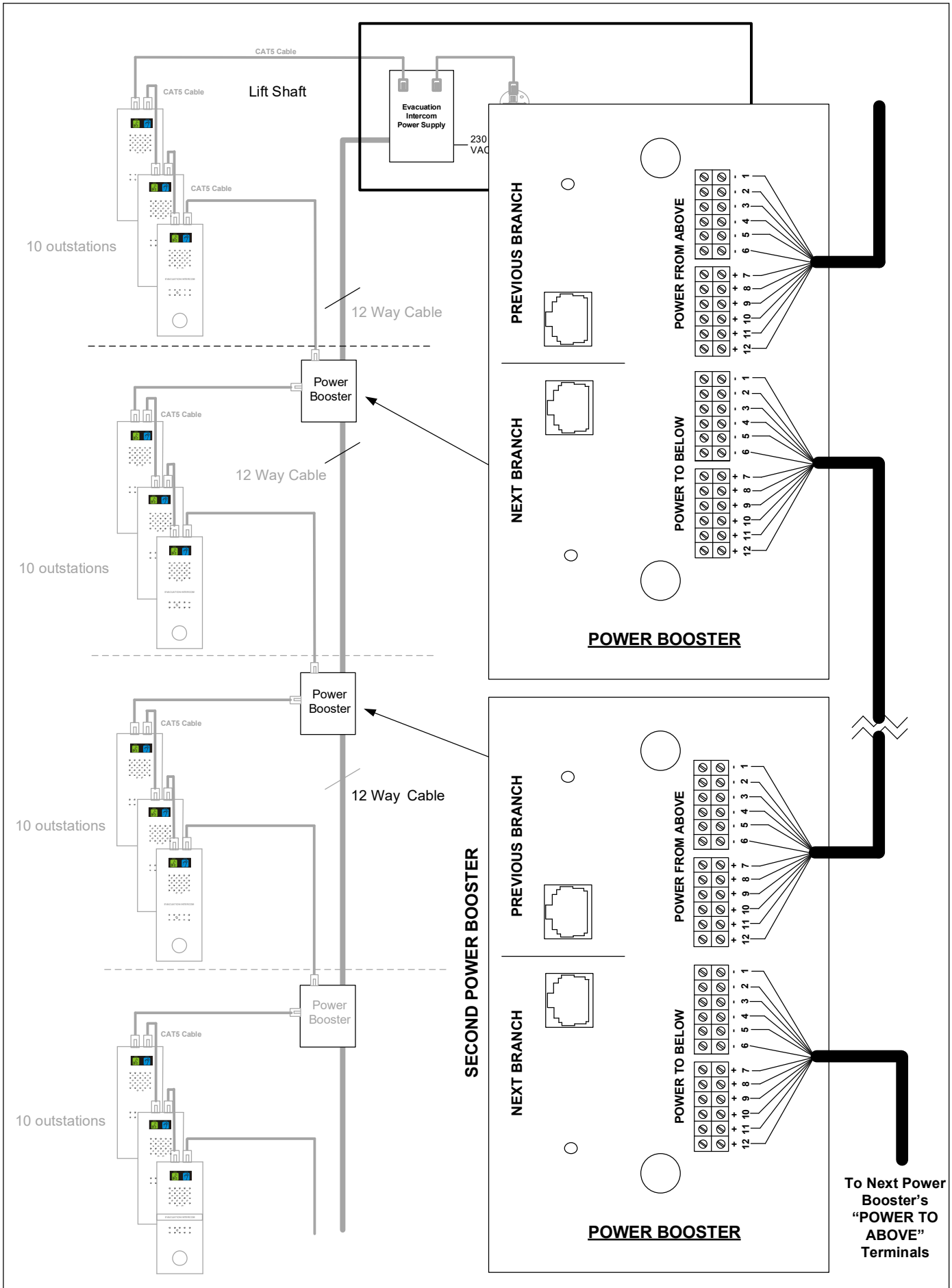


**PSU to Power Booster Wiring**

Drawing: PSUtoBooster 03/01/2023  
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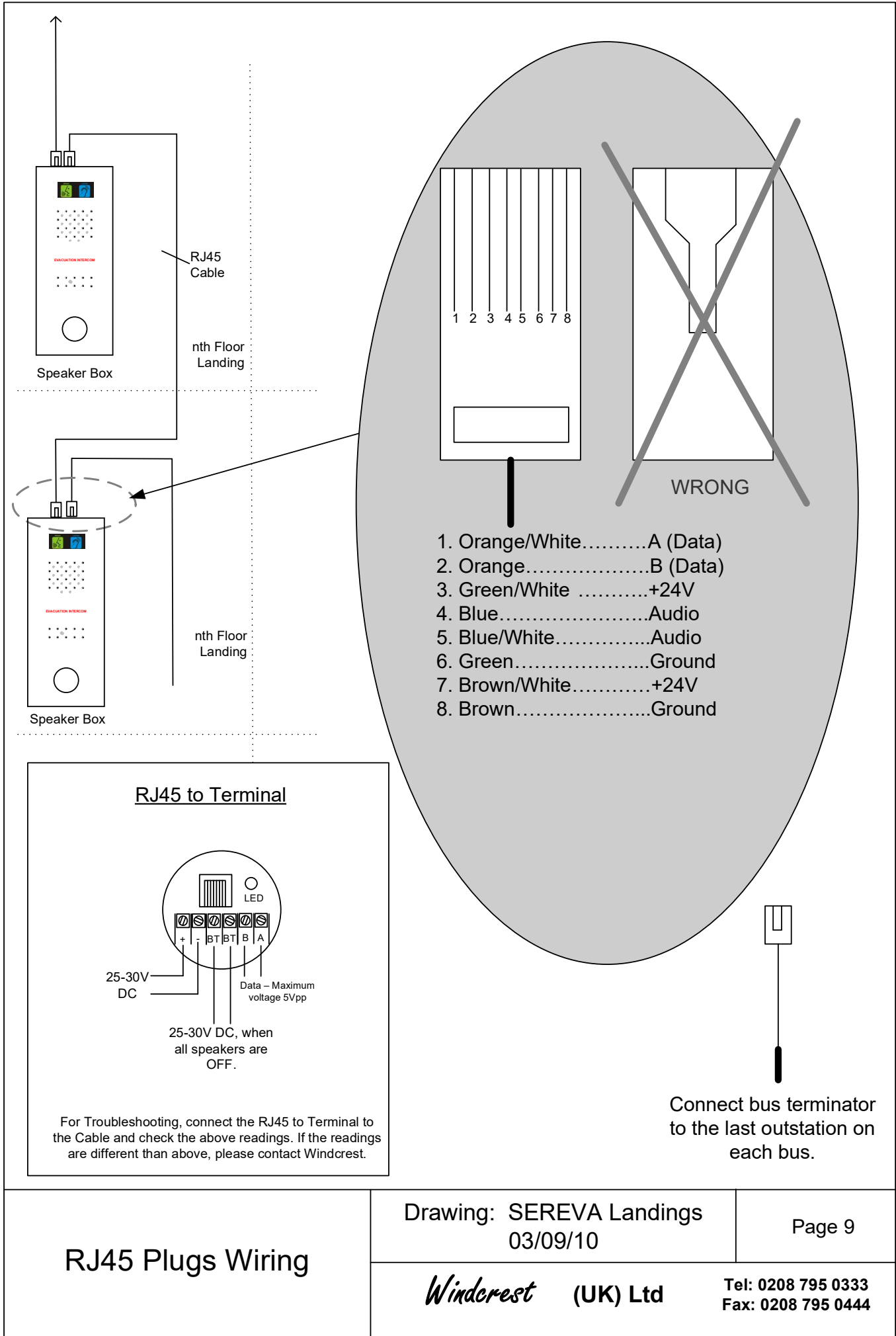




**Power Booster to  
Power Booster Wiring**

Drawing: Booster-Booster 03/01/2023  
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# RJ45 Plugs Wiring

Drawing: SEREVA Landings  
03/09/10

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# Evacuation Functions

## Interconnection

Connect the main Evacuation Panel to the Control Box. Connect all the Landing Speakers to the bus. Lift Controller Contacts are provided on the Main Panel.

### Lift Controller Spare Contacts:-

Blue or Orange - Common

Green or White- Normally Open

Yellow- Normally Closed

Above contacts are rated at 40V Max @ 500mA.

## Operation

To activate the evacuation system, place the EURO switch in the ON position. All the LEDs for the Landing Speakers and the Lift Car will flash for 5 seconds when the system is analysing the Outstations. After 5 seconds, the LEDs on the main Panel will be ON for the outstations which are present working (i.e. Data Link is Working) for 3 seconds. The "Listen" Pictogram will be ON to indicate that the system is ready.

At the all Landing Speakers Call Button will Flash slowly to Indicate System is ON.

On pressing the CALL button on any outstation, the LED will start flashing faster to indicate placement of a call. At the same time the corresponding LED for that outstation and a buzzer will operate. The flashing and buzzing will continue till the person on the Main Control Panel answers the call by pressing the corresponding button. At the point the voice link is opened, the LED on the calling outstation and main panel will remain ON till the voice link is terminated.

When Voice Link is active, press to speak button will control the speech from the master station. When press to speak button is released, Main Control Panel's microphone will be muted and outstation microphone will be ON, and Main Control Panel's microphone is muted. When press to speak button is pressed and Hold, Outstation microphone will be muted and Master Panel microphone will be ON. Pictograms at the Main Control Panel and the Landing Speaker will show the status of speak/listen. i.e. when the speaker box's Mic will be ON, "Speak" Pictogram will illuminate and when the Speaker Box's Mic will be OFF, "Listen" Pictogram will illuminate.

A call can be made to any of the Outstation by simply pressing the button for that outstation on the Main Control Panel. As soon as the button is pressed the LED on both the outstation and the Master Panel will be steady ON and a two way communication is possible via press to speak button on the Main Control Panel.

The call can be terminated by the pressing the same button again at which point LEDs on the outstation and Main Control Panel will go off and the Pictograms at the Landing Speakers will be switched off and at the Main Panel "Listen" Pictogram will illuminate to indicate the system status.

When Evacuation Switch is turned OFF, Both the Pictograms at the Main Control Panel will be switched off and Push Button LED at all the Landing Speakers will be turned OFF.

The buzzer will sound when the Low Battery is detected.

Note:- On powering up the system (i.e. Mains/Battery Connected), all the buttons including Speak and Listen Pictograms will flash for 10 seconds. Landing Buttons will flash for 2 seconds.

All speakers have unique address. This address is set by the Dip Switch on the back of the each speaker box. Following are the arrangements for the Dip Switch for the different speaker box.

Note: X – Do Not Care

|             |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|
|             | 1   | 2   | 3   | 4   | 5   | 6   |
| Car Speaker | OFF | OFF | OFF | OFF | OFF | OFF |

Master Panel :- This address will define the number of outstations (Excluding Lift Car (Default)). i.e. If the system has 21 outstations + Lift Car then following is the set up.

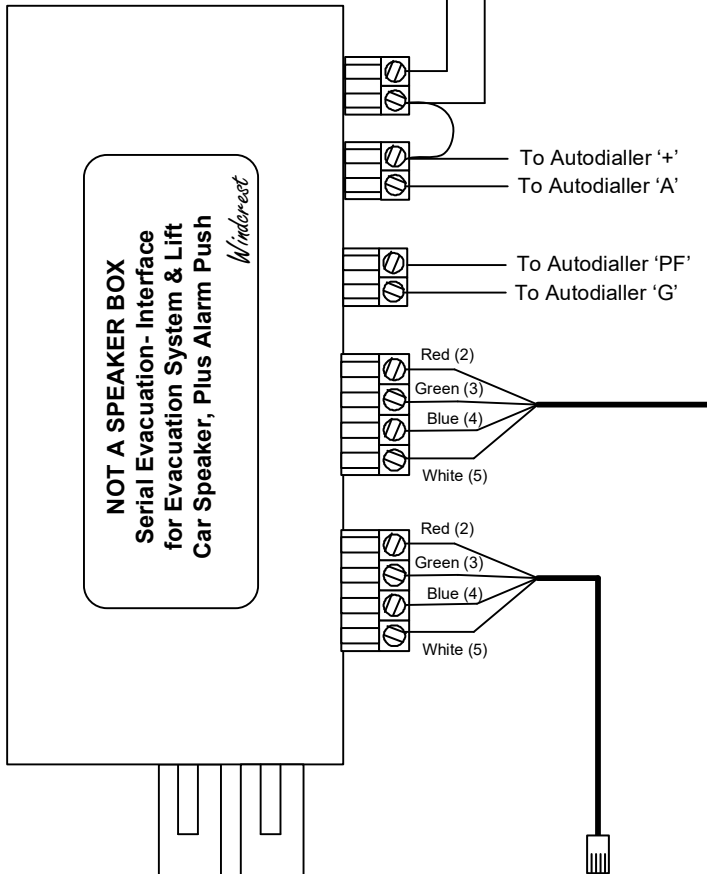
|              |    |     |    |     |    |   |
|--------------|----|-----|----|-----|----|---|
| Master Panel | ON | OFF | ON | OFF | ON | X |
|--------------|----|-----|----|-----|----|---|

Master Panel is addressed from the factory.

| Evacuation Landing Speaker | 1   | 2   | 3   | 4   | 5   | 6 |
|----------------------------|-----|-----|-----|-----|-----|---|
| Landing 1(Bottom Most)     | ON  | Off | Off | Off | Off | X |
| Landing 2                  | Off | ON  | Off | Off | Off | X |
| Landing 3                  | ON  | ON  | Off | Off | Off | X |
| Landing 4                  | Off | Off | ON  | Off | Off | X |
| Landing 5                  | ON  | Off | ON  | Off | Off | X |
| Landing 6                  | Off | ON  | ON  | Off | Off | X |
| Landing 7                  | ON  | ON  | ON  | Off | Off | X |
| Landing 8                  | Off | Off | Off | ON  | Off | X |
| Landing 9                  | ON  | Off | Off | ON  | Off | X |
| Landing 10                 | Off | ON  | Off | ON  | Off | X |
| Landing 11                 | ON  | ON  | Off | ON  | Off | X |
| Landing 12                 | Off | Off | ON  | ON  | Off | X |
| Landing 13                 | ON  | Off | ON  | ON  | Off | X |
| Landing 14                 | Off | ON  | ON  | ON  | Off | X |
| Landing 15                 | ON  | ON  | ON  | ON  | Off | X |
| Landing 16                 | Off | Off | Off | Off | ON  | X |
| Landing 17                 | ON  | Off | Off | Off | ON  | X |
| Landing 18                 | Off | ON  | Off | Off | ON  | X |
| Landing 19                 | ON  | ON  | Off | Off | ON  | X |
| Landing 20                 | Off | Off | ON  | Off | ON  | X |
| Landing 21                 | ON  | Off | ON  | Off | ON  | X |
| Landing 22                 | Off | ON  | ON  | Off | ON  | X |
| Landing 23                 | ON  | ON  | ON  | Off | ON  | X |
| Landing 24                 | Off | Off | Off | ON  | ON  | X |
| Landing 25                 | ON  | Off | Off | ON  | ON  | X |
| Landing 26                 | Off | ON  | Off | ON  | ON  | X |
| Landing 27                 | ON  | ON  | Off | ON  | ON  | X |
| Landing 28                 | Off | Off | ON  | ON  | ON  | X |
| Landing 29                 | ON  | Off | ON  | ON  | ON  | X |
| Landing 30                 | Off | ON  | ON  | ON  | ON  | X |
| Landing 31                 | ON  | ON  | ON  | ON  | ON  | X |

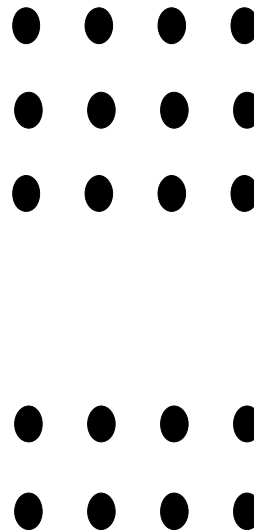
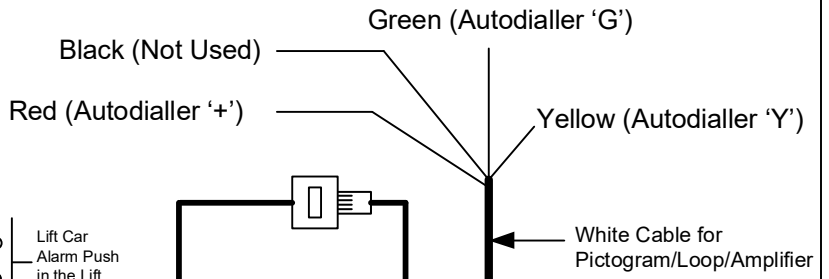
**Note:- If the Autodialler is already wired, please refer to the Page 10.**

**Serial Data Controller**



Bus terminator

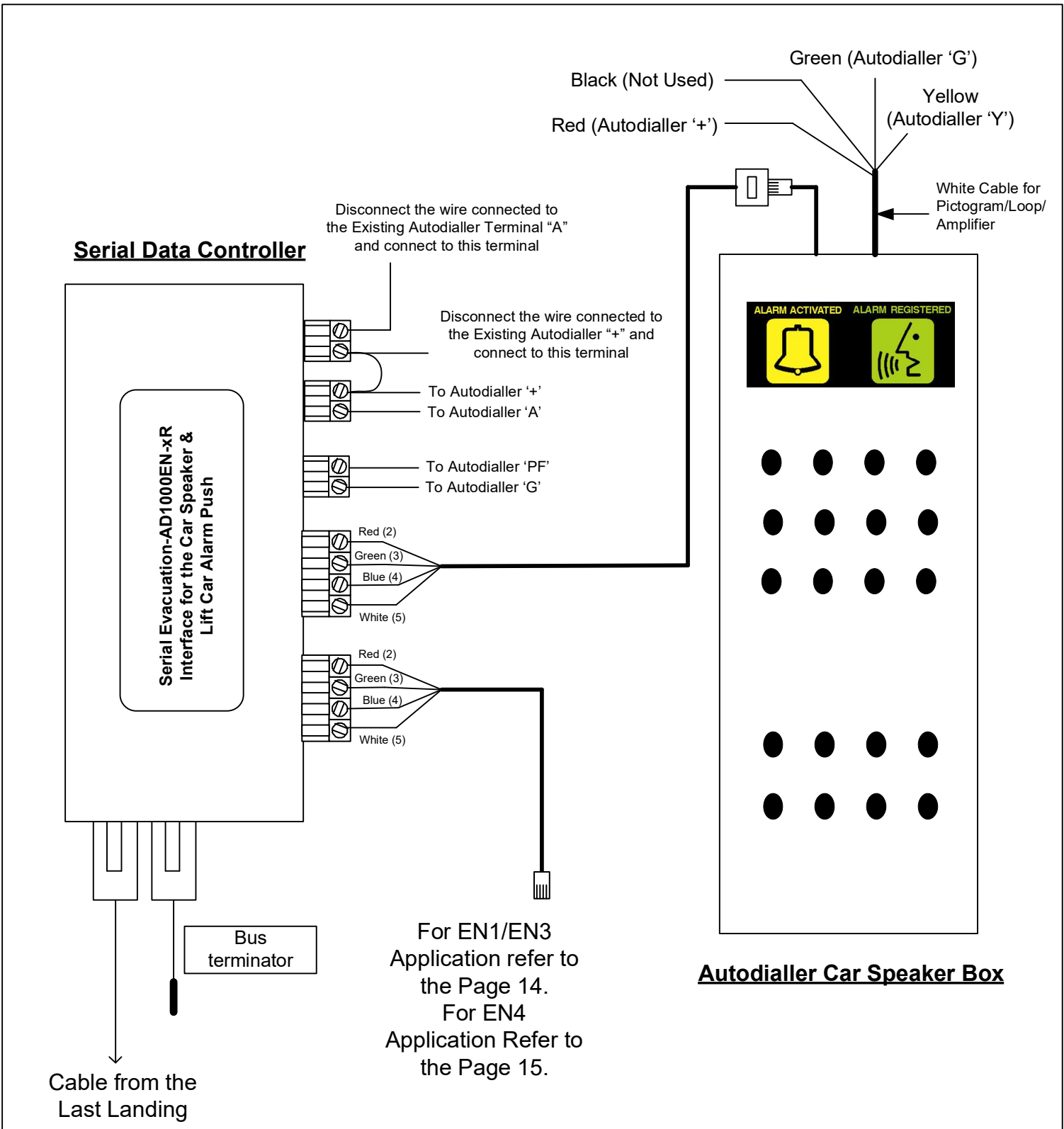
Cable from the Last Landing



**Autodialler Car Speaker Box**

For EN1/EN3 Application refer to the Page 14.  
For EN4 Application Refer to the Page 15.

**NB: Ignore this drawing for the StandAlone Evacuation Installation. This drawing is applicable ONLY for AD1000 Range of Autodiallers which is connected to a Serial Evacuation System.**



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Serial Car Speaker  
Interface with Existing  
Windcrest Autodialler

Drawing: SER CAR + Autodialler  
03/09/10

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**IMPORTANT:**

Backup Battery MUST be connected the correct way around. If not, the PCB tracked Fuse will blow.

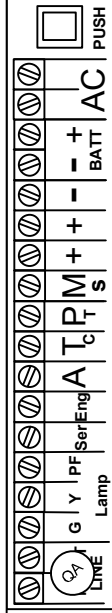
**NB:**  
If the main Unit is mounted in the Motor/Pump room, 9 way Trailing cable will be required.

If the Main unit is mounted on the Lift car, 2 way trailing cable will be required.

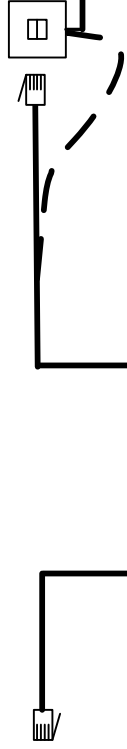
Use the Voltage Free Contacts (Max Load 500 mAmp 24V) to switch ON/OFF the Lamp/LED in the ALARM push.

PF & Y Make when ALARM Activated  
PF & G Make when ALARM Acknowledge  
(By Called Person pressing a Star (\*) on his phone.)

15 way D Socket for the Programmer

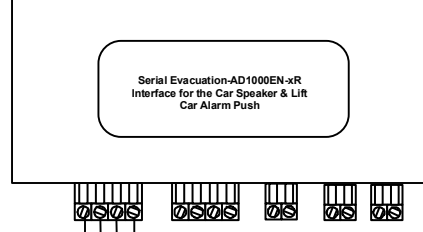
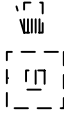


Telephone Cable to Exchange or PABX if in an Office Building  
Use Terminals A & B or 2 & 5 ONLY



If the Main unit is Mounted on the Lift car, extend only the Phone line coming in, using Terminal blocks (Red & White wires) or a BT Socket Terminals 2 & 5

2 Way Trailing Cables Screened and Twisted if Possible

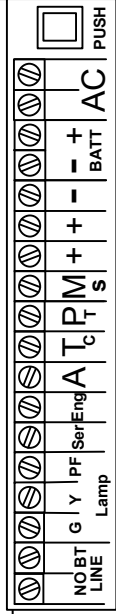


**Serial Data Controller**

**AD1000 EN 1 & Serial Controller**

Connect the lead with the BT Plug into the phone socket of the Building's phone system. (The phone line Must be on 2 wires analogue system)

**IMPORTANT:**  
Backup Battery MUST be connected the correct way around. If not, the PCB tracked Fuse will blow.

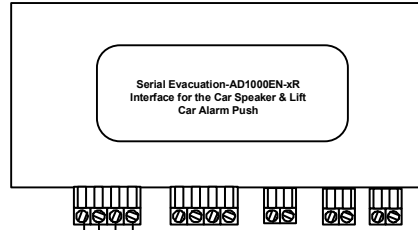


5V ok LED  
"System Ready"  
15 way D Socket for the Programmer



All cable used in the installation should be Screened and Twisted to minimise Electrical Noise

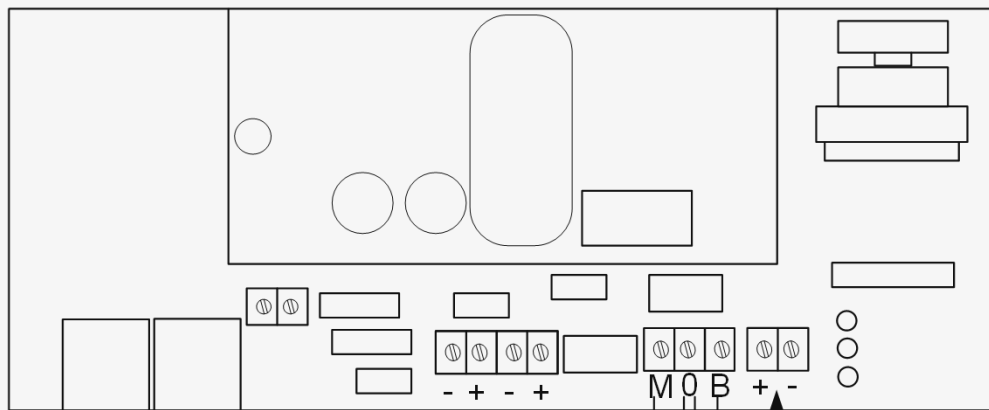
All other unconnected terminals shown, may be pre-wired



**Serial Data Controller**



## Evacuation Intercom Power Supply Unit



Mains Detection Relay Output  
 ("O" - Common, "M" - Normally Open)  
 Mains Failure = Closed  
 Mains Good = Open

Low Battery Relay Output  
 ("O" - Common, "B" - Normally Open)  
 Low Battery = Closed  
 Battery Good = Open

**NB: The buzzer is connected inside the PSU for Low Battery warning as standard.**

Low Battery & Mains  
 Detection Output

Drawing: Mains & Batt

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