**AlphaStatus™ Room Status System
Installation and Use Instructions
for the RSS400 Series Room Stations
and Optional Master Station(s)**

APPLICATION

The AlphaStatus™ system allows one or more RSS402, RSS403, RSS404 and/or RSS405 room status stations to provide locking push-button registration (of up to 4 different colors) of the room status to the CDL104LED or CDL102LED corridor dome status light(s). When one or more optional master stations are used, the status registered by each room status station will also be displayed at each master station and other indicators based on the system configuration. A number of optional accessories are available to provide a complete signaling system. Models RSS403 and RSS405 also allows for optional audible signaling from a room location to the master location(s).

PROCEDURE

1. Read installation instructions for each unit to determine equipment location and installation method.
2. Install housings and wiring.
3. Install equipment.
4. Check wiring and connect. Observe all local and national electrical and building codes.
5. Apply power and check operation, making sure to observe polarity where indicated.

HOUSING INSTALLATION AND EQUIPMENT LOCATION

INSIDE ROOM STATUS STATIONS
Locate stations where needed at a convenient height, about 4.5 feet (137cm) from the finished floor. Unit can be flush mounted over a double gang electrical box or double gang plaster ring, or surface mounted using a double gang mounting box (with suitable inside clearance depth).

CORRIDOR DOME STATUS LIGHTS
Locate corridor dome status lights where needed, in the corridor outside of each room location. Typically, these dome lights mount right over the doorway to the room. They can be mounted on the side of the room door, but please mount them high enough to avoid anyone walking into the dome light portion that protrudes from the wall. Unit can be flush mounted over a double (or single) gang electrical box or double (or single) gang plaster ring, or surface mounted using a double gang mounting box (with suitable inside clearance depth).

MASTER STATION(S)
If one or more master stations are used, locate at a convenient viewing height (for wall mounting) or at a convenient viewing angle for desk or table-top mounting.

PSR-24/6 POWER SUPPLY
The PSR-24/6 power supply is usually located in a separate equipment location, but can be mounted near the master station (if used). The PSR-24/6 can be mounted on a small shelf, or other suitable location. It must be located away from any source of direct heat or extreme cold and in an accessible location. Keep at least 3 feet (1 meter) away from transformers, light dimmers or other electrical devices or wiring or sources of electrical interference. Plug the PSR-24/6 power supply unit(s) into a standard 117VAC electrical wall outlet. It is recommended that one PSR-24/6 power supply be used for each 18 room status stations (with full lamp lighting capability) or one for each 36 room stations (with 1/2 lamp lighting capability).

WIRING

INSIDE ROOM STATUS STATIONS
When using a master station, the easiest wiring method is to home-run a #22AWG multi-conductor cable from each room status station directly to the master station location. Run a 5-conductor #22AWG cable from the room status station to its corresponding CDL104LED (4-LED) corridor dome status light, or 3-conductor #22AWG cable from the room status station to its corresponding CDL102LED (2-LED) corridor dome status light. For runs greater than 250 feet, increase the #22AWG cable to #18AWG cable.

When a master station is not used, the easiest wiring method is to loop a 2-conductor #22AWG cable from the PSR-24/6 power supply from one corridor dome status light to the next, to supply power. Additional power (or common wires) may be needed as well, depending upon system options. Run a 5-conductor #22AWG cable from the room status station to its corresponding CDL104LED (4-LED) corridor dome status light, or 3-conductor #22AWG cable from the room status station to its corresponding CDL102LED (2-LED) corridor dome status light. For runs greater than 250 feet, increase the #22AWG cable to #18AWG cable.

Cables may be straight or twisted pair type and may be solid or stranded conductors. Route cables away from AC power wiring, transformers, fluorescent lights, dimmers or

other electrical devices. Protect cables from damage. Shielded cable is not usually required, as this system has no voice or intercom capabilities, but a strong AC voltage could cause some system interference or lamp flickering. Shielded cables may be used (if desired) to prevent this type of interference.

CONNECTIONS
Before connecting, make certain wires are free from shorts or grounds. Make connections as shown on the specific wiring diagram for your system configuration, in this manual, and as detailed in the following instructions.

INSIDE ROOM STATUS STATIONS
1. Connect the Common terminal 'C' on Room Status Station to the (-) from the 24VDC power. Connect the Common wire (that feeds one side of all of the LEDs) on the corridor dome status light corresponding to that room location, in the hallway to the (+) from the 24VDC power.
2. Connect terminal 'R' on Room Status Station to the wire for the Red LED, on the corridor dome status light corresponding to that room location, and to terminal 'R' at the master station(s) for the Red LED for that room location.
3. Connect terminal 'W' on Room Status Station to the wire for the White LED, on the corridor dome status light corresponding to that room location, and to terminal 'W' at the master station(s) for the White LED for that room location.
4. (On RSS404 and/or RSS405 only) Connect terminal 'G' on Room Status Station to the wire for the Green LED, on the corridor dome status light corresponding to that room location, and to terminal 'G' at the master station(s) for the Green LED for that room location.
5. (On RSS404 and/or RSS405 only) Connect terminal 'Y' on Room Status Station to the wire for the Yellow LED, on the corridor dome status light corresponding to that room location, and to terminal 'Y' at the master station(s) for the Yellow LED for that room location
6. (On RSS403 and/or RSS405 only) If you wish to be able to send a tone signal to the master station(s) by depressing the momentary pushbutton at the room station, connect 1 wire from the pushbutton screw terminals to terminal 'B' on the TSM tone speaker module at the master station(s). Connect the other wire from the pushbutton screw terminals to terminal '1' on the IA543 (or PK543A) tone generator.

OPTIONAL EMERGENCY PULL CORD(s)
_____The model SF119/2A Emergency Pull Cords come from the factory with two (2) sets of two (2) pigtails wires, in different colors on the two (2) sides of the slide switch. The colors may vary, but for general wiring purposes we will refer to them now as Black and White. Each color represents a separate set of normally-open dry contacts.

Both sets of contacts are closed when the pull cord is pulled (activated). When using the SF119/2A pull cords in a system you need to add the PK612A lamp flasher.

NOTE: When using the optional SF119/2A Emergency Pull Cord(s) the Red color status indicators are reserved for Emergency only, and should not be used as one of the room status colors.

POWER SUPPLY UNIT
1. Do not plug connect PSR-24/6 power supply primary to 117VAC until entire installation is complete and checked.
2. Observe polarity for the 24VDC output terminals.

FINISH INSTALLATION

1. Install stations on housings. Do not overtighten screws.
2. Install power supply and optional accessory devices as needed.
3. Plug PSR-24/6 power supply primary into 117VAC.
4. If IA543 (or PK543A) tone generator is used, connect the 16VAC transformer primary to 117VAC.
5. Be careful not to pinch any wires when installing stations into the wall or modules into the master station(s).
5. Observe all local and national electrical and building codes.

MASTER STATION LABELLING

1. Each AlphaStatus™ system has software to easily create and maintain your Master Station labelling/numbering. You can download this software free from our website at: **www.AlphaCommunications.com,** in the **DOWNLOADS** section.

TEST AND CHECKOUT

1. At all inside Room Status Stations, make sure all of the locking switches are in the UP (out) position with the center color showing Black. All Dome lights and optional Master Station LEDs should be OFF.
2. Individually depress each of the locking switches at each Room Status Station and make sure the matching Corridor Dome Status Light color and optional Master Station matching color LEDs light. Reset all locking switches to OFF (Black) position.
3. If the Room Status Stations are equipped with the White momentary pushbutton, depress the button at each Room Status Station and verify that the tone signal sounds at each Master Station.
4. If the rooms are equipped with the SF119 series Emergency Pull stations, pull the cord at each room and verify that the Red LED flashes on the corridor dome status light, and the corresponding Red LED flashes at each Master Station. Verify that the tone signal sounds (and pulsates) at each of the Master Stations (if so equipped).

OPERATING INSTRUCTIONS

ROOM STATUS STATION
TO SET STATUS (ON): Individually depress any of the round locking switches at the Room Status Station that you wish to activate/light. The center of the switch will depress and lock in the 'down' position, and the center of the switch will turn from Black to Red color. The color associated with that switch (Red, White, Yellow or Green) will light at the corridor dome status light outside that room. If the system also has one or more Master Stations, the LED color associated with that switch (Red, White, Yellow or Green) will light at the Master Station(s).

TO SET STATUS (OFF): Individually depress any of the round locking switches at the Room Status Station that are Red color and the switch will pop back up and change to Black color. All lights and LEDs associated with that station and that switch color will turn off.

TO SEND TONE TO MASTER(S): On Room Status Stations so equipped (models RSS403 and/or RSS405), you can send a tone signal to the master station(s) by depressing the White rectangular pushbutton at the bottom of the station. The tone signal will sound for as long as you depress the White pushbutton. The tone volume can be set on the IA543 (or PK543A) unit.

TROUBLESHOOTING

If the system fails to operate as required, review operating instructions again. If the equipment fails to operate as indicated in the instructions, check the following points:

1. **ENTIRE SYSTEM DEAD:** Check for 24VDC output at PSR-24/6 power supply unit(s) and at 16VAC transformer secondary (if used). Check connections for 117 VAC primary power at PSR-24/6 and transformer (if used).

2. **NO TONE AT MASTER STATION:** First check for 16VAC power going to IA543 (or PK543A) terminals 'C' and 'K'. Depress the White tone buttons at several room locations to see if it is a system-wide problem or just for that room location. If it is just for that room location only, short out the 2 terminals in the back of the White tone button. If the tone sounds, the pushbutton is likely bad, so replace it with a new one. Remove wires from TSM module terminal 'L' and 'B' and check for approx. 45 ohms (using an ohmmeter) across terminals 'L' and 'B'. if the speaker shows 'open' replace the TSM tone speaker module. If speaker shows approx. 45 ohms of continuity, replace IA543 (or PK543A) tone generator.

3. **NO LIGHT AT CORRIDOR DOME STATUS LIGHT:** If a particular color light does not activate on the corridor dome status light, check that LED for

damage, or swap with a different color's LED to see if the problem is the LED or the power going to the LED, or wiring. You can also try swapping the wiring going to this LED and another LED to see if the wiring is the problem. The problem could also be the individual locking switch for that color at the Room Status Station. Swap out the wiring for that switch (terminal 'R', 'W', 'Y', or 'G') with a different switch, or momentarily jump the common terminal 'C' to the color terminal ('R', 'W', 'Y', or 'G'). If the light activates, replace the switch or the Room Status Station.
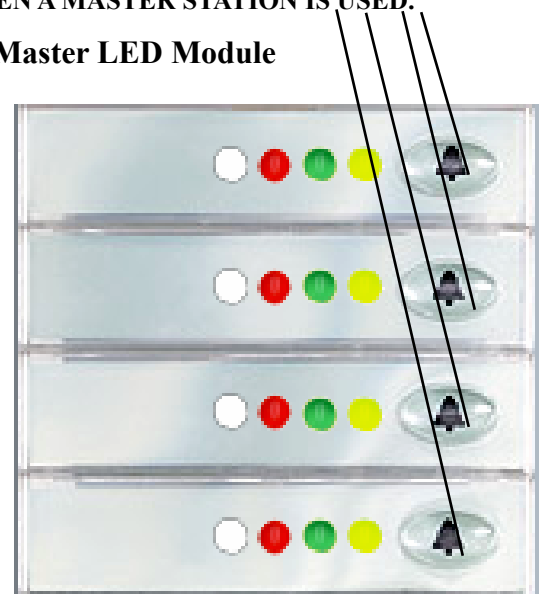
4. **NO LED LIGHT AT MASTER STATION:** If a particular color LED does not activate on the Master Station, swap with a different color's LED terminal to see if the problem is the LED or the power going to the LED, or wiring. If the LED is bad you can replace it individually or replace the entire RSM404 LED module with a new one.

5. **LIGHT FLICKER:** Check system wiring installed too close to power wiring or electrical devices or transformers; check transformer(s) installed too close to control equipment (should be at least three (3) feet away). Wiring is being run next to wiring for other systems and/or devices. Check to make sure you haven't exceeded the station capacity on the PSR-24/6 power supply unit(s).

If these checkpoints fail to indicate the problem, there may be an equipment fault. Contact the factory or qualified service representative.
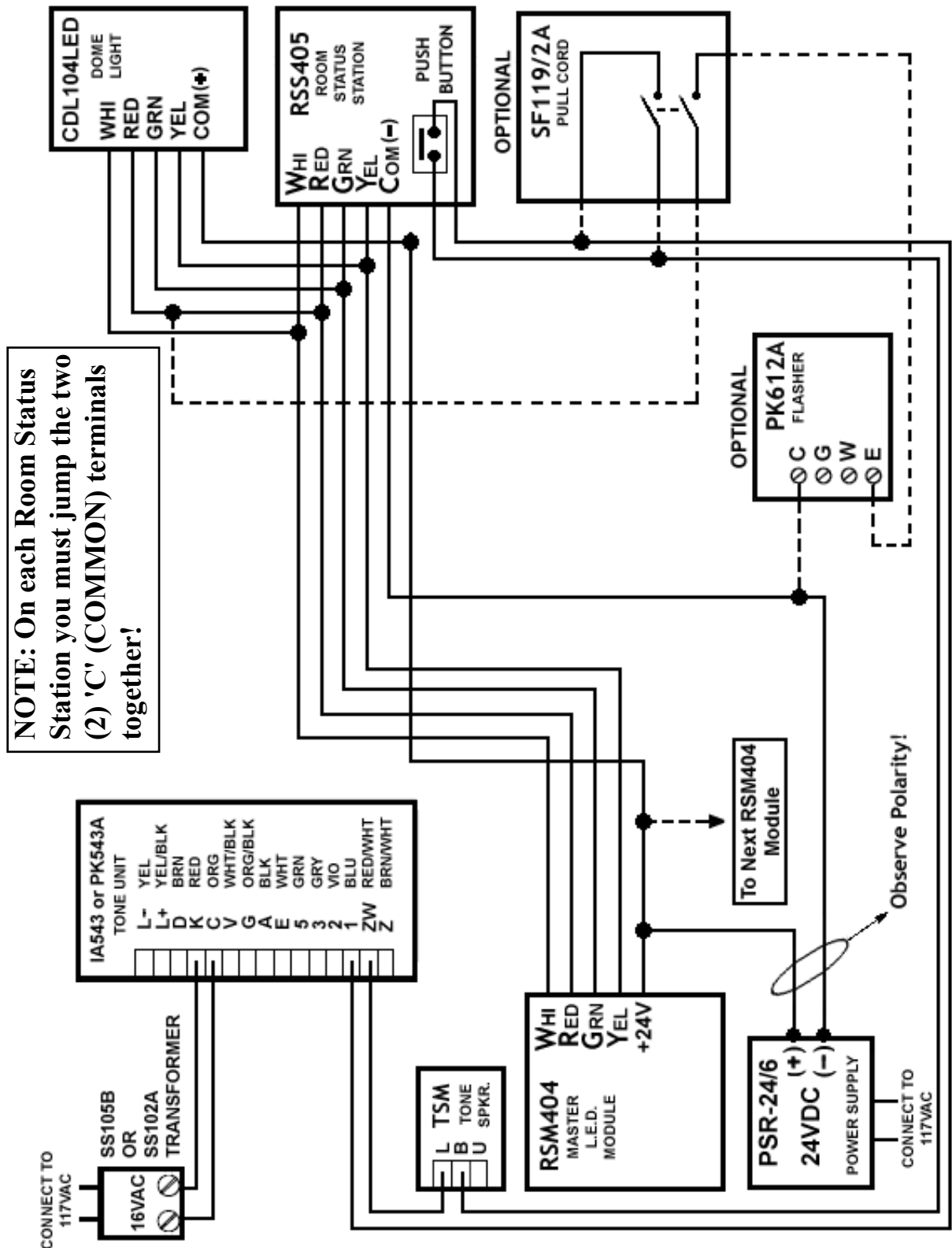
NOTE: The Alpha Communications® warranty is void if this system is installed or used in any manner other than described in this manual.

PLEASE SEE NOTE ON PAGE 8 CONCERNING THE MOMENTARY SWITCHES FOR THESE SIGNALING PUSHBUTTONS ON THE RSM404 MASTER LED MODULES, WHEN A MASTER STATION IS USED.
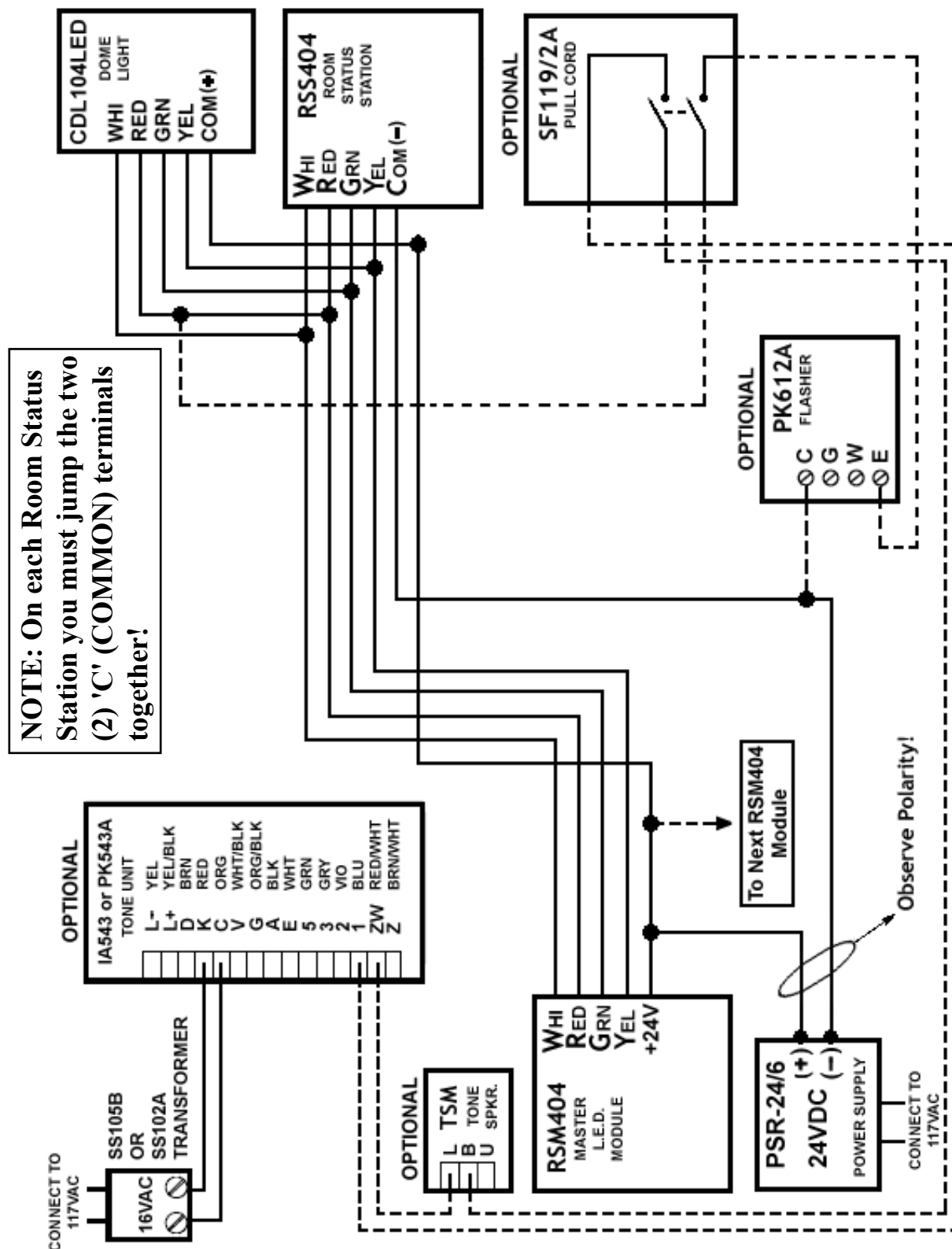
RSM404 Master LED Module

TYPICAL WIRING DIAGRAM USING THE RSS405 ROOM STATUS STATION(S) WITH ONE OR MORE MASTER STATIONS AND OPTIONAL SF119/2A PULL CORD(S)

NOTE: On each Room Status Station you must jump the two (2) 'C' (COMMON) terminals together!

Notes:

1. All wiring (up to 250 feet in length) can be #22AWG, unless shown otherwise.
2. All optional connections are shown in dotted lines.
3. When using the IA543 (or PK543A) tone unit, you may change the 'warble' type tone to a 'steady' type tone by connecting to terminal 'Z' instead of 'ZW' (do not connect to both).
4. **When using the optional SF119/2A Emergency Pull Cord station(s) the Red color status indicators are reserved for Emergency only, and should not be used as one of the room status colors. Do not connect the 'R' terminal on the RSS405 room status station if the SF119/2A is used in that room location.**
5. Observe all local and national electrical and building codes.
6. All terminals connections shown may not be in the order that they appear on the equipment.
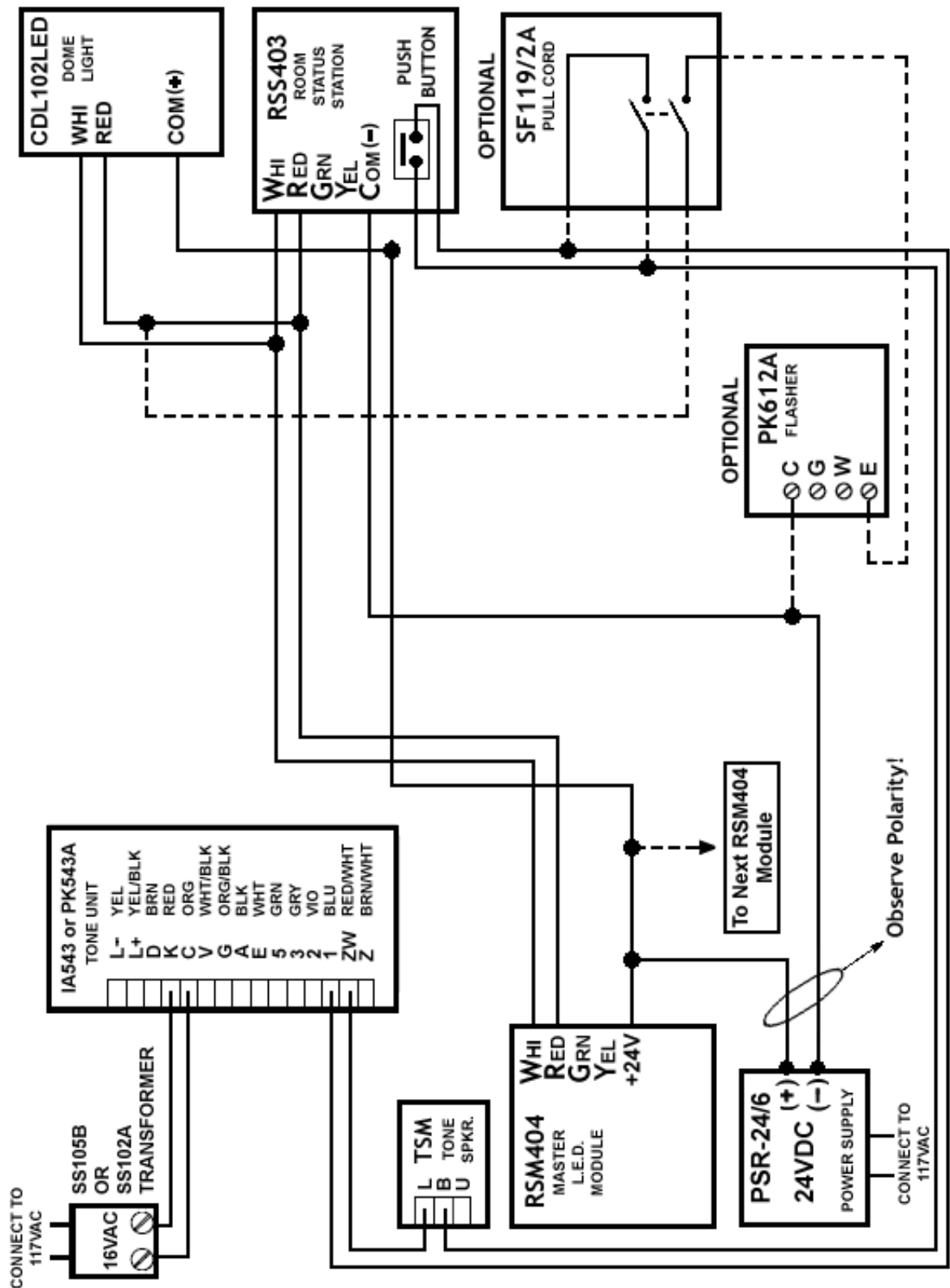
4

TYPICAL WIRING DIAGRAM USING THE RSS404 ROOM STATUS STATION(S) WITH ONE OR MORE MASTER STATIONS AND OPTIONAL SF119/2A PULL CORD(S)

NOTE: On each Room Status Station you must jump the two (2) 'C' (COMMON) terminals together!

Notes:
1. All wiring (up to 250 feet in length) can be #22AWG, unless shown otherwise.
2. All optional connections are shown in dotted lines.
3. When using the IA543 (or PK543A) tone unit, you may change the 'warble' type tone to a 'steady' type tone by connecting to terminal 'Z' instead of 'ZW' (do not connect to both).
4. **When using the optional SF119/2A Emergency Pull Cord station(s) the Red color status indicators are reserved for Emergency only, and should not be used as one of the room status colors. Do not connect the 'R' terminal on the RSS404 room status station if the SF119/2A is used in that room location.**
5. Observe all local and national electrical and building codes.
6. All terminals connections shown may not be in the order that they appear on the equipment.
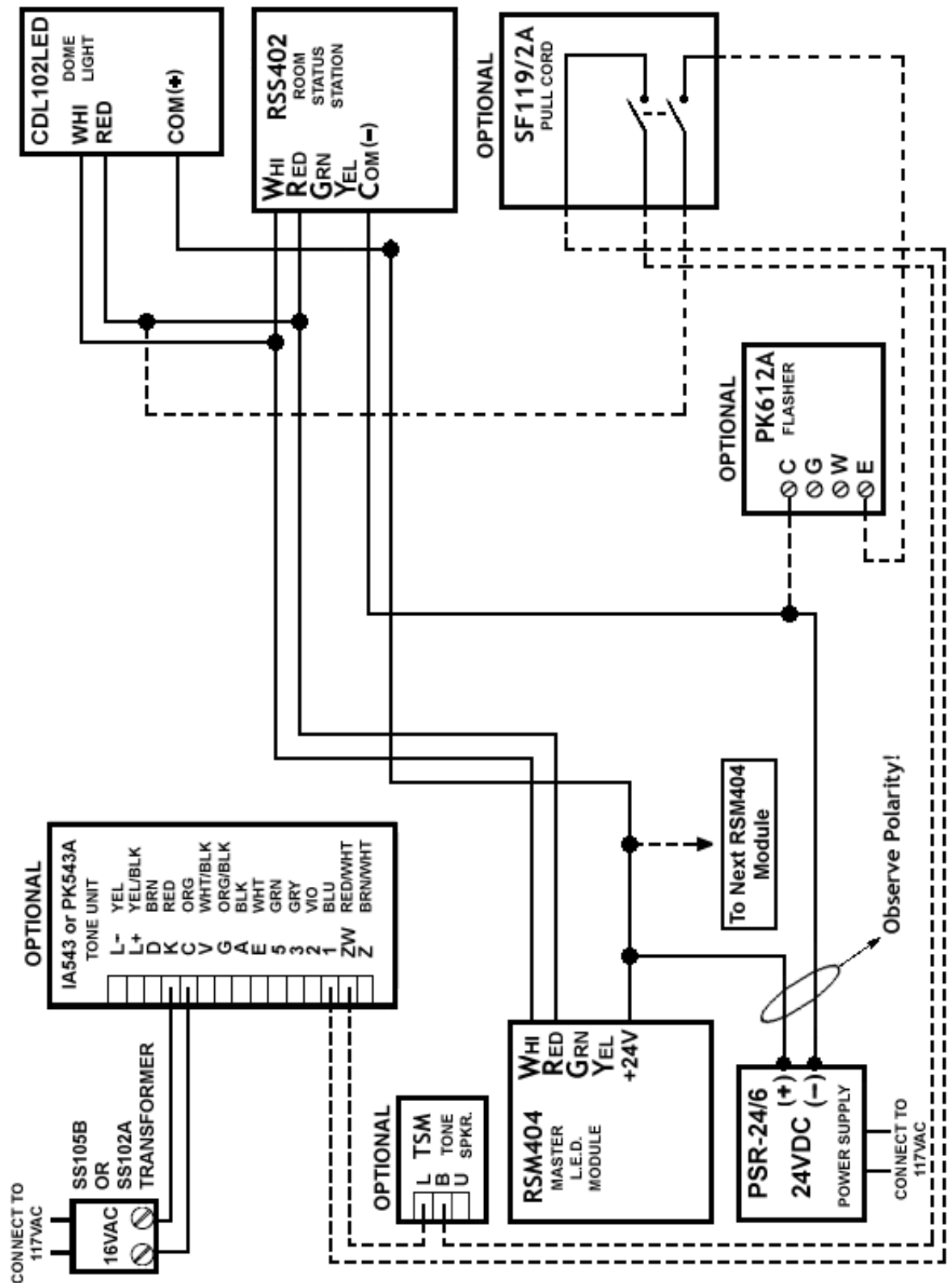
TYPICAL WIRING DIAGRAM USING THE RSS403 ROOM STATUS STATION(S) WITH ONE OR MORE MASTER STATIONS AND OPTIONAL SF119/2A PULL CORD(S)

Notes:

1. All wiring (up to 250 feet in length) can be #22AWG, unless shown otherwise.
2. All optional connections are shown in dotted lines.
3. When using the IA543 (or PK543A) tone unit, you may change the 'warble' type tone to a 'steady' type tone by connecting to terminal 'Z' instead of 'ZW' (do not connect to both).
4. **When using the optional SF119/2A Emergency Pull Cord station(s) the Red color status indicators are reserved for Emergency only, and should not be used as one of the room status colors. Do not connect the 'R' terminal on the RSS403 room status station if the SF119/2A is used in that room location.**
5. Observe all local and national electrical and building codes.
6. All terminals connections shown may not be in the order that they appear on the equipment.

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TYPICAL WIRING DIAGRAM USING THE RSS402
ROOM STATUS STATION(S) WITH ONE OR MORE MASTER STATIONS
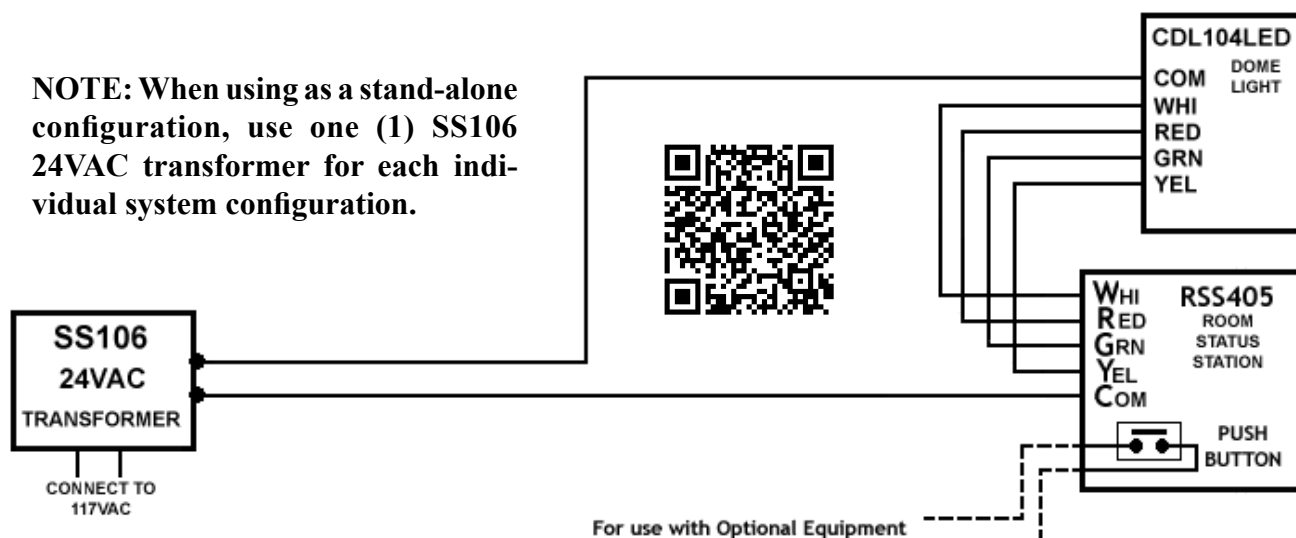## AND OPTIONAL SF119/2A PULL CORD(S)

Notes:

1. All wiring (up to 250 feet in length) can be #22AWG, unless shown otherwise.
2. All optional connections are shown in dotted lines.
3. When using the IA543 (or PK543A) tone unit, you may change the 'warble' type tone to a 'steady' type tone by connecting to terminal 'Z' instead of 'ZW' (do not connect to both).
4. **When using the optional SF119/2A Emergency Pull Cord station(s) the Red color status indicators are reserved for Emergency only, and should not be used as one of the room status colors. Do not connect the 'R' terminal on the RSS402 room status station if the SF119/2A is used in that room location.**
5. Observe all local and national electrical and building codes.
6. All terminals connections shown may not be in the order that they appear on the equipment.

TYPICAL WIRING DIAGRAM USING THE RSS405 ROOM STATUS STATION(S) AS A STAND-ALONE CONFIGURATION WITH NO MASTER STATION(S)

NOTE: When using as a stand-alone configuration, use one (1) SS106 24VAC transformer for each individual system configuration.

CDL104LED DOME LIGHT — COM, WHI, RED, GRN, YEL

RSS405 ROOM STATUS STATION — WHI, RED, GRN, YEL, COM

SS106 24VAC TRANSFORMER

CONNECT TO 117VAC

PUSH BUTTON

For use with Optional Equipment

A special note concerning the RSM404 Master LED Module; Each RSM404 module has four (4) built-in low-voltage momentary pushbutton switches, which can be activated from the front by depressing one of the BELL SYMBOLs. These switches can be connected by using terminals 'S1' common terminal 'SC'. When shipped from the factory, terminal 'SC' is connected to the +24VDC power. If you wish to isolate these buttons from the +24VDC power, you need to cut the jumper wire shown on Fig. 1. This will allow you to connect these switches to another, separate low voltage power source of your own, for any special signaling requirement you may have.

Fig. 1

Jumper

**Terminals
SC, S4, S3, S2, S1
NOTE: S1 is top switch
on module and S4 is
bottom switch**

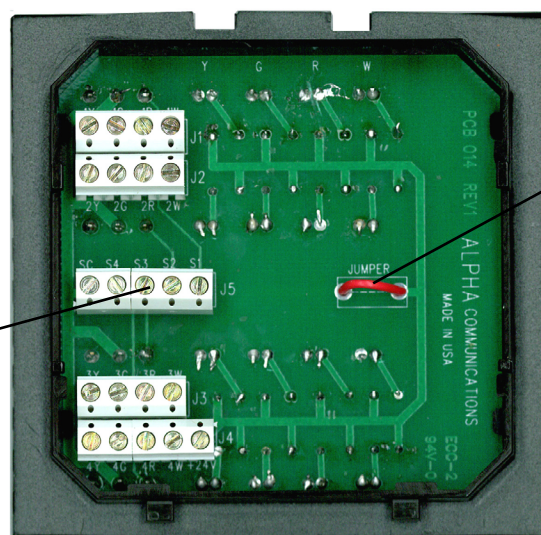## Notes:

1. All wiring (up to 200 feet in length) can be #22AWG, unless shown otherwise.
2. All optional connections are shown in dotted lines.
3. When using the IA543 (or PK543A) tone unit, you may change the 'warble' type tone to a 'steady' type tone by connecting to terminal 'Z' instead of 'ZW' (do not connect to both).
4. **When using the optional SF119/2A Emergency Pull Cord station(s) the Red color status indicators are reserved for Emergency only, and should not be used as one of the room status colors.**
5. Observe all local and national electrical and building codes.
6. All terminals connections shown may not be in the order that they appear on the equipment.