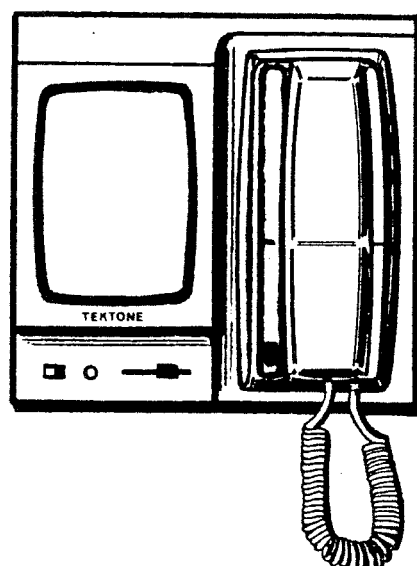
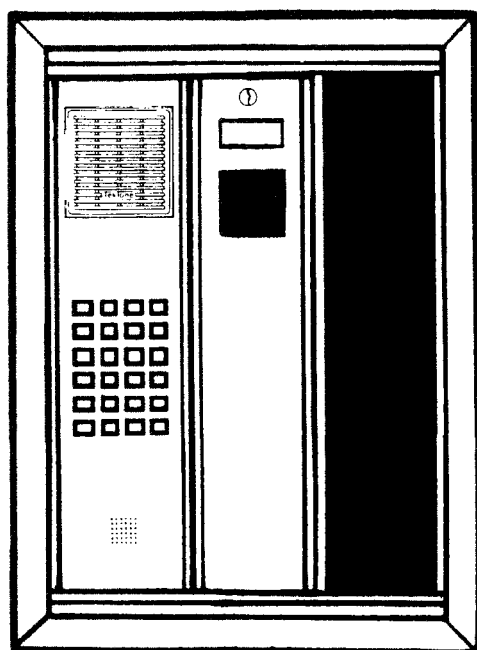


TekTone .. TEK-VIEW

INSTALLATION INSTRUCTIONS



APPLICATION

The TEK-VIEW intercom system is a combination of an audio communication system with a video monitoring system. This provides not only audio communication with the caller by the resident, but also visual identification capability.

Audio communication is carried on by means of an amplified handset intercom system at the apartment and hands free loudspeaker convenience at the lobby panel. Controlled entry is permitted by means of a pushbutton actuated electric door release.

Optional equipment is available to provide a variety of additional features including: Delayed door lock operation, Post Office key door release, multiple monitors in the same suite, etc... Contact your TekTone dealer for details.

PROCEDURE

1. Read installation instructions before proceeding.
2. Install housings and wiring.
3. Connect wires and install equipment.
4. Apply power and check operation.

EQUIPMENT LOCATION AND HOUSING INSTALLATION

ENTRANCE PANEL (VM-300) ENCLOSURE:

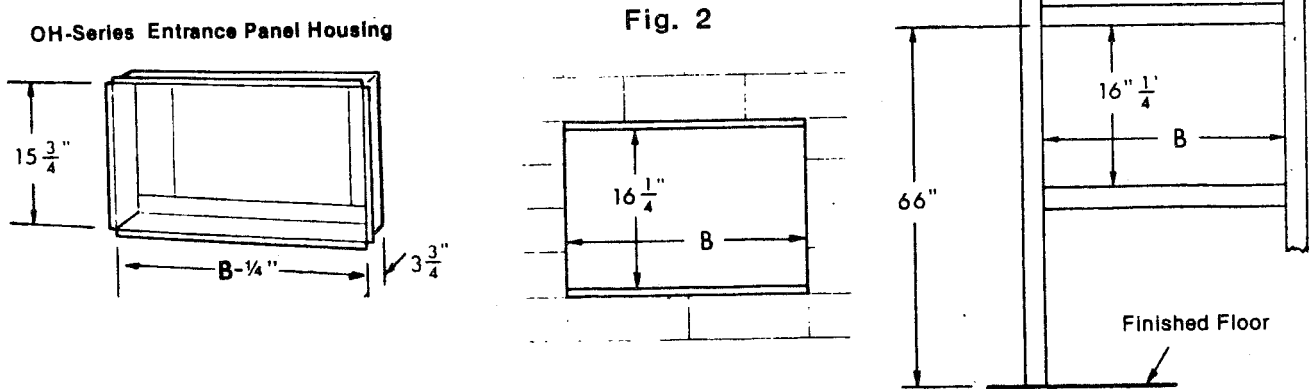
- A. The entrance panel must not be located in areas of extreme heat or cold where the operating temperature range of 0 - 50 C might be exceeded, or where it will be subjected to moisture or adverse weather conditions.
- B. The entrance panel must be located away from direct sun exposure. Sufficient light must be provided to illuminate the caller at night. A minimum of 140 watt flourescent bulb should be installed above the entrance panel. (For best picture quality, source of light should be directed to illuminate subjects face.)
- C. Up to 40 call buttons may be accomodated on the standard 3 gang wide entrance panel. If a PO-202I (Post Office lock panel) is used, minimum panel size is 4 gang. For additional buttons consult Entrance Panel Housing chart (Figure 1) below for panel dimensions.

Fig. 1

No. of Buttons on Panel	Flush Housing	Wall Opening Width (B)	Housing With PO-202I	Wall Opening Width (B)
4 - 40	OH-203	12 1/2"	OH-204	16 1/2"
44 - 92	OH-205	20 1/2"	OH-206	24 1/2"
96 - 144	OH-207	28 1/2"	OH-208	32 1/2"

- NOTES:
1. Wall opening height of OH-200 series is 16 1/4".
 2. Wall opening depth must be 5" minimum.
 3. For larger sizes consult factory for dimensions.

- D. When installing the housing for the Entrance Panel, at least 1 1/4" space must be left behind the housing for camera mounting. See Figure 2 for installation details.
- E. The top of the housing should be located about 66" above the finished floor surface to place the camera opening about 61" above the finished floor.



CONTROL UNIT:

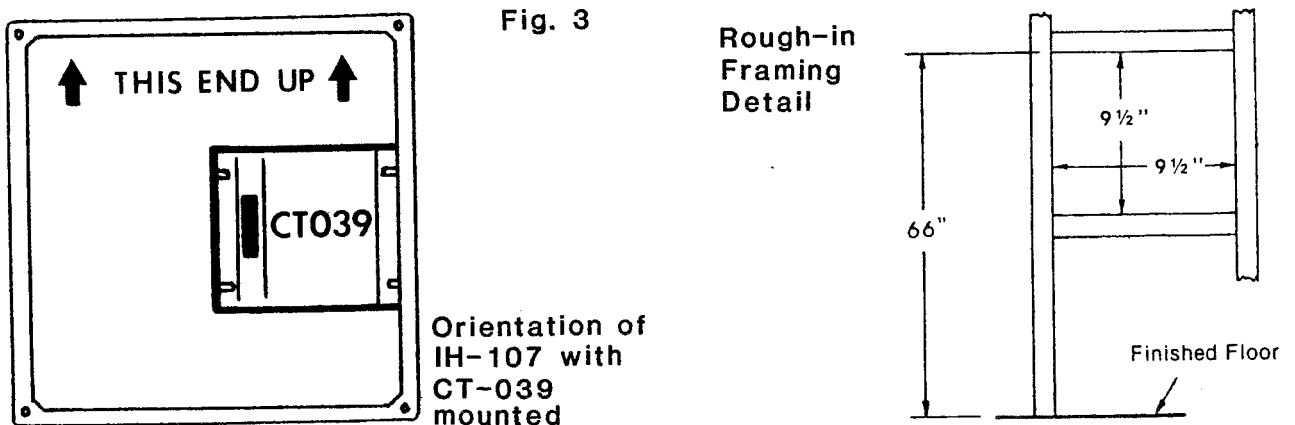
The Control Unit (PK-324 Amplifier/Power Supply) should be installed inside the Entrance Panel, and will normally be shipped that way. If the Control Unit must be installed away from the Entrance Panel for some reason, observe notes regarding wiring and do not locate it where the operating temperatures of 0 - 40 C will be exceeded.

TRANSFORMER:

The Transformer must be located in an accessible area, near a source of 117 V.A.C., and away from extreme heat. The Transformer should be kept at least 3 feet (but preferably not more than 50 feet) from the PK-324. Observe all local electrical codes.

VIDEO MONITOR (VM-101A) HOUSING:

- A. The video monitor must not be located in an area where the operating temperature of 0 - 40 C may be exceeded or in an environment with high humidity.
- B. The top of the VM-101A housing (IH-107) should be located about 66" above the finished floor.
- C. Refer to Figure 3 below for installation of the IH-107 housing.



Orientation of IH-107 with CT-039 mounted

WIRING AND NOTES

Run wires according to Wiring Layout Diagram (Figure 4) in conjunction with the notes below.

NOTES:

- A. Each VM-101A that is at the end of a riser must have a 75 ohm 1/2 watt non-inductive end of line resistor (Part No. RC-013) across one of its coaxial cable connectors.
- B. The maximum number of monitors (VM-101A) per riser is 20. Maximum length of each riser is 200 feet.
- C. At the Distribution Amplifier (VM-200) there are 8 screw Terminals. Below are their purposes:
 - 1. Input terminal for connection from the camera output.
 - 2. Video output terminal for one riser.
 - 3. Common connection for turning system on (Connects to PK-324 Control Unit terminal C.T.).
 - 4. Common connection for turning the VM-200 on. (Connects to all VM-101A video monitors receiving video feed from that VM-200).
 - 5. Video output terminal to other VM-200's (comes directly from camera output. Cut jumper wire beside terminal 5 if it is used).
 - 6. Video output terminal for one riser.
 - 7. Video output terminal for one riser.
 - 8. Video output terminal for one riser.
- D. Use #16 wire to connect the Control Unit to the Transformer. NOTE: If the wire length is greater than 50 feet, then use #14 wire.
- E. For wire length of more than 100 feet, run all power supply wires (+ and -) directly to the Control Unit location (usually the Entrance Panel location). For wire length greater than 200 feet use #16 wire.
- F. For the Door Release wiring, using 2 cond. #18 cable. NOTE: If the Door Release is located more than 50 feet away from the Control Unit, use #16 wire.

- G. The Control Unit (PK-324) is rated for 3 amps. at 17 V.D.C. and may be used to supply power for up to 50 monitors (VM-101A). For each additional 50 monitors, another PK-324 Control Unit is required. NOTE: If the Control Unit is installed away from the Entrance Panel, then the microphone wiring must be shielded cable and the shield must be connected to terminal G.
- H. Intercom communication (common) wires must be twisted pairs as shown on Fig. 5 and routed away from flourescent lights and A.C. lines. For distances of greater than 500 feet use #20 wire. (Maximum distance from amplifier for communication wires is 1000 feet.)

WIRING LAYOUT DIAGRAM

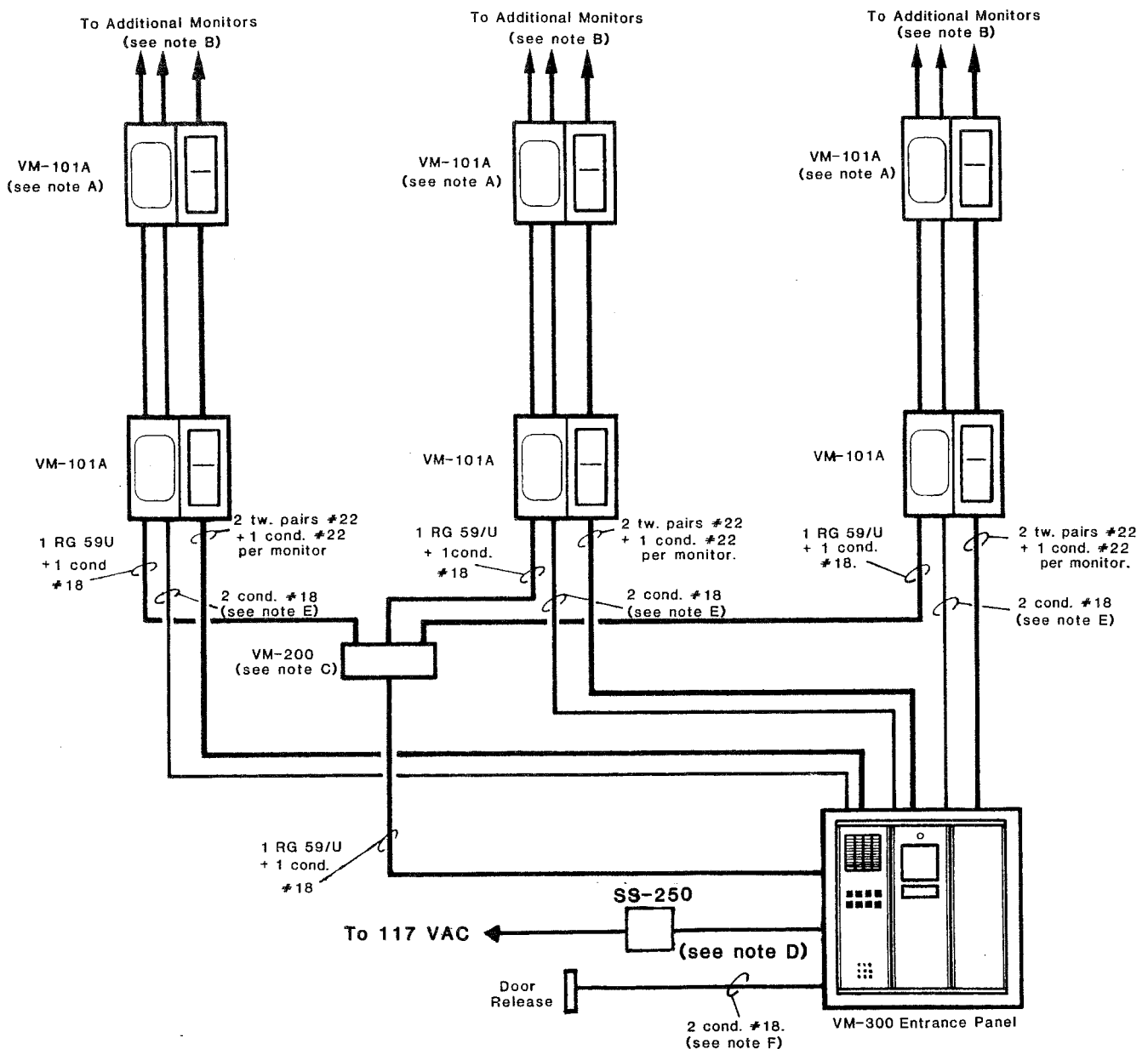
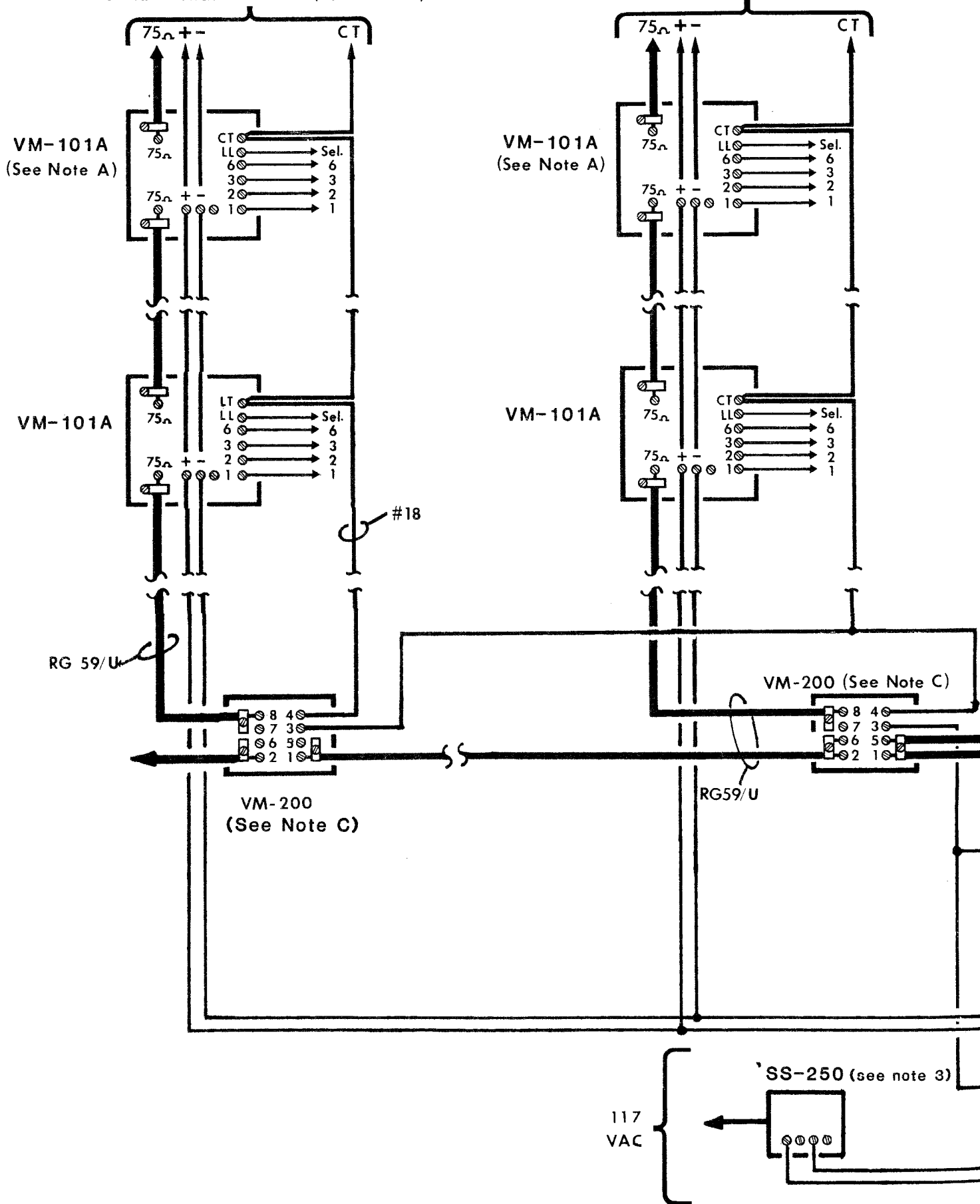


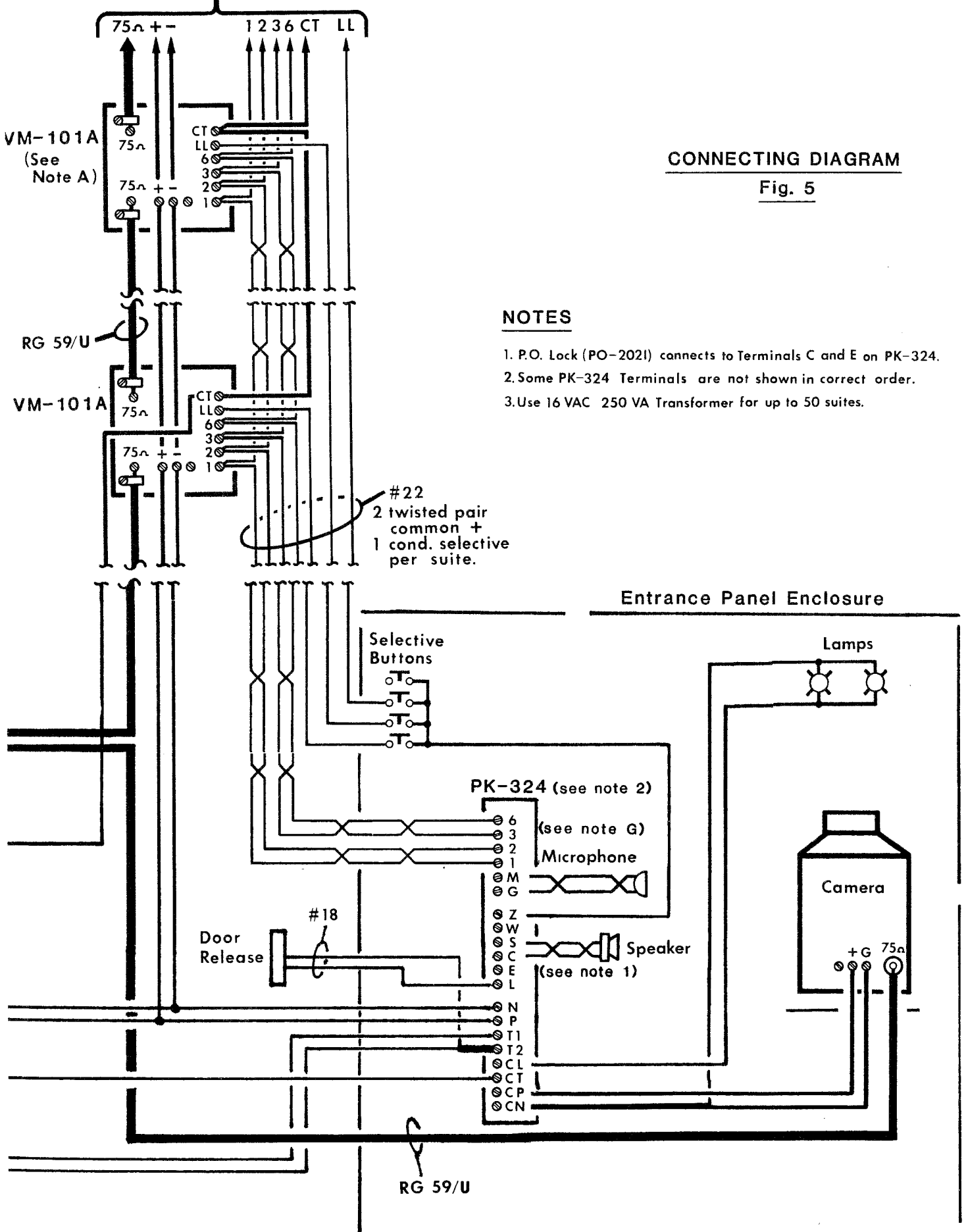
Fig. 4

To Additional Monitors (See Note B)

To Additional Monitors (See Note B)



To Additional Monitor (See Note B)



CONNECTING DIAGRAM

Fig. 5

NOTES

1. P.O. Lock (PO-2021) connects to Terminals C and E on PK-324.
2. Some PK-324 Terminals are not shown in correct order.
3. Use 16 VAC 250 VA Transformer for up to 50 suites.

#22
2 twisted pair
common +
1 cond. selective
per suite.

Entrance Panel Enclosure

PK-324 (see note 2)

(see note G)

Microphone

Speaker

(see note 1)

Door Release

#18

Lamps

Camera

RG 59/U

CONNECT WIRES AND INSTALL EQUIPMENT

Check all wires for shorts to each other and for grounds.

Connect all wires (EXCEPT 117 V.A.C. CONNECTIONS TO TRANSFORMERS) as shown in the CONNECTING DIAGRAM (Figure 5) and in accordance with the WIRING NOTES listed previously.

ENTRANCE PANEL (VM-300):

1. Install frame (OF-200 series) into housing (OH-200 series).
2. Connect all wires necessary, as shown in the CONNECTING DIAGRAM (Figure 5).
3. Connect the video cable (RG 59/U) to the right angle BNC connector on the back of the camera. (Included with each Entrance Panel there is a cable adapter to connect the video cable to this BNC connector. Follow the directions on the connector package to install on the RG 59/U cable.)
4. Mount camera sub-chassis into housing using the following procedure:
 - a. Align the top slot of the camera sub-chassis with the top support at the rear of the housing. (OH-200 series only.)
 - b. Push the sub-chassis as high as possible inside the housing.
 - c. Push the bottom slot on the sub-chassis towards the rear of the housing and align it along the bottom support of the housing.
 - d. Allow the sub-chassis to drop into place at the bottom of the housing.
 - e. Use a #6, 1/2" long screw in the hole at the top of the sub-chassis to lock it in place.
 - f. NOTE: The camera sub-chassis is designed to fit behind the second panel from the left hand side in all VM-300 entrance panels.
5. Install the front panels into the Entrance Panel following the directions included with the directory panel.

VIDEO MONITOR (VM-101A):

1. Mount wire termination board (CT-039) in the back of the housing (IH-107) with the screw terminals facing out.
2. Connect all necessary wires as shown in the CONNECTING DIAGRAM (Figure 5).

3. Mount the brown plastic trim frame onto the housing using the four screws provided.
4. Mount the VM-101A to the trim frame using the procedure outlined below:
5. Plug the connector from the VM-101A into the receptacle on the wire termination board (CT-039) noting the correct polarity.
6. Interlock the teeth at the top of the VM-101A with the top of the trim frame and push the bottom of the VM-101A towards the bottom of the trim frame until the monitor chassis is flush with the trim frame all around.
7. Lock the monitor in place on the trim frame using the three screws provided.
8. Switch the Standby Control (small black switch in the lower left corner of the VM-101A monitor) to the off (left) position until ready to make initial tests on the system.

TRANSFORMER:

Connect transformer 16 volt terminals to PK-324, terminals T1 and T2. Connect Transformer primary to 117 V.A.C. observing all applicable electrical codes, then check system operation.

SYSTEM CHECKOUT

Check entire system according to the operating instructions, turning each monitor on individually so that if a problem exists it may be rapidly identified. If the system does not operate as indicated, then see TROUBLE SHOOTING section.

OPERATING INSTRUCTIONS

A. AT ENTRANCE PANEL:

1. Press button corresponding to desired suite. Camera operation will be indicated by lights. If camera does not stay on, buzz a little longer.
2. Reply in a normal voice when spoken to.
3. When the Door Release buzzes, enter through the door.

B. AT SUITE STATION:

1. When the call tone is heard, pick up the intercom handset.
2. Adjust the brightness of the picture as necessary using the slide control at the bottom of the monitor.
3. Identify caller on the T.V. screen and converse with them.
4. The door may be opened by pressing the button on the intercom handset if desired.

**** PERTINENT DATA ON SYSTEM OPERATION ****

Each monitor stays on for approximately 1 minute when called. As soon as the door release is activated, or when a second caller rings another suite the monitor is shut off, but it remains on standby ready to operate as soon as another call is placed from the entrance panel. Note: Performance may vary with large or small installations.

If no video contact with the entrance is desired or if a tenant is leaving the suite, the video monitor may be turned off, using the Standby Switch in the lower left corner of the monitor. When this is done the Standby Lamp will be switched off at the same time. Audio communication will still operate in the normal manner.

At the Entrance Panel, proper operation of the system is verified by the illumination of the light above the camera opening. If this light does not come on, it may indicate that the monitor in the suite being called is turned off. Buzzing the suite again to be certain is appropriate.

SYSTEM MAINTENANCE**ENTRANCE PANEL (VM-300):****REPLACEMENT OF LAMPS:**

First, unlock the panel using the key provided, then using the procedure outlined on the directory panel, remove the panel covering the lamps and camera.

1. Remove the cover from the mirror housing.
2. Remove lamp reflector.
3. Remove defective lamps by pressing down firmly and turning counter-clockwise until they pop out of their sockets and replace with new lamps (type 1818 only).
4. Replace any parts removed in reverse of the above order of removal.

FOCUSING THE CAMERA LENS:

1. Follow steps 1 - 3 under REPLACEMENT OF LAMPS to reach camera lens.
2. Focus the camera lens on an object held about 2 feet (arms length) from the front of the entrance panel.
3. Replace any parts removed in reverse of the order of removal.

CENTRAL EQUIPMENT

POWER SUPPLY:

Each PK-324 power supply has a 5 amp, 3AG fuse as an overload protection. Replace this fuse with same type and rating only. If this fuse continually opens check for wrong wiring or equipment failure.

SPECIAL APPLICATIONS

For further information on systems using more than 50 monitors or any other special applications, please contact the factory.

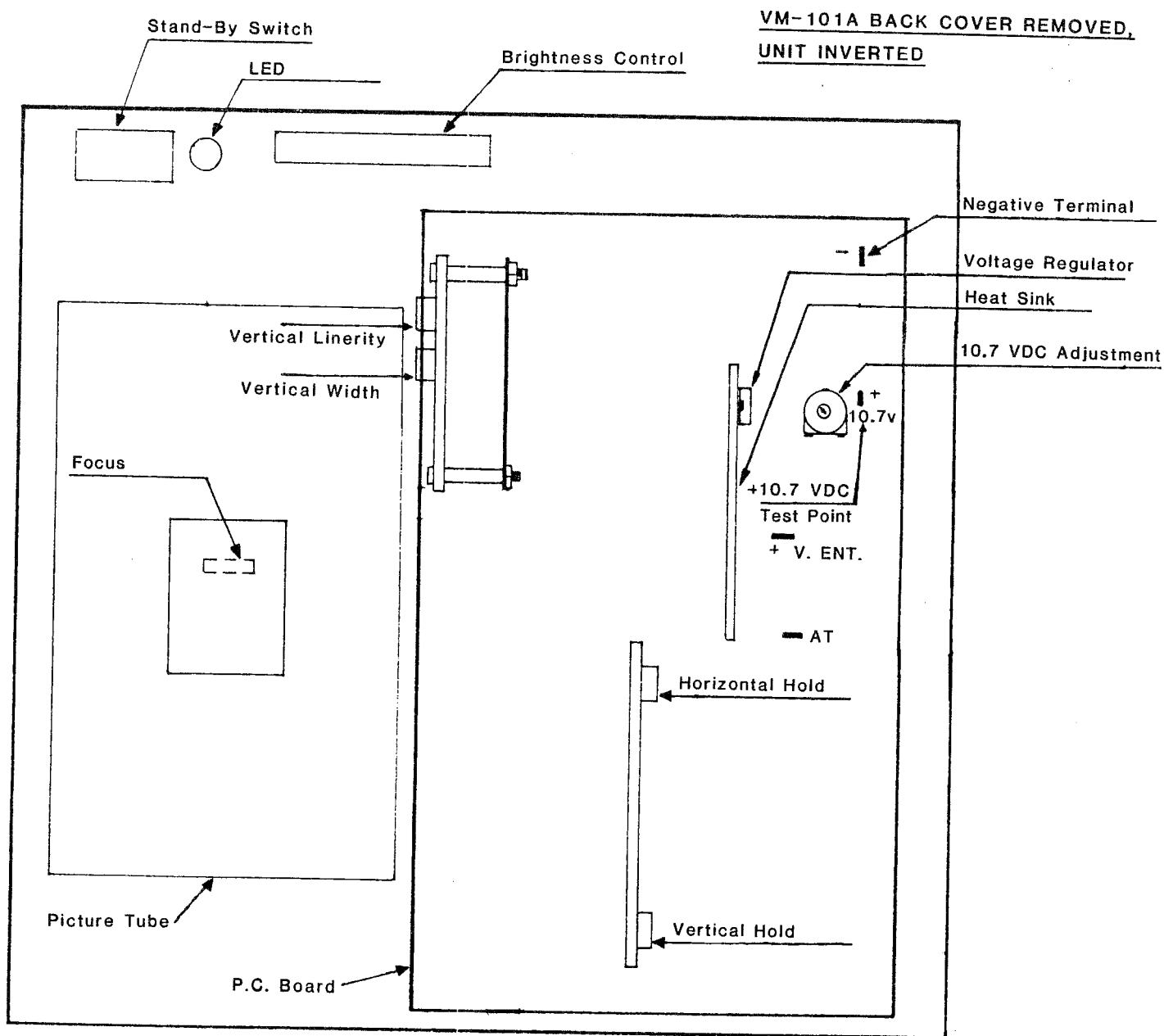


Fig. 6

TROUBLE SHOOTING

ENTIRE SYSTEM:

Check for 15 - 18 V.D.C. on PK-324 terminals P and N. This voltage should also appear between the + and - terminals of all video monitors. NOTE: The PK-324 has an electronic current limiter that will shut the unit off in the presence of a short circuit on the output terminals. When the short is removed, the output should appear again. The current limiter will also act in case of an overload (too many monitors), which will cause the output to switch on and off rapidly (This may be noticed only if all monitors are turned on).

If the power supply is OK, and if the monitors turn on (the screen lights up), but no picture is seen, the camera may be checked by connecting a monitor directly. If the camera does not turn on (check for 12 V.D.C. on camera terminals + and G), then check for 10 V.D.C. on PK-324 terminal CT (terminal n is negative.) Terminal CT voltage comes from the video distribution system.

Problems with the video distribution system are usually due to wrong wiring. It is essential that the CT terminal on each video monitor connects directly to the distribution amplifier that is feeding the video signal to it. This is necessary because the distribution amplifier is turned on by the connection from the CT terminal on the active monitor to the distribution amplifier terminal 4. Terminal 3 on the distribution amplifier (VM-200) connects to PK-324 terminal CT to turn on the camera.

INTERCOM ONLY:

Wrong wiring is the cause of most intercom problems. The PK-324 may be checked by disconnecting the common wires, and connecting a monitor directly to it, and then checking the communication. The telephone operation is independent of the video section, and should operate even if the video does not. The use of twisted pair wiring as shown on the wiring diagram is essential for operation.

VIDEO MONITORS:

Video monitors are best checked by substitution. Internal adjustments are available in the monitor to correct horizontal or vertical hold problems. See Fig. 6 for adjustment locations. The 10.7 V.D.C. control should not normally need any adjustment. If the monitor does not always turn on when buzzed, it may be that the buzz is too short. A very short buzz may not activate the buzz detector, particularly on a system with a small or large number of monitors.



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