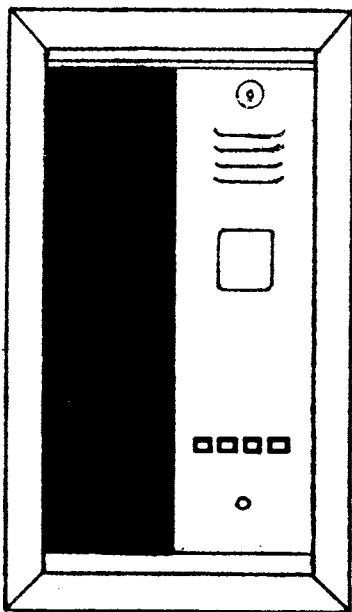
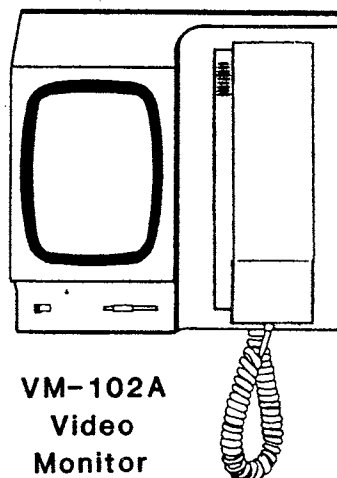


TekTone .. TEK-VIEW

INSTALLATION INSTRUCTIONS



VM-320A Entrance Panel



VM-102A
Video
Monitor

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 entrance panel. Controlled entry is permitted by means of a push button 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-320A) 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 one 40 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. Four call buttons may be accomodated on the standard 2 gang VM-320A entrance panel. If a PO-202I (Post Office lock panel) is used, minimum panel size is 3 gang. For additional buttons, consult the Entrance Panel Housing chart (Fig. 1) below.

Fig. 1

No. of buttons on panel	Number of Panels			Housing Number	Wall Opening Width (B)*
	Directory	Camera	Pushbtn		
1 - 4	1	1		OH202	8-1/2"
8 - 40	1	1	1	OH203	12-1/2"
44 - 72	2	1	1	OH204	16-1/2"
76 - 92	2	1	2	OH205	20-1/2"

- NOTES: 1. For postal option (PO202I), an additional panel is required.
 2. Wall opening height of OH-200 series is 16-1/8".
 3. For larger sizes, consult factory.
 4. "*" see Fig. 2.

- D. The top of the housing should be located approximately 66" above the finished floor surface to place the camera opening approx. 61" above the finished floor.

OH-Series Entrance Panel Housing

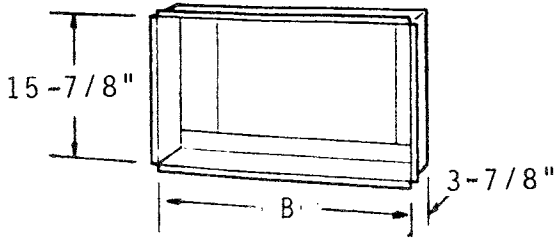
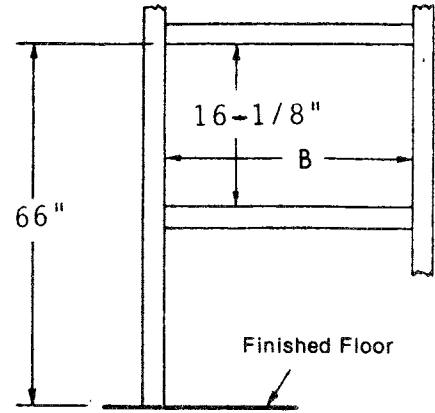
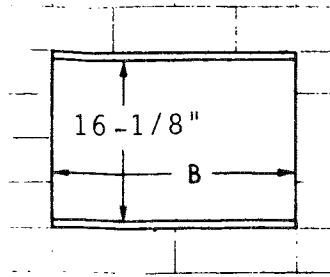


Fig. 2



CONTROL UNIT:

The Control Unit (PK-310A 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') from the PK-310A. Observe all local electrical codes.

VIDEO MONITOR (VM-102A) 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-102A housing (IH-107) should be located approximately 66" above the finished floor.
- C. Refer to Figure 3 below for installation of the IH-107 housing.

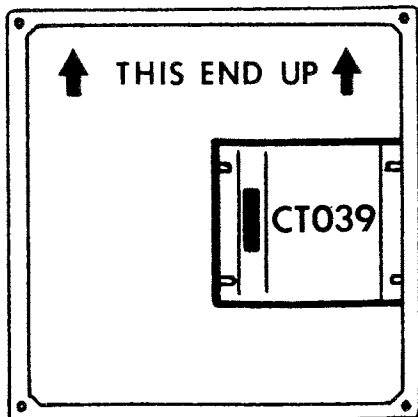
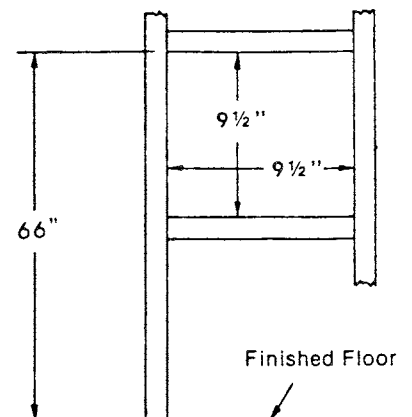


Fig. 3

**Orientation of
IH-107 with
CT-039
mounted**

**Rough-in
Framing
Detail**



WIRING AND NOTES

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

NOTES:

- A. Each VM-102A at the end of a riser must have a 75 ohm, 1/2 watt non-inductive end of line resistor (TekTone part number RC-013) across one of its coaxial cable connectors.
- B. The maximum number of monitors (VM-102A) per riser is 20. The 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-310A Control Unit terminal C.T.).
 4. Common connection for turning the VM-200 on. (Connects to all VM-102A video monitors receiving video feed from the 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-310A) is rated for 3 amps at 17 V.D.C. and may be used to supply power for up to 50 monitors (VM-102A). For each additional 50 monitors, another PK-310A Control Unit is required. NOTE: 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 fluorescent 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

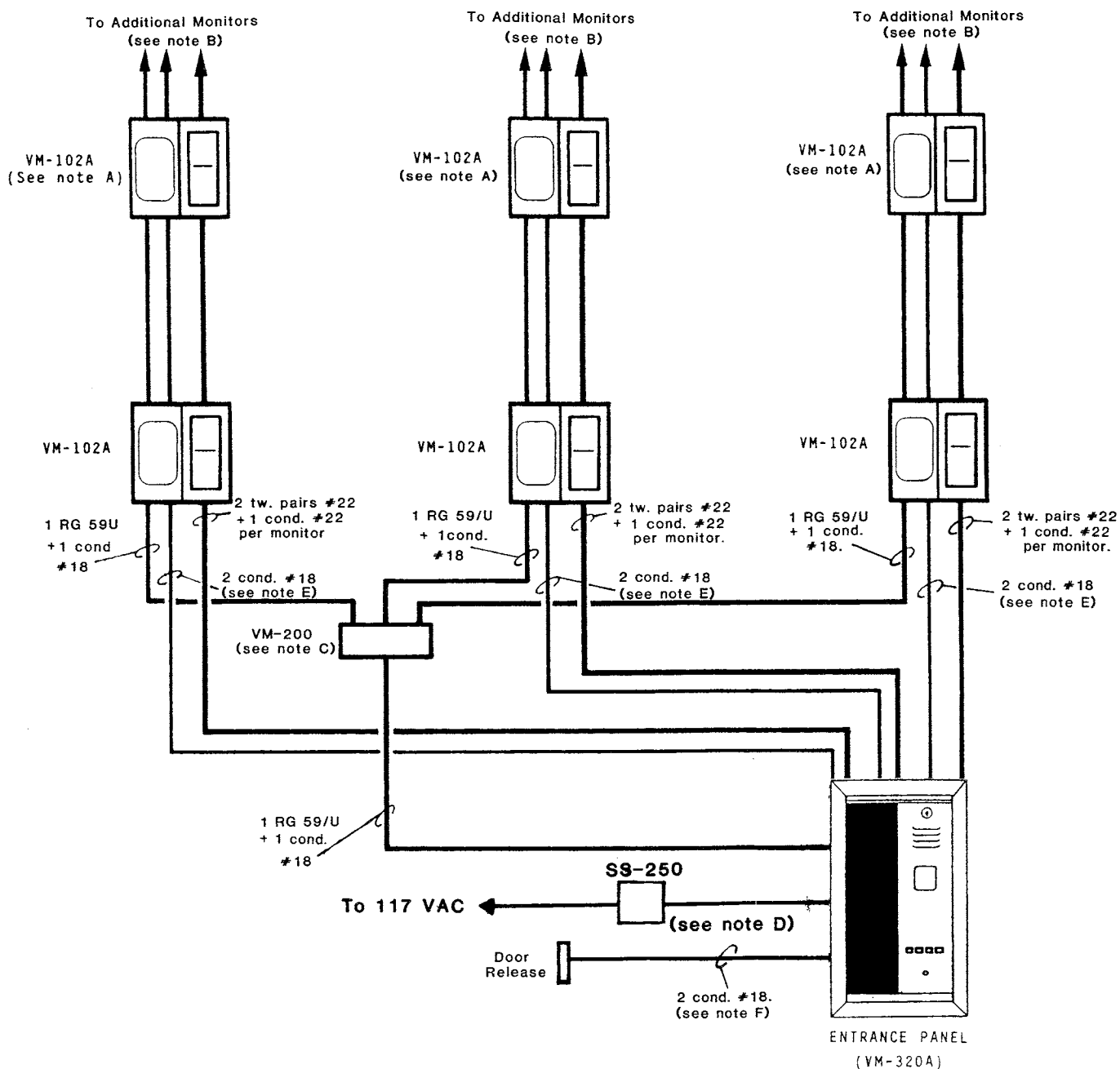


Fig. 4

To Additional Monitors (See Note B)

To Additional Monitors (See Note B)

VM-102A
(See note A)

VM-102A
(See note A)

VM-102A

VM-102A

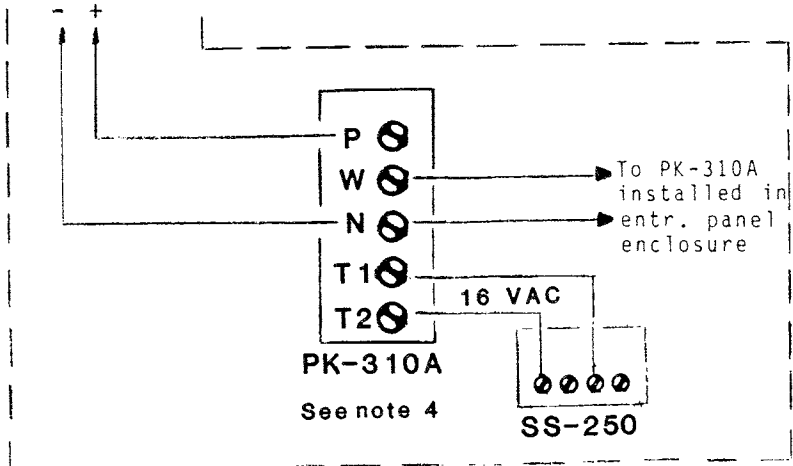
RG 59/U

VM-200 (See Note C)

VM-200
(See Note C)

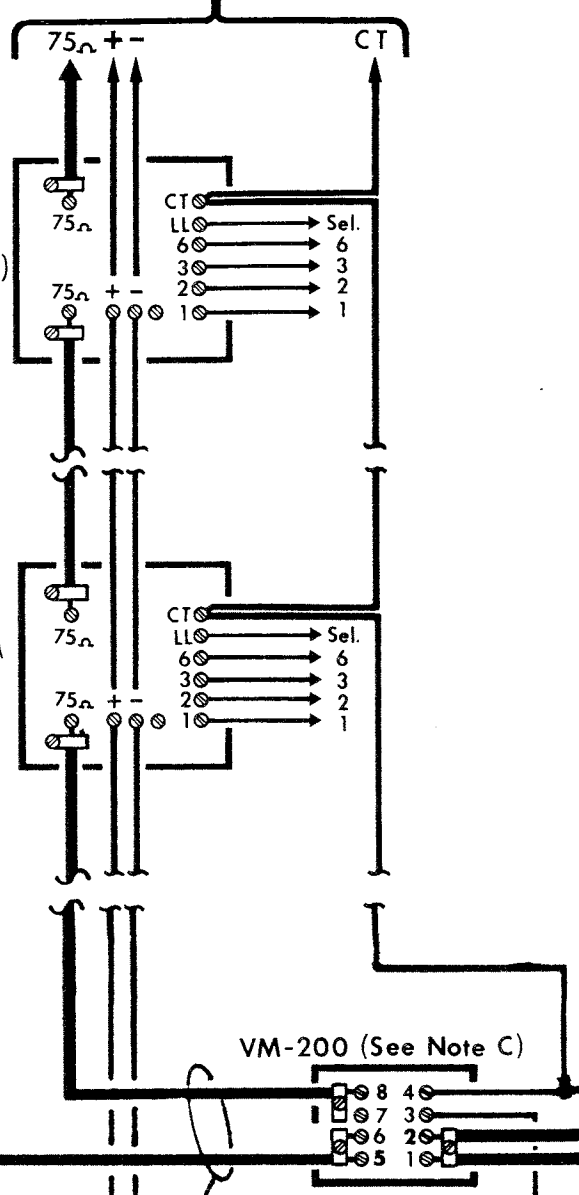
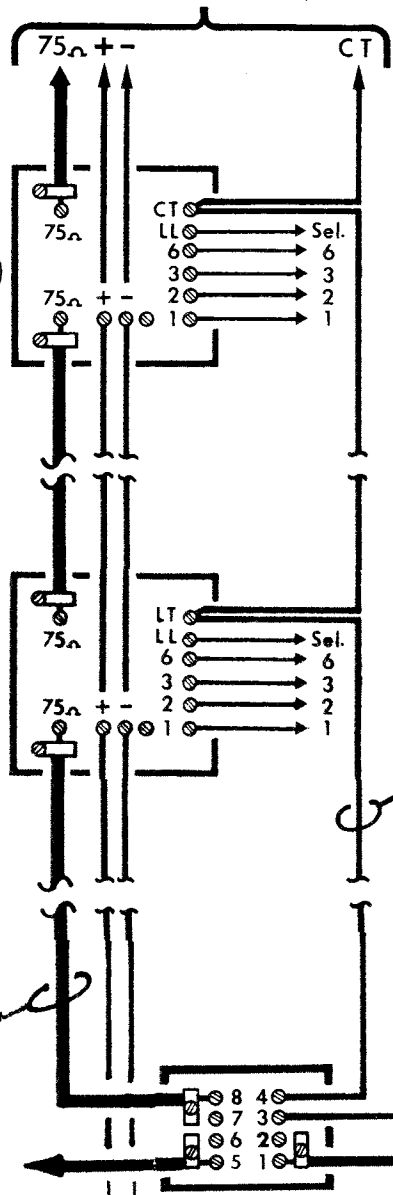
RG59/U

To additional
50 monitors



117
VAC

SS-250 (see note 3)

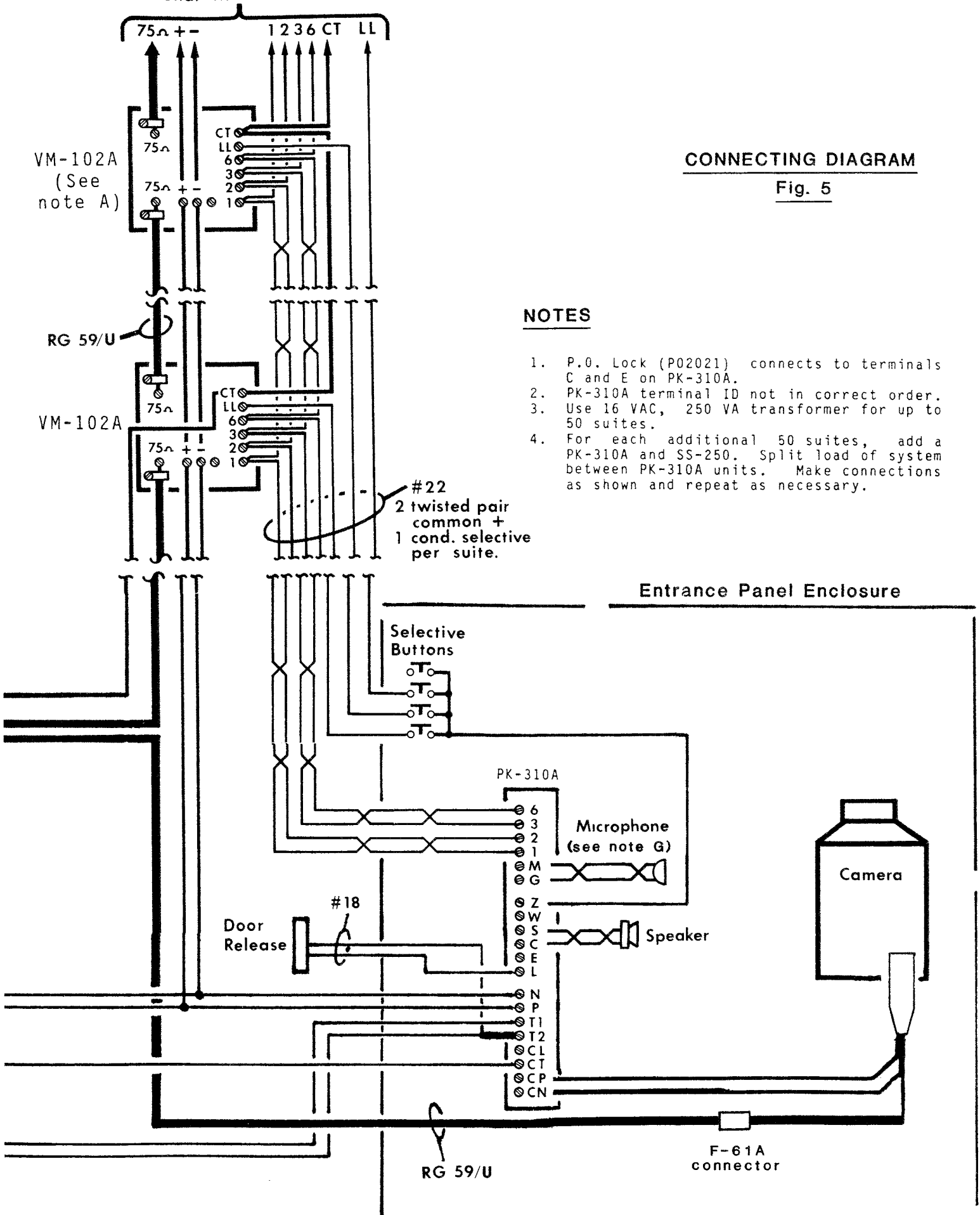


#18

To Additional Monitors (See Note B)

CONNECTING DIAGRAM

Fig. 5



NOTES

1. P.O. Lock (P02021) connects to terminals C and E on PK-310A.
2. PK-310A terminal ID not in correct order.
3. Use 16 VAC, 250 VA transformer for up to 50 suites.
4. For each additional 50 suites, add a PK-310A and SS-250. Split load of system between PK-310A units. Make connections as shown and repeat as necessary.

Entrance Panel Enclosure

Selective Buttons

PK-310A

Microphone
(see note G)

Speaker

Camera

Door Release

#18

RG 59/U

F-61A
connector

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-320A):

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 coaxial video cable (RG 59/U) to the camera cable connector on the back of the camera. Connect the remaining wires from the cable connector to CN and CP to supply power. (See connecting diagram, Fig. 5.)
4. Install the front panels into the Entrance Panel following the directions included with the directory panel.

VIDEO MONITOR (VM-102A):

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 ivory plastic trim frame onto the housing using the four screws provided.
4. Mount the VM-102A to the trim frame using the procedure outlined below:
5. Plug the connector from the VM-102A into the receptacle on the wire termination board (CT-039) noting the correct polarity.
6. Interlock the teeth at the top of the VM-102A with the top of the trim frame and push the bottom of the VM-102A 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 monitor) to the OFF (left) position until ready to make initial tests on the system.

TRANSFORMER:

Connect transformer 16 volt terminals to PK-310A, 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.
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 videoscreen 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. Audio communication will still operate in the normal manner.

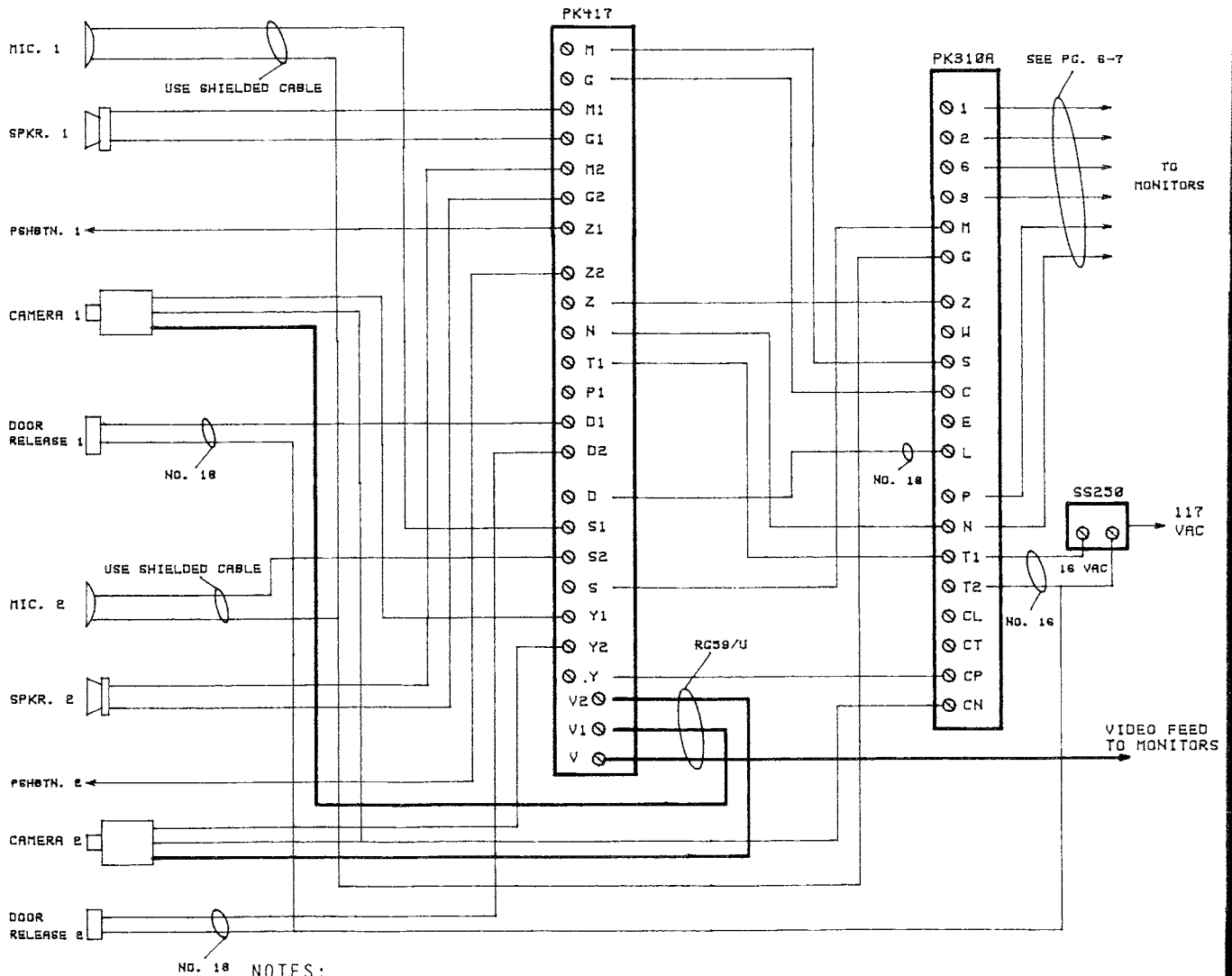
SYSTEM MAINTENANCE

ENTRANCE PANEL (VM-320A):

Directory Panel: To remove panel(s), first remove the self-tapping metal screw(s) located in the top U-channel just above each panel. Lift up on the panel to clear bottom channel and pull out. There should be adequate space to grasp and remove remaining panels. Apply directory listings as desired and replace panels by reversing the above procedure.

Camera Panel: The camera is accessible by following the procedure outlined above. However, the camera is equipped with a pan focus lens which requires no focus adjustment.

WIRING: Dual Entrance Video



NO. 18 NOTES:

1. Connect P.O. Lock (P0202) to terminals P1 and N on PK-417.
2. Use 16 VAC transformer connection.
3. Connect shield for microphone cable to G terminal on PK-310A.
4. For additional instructions, see pages 6 & 7.

CENTRAL EQUIPMENT**POWER SUPPLY:**

Each PK-310A 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.

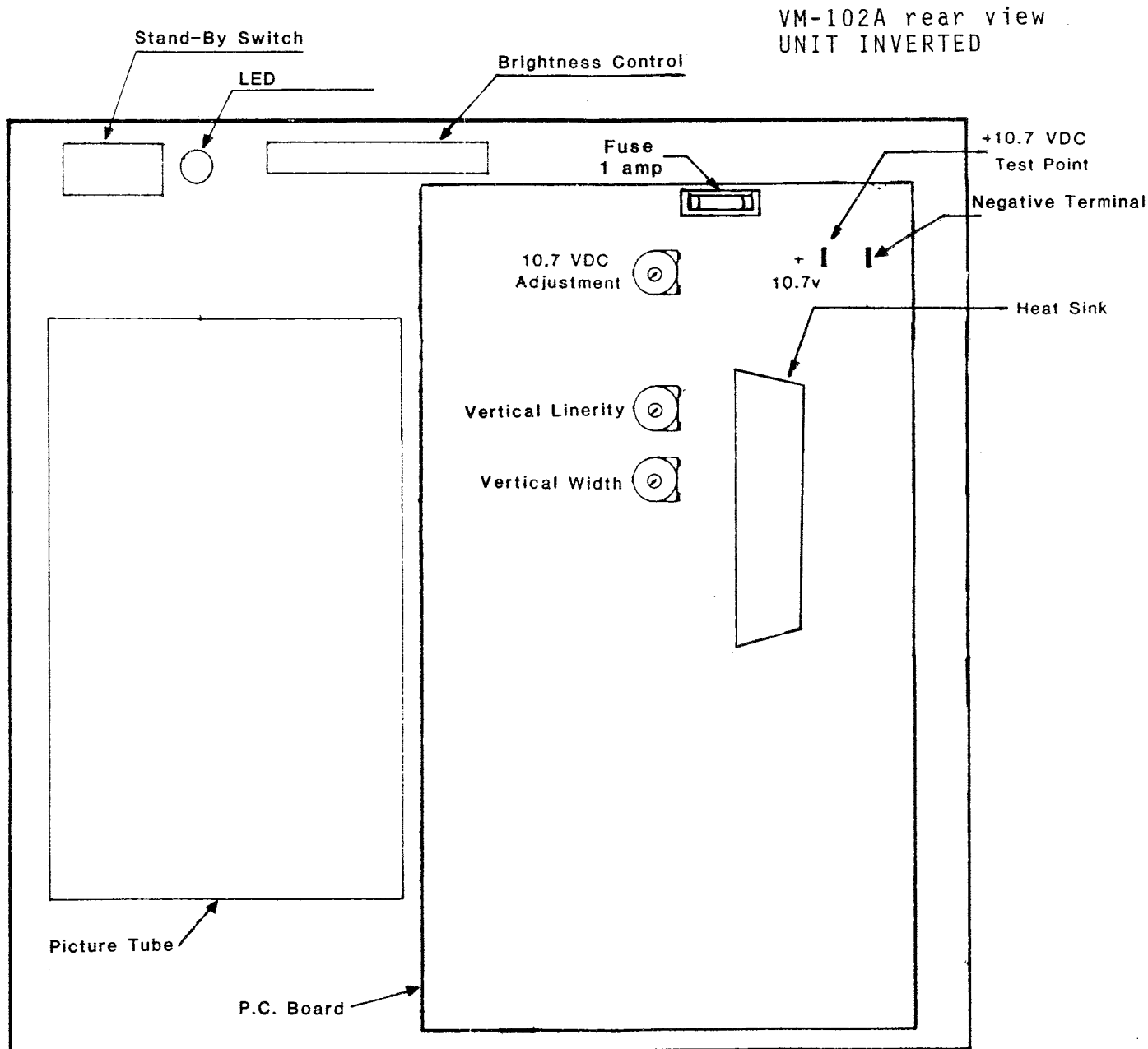


Fig. 6

TROUBLE SHOOTING

ENTIRE SYSTEM:

Check for 15 - 18 V.D.C. on PK-310A terminals P and N. This voltage should also appear between the + and - terminals of all video monitors. NOTE: The PK-310A 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 15 V.D.C. on camera terminals + and G), then check for 10 V.D.C. on PK-310A 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-310A terminal CT to turn on the camera.

INTERCOM ONLY:

Wrong wiring is the cause of most intercom problems. The PK-310A 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 vertical linarity and vertical width problems. See Fig. 6 for adjustment locations. The 10.7 VDC 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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