

# Film-Tech

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These manuals are designed to facilitate the exchange of information related to cinema projection and film handling, with no warranties nor obligations from the authors, for qualified field service engineers.

If you are not a qualified technician, please make no adjustments to anything you may read about in these Adobe manual downloads.

[www.film-tech.com](http://www.film-tech.com)

## FORWARD

For years, the motion picture industry has had a great need for completely packaged projection equipment. The new Ballantyne VIP-35 completely fills this need.

The VIP-35 incorporates projectors, soundheads, amplification and complete automation. The VIP pedestal is quality, precision-engineered combination of lower take-up, power supply, exciter lamp supply, power amplifier, monitor and a completely dependable automation system. The easily accessible automation panel is mounted on the front of the MASTER console. The secondary controls are mounted on the other console, called the SLAVE. Throughout this manual they are referred to as MASTER and SLAVE. Most lamphouse power supplies will fit into the MASTER and SLAVE consoles if desired.

Prior to installation, Ballantyne ships a 6' wiring channel to the theatre with full instructions for the electrician to install it near the floor level between the portholes. Both 110V and 220V lines, speaker wires, curtain control wires, masking control wires and dimmer control wires are connected to receptacles in this channel and the VIP plugged in, making installation a matter of hours.

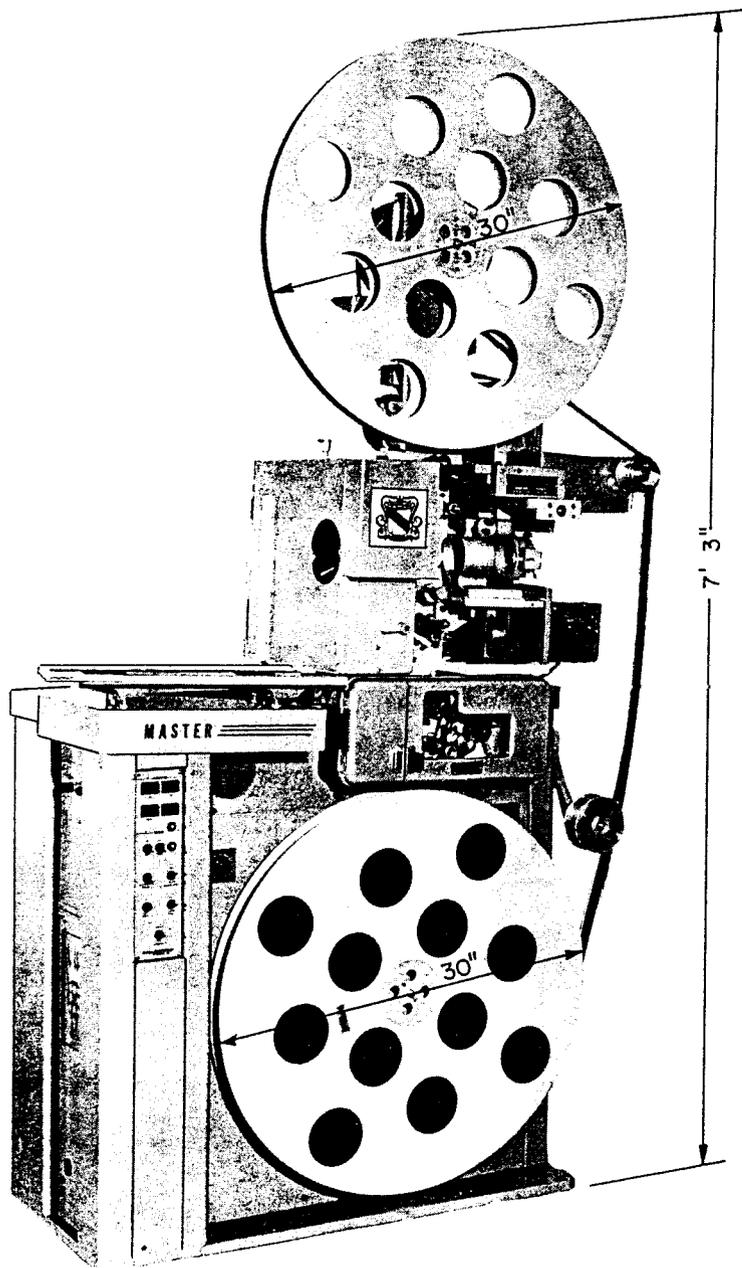
The entire VIP-35 systems, both the MASTER and the SLAVE, are pre-wired and tested at the factory assembled.

With correct preparation, within a few hours, you have a rock-steady brilliant picture with perfect sound and automation from your

## **VIP PROJECTION SYSTEM**

# BALLANTYNE NEWS

BALLANTYNE OF OMAHA INTRODUCES  
THE LASTEST AND GREATEST



## VIP 30 FX

YOU CAN NOW PROJECT  
FOR 2 HOURS ON

## ONE REEL

THE ULTIMATE IN DUAL  
OPERATING EQUIPMENT

DUAL PROJECTORS!  
DUAL AMPLIFICATION!  
DUAL LIGHT!

YOU NEVER REFUND THE  
BOX OFFICE AS SO EASILY  
CAN HAPPEN WHEN YOU  
EQUIP YOUR BOOTH FOR  
ONE MACHINE OPERATION

BEST OF ALL —

AT A PRICE YOU CAN  
AFFORD!!

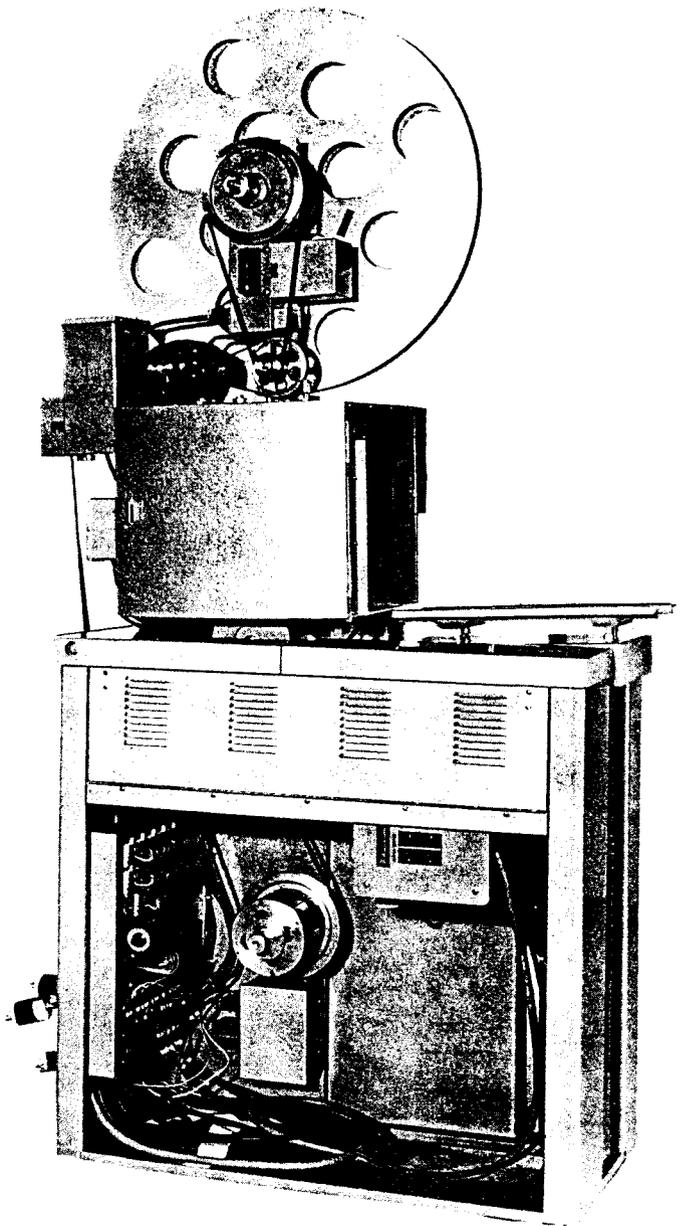
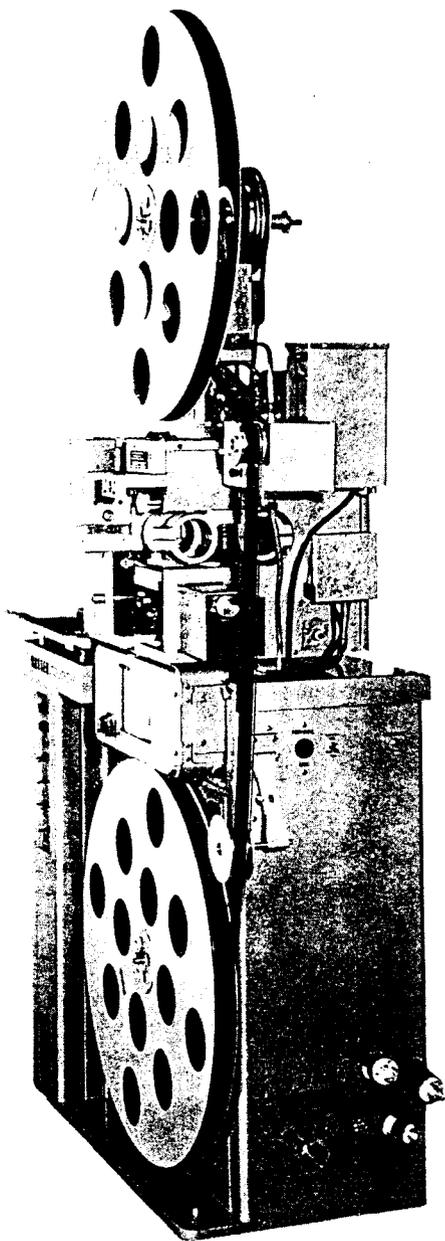
AND YOU REWIND ON  
THE PROJECTOR

**BALLANTYNE**  OF OMAHA, INC.

TELEPHONE 342-4444

1712 JACKSON STREET

OMAHA, NEBRASKA



# VIP 30 FX

(FX=FORWARD RUNNING PROJECTOR- EXTERNAL REWIND)

REVERSING UPPER ARM, ACTS AS HOLD-BACK AND REWIND.  
ELECTRONIC LOWER TAKE-UP MAINTAINS PERFECT FILM TENSION  
DURING TAKE-UP CYCLE AND PERFECT TENSION DURING REWIND CYCLE  
REGARDLESS OF FOOTAGE ON REEL - SLOPPY LOOSE FILM ON REEL  
IS A THING OF THE PAST - TENSION IS IDENTICAL WHETHER REEL  
TURNS 5 RPM OR 500RPM.

**BALLANTYNE** → OF OMAHA, INC.

1712 JACKSON STREET

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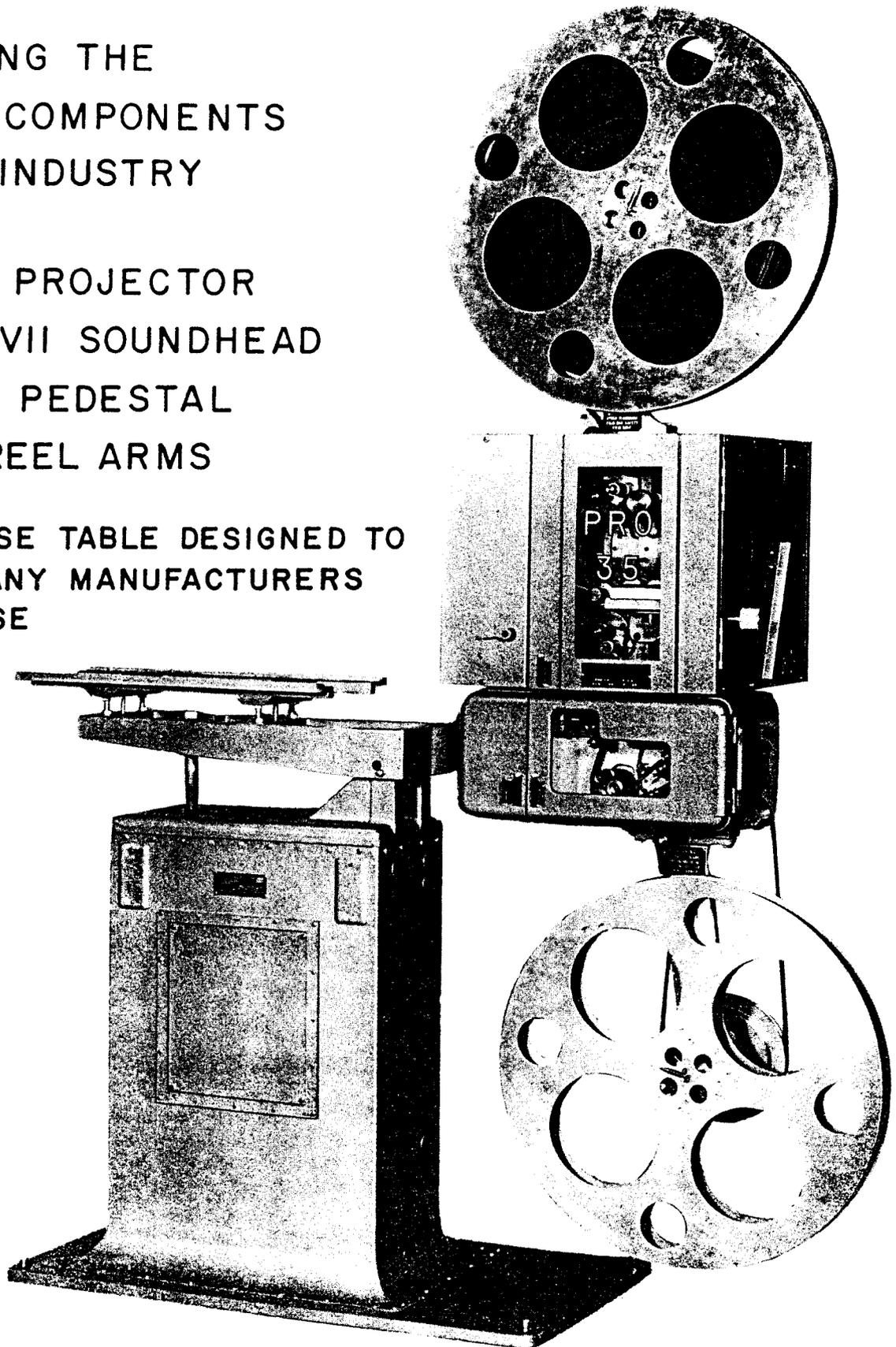
OMAHA, NEBRASKA

# PRO-35 PROJECTION SYSTEM

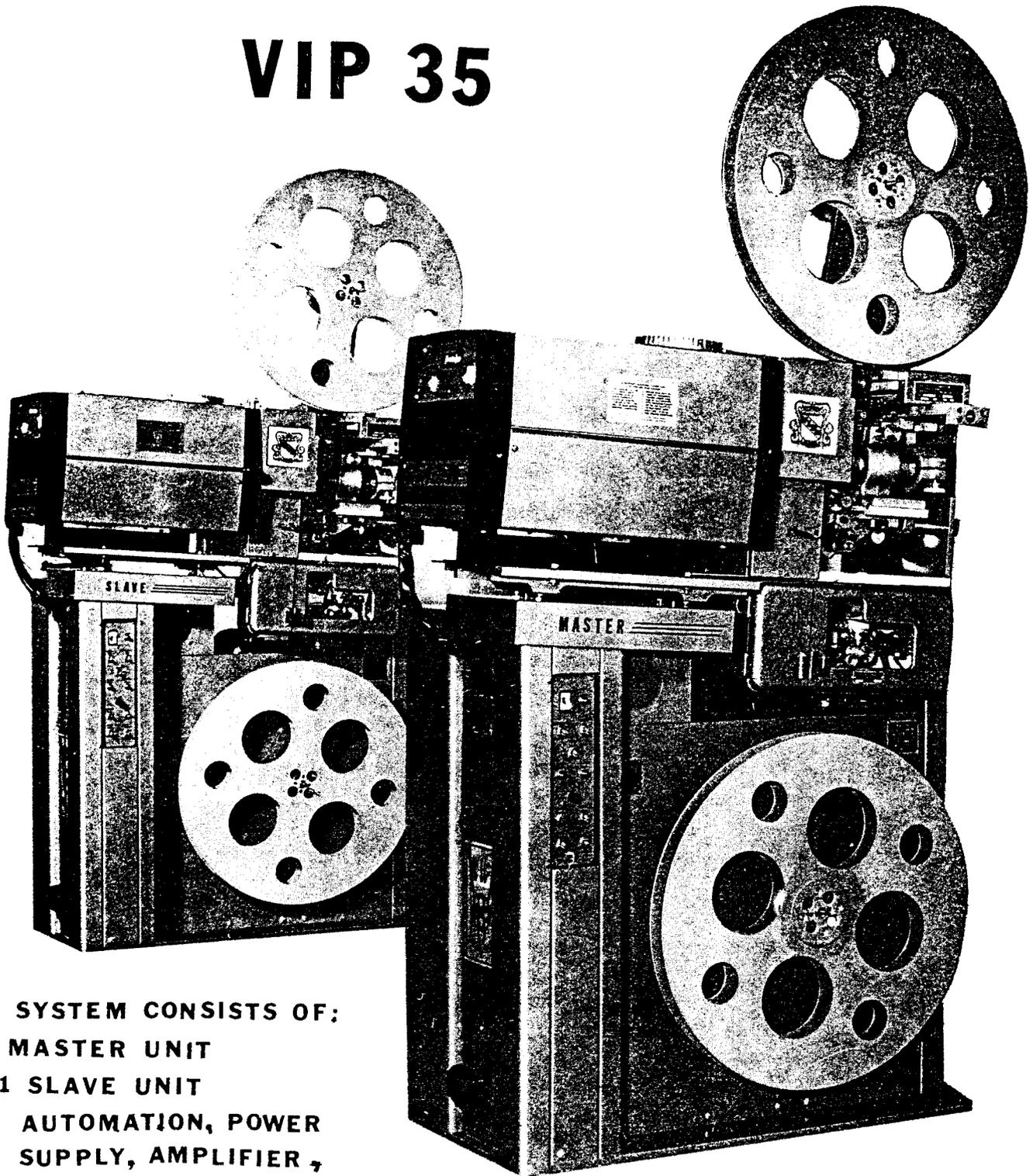
UTILIZING THE  
FINEST COMPONENTS  
IN THE INDUSTRY

PRO-35 PROJECTOR  
MODEL VII SOUNDHEAD  
2500-B PEDESTAL  
7000' REEL ARMS

LAMPHOUSE TABLE DESIGNED TO  
ACCEPT ANY MANUFACTURERS  
LAMPHOUSE



# VIP 35



- SYSTEM CONSISTS OF:
- 1 MASTER UNIT
  - 1 SLAVE UNIT
- AUTOMATION, POWER  
SUPPLY, AMPLIFIER,  
EXCITER SUPPLY, MONITOR AND  
CONTROL PANELS.

# VIP MASTER SYSTEM

WILL ACCEPT  
ANY MANUFACTURERS  
XENON LAMP

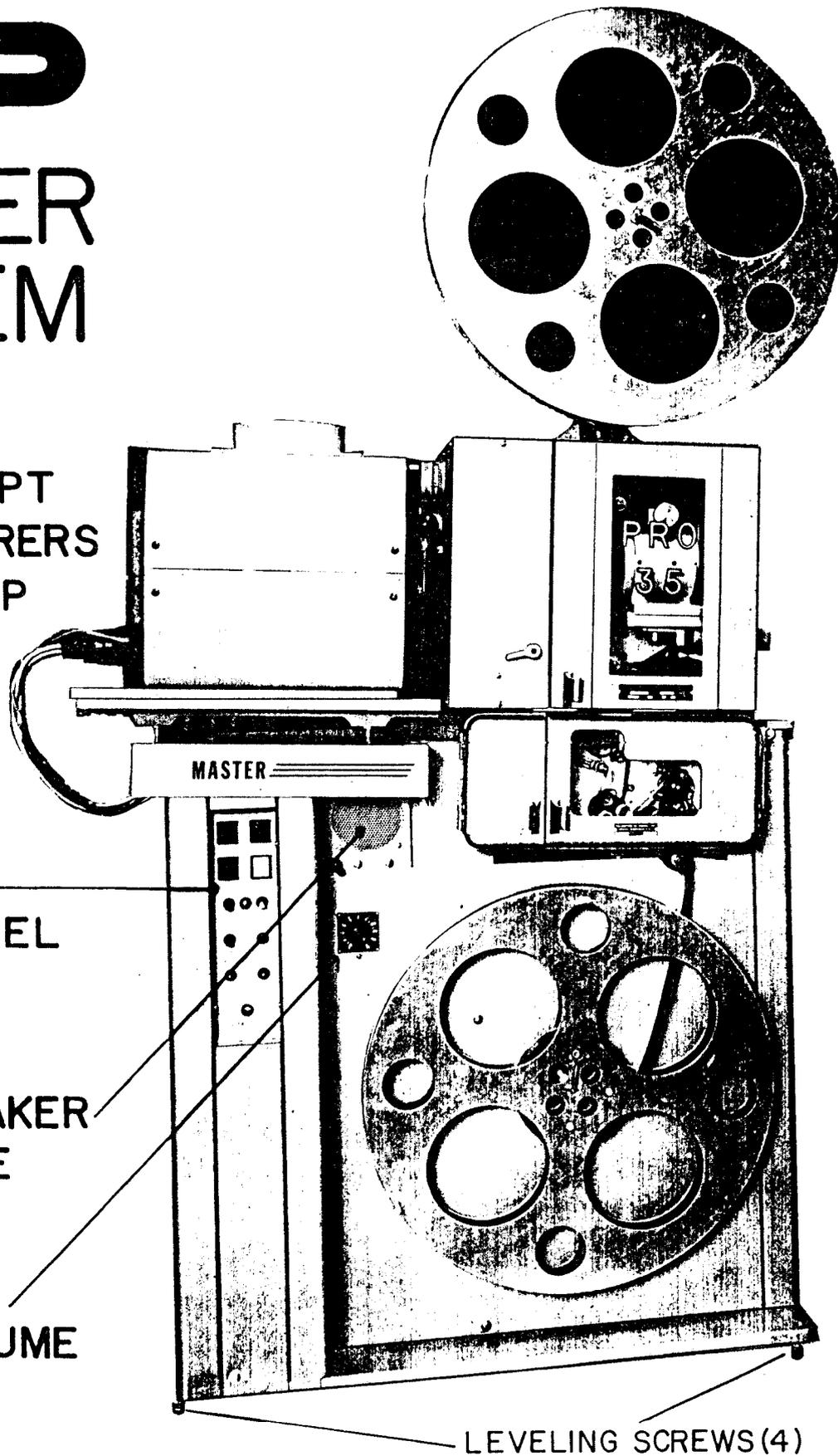
MASTER  
CONTROL PANEL

MONITOR SPEAKER  
WITH VOLUME  
CONTROL

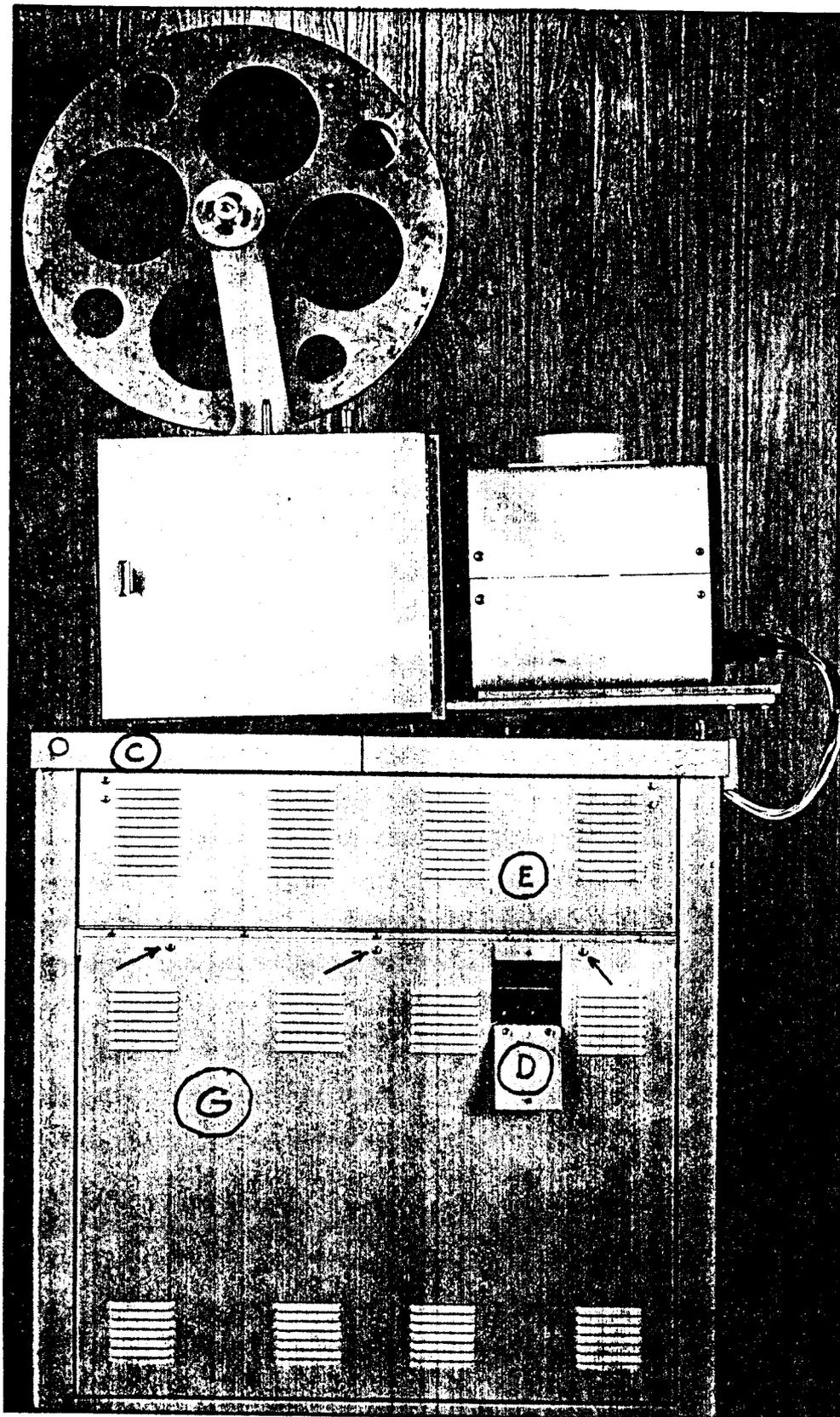
MAIN POWER  
AMPLIFIER VOLUME  
CONTROL

LEVELING SCREWS (4)

BASE SHOULD BE OFF FLOOR ON LEVELING  
SCREWS AT LEAST 1" FRONT AND REAR. MORE  
THAN 1" IS VERY ACCEPTABLE



# VIP NON FILM SIDE



THE NON OPERATING SIDE HOUSES THE

1. MASTER AUTOMATION CHASSIS
2. MAIN POWER AMPLIFIER
3. CHANGE-OVER D.C. SUPPLY
4. CIRCUIT BREAKER
5. XENON POWER SUPPLY
6. LOWER TAKEUP

BEHIND HINGED DOOR (E) IS POWER AMPLIFIER CHANGE-OVER POWER SUPPLY, SEE FIGURE 4

BEHIND HINGED DOOR (D) IS THE 4 CIRCUIT 20 AMP CIRCUIT BREAKER, SEE FIGURE 5

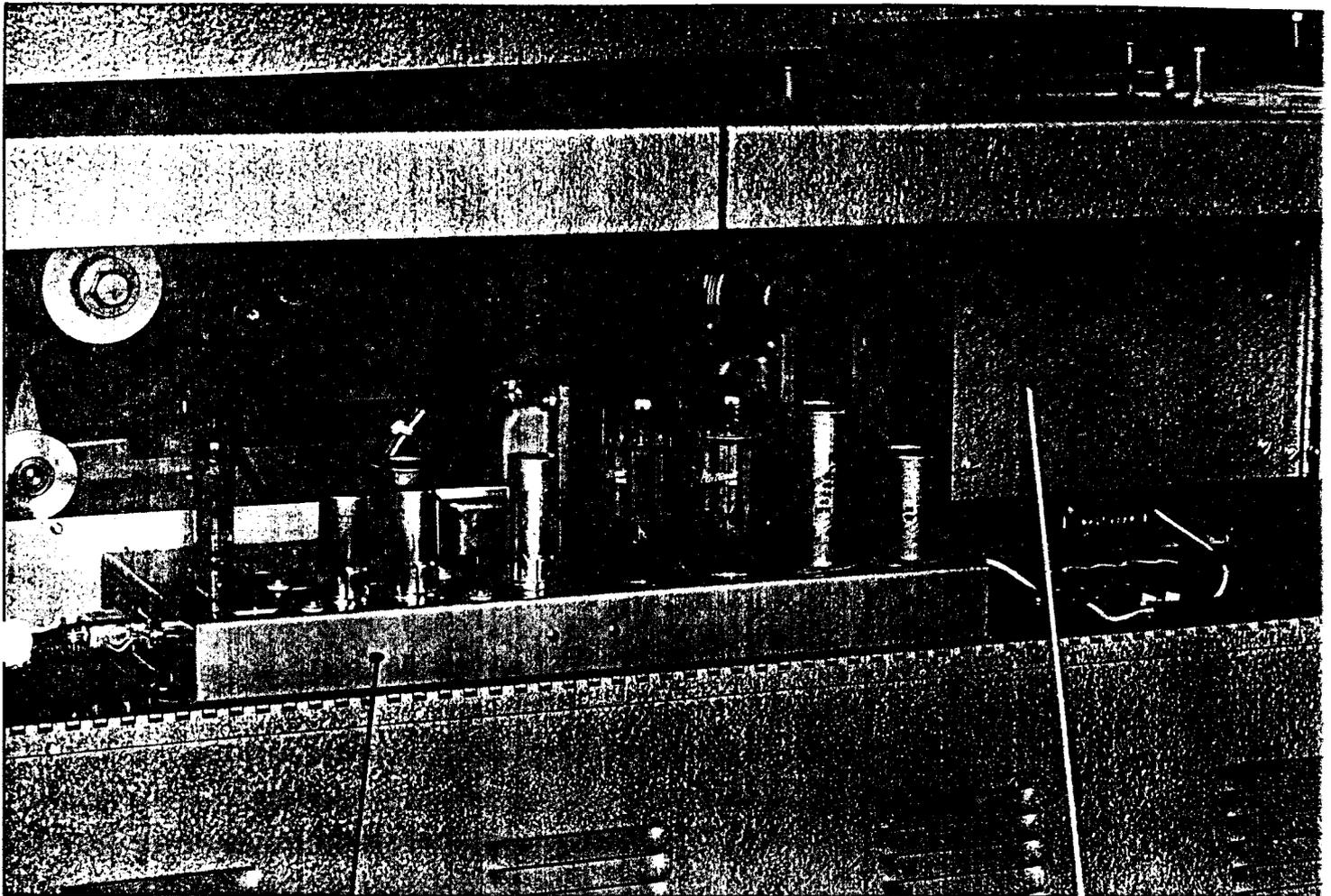
BEHIND PANEL (G) REMOVABLE BY 3 SCREWS INDICATED BY ARROWS, IS MASTER AUTOMATION CHASSIS LOWER TAKEUP AND ANY MANUFACTURERS POWER SUPPLY EXCEPT 4000 OR 6000. SEE FIGURE 5

TOP COVER (C) IS LIFTED OFF FOR EASY ACCESS.

SLAVE CONTAINS SPARE AMPLIFIER-EXCITER LAMP SUPPLY-SLAVE AUTOMATION-TAKEUP-AND XENON POWER SUPPLY OF ANY MANUFACTURER. SEE FIGURE 11-12-13 PAGE 9-10

FIGURE 3

# UPPER SECTION OF MASTER PEDESTAL CABINET



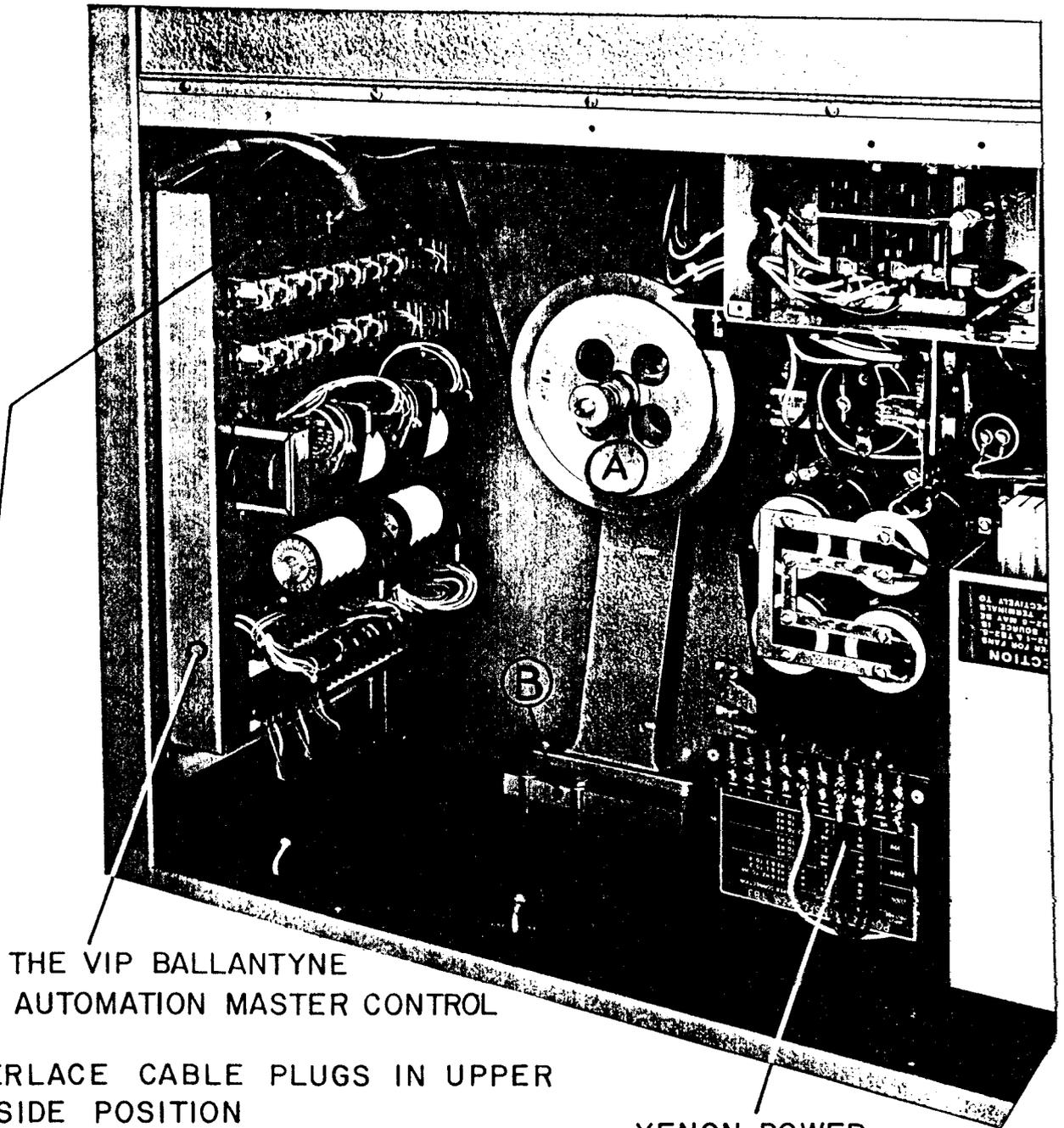
## VIP POWER AMPLIFIER

THIS IS BASICALLY THE SAME AMPLIFIER MANUFACTURED FOR SEVERAL YEARS AND DISTRIBUTED AS BALLANTYNE 25-1-2 AMPLIFICATION. A SECTION HAS BEEN ADDED IN THE VIP INCORPORATING A MONITOR AMPLIFIER. MONITOR VOLUME CONTROL IS NEAR THE MONITOR SPEAKER ON FILM SIDE.

## DUAL CHANGE-OVER POWER SUPPLY

SEE PAGE 6 FOR  
UNPACKING INSTRUCTIONS

# LOWER SECTION OF MASTER PEDESTAL CABINET



THE VIP BALLANTYNE  
AUTOMATION MASTER CONTROL

INTERLACE CABLE PLUGS IN UPPER  
OUTSIDE POSITION

XENON POWER  
SUPPLY, ANCHORED TO  
FILM SIDE OF CABINET

- Ⓐ LOWER TAKEUP  $\frac{5}{16}$ " SPINDLE
- Ⓑ LOWER SPINDLE  
ALIGNMENT BRACKET

LOWER TAKEUP BELT IS ADJUSTED TO JUST BARELY SNUG. TAKEUP TENSION IS 350 GRAMS ON A 2000' 15" REEL, 5" HUB.

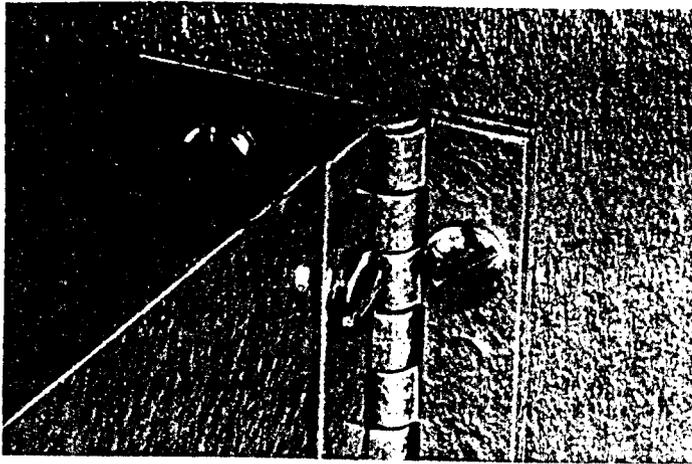


FIGURE 6

## CHANGE-OVER SOLENOID POWER SUPPLY

LOCATED NEXT TO AMPLIFIER  
IN THE MASTER. (SEE FIG. 4)  
THIS UNIT IS HINGED SO THAT IT  
CAN BE SWUNG OUT FOR SERVICE.  
ALSO, WHEN POWER SUPPLY IS  
IN "OPEN" POSITION, PEDESTAL  
TILTING LOCK BOLTS ARE  
ACCESSIBLE.

FOR SHIPPING  
PURPOSES, THE  
HINGED GATE IS  
ANCHORED BY A  
SET SCREW.

SEE (A) FIGURE 6  
REMOVE THIS  
SCREW ON  
INSTALLATION

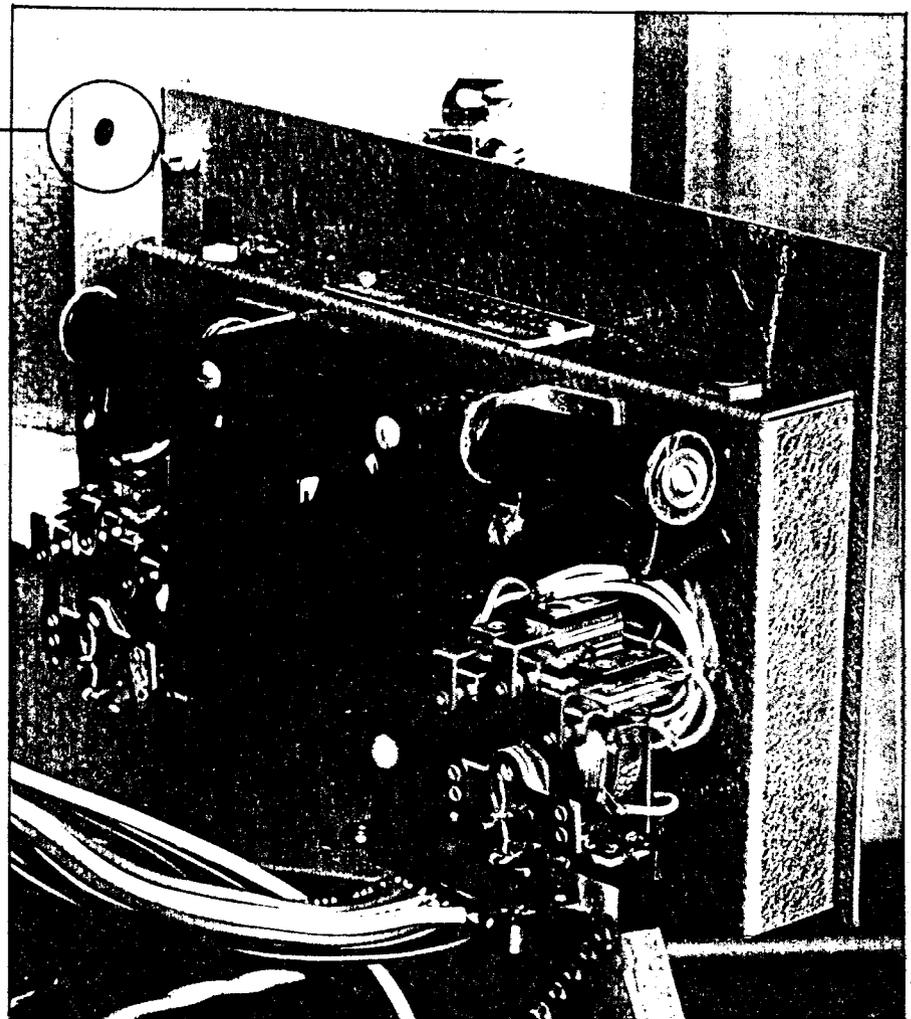
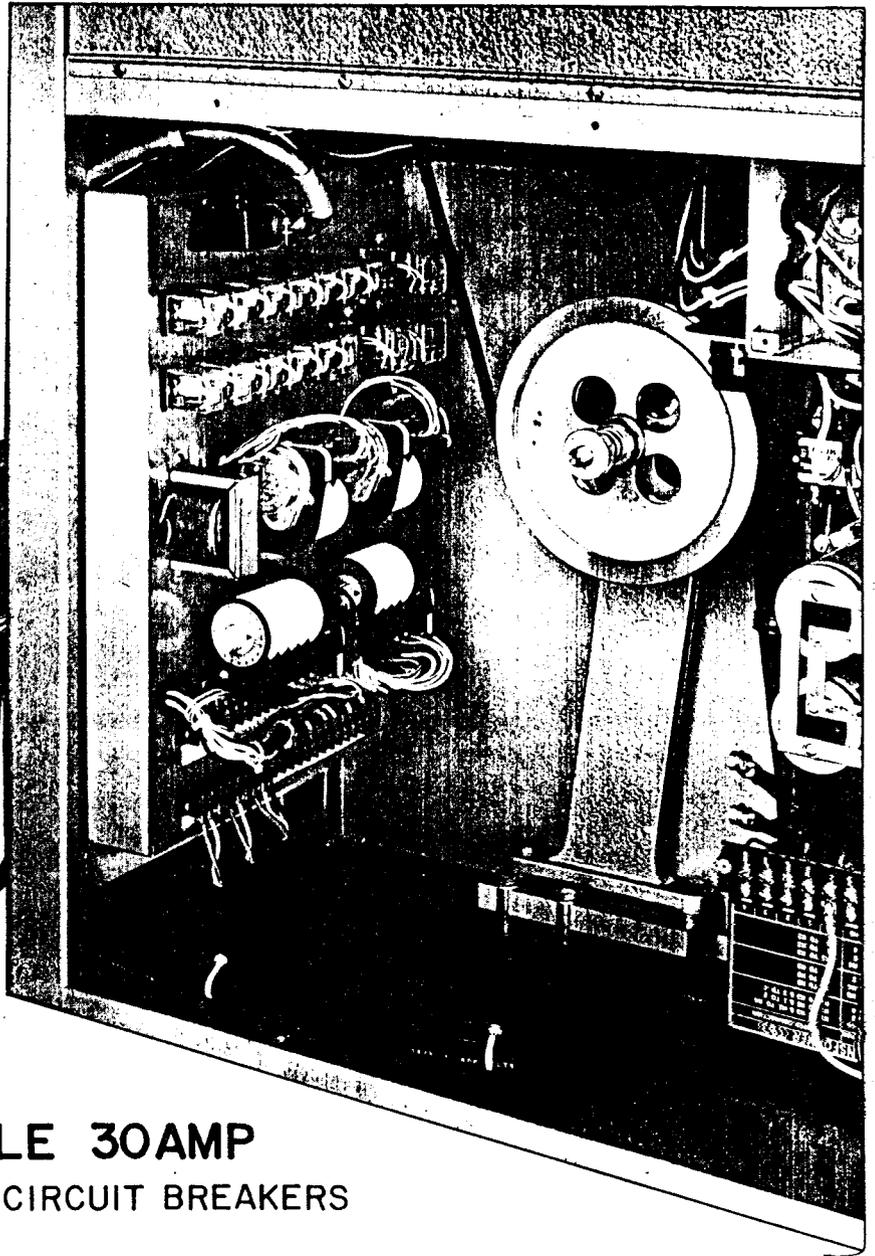
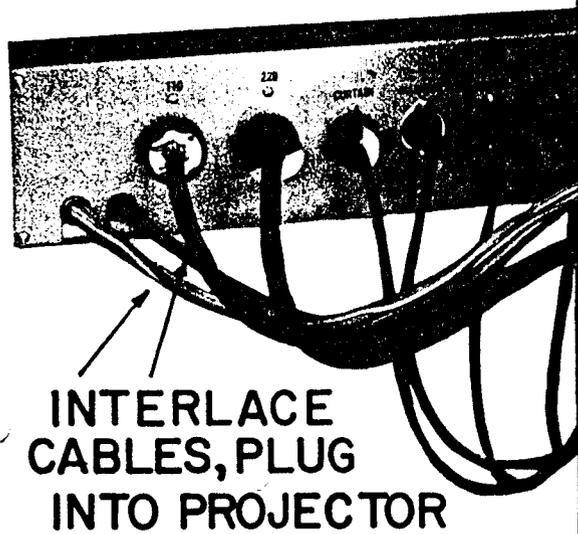


FIGURE 7

# MASTER PLUG-IN



INTERLACE  
CABLES, PLUG  
INTO PROJECTOR

LEFT TO RIGHT

110V 1 PHASE 60 CYCLE 30AMP

(1 CIRCUIT FEEDS BOTH CIRCUIT BREAKERS  
IN SYSTEM)

220V 1 PHASE 60CYCLE 20 TO 30AMP  
DEPENDING SIZE OF XENON. FUSED IN DISTRIBUTION PANEL

CURTAIN CONTROL, LOW VOLTAGE

MASKING CONTROL, LOW VOLTAGE

DIMMER CONTROL, LOW VOLTAGE

SPEAKER RUN

# MASTER

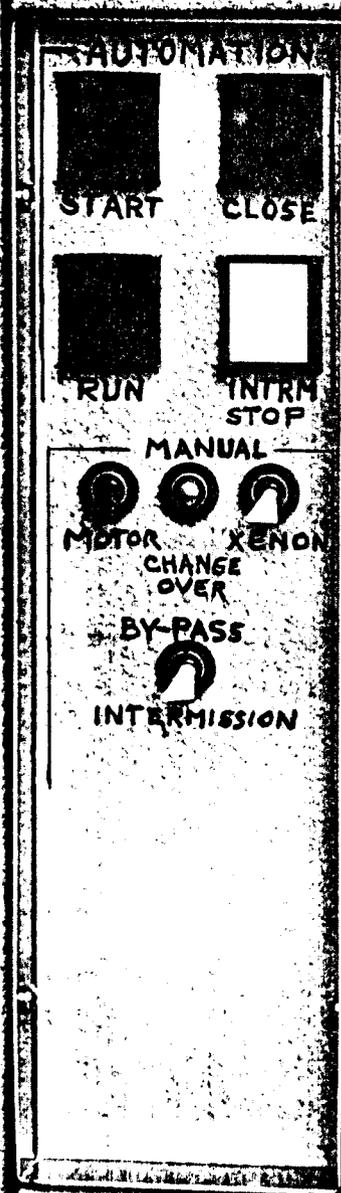


INTRM = INTERMISSION

MASTER CONTROL  
PANEL  
MONITOR WITH  
VOLUME CONTROL  
MASTER VOLUME  
CONTROL

FIGURE 9

# SLAVE



## SLAVE CONTROL PANEL

THE SLAVE PEDESTAL CABINET IS MANUFACTURED IDENTICAL TO THE MASTER. ONLY A FEW PARTS ARE DIFFERENT SO THE MANUFACTURER PLUGS A FEW HOLES WITH SNAP COVERS. SINCE POWER SUPPLY FOR CHANGE-OVER SOLENOIDS IS IN MASTER CABINET, THE D.C. EXCITER LAMP SUPPLY IS MOUNTED IN THE SLAVE. SEE PAGE 10.

MOUNTED NEAR THE TOP AT REAR OF THE SLAVE IS THE D.C. EXCITER SUPPLY

IT IS HELD CLOSED BY ITS WEIGHT. A PILOT LAMP INDICATES OFF-ON. IT IS FUSED AS SHOWN WITH A 1 AMP 3AG LITTLE FUSE



FIGURE 11

THE D.C. SUPPLY IS EASILY ACCESSIBLE BY MERELY OPENING. IT CAN BE UNPLUGGED (A) FOR IMMEDIATE REPLACEMENT.

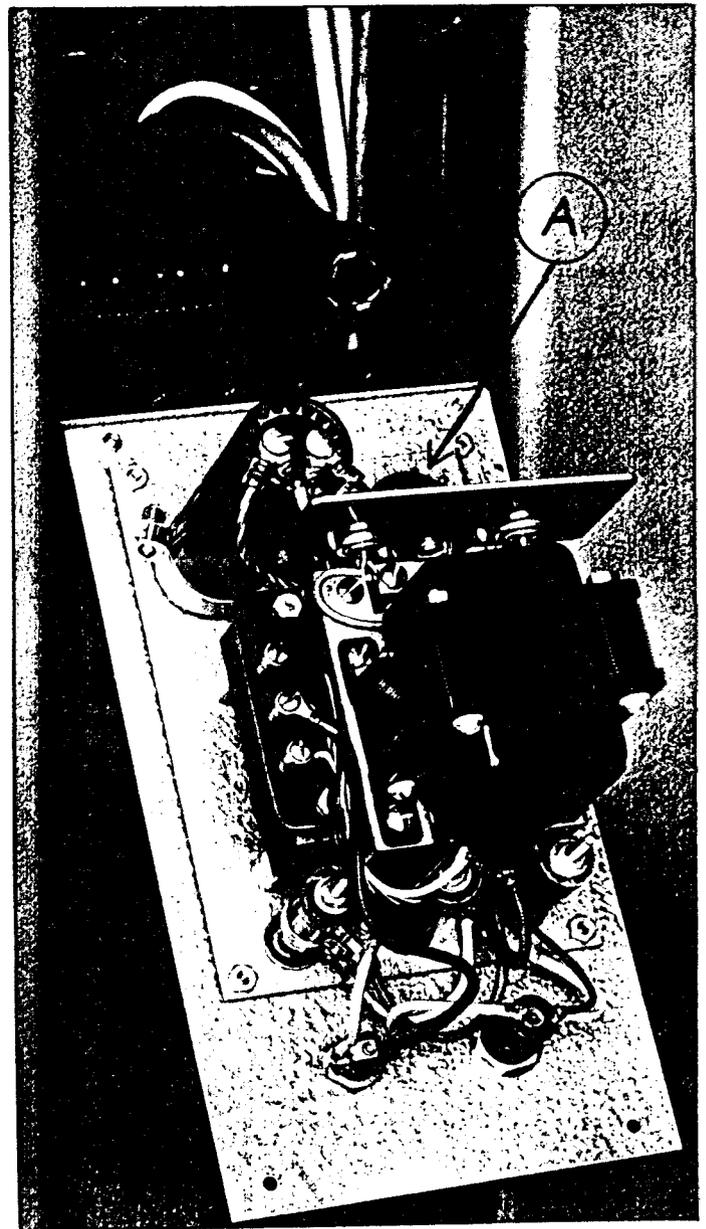
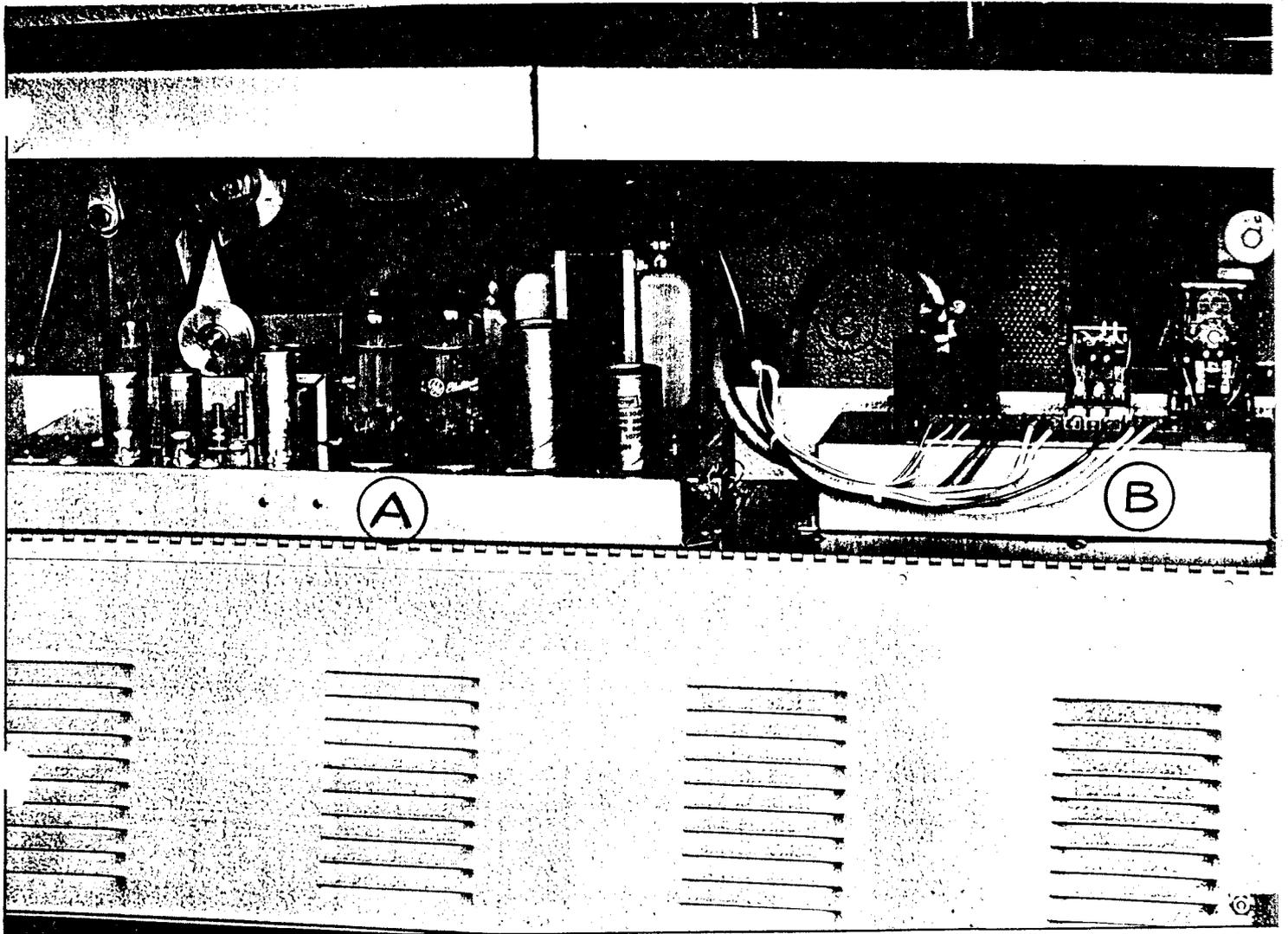


FIGURE 12



## NON-OPERATING SIDE OF SLAVE

### (A) SPARE POWER AMPLIFIER

SPARE AMPLIFIER IS LOCATED IN SLAVE SYSTEM .  
THIS IS PLUG-IN TYPE SO REPLACEMENT IS ONLY  
A MATTER OF SECONDS DURING EMERGENCY.

### (B) SLAVE AUTOMATION SYSTEM

SINCE CURTAIN, MASKING, DIMMER & CLOSE SHOW  
AUTOMATION IS ON MASTER UNIT, THE SLAVE MUST  
HANDLE ONLY EXCITER LAMP AND MANUAL SWITCHES.  
IT IS PLUG-IN (C) FOR FAST SERVICE.

# WIRING CHANNEL FOR SLAVE

SINCE THE SLAVE UNIT EMPLOYS  
ONLY THE INTERLACE CABLES  
AND LINE, THERE ARE ONLY TWO  
PLUGS:

110V 1PHASE 60CYCLE 30AMP  
(SAME CIRCUIT FEEDS MASTER)

220V 1PHASE 60 CYCLE  
20AMP OR 30AMP  
DEPENDING ON XENON SIZE

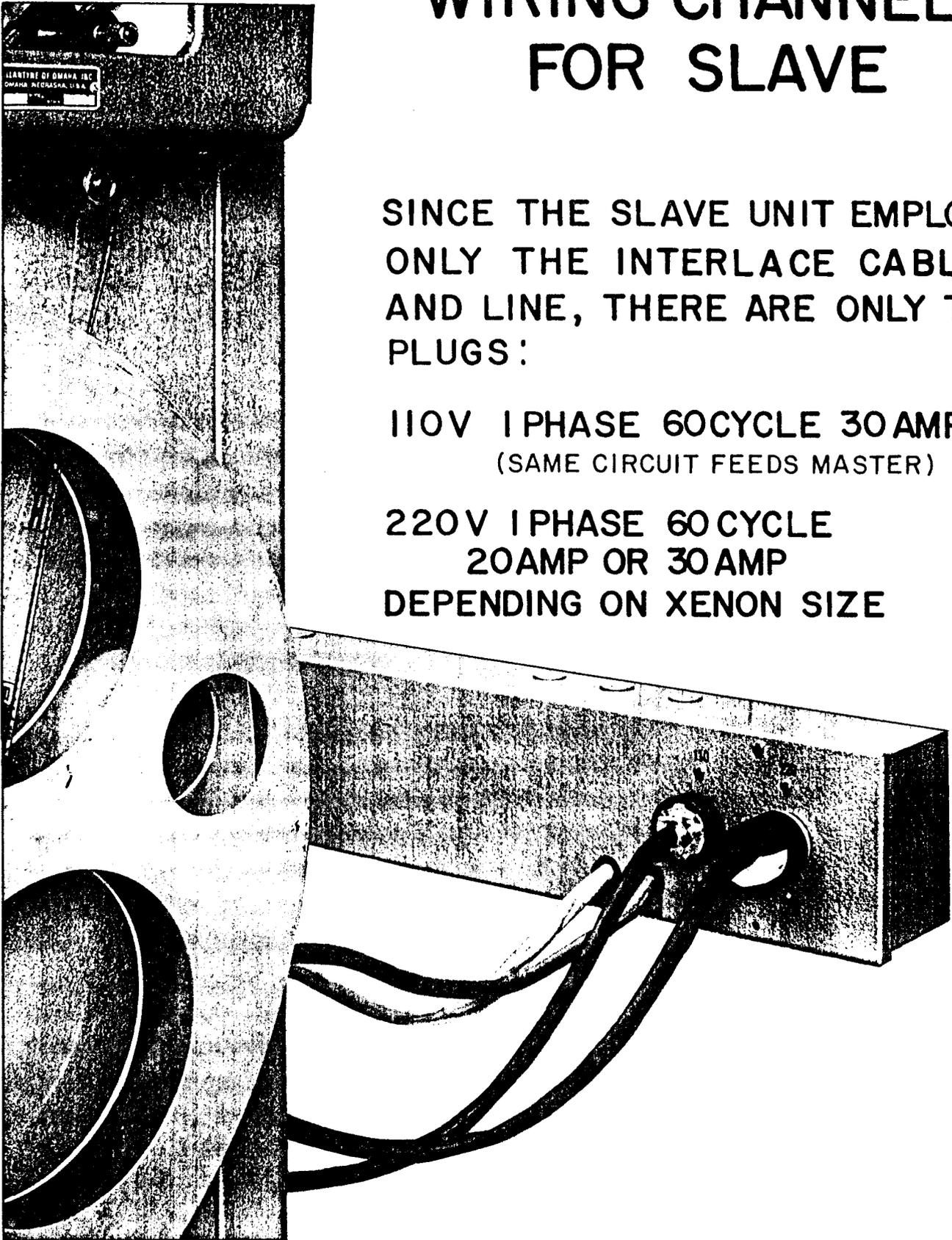
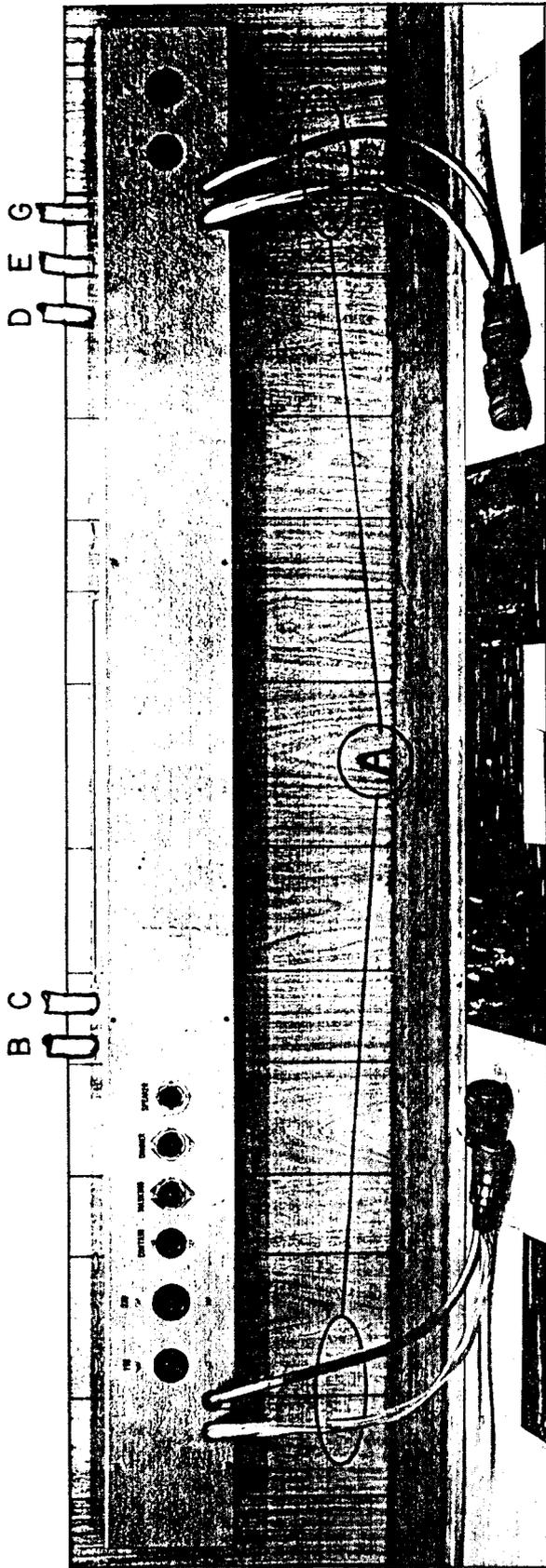


FIGURE 14



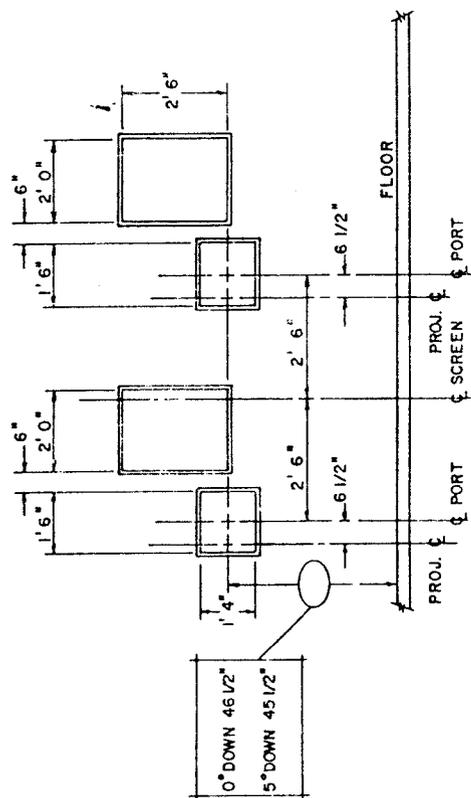
**VIP WIRING CHANNEL 6"X6"X6'0"**

INTERLACING CABLES ARE SHIPPED WITH THE VIP SYSTEMS (A)

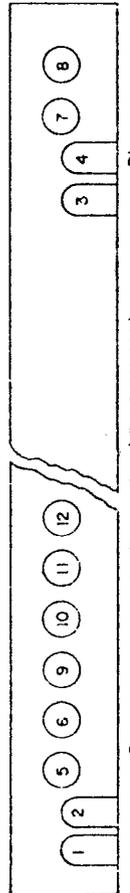
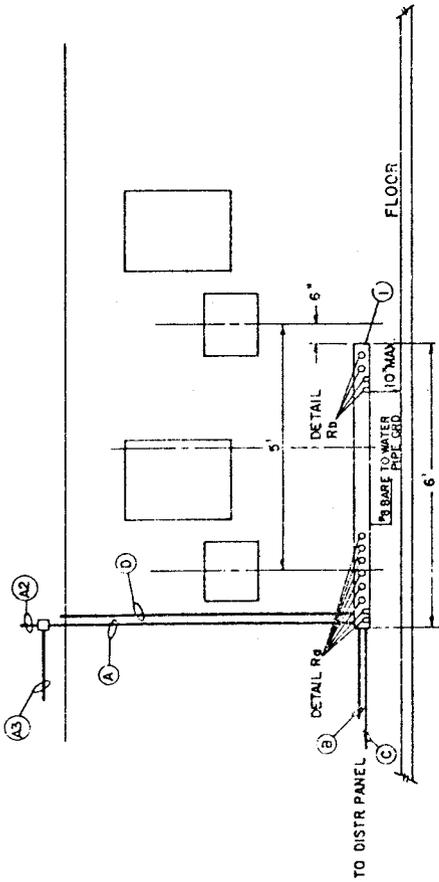
**BUT --- WIRING CHANNEL SHOULD BE ORDERED WELL ENOUGH IN ADVANCE FOR THE ELECTRICIAN TO INSTALL ON FRONT WALL AND RUN CONDUIT AND WIRE TO: MASKING - DIMMER AND WATER PIPE GROUND**

- (B) 8 OR 12 AS NEEDED TO MASKING AND CURTAIN CONTROL
  - (C) 2 #12 TWISTED TO SPEAKER
  - (D) 3 #16 DIMMER
  - (E) 2 #12 FOR 110V 1PHASE 60CYCLE TO DISTRIBUTION PANEL (1 CIRCUIT ONLY)
  - (G) 4 #8 FOR 220V 1PHASE 60CYCLE TO DISTRIBUTION PANEL (2 CIRCUITS-XENON)
- GROUND - #8 BARE TO WATER PIPE NOT SHOWN  
 TERMINATE ALL WIRES IN CHANNEL ± 5'

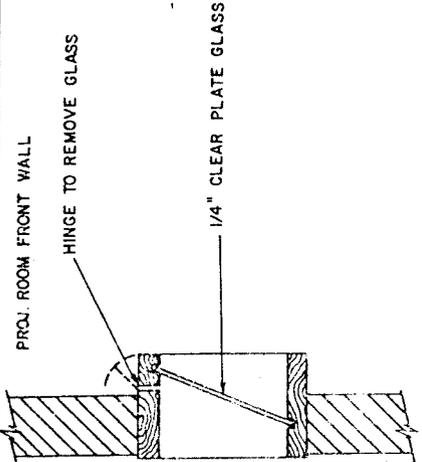
PORT HOLE DETAIL - NO SCALE  
VIEW FROM INSIDE PROJECTION ROOM TO SCREEN



ALL DIMENSIONS I.D.



DETAIL R (RACEWAY)  
NO SCALE



FRAMING FOR ALL PORTS (NO SCALE)

LEGEND:

- (1) \* 4"x5"x6" CHANNEL W/RECEPTACLES MOUNTED. SUPPLIED BY BALLANTYNE OF OMAHA, INC.
- (A) 3/4" CONDUIT 8 #16 TW CODED - CONNECT TO MASKING CONTROL ON STAGE AND CURTAIN CONTROL ON STAGE. TERMINATE WIRES TO RECEPTACLE IN CHANNEL.
- (A2) 1" CONDUIT, CONTAINS (A) PLUS #4 HOT WIRES. SIZE TO BE DETERMINED BY SIZE OF MOTORS ON MASKING AND CURTAIN CONTROL.
- (A3) ABOVE #4 WIRE TO DISTRIBUTION PANEL, 110 OR 220, CHECK CONTROLS.
- (B) 3/4" OR 1" CONDUIT FOR 4 #8 TW WIRES 1-208(220) SINGLE PHASE CIRCUIT TO EACH PROJECTOR RECEPTACLE IN CHANNEL FUSE 30 AMP EACH
- (C) 1/2" CONDUIT 4 #12 TW WIRES, 1 ONLY 110V CIRCUIT FUSED 20 AMP TO 2 RECEPTACLES IN CHANNEL PARALLELED. 2 #12 TO DIMMER CONTROL FROM RECEPTACLE.
- (D) NOTE: CONTRACTOR MOUNTS CHANNEL, RUN CONDUIT, PULL WIRES, CONNECT WIRES TO RECEPTACLES IN CHANNEL.

1/2" CONDUIT 2 #12 TW WIRES, CODED FROM CHANNEL TO 4" SQ PULL BOX 6' ABOVE FLOOR CENTER LINE SCREEN FOR SPEAKER. ABSOLUTELY NO OTHER WIRES IN THIS CONDUIT

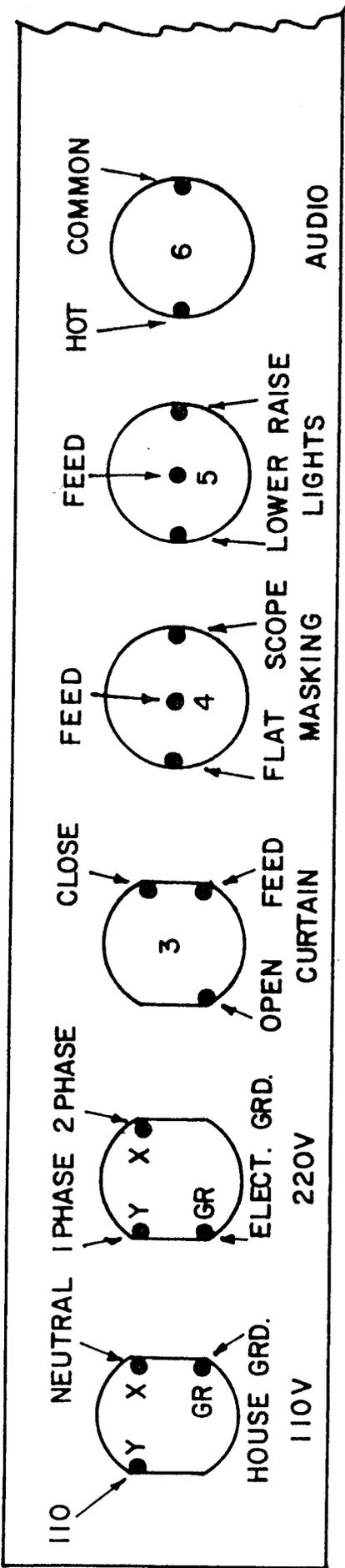
BALLANTYNE SUPPLIES CHANNEL (1) CONDUIT, WIRE, CONNECTIONS RESPONSIBILITY CONTRACTOR  
Rg - Rb ALL PLUGS ON PROJECTORS AND RECEPTACLES IN 6FT. RACEWAY SUPPLIED BY BALLANTYNE.

- 1,2,3,4 INTERFACE CABLE SUPPLIED BY BALLANTYNE.
- 5,7 110 VAC TWIST LOCK, SAME CIRCUIT TO BOTH OUTLETS
- 6,8 220VAC 1PHASE TWIST LOCK, 2 CIRCUITS, FUSED IN BREAKER
- 9 CURTAIN CONTROL (IF USED)
- 10 MASKING CONTROL (IF USED)
- 11 DIMMER CONTROL (IF USED)
- 12 SPEAKER

**BALLANTYNE** OF OMAHA, INC.  
1712 JACKSON STREET  
OMAHA, NEBRASKA  
TELEPHONE 342-4444

VIP-35 CONDUIT-WIRING LAYOUT

SCALE DATE 1/2/72 DRAWING NO. 3286R DESIGNED BY REVISED



- 1 110 VAC
- 2 220 VAC
- 3 CURTAIN
- 4 MASKING
- 5 LIGHTING
- 6 AUDIO

**BALLANTYNE OF OMAHA, INC.**

TELEPHONE 342-4444

1712 JACKSON STREET      OMAHA, NEBRASKA

SCALE	DRAWING NO.	DRAWN BY
DATE		REVISED

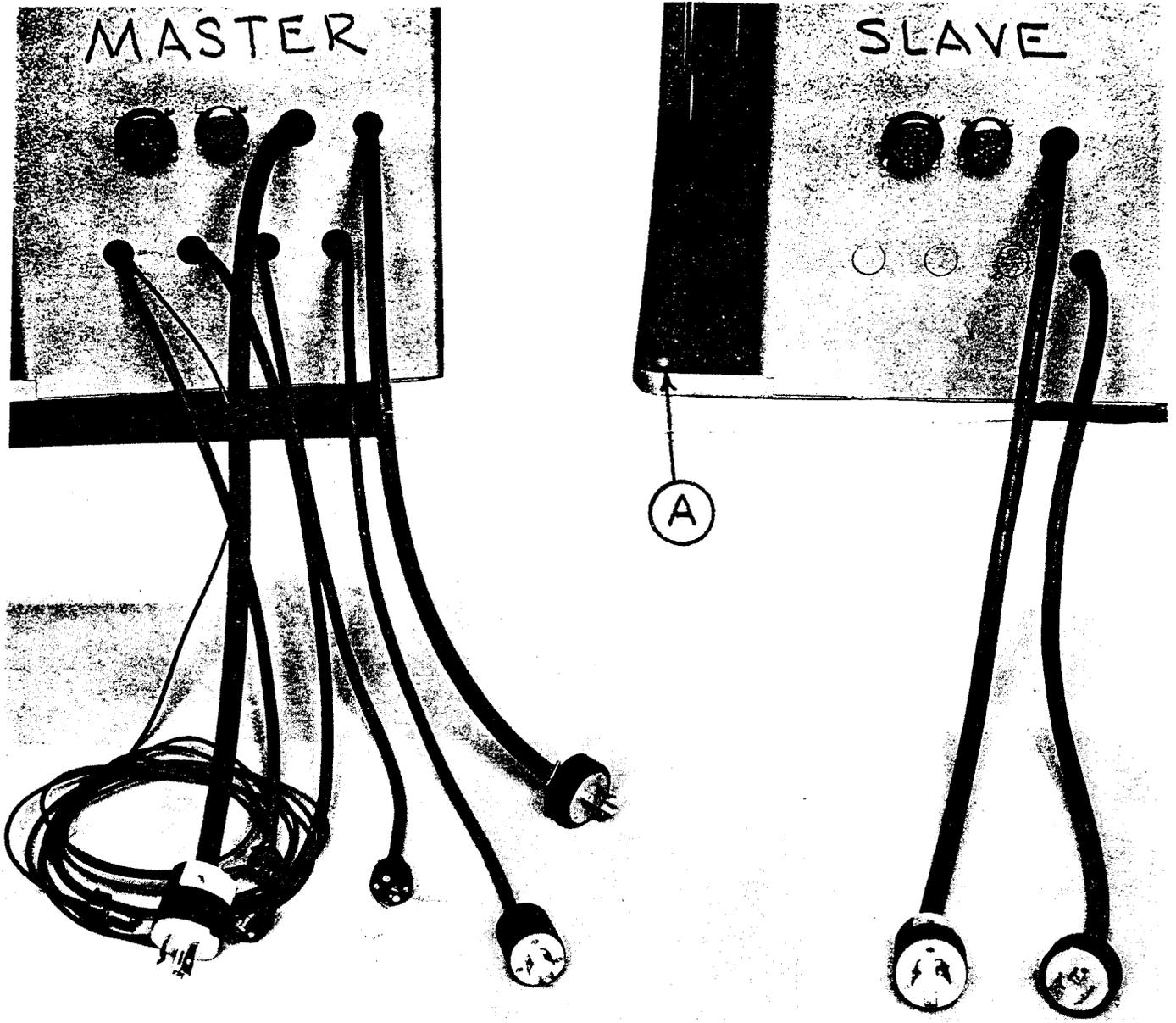


FIGURE 16

### FRONT VIEW OF VIP MASTER - SLAVE

THIS IS HOW THE FRONT OF THE VIP SYSTEM LOOKS ON ARRIVAL. IN ADDITION TO THE CORDS AND PLUGS, YOU RECEIVE 4 LEVELING BOLTS FOR EACH VIP. LEVELING BOLTS ARE MADE TO SCREW UP FROM THE BOTTOM. BOTTOM OF SCREW IS GROUNDED TO ACCEPT OPEN END WRENCH TO ADJUST. WE RECOMMEND A 4" JUNCTION BOX COVER BE PLACE UNDER EACH LEVELING SCREW PEDESTAL MUST BE A MINIMUM OF 1" ABOVE FLOOR FOR VENTILATION PURPOSES.

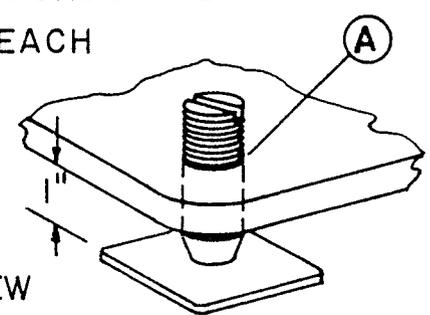


FIGURE 17

# VIP-35 PROJECTION TILTING ADJUSTMENT DETAIL

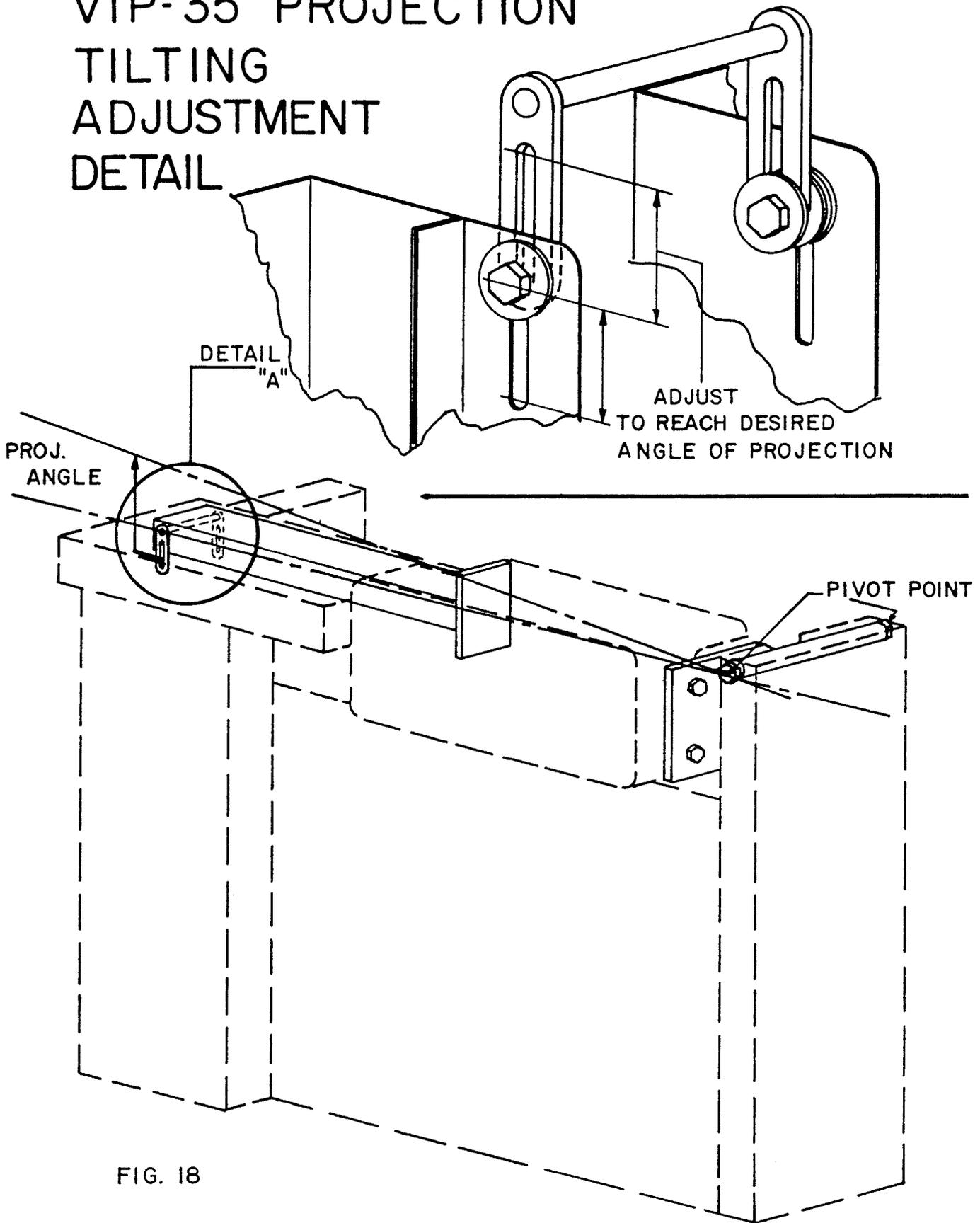


FIG. 18