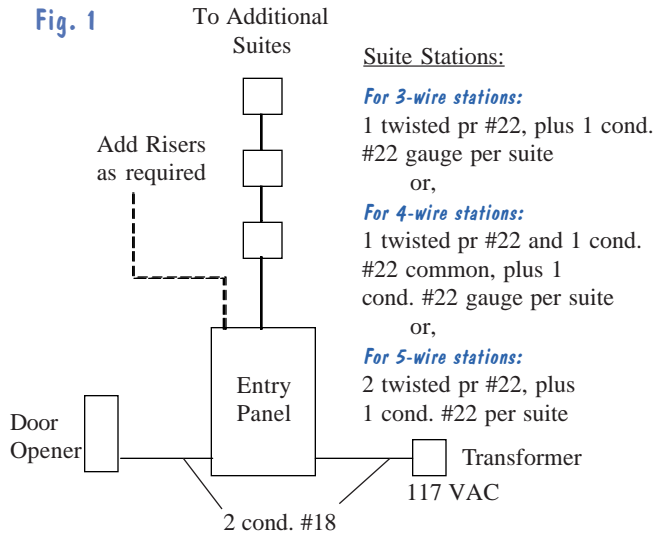


5-4-3 WIRE APARTMENT INTERCOM AMP WIRING INSTRUCTIONS

Fig. 1



Suite Stations:

For 3-wire stations:

1 twisted pr #22, plus 1 cond. #22 gauge per suite
or,

For 4-wire stations:

1 twisted pr #22 and 1 cond. #22 common, plus 1 cond. #22 gauge per suite
or,

For 5-wire stations:

2 twisted pr #22, plus 1 cond. #22 per suite

WIRING

Suite Stations - may be wired in risers as shown in the wiring layout diagram, Fig. 1. Each riser requires one twisted pair, #22 (or as required for type of station) plus one conductor, #22 for each suite served by the riser. Maximum length is 400 ft. (120 meters). Additional risers may be added as needed. Cable should not be run in the same conduit with (or too close to) electrical wiring, background music wiring or very close to fluorescent lights, dimmers or other electrical equipment. Leave sufficient cable in each box to make connections. Do not cut cable at each station.

Transformer - wiring should be 2 conductor, #18. Maximum cable length is 80 feet (24 meters), or up to 200 feet (60 meters) using #14 wire. Route cable away from suite station wiring.

Door Release - wiring should be 2 conductor, #18 cable. Maximum length is 50 feet (15 mtr). To use 24 volt door release, use a **LEE DAN** PS-30A transformer and connect as in Fig. 2.

Connections - Before connecting, make certain wires are free from shorts or grounds. Make connections as shown in Fig. 4, observing the following notes:

1. Do not apply power to transformer primary until entire system has been installed and all wiring checked for shorts or grounds. The common wires connecting to terminals 1,2,3,E and 5 should show open circuit when tested with an ohmmeter.
2. Use twisted pair wiring as shown. Do not interchange wires or reverse polarity.

Fig. 3 OPTIONAL DIODE CONNECTION

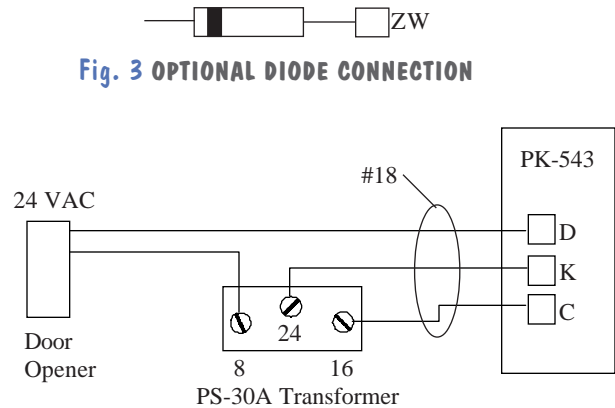
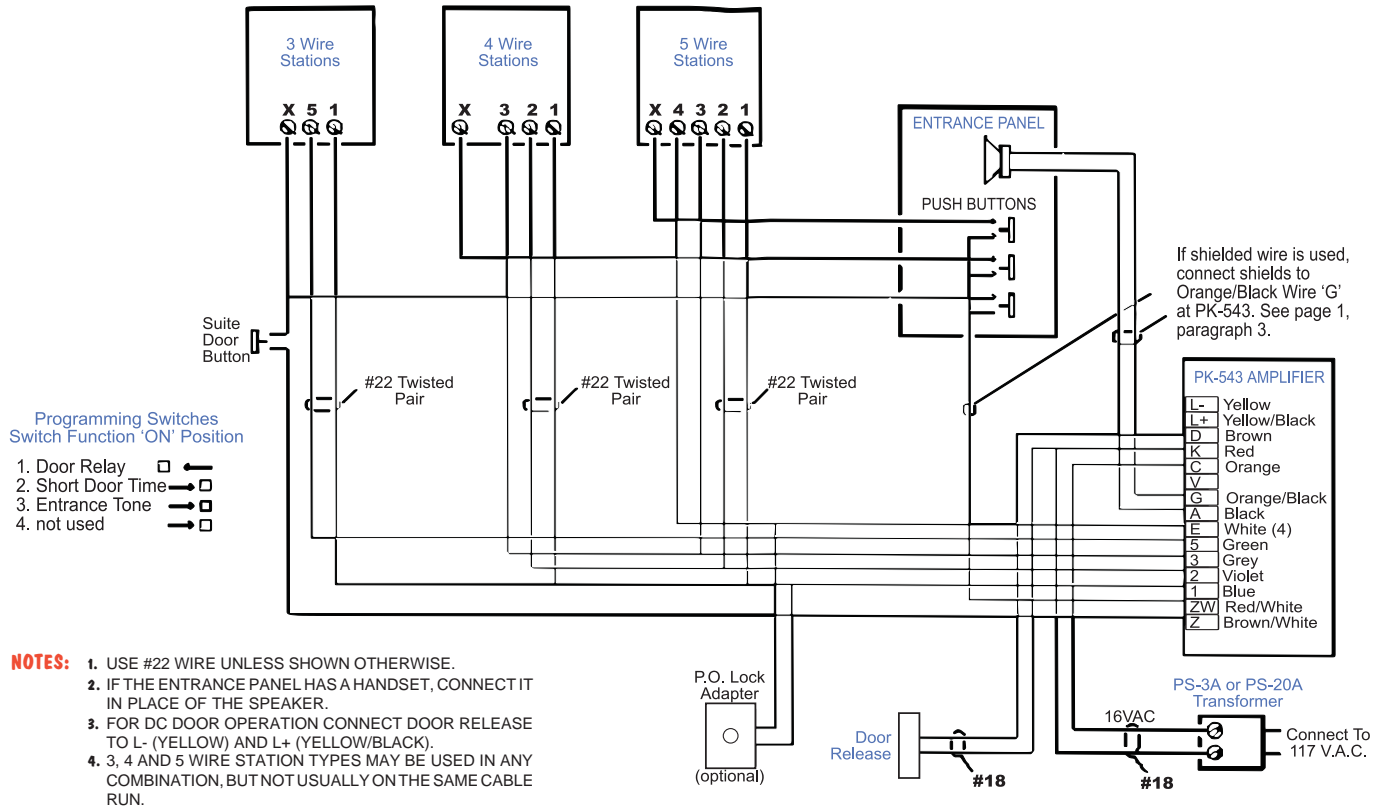


Fig. 2 OPTIONAL CONNECTION FOR 24 VAC
DOOR RELEASE

3. PK-543 amplifier may be installed inside entry panel when using BB-200 series housing. If necessary to install the amplifier elsewhere due to temperature extremes, etc., or because a small panel is being used, 2 conductor, shielded cable must be used for the entrance panel speaker wiring and a 1 conductor shielded wire must be used for the 'Buzz' wire (connect shield drain wire to amplifier terminal G).
NOTE: PK-543 should be located at least three feet (1 meter) away from transformers or other electrical equipment and must be kept away from direct heat or extreme cold. Operating Temp. 0-30° C
4. If the PK-543 must be located away from the entry panel, shielded cable must be used for terminals A, G, and Z (or ZW). Connect shield drain wire to amplifier terminal G. In addition, one of the following steps must be taken to prevent the possibility of Oscillation occurring at the Suite Stations and the Entry Panel Speaker when switching from Talk to Listen:
 - a. The ENTRANCE TONE switch must be set to the 'OFF' position.
 - b. A 1N4003 diode must be placed in series with the ZW terminal. The anode of the diode must be connected to the ZW terminal. Refer to Fig. 3.
 - c. If the Z terminal is not being used for a second suite entrance, connect the 'BUZZ' wire to Z instead of ZW. This will give a steady tone instead of a warble tone.
 - d. Adjust the VOICE VOLUME level down until the Oscillation disappears.



FINISH INSTALLATION

Install the amplifier in one of three manners: 1) Inside optional JB-200 junction box, 2) In remote location such as utility closet, basement, etc., 3) To rear of specifically designed *LEE DAN* entrance panel, in a position that will not interfere with panel components. Install suite stations on housings. Do NOT overtighten screws on plastic panels. Connect power transformer primary to 117 VAC.

TEST AND CHECKOUT

At entrance panel, push each button. Check to determine if the correct suite is buzzed each time. At each suite, push TALK and LISTEN buttons to communicate with someone at the entrance panel; then push DOOR button to check door release option.

OPERATION

1. VOICE VOLUME: is adjustable externally using a small screwdriver through the port hole on the front of the PK-543 labeled "VOICE VOLUME".

2. PROGRAMMING SWITCHES:

Switch #

- #1 DOOR DELAY:** to enable door delay, switch to left. To disable door delay, switch to right.
- #2 SHORT DOOR TIME:** with the door delay switch enabled, the short door delay may be selected. With the second dip switch to the left, the door delay will be approx. 16 seconds. To the right, the delay is 8 seconds.
- #3 ENTRANCE TONE:** call tone at entry panel is enabled with the 3rd dip switch to the right, and disabled to the left.
- #4 Not used.**

- 3. TONE VOLUME:** is adjustable externally using a small screwdriver through the port hole on the front of the PK-543 labeled "TONE VOLUME". **NOTE:** Adjust Tone Volume to maximum only when using PK-502B multi-entrance adaptor.
- 4. BUZZ 1:** ZW terminal is a warble tone output.
- 5. BUZZ 2:** Z terminal is a steady tone output. To be used for call tone at suite station.

TROUBLESHOOTING

If the system fails to operate properly, check wiring. If wiring is correct, check the following points:

- 1. Entire System Dead** - Check 117 VAC at transformer primary, 16 VAC at transformer secondary, and wiring to PK-543.
- 2. No Talk** - Check wiring to terminals 1 and 2 shorted or open, and wiring to entrance panel speaker open or shorted. Suite station may be tested by replacement.
- 3. No Listen** - Check wiring to terminals 1 and 3 shorted or open and short between terminals 1 and 2.
- 4. No Door Operation** - Check wiring to door release shorted or open, defective door release, and door button on suite station. Check wiring to terminals 2 and 3, or 1 and E.
- 5. No Buzzing** - Check wiring to PK-543 terminal Z, or ZW, panel push-buttons, and wiring to suite stations terminal X.
- 6. Excessive Hum or Distortion** Check wiring installed too close to electrical wiring or electrical devices, PK-543 installed too close to transformers or electrical devices, twisted pair wiring not used as required, or PK-543 volume set too high.
- 7. Radio Interference** - Check connection from the PK-543 terminal G to electrical ground. **Note:** This connection is not shown on wiring diagram, since the situation is not always improved by adding it. If problems persist, consult factory.
- 8. Oscillation** - Check wiring step 4 on page 1. If oscillation persists, connect a model 15-MFD non-polar capacitor across terminals A and G on the PK-543 amplifier. **Note:** Entrance Tone (if used) will be lower with capacitor.