Film-Tech

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T-221

WARNING

BEFORE ANY FILM, HAVING MAGNETICALLY RECORDED SOUND TRACKS, IS RUN IN THE PROJECTION EQUIPMENT, ALL IRON OR STEEL PARTS IN OR NEAR THE FILM PATH IN THE MAGNETIC SOUNDHEAD, PROJECTOR MECHANISM AND OPTICAL SOUND MECHANISM MUST BE THOROUGHLY DEMAGNETIZED (Degaussed). MAGNETIZED PARTS MAY RECORD NOISE ON THE FILM PERMANENTLY AND/OR PARTIALLY ERASE THE RECORDED SOUND.

OPERATING INSTRUCTIONS

FOR

SIMPLEX XL SINGLE FILM

STEREOPHONIC SOUND SYSTEMS

Manufactured by
INTERNATIONAL PROJECTOR CORPORATION
Bloomfield, N.J.

Distributed by
NATIONAL THEATRE SUPPLY
Division of
National-Simplex-Bludworth, Inc.
New York, N.Y.

FOREWORD

Simplex XL Single Film Stereophonic Sound Systems are most modern and versatile for the reproduction of multiple track, magnetically recorded sound-on-picture film in all types of theatres. "Single Film", "Double Film" or "Regular" operation is selected by depressing a button, an important, exclusive feature. The design features incorporate the latest in the art of sound and electronics for unexcelled, excellent quality and remarkably long life.

The film driven Magnetic Soundhead mounts between the Projector Mechanism and the Upper Magazine. The latest principles of film stabilization are employed so that the most constant film speed is attained. Threading ease with ample finger room is assured with a minimum increase in height of the complete projection equipment. Precise adjustment and quick replacement of the Magnetic Pickup Head are featured.

The four plug-in type Pre-Amplifiers for each machine mount compactly in individually shielded compartments in an attractive, wall mounting cabinet of minimum size. Each amplifier has its individual balancing control.

A Triple Channel Changeover Cabinet is provided for wall mounting at each operating position. Sound changeover of the three channels is made simultaneously by simply depressing a finger-contoured push button on the front of the cabinet. A bright Pilot Light indicates the machine in use. A triple channel system Volume Control, that may be preset, is included in each cabinet so that a smooth changeover may be made without change in volume. A High Frequency Equalizing Network is included.

The small, wall mounting System Selector Box, selects "Dual Film", "Single Film" or "Regular" operation by simply depressing one of the three push buttons on the cabinet. An associated Pilot Lamp is bright as a visual indication. This unit is the remote control for the Speaker Switch Kit mounted in the System Cabinet.

A compact, attractive, four-section, wall Cabinet mounts the three Power Amplifiers, the Monitor Control Panel and the Speaker Switch Kit. The four chassis type units mount interchangeably, pull out like a drawer and may be rotated so that all parts are readily accessible. Each may be installed or removed from the cabinet quickly with a screw driver and without disturbing external connections.

High quality Power Amplifiers, with plenty of reserve power, are used. The Monitor Control Panel includes a monitor volume control and a monitor selector switch, that provides for the monitoring of each of the three channels and the fourth (effects) individually. In some systems all three channels can be monitored simultaneously and the Monitor Panel contains a self-powered Monitor Amplifier.

The Pre-Amplifier Power Supply and two plug-in Control Units are

in a separate, compact wall mounting cabinet. The Control Units, one for each machine, are electronic switches that close the circuit to the Auditorium Speakers while effects are being reproduced from the fourth track and open the circuit when no effects are being reproduced, thus preventing track noise from being audible in the Auditorium Speakers.

Simplex two-way Voice of the Theatre Stage Speaker Equipments have been specially designed for use with Simplex Sound Systems. All of the latest developments in the art of designing and fabricating High and Low Frequency Horns and Speaker Units have been utilized to the fullest advantage in providing Speaker Equipment that will reproduce faithfully all frequencies recorded on the film. Various combinations of High and Low Frequency Horns are available for uniform distribution of sound in any auditorium. The flexibility and ease of adjustment of the Low and High Frequency equalization further insure highest quality sound.

It is recommended that these instructions be studied carefully and understood thoroughly before regular operation of the Sound System. It is important that a regular maintenance routine be established so that the Sound System will always be in the best operating condition. Any National Theatre Supply Branch will be very glad to furnish information in regard to the sound system.

SECTION I

OPERATION

A. GENERAL

1. The Projectionist is urged to become thoroughly familiar with the following recommendations before actually starting regular operation of this Sound System.

2. The operating procedure is simple and all parts are readily accessible for inspection and cleaning.

B. BEFORE THE SHOW

1. Four Track Magnetic Sound Mechanism.

   a. Sprocket - Examine daily and remove any foreign material carefully.

   b. Pad Roller - Inspect each of the pad rollers daily, remove any foreign material carefully and watch for scoring or binding.

   c. Guide Rollers and Stabilizer Drum - Examine each daily, remove any foreign material and inspect for smooth uniform operation.

   d. Film Compartment - Clean daily with a clean cloth.

2. Amplifier Equipment.

   a. Set the AC switches on each Amplifier and Power Supply, or the MASTER Switch, in "ON" position and allow the units to warm up for at least five minutes.

      NOTE:- The Pilot Light on each Amplifier, the Power Supply, and on one of the changeover cabinets should be bright. One of the Pilot Lights on the System Selector Box should also be bright.

   b. Test the Vacuum Tubes in each amplifier daily per Section III, paragraph D, 3.

3. Sound Test.

   a. Whenever possible, run a short reel in each machine, both for Single Film Stereophonic and Optical Sound Reproduction.

   b. Thread the Four Track Magnetic Sound Mechanism per Section I, paragraph C, and the Projector and Sound Mechanisms in accordance with the Instruction Manual furnished for these units. When Dual Film Stereophonic is installed, the 3-channel reproducer should be threaded in accordance with the Instruction Book furnished

with this unit and the System operated as described in Section I, paragraph C.

c. Check the quality in each of the stage speaker equipments and in the auditorium speakers.

d. Set the Monitor Selector Switch in each position and check for proper functioning.

4. Set the operating controls for the three types of operation, as follows:-

a. Single Film Stereophonic.

(1) System Selector Box - Depress the "Single Film" button, the "Single Film" pilot lamp should light, and set the Volume Control for normal operation.

(2) MASTER Power Switch (when installed) "ON".

(3) Power Amplifiers.

(a) AC Switch "ON".

(b) Tube testing switch in position "1".

(4) Changeover Cabinet - Volume Control in normal operating position, subject to variations for different prints.

(5) Pre-Amplifier Power Supply - AC switch "ON".

(6) Monitor Volume Control - In normal position with Selector Switch in position "1-2-3".

NOTE:- If the AM-1062 Monitor Amplifier is used, set Selector Switch in position "2".

b. "Double Film" Stereophonic.

(1) System Selector Box - Depress the "Double Film" button, the "Double Film" pilot lamp should light, and set the Volume Control for normal operation.

(2) MASTER Power Switch "ON".

(3) Power Amplifiers.

(a) AC Switch "ON".

(b) Tube Testing Switch in position "1".

(4) Changeover Cabinet - Volume Control in normal operating position, subject to variations for different prints.

(5) Monitor Volume Control - Set in normal operating position. Set Selector Switch in position "1-2-3".

NOTE:- If the AM-1062 Monitor Panel is used, set Selector Switch in position "2".

c. Regular Sound System (Optical Sound Track Reproduction).

(1) System Selector Box - Depress the "Regular" button, the "Regular" pilot lamp should light, and set the Volume Control for normal operation.

(2) Set the other operating controls in accordance with the Instruction Manual for the System installed.

C. STARTING THE SHOW

1. Single Film Stereophonic.

a. Depress the "Single Film" button on the System Selector Box. The "Single Film" pilot lamp should light.

b. Thread the "OFF" machine (Pilot Light in the associated changeover cabinet unlighted) per Figure 1 as follows:-

(1) Set the picture-start mark on the film at the picture aperture in the projector mechanism and thread upward to the magnetic soundhead in accordance with the Instruction Manual for the projector.

(2) Open the upper and lower pad rollers in the magnetic soundhead.

(3) In the magnetic soundhead, thread upward per Figure 1, with a tight loop between the upper sprocket in the projector mechanism and the sprocket in the magnetic soundhead, and close the lower pad roller in the latter.

(4) Pull the film toward the upper magazine until the Lower Tension Roller strikes its stop and, with the film perforations over the sprocket teeth, close the upper pad roller.

NOTE:- When the upper pad roller is open, it limits the upward movement of the Upper Tension Roller so that when threading is completed, the distance between the Upper and Lower Pad Roller Arms is 1/16" to 1/8".

The sound-start mark on the film should be at the magnetic pickup head. There are twenty-eight frames between the picture-start and sound-start marks.

(5) Take up any film slack in the upper magazine.

(6) Complete the threading of the projector mechanism.

(7) In the Optical Sound Mechanism, form a loose loop from the Lower Sprocket in the Projector Mechanism to the Sound Sprocket in this Sound Mechanism so that it bypasses the rotary stabilizer and does not contact any surfaces in between. Complete the threading of the Sound Mechanism in the regular way.

c. Starting the Projector.

Start the motor, make picture and sound changeover and check the running of the film.

d. Adjust the Volume Control as required for proper level.

2. "Double Film" Stereophonic.

a. Close all Interlock Switches.

b. Depress the "Regular" button on the System Selector Box. The "Regular" Pilot Lamp should light.

NOTE: This setting in the System Selector Box disconnects the stereophonic amplifiers from the stage speakers. The System Selector Box is used for sound changeover. Since both of the picture films have a sound track each must be threaded in an "OFF" machine, using the optical changeover to prevent threading noises from reaching the auditorium.

c. Four Track Magnetic Soundhead - Route the Film from the Upper Magazine to the left of the Upper and to the right of the Lower Guide Roller and then to the Upper Sprocket of the Projector Mechanism. Do not thread as shown in figure 1.

d. Thread the Projector Mechanisms, Sound Mechanisms and Three Track Magnetic Reproducer in accordance with the Instruction Manuals for these units.

e. Starting the Projector.

(1) Close the running switch and motor switch for each of the two Projectors. The Three Track Magnetic Reproducer starts automatically when these switches are closed.

(2) Make the sound changeover by depressing the "Double Film" button on the System Selector Box and depressing the button on the optical changeover associated with the machine having the film with the effects track. Check the running of the film.

f. Adjust the Volume Control for the three-channel Magnetic Reproducer and the effects track, as required for proper level.

3. Regular Sound System (Optical Reproduction).

a. Depress the "Regular" button on the System Selector Box. The "Regular" pilot lamp should light.

b. Open all interlock, running and motor switches.

c. Route the film through the Four Track Magnetic Sound Mechanism as described in paragraph 2c above.

d. Thread the Projector Mechanism and Sound Mechanism per the Instruction Manuals for these units.

e. Operate the Sound System in accordance with the Instruction Manual supplied for the System.

D. DURING THE SHOW

1. Observe the recommendations in the preceding paragraphs for the type of operation at the starting of each reel, making sound and picture changeover at the cues.

2. Test the amplifier vacuum tubes periodically and replace any defective tubes as soon as possible.

3. Set the Monitor Selector Switch in all positions periodically and check for sound.

NOTE:- In Single Film and Double Film operation, position "4" monitors the effects track. Sound is not continuous on this track and therefore, it may be necessary to wait in order to make any check on this position.

4. Transferring From Single Film Sound to Optical Sound.

a. Sound transfer involves the following:-

(1) Disconnection of the three stereophonic power amplifier outputs from their associated stage speaker equipments.

(2) Disconnection of the regular power amplifier input from the fourth magnetic track pre-amplifier output and connection to the regular pre-amplifier output.

(3) Disconnection of the regular power amplifier output from the auditorium speakers and connection to the center stage speaker equipment.

(4) When a separate power amplifier is furnished to drive the auditorium speakers, instead of using the regular power amplifier, paragraphs (2) and (3) are modified as follows:- The separate power amplifier output is disconnected from the auditorium speakers and the regular power amplifier output connected to the center stage speaker equipment.

b. The System Selector Box performs the above functioning in conjunction with the Speaker Switch Kit, when the "Regular" button on the former is depressed and, therefore, should be used for this changeover. The details are described in the paragraphs below.

c. Thread the optical sound film in an "OFF" machine in accordance with Section I, paragraphs C3,c and C3,d.

d. Depress the button on the optical changeover cabinet associated with this machine to set the sound changeover in "ON" position. Pilot Lamp should light.

NOTE:- In other than Simplex XL Sound System employing other types of sound changeover, set the regular changeover so that the machine, in which the optical sound film is threaded, is "ON".

e. Start the projector motor at the cue and depress the "Regular" button on the System Selector Box for sound changeover. The "Regular" pilot lamp on the System Selector Box should light.

5. Transferring from Single Film Sound to Double Film Sound.

a. Sound transfer involves the disconnection of the regular power amplifier input from the fourth magnetic track pre-amplifier output and connection to the regular pre-amplifier output.

NOTE:- When a separate power amplifier is furnished to drive the auditorium speakers, instead of using the regular power amplifier, the separate amplifier output is disconnected and the regular power amplifier output is connected to the auditorium speakers.

b. The System Selector Box performs this function; when the "Double Film" button is depressed and therefore, should be used for this changeover.

c. Double Film requires the simultaneous operation of two

projectors and a three-channel Magnetic Reproducer. All three must be stopped and interlocked before threading is started. The details are described below.

d. Close all interlock switches.

e. Thread each magnetic sound mechanism per Section I, paragraph C,2,c.

f. Thread the Projector Mechanisms, Sound Mechanisms and the three-channel Magnetic Reproducer in accordance with the Instruction Manuals for these units.

g. Depress the button on the optical changeover cabinet associated with the projector in which the film having the effects track is threaded to set the sound changeover in "ON" position. The Pilot Lamp should light.

NOTE:- In other than Simplex XL Sound System, employing other types of sound changeover, set the optical changeover so that this machine is "ON".

h. At the motor cue, close the running and motor switches for both projectors. The three-channel Magnetic Reproducer starts automatically when these switches are closed.

i. Depress the "Double Film" button on the System Selector Box for sound changeover. The "Double Film" pilot lamp on the System Selector Box should light.

6. Transferring From Double Film Sound to Optical Sound.

a. Sound transfer involves the following:-

(1) Disconnection of the three stereophonic power amplifier outputs from their associated stage speaker equipments.

(2) Disconnection of the regular power amplifier output from the auditorium speakers and connection to the center stage speaker equipment.

b. The System Selector Box performs these functions, in conjunction with the Speaker Switch Kit, when the "Regular" button on the former is depressed and, therefore, should be used for this changeover.

c. Since Double Film requires the simultaneous operation of two projectors as well as a three-channel Magnetic Reproducer, the two projectors must be stopped, the film removed and the procedure below followed.

d. Open all interlock switches, running and motor switches.

e. Thread the optical sound film in an "OFF" machine in accordance with paragraphs C,3,c and C,3,d.

f. Follow the recommendations in paragraphs D,4,d and D,4,e.

E. END OF THE SHOW

1. Set the AC switches on each amplifier and power supply (or the MASTER Power Switch) in "OFF" position.

NOTE:- If a Master Switch is provided in the main AC supply to these units, the AC switches should be left on and the AC supply controlled by the master switch.

2. If operating on Double Film Stereophonic, open all interlock and running switches.

3. Consult the Instruction Manuals for the Sound System and Projection Equipment furnished for other steps to be taken.

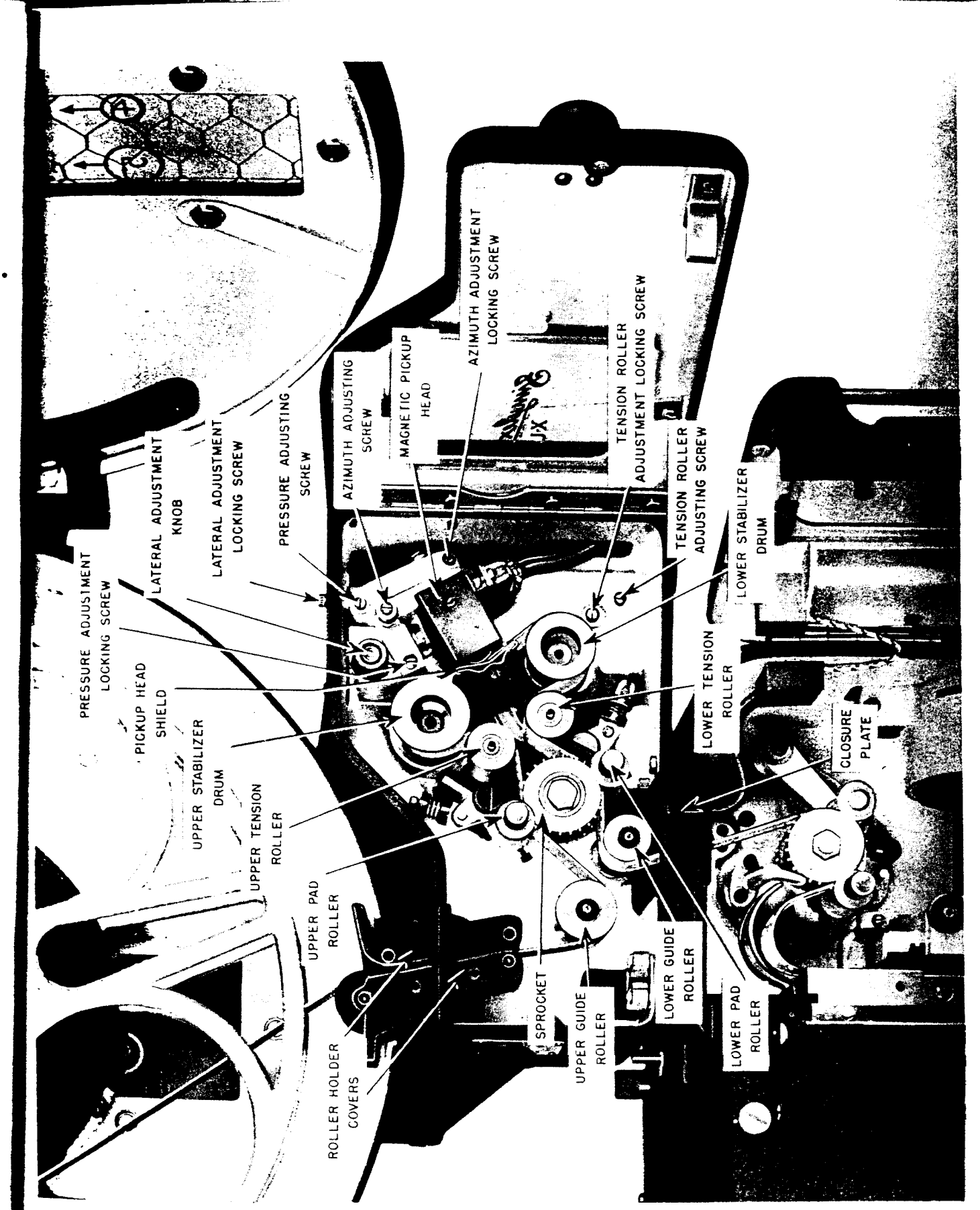


FIGURE 1
4-TRACK MAGNETIC SOUNDHEAD

7. Power Amplifier.

   a. Clean each amplifier periodically and make sure that the vacuum tubes are seated firmly in their sockets.

   b. Check the terminal strip connections and tighten if necessary.

8. Pre-Amplifier Power Supply.

   a. Clean the Power Supply periodically.

   b. Check the DC Heater Supply to the Pre-Amplifiers occasionally and readjust as necessary per Section III, paragraph F, 2.

   c. Check the terminal strip connections and tighten if necessary.

9. Control Units.

   a. Clean each unit periodically and make sure that the vacuum tube is seated firmly in its socket.

   b. Be sure that the prongs on the plugs are clean and that no foreign material is in the receptacle to prevent proper contact.

SECTION II

MAINTENANCE

A. GENERAL

1. Careful systematic maintenance of the equipment and cleanliness are essential to obtain continued high quality sound reproduction.

2. Adjustments and replacements should be made as described in Section III as soon as the need is detected.

B. FOUR TRACK MAGNETIC SOUNDHEAD

1. Sprocket.

   a. Examine the sprocket carefully for foreign material, wear, under-cutting and looseness.

   b. Clean, tighten or replace per Section III, paragraph B,3.

2. Pad Rollers.

   a. Clean carefully, inspect for scoring, adjust to relieve binding or if required, replace per Section III, paragraph B,2.

   b. Check the Pad Roller adjustment per Section III, paragraph B, 2.

3. Guide Rollers.

   Clean carefully, inspect for scoring and if required, replace per Section III, paragraph B, 4.

4. Stabilizer Drums.

   a. Inspect for scoring and proper stabilization action. If the film does not stabilize very soon after it reaches normal speed, service is required and a qualified service inspector should be called.

5. Fastening Screws.

   Check all such parts with the wrenches supplied and tighten securely.

6. Pre-Amplifier.

   a. Clean each amplifier periodically and make sure that the vacuum tubes are seated in their sockets.

   b. Be sure that the prongs on the plugs are clean and that no foreign material is in the receptacles to prevent proper contact.

7. Power Amplifier.

   a. Clean each amplifier periodically and make sure that the vacuum tubes are seated firmly in their sockets.

   b. Check the terminal strip connections and tighten if necessary.

8. Pre-Amplifier Power Supply.

   a. Clean the Power Supply periodically.

   b. Check the DC Heater Supply to the Pre-Amplifiers occasionally and readjust as necessary per Section III, paragraph F, 2.

   c. Check the terminal strip connections and tighten if necessary.

9. Control Units.

   a. Clean each unit periodically and make sure that the vacuum tube is seated firmly in its socket.

   b. Be sure that the prongs on the plugs are clean and that no foreign material is in the receptacle to prevent proper contact.

SECTION III

ADJUSTMENTS AND REPLACEMENTS

A. GENERAL

When the maintenance routine described in Section II is followed and the adjustments and replacements are made carefully and thoroughly, excellent performance will be realized at all times.

The adjustments are rapidly made and the utmost in simplicity of replacements has been attained by quickly removable units and components. The adjustments and replacements described below may be made by qualified theatre personnel. Other repairs and replacements may be required at long intervals and should be made by qualified service inspectors.

B. FOUR TRACK MAGNETIC SOUND MECHANISM

1. Pad Roller Assembly Replacement.

   a. Open the Pad Roller, compress the actuating spring so that the small hole in the forked spring guide is accessible and pass a pin (paper clip is satisfactory) through this hole to relieve the spring tension.

      NOTE:- Before removing the Lower Pad Roller Assembly, remove the Lower Tension Roller Fastening Screw and the Lower Tension Roller.

   b. Remove the Pad Roller Assembly Fastening Screw and the Pad Roller Assembly.

   c. Replace parts as necessary, reassemble, remove the pin and adjust the Pad Roller clearance per the following paragraph.

2. Pad Roller Replacement.

   a. Open the Pad Roller.

   b. Loosen the Pad Roller Stud Set Screw in the Pad Roller Arm Bracket.

   c. Remove the Pad Roller Stud and Pad Roller.

   d. Replace parts as necessary and reassemble.

      NOTE:- Position the Pad Roller Stud so that the Pad Roller rotates freely before tightening the set screw.

   e. Adjust the clearance between the Pad Roller and Sprocket, as follows:-

      CAUTION:- The Upper and Lower Pad Rollers must be adjusted as described to minimize the pos-

possibility of film damage. Under normal operating conditions these pad rollers will not rotate. They should not be adjusted in an attempt to make them rotate.

(1) Thread two thicknesses of film on the sprocket and close the Pad Roller.

(2) Loosen the Pad Roller Arm Adjusting Screw Locknut and position the Pad Roller Arm Adjusting Screw so that the Pad Roller rotates freely.

(3) Tighten the Pad Roller Arm Adjusting Screw Locknut and check the adjustment.

3. Sprocket Replacement.

a. Open the Pad Rollers.

b. Remove the Sprocket Fastening Screw and the sprocket. Be sure that the spring washer and thrust washer behind the sprocket remain on the stud.

c. Replace parts as necessary and reassemble.

4. Upper or Lower Guide Roller Replacement.

a. Remove the Guide Roller Fastening Screw and the Guide Roller. Be sure that the washers behind the Guide Rollers remain on the stud.

b. Replace parts as necessary and reassemble, making sure that the Guide Roller rotates freely.

5. Upper or Lower Tension Roller Replacement.

a. Remove the Roller Fastening Screw and the Roller. Be sure that the washers behind the Tension Rollers remain on the stud.

b. Replace parts as required and reassemble, making sure that the Roller rotates freely.

c. Adjust per the following paragraph if required.

6. Upper and Lower Tension Roller Adjustment.

a. With film running through the soundhead, the center of the Upper and Lower Tension Rollers should be equidistant from the center of the Upper and Lower Stabilizer Drum shafts respectively.

b. Adjust as follows:-

(1). Loosen the Tension Roller Adjustment Locking Screw one quarter turn;

(2) Rotate the Tension Roller Adjusting Screw until the Tension Rollers are in proper position and tighten the Tension Roller Adjustment Locking Screw.

7. Upper Or Lower Stabilizer Drum Replacement.

a. Remove the Flywheel Fastening Screw, Washer and the Flywheel on the non-operating side.

b. Remove the Pin, Flat Washer, Spring Washer and Thrust Washer from the shaft.

c. Withdraw the Stabilizer Drum and shaft from the operating side carefully in view of the ball bearings at both ends of the shaft.

d. Replace parts, as required, and reassemble.

8. Magnetic Pickup Head Replacement.

a. Remove the Lateral Adjustment Locking Screw and the Lateral Adjusting Knob.

b. Disconnect the Cable Connector from the Magnetic Head and slide the Magnetic Head in its Bracket from the mounting stud.

c. Remove the four Magnetic Head Mounting Screws and the shield and head from the bracket.

d. Replace the head, reassemble and adjust per the following paragraph.

9. Magnetic Pickup Head Adjustment.

NOTE:- Magnetic Soundheads are shipped with the Magnetic Pickup Head precisely adjusted. While the adjustment should be checked at installation, the adjustment procedure below must be followed exactly when a Magnetic Pickup Head is replaced.

a. The outputs of all Pre-Amplifiers must be precisely balanced (for each machine and between machines) by adjustment of the Magnetic Pickup Head and the gain of the Pre-Amplifiers. When it is difficult to obtain a balance on the fourth track of either machine, a balance between machines should be obtained.

b. The following adjustments apply to the Magnetic Pickup Head, but, since the balancing measurements are made at the output of the Pre-Amplifiers, the gain of each Pre-Amplifier effects individual balancing as well as the balance between machines. Accordingly, gain adjustment of each Pre-Amplifier will usually have to be made in conjunction with the adjustment of the Magnetic Pickup Head.

These adjustments must be precisely made in the order listed and the procedure in paragraph C below also followed to obtained the final exact balancing required.

d. Visual Preliminary Lateral Adjustment.

(1) Thread a four-track magnetic sound film in the soundhead.

(2) Loosen the Lateral Adjustment Locking Screw and turn the Lateral Adjusting Screw until track #1 on the film and on the magnetic pickup head are in alignment visually.

(3) Tighten the Lateral Adjustment Locking Screw.

e. Pressure Adjustment.

(1) Thread a 1 KC (4-track level balance) test film in the soundhead.

NOTE:- This film loop is threaded in the normal manner except that it is routed over (instead of under) the Upper Guide Roller and around the Upper Feed Sprocket in the Projector Mechanism.

(2) Turn the motor manually, check the running of the film and turn the motor switch ON.

(3) Loosen the Pressure Adjustment Locking Screw approximately one-half turn.

(4) Rotate the Pressure Adjusting Screw so that the film runs smoothly off the Upper Stabilizer Drum without any tendency to ride up on either of the flanges.

(5) Tighten the Pressure Adjustment Locking Screw.

f. Final Lateral Adjustment.

(1) With the 1 KC film loop running, loosen the Lateral Adjustment Locking Screw.

(2) Connect an AC voltmeter (1,000 ohms/volt sensitivity or better) across terminals 1 and 2 (output) of each of the four Pre-Amplifiers successively and note the readings.

(3) Turn the Lateral Adjusting Screw so that all voltage readings are as nearly uniform as possible.

NOTE:- In some instances, it may be difficult to obtain the same reading on the fourth (effects) track. The output of the fourth track of both machines should then be the same.

(4) Adjust the gain of each Pre-Amplifier as required, per paragraph C below.

g. Azimuth Adjustment.

(1) Thread an 8 KC (4-track azimuth) test film in the same manner as the 1 KC test film.

(2) With the film running, loosen the Azimuth Adjustment Locking Screw approximately one-half turn.

(3) Connect an AC voltmeter (1,000 ohms/volt sensitivity or better) across terminals 1 and 2 (output) of each of the four Pre-Amplifiers successively and note the readings.

(4) Turn the Azimuth Adjusting Screw so that all voltage readings are the same.

NOTE:- In some instances, it may be difficult to obtain the same reading on the fourth (effects) track. The output of the fourth track of both machines should then be the same.

(5) Adjust the gain of each Pre-Amplifier, as required, per paragraph C below.

(6) Tighten the Azimuth Adjustment Locking Screw.

h. The Lateral and Azimuth adjustments are interacting. Paragraphs c and d above should be repeated and paragraph C below followed until all voltage readings are the same on both adjustments.

C. PRE-AMPLIFIER

1. Outputs of all Pre-Amplifiers associated with both machines must be balanced. Paragraph B, 9 above describes the adjustments required to equalize the outputs of the Magnetic Soundhead assuming that the Pre-Amplifiers themselves are balanced. Since the gain setting of the Pre-Amplifiers will affect this balancing, the adjustments of the Magnetic Soundhead and of the Pre-Amplifier are interacting and alternate adjustments of both are necessary to obtain exact balancing.

2. Initially set each Pre-Amplifier gain control, R-10, in mid-position.

3. With a 1 KC test film running, connect an AC voltmeter (1,000 ohms/volt or better) across the output of each Pre-Amplifier successively and note the reading.

4. Adjust R-10 of each Pre-Amplifier so that all readings are the same for all Pre-Amplifiers on both machines.

NOTE:- It may be difficult to balance the fourth (effects track) Pre-Amplifier with the other three. In such cases, balance between machines.

D. TRIPLE CHANGEOVER CABINET

1. Changeover Switch Removal.

a. Depress the Changeover Button and rotate so that the set screw is accessible inside the cabinet.

b. Loosen the Set Screw and slide the button from the switc shaft. Retain the spring.

c. Through the hole in the Cabinet Cover, remove the Change over Switch Fastening Nut.

d. Remove the Switch from the Bracket and disconnect the wires.

e. Reconnect the wires to the replacing Switch, check the adjustment per the following paragraph and mount the Switch.

2. Changeover Switch Adjustment.

a. Remove the Switch per the preceding paragraph.

b. Loosen the Release Coil Fastening Screw on the Bracket and adjust the position of the Release Coil so that the Latching Spring engages the Latch on the Release Coil Armature with just slight over-travel when the shaft is depressed to its limit. Tighten the fastening screw.

NOTE:- The Release Coil must be positioned so that all making contacts close with slight follow as the Latching Spring locks up. When the Latching Spring is released by moving the armature toward the coil, all making contacts should have slight follow.

3. System Gain Adjustment (AM-202 Only).

a. Terminals 0, -6 and -12 provide fixed system gain attenuation in db.

b. Set the Volume Control in each Changeover Cabinet in mid-position and reconnect the wire (shipped connected to the -6 db terminal) as required to give normal auditorium volume.

4. High Frequency Equalization.

a. A Kit of Capacitors, that may be substituted for C1 to C6 inclusive, provide flexible adjustment of the high frequency response.

b. Values of these capacitors should be established per Section III, paragraph K.

E. POWER AMPLIFIER

1. Output Transformer Connection.

a. Connect the blue wire to the terminal of T2 in accordance with the following table. The yellow wire should not be moved.

Amplifier Per Channel	Connect to T-2 Terminal	No. of LF Speaker Units
1 AM-1027	16 Ohm	1
1 AM-1027	8 Ohm	2
1 AM-1026	16 Ohm	4
1 AM-1026	8 Ohm	2
1 AM-1026	32 Ohm	4 or 6

2. Power Transformer Strapping.

a. At T3, the green wire should be connected in accordance with the following table for the average line voltage during operating hours.

Average Line Voltage	Connect to T3 Tap
120-130	125 Volt
110-120	115 Volt (Connection as shipped)
100-110	105 Volt

NOTE:- Average line voltage is the average of line voltage readings taken during operating hours. If the average line voltage is above or below the above limits, the cooperation of the Power Company should be requested to bring the voltage within the recommended 105-125 volt limits.

3. Tube Testing.

a. The meter on the front panel of each amplifier, together with the Selector Switch serves to test the input and output tubes.

b. On the AM-1026 Amplifier, set the Selector Switch in position "1" to test V-1 and V-2, position "2" to test V-4 and position "3", to test V-5. If the pointer of the meter is outside the green block, a defective tube is indicated and should be replaced immediately.

NOTE:- Normal setting of the Selector Switch is position "1".

c. On the AM-1027 Amplifier, set the selector switch in position "1" to test V-1, position "2" to test V-3 and position "3" to test V-4. If the pointer of the meter is outside the green block, a defective tube is indicated and should be replaced immediately.

NOTE:- Normal setting of the Selector Switch is position "1".

4. Replacement.

a. Disconnect each of the cable form wires from the terminal strip.

b. Remove the cable clamp.

c. Withdraw the amplifier until the pivot screws are accessible.

d. Remove the pivot screws and nuts and spacing washers.

e. Remove the Amplifier from the cabinet, install the replacing Amplifier and reconnect the wires.

F. PRE-AMPLIFIER POWER SUPPLY

1. Power Transformer Strapping.

a. At T1, the green wire should be connected in accordance with the following table for the average line voltage during operating hours.

Average Line Voltage	Connect to T3 Tap
120-130	125 Volt
110-120	115 Volt (Connection as shipped)
100-110	105 Volt

NOTE:- Average line voltage is the average of line voltage readings taken during operating hours. If the average line voltage is above or below the above limits, the cooperation of the Power Company should be requested to bring the voltage within the recommended 105-125 volt limits.

2. Heater Supply Adjustment.

a. With all Pre-Amplifiers operating, connect a 20,000 ohm/volt voltmeter across terminals "-19V DC" and "+19V DC" and adjust R4 until the reading is exactly 19 volts DC.

3. Replacement.

a. Disconnect each of the cable form wires from the terminal strip.

b. Remove the cable clamp.

c. Remove the four Power Supply Fastening Screws and the Power Supply.

d. Install the replacing unit and reconnect the wires.

G. CONTROL UNIT

1. These units are accurately adjusted at the factory and under normal conditions adjustment should not be necessary. However, the performance should be checked at installation as described below.

2. Thread a mixed 1 KC and 12 KC test film in the soundhead in the same manner as described in paragraph B,9,e above.

3. Set the Monitor Selector Switch on the Monitor Control Panel in position #4.

4. With the film running, listen in the System Monitor for the 1 KC signal followed by a silent interval. Proper operation is indicated by clean starting of the 1 KC signal with no "scratchy" sounds caused by bouncing of the relay contacts. Intervals between the 1 KC signals should be completely "dead" with no audible film noise.

5. If adjustment is required, turn R-1 (center hole on the front of the Control Unit) until the operation described in the previous paragraph is obtained.

H. LU-1121 NETWORK

1. High Frequency Speaker Matching.

a. Strap terminals designated "Strap for 2 HF Units", only when there are two high frequency units in each stage speaker equipment.

b. Do not strap for one or four high frequency units.

2. High Frequency Speaker Balancing.

a. Terminals designed "HF Attenuation db 0-1-2-3-4" provide adjustable attenuation of each group of High Frequency Speakers up to 4 db in one db steps.

b. Connect the wire from the HF Speaker Units initially to terminal "2" and determine the final connection per Section III, paragraph K.

3. Low Frequency Speaker Matching.

a. Connect the wire from the Low Frequency Speakers to terminal "2LF" when there are two Low Frequency Units in each stage speaker equipment.

b. Connect wires from the Low Frequency Units to terminal "1LF" for 1, 4 or 6 Low Frequency Units.

I. AM-1054 MONITOR AMPLIFIER AND CONTROL PANEL

1. Emergency Monitor Volume Control Setting.

a. Adjustable Resistor R1, provides pre-set monitor speaker volume when the Monitor Amplifier is "OFF" or has been removed and the Monitor Volume Control is not effective.

NOTE:- When the Monitor Amplifier is "OFF", R1 provides pre-set monitor volume automatically.

b. Turn Monitor Amplifier AC Switch "OFF".

c. Disconnect wires from "SPKR" and "15 Ohm" terminals.

d. Strap "SPKR" and "15 Ohm" terminals.

e. Adjust R1 for satisfactory monitor volume with main System Volume Control at normal setting.

2. Monitor Amplifier Removal.

a. Turn Monitor AC Switch on panel "OFF".

b. Disconnect the Monitor Amplifier cable form wires from the terminal strip.

c. Remove the four Monitor Amplifier Mounting Screws and the Amplifier.

NOTE:- Strap terminal "SPKR" and "15 Ohm" for emergency monitor sound until the monitor amplifier is replaced.

3. Replacement of Monitor Amplifier and Control Panel.

a. Disconnect each one of the cable form wires from the terminal strip.

b. Remove the cable clamp.

c. Withdraw the unit until the pivot screws are accessible.

d. Remove the pivot screws, nuts and spacing washers.

e. Remove the unit from the cabinet and install the replacing unit and reconnect the wires.

J. SPEAKER SWITCH KIT

1. Matching Transformer Strapping.

a. T1 should be strapped in accordance with the tabulation on drawing W-1131, subject to the number and type of auditorium speakers used, as described in the Installation Instructions, Section II, paragraph K.

2. Replacement.

a. Remove all external wires connected to the terminal strip.

b. Remove the four terminal strip mounting screws and the four chassis mounting screws in the unit.

c. Install the replacing unit and reconnect the external wires.

K. STAGE SPEAKER EQUIPMENT

1. Make careful listening tests throughout the auditorium and adjust the tilt and angle of each of the three High Frequency Horns to obtain uniform distribution of sound throughout the auditorium.

2. Using a suitable test film, move each High Frequency Horn backward and forward in small steps, instantly reversing the connections to the High Frequency Unit in each position.

NOTE:- Since the reversal of connections must be instantaneous for critical listening, a reversing switch with long leads will be very useful.

3. As determined by listening in the auditorium, the best position of each High Frequency Horn is established when the greatest difference in sound quality is observed upon reversal of connections.

4. Again reverse the connections, the proper connection being that which fills in the mid-range sound giving best quality. Make this connection permanent.

NOTE:- When these connections and the position of each High Frequency Horn are correct, screen characters appear to be speaking from the screen rather than behind or in front of it and high frequency sounds are clean and clear.

5. Also listen throughout the auditorium for echoes, dead spots and reflections from the walls and ceiling. Frequently tilting or angling one or more of the high frequency horns with respect to the auditorium or even moving one of the three horn assemblies slightly, will change the reflection pattern so that there will be uniform level and high quality sound over the entire auditorium.

NOTE:- Since the final frequency response adjustment (see the following paragraph) may have some effect on the reflection pattern, this particular adjustment may be deferred until the frequency response has been established.

6. After all adjustments have been made, fasten the horn sled to the top of the Low Frequency Horn and make sure that all connections and all fastening bolts and nuts are tight.

L. SYSTEM FREQUENCY RESPONSE

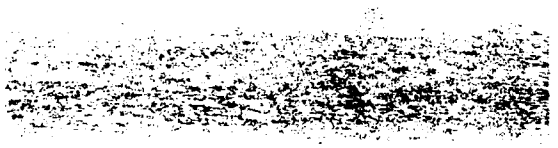
1. After the electrical and acoustic phasing have been completed, further listening tests should be made as a preliminary to the adjustment of the frequency response of the system.

2. Selection of the frequency response that will give the highest quality sound reproduction in the auditorium is of extreme importance. The acoustic characteristics of auditoriums vary widely and therefore, careful listening tests should be made and the response changed as necessary.

3. All High Frequency Response adjustments are made in the AM-202 Triple Changeover and Warping Cabinet by the selection of the values of C1 to C6 inclusive, listed in Figure 2 from the Kit supplied.

4. The frequency response of each of the three channels should be the same.

IMPORTANT INSTRUCTIONS



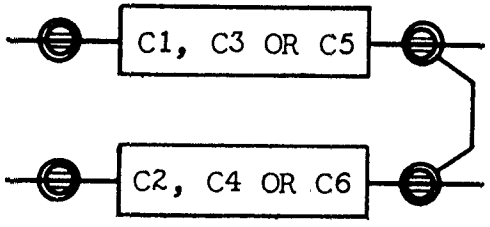
DAMAGED EQUIPMENT

This instrument was thoroughly tested and carefully packed in our factory. When the carrier accepted it, he assumed FULL responsibility for its safe delivery to you. Should you receive this instrument in a damaged condition, apparent or concealed, claim for damage must immediately be made upon the carrier. Failure to do this will result in the carrier refusing to honor claim. The carrier will furnish you with necessary forms for filing claim. The equipment must not be returned to the factory without our prior approval.

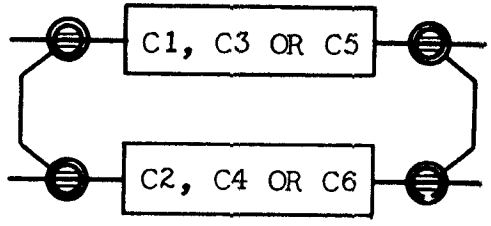
DEFECTIVE EQUIPMENT

Should this equipment appear to be defective, call or write to the Customer Service Department, McMartin Industries, Inc., Omaha, Nebraska. If it is determined that the unit should be returned to the factory, you will be provided a Return Authorization form. Merchandise will not be accepted without this authorization form.

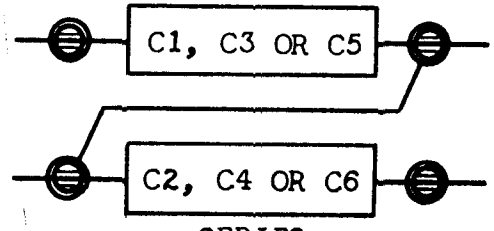
AM-202 TRIPLE CHANGEOVER CABINET ADJ. (a)					RELATIVE RESPONSE-1000 CYCLE REFERENCE-0db CYCLES PER SECOND (c)						
CURVE DESIG	SYS. GAIN ADJ.	C1,C3 & C5 MF EA.	C2,C4 & C6 MF EA.	STRAP AS PER FIG.	2000	3000	4000	5000	6000	7000	8000
H-1	0db	.03	.03	3	0	0	0	0	0	0	0
	(b) -6db	.03	OPEN	1							
	-12db	.03	.03	2							
H-2	0db	.15	.15	3	-.5	-1.0	-1.5	-2.0	-2.5	-3.3	-3.5
	-6db	.1	OPEN	1							
	-12db	.15	OPEN	1							
H-3	0db	.15	.03	2	-1.0	-2.5	-3.5	-5.0	-5.5	-6.5	-7.0
	-6db	.1	.1	2							
	-12db	.1	.1	2							
H-4	0db	.15	.15	2	-2.0	-4.0	-6.0	-7.0	-8.0	-9.0	-10
	-6db	.15	.15	2							
	-12db	.15	.15	2							



OPEN
FIG. 1



PARALLEL
FIG. 2

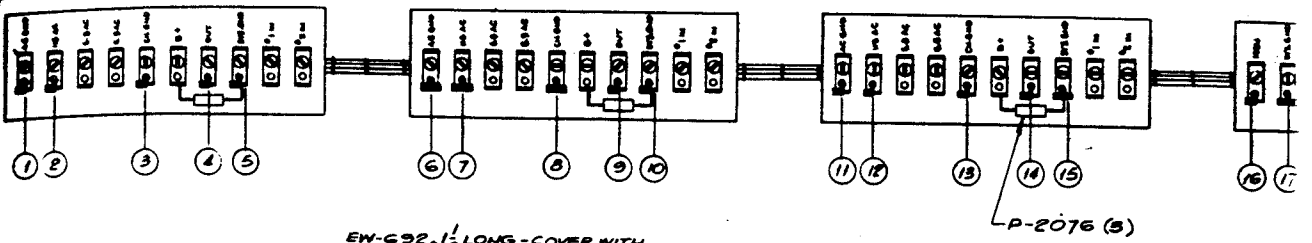


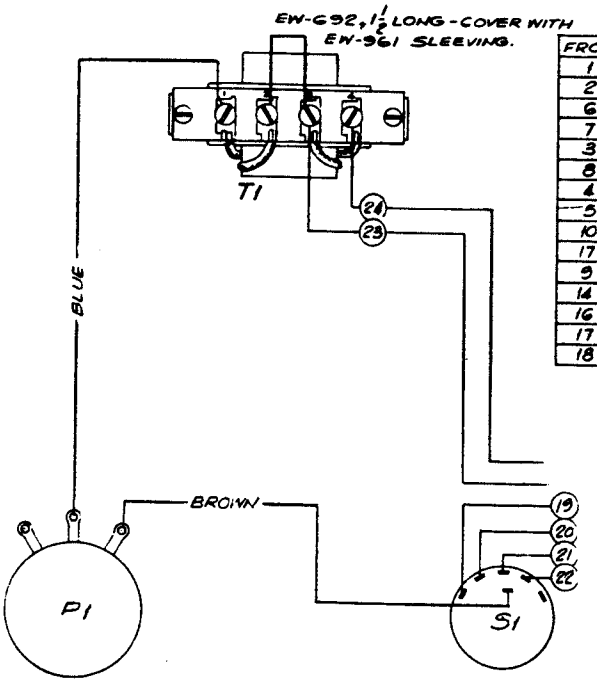
SERIES
FIG. 3

(a) Refer to Drawings W-1128 and W-1133.
(b) RESPONSE AS SHIPPED.
(c) Typical Response. Tolerance ±1 db. Signal Source- Oscillator with 10 megohms in series.

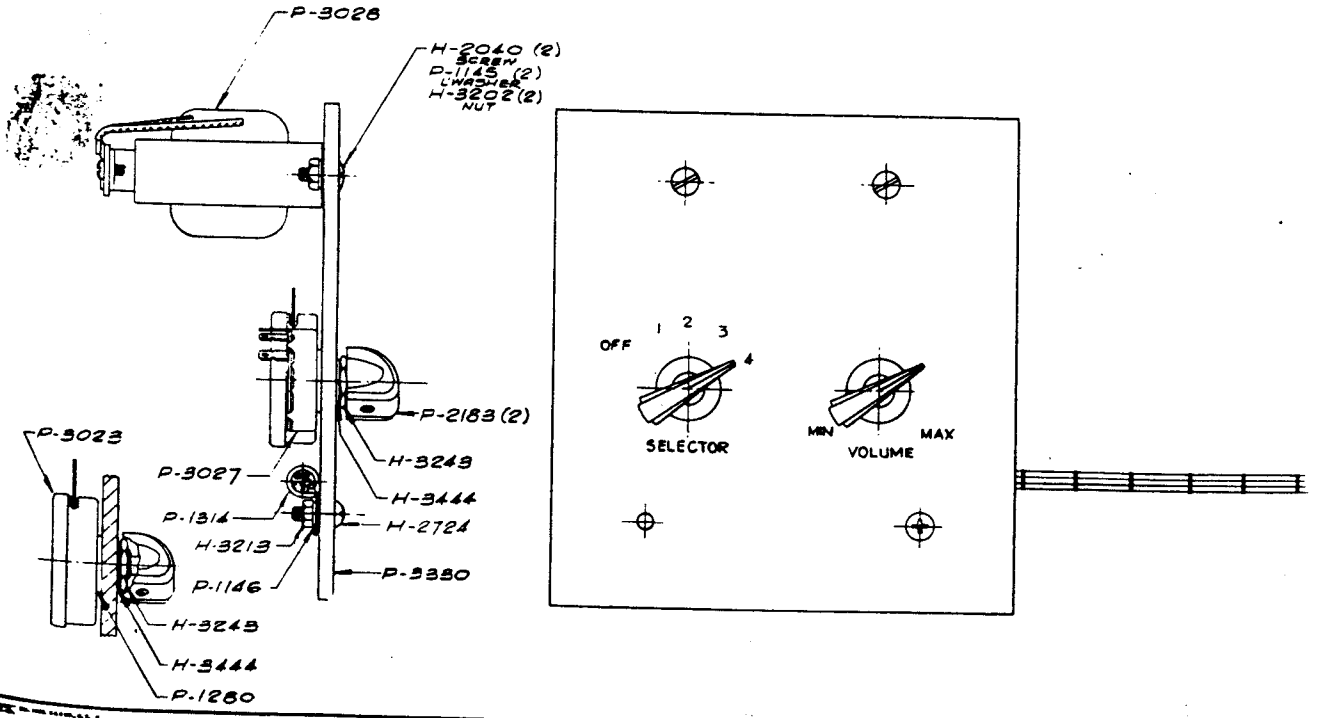
FIGURE 2
SIMPLEX XL STEREOPHONIC SOUND SYSTEMS
HIGH FREQUENCY RESPONSE

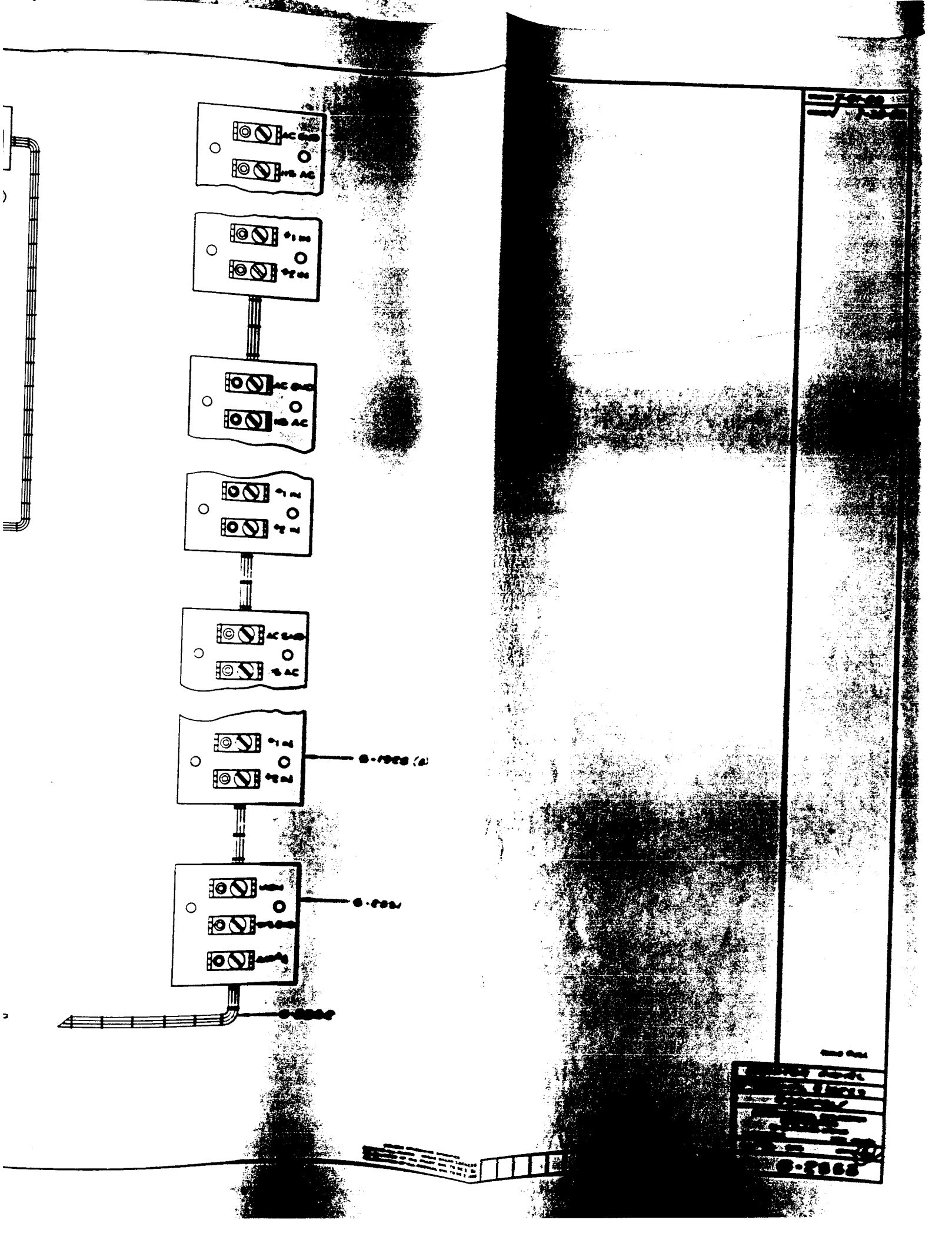
G-2355



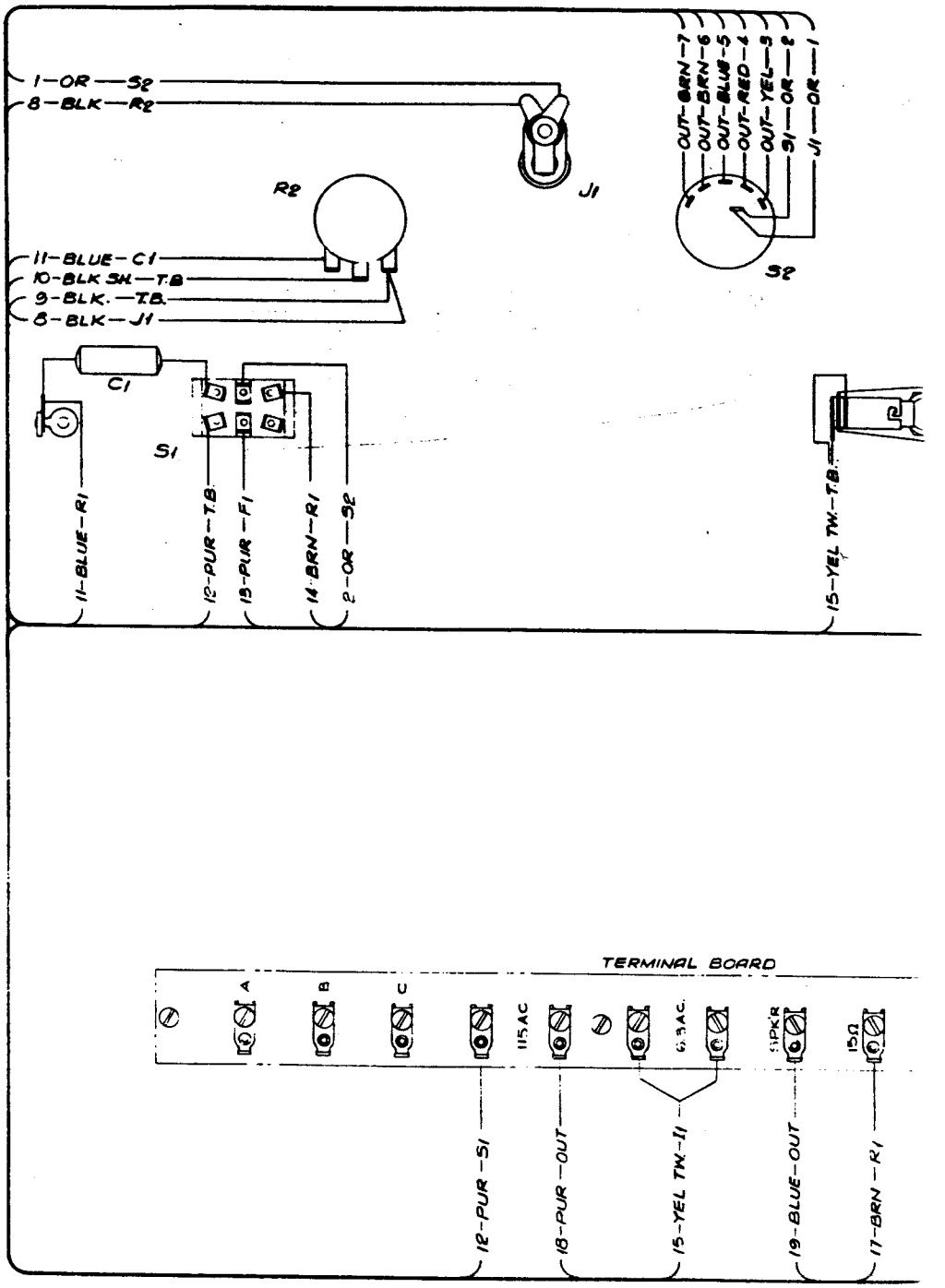


FROM	TO	COLOR
1	6	PUR — TWIST
2	7	GRN — TWIST
6	11	PUR — TWIST
7	12	GRN — TWIST
3	8	WHITE
8	13	WHITE
4	22	YELLOW
5	15	BLACK
10	15	BLACK
17	15	BLACK
9	21	RED
14	20	BLUE
16	24	GREEN
17	23	BLACK
18	19	ORANGE



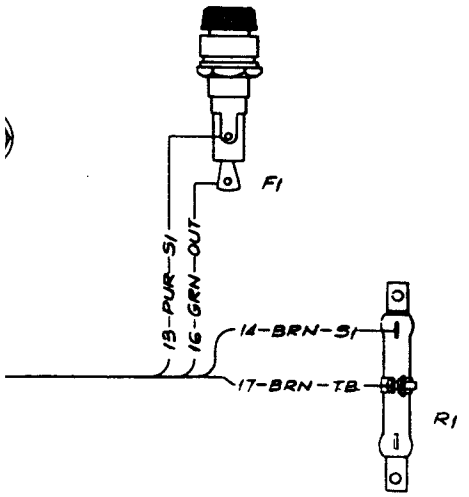


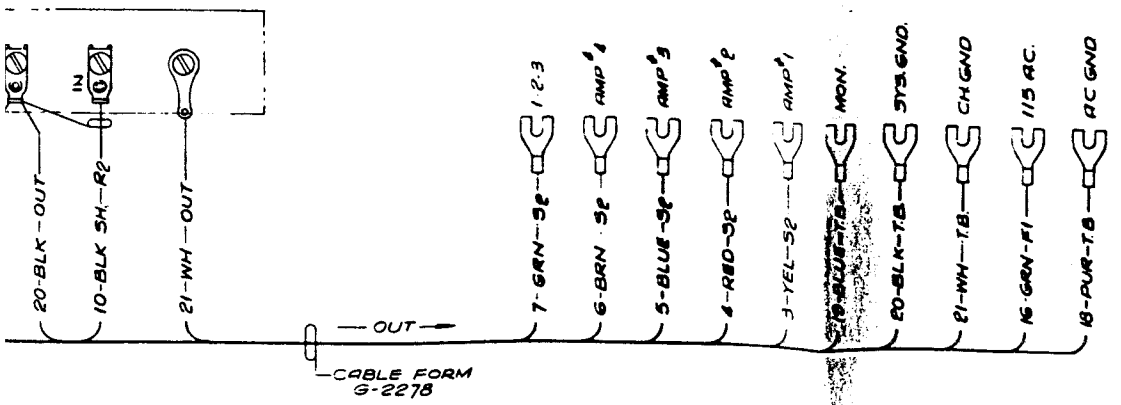
W-1125



ALL WIRES ARE TABULATED O
DESIGNATIONS TO COMPONEN
GOING TO TERMINAL BOARD.
COVER CAPACITOR LEADS W

SYMBOL	PART Nº	DESCRIPTION
C1	P-2058	CAPACITOR, .01 mfd., 600V., TUBULAR, PAPER
F1	P-2598	FUSETRON, 1 AMP
J1	P-2090	HOLDER; INDICATOR LIGHT
J1	P-2227	JACK, TWO CONDUCTOR
R2	P-2229	RESISTOR, 500K. 2W., POTENTIOMETER
R1	P-2646	RESISTOR, 100 Ω. 10 W. WIREWOUND
S1	P-2287	TOGGLE SWITCH, D.P.D.T.
S2	P-2291	ROTARY SWITCH, 5 POSITION





CABLE FORM DRAWING.
MARKED 'T.B.' INDICATE WIRES
EW-961 PLASTIC TUBING

REFERENCE DRAWINGS:
W-1126 SCHEMATIC
AM-1054 MONITOR AMPLIFIER AND CONTROL PANEL ASS'Y.

5-12-63
1 5-17-63

SCALE

WIRING DIAGRAM

AM-1054

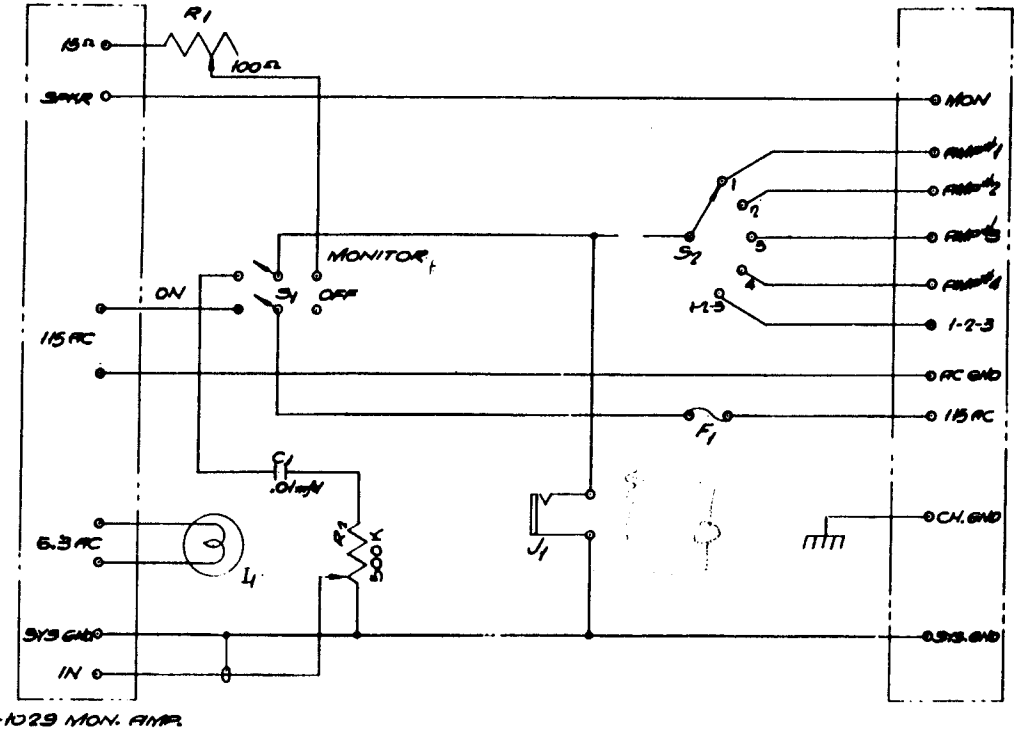
INTERNATIONAL PROJECTOR CORPORATION
98 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. AD CHK. APPD.

PRODUCT CLASS F

W-1125

W-1126



AM-1029 MON. AMP.
CONN. STRIP

REFERENCE DRAWINGS:-
AM-1054 MON. AMP & CONTROL PANEL ASSY.
W-1125 WIRING DIAGRAM

SYMBOL	I.R.C. PART NO	DESCRIPTION
R1	P-2646	RESISTOR, 100Ω, 10W., WIREWOUND
R2	P-2229	" , 500K, 2W., POTENTIOMETER
C1	P-2058	CAPACITOR, .01 mfd, 600V., TUBULAR, PAPER
F1	P-2592	FUSETRON, 1 AMP
I1	P-2425	DIAL LAMP, 6-8V.
J1	P-2227	JACK-TWO CONDUCTOR
S1	P-2227	TOGGLE SWITCH D.P.D.T.
S2	P-2234	ROTARY SWITCH, 5 POS., 1 CIRCUIT

SCALE

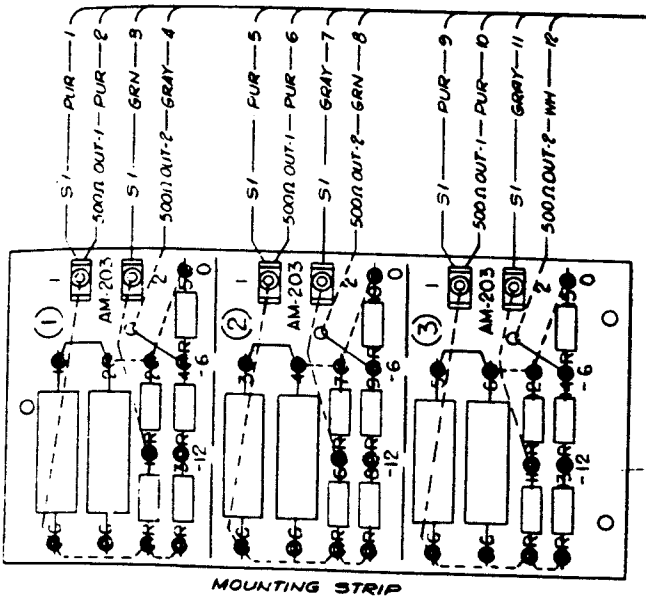
SCHEMATIC
CONTROL PANEL
AM-1054

INTERNATIONAL PROJECTOR CORPORATION
25 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

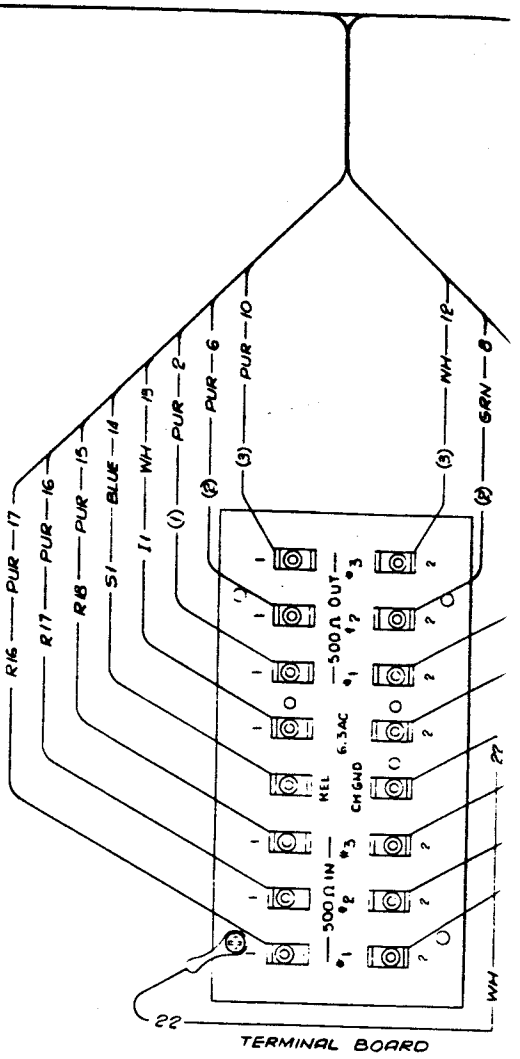
DR. MK DATE 10 APP'D.

PRODUCT CLASS

F W-1126



MOUNTING STRIP

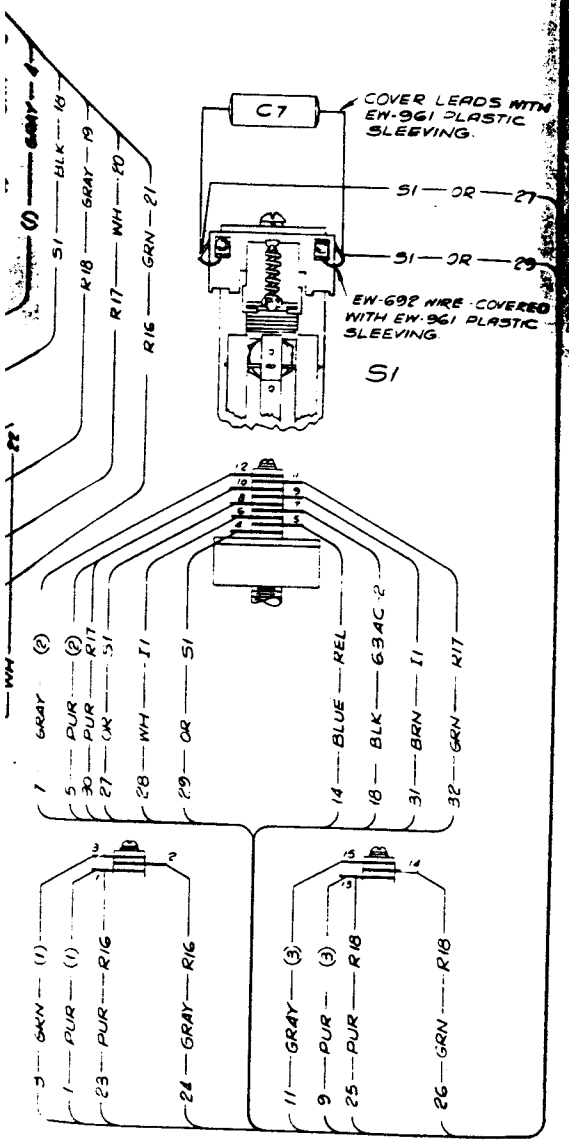


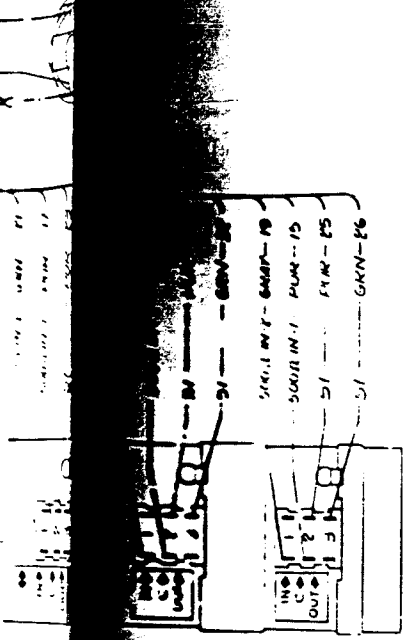
SYMBOL	PART Nº	DESCRIPTION
C1	P-2872	CAPACITOR, .03 MF, 400 V.D.C.W.
C2	"	" .03 MF, 400 V.D.C.W.
C3	"	" .03 MF, 400 V.D.C.W.
C4	"	" .03 MF, 400 V.D.C.W.
C5	"	" .03 MF, 400 V.D.C.W.
C6	"	" .03 MF, 400 V.D.C.W.
C7	P-2098	" .1 MF, 400 V.D.C.W.
R1	P-2051	RESISTOR, 1000 Ω, 1 WATT, CARBON
R2	P-2075	" 470 Ω, 1 WATT, "
R3	P-2876	" 120 Ω, 1 WATT, "
R4	"	" 120 Ω, 1 WATT, "
R5	P-2875	" 270 Ω, 1 WATT, "
R6	P-2051	" 1000 Ω, 1 WATT, "
R7	P-2075	" 470 Ω, 1 WATT, "
R8	P-2876	" 120 Ω, 1 WATT, "
R9	"	" 120 Ω, 1 WATT, "
R10	P-2875	" 270 Ω, 1 WATT, "
R11	P-2051	" 1000 Ω, 1 WATT, "
R12	P-2075	" 470 Ω, 1 WATT, "
R13	P-2876	" 120 Ω, 1 WATT, "
R14	"	" 120 Ω, 1 WATT, "
R15	P-2875	" 270 Ω, 1 WATT, "
R16		
R17	P-3195	ATTENUATOR, 3 DECK
R18		
I1	P-2264	PILOT LAMP
S1	P-3192	SWITCH, TRIPLE CHANNEL CHANGEOVER

ALTERNATE PARTS FOR C1-2-3-4-5-6 FOR HIGH FREQUENCY WARPING ARE SUPPLIED SEPARATELY WITH CABINET ASS'Y.
* IN CABINET ASSEMBLY AS SHIPPED.

NOTE—
STRAPS ON RESISTOR AND STRIP ARE INCLUDED ON DR

G-2273 CABLE FORM





CAPACITOR MOUNTING
DRAWING G-2291

REF. DRAWINGS
AM-202 TRIPLE CHANNEL CHANGER AND MIXING CABINET ASS'Y
W-1139 SCHEMATIC

5-25-62	
5-17-62	

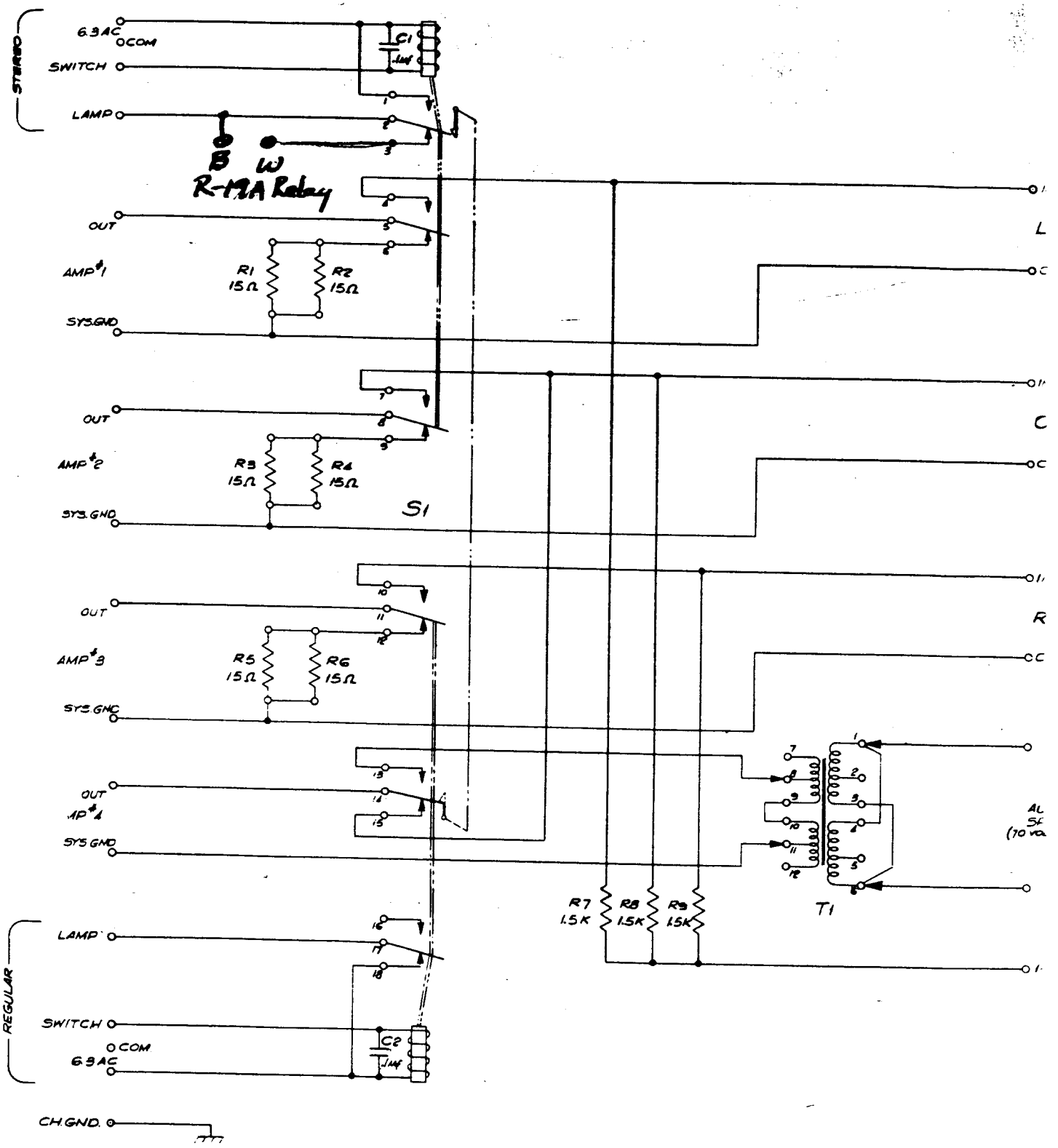
WIRING DIAGRAM

AM-202 CABINET

INTERNATIONAL PROJECTOR CORPORATION
95 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. PO CHK APPD

W-1128


STEREO
6.3AC
COM
SWITCH
LAMP
C1
.1mf
B W
R-19A Relay
OUT
AMP #1
R1
15Ω
R2
15Ω
SYS.GND
OUT
AMP #2
R3
15Ω
R4
15Ω
SYS.GND
S1
OUT
AMP #3
R5
15Ω
R6
15Ω
SYS.GND
OUT
AMP #4
SYS.GND
R7
1.5K
R8
1.5K
R9
1.5K
T1
REGULAR
LAMP
SWITCH
COM
6.3AC
C2
.1mf
CH.GND.
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RE

5-27-53
1 5-22-53

TRANSFORMER DATA

PRIMARY IMPEDANCE	CONNECT TO	STRAP	SECONDARY IMPEDANCE	CONNECT TO	STRAP	70 VOLT LINE
16 OHMS	7-12	9 TO 10	625 OHMS	1-6	3 TO 4	8 WATTS
12 "	7-11	9 TO 10	470 "	1-5	3 TO 4	11 WATTS
8 "	8-11	9 TO 10	318 "	2-5	3 TO 4	16 WATTS
4 "	7-12	7 TO 10 & 9 TO 12	156 "	1-6	1 TO 4 & 3 TO 6	32 WATTS
2 "	8-11	8 TO 10 & 9 TO 11	78 "	2-5	2nd & 3 TO 5	64 WATTS

SYMBOL	PART Nº	DESCRIPTION
C1-2	P-2099	CAPACITOR, .1 mf, 400 V D.C.W.
R1 THRU 6	P-3259	RESISTOR, 15 Ω, 40 WATT, WIREWOUND
R7 THRU 9	P-2125	RESISTOR, 1.5 K, 1 WATT, CARBON
S1	P-3253	SWITCH, 6 P.D.T.
T1	P-3257	TRANSFORMER, 70 VOLT LINE

NETWORKS

IN L COM

IN C COM

IN R COM

AUDIT. SPKRS. (70 VOLT LINE)

1-2-3

REF. DRAWINGS—
W-1134 WIRING DIAGRAM
LU-1122 SPEAKER SWITCH KIT

SCALE

SCHEMATIC
SPEAKER SWITCH KIT
LU-1122

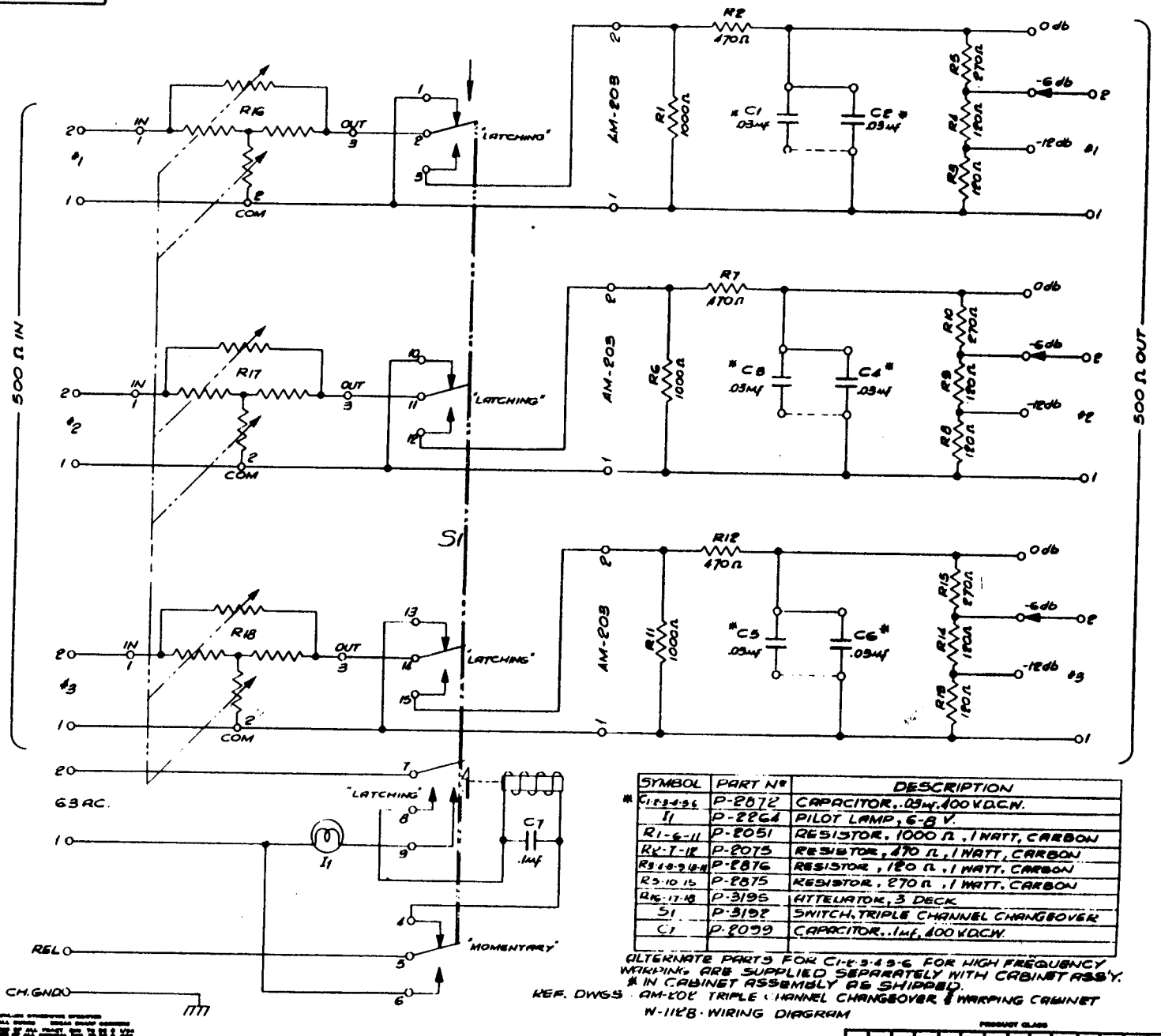
INTERNATIONAL PROJECTOR CORPORATION
95 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. AD CHK. APPD.

PRODUCT CLASS F

W-1131

W-1133



SYMBOL	PART Nº	DESCRIPTION
* C1-2-3-4-5-6	P-2072	CAPACITOR, .03μf, 400 V.D.C.W.
I1	P-2264	PILOT LAMP, 6-8 V.
R1-6-11	P-2051	RESISTOR, 1000 Ω, 1 WATT, CARBON
R2-7-12	P-2075	RESISTOR, 470 Ω, 1 WATT, CARBON
R3-4-8-9-13-14	P-2076	RESISTOR, 180 Ω, 1 WATT, CARBON
R5-10-15	P-2075	RESISTOR, 270 Ω, 1 WATT, CARBON
R16-17-18	P-3195	ATTENUATOR, 3 DECK
S1	P-3192	SWITCH, TRIPLE CHANNEL CHANGEOVER
C7	P-2099	CAPACITOR, .1mf, 400 V.D.C.W.

ALTERNATE PARTS FOR C1-2-3-4-5-6 FOR HIGH FREQUENCY WARPING, ARE SUPPLIED SEPARATELY WITH CABINET ASS'Y.
* IN CABINET ASSEMBLY AS SHIPPED.

REF. DWGS: AM-202 TRIPLE CHANNEL CHANGEOVER & WARPING CABINET
W-1128 WIRING DIAGRAM

8-22-53

DRAWN 5-13-53

SCHEMATIC

AM-202 CABINET

INTERNATIONAL PROJECTOR CORPORATION

W-1133

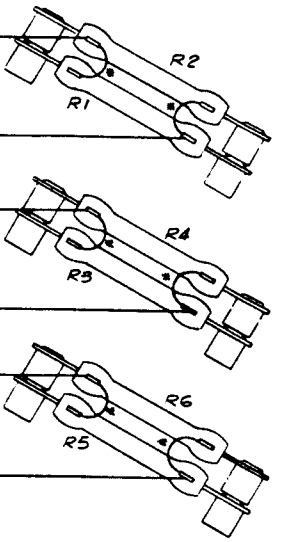
N-1134

T1
S1
C2
C1
REGULAR
STEREO
PUR
GRN
BLK
WH
T.B.
BRN
PUR
GRN
RED
22
21
20
9
G-2301 CABLE FORM
OUT
STEREO
AMP #1
AMP #2
AMP #3
AMP #4
LAMP
SW
COM
6.3 A.C.
6.3 A.C.
T-2-3
CH GND
AUDT'M SPKR'S
SYS GND
REGULAR
YEL
RED
BLUE
GRAY
RED
WH
BLK
YEL
BRN
YEL
GRN
17
19
13
10
15
14
14
27
22
27
16
BRN
OR
OR
PUR
PUR
GRN
BLUE
GRN
PUR
WH
PUR
WH
BRN
R2
T.B.
T.B.
R4
T.B.
R6
T1
S1
S1
T.B.
T1
T.B.
T.B.

DRAWN 5-27-53
ISSUE 1 5-28-53

T.B – PUR-GRN TW. — 7
— T.B — BLUE — 8
— S1 — BLUE — 6
— T1 — RED — 9
— T.B. — GRAY — 10
— R5 — PUR — 11
— T.B. — WH — 12
— T.B. — BLUE — 13
T.B — BLK-WH TW — 14
— T.B. — RED — 15
— T.B. — GRN — 16
— R1 — BRN — 2
— T.B. — YEL — 17
— S1 — BLUE — 6
— R3 — OR — 4
— T.B — BLUE — 18
— T.B. — RED — 19

1 — BRN — T.B.
2 — BRN — S1
3 — OR — T.B.
4 — OR — S1
5 — PUR — TB
11 — PUR — S1

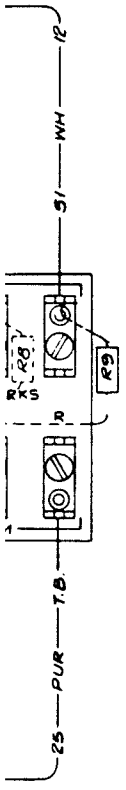


NOTE:
1. JUMPERS ARE EW-692 WIRE COVERED WITH EW-961 PLASTIC SLEEVING
2 COVER CAPACITOR LEADS WITH EW-961 SLEEVING.

TRANSFORMER DATA

PRIMARY IMPEDANCE	CONNECT TO	STRAP	SECONDARY IMPEDANCE	CONNECT TO	STRAP	70 VOLT LINE
16 OHMS	7-12	9 TO 10	625 OHMS	1-6	3 TO 4	8 WATTS
12 "	7-11	9 TO 10	470 "	1-5	3 TO 4	11 "
8 "	8-11	9 TO 10	312 "	2-5	3 TO 4	16 "
4 "	7-12	7 TO 10 & 9 TO 12	156 "	1-6	1 TO 4 & 3 TO 6	32 "
2 "	8-11	8 TO 10 & 9 TO 11	78 "	2-5	2 TO 4 & 3 TO 5	64 "

SYMBOL	PART Nº	DESCRIPTION
C1	P-2099	CAPACITOR, .1MF, 400 V.D.C.W.
C2	"	" .1MF, 400 V.D.C.W.
R1	P-3259	RESISTOR, 15Ω, 40 WATT, WIRE WOUND
R2	"	" , 15Ω, 40 WATT, "
R3	"	" , 15Ω, 40 WATT, "
R4	"	" , 15Ω, 40 WATT, "
R5	"	" , 15Ω, 40 WATT, "
R6	"	" , 15Ω, 40 WATT, "
R7	P-2125	" , 15K, 1 WATT, CARBON
R8	"	" , 1.5K, 1 WATT, "
R9	"	" , 1.5K, 1 WATT, "
S1	P-3258	SWITCH
T1	P-3257	TRANSFORMER, 70 VOLT LINE



REF. DRAWINGS:
W-1131 SCHEMATIC
LU-1122 SPEAKER SWITCH KIT

UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS BREAK SHARP CORNERS TOLERANCES OF ALL FRACT. DIM. TO BE ± 1/64 TOLERANCES OF ALL DECIMAL DIM. TO BE ± .005

PRODUCT CLASS F

SCALE

WIRING DIAGRAM
LU-1122
SPEAKER SWITCH KIT

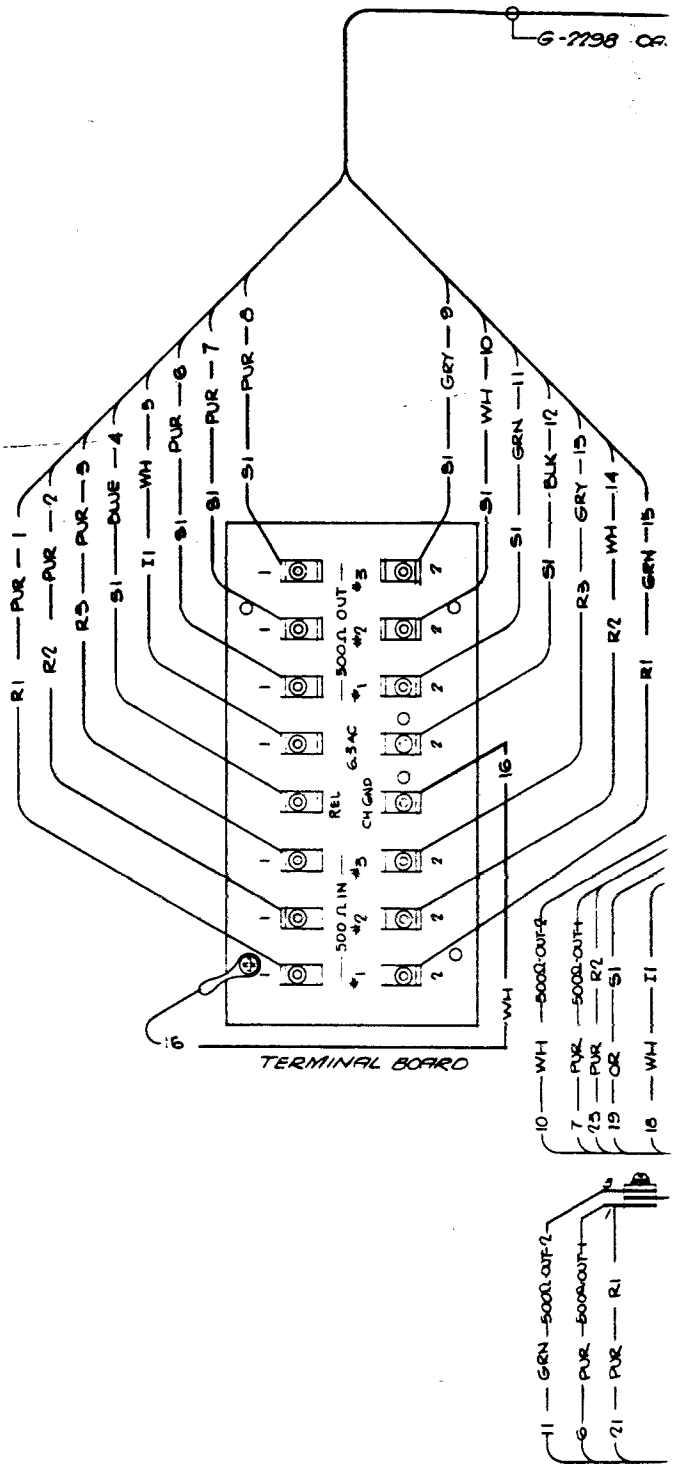
INTERNATIONAL PROJECTOR CORPORATION
96 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. GD CHK. APPD.

W-1134

W-1135

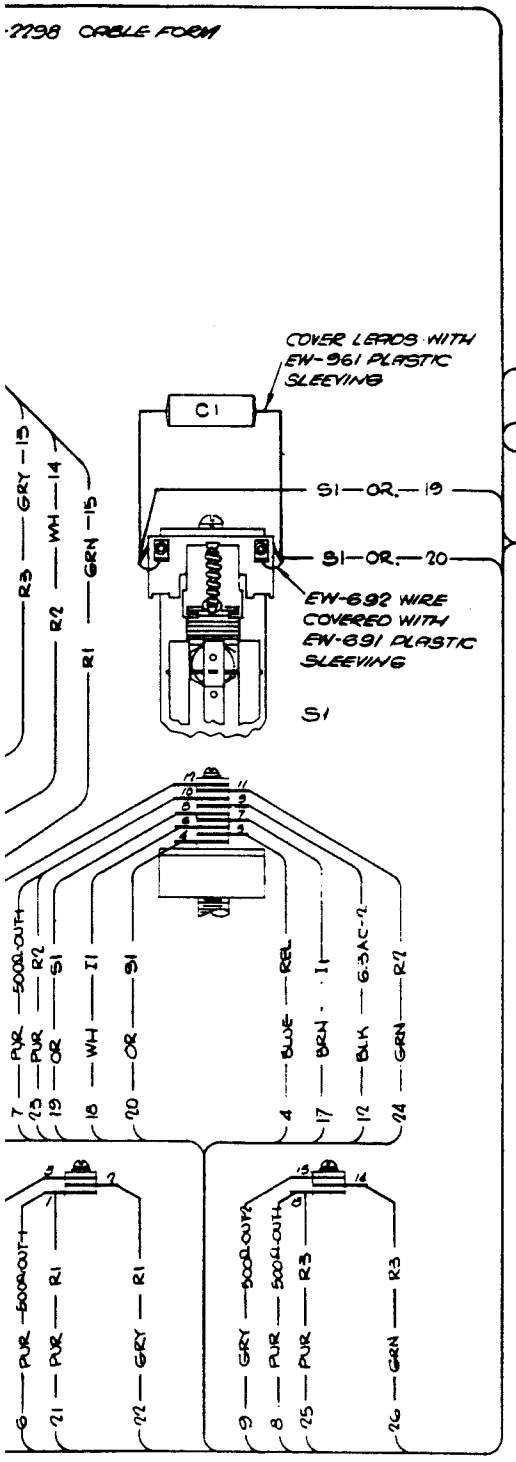
SYMBOL	PART No	DESCRIPTION
C1	P-2099	CAPACITOR, .1 MF, 400 V.C.D.W.
R1	P3195	ATTENUATOR, 3 DECK
R2		
R3		
I1	P-2264	SOCKET, PILOT LAMP
S1	P-3192	SWITCH, TRIPLE CHANNEL CHANGEOVER

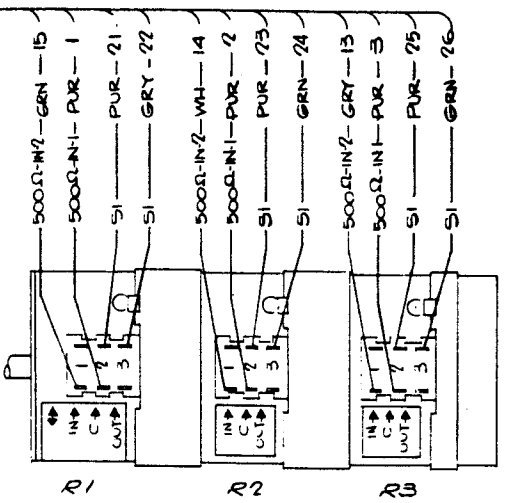


DRAWN 7-15-53

ISSUE #-1 7-24-53

·7798 CABLE FORM





REF. DRAWINGS:
AM-203 TRIPLE CHANNEL CHANGEOVER CABINET ASSEMBLY
W-1136 SCHEMATIC

SCALE :——

WIRING DIAGRAM

AM-203 CABINET

INTERNATIONAL PROJECTOR CORPORATION
95 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. [illegible] CHK. RS APPD. [illegible]

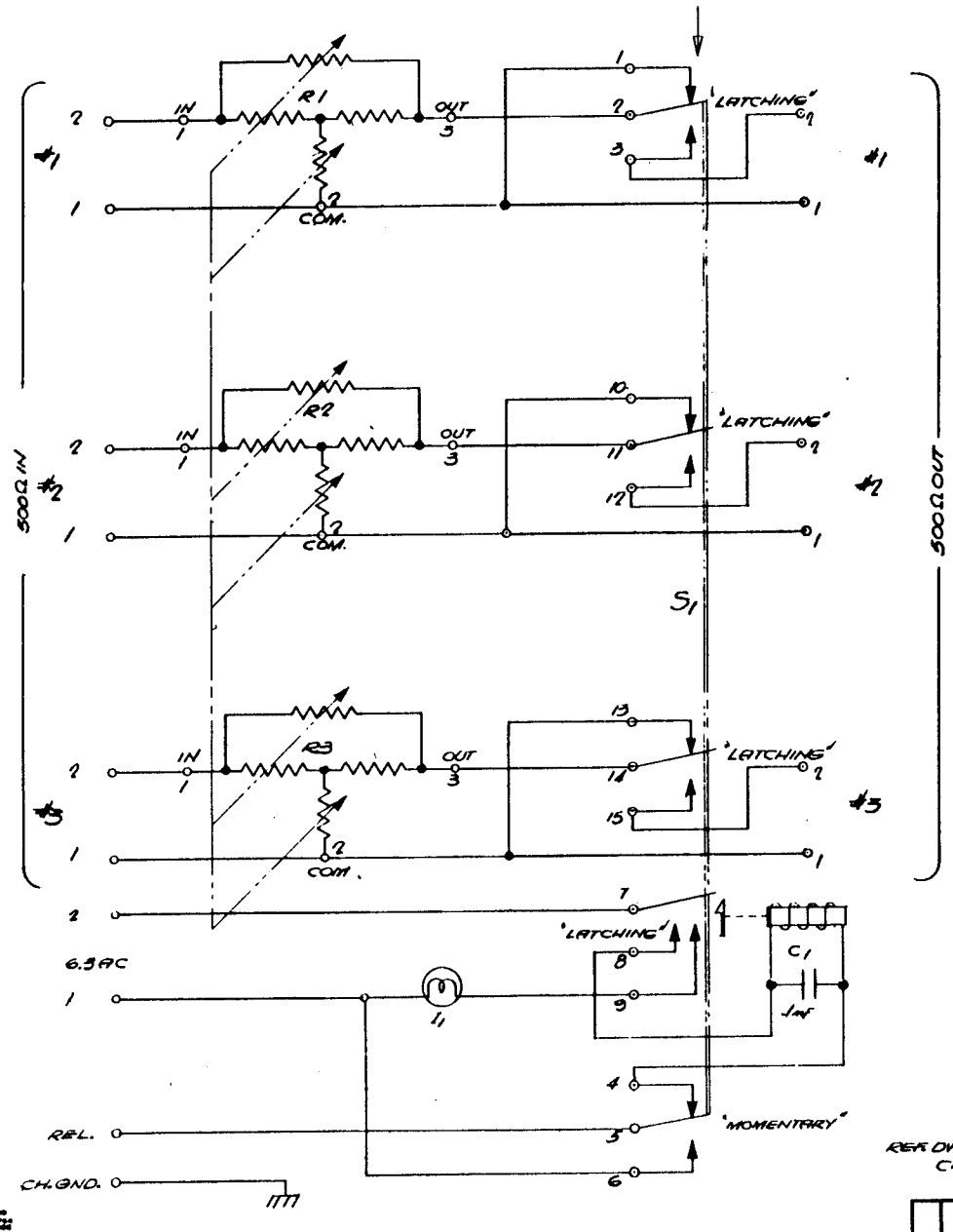
UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS BREAK SHARP EDGES
TOLERANCES OF ALL FRACT. DIM. TO BE ± 1/64
TOLERANCES OF ALL DECIMAL DIM. TO BE ±.005

PRODUCT CLASS

F W-1135

W-1136

ISSUE #1 7-21-53



SYMBOL	PART Nº	DESCRIPTION
I1	P-2264	LAMP PILOT, SOCKET
R1-R2-R3	P-3195	ATTENUATOR, 3 DECK —
S1	P-3197	SWITCH, TRIPLE CHANNEL CHANGEOVER
C1	P-1099	CAPACITOR, .1mf, 100 V.D.C.W.

REF. DWGS. - AM-203 TRIPLE CHANNEL CHANGEOVER CABINET ASSEMBLY. W-1135 WIRING DIAGRAM

PRODUCT CLASS

SCALE

DRAWN 7-21-53

SCHEMATIC

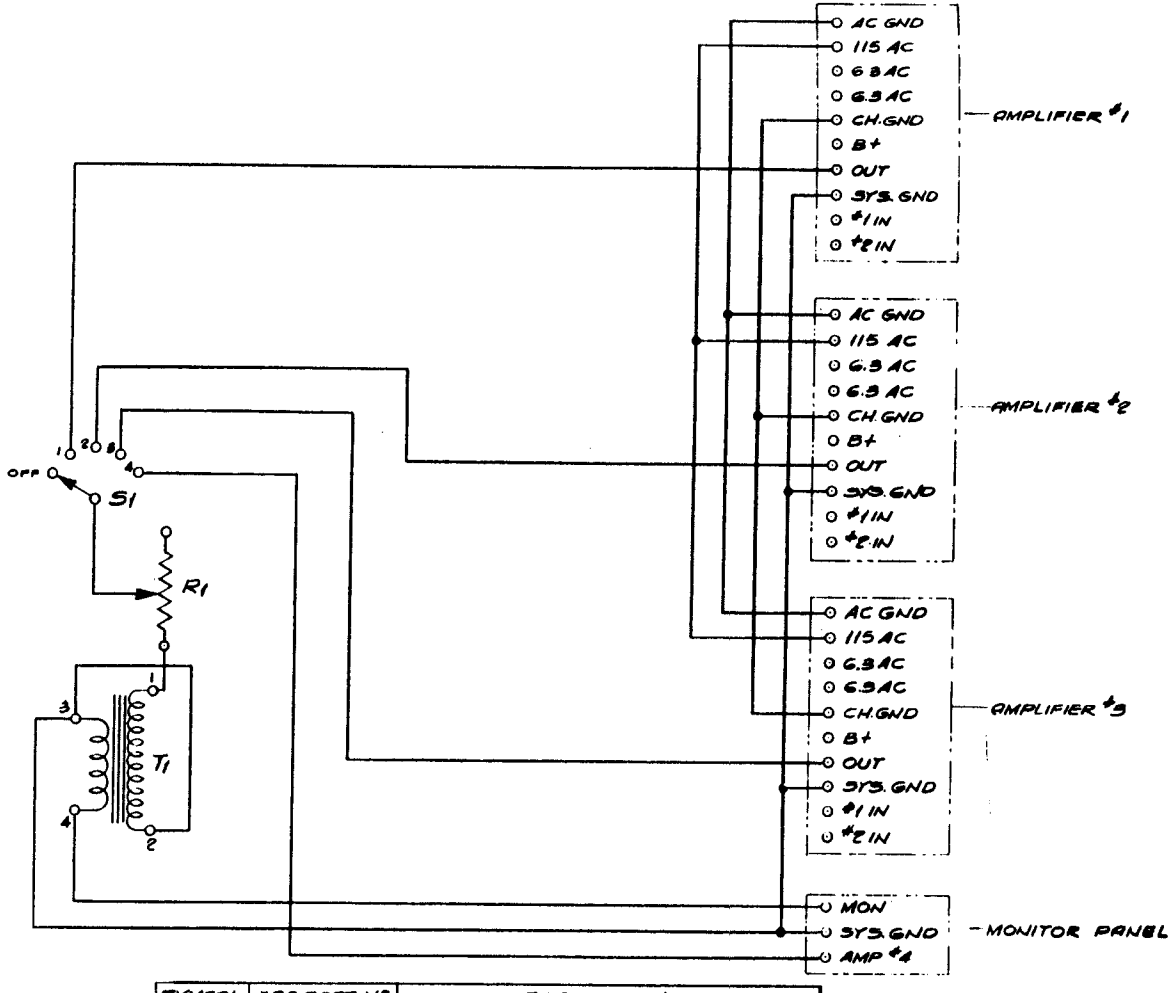
AM-203 CABINET

INTERNATIONAL PROJECTOR CORPORATION
96 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. MP DATE APPR.

F W-1136

W-1142



SYMBOL	I.R.C. PART Nº	DESCRIPTION
R1	P-3025	RESISTOR, 600 Ω POTENTIOMETER
S1	P-3027	SWITCH, ROTARY, 1 POLE-5 POSITION
T1	P-3028	TRANSFORMER

REF. DWG.–
G-2353 MONITOR PANEL & TERMINAL BOARDS ASS'Y.

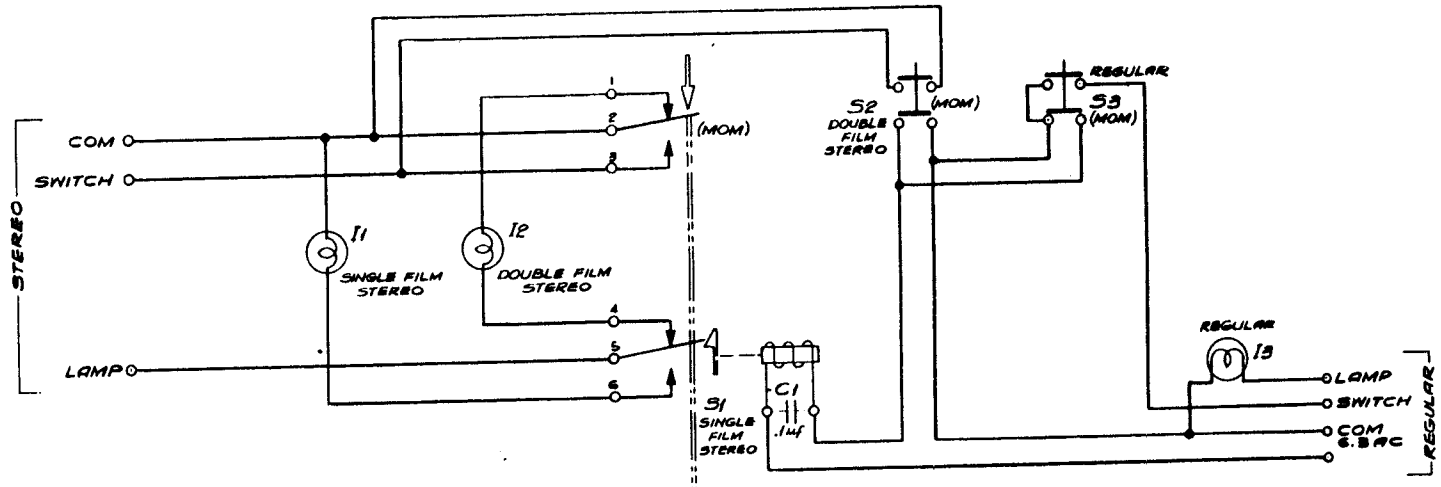
SCHEMATIC
MONITOR PANEL AND
S/S CONV. KIT CMO-1062
INTERNATIONAL PROJECTOR CORPORATION
30 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY
SIZE D DWG. 285 APPD.

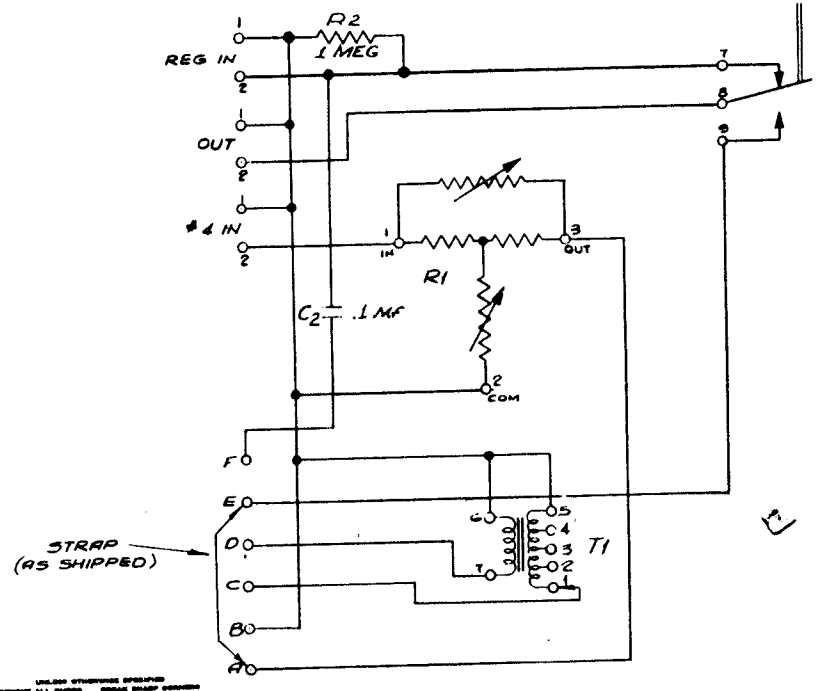
PRODUCT CLASS F

W-1142

W-1145

ISSUE: 1- 8-14-68
ADDED - CAPACITOR "C2" & RESISTOR "R2", ADDED ALT. DWG. NOTE.
ISSUE: 2 10-68





SYMBOL	IPC PART Nº	DESCRIPTION
C1 & C2	P-2099	CAPACITOR, 1 mf, 400 V., PAPER, TUBULAR
I1	P-2625	INDICATOR LAMP, 6-8 V.
I2	"	" " , 6-8 V.
I3	"	" " , 6-8 V.
R1	P-2276	"TEE" ATTENUATOR, 500 Ω
S1	P-8333	CHANGEOVER SWITCH
S2	P-3341	SWITCH, PUSHBUTTON, DPST
S3	"	" " , DPST
T1	P-3450	TRANSFORMER, MATCHING (UTC TYPE O-8)

REF. DRAWING: W-1147 WIRING DIAGRM AM-207

SCALE

SCHEMATIC
AM-207 SYSTEM
SELECTOR BOX

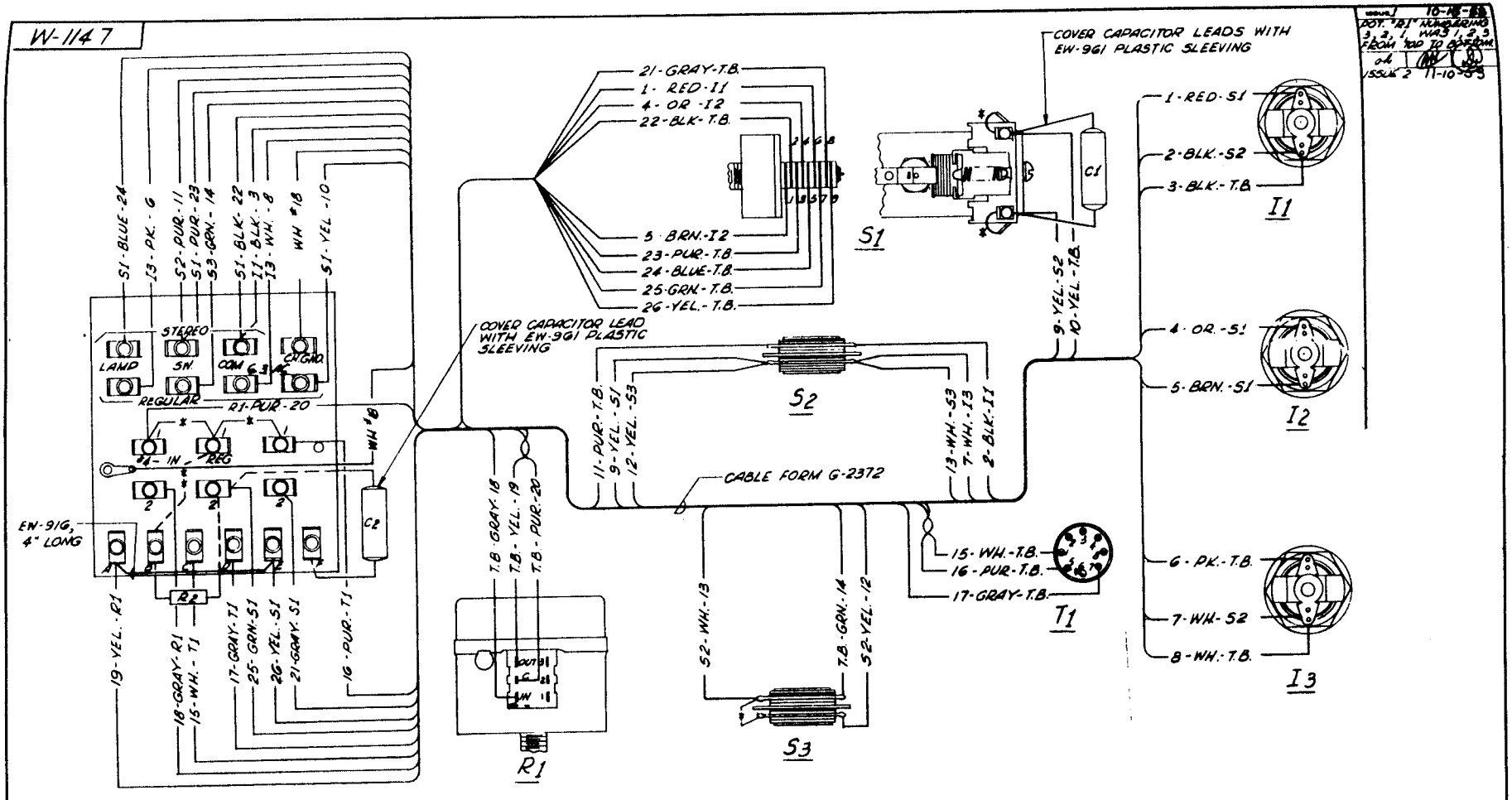
INTERNATIONAL PROJECTOR CORPORATION
30 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. PD CH'K. CMS APPR. DA

PRODUCT CLASS F

W-1145

W-1147



SYMBOL	I.A.C. PART NO.	DESCRIPTION
C1, C2	P-2099	CAPACITOR, .1 MF, 400V. PAPER TUBULAR
I1	P-2425	INDICATOR LAMP, 6-8V.
I2	"	" " , 6-8V.
I3	"	" " , 6-8V.
R1	P-2276	"TEE"-ATTENUATOR, 500 Ω
R2	P-2048	RESISTOR, 1 MEG, ± 5%, 1 W, CARBON
S1	P-3333	CHANGEOVER SWITCH
S2	P-3341	SWITCH, PUSHBUTTON, DPST
S3	"	" " " , DPST
T1	P-3450	TRANSFORMER, MATCHING (U.T.C. TYPE O-8)

NOTES

ALL WIRES ARE #20 AWG. UNLESS OTHERWISE SPECIFIED

* EW-692 BARE, SOLID TINNED COPPER WIRE

** EW-920 4½" LONG STRIP & TIN 1" BOTH ENDS.

REF. DRAWING:-W-1145 SCHEMATIC FOR AM-207

ISSUE 1 10-14-55 DOT. "B1" NUMBERING 3, 2, 1 WAS 1, 2, 3 FROM TOP TO BOTTOM

ISSUE 2 11-10-55

SCALE ~

WIRING DIAGRAM
AM-207
SYSTEM SELECTOR BOX

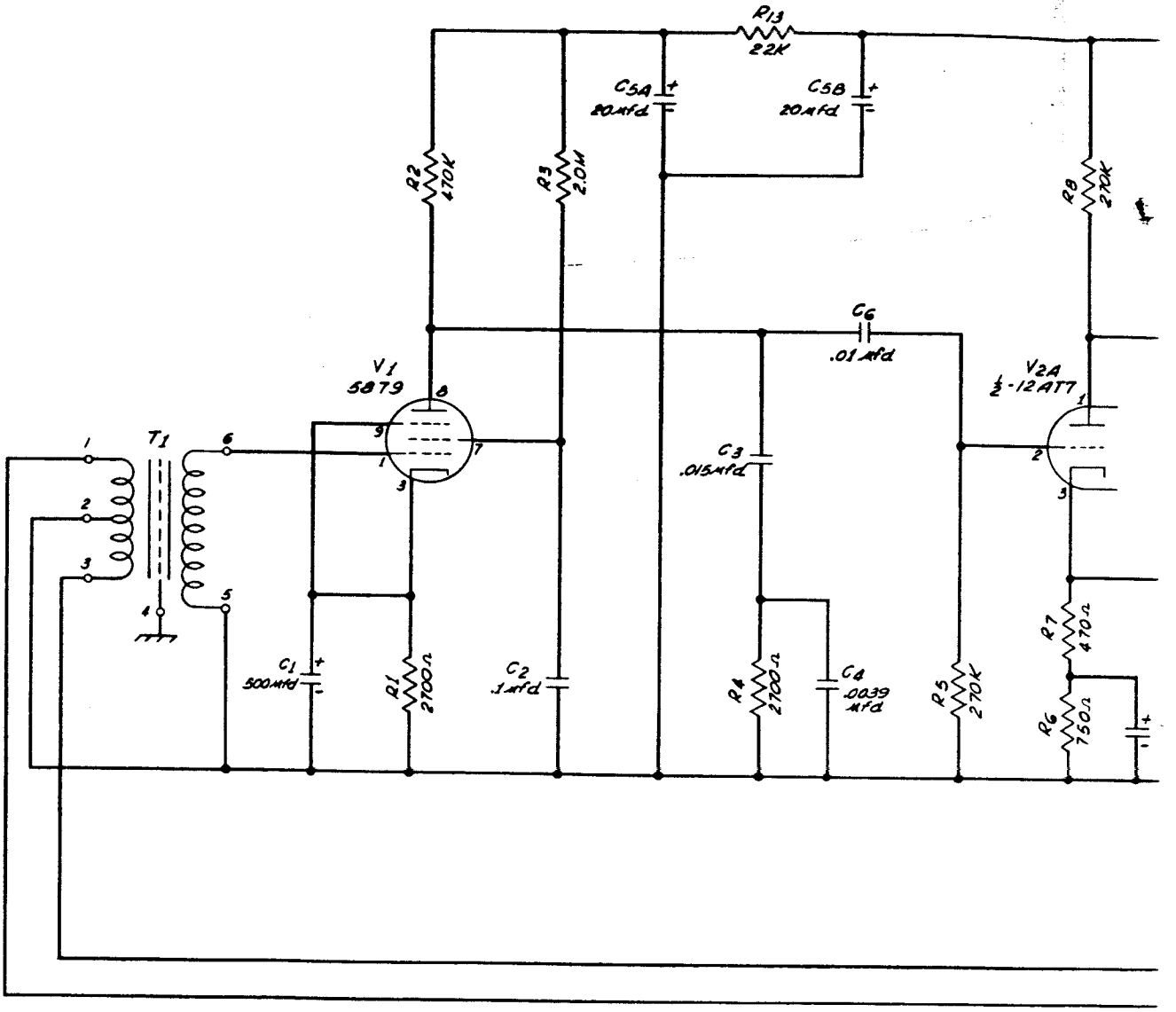
INTERNATIONAL PROJECTOR CORPORATION
99 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. ok CH'K AMS APP'D

PRODUCT CLASS F

W-1147

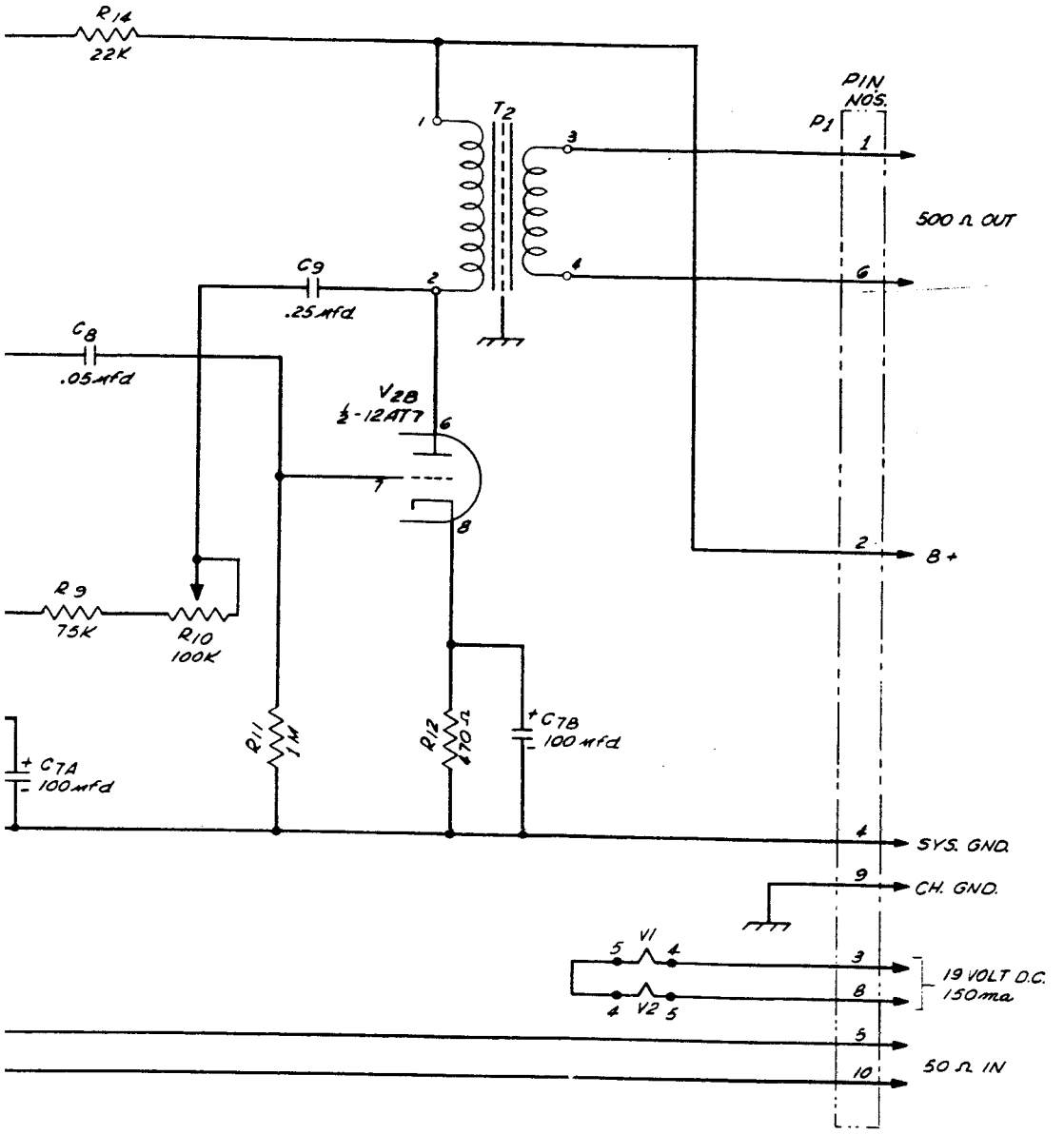
W-1150



SYMBOL	I.P.C. PART No.	DESCRIPTION
R1	P-2127	RESISTOR, 2700Ω, 1 W, CARBON
R2	P-2046	" , 470K, 1W, "
R3	P-2074	" , 2.0M, 1W, "
R4	P-2127	" , 2700Ω, 1W, "
R5	P-2055	" , 270K, 1W, "
R6	P-1004	" , 750Ω, 1W, "
R7	P-2075	" , 470Ω, 1W, "
R8	P-2055	" , 270K, 1W, "
R9	P-1013	" , 75K, 1W, "
R10	P-1076	" , 100K, 2W, POTENTIOMETER
R11	P-2048	" , 1M, 1W, CARBON

SYMBOL	I.P.C. PART No.	DESCRIPTION
R12	P-2075	RESISTOR, 470Ω, 1 W, CARBON
R13	P-2126	" 22K, 1W, "
R14	P-2126	" 22K, 1W, "
C1	P-3415	CAPACITOR, 500 mfd, 6V. DCW,
C2	P-2099	" , .1 mfd, 400V, PA
C3	P-3417	" , .015 mfd, 300V, MI
C4	P-3420	" , .0039 mfd, 500V, M
C5A	P-3416	" , 20/20 mfd, 450V. DCW.
C5B		
C6	P-3421	" , .01 mfd, 500V, MIC

DRAWN 10-5-53
ISSUE/ 11-11-53



SYMBOL	I.P.C. PART No.	DESCRIPTION
C7A	P-3418	CAPACITOR, 100/100 mfd, 10V. DCW, ELECTROLYTIC
C7B		
C8	P-3422	" , .05 mfd, 400V, PAPER
C9	P-3419	" , .25 mfd, 600V, METALIZED
T1	P-3427	TRANSFORMER, INPUT
T2	P-3428	TRANSFORMER, OUTPUT
P1	P-2063	MALE PANEL CONNECTOR - 10 PRONG
V1	P-3423	VACUUM TUBE, 5879
V2A	P-3424	" " , 12AT7
V2B		

ASSOCIATED DWGS.

AM-1065 - ASSEMBLY

W-1155 - WIRING DIAGRAM

SCALE ~

SCHEMATIC
PRE-AMPLIFIER
AM-1065

INTERNATIONAL PROJECTOR CORPORATION
99 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

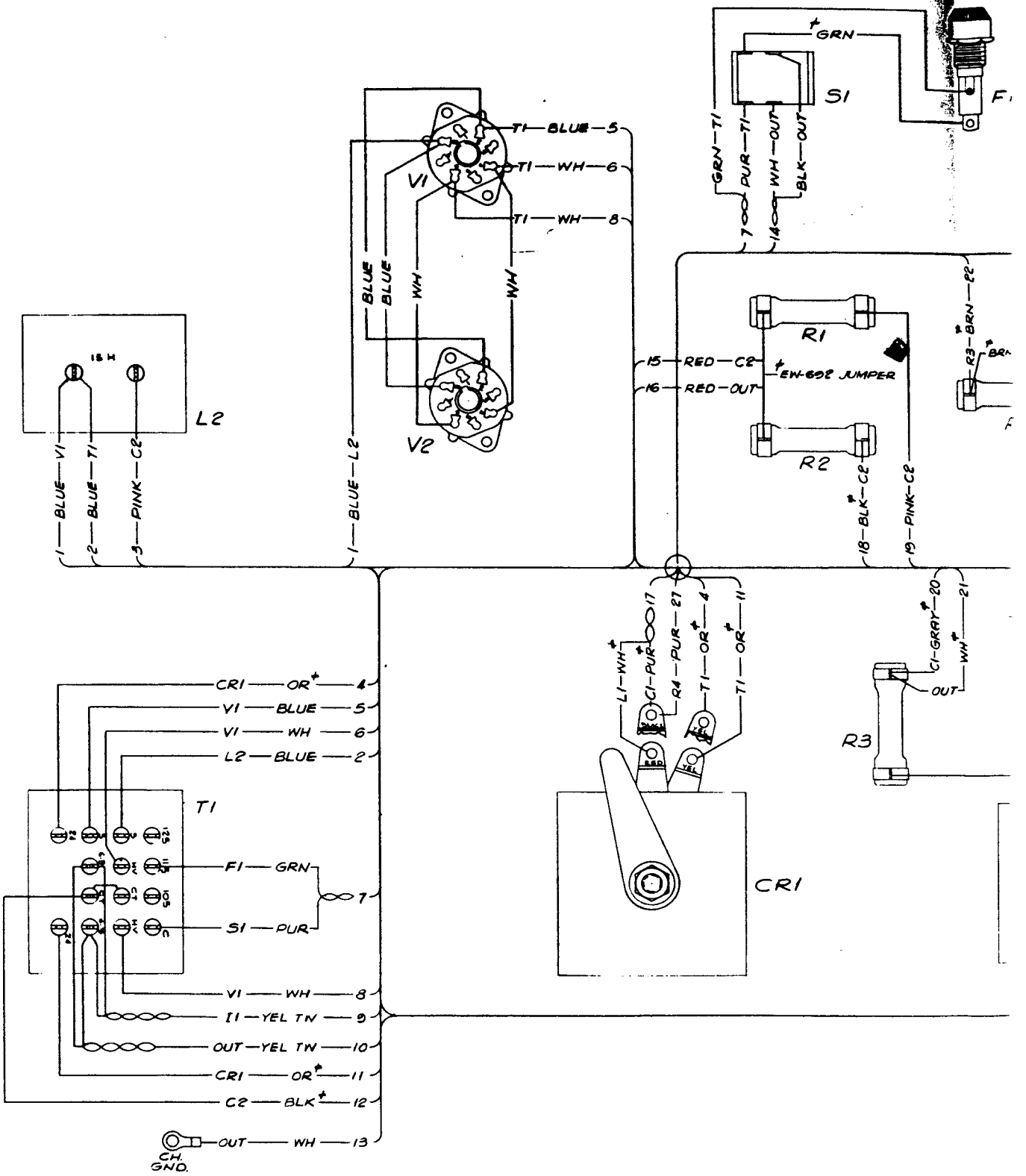
DR. CHK. APPD.

UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS BREAK SHARP CORNERS TOLERANCES OF ALL FRACT. DIM. TO BE ± ⅛ TOLERANCES OF ALL DECIMAL DIM. TO BE ± .005

PRODUCT CLASS

W-1150

W-1152



REFERENCE DWGS.
W-1158 SCHEMATIC
PU-1011 POWER SUPPLY

SYMBOL	PART N°	DESCRIPTION
C1	P-3485	CAPACITOR, 500 MMF, 25V. ELECTROLYTIC
C2	P-2084	" ,40-40 MF, 450V, "
CR1	P-3504	SELENIUM RECTIFIER
F1	P-2532	FUSETRON, 1 AMP
I1	P-2425	LAMP, 6-8 V
L1	P-3486	REACTOR, FILTER - 0.1 H
L2	P-3485	" , " -15 H
R1	P-3487	RESISTOR, 300 Ω, 25W, WIREWOUND
R2	P-3488	" ,15 K, 25W, "
R3	P-3529	" ,30 Ω, 25W, "
S1	P-2089	SWITCH, TOGGLE D.P.S.T.
T1	P-3484	TRANSFORMER, POWER
V1	P-2130	VACUUM TUBE, 5Y3GT
V2	P-2130	" " , 5Y3GT
R4	P-3024	RESISTOR, 100Ω, 25W, ADJUSTABLE

DRAWN 10-29-53
ISSUE: 1- 11-13-53
FI WAS P-2532
ISSUE: 2 11-23-53

I1

9—YEL TW—T1

CR1—17

R4

23—GRAY—L1
20—GRAY—R3
17—PUR—CR1
21—PUR—OUT
C1

BLK

3—PINK—L2
19—PINK—R1
15—RED—R1
12—BLK—T1
18—BLK—R2
24—BLK—OUT
C2

EW-692 JUMPER

R4—BRN—22
C1—GRAY—23
CR1—WH—17

0.1 H
L1

10—YEL TW T1
21—PUR—CH
WH—R3
16—RED—R1
24—BLK—C2
13—WH—CH. GND
14—BLK
WH
S1

CABLE FORM G-2388

WIRES MARKED + ARE N° 20 AWG.
ALL OTHER WIRES ARE N° 18 AWG

SCALE

WIRING DIAGRAM

PU-1011 POWER SUPPLY

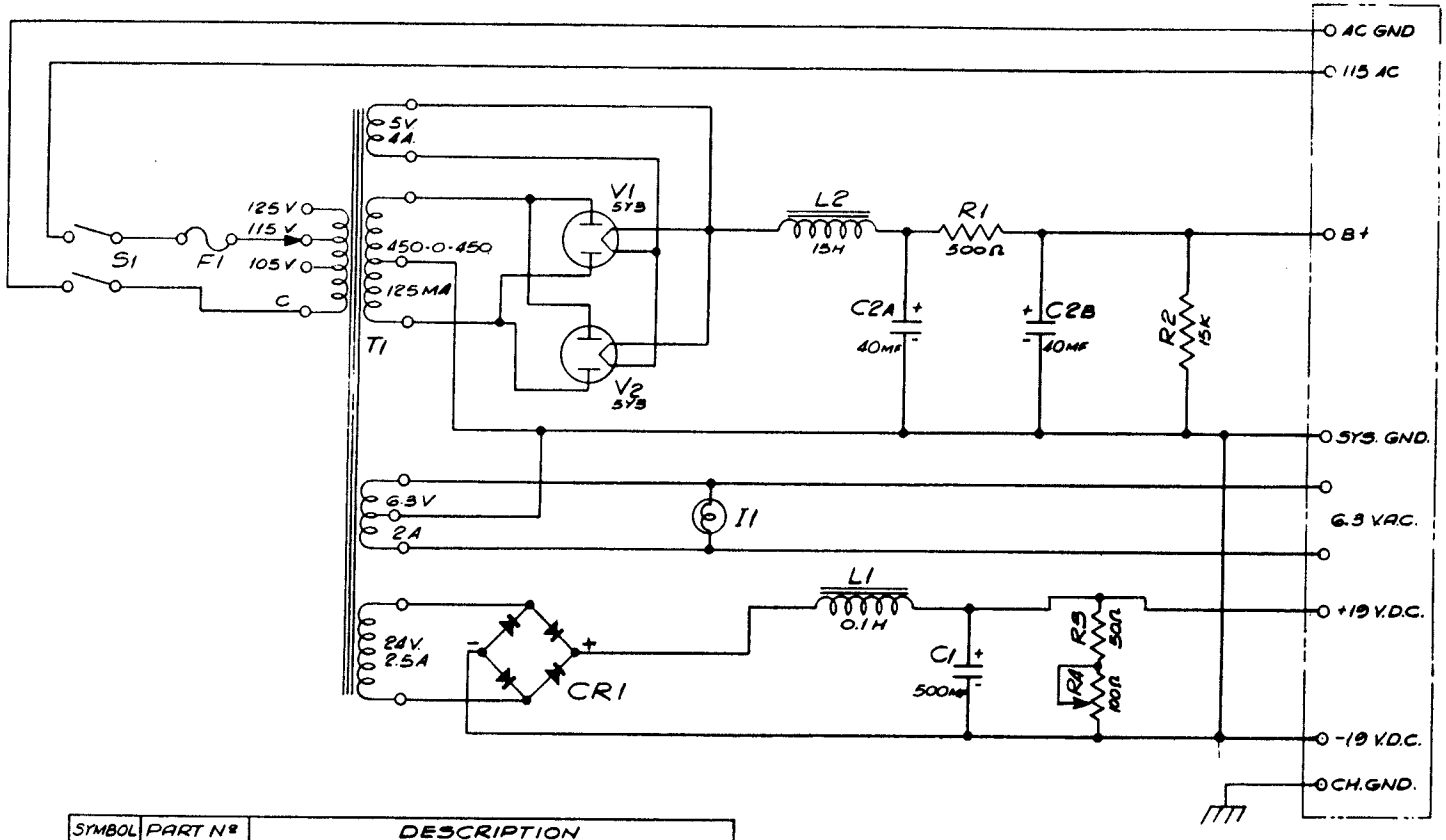
INTERNATIONAL PROJECTOR CORPORATION
88 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. ED CHK. MH APPD.

PRODUCT CLASS F

W-1152

W-1153



SYMBOL	PART Nº	DESCRIPTION
C1	P-3488	CAPACITOR, 500 MF, 25 V, ELECTROLYTIC
C2	P-2084	" ,40-40 MF, 450 V, "
CR1	P-3504	SELENIUM RECTIFIER
F1	P-2592	FUSETRON, 1 AMP.
I1	P-2425	LAMP, 6-8 V.
L1	P-3486	REACTOR, FILTER - 0.1 H
L2	P-3485	" , " - 15 H
R1	P-3487	RESISTOR, 500 OHMS, 25 W. WIREWOUND
R2	P-3488	" ,15 K OHMS, 25W, "
R3	P-3529	" , 50 OHMS, 25W, "
S1	P-2089	SWITCH, TOGGLE DP.S.T.
T1	P-3484	TRANSFORMER, POWER
V1	P-2190	VACUUM TUBE, 5Y3GT
V2	P-2190	" " ,5Y3GT
R4	P-3024	RESISTOR, 100 OHMS, 25W, ADJUSTABLE

REFERENCE DRAWINGS
W-1152 WIRING DIAGRAM
PU-1011 POWER SUPPLY

ISSUE: 1- 11-19-58
ISSUE: E-N-23-62

SCALE
DRAWN 10-21-58
SCHEMATIC
PU-1011 POWER SUPPLY

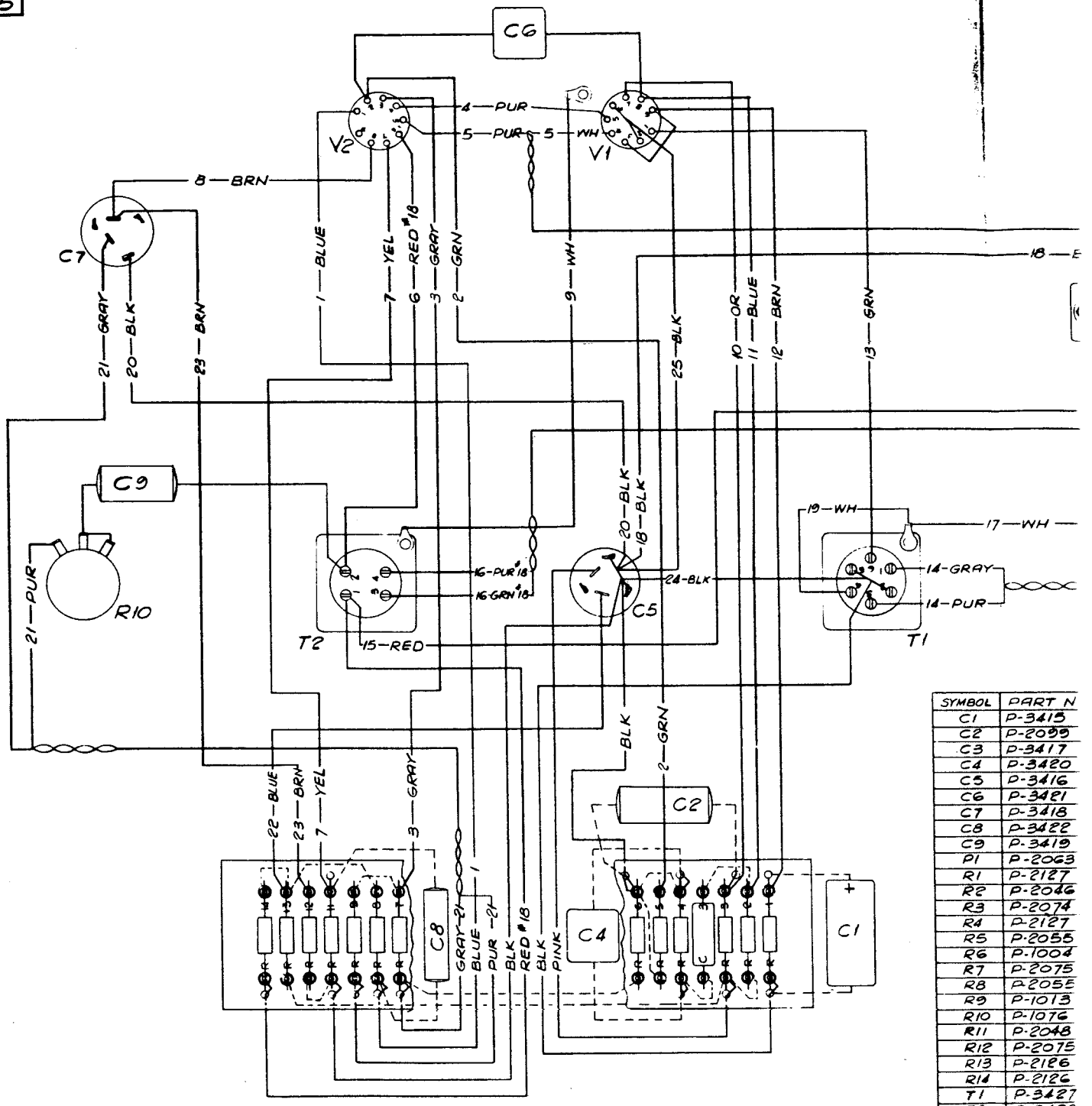
INTERNATIONAL PROJECTOR CORPORATION
96 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. RD CH'K. APP'D.

PRODUCT CLASS F

W-1153

W-1155



SYMBOL	PART N
C1	P-3415
C2	P-2099
C3	P-3417
C4	P-3420
C5	P-3416
C6	P-3421
C7	P-3418
C8	P-3422
C9	P-3419
P1	P-2063
R1	P-2127
R2	P-2046
R3	P-2074
R4	P-2127
R5	P-2055
R6	P-1004
R7	P-2075
R8	P-2055
R9	P-1013
R10	P-1076
R11	P-2048
R12	P-2075
R13	P-2186
R14	P-2126
T1	P-3427
T2	P-3428
V1	P-3423
V2	P-3424

REFERENCE D

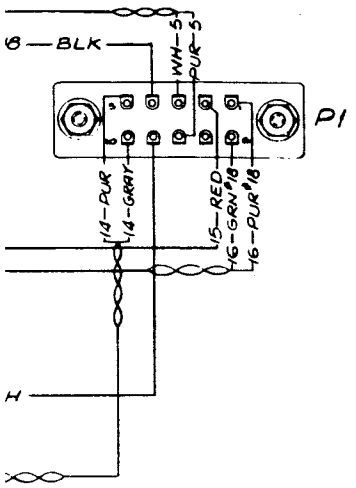
W-1150 SCHEM

3M-1065 PRE-AM

DRAWN 10-27-53
ISSUE: 1 11-6-58

SUGGESTED METHOD FOR WIRING

1. SOLDER WIRES TO P1 (MALE PANEL CONNECTOR) BEFORE ASSEMBLY OF PLUG TO CHASSIS
2. MOUNT CAPACITOR C9.
3. SOLDER WIRES BETWEEN COMPONENTS ON CHASSIS.
4. SOLDER WIRES AND CAPACITOR C6 TO TUBE SOCKETS V1 AND V2 BEFORE ASSY OF SUPPORT TO CHASSIS.
5. MOUNT SUPPORT TO CHASSIS AND SOLDER WIRES TO COMPONENTS ON CHASSIS.
6. SECURE MOUNTING STRIP TO CHASSIS AND SOLDER WIRES BETWEEN COMPONENTS ON CHASSIS AND MOUNTING STRIP.
7. MAINTAIN TWIST IN WIRE AS CLOSE AS POSSIBLE TO TERMINALS.



RT N°	DESCRIPTION
415	CAPACITOR, 500 MFD, 6V., ELECTROLYTIC
099	" , .1 MFD, 400V, PAPER
417	" , .015 MFD, 300V, MICA
420	" , .0039 MFD, 500V, "
416	" , 20/20 MFD, 450V, ELECTROLYTIC
421	" , .01 MFD, 500V, MICA
418	" , 100/100 MFD, 10V, ELECTROLYTIC
422	" , .05 MFD, 400V, PAPER
419	" , .25 MFD, 600V, PAPER
063	MALE PANEL CONNECTOR - 10 PRONG
127	RESISTOR, 2700 Ω, 1W, CARBON
046	" , 470 K, 1W, "
074	" , 2.0 M, 1W, "
127	" , 2700 Ω, 1W, "
055	" , 270 K, 1W, "
004	" , 750 Ω, 1W, "
075	" , 470 Ω, 1W, "
055	" , 270 K, 1W, "
013	" , 75 K, 1W, "
076	" , .1 K, 1W, POTENTIOMETER
048	" , 1 M, 1W, CARBON
075	" , 470 Ω, 1W, "
126	" , 22K, 1W, "
126	" , 22K, 1W, "
427	INPUT TRANSFORMER
428	OUTPUT TRANSFORMER
423	VACUUM TUBE 5879
424	" " 12AT7

WIRE #	FROM	TO	LENGTH	COLOR	PART #	
1	V2	R8	4 3/4	BLUE	EW-912	
2	V2	R5	2 3/4	GREEN	-917	
3	V2	R7	2 1/4	GRAY	-909	
4	V2	V1	1 3/4	PUR	-908	
5	V2 & V1	P1	7 1/2	PUR-WH TW	-1009	
6	V2	T2	2	RED	-953	
7	V2	R11	2 3/4	YEL	-916	
8	V2	C7	2 3/4	BRN	-913	
9	V1 GND	T2 GND	1 1/2	WH	-919	
10	V1	R3	2 1/4	OR	-956	
11	V1	R2	2 1/2	BLUE	-912	
12	V1	R1	2 1/4	BRN	-913	
13	V1	T1	1 1/2	GRN	-917	
85	V1	C5	2 3/4	BLK	-920	
14	P1	T1	2 3/4	PUR-GRAY TW	-944	SEE NOTE 7
15	P1	T2	8	RED	-957	
16	P1	T2	7 1/2	PUR-GRN TW	-943	
17	P1	T1 GND	4 1/4	WH	-919	
18	P1	C5	6 3/4	BLK	-920	
19	T1	T1 GND	3	WH	-919	
20	C5	C7	6 3/4	BLK	-920	
21	C7	R7	7	GRAY TW	-944	
21	R10	R9		PUR		
22	C5	R13	6 1/2	BLUE	-954	
23	C7	R12	2 1/4	BRN	-913	
24	C5	T1	8 1/4	BLK	-920	

NOTE
1. STRAPS ARE EW-692 SOLID, TINNED COPPER WIRE.
2. COVER STRAP AT "V1", BETWEEN PINS 3 AND 9, AND CAPACITOR LEADS WITH EW-961 BLACK PLASTIC SLEEVING.
3. WIRES ARE N° 20 AWG, UNLESS OTHERWISE SPECIFIED.

E DWGS.
IEMATIC
-AMPLIFIER

SCALE

WIRING DIAGRAM

AM-1063 PRE-AMPLIFIER

INTERNATIONAL PROJECTOR CORPORATION
88 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

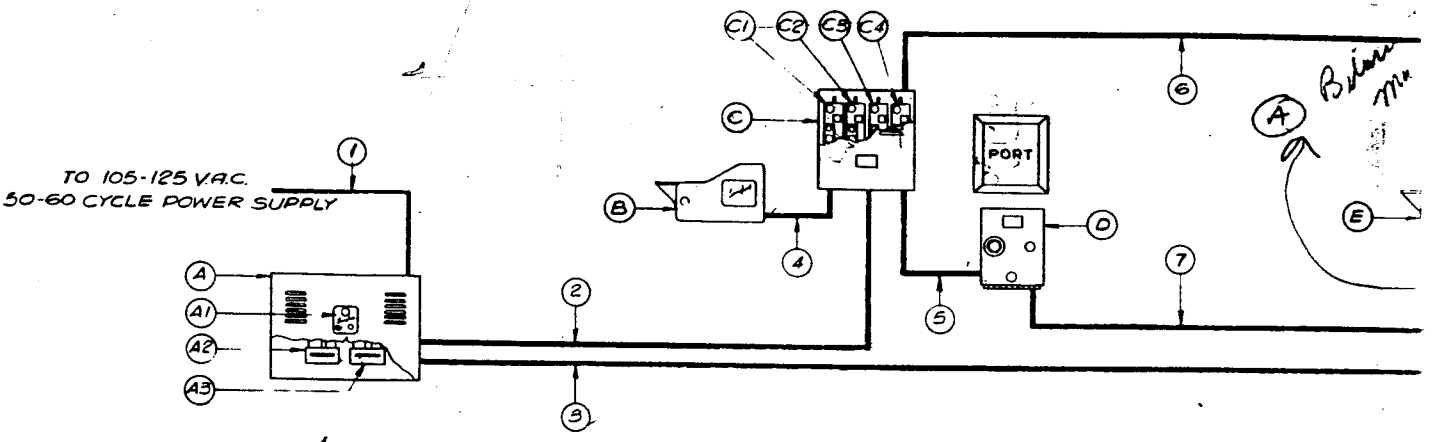
DR. ED CHK. APP'D

UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS BREAK SHARP CORNERS TOLERANCES OF ALL FRACT. DIM. TO BE ± 1/64 TOLERANCES OF ALL DECIMAL DIM. TO BE ± .005

PRODUCT CLASS F

W-1155

I-2248



under amps
on right side of
booth

FLOC

EQUIPMENT

(A) PU-1012 PRE-AMPLIFIER POWER SUPPLY CABINET
(16"H × 21"W × 8 3/4 D)(38 LBS. COMPLETE)
INSTALL THE FOLLOWING:-
(A1) PU-1011 PRE-AMPLIFIER POWER SUPPLY
(A2) AM-1064 CONTROL UNIT
(A3) AM-1064 CONTROL UNIT

(B) & (E) SH-1025 MAGNETIC SOUNDHEAD
(12"L × 10"W × 6 1/2 H)(20 LBS)

(C) & (F) AM-1066 PRE-AMPLIFIER CABINET
(13 1/4 H × 13 W × 8 1/2 D)(12 LBS. COMPLETE)
WITH THE FO'LOWING:-
(C1) & (F1) AM 1065 PRE-AMPLIFIER
(C2) & (F2) AM-1065 PRE-AMPLIFIER
(C3) & (F3) AM-1065 PRE-AMPLIFIER
(C4) & (F4) AM-1065 PRE-AMPLIFIER

(D) AM-203 TRIPLE CHANNEL CHANGEOVER CABINET
(12"H × 9 1/8" W × 6"D)(11 LBS)

(G) AM-202 TRIPLE CHANNEL CHANGEOVER & WARPING
(12"H × 9 1/8" W × 6"D)(11 LBS)

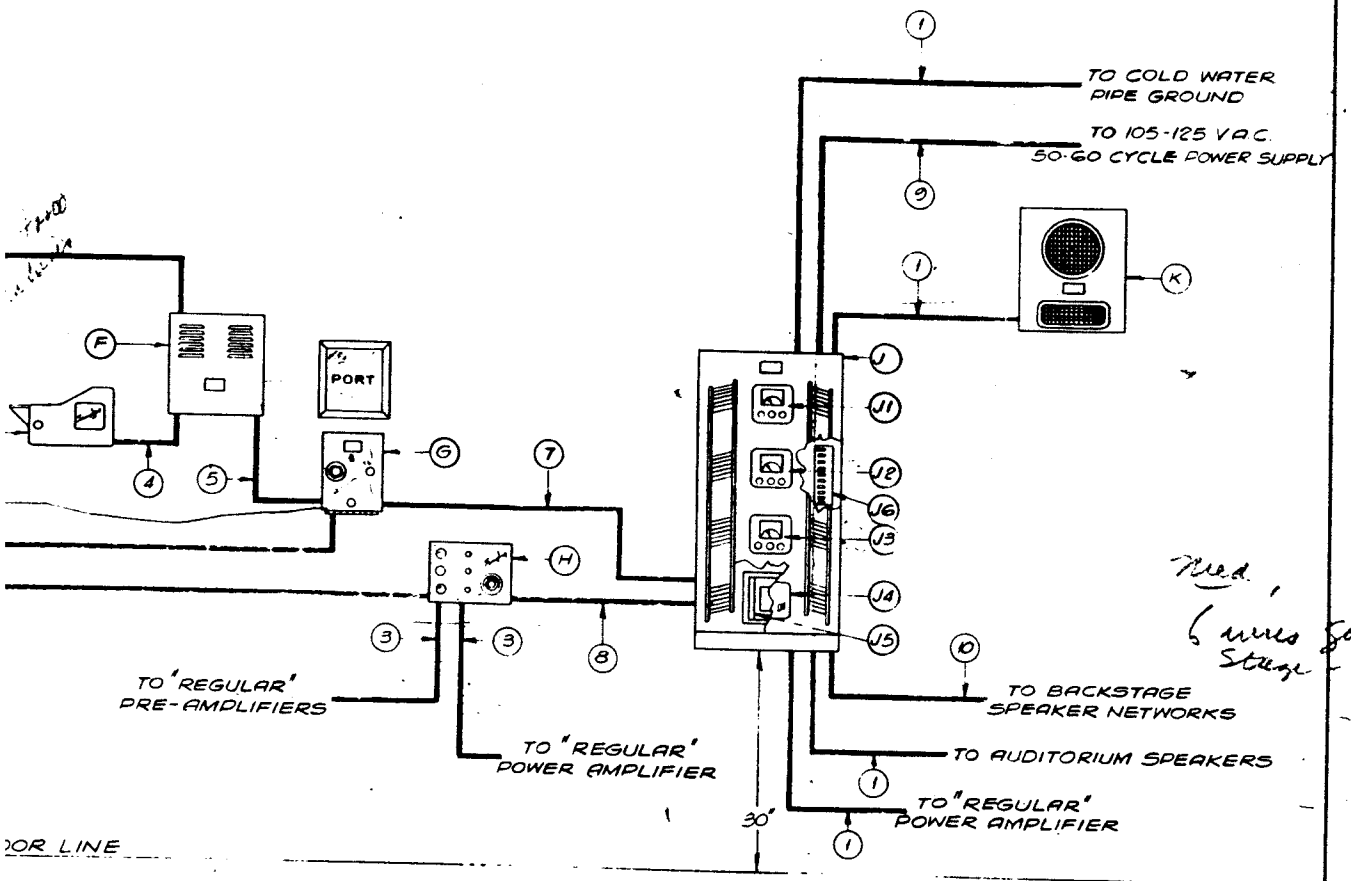
(H) AM-207 SYSTEM SELECTOR BOX
(6"H × 8"W × 4"D)(7 LBS)

(J) AM-1031 SYSTEM CABINET
(44 1/4"H × 21"W × 13 3/4"D)(265 LBS COMPLETE)
INSTALL THE FOLLOWING:-
(J1) AM-1026 OR AM-1027 AMPLIFIER
(J2) AM-1026 OR AM-1027 AMPLIFIER
(J3) AM-1026 OR AM-1027 AMPLIFIER
(J4) AM-1054 MONITOR AMPLIFIER & CONTROL PA
(J5) LU-1122 OUTPUT SWITCH KIT
(J6) AM-1055 SYSTEM CABINET KIT

(K) LU-142 MONITOR SPEAKER ASSEMBLY
(18"H × 15"W × 8D)(19 LBS)

NOTE: LOCATION FOR AM-1065 CABINETS
MIN. DISTANCE 3 FEET FROM MOTORS & PU-1012 CABINET

DRAWN 11-20-58
ISSUE: 1 11-28-58



Need 6 wires going back Stage (All new)

OR LINE

CONDUIT AND WIRING

CABINET

(1)	½" CONDUIT	2-Nº 14 BRC
(2)	1" CONDUIT	3-Nº 14 BRC 1-Nº 14 TW. PR BRC 2-SHIELDED CABLE *
(3)	½" CONDUIT	1-SHIELDED CABLE *
(4)	1" FLEXIBLE CONDUIT	4-SHIELDED CABLE * 1-Nº 14 BRC
(5)	¾" CONDUIT	3-SHIELDED CABLE * 1-Nº 14 BRC
(6)	¾" CONDUIT	1-SHIELDED CABLE * 2-Nº 14 BRC 1-Nº 14 TW. PR. BRC
(7)	1" CONDUIT	3-SHIELDED CABLE * 1-Nº 14 TW PR BRC 1-Nº 14 BRC
(8)	1" CONDUIT	8-Nº 14 BRC
(9)	½" CONDUIT	1-Nº 14 BRC
(10)	¾" CONDUIT	6-Nº 14 BRC

2 prs - twisted #14

NEL

Will need 300' 8 or 22 better mics cable

SCALE

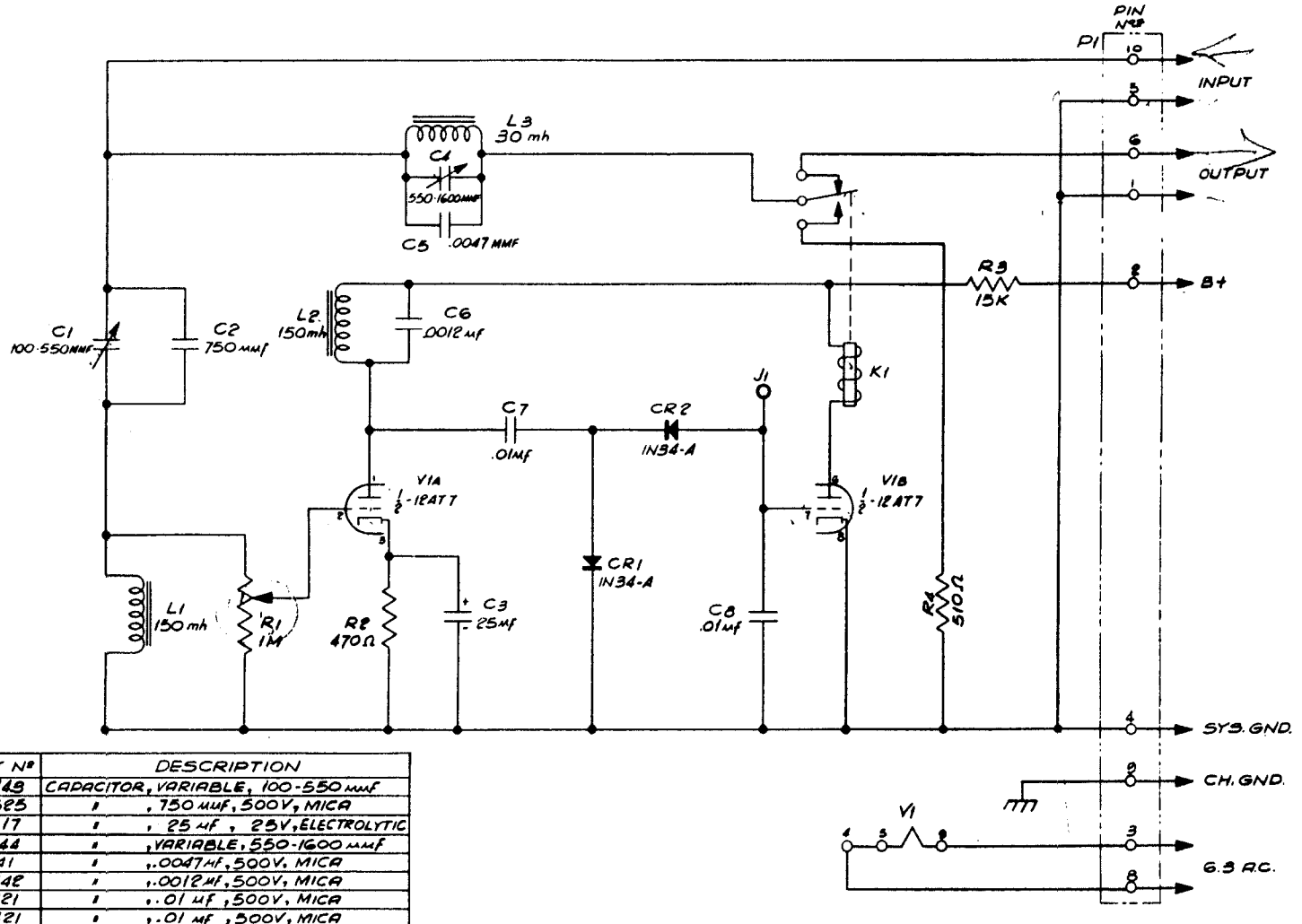
CONDUIT LAYOUT
XL-432- & XL-436- SINGLE
FILM STEREO SOUND SYSTEMS
INTERNATIONAL PROJECTOR CORPORATION
85 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY
DR. PD CHK. JWS APPD.
I-2248

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS BREAK SHARP CORNERS
TOLERANCES OF ALL FRACT. DIM. TO BE ± ½
TOLERANCES OF ALL DECIMAL DIM. TO BE ± .005

PRODUCT CLASS

W-1156

ISSUE 1 - 11-18-53



SYMBOL	PART Nº	DESCRIPTION
C1	P-3449	CAPACITOR, VARIABLE, 100-550 mmf
C2	P-3525	" , 750 muf, 500V, MICA
C3	P-2617	" , 25 mf , 25V, ELECTROLYTIC
C4	P-3444	" , VARIABLE, 550-1600 mmf
C5	P-3441	" , .0047 mf, 500V. MICA
C6	P-3442	" , .0012 mf, 500V, MICA
C7	P-3421	" , .01 mf , 500V, MICA
C8	P-3421	" , .01 mf , 500V, MICA
CR1	P-3447	GERMANIUM DIODE IN34-A
CR2	P-3447	" " IN34-A
L1	P-3445	INDUCTOR, 150 mh ± 2%
L2	P-3445	" , 150 mh ± 2%
L3	P-3446	" , 30 mh ± 2%
J1	P-3522	JACK, INSULATED TIP
K1	P-3517	RELAY, SENSITIVE
P1	P-2063	MALE PANEL CONNECTOR, 10 PRONG
R1	P-3438	RESISTOR, 1M, 2W., POTENTIOMETER
R2	P-2075	" , 470Ω ±5%, 1W., CARBON
R3	P-3524	" , 15K ±5%, 2W, CARBON
R4	P-2040	" , 510Ω ±5%, 1W., CARBON
V1	P-3424	VACUUM TUBE, 12AT7

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS BREAK SHARP CORNERS
TOLERANCES OF ALL ANGLES, DIA. TO BE ± 1/64
TOLERANCES OF ALL DECIMAL DIA. TO BE ± .005

SCALE

DRAWN 10-14-53

SCHEMATIC

AM-1064 CONTROL UNIT

INTERNATIONAL PROJECTOR CORPORATION
96 LA FRANCE AVENUE
BLOOMFIELD NEW JERSEY

DR. PD CH'K. APP'D.

PRODUCT CLASS F

W-1156