SERVICE MANUAL

SEEBURG SYMPHONOLA

1939 MODELS
CLASSIC-VOGUE
MAYFAIR-PLAZA-CASINO

This Printing

J. P. SEEBURG CORPORATION
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FOREWORD

This manual has been prepared to assist the service engineer in making any adjustments and repairs that may be necessary on 1939 Seeburg Symphonolas.

In preparing this manual every effort was made to present the material in as simple a form as possible. Wherever practical, the steps in a particular operation are set forth in numbered paragraphs.

Seeburg maintains a nation-wide organization of field engineers to instruct and cooperate with your service department. You will find these men up to date on all information pertaining to service. In addition, we maintain a home service department at the factory to help you and to furnish you with any technical or service information that you may desire.

When requesting information by wire or letter relative to the Symphonola, please give Model and Serial Number. Also please give a full description of the problem at hand so that we may be better able to serve you.

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TO PREPARE INSTRUMENT FOR OPERATION

UNPACKING: We advise that the packing case be carefully examined before unboxing instrument, and should there be any indication of concealed damages, the transportation company should be notified.

(1) Remove the screws holding the front of the packing case to the sides.

(2) Carefully remove instrument from packing box.

(3) Open doors in back by means of the keys which are wrapped and fastened to the coin slot.

(4) Remove the fastening from tone arm to tone arm post bracket.

(5) Remove shipping block holding record trays, and shipping brace and wooden block which hold the motor rigidly for transportation purposes. It is advisable to keep these braces in the bottom of the instrument and use them again when transporting the machine.

(6) Remove four wing nuts in each corner of the chassis.

NOTE: Wing nuts should be removed so that the chassis may be resiliently suspended in the spring mounting. This is absolutely essential in order that the best tone quality may be obtained. When instrument is again to be moved, these wing nuts should be replaced and tightened down so that they hold the chassis rigidly.

NEEDLE: The Symphonola Pickup is designed to use any standard phonograph needle, however, we recommend the type supplied with the instrument. The needle should be installed having the flat part of the needle aligned parallel to the grooves in the record.

CURRENT SUPPLY FOR INSTRUMENT: On the back of each instrument will be found a name plate which gives the type of current upon which the instrument is designed to operate. If in doubt as to whether or not the type of current at the location is correct, look at the house watt hour meter or call the local power company for this information.

INSTRUCTIONS FOR INSTALLING RECORDS: A set of record support discs will be found fastened inside of cabinet. One disc should be used as a support underneath each record. It is not necessary to remove the record support discs from the trays when records are being changed, but it is important to make certain that both the discs and records are centered properly in the record trays.

When installing or replacing the records in the instrument, it is best to install or replace the record in No. 20 tray first. Install or change balance of records starting with No. 1 tray and work down thru stack of record trays until all the records are in their respective trays. As each record is put in its tray the title for that particular record should be put in its proper place in the program holder.

After all trays have been filled they must be returned to their original position by hand excepting No. 20 which should remain over turntable.

OPERATION & MAINTENANCE

APPEARANCE: It is important that the general upkeep and appearance of the instrument be maintained. A careful selection of good quality records that fit in with the location should be made. Typwritten or printed title slips should be used at all times. This not only adds to the attractiveness of the instrument, but increases its earnings.

LUBRICATION: Oil the gears occasionally using an automobile oil having a viscosity of 20. Oil all friction points, such as the high speed transmission bearings and selector feed clutch plates on toothed rack. We recommend this oil inasmuch as the ordinary light sewing machine oil on the turntable shaft or transmission shaft or transmission bearings has not enough body to retain proper lubrication. The slide grooves may be oiled sparingly should the record carriers become binding or sticky. If grease has been used in the slide grooves or grooves become gritty or gummy, the record carriers may bind. Same should be washed thoroughly with a brush and a light grade of good quality lubricating oil. Wipe clean and re-oil sparingly. DO NOT USE VASELINF OR ANY GREASE IN THE SLIDE GROOVES AS IT WILL QUICKLY GUM UP CAUSING A HEAVY LOAD ON THE SELECTOR SLIDE PLATE.

MOTOR

The motor used to drive the mechanism is a 1/30 H.P. induction type with a starting winding and a starting winding switch. The starting winding switch automatically turns off

the current to the starting windings when the motor has attained the proper speed.

(1) **Motor does not start:** Blown or defective motor fuse. Check motor fuse in Junction box. Make sure contacts in play magazine are closed and are making proper contact. A bind in mechanism may cause too heavy a load on motor and will not allow it to turn.

(2) **Motor does not start until coupling is disconnected and motor is spun with fingers:** Cause of trouble in this case may be a defective starting winding switch or a burned out starting winding. By removing the end plate of the motor the starting winding switch is made accessible and can be cleaned with fine sand paper, then wiped with a clean cloth.

(3) **Starting winding cuts in and out continuously:** This is usually due to a bind in the chassis mechanism which allows the motor to just barely come up to enough speed to open the starting winding switch - the motor speed is then immediately reduced due to the heavy drag causing the starting switch to close again.

(4) **Motor Base.** No. 1840, Fig. 2: The motor is resiliently mounted on steel springs in order to prevent vibration from the motor being transmitted through the chassis and reaching the pickup.

(5) **Note:** It is important that the two sides of the loop in the spring No. 1841, Fig. 2, mounting do not touch each other where they cross. If they do vibration will be

transmitted into the chassis and interfere with the true reproduction of music.

MOTOR FUSE BLOWS

(1) Replace with a 3 ampere fuse but before replacing, find what caused fuse to blow.

There are a number of reasons that will cause the motor fuse to blow. The most usual reason is the failure to remove all shipping blocks.

Make Sure Instrument is Completely Unblocked:

(2) Bind in transmission gears No. 3054 and No. 1071, Fig. 1, causing overload on motor. Tight bearings in motor. This can be determined by loosening coupling No. 1083, Fig. 1 and turning motor with fingers. It should turn freely.

(3) Record trays may be jammed due to dirt or grit in the tray grooves. Neither vaseline nor grease should ever be used to lubricate the tray grooves as binding of the trays is almost certain to be the result. If grease has been used in the grooves, they can be cleaned by applying with a brush, a light grade of good quality lubricating oil.

(4) If instrument has been in a cold place over night, it should be allowed to warm up before the current is turned on, otherwise the lubrication will be stiff causing a heavy drag on the motor which will often blow the fuse.

MECHANISM FAILS TO RESPOND WHEN COIN IS INSERTED

Corrective measures will be found under the following headings:

Page No. 9 Motor Fuse Blows

Page No. 7 Motor

Page No. 10 Magazine Relay Does Not Respond To Coin

Page No. 10 Turntable Fails to Rise to Playing Position

Page No. 13 Coin Switch Assembly

MAGAZINE RELAY DOES NOT RESPOND TO COIN

(1) Look for loose line cord connection at wall outlet.

(2) Make sure that Service Relay lamp in Junction Terminal Box is not burning. The play magazine is inoperative when service relay light is on.

(3) Service relay lamp may be loose in its socket or may be burned out. If lamp is burned out, replace with a 120-V (60 W lamp) except in the case of 32 volt D.C. instrument where a 32 volt - 25 watt lamp is required.

(4) Defective Magazine Relay Magnet No. 1537A, Fig. 2, broken wire or bad connections on magnet posts.

(5) For other corrective measures, refer to "Coin Switch Assembly", page 13.

TURNTABLE FAILS TO RISE TO PLAYING POSITION

(1) Insufficient or faulty lubrication on the turntable spindle bearings. Use SAE-10 oil. DO NOT USE a light sewing machine oil as it does not have the body required at this particular point.

(2) Foreign obstacles such as dust or grit entering turntable bearings.

(3) To remove dirt and foreign matter from turntable spindle No. 1011, Fig. 3: With turntable in uppermost position and the motor cut off by means of turning off main switch in Junction Terminal Box, flood generously with oil, moving the turntable up and down with the fingers, and wipe off with a clean cloth. Repeat this operation until the shaft and bearings are clean. Re-oil lightly with No. SAE 10 oil before leaving instrument.

(4) If turntable lift springs No. 1009, Fig. 3 are too weak, replace with new springs from the factory.

(5) It is possible that turntable gears may be meshed too tightly. There should be a slight play between the teeth of the turntable worm gear No. 1528-A and steel worm No. 1022, Fig. 1. Transmission casting No. 1040, Fig. 1 containing the steel worm assembly can be moved away from the turntable worm gear No. 1528-A to allow about .005" play between the teeth of the gears.

TOO FEW PLAYS FOR THE AMOUNT OF COINS INSERTED

(1) Coin Switches may not be making contact. Refer to "Coin Switch Assembly", page 13. Refer also to "Magazine Relay Does Not Respond to Coin", page 10.

(2) Magazine Ratchet Wheel No. 1525-A, Fig. 2 should be rotated one notch for each stroke of the Magazine Ratchet Pawl No. 1532A when the Pawl is released by the Ratchet Pawl Release Block No. 1153.

If Ratchet Wheel should rotate two teeth for each stroke of the Pawl, this difficulty may be overcome by cutting about one-eighth of an inch off the Magazine Ratchet Return Spring No. 1143, Fig. 2. This will strengthen the spring which will resist the ease of rotation of Ratchet Wheel slightly.

TOO MANY PLAYS FOR THE AMOUNT OF COINS INSERTED

(1) It may be that one of the Coin Switches is making more than one contact, as the coin passes the Switch Lever. Refer to "Coin Switch Assembly Unit" page 13.

(2) Play Magazine Switch may not be cutting off. Check for binds of any sort in switch lever, escapement lever, ratchet wheel, etc. The tooth of Escapement Lever No. 1512A, Fig. 2, should catch the tooth of Magazine Ratchet Wheel No. 1525A as the Magazine Ratchet Pawl No. 1532A is released from the corner of Pawl Release Block No. 1153. This should rotate the Ratchet Wheel one tooth for each cycle of the Cam Shaft.

The action of the Magazine Ratchet Pawl No. 1532A is caused by the rotation of the Cam Shaft, upon which it is mounted.

(3) The Escapement Lever should be free from binds and have about 1/64 inch clearance between teeth of Lever 1512A and the Ratchet Wheel No. 1525A as the Escapement Lever is moved to and from the Magazine Relay No. 1537A. Should the tooth of the Escapement lever not hold the Ratchet Wheel after Ratchet Wheel has been rotated, same could be caused by a weak Escapement Lever Spring No. 1150. Spring may be

strengthened by cutting off two or three coils.

COIN SWITCH ASSEMBLY

(1) As shown in Fig. 21 when a 25¢ coin enters the runway, it successively moves the levers of the coin switches Nos. 1, 2, 3, 4 and 5 downward, making a single contact for each lever moved. Each contact made should store a play in the Play Magazine.

(2) Fig. 20 is a front view of the Coin Switch Assembly showing the 5¢ and 10¢ coin runway. When a 5¢ coin enters, it travels down the right hand runway, moving the lever on #4 coin switch downward, making a single contact. This should store one play in the Play Magazine.

(3) When a 10¢ coin enters, it travels down the left hand runway, moving the levers of #1 and #5 coin switches downward, making two contacts. This should store two plays in the Play Magazine.

(4) If coin switches fail to make proper contact, it is usually because they have accumulated dirt or a film on the contact surfaces, which may be cleaned by using a dry cleaner, such as, carbon-tetrachloride. The best way to apply the cleaner is to dip a small brush in the cleaner and wipe the contact surfaces several times with the brush being careful not to bend the blades of the switches too far, as this may bend them out of adjustment.

NEEDLE DOES NOT ENTER RECORD GROOVE PROPERLY

(1) As the turntable comes up with a record, the needle should contact the record about 3/32" from its edge. This should

be for an average record which will be found to be approximately 9-7/8" in diameter. The adjustable support hook No. 1846, Fig. 3 that holds the tone arm in position, as the turntable is being raised, may be adjusted so that the needle will rest in its proper position on the record.

(2) If the needle stays in one position on the record and does not enter the playing groove, the cause may be a bind in the tone arm support rod No. 1121, Fig. 3, instrument being too far out of level. If there is any sort of a bind in the tone arm support rod No. 1121, same should be traced down and remedied, as this will cause an improper reproduction of the music as well as excessive record wear.

(3) If the instrument is too far out of level, same should be leveled up within reason. A tone arm booster spring No. 1124 is shown in Fig. 3. This may be adjusted if necessary to assist the movement of the needle toward the playing grooves of the record.

(4) If tone arm booster spring No. 1124 is adjusted with too much tension, same may cause tone arm to skid across record, when the turntable rises to playing position.

CHANGING MECHANISM NOT SET IN OPERATION AT END OF RECORD PLAY

(1) If stop groove in record is worn out or damaged, destroy such a record and replace with a new one.

(2) If there is a bind in the tone arm support rod #1121, Fig. 3, it may seriously affect operation of the needle in the cutoff groove, causing it to skip over and not follow the groove. The bind should be remedied before attempting any adjustments.

(3) Changing Mechanism should be set in operation when the needle enters the stop groove and has traveled to within a distance of 1-7/8" from the center of the turntable spindle. Should adjustments be necessary, refer to Fig. 10 and make adjustments with the adjusting screw No. 1085 until the proper setting has been made. Occasionally a record may be found where the music has been recorded past the limits set for the cutoff mechanism. It is inadvisable to reset the mechanism to trip off for such a record.

(4) Transmission worm shaft No. 1044, Fig. 1, may be binding. Same should slide back and forth freely. Steel worm No. 1071 and large worm gear No. 3054, Fig. 1, may mesh too tightly, causing shaft to bind slightly, or the flat spring No. 1075 may be too weak. Spring may be strengthened by removing and reforming the bend, taking care not to make the bend too sharp or the spring may break.

(5) If trip lever in rear of cabinet is binding in hole through rear panel, it may cause pressure against the clutch retaining yoke No. 1508A, Fig. 10, preventing yoke from engaging clutch retaining lever No. 1052. The trip lever should work freely with rear panel installed.

TURNTABLE DOES NOT ROTATE WHEN IN PLAYING POSITION

(1) Turntable clutch No. 1014, Fig. 1, in the lower end of turntable spindle should have a slight slippage to absorb the jar as it engages with the clutch pin situated underneath the turntable gear No.1528A. If this clutch is too loose it will not drive the turntable. In this event, the clutch spring

No. 1815 should be replaced.

(2) Turntable clutch No. 1014, Fig. 1 should come in engagement with the pin underneath the turntable gear No. 1528A, Fig. 3. With turntable in raised position, the turntable elevating cam No. 1006 should be clear of cam roller No. 1016, Fig. 3, so that the turntable clutch will engage the clutch pin in turntable gear. If turntable elevating cam does not stop in correct playing position same can be slightly adjusted by means of the adjusting screw on clutch release pawl No. 1077 mounted on the turntable elevating cam 1006, shown in Fig. 1.

RECORD COMING UP TO PLAYING POSITION AND RETURNING WITHOUT PLAYING

(1) This may be caused by the clutch retaining lever No. 1052, Fig. 10 slipping off the edge of clutch retaining yoke No. 1508A at the points where they meet. Strengthening the yoke spring No. 1057, Fig. 10 by removing four or five coils from the same should help overcome this condition.

(2) Make certain that the ratchet pawl No. 1056, Fig. 10, (which becomes operative when the older type Victor records are used) clears the saw teeth No. 1058, when the yoke drops down and when the tone arm is directly over the notch of the tone arm post bracket No. 1846, Fig. 3.

TONE ARM WEIGHT ADJUSTMENTS

The weight of the tone arm at the needle with the needle just barely clearing the record should be about 3.5 ounces. A small tone arm weight scale will be furnished each dealer or service man on request which facilitates the weighing of the pickup and tone arm.

As shown in Fig. 19, the indicator pointer of the scale should be directly opposite the needle screw just as the needle is leaving the grooves of the record. If the tone arm is too heavy or too light, adjustment can be made by bending the flat spring underneath the tone arm upward or downward respectively.

If this weighing test is made while instrument is playing, it is easy to determine just when needle starts lifting out of the grooves. Note: It is best to make a weight test near the start of a record.

CONTINUES TO REPEAT SAME SELECTION

(1) Selector mechanism should rotate freely with selector levers in non-selecting position. Same should be checked carefully for any binds. A bind in any part of the selector mechanism would cause the same to operate improperly.

(2) With selector levers in upward positions, the helix pins No. 1254, Fig. 18 should clear the stop tooth on the selector levers. If a selector lever tooth engaged one of the front helix pins No. 1254, the helix could not rotate and would, therefore, repeat the same selection as often as this position of selector would be maintained. To eliminate this, the front helix No. 6062A, Fig. 18 should be lowered slightly until helix pins clear the stop teeth on the levers above. The stop pin, Fig. 18, that holds front helix up in position can be moved down slightly until helix pins clear the levers, when the levers are in their uppermost, or non-selecting position. This should enable front helix pins to clear the teeth in the selector levers.

(3) If no selection is made the rear helix No. 1583A Fig. 3 must rotate 21/20 of a revolution for each complete cycle of the cam shaft. This will enable the selector to advance one number, and bring out a new record, each time the instrument is played without selecting.

By marking the sprocket No. 1221, Fig. 11, with a pencil at the last position of the roller No. 1822 and watching the rotation of sprocket with mechanism in operation, the amount of rotation may be determined. Proper adjustment of same can be made by means of adjustment screw in segment gear No. 1807, Fig. 3, that controls the amount of travel of the segment gear. The amount of travel of this segment gear determines the amount of rotation of the selector helix - when no selection is made.

SELECTOR PULLING OUT TWO OR MORE TRAYS AT ONE TIME

(1) When a selection is made one tray only should be pulled out at a time. The trays are withdrawn by means of the selector slide pawls No. 1183, Fig. 8 (of which there are twenty). One of these becomes engaged to a lug on a tray No. 1110, when one of the rollers No. 1223 of helix No. 1583A push against the selector slide pawl spring No. 1184, thereby moving the pawl No. 1183 inward, as shown in Fig. 8.

The selector pawls No. 1183, Fig. 8, are urged inward at all times by the action of the selector pawl springs No. 1184. But when the selector slide No. 1180 is in position with the selector pawls opposite the lugs as shown in Figure 6, then the action of the selector pawl lift springs

stud No. 1222, Fig.3, slightly upward or downward until the proper alignment of the roller with the selector pawl spring is attained.

(2) The selector pawl lift spring No. 1113 shown in Fig. 8, should be strong enough to overcome the pressure of the selector pawl spring No. 1184, Fig. 8, expecting when the roller No. 1223 of the selector helix gives the added pressure to selector pawl spring No. 1184. If the selector pawl lift spring No. 1113 is not strong enough, it may be strengthened by bending outward slightly, or the same result may be obtained by weakening the opposing or selector pawl spring No. 1184 slightly.

(3) Helix No. 1583A should stop after being rotated in such a position that the helix lock roller No. 1125, Fig. 11, rests in the recess of the sprocket No. 1221.

If the helix is stopping with lock roller No. 1822, resting on tooth of sprocket No. 1221, it may be that the segment gear No. 1807, Fig. 3 does not travel the proper distance. This may be corrected by carefully following these instructions:

See that all selector keys are in cancelled position. In other words, that no selection is made. Then place roller No. 1822, Fig. 11, in one of the recesses of the sprocket No. 1221, put a pencil mark on sprocket at point where roller is in contact - then start mechanism in motion, and watch the rotation of the sprocket. It must turn 21/20 of a revolution, or one recess of the sprocket past the

No. 1113 should be strong enough to overcome the pressure of the selector pawl springs No. 1184 and prevent the selector pawls from becoming engaged to the lugs on the trays Fig. 6. That is, with the exception of that particular pawl which is pressed in through the action of the helix roller against the selector pawl spring No. 1184, Fig. 8.

The following added points should be carefully checked and adjusted if necessary:

The selector helix rollers No. 1223, Fig. 3, should be in line with the centers of the selector pawl springs No. 1184. If out of line so that roller also engages the spring above or below the one selected it may depress two pawl springs causing two trays to be withdrawn. The selector slide rail No. 1181, Fig. 3, may have moved downward slightly, or the helix No. 1583A, Fig. 3 may have moved up or down. Before attempting to re-align the selector slide rail, be sure that this is necessary. Make certain that the selector slide pawls No. 1183, Fig. 3 are kept in alignment with the grooves in which the lugs of the trays move.

In re-aligning the helix, be sure that the proper mesh of the miter gears No. 1210, Fig. 7, is maintained, and that the timing of selector is not disturbed, or if so, properly retimed. If one or two rollers are out of line with the selector pawl springs, the adjustment of same can be greatly simplified by bending the helix roller mounting

pencil mark, and lock roller No. 1822 must stop directly in this recession. The rotation of selector is controlled by the segment gear No. 1807, Fig. 3. If amount of rotation of the selector is not correct, adjustment can be made by advancing or retarding small adjusting screw (in segment gear No. 1807). This segment gear No. 1807 rotates the helix through the small driving gear No. 1809, Fig. 7, that is mounted on the selector shaft No. 1816 and upon which the miter gear No. 1210 is also mounted.

RECORD TRAYS CANNOT BE RETURNED TO THEIR NORMAL POSITION AFTER CHANGING RECORDS

Motor switch may open too late. To cut motor off earlier, the setscrew of Magazine Kicker Block No. 1513A, Fig 2 should be loosened slightly and No. 1513A should be tapped lightly with a light hammer in a clockwise direction. Block should not be moved more than about 1/16 of an inch at a time. The setscrew holding same should be well tightened before starting the mechanism.

SOUND EQUIPMENT

Pickup: The pickup is of special design and is built to match the other parts which make up the sound equipment. It is very rugged in design both mechanically and electrically and will stand wide changes in both temperature and humidity. The pickup is sealed and if it should at any time prove defective, return same to factory with seal unbroken. A very nominal charge is made for the repair or replacement of a pickup with its seal intact.

Volume Control: The volume control is located in the Junction Terminal Box and is so designed that the volume may be adjusted from off to full level with an even rate of increase. Should the control cause the volume to jump up at a rapid rate when turned and then go down again when turned slightly farther, the control is defective and should be replaced.

Amplifier: The Amplifiers used in the models Mayfair, Plaza and Casino are the Models 830-1Z, 725-1Z and the 625-1Z respectively. They are all designed to operate at any volume set by the control from very soft to full output without distortion or bad tone quality. All the amplifiers are equipped with Dual Tone compensators one of which is used for modifying the high frequency notes and the other for modifying the lower frequencies or bass notes. Care should be used in adjusting these because by subduing either the high notes or the low notes to too great an extent, the tone quality and faithful reproduction of music will be greatly impaired.

Tubes: When installing or replacing tubes, special attention must be paid to the designated number on each tube. Each tube must be inserted in its proper tube socket having a corresponding number. Failure to do so may result in a burned out tube filament or a blown amplifier fuse. Make certain that each tube is firmly pushed into its socket to make proper contact.

Speaker: The speaker used in each model Symphonola is designed and matched to operate with the other parts which make up the sound equipment for that particular instrument and is built to

withstand the full volume of the amplifier without injury. Care should be taken not to allow dirt to enter the speaker as this may cause a rattle or bad reproduction of music.

SOUND EQUIPMENT APPARENTLY "DEAD"

Note whether the fuse in the amplifier is blown. If it is blown, replace with 3 ampere fuse, but before replacing test all tubes with a tube analyzer and tap the tubes with the fingers while they are being tested so that any shorts will be indicated. Make certain that there is a separation between the contact points of the pickup shorting switch No. 6005, Fig. 3, when instrument is in playing position as shown in Fig. 3. Check to see if needle is making contact with record. With instrument on, turntable rotating, volume control on full, and pickup shorting switch in open position, remove the tube nearest socket marked (Mic.). A loud click should be heard. If no click is heard trouble could then be in amplifier which should be checked by a competent sound or radio repair man. If a loud click is heard when tube nearest socket marked (Mic.) is removed, then the trouble may be in pickup shorting switch, pickup wires, or pickup itself.

FAULTY TONE QUALITY

(1) Remove needle and check point under a good light. Sometimes a needle that has worn badly will still play some records, but will fail to enter properly the more narrow grooves on others. A needle in this condition will cause poor quality reproduction and should, of course, be replaced.

(2) Make certain that the records are still in fairly good condition. This is very important, for the reproduction of music will still be poor if the record is badly worn, or defective, even though the entire sound equipment is in perfect working order. A shorted or defective tube is often a cause of faulty tone quality.

(3) A loose connection at the pickup connection or the Junction Terminal Box, or the terminal block on the chassis can affect the tone quality.

(4) Check volume control by rotating same when a record is being played. If sudden changes in volume are noticed, the cause may be dirt between the contact arm and resistor in the control, or a defective resistor. It is often possible to remove dirt or scale by rotating the control back and forth rapidly. If, after trying this, the control still causes sudden changes in volume, when it is rotated slowly, replacing of control is advisable.

INSTRUCTIONS FOR INSTALLATION OF EXTRA SPEAKER AND SPEAKER VOLUME UNIT

To install the extra speaker, the seven-prong dummy plug in the left hand side of the amplifier (looking from rear of cabinet) is removed, and the plug attached to the cord of the special speaker control unit is inserted in its place. The plug attached to the cord of the extra speaker is then inserted in either one of the two red sockets of the speaker control device. Two extra speakers may be operated at the same time from the unit if desired.

There are five positions on the switch of the control: The third, or center tap affords the same volume level on both the instrument speakers and the extra speaker. By turning the switch from the center tap in one direction, the volume increases in the extra speaker and decreases in the instrument speakers. By turning the switch in the opposite direction, the volume is reduced in the extra speaker and increased in the instrument speakers. *The regular Instrument Volume Control is used to govern the actual volume level desired.*

The Speaker Control Unit is mounted on the inside of the extra speaker cabinet for packing purposes only and should be removed and mounted inside the extra speaker cabinet on the left-hand side about 6" from the bottom, flush with the back edge and with the extra speaker sockets facing upward. A 1-1/4" hole should then be drilled in the rear door and in the correct position to allow the speaker control key to be accessible for adjustment.

JUNCTION TERMINAL BOX

The purpose of the junction terminal box is to route the current entering by way of the line cord to its proper channels. There is very little chance for any trouble occuring in the junction terminal box, with the possible exception of the main switch, light switch, and volume control. It is not advisable to try to repair any of these in case of a defect as they may be replaced at a nominal charge.

If, at any time, it is necessary to remove any of the wires from the terminals on the junction terminal box, make certain that they are replaced exactly as they were originally.

FUSES: There are two fuse receptacles in the junction terminal box. The upper one contains the light fuse and the lower one the motor fuse.

To remove a fuse from either fuse receptacle, it is necessary to unscrew the center section of the receptacle with a screw driver and pull the fuse out of this removed section. *NOTE: It is very important to replace a blown fuse with one of the correct value.* At the bottom of this page is a table listing the ampere capacity of fuses used in each model Symphonola.

LIGHT FUSE BLOWS:

(1) Look for source of trouble before replacing fuse.

(2) A broken or defective socket may cause a fuse to blow.

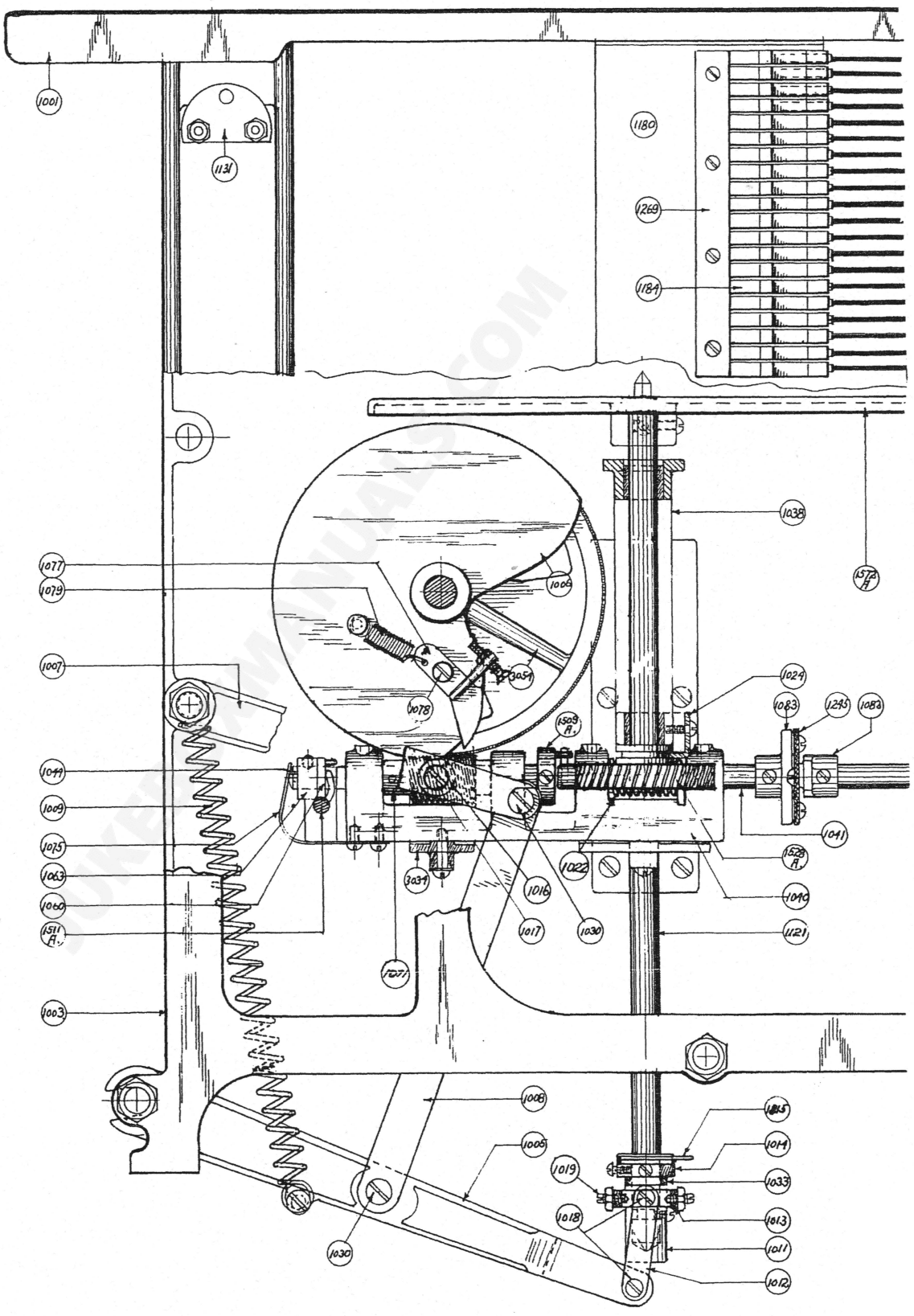
(3) If lamps of greater wattage than those supplied with the instrument are used they may cause the light fuse to blow on the models Mayfair, Plaza and Casino.

Model	Light Fuse	Motor Fuse
Mayfair 115V-60 Cycle	1	3
" 115V-DC	1	3
" 32V-DC	3	3
" 115V-25 Cycle	1	3
Plaza 115V-60 Cycle	1	3
" 115V-DC	1	3
" 32V-DC	3	3
" 115V-25 Cycle	1	3
Casino 115V-60 Cycle	1	3
" 115V-DC	1	3
" 32V-DC	3	3
" 115V-25 Cycle	1	3
Classic 115V-60 Cycle	3	3
" 115V-DC	3	3
" 32V-DC	10	3
" 115V-25 Cycle	3	3
Vogue 115V-60 Cycle	3	3
" 115V-DC	3	3
" 32V-DC	10	3
" 115V-25 Cycle	3	3

RECORD PLAYING INDICATOR DIAL

(1) The "record playing" Indicator Dial is located just back of the cabinet escutcheon and is illuminated by the same lamps that illuminate the program holder. It is timed with the selector. Should the numbers appear off center or indicate the wrong number being played dial may be retimed by selecting record No. 20 and stopping mechanism when record is in playing position. Remove the program holder, reset the dial to correct position, tighten all screws and start motor.

(2) Indicator Dial should rotate freely. If there is a bind in same, inspect carefully to see if it is rubbing on front of cabinet. A bind in Indicator Dial will affect the operation of the selector.



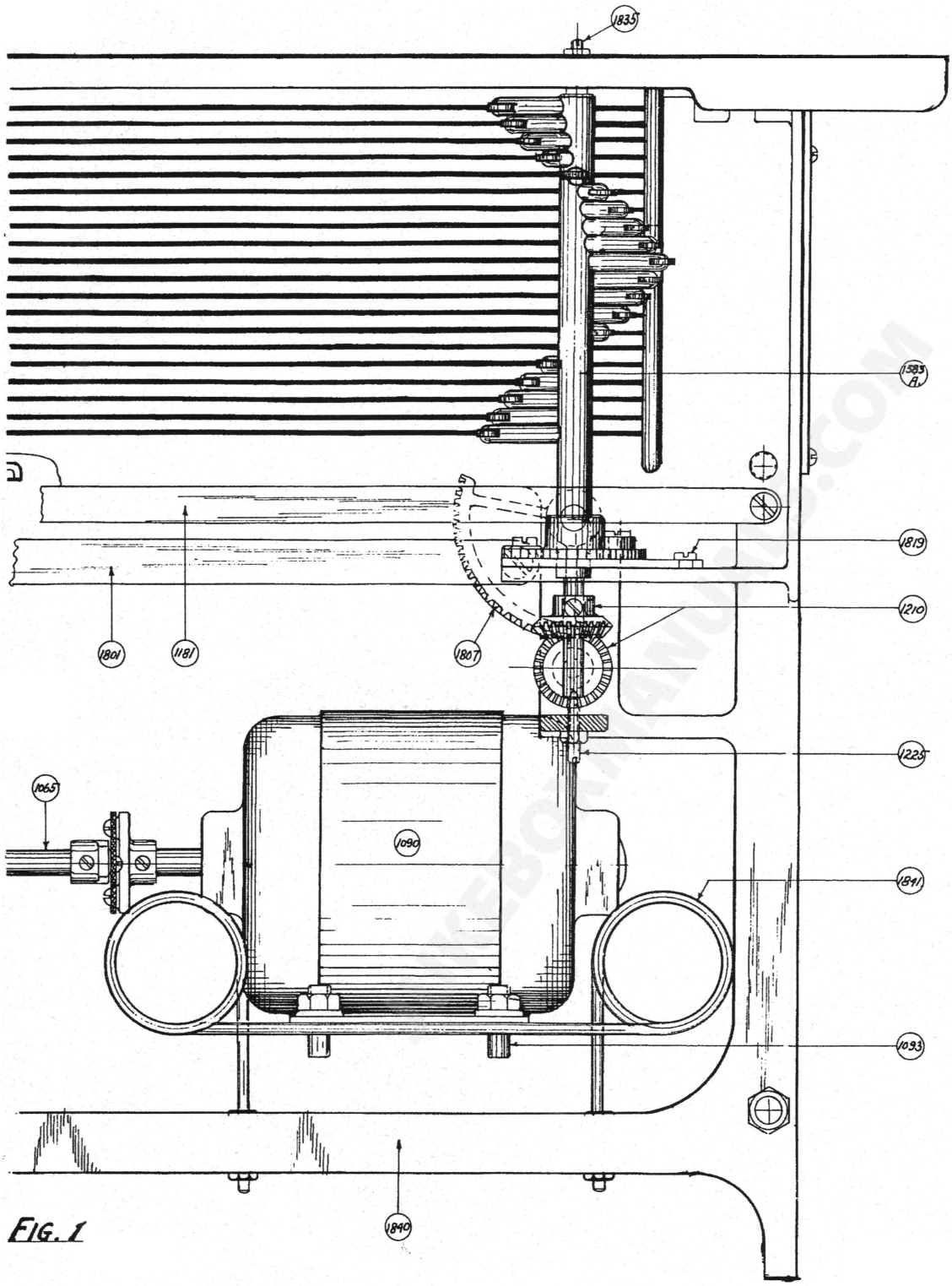


FIG. 1

PLATE NO. 1

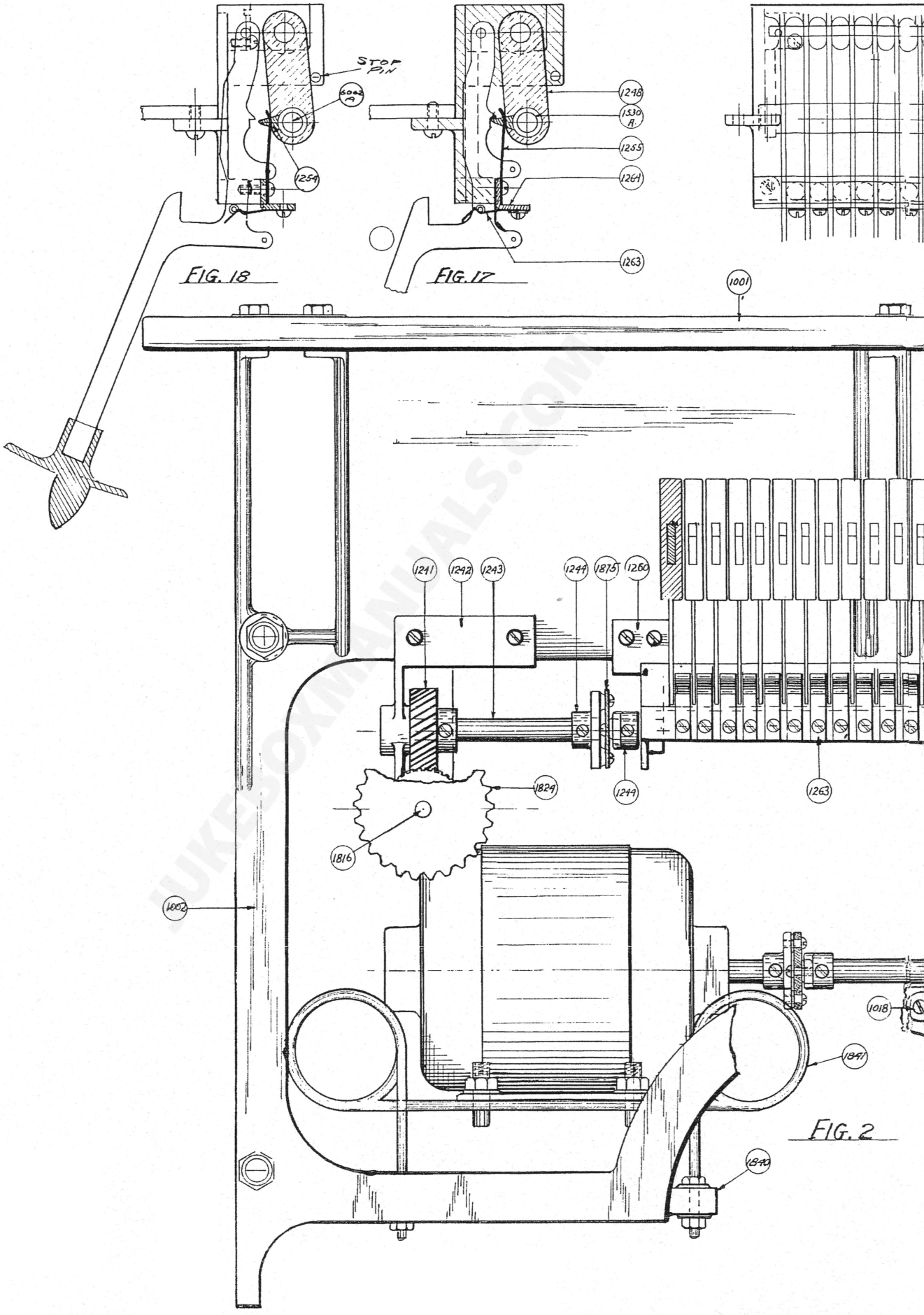


PLATE NO. 2

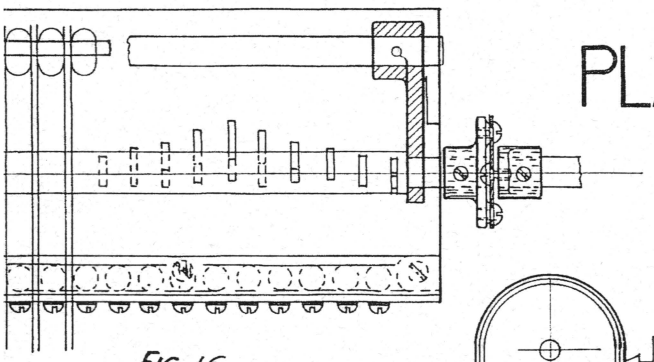


FIG. 16

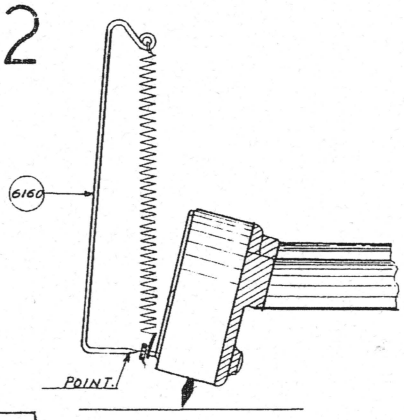
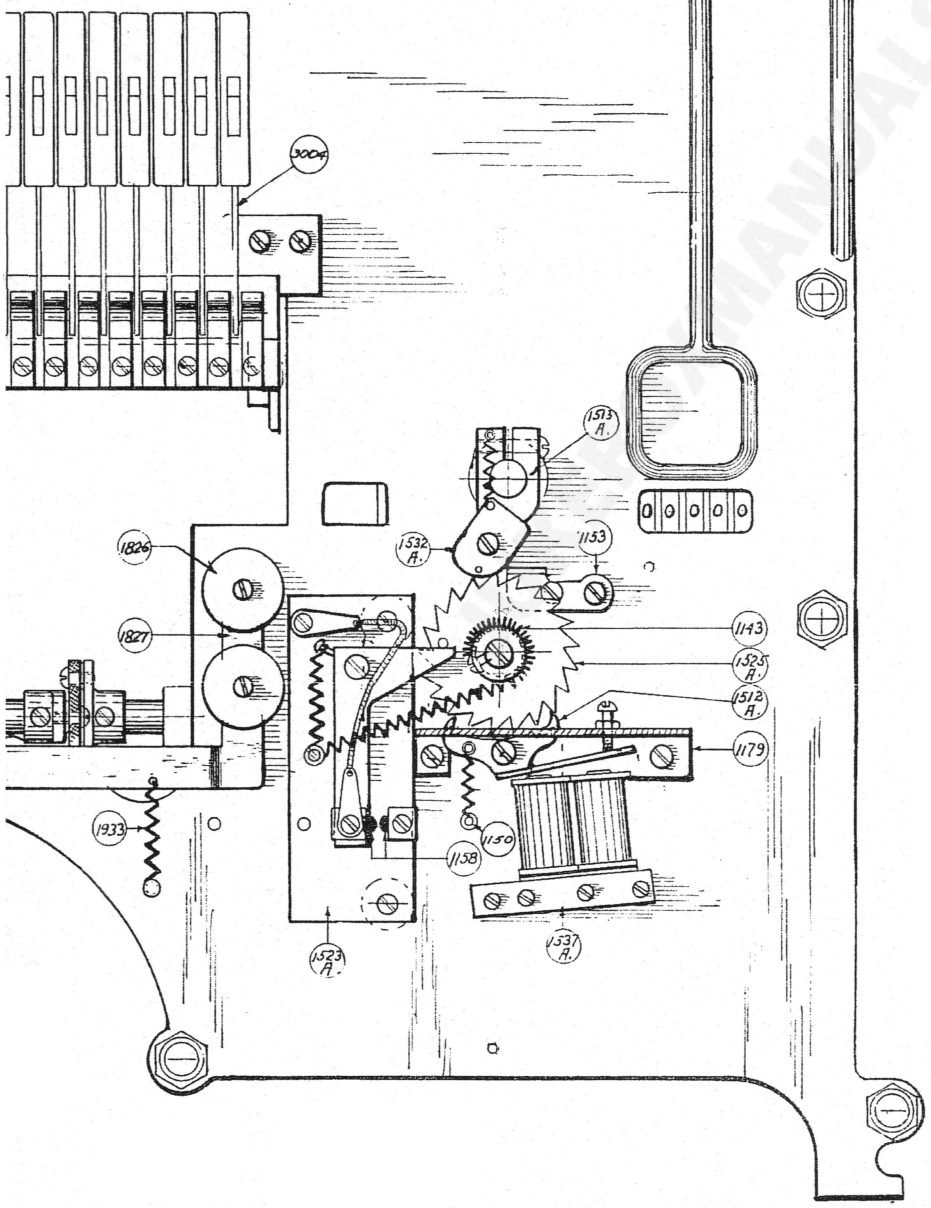


FIG. 19



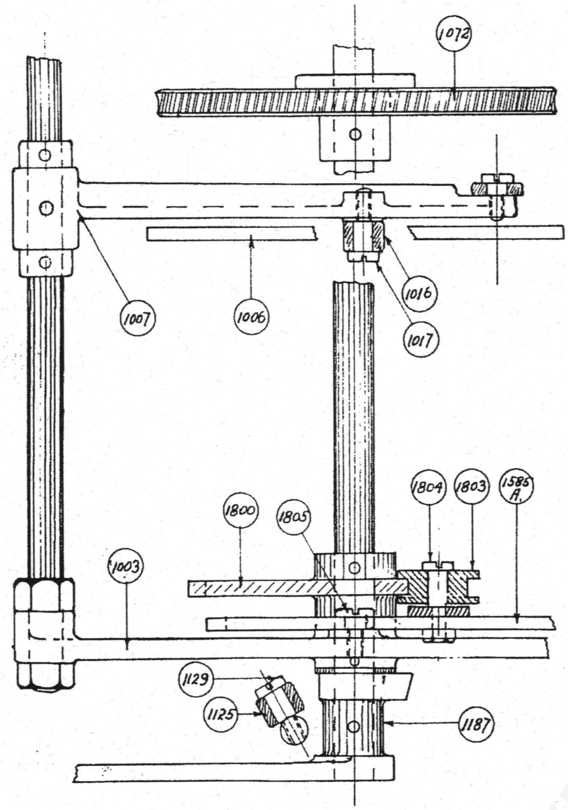


FIG 9

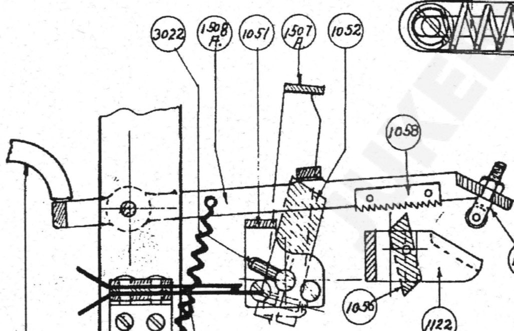


FIG. 10

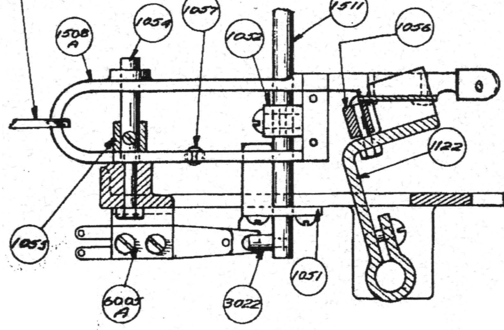
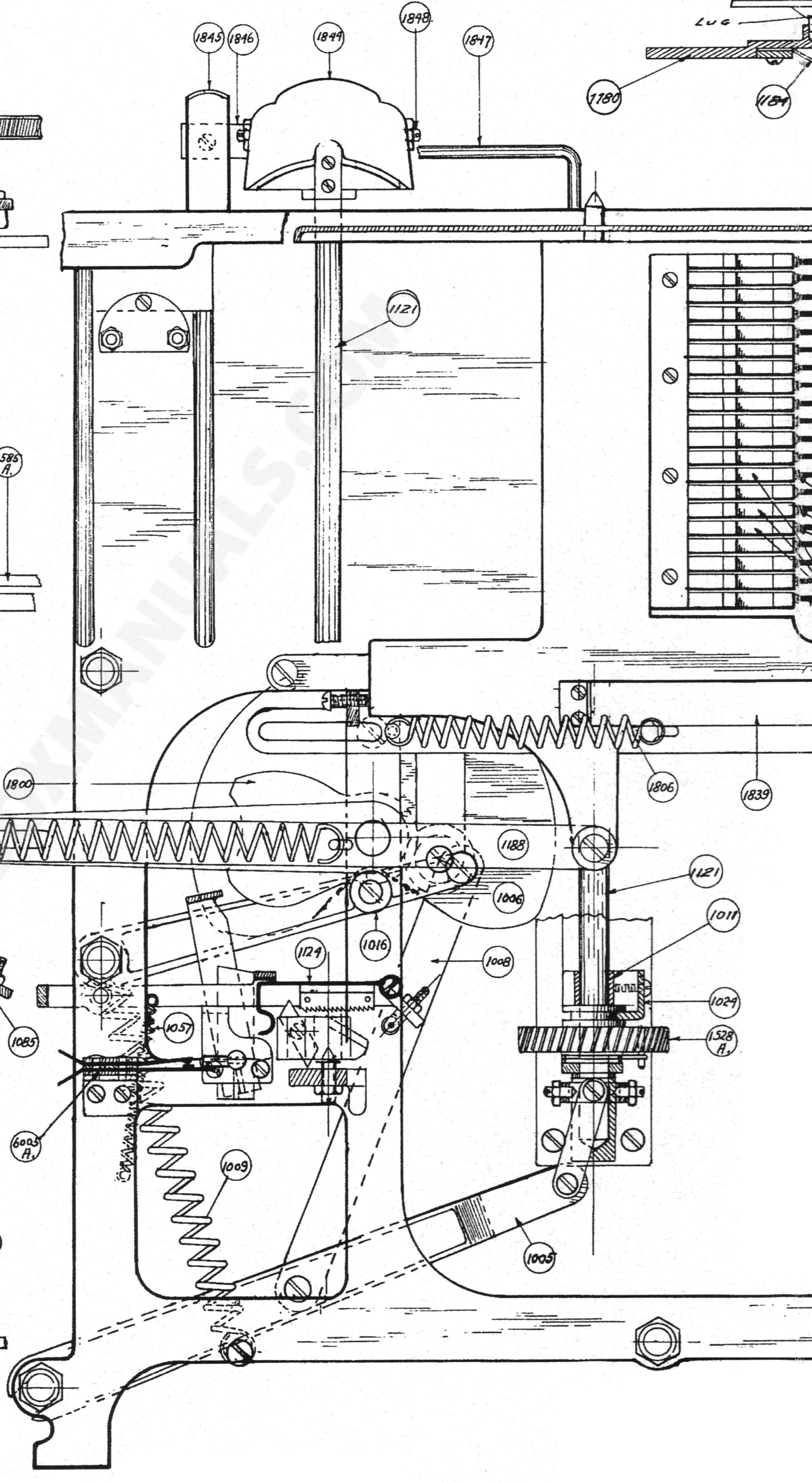


FIG.13

FIG. 6



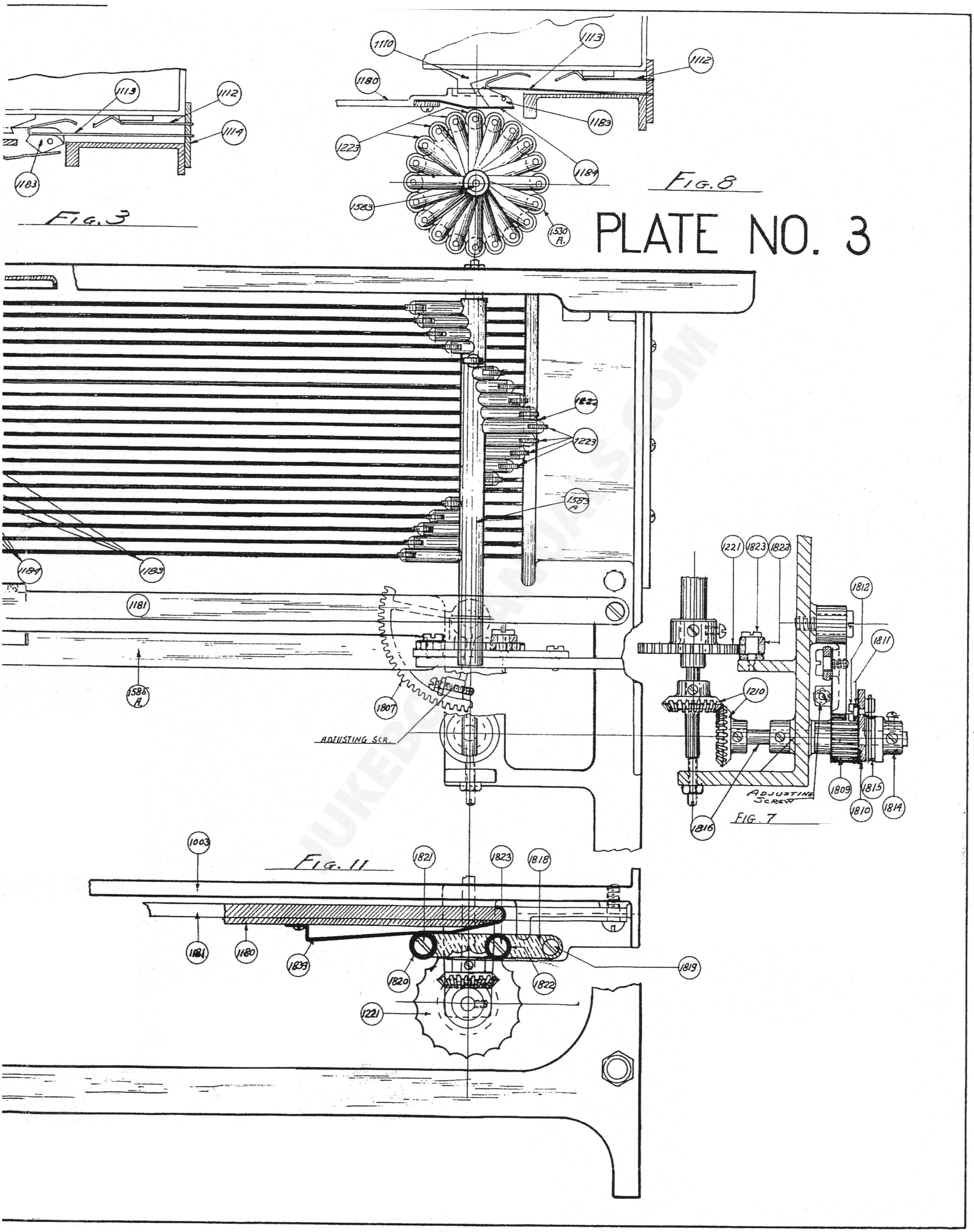


PLATE NO. 3
1113
1112
1114
1183
FIG. 3
1110
1113
1112
1180
1183
1223
1184
1583
1530 A.
FIG. 8
1822
1223
1583 A
1184
1183
1181
1586 A.
1807
ADJUSTING SCR.
1221
1823
1822
1812
1811
1210
1809
1815
1810
1814
1816
ADJUSTING SCREW
FIG. 7
1003
FIG. 11
1821
1823
1818
1181
1180
1839
1820
1822
1819
1221

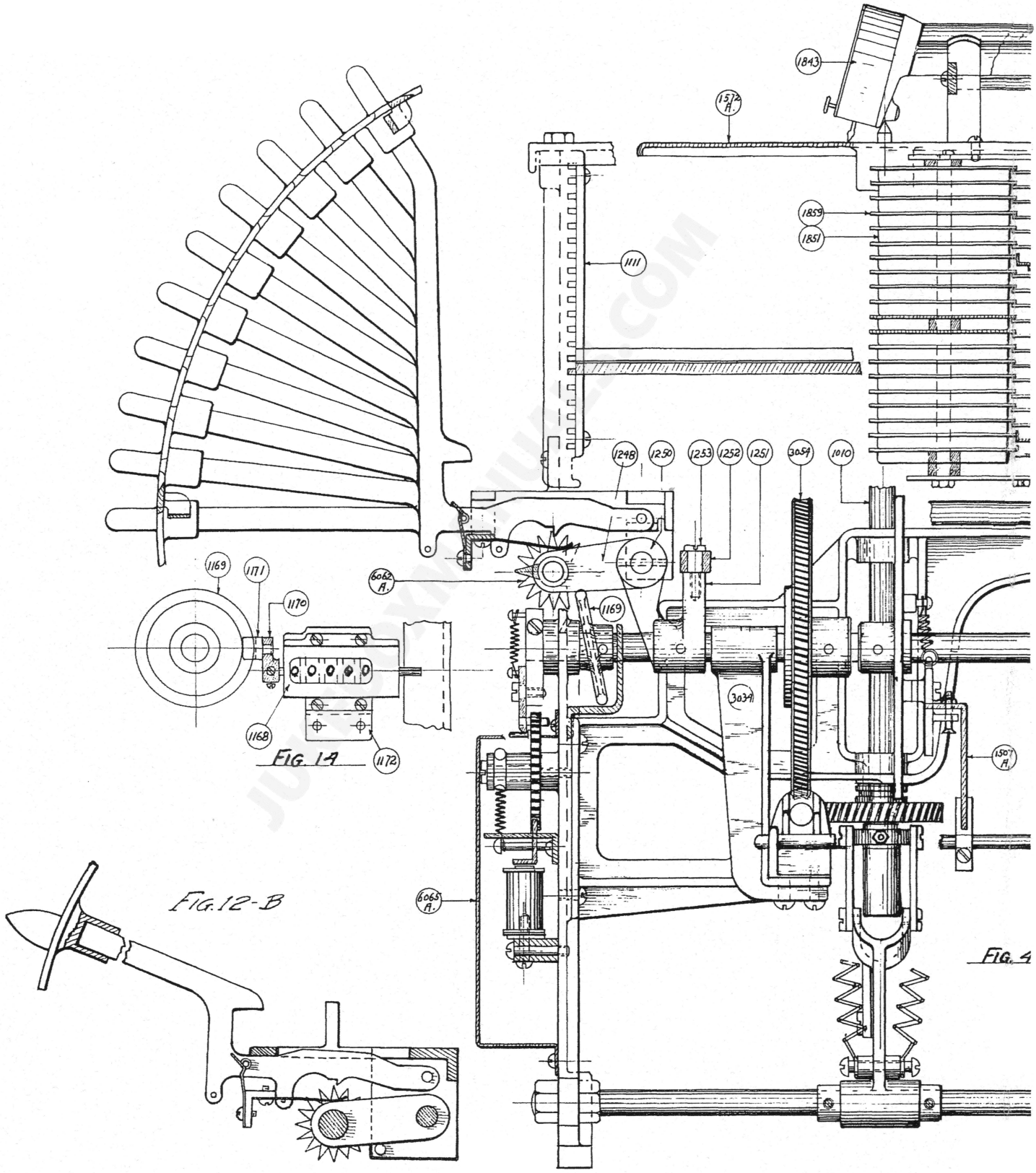
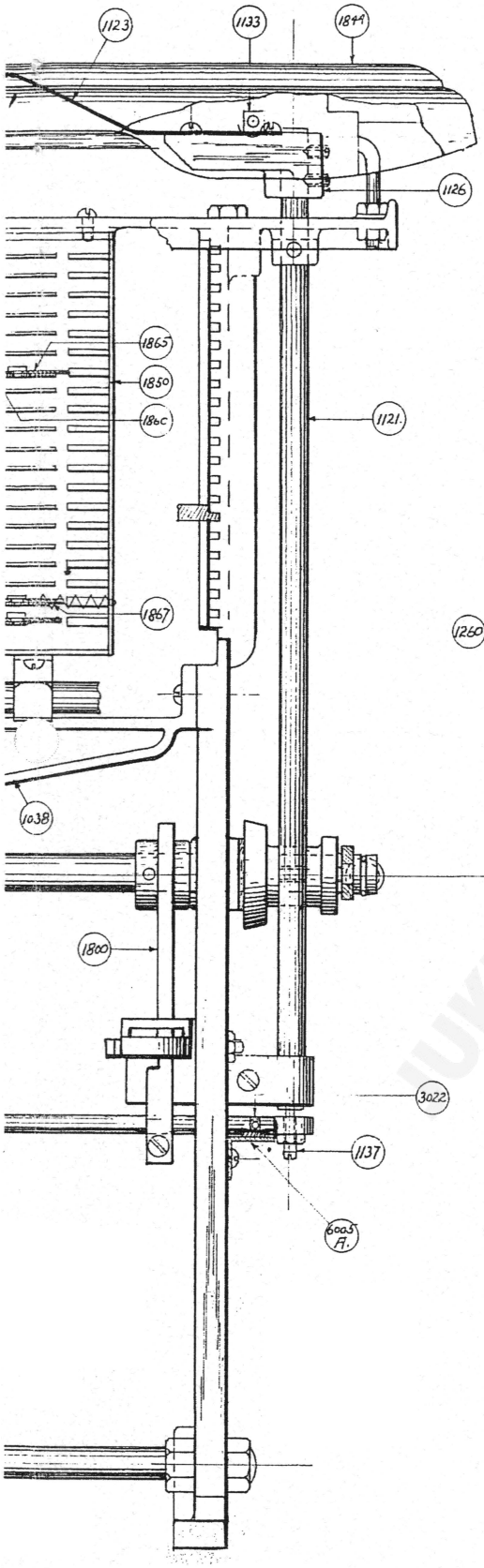


FIG. 14

FIG. 12-B

FIG. 4

PLATE NO. 4



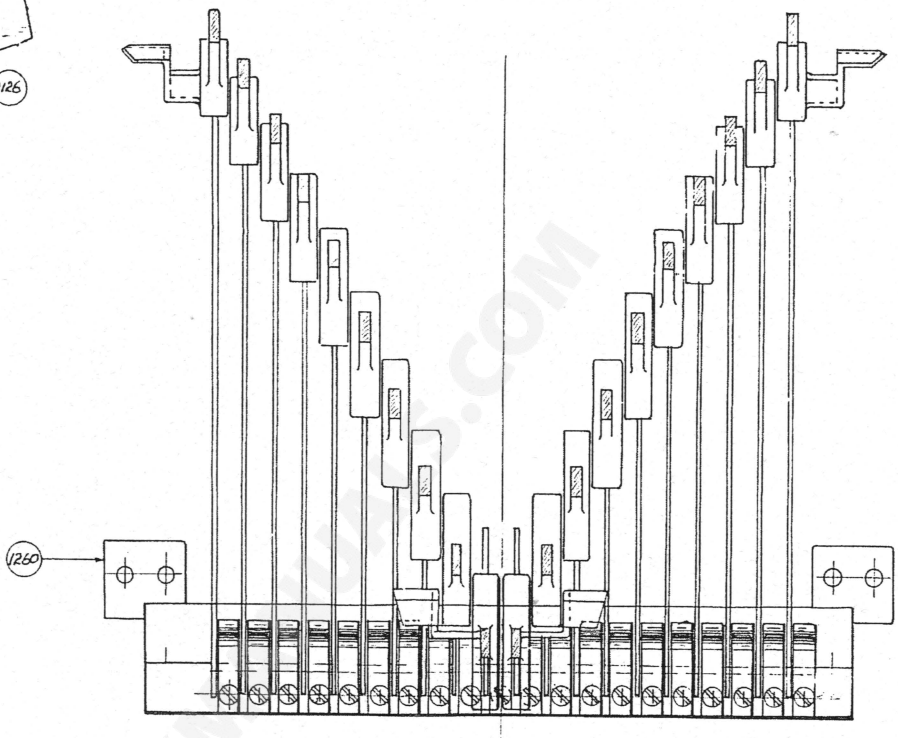


FIG. 12

FIG. 12-A.

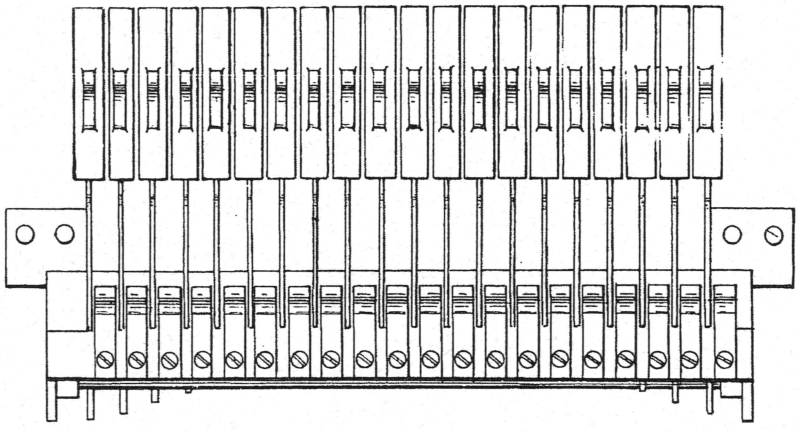
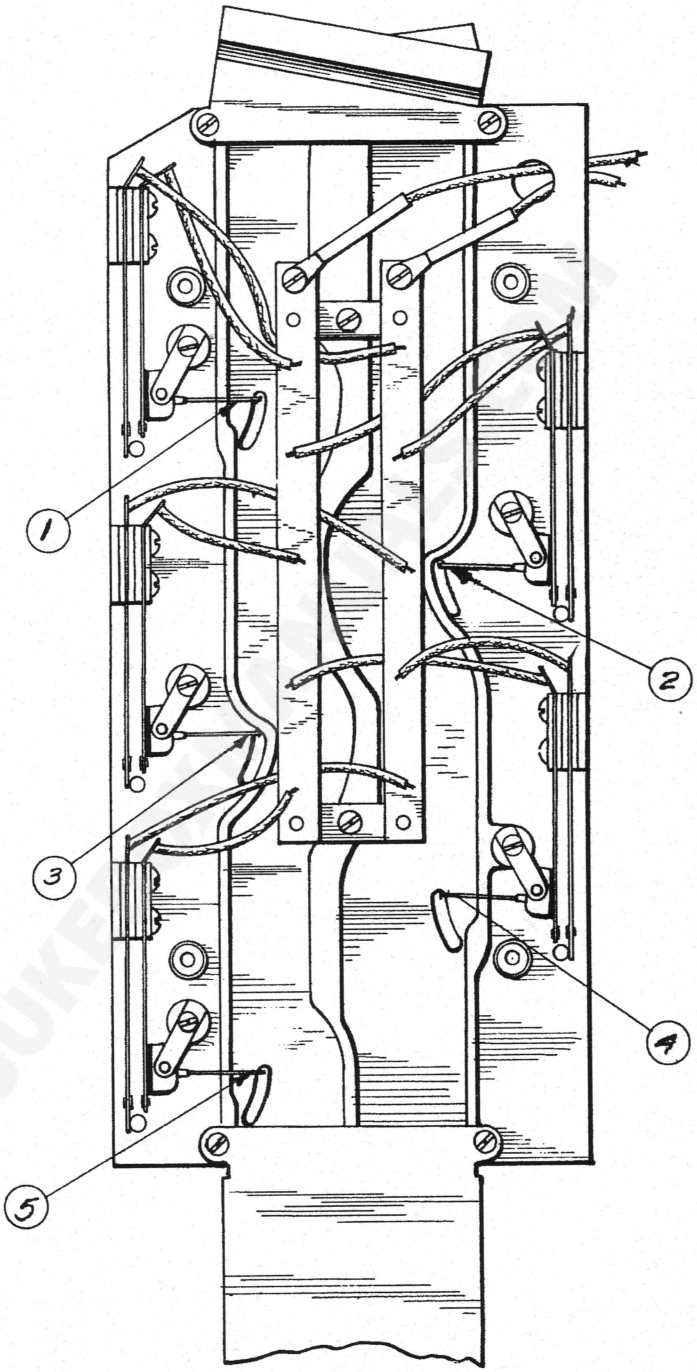


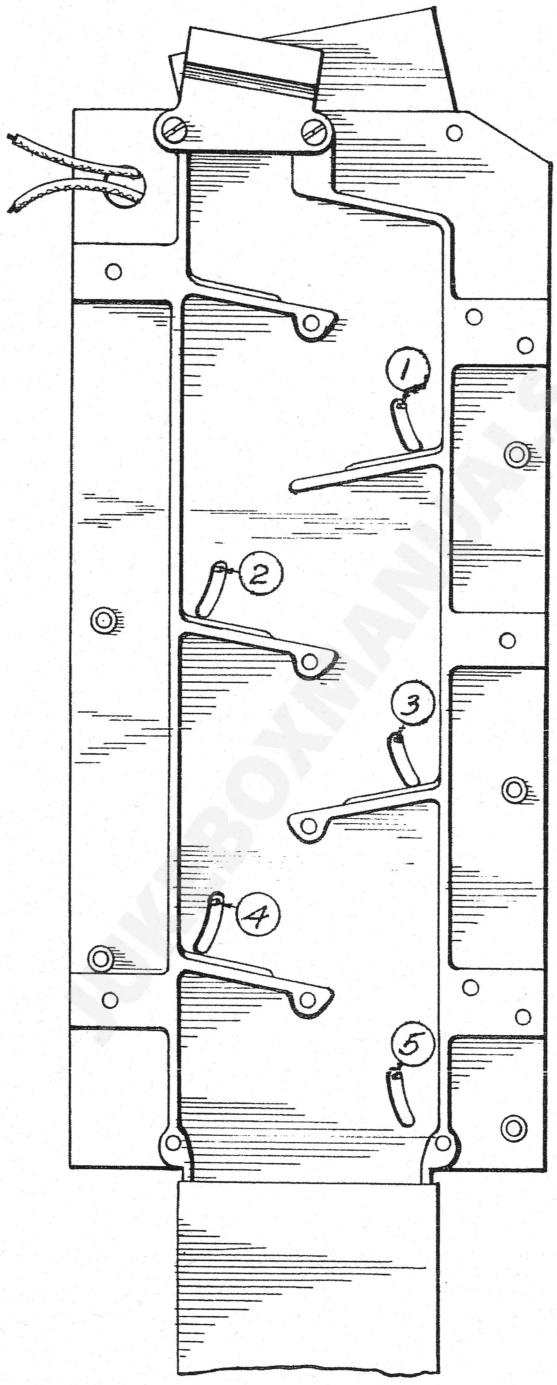
FIG. 20



USE CARBON TETRACHLORIDE TO CLEAN SILVER CONTACTS – APPLY WITH SMALL BRUSH.

PLATE NO. 5

FIG. 21

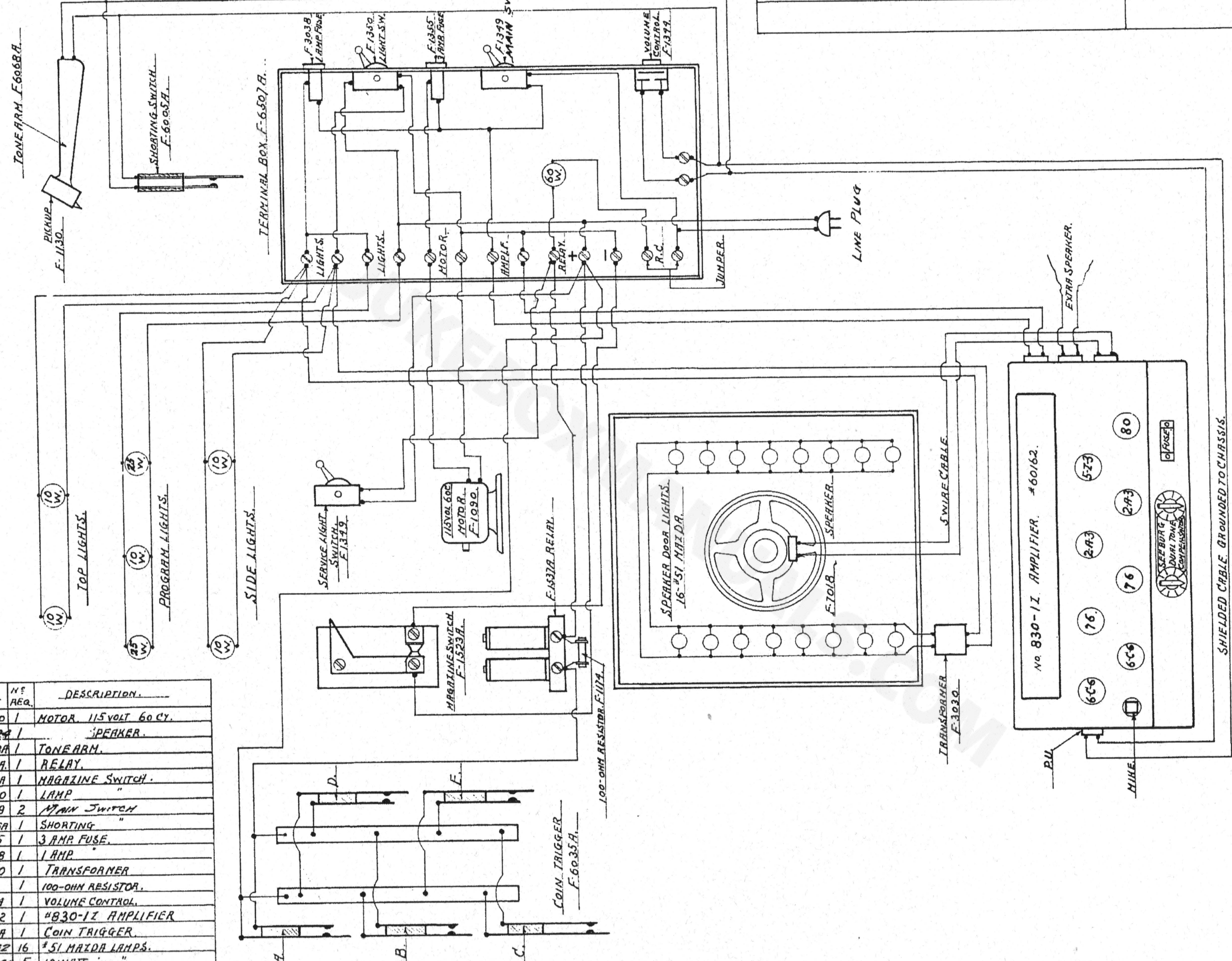


WIRING DIAGRAM.

SYMPHONOLA. MODEL MAYFAIR CABINET. 115 VOL. 60 CY.

PART Nº	F-9045

REVISIONS.	ISSUE	MEMO.
RELEASED. 1-11-39	1	425



TONEARM F6068A.
PICKUP F-1130.
SHORTING SWITCH F-6005A.
TERMINAL BOX F-6507A.
F3038 1 AMP FUSE
F-1350 LIGHT SW.
F1355 3 AMP FUSE
F1349 MAIN SWITCH
VOLUME CONTROL F1344
LIGHTS.
LIGHTS.
MOTOR.
AMPLF.
RELAY.
R.C.
JUMPER.
60 W.
LINE PLUG
EXTRA SPEAKER.
TOP LIGHTS.
PROGRAM LIGHTS.
SIDE LIGHTS.
10 W.
25 W.
SERVICE LIGHT SWITCH F1349
115 VOL 60C MOTOR F-1090
F-1537A RELAY.
100-OHM RESISTOR F-1174.
MAGAZINE SWITCH F-1523A.
COIN TRIGGER F-6035A.
A. B. C. D. E.
SPEAKER DOOR LIGHTS. 16-#51 MAZDA.
SPEAKER.
F-7018.
SWIRE CABLE.
TRANSFORMER F-3030.
NO. 830-1Z AMPLIFIER. #60162.
80
5Z3
2A3
2A3
76
76
6C6
6C6
FUSE
SEEBURG DUAL TONE COMPENSATOR
SHIELDED CABLE GROUNDED TO CHASSIS.
PU.
MIKE.

PART	Nº REQ.	DESCRIPTION.
F-1090	1	MOTOR. 115 VOLT 60 CY.
F-9024	1	SPEAKER.
F6068A	1	TONEARM.
F1537A	1	RELAY.
F1523A	1	MAGAZINE SWITCH.
F1350	1	LAMP "
F1349	2	MAIN SWITCH
F6005A	1	SHORTING "
F1355	1	3 AMP FUSE.
F3038	1	1 AMP
F3030	1	TRANSFORMER
F1174	1	100-OHM RESISTOR.
F1344	1	VOLUME CONTROL.
60162	1	#830-1Z AMPLIFIER
F6035A	1	COIN TRIGGER.
10242	16	#51 MAZDA LAMPS.
F-7044	5	10 WATT " "
F-7045	3	25 " "
F-7046	1	60 " "
F1130	1	PICKUP.

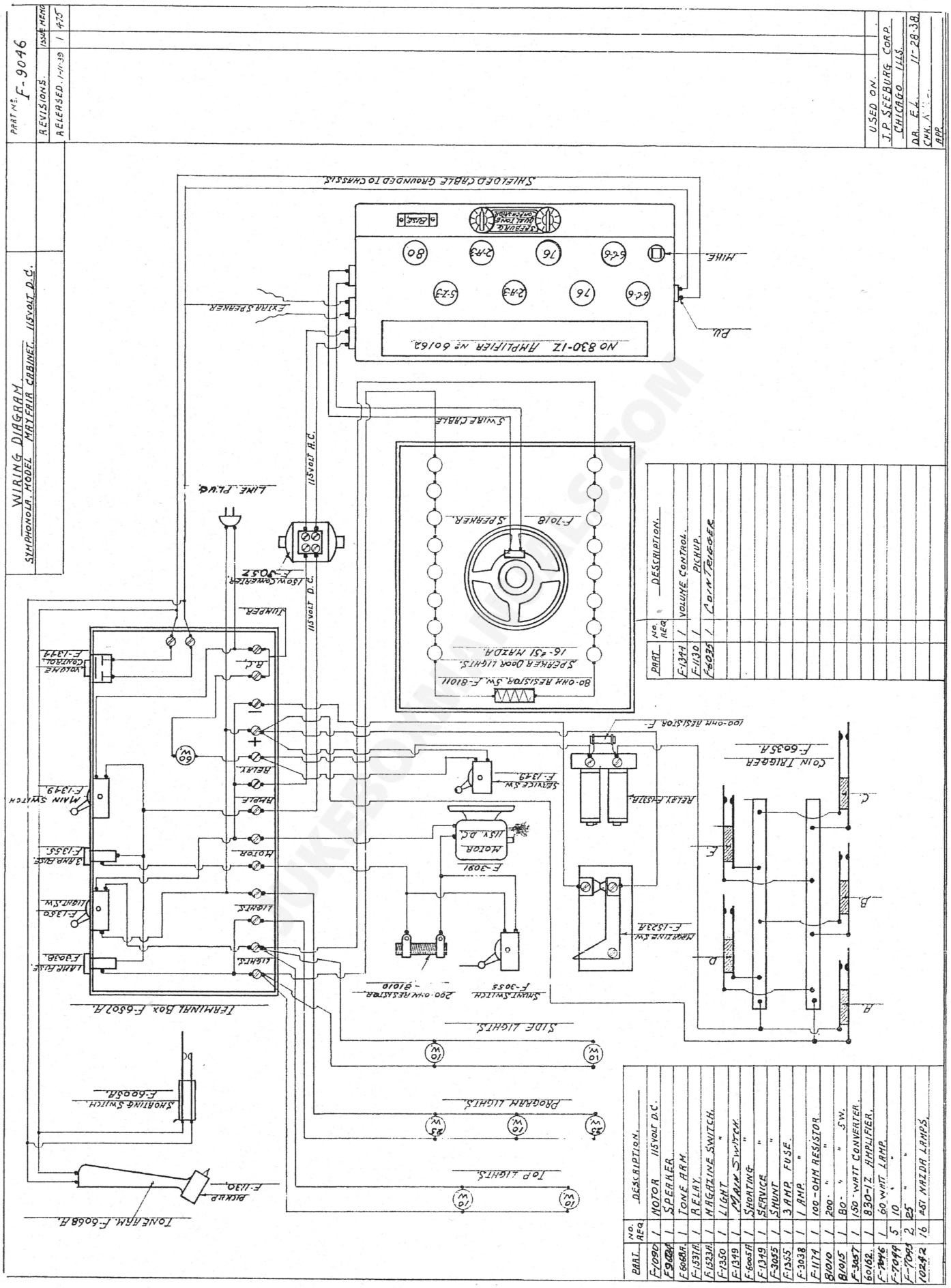
USED ON.

J. P. SEEBURG CORP. CHICAGO ILL.

DR. E.L. 12-6-38.

CHK. K.J.

APPR.



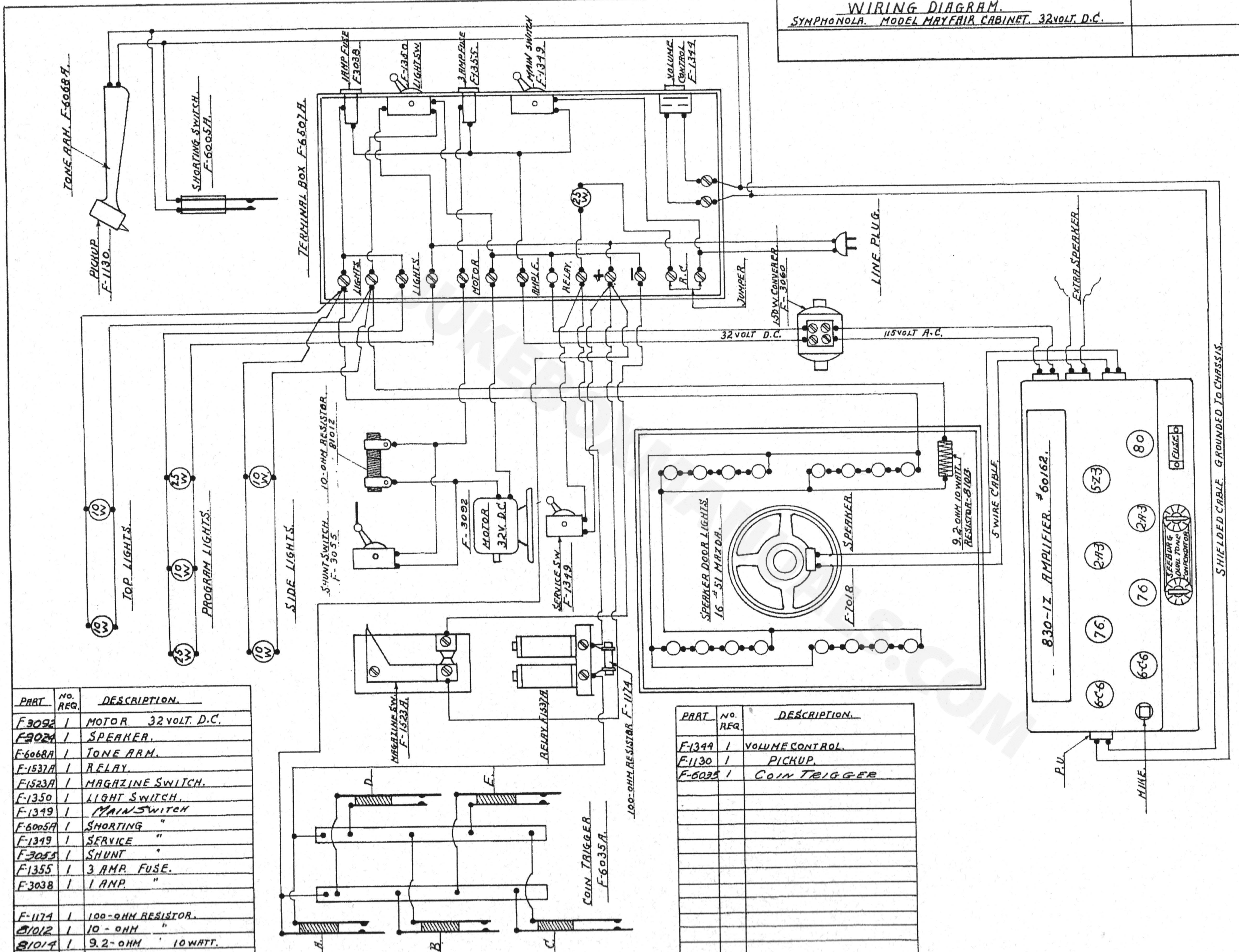
PART	NO. REQ	DESCRIPTION.
F-1377	1	VOLUME CONTROL.
F-1130	1	PICKUP.
F-8035	1	COIN TRIGGER

PART	NO. REQ	DESCRIPTION.
F-7090	1	MOTOR 115VOLT D.C.
F-9088	1	SPEAKER.
F-6068A.	1	TONE ARM.
F-1377A.	1	RELAY.
F-1523A.	1	MAGAZINE SWITCH.
F-1350	1	LIGHT "
F-1379	1	MAIN SWITCH.
F-6005A	1	SHORTING "
F-1349	1	SERVICE "
F-3035	1	SHUNT "
F-1355	1	3 AMP. FUSE.
F-3038	1	1 AMP. "
F-1174	1	100-OHM RESISTOR
B1010	1	200 " " "
B1015	1	80 " " " SW.
F-3057	1	150 WATT CONVERTER.
60162.	1	830-12 AMPLIFIER.
F-7096	1	60 WATT LAMP.
F-7099	5	10 " "
F-7040	2	25 " "
102492	16	#51 MAZDA LAMPS.

WIRING DIAGRAM.

SYMPHONOLA. MODEL MAYFAIR CABINET. 32 VOLT. D.C.

PART Nº	F-9047.	
REVISIONS.	ISSUE	MEMO
RELEASED. 1-11-39	1	475



TONE ARM. F-6068A.
PICKUP F-1130.
SHORTING SWITCH F-6005A.
TERMINAL BOX F-6507A.
1 AMP FUSE F3038
F-1350 LIGHT SW
3 AMP FUSE F1355
MAIN SWITCH F-1349
VOLUME CONTROL F-1344
LIGHTS
LIGHTS
MOTOR
AMPLF.
RELAY.
R.C.
JUMPER
150 W CONVERTER F-3060
LINE PLUG.
32 VOLT D.C.
115 VOLT A.C.
EXTRA SPEAKER
TOP LIGHTS.
PROGRAM LIGHTS.
SIDE LIGHTS.
10-OHM RESISTOR 81012
SHUNT SWITCH F-3055
F-3092 MOTOR 32V. D.C.
SERVICE SW F-1349
SPEAKER DOOR LIGHTS. 16 #51 MAZDA.
SPEAKER
F-701B
9.2 OHM 10 WATT. RESISTOR-81014
5 WIRE CABLE
830-1Z. AMPLIFIER. #60162.
SEEBURG DUAL TONE COMPENSATOR
FUSE
SHIELDED CABLE GROUNDED TO CHASSIS.
P.U.
MIKE.
MAGAZINE SW. F-1523A.
RELAY F1537A
100-OHM RESISTOR F-1174
COIN TRIGGER F-6035A.

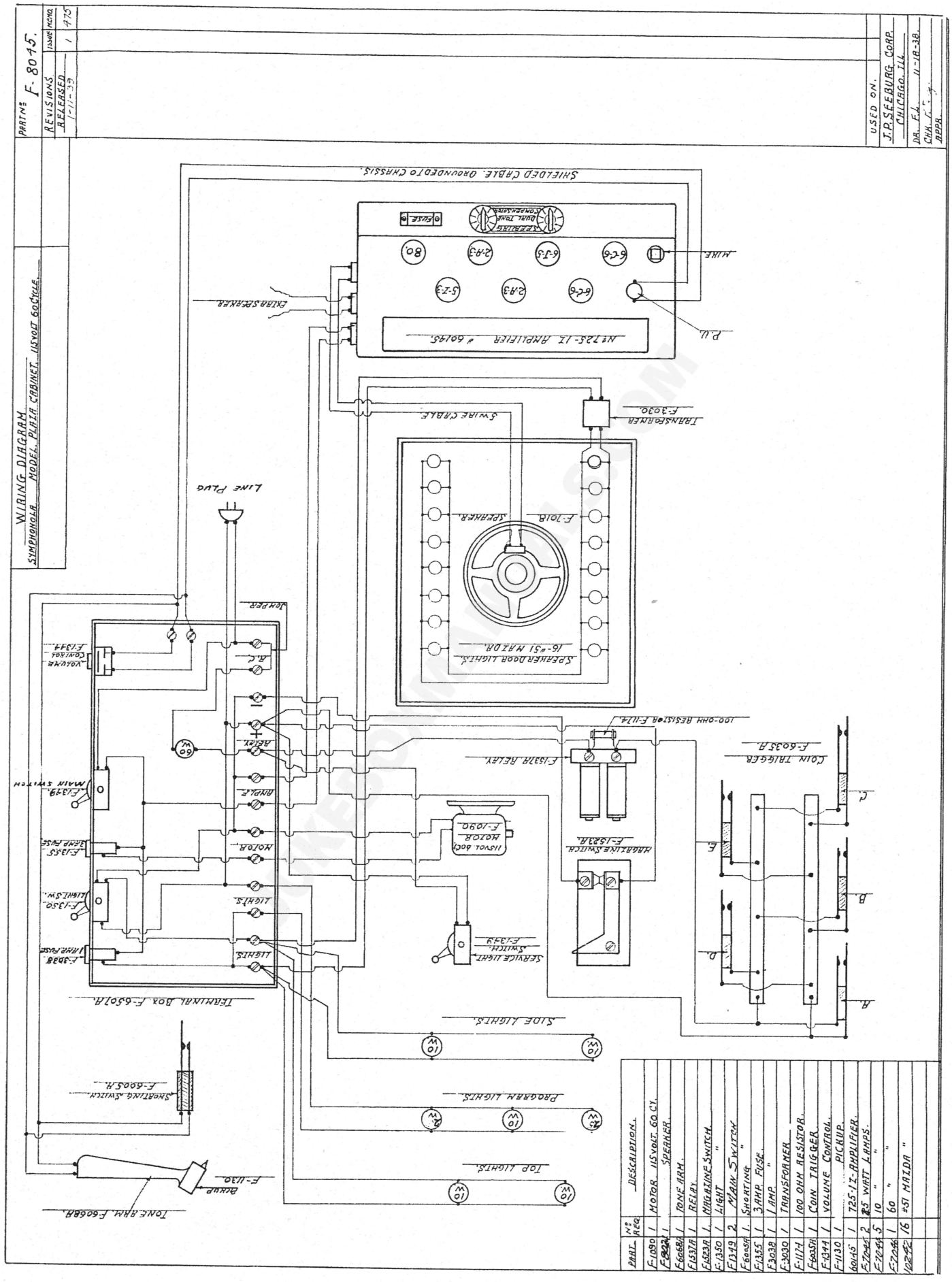
PART	NO. REQ.	DESCRIPTION.
F-3092	1	MOTOR 32 VOLT. D.C.
F-2024	1	SPEAKER.
F-6068A	1	TONE ARM.
F-1537A	1	RELAY.
F-1523A	1	MAGAZINE SWITCH.
F-1350	1	LIGHT SWITCH.
F-1349	1	MAIN SWITCH
F-6005A	1	SHORTING "
F-1349	1	SERVICE "
F-3055	1	SHUNT "
F-1355	1	3 AMP. FUSE.
F-3038	1	1 AMP. "
F-1174	1	100-OHM RESISTOR.
81012	1	10-OHM "
81014	1	9.2-OHM " 10 WATT.
F-3060	1	150 WATT CONVERTER.
60162	1	830-1Z. AMPLIFIER.
F-3061	3	25 WATT LAMP.
F-3063	5	10 " "
10242	16	#51 MAZDA LIGHTS.

PART	NO. REQ.	DESCRIPTION.
F-1344	1	VOLUME CONTROL.
F-1130	1	PICKUP.
F-6035	1	COIN TRIGGER

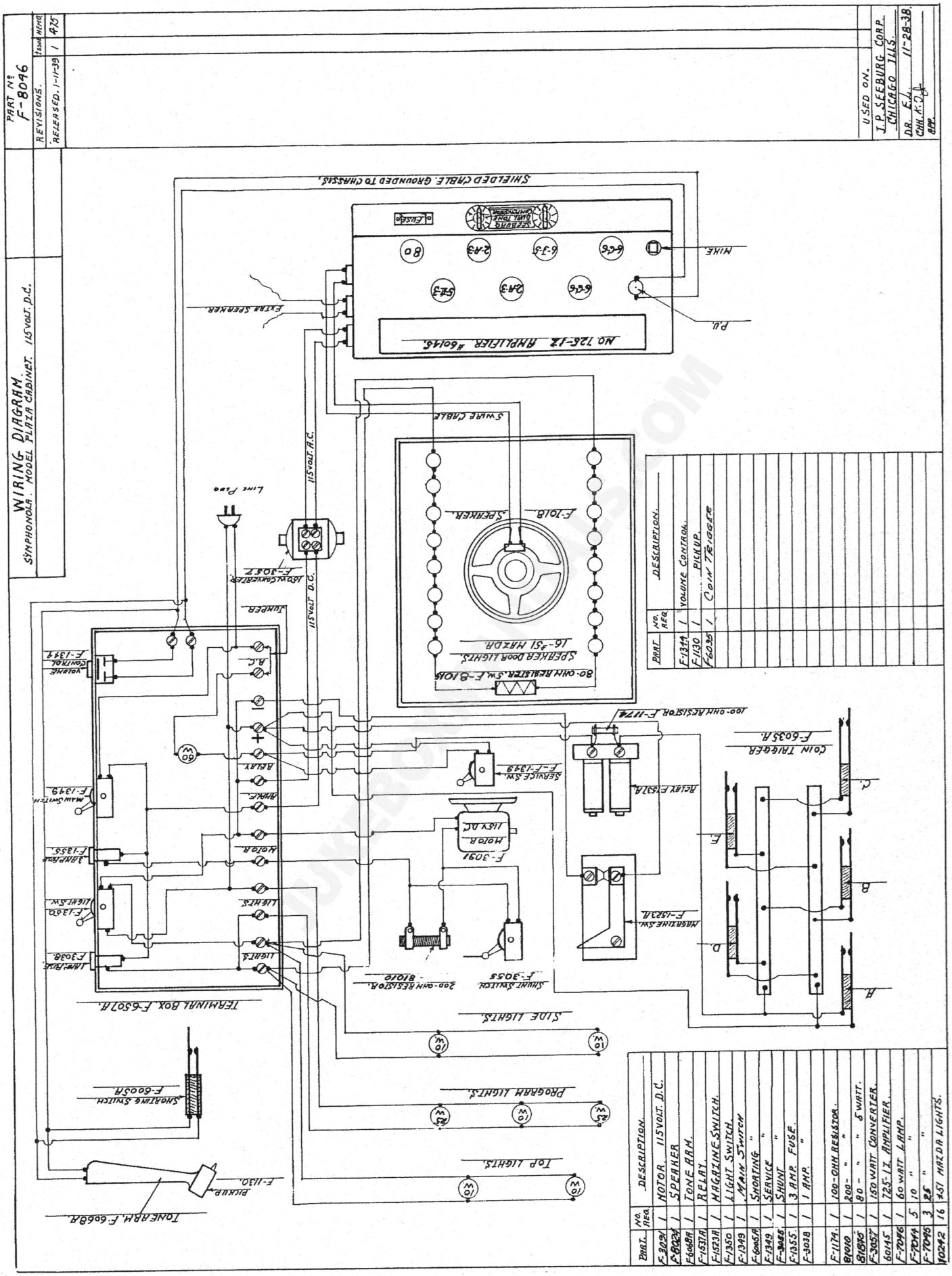
USED ON:

J.P. SEEBURG CORP.
CHICAGO ILLS.

DR.	E.L.	12-9-38.
CHK.		
APP.		



PART Nº	Nº REQ	DESCRIPTION
F-1090	1	MOTOR 115 VOLT. 60 CY.
F-6023	1	SPEAKER
F6068A	1	TONE ARM
F-1337A	1	RELAY
F-1323A	1	MAGAZINE SWITCH
F-1350	1	LIGHT
F-1349	2	MAIN SWITCH
F6005A	1	SHEATING "
F-1355	1	3 AMP. FUSE
F-3038	1	1 AMP "
F-3030	1	TRANSFORMER
F-1174	1	100 OHM RESISTOR
F6035A	1	COIN TRIGGER
F-1344	1	VOLUME CONTROL
F-1130	1	PICKUP
8045	1	725-12 AMPLIFIER
S7044	2	25 WATT LAMPS
S7045	5	10 " "
S7046	1	60 " "
12242	16	#51 MAZDA "

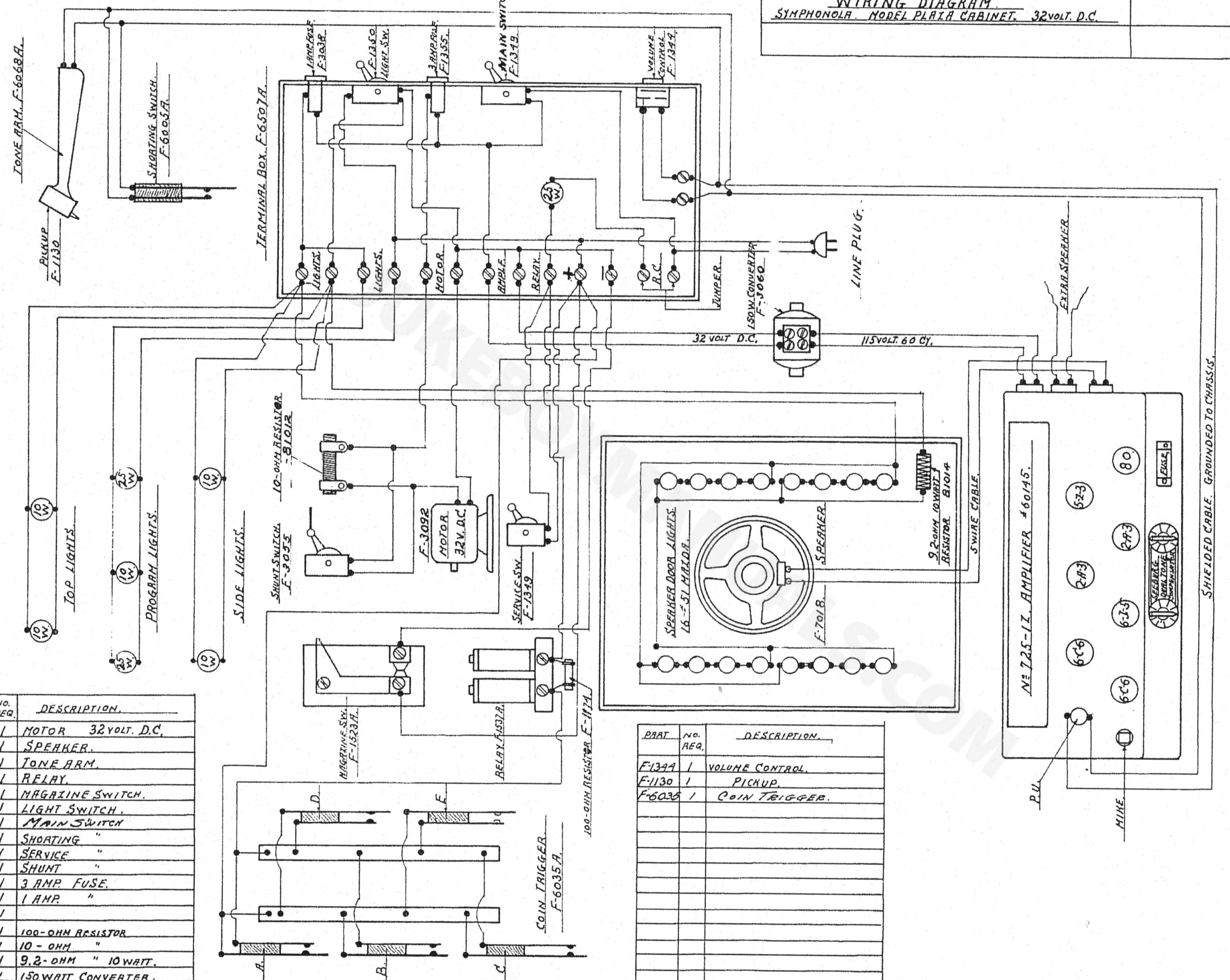


PART	NO. REQ.	DESCRIPTION.
F-1344	1	VOLUME CONTROL.
F-1130	1	PICKUP.
F-6035	1	COIN TRIGGER

PART	NO. REQ.	DESCRIPTION.
F-3029	1	MOTOR. 115 VOLT. D.C.
F-8024	1	SPEAKER.
F-6068A	1	TONE ARM.
F-1337A	1	RELAY.
F-1323A	1	MAGAZINE SWITCH.
F-1330	1	LIGHT SWITCH.
F-1349	1	MAIN SWITCH
F-6005A	1	SHORTING "
F-1349	1	SERVICE "
F-3055	1	SHUNT "
F-1355	1	3 AMP. FUSE.
F-3038	1	1 AMP. "
F-1174	1	100-OHM RESISTOR.
8102R	1	200- " "
8100R	1	80- " " 5 WATT.
F-3057	1	150 WATT CONVERTER.
60145	1	725-12 AMPLIFIER.
F-7046	1	60 WATT LAMP.
F-7044	5	10 " "
F-7045	3	25 " "
102412	16	#51 HARDA LIGHTS.

WIRING DIAGRAM
SYMPHONOLA. MODEL PLAZA CABINET. 32 VOLT. D.C.

PART Nº	F-8047.	
REVISIONS	ISSUE	MEMO
RELEASED, 1-11-39	1	475



TONE ARM. F-6068A.
PICKUP F-1130
SHORTING SWITCH. F-6005A.
TERMINAL BOX. F-6507A.
LAMP FUSE F-3038
F-1350 LIGHT SW.
3 AMP FUSE F-1355.
MAIN SWITCH F-1349
VOLUME CONTROL F-1344
LIGHTS
LIGHTS
MOTOR
AMPLF.
RELAY
R.C.
JUMPER
25 W
LINE PLUG.
150W CONVERTER F-3060
32 VOLT D.C.
115 VOLT. 60 CY.
EXTRA SPEAKER
10-OHM RESISTOR -B1012
SHUNT-SWITCH. F-3055
F-3092 MOTOR 32V. D.C.
SERVICE SW. F-1349
TOP LIGHTS.
PROGRAM LIGHTS.
SIDE LIGHTS.
10 W
25 W
SPEAKER DOOR LIGHTS. 16-#51 MAZDA.
SPEAKER
F-701 B.
9.2-OHM 10 WATT RESISTOR B1014
5 WIRE CABLE
Nº 725-1Z. AMPLIFIER #60145.
FUSE
80
5Z3
2A3
6J5
6C6
P.U.
MIKE
SHIELDED CABLE. GROUNDED TO CHASSIS.
MAGAZINE SW. F-1523A.
RELAY F-1537A.
100-OHM RESISTOR F-1174.
COIN TRIGGER F-6035A.
A.
B.
C.
D.
E.

PART	NO. REQ.	DESCRIPTION.
F-3092	1	MOTOR 32 VOLT. D.C.
F-8024	1	SPEAKER.
F-6068A	1	TONE ARM.
F-1537A	1	RELAY.
F-1523A	1	MAGAZINE SWITCH.
F-1350	1	LIGHT SWITCH.
F-1349	1	MAIN SWITCH
F-6005A	1	SHORTING "
F-1349	1	SERVICE "
F-3055	1	SHUNT "
F-1355	1	3 AMP. FUSE.
F-3038	1	1 AMP. "
	1	
F-1174	1	100-OHM RESISTOR
B1012	1	10 - OHM "
B1014	1	9.2-OHM " 10 WATT.
F-3060	1	150 WATT CONVERTER.
60145	1	725-1Z AMPLIFIER.
F-3061	3	25 WATT LAMP.
F-3063	5	10 " "
10242	16	#51 MAZDA LIGHTS.

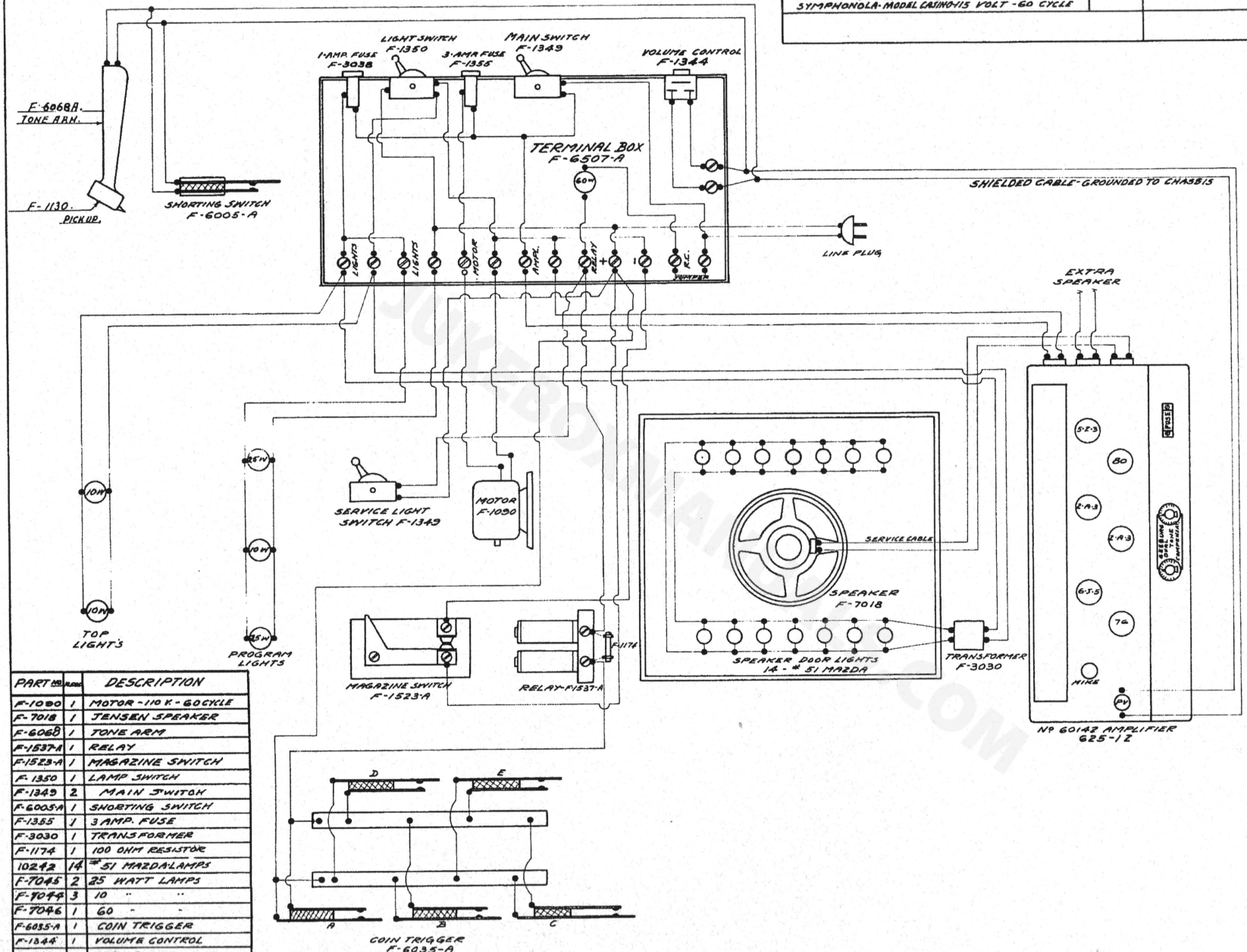
PART	NO. REQ.	DESCRIPTION.
F-1344	1	VOLUME CONTROL.
F-1130	1	PICKUP.
F-6035	1	COIN TRIGGER.

USED ON:
J.P. SEEBURG CORP.
CHICAGO, ILLS.
DR. E.L. 12-8-38.
CHK. K.U.G.
APP.

PART NAME: WIRING DIAGRAM
SYMPHONOLA-MODEL CASINO-115 VOLT - 60 CYCLE

PART NO. F-7070.

USED ON	REVISIONS	MEM'R
1	RELEASED 1-1-38	AJS

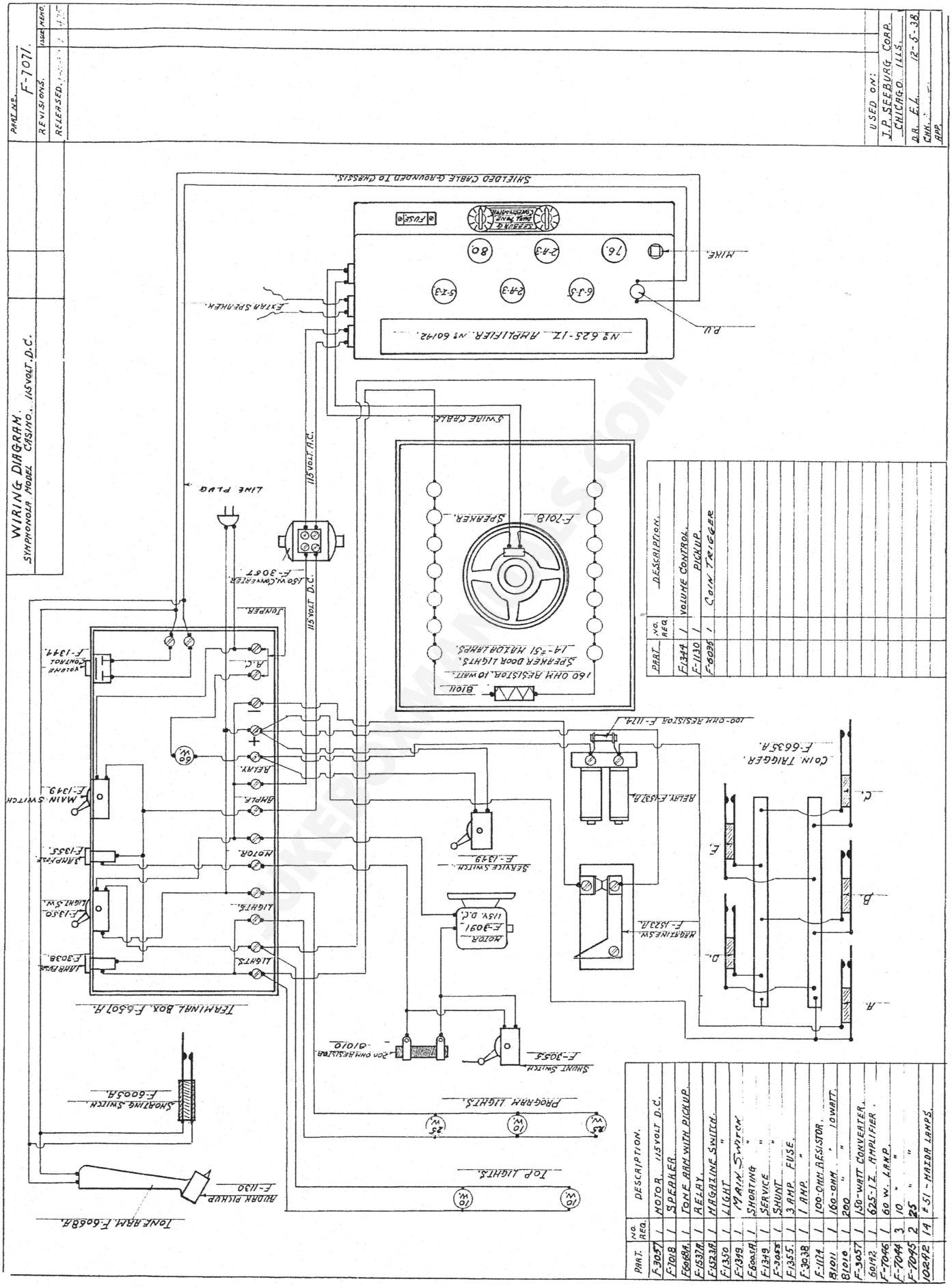


PART NO.	NO. REQ'D	DESCRIPTION
F-1090	1	MOTOR - 110 K - 60 CYCLE
F-7018	1	JENSEN SPEAKER
F-6068	1	TONE ARM
F-1537-A	1	RELAY
F-1523-A	1	MAGAZINE SWITCH
F-1350	1	LAMP SWITCH
F-1349	2	MAIN SWITCH
F-6005-A	1	SHORTING SWITCH
F-1355	1	3 AMP. FUSE
F-3030	1	TRANSFORMER
F-1174	1	100 OHM RESISTOR
10242	14	#51 MAZDA LAMPS
F-7045	2	25 WATT LAMPS
F-7044	3	10 " "
F-7046	1	60 " "
F-6035-A	1	COIN TRIGGER
F-1344	1	VOLUME CONTROL
60142	1	625-1-Z - AMPLIFIER
F-3038	1	LAMP FUSE - 1 AMP.
F-1130	1	PICKUP.

USED ON
J. P. SEEBURG CORP.
CHICAGO, ILL.

DR. - C.F.W. 12-1-38
CHK'D - [illegible]
APP'D -

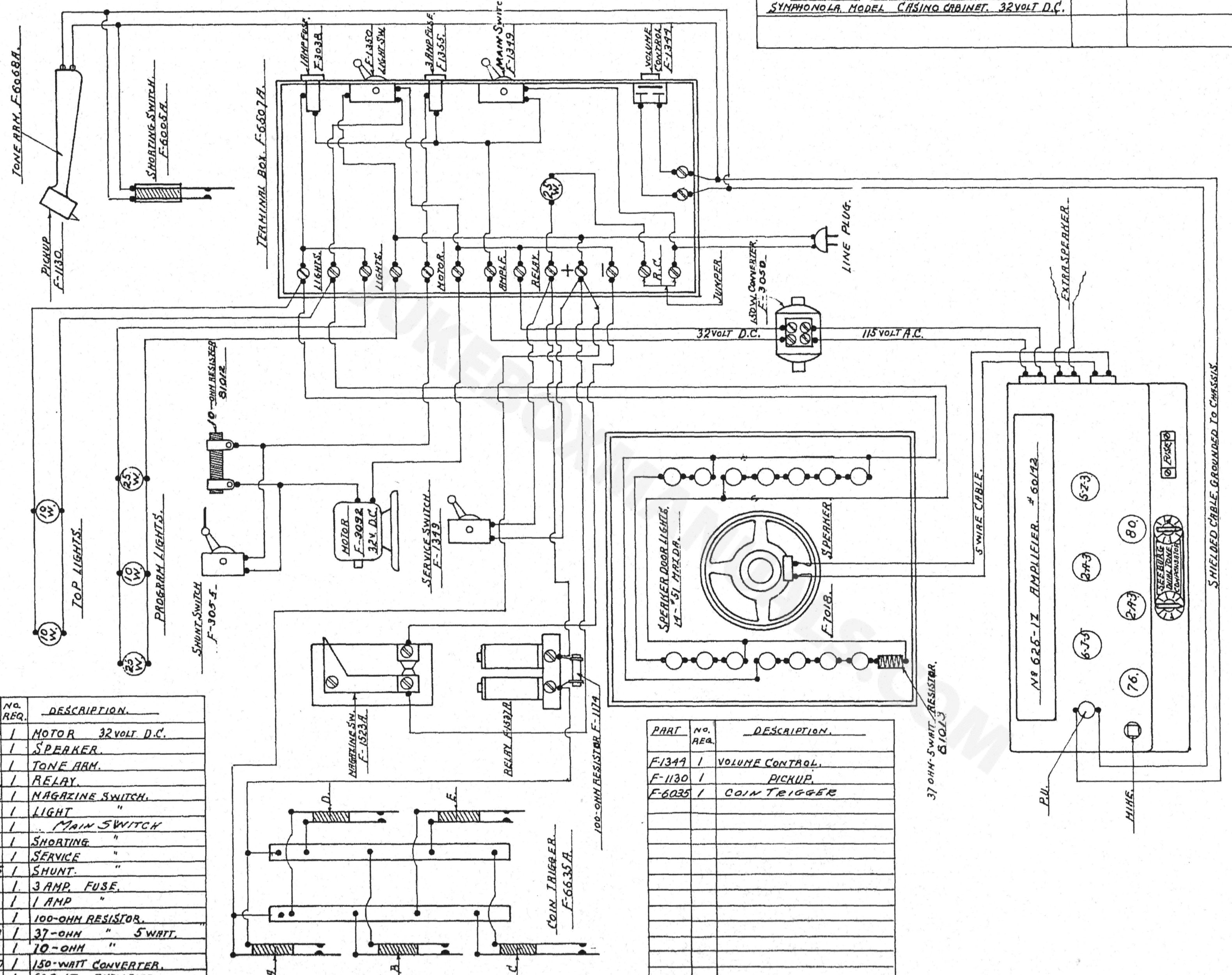
hh



PART Nº	F-7072.		
REVISIONS.		ISSUE	MEMO.
RELEASED. 1-11-39		1	475

WIRING DIAGRAM.

SYMPHONOLA MODEL CASINO CABINET. 32 VOLT D.C.



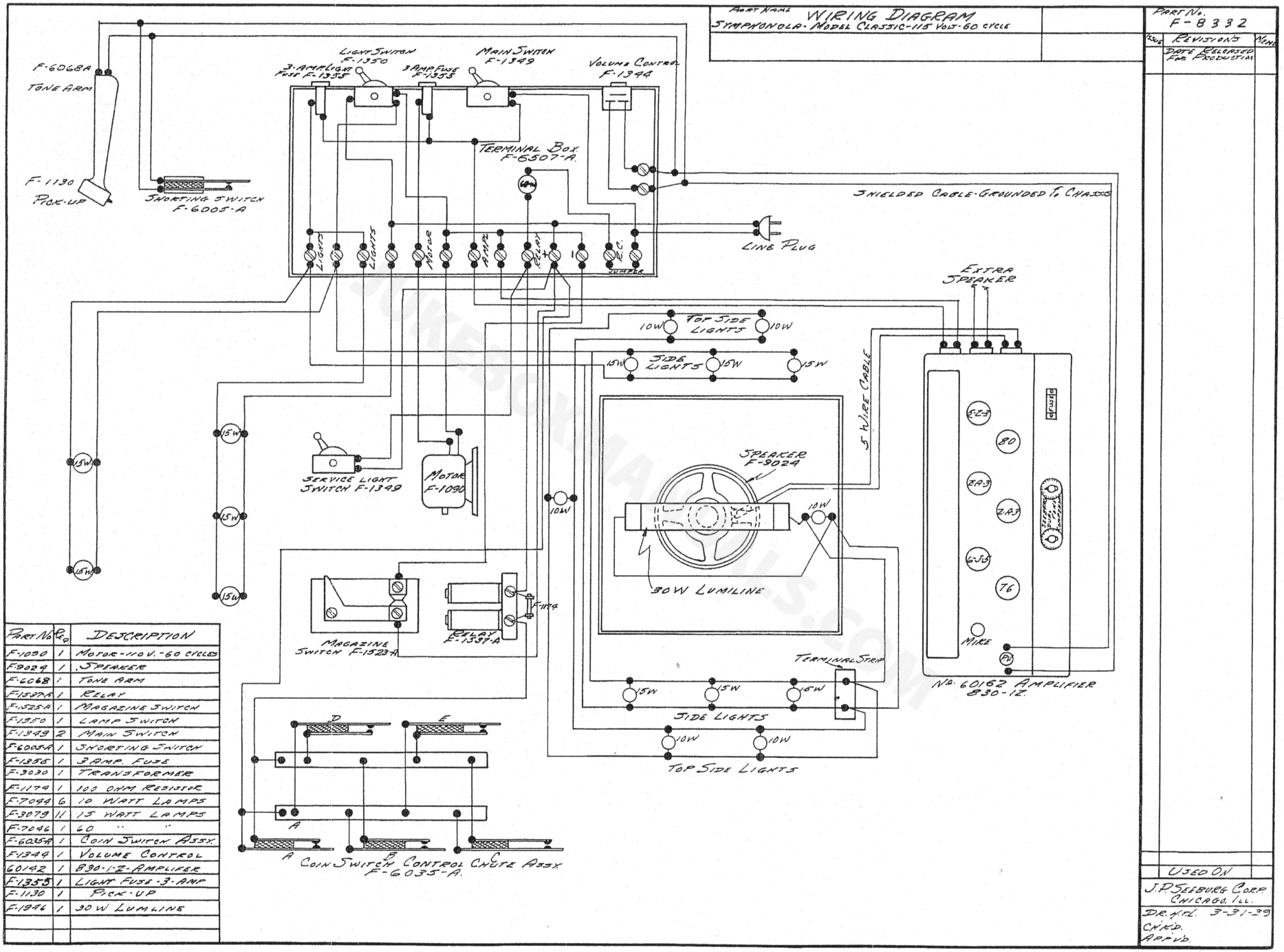
TONE ARM. F-6068A.
PICKUP F-1130.
SHORTING SWITCH. F-6005A.
TERMINAL BOX. F-6607A.
LAMP FUSE F-3038
F-1350 LIGHT SW.
3 AMP. FUSE. F-1355.
MAIN SWITCH F-1349
VOLUME CONTROL F-1344
25 W.
LIGHTS.
LIGHTS.
MOTOR.
AMPLF.
RELAY.
+
-
R.C.
JUMPER.
LINE PLUG.
150W. CONVERTER. F-3050.
32 VOLT D.C.
115 VOLT A.C.
EXTRA SPEAKER.
10-OHM RESISTER 81014
MOTOR F-3092 32V. D.C.
SERVICE SWITCH F-1349.
SHUNT SWITCH F-3055.
10 W.
10 W.
TOP LIGHTS.
25 W.
10 W.
25 W.
PROGRAM LIGHTS.
MAGAZINE SW. F-1523A.
RELAY F-1537A.
100-OHM RESISTOR F-1174
COIN TRIGGER F-6635A.
D.
E.
A.
B.
C.
SPEAKER DOOR LIGHTS. 14-#51 MAZDA.
SPEAKER.
F-7018.
37 OHM-5 WATT RESISTOR. 81013
5 WIRE CABLE.
Nº 625-1Z AMPLIFIER. # 60142
5-Z-3
2-A-3
6-J-5
80.
2-A-3
76.
FUSE
SEEBURG DUAL TONE COMPENSATOR
SHIELDED CABLE, GROUNDED TO CHASSIS.
P.U.
MIKE.

PART	NO. REQ.	DESCRIPTION.
F-3092	1	MOTOR 32 VOLT D.C.
F-7018	1	SPEAKER.
F6068A.	1	TONE ARM.
F-1537A.	1	RELAY.
F-1523A.	1	MAGAZINE SWITCH.
F1350	1	LIGHT "
F-1349	1	MAIN SWITCH
F6005A	1	SHORTING "
F1349	1	SERVICE "
F-3055	1	SHUNT. "
F1355.	1.	3 AMP. FUSE.
F3038	1	1 AMP "
F-1174	1	100-OHM RESISTOR.
81013	1	37-OHM " 5 WATT.
81014	1	10-OHM "
F-3060	1	150-WATT CONVERTER.
60142	1	625-1Z AMPLIFIER.
F-3061	3	25 W. LAMP.
F-3063	3	10 " "
10242	14	#51 - MAZDA LAMPS.

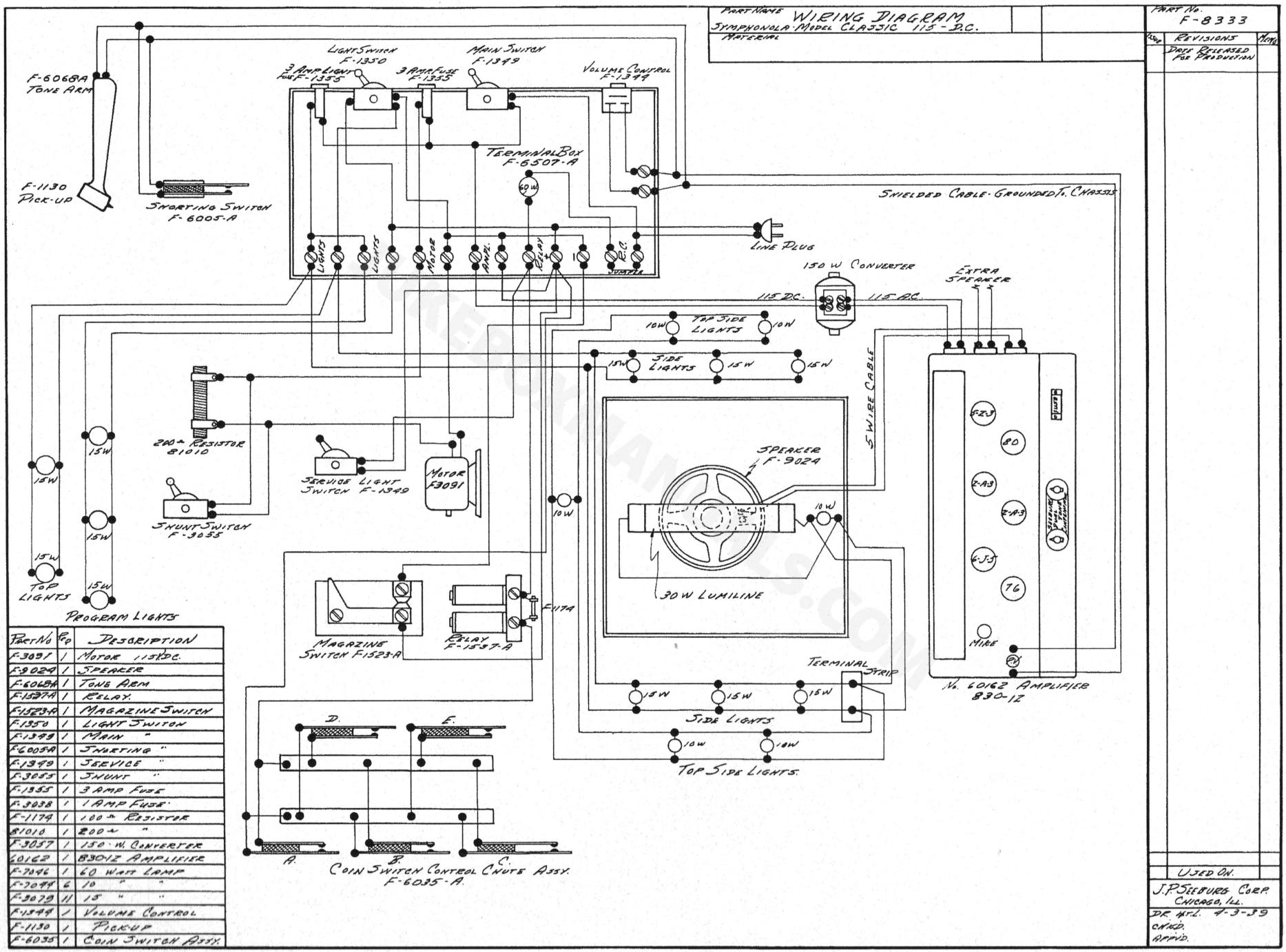
PART	NO. REQ.	DESCRIPTION.
F-1344	1	VOLUME CONTROL.
F-1130	1	PICKUP.
F-6035	1	COIN TRIGGER

USED ON:
J.P. SEEBURG CORP.
CHICAGO. ILLS.

DR. E.L.	12-7-38
CHK.	
APP.	



PART NO.	QTY.	DESCRIPTION
F-1020	1	MOTOR-110 V.-60 CYCLES
F-9024	1	SPEAKER
F-6068	1	TONE ARM
F-1397A	1	RELAY
F-1523A	1	MAGAZINE SWITCH
F-1350	1	LAMP SWITCH
F-1349	2	MAIN SWITCH
F-6005A	1	SHORTING SWITCH
F-1355	1	3 AMP. FUSE
F-3030	1	TRANSFORMER
F-1174	1	100 OHM RESISTOR
F-7044	6	10 WATT LAMPS
F-3079	11	15 WATT LAMPS
F-7046	1	60 " "
F-6035A	1	COIN SWITCH ASSY.
F-1344	1	VOLUME CONTROL
60162	1	830-12-AMPLIFIER
F-1355	1	LIGHT FUSE-3-AMP
F-1130	1	PICK-UP
F-1946	1	30 W LUMLINE



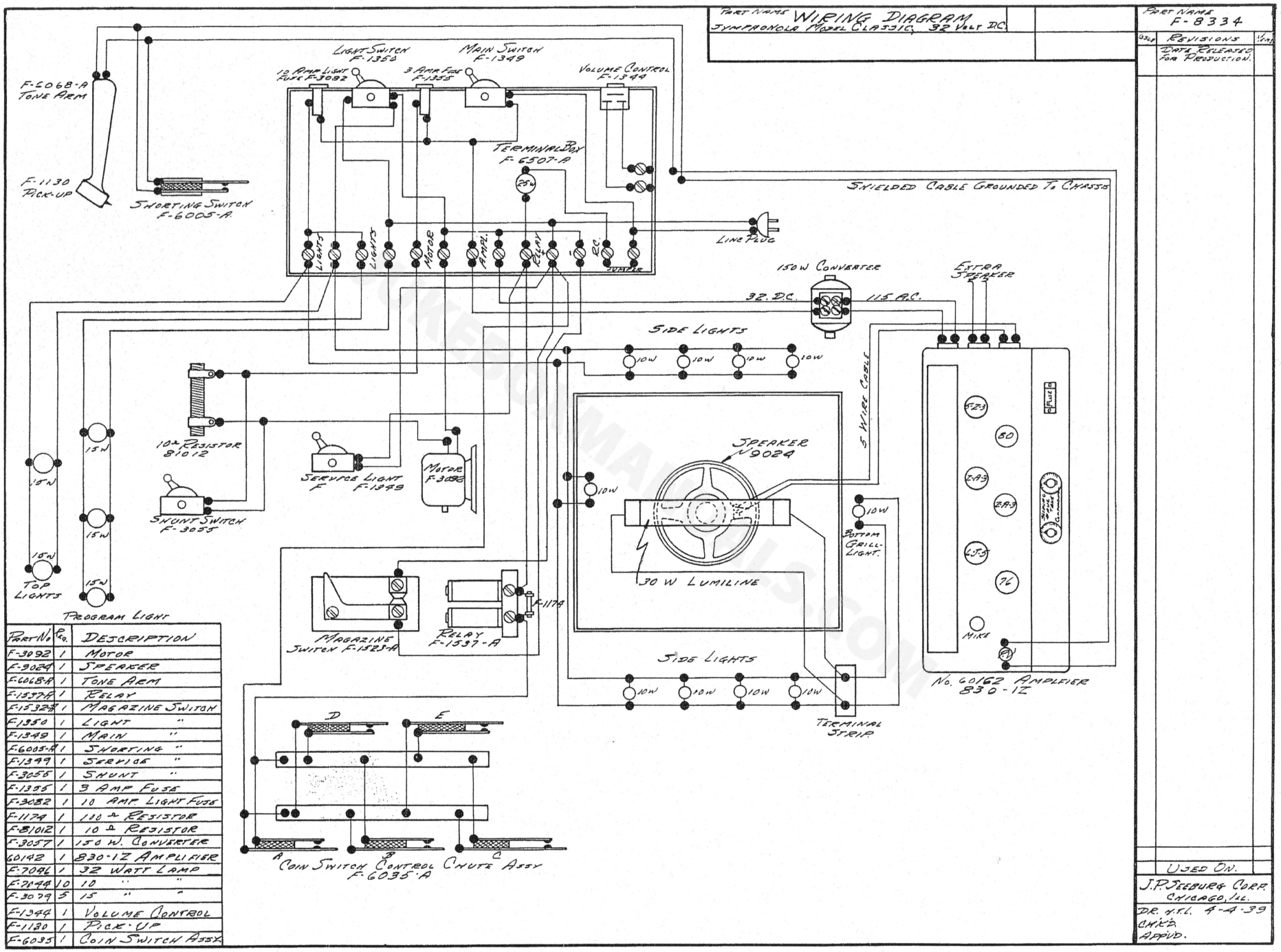
PART NO	QTY	DESCRIPTION
F-3091	1	MOTOR 115 D.C.
F-9024	1	SPEAKER
F-6068A	1	TONE ARM
F-1537A	1	RELAY.
F-1323-A	1	MAGAZINE SWITCH
F-1350	1	LIGHT SWITCH
F-1349	1	MAIN "
F-6005A	1	SHORTING "
F-1349	1	SERVICE "
F-3055	1	SHUNT "
F-1355	1	3 AMP FUSE
F-3038	1	1 AMP FUSE
F-1174	1	100 Ω RESISTOR
B1010	1	200 Ω "
F-3037	1	150 W. CONVERTER
60162	1	B30-12 AMPLIFIER
F-7046	1	60 WATT LAMP
F-7044	6	10 " "
F-3029	11	15 " "
F-1344	1	VOLUME CONTROL
F-1130	1	PICK-UP
F-6035	1	COIN SWITCH ASSY.

USED ON.

J. P. SEEBURG CORP. CHICAGO, ILL.

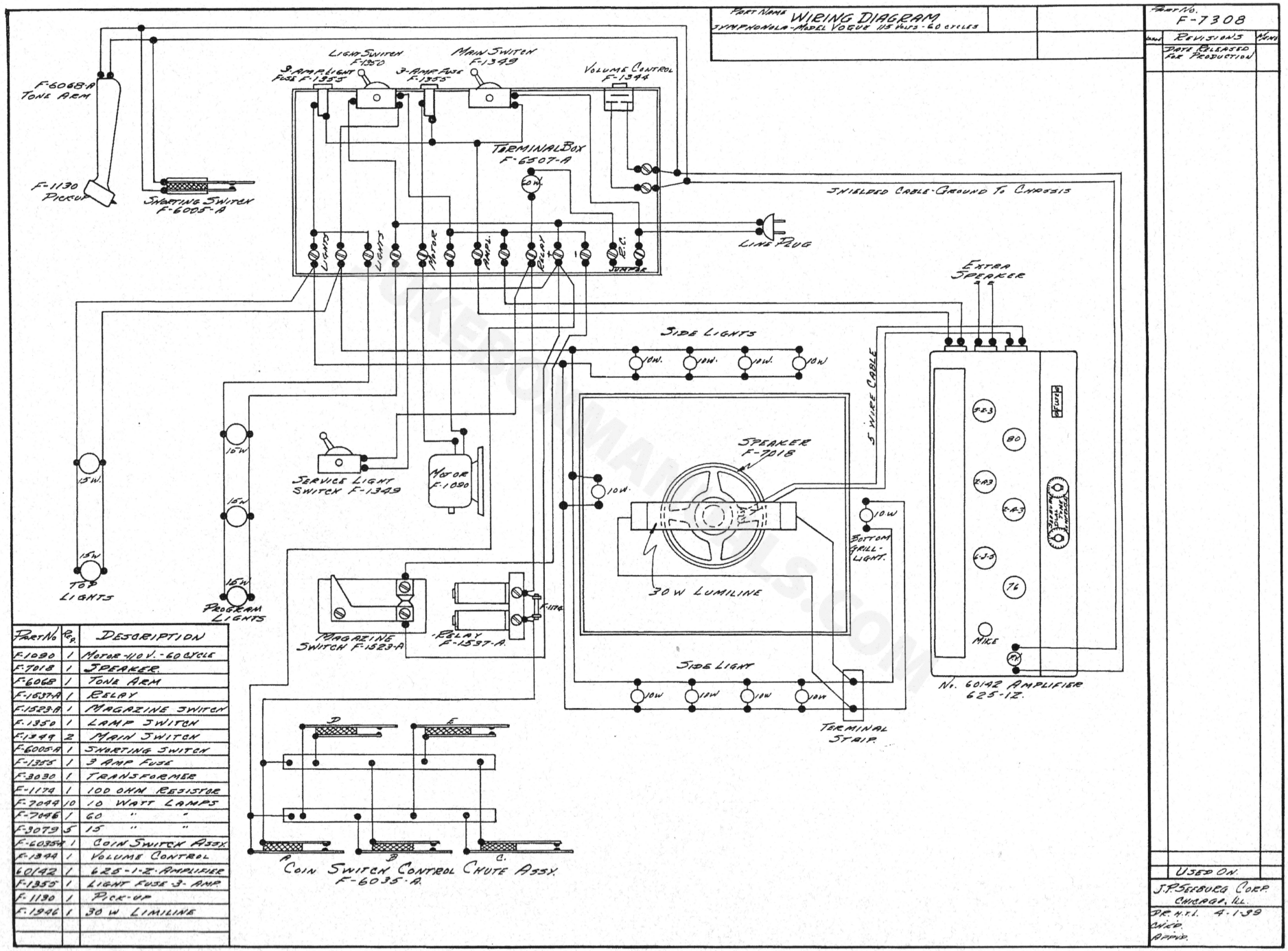
DR. M.L. 4-3-39
CHKD.
APPVD.

8h

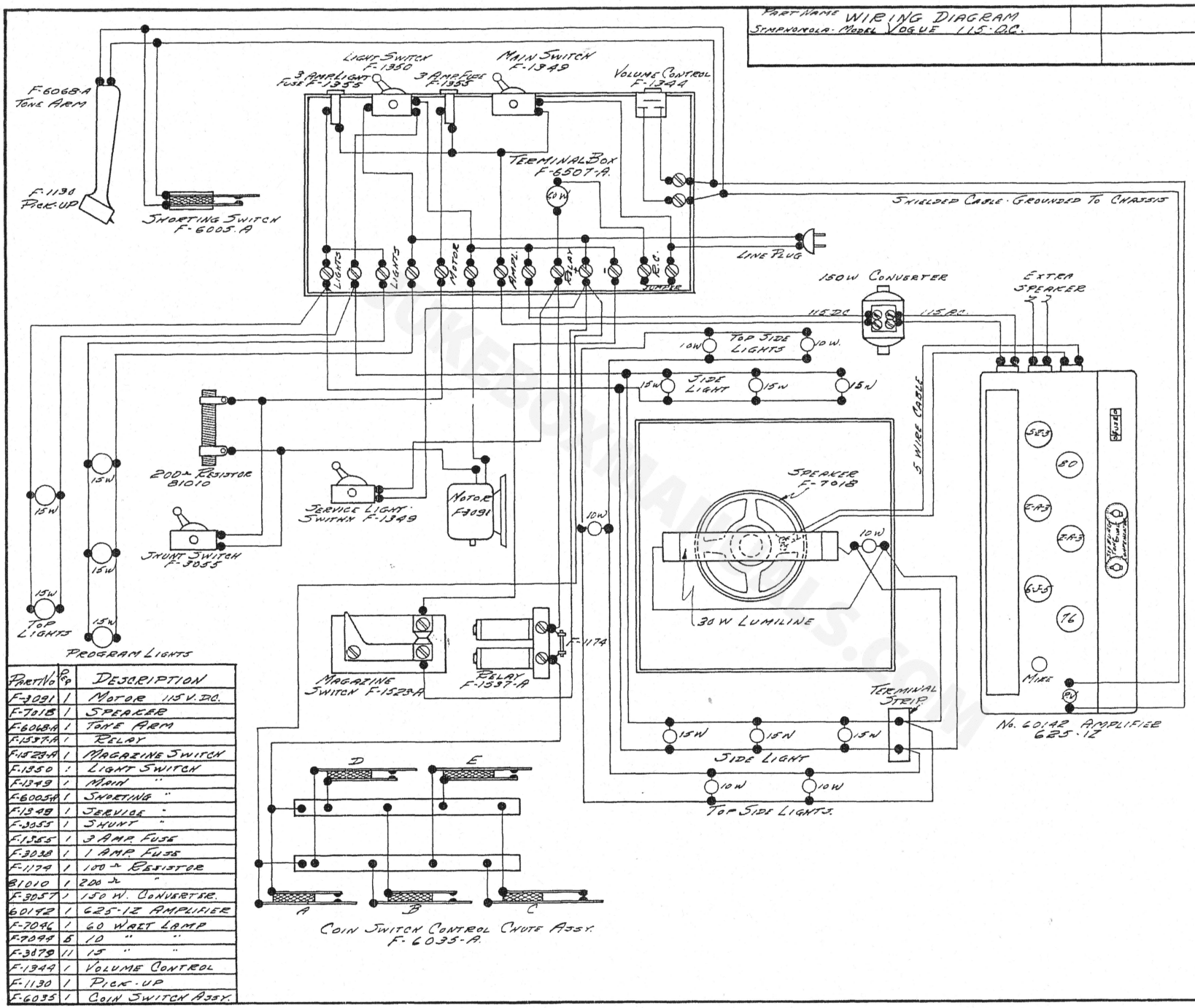


PART No.	EQ.	DESCRIPTION
F-3092	1	MOTOR
F-9024	1	SPEAKER
F-6068A	1	TONE ARM
F-1337-A	1	RELAY
F-1323-A	1	MAGAZINE SWITCH
F-1350	1	LIGHT "
F-1349	1	MAIN "
F-6005-A	1	SHORTING "
F-1349	1	SERVICE "
F-3055	1	SHUNT "
F-1355	1	3 AMP FUSE
F-3092	1	10 AMP LIGHT FUSE
F-1179	1	100 Ω RESISTOR
F-81012	1	10 Ω RESISTOR
F-3057	1	150 W. CONVERTER
60162	1	830-12 AMPLIFIER
F-7096	1	32 WATT LAMP
F-7099	10	10 " "
F-3079	5	15 " "
F-1344	1	VOLUME CONTROL
F-1130	1	PICK-UP
F-6035	1	COIN SWITCH ASSY

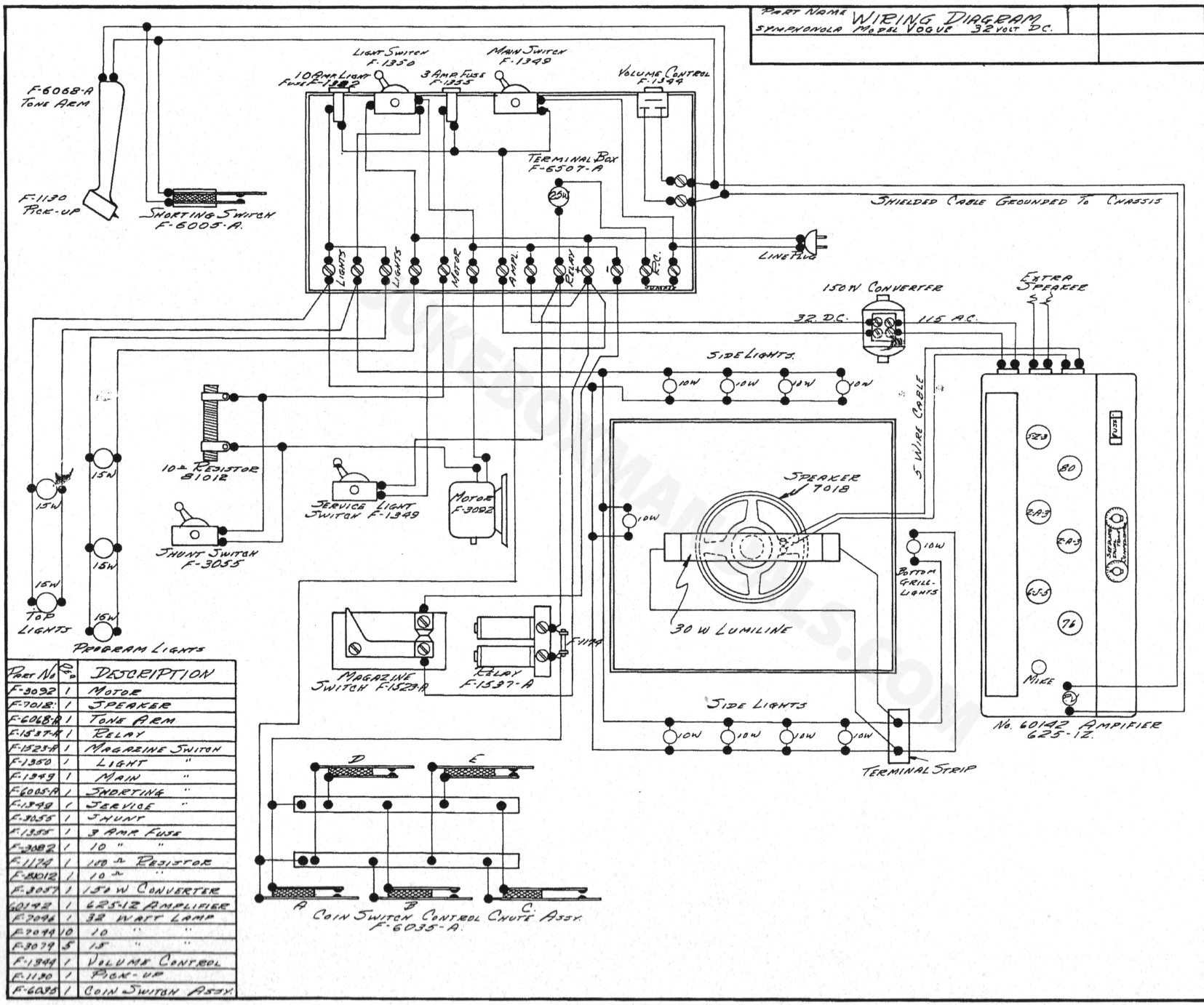
6 h



Part No	Qty.	Description
F-1080	1	Motor-110 V.-60 Cycle
F-7018	1	Speaker
F-6068	1	Tone Arm
F-1537-A	1	Relay
F-1523-A	1	Magazine Switch
F-1350	1	Lamp Switch
F-1349	2	Main Switch
F-6005-A	1	Swarting Switch
F-1355	1	3 Amp Fuse
F-3030	1	Transformer
F-1179	1	100 Ohm Resistor
F-7044	10	10 Watt Lamps
F-7046	1	60 " "
F-3079	5	15 " "
F-6035-A	1	Coin Switch Assy.
F-1344	1	Volume Control
60142	1	625-1-12 Amplifier
F-1355	1	Light Fuse 3-Amp.
F-1130	1	Pick-up
F-1946	1	30 W Limiline



PART No	Qty	DESCRIPTION
F-3091	1	MOTOR 115 V. DC.
F-7018	1	SPEAKER
F-6068-A	1	TONE ARM
F-1337-A	1	RELAY
F-1523-A	1	MAGAZINE SWITCH
F-1350	1	LIGHT SWITCH
F-1349	1	MAIN "
F-6005-A	1	SHORTING "
F-1349	1	SERVICE "
F-3055	1	SHUNT "
F-1355	1	3 AMP FUSE
F-3038	1	1 AMP FUSE
F-1174	1	100 Ω RESISTOR
B1010	1	200 Ω "
F-3057	1	150 W. CONVERTER.
60142	1	625-12 AMPLIFIER
F-7046	1	60 WATT LAMP
F-7044	6	10 " "
F-3079	11	15 " "
F-1344	1	VOLUME CONTROL
F-1130	1	PICK-UP
F-6035	1	COIN SWITCH ASSY.



PART NO	QTY	DESCRIPTION
F-3092	1	MOTOR
F-7018	1	SPEAKER
F-6068-R	1	TONE ARM
F-1537-A	1	RELAY
F-1523-R	1	MAGAZINE SWITCH
F-1350	1	LIGHT "
F-1349	1	MAIN "
F-6005-A	1	SHORTING "
F-1348	1	SERVICE "
F-3055	1	SHUNT "
F-1355	1	3 AMP FUSE
F-3082	1	10 " "
F-1179	1	180 Ω RESISTOR
F-81012	1	10 Ω "
F-3057	1	150 W CONVERTER
60142	1	625-12 AMPLIFIER
F-7098	1	32 WATT LAMP
F-7099	10	10 " "
F-3079	5	15 " "
F-1344	1	VOLUME CONTROL
F-1130	1	PICK-UP
F-6035	1	COIN SWITCH ASSY.

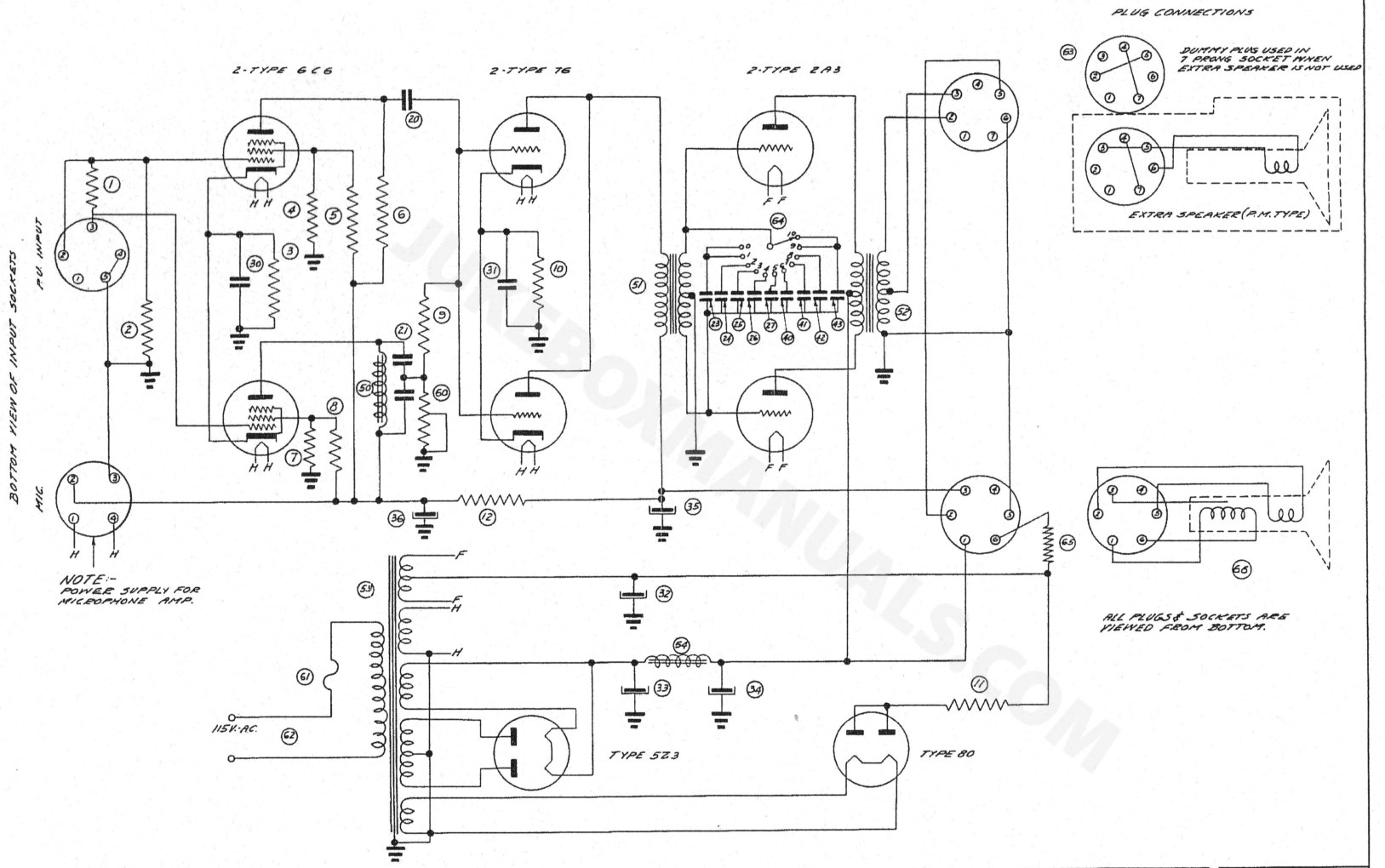
USED ON

J.P. SEEBURG CORP. CHICAGO, ILL.

DR. K.L. 9-4-39
CHKD.
APPVD.

PART NAME: SCHEMATIC DIAGRAM-820C-2 AMP. | SOURCE: | PART NO. 50091

ISSUE	REVISIONS	MEMO
1	RELEASED FOR PRODUCTION 12-19-38	437



FIXED RESISTORS

ITEM	PART No.	DESCRIPTION		
1	82902	1200 Ω	1/4 W	5%
2	82903	3900 Ω	1/4 W	5%
3	82480	2000 Ω	1/2 W	10%
4	82476	30 M	1/2 W	10%
5	82479	100 M	1/2 W	10%
6	82454	330 M	1/2 W	10%
7	82476	30 M	1/2 W	10%
8	82479	100 M	1/2 W	10%
9	82482	33 M	1/2 W	10%
10	82477	1200 Ω	1/2 W	10%
11	81000	200 Ω W.W.		
12	82016	4700 Ω	1/4 W.	20%

PAPER CONDENSERS

ITEM	PART No.	DESCRIPTION		
20	86027	.006 MFD	600V	20%
21	86029	.02	600	10%
22	86028	.04	600	10%
23	86026	.015	400	20%
24	86000	.01	400	20%
25	86002	.006	400	20%
26	86025	.004	400	20%
27	86024	.003	400	20%

FIXED RESISTORS (cont'd)

ELECT. CONDENSERS

ITEM	PART No.	DESCRIPTION		
30				
31	87500	12-12 MFD DRY DUAL		25 V.
32	87501	8	DRY	100 V.
33	87001	16	WET	475 V.
34	87002	8	WET	475 V.
35	87001	16	WET	475 V.
36	87503	4	DRY	350 W.V.

IRON CORE COILS

ITEM	PART No.	DESCRIPTION
50	10033	TONE CHOKE
51	10034	INPUT TRANS.
52	10272	OUTPUT TRANS.
53	10287	POWER TRANS.
54	10036	FILTER CHOKE

MICA CONDENSERS

40	85011	.002	20%
41	85010	.0015	20%
42	85009	.001	20%
43	85008	.0005	20%

MISCELLANEOUS

ITEM	PART No.	DESCRIPTION
60	10039	BASS CONTROL
61	10055	FUSE PLUG ASSEMBLY
62	10041	LINE CORD & LUG ASSEMBLY
63	10029	DUMMY PLUG ASSEMBLY
64	10236	TREBLE CONTROL
65	81009	1400 OHM W.W. RESISTOR-17.5 WATT ±10%
66	F-9024	SPEAKER

USED ON

J. P. SEEBURG CORP.
CHICAGO, ILL.

DR.- C.F.W. 12-7-38
CHK'D- George Rock
APP'D-

PART NAME: SCHEMATIC DIAGRAM-830-1-2 AMP.

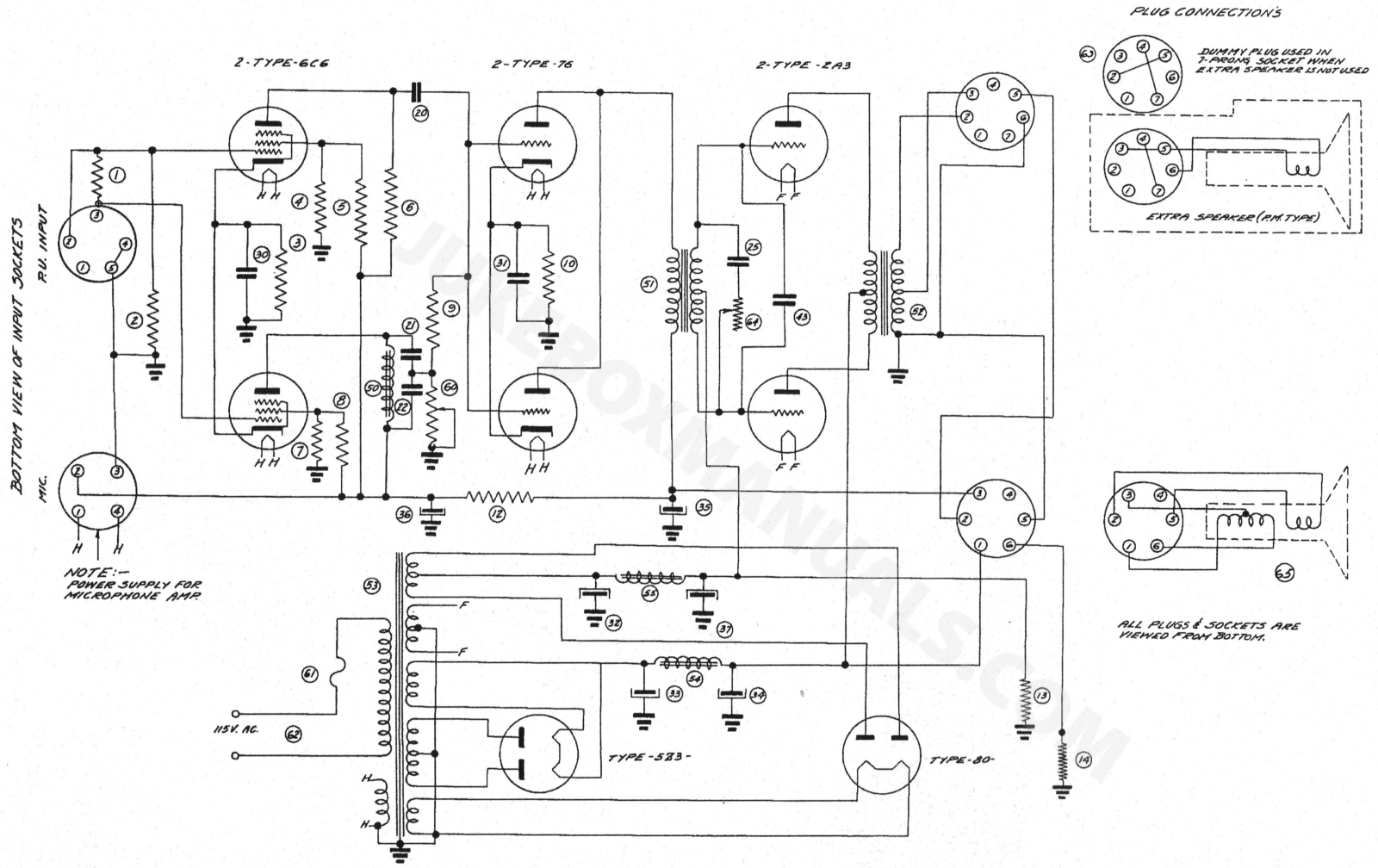
PART NO. 50089

ISSUE	REVISIONS	MEM
1	RELEASED FOR PRODUCTION 12-13-38	937
2	ITEM 25 WAS 86042	980
3	ITEM 43 WAS 85008	505

USED ON

J. P. SEEBURG CORP.
CHICAGO, ILL.

DR. C.F.N. 12-10-38
CHK'D - George Burk
APP'D -



FIXED RESISTORS

ITEM	PART No.	DESCRIPTION		
1	82902	1200 Ω	½ W	5%
2	82903	3500 Ω	½ W	5%
3	82480	2000 Ω	1 W	10%
4	82476	30 M	½ W	10%
5	82479	100 M	½ W	10%
6	82464	330 M	½ W	10%
7	82476	30 M	½ W	10%
8	82479	100 M	½ W	10%
9	82242	33 M	½ W	10%
10	82477	1200 Ω	½ W	10%
11				
12	82016	4700 Ω	1 W	W.W. 10%

PAPER CONDENSERS

ITEM	PART No.	DESCRIPTION		
20	86014	.002 MFD.	600 V.	20%
21	86029	.02	600 V.	10%
22	86028	.04	600 V.	10%
23				
24				
25	86031	.02	400 V	20%
26				
27				

FIXED RESISTORS (cont.)

13	81008	1865 Ω	5 W	W.W. 10%
14	81007	1180 Ω	5 W	W.W. 10%

ELECT. CONDENSERS

ITEM	PART No.	DESCRIPTION			
30	87512	20-20 MFD.	DRY	DUAL	25 V.
31					
32	87513	12	DRY		150 V.
33	87001	16	WET		475 V.
34	87002	8	WET		475 V.
35	87001	16	WET		475 V.
36	87514	16	DRY		350 W.W.
37	87513	12 MF	DRY		150 W.V.

IRON CORE COILS

ITEM	PART No.	DESCRIPTION
50	10402	TONE CHOKE
51	10711	INPUT TRANS.
52	10272	OUTPUT TRANS.
53	10791	POWER TRANS.
54	10036	FILTER CHOKE

MICA CONDENSERS

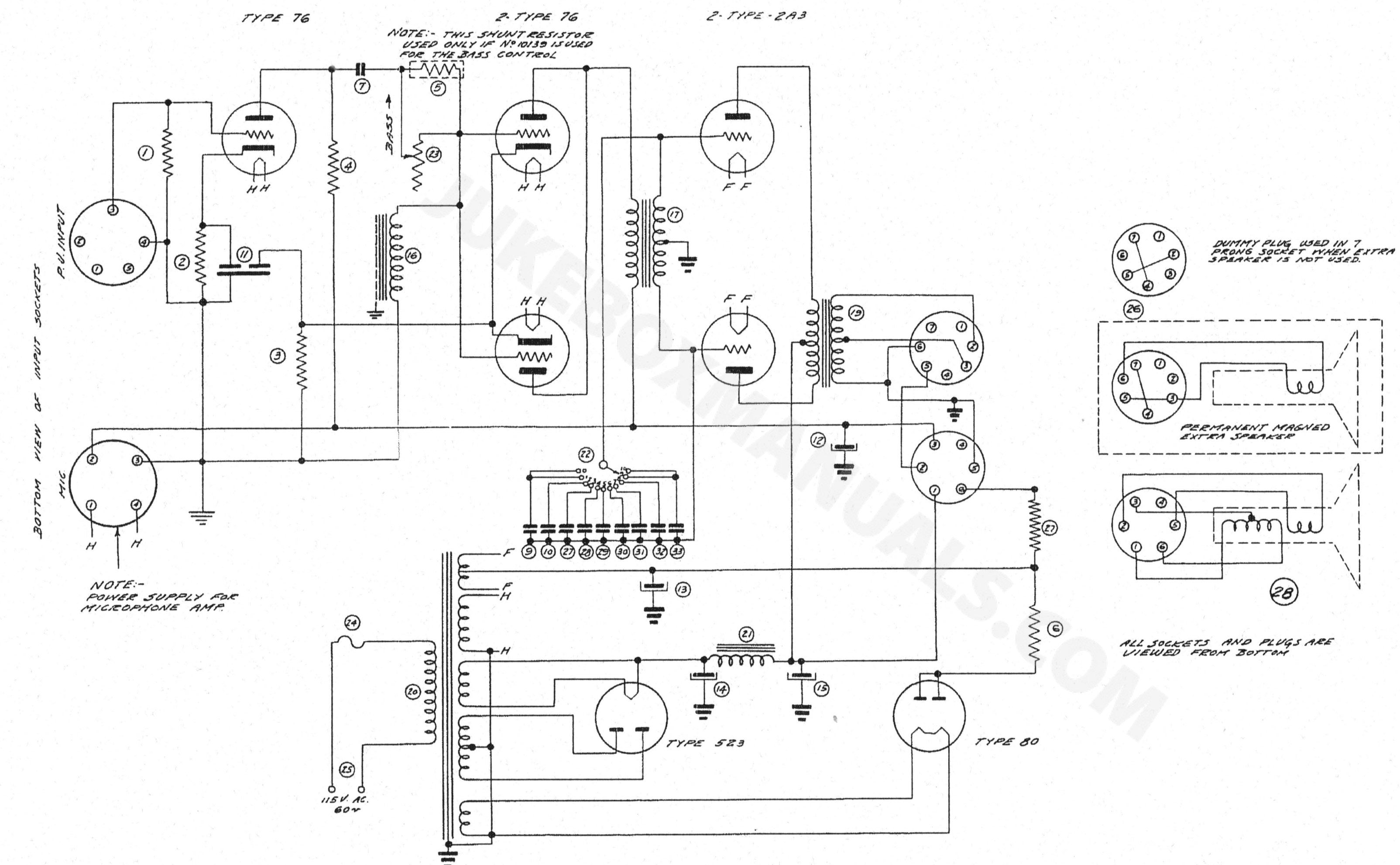
ITEM	PART No.	DESCRIPTION	
40			
41			
42			
43	85009	.001	20%

MISCELLANEOUS

ITEM	PART No.	DESCRIPTION
60	10039	BASS CONTROL
61	10689	FUSE PLUG ASSY.
62	10041	LINE CORD & LUG ASSEMBLY
63	10029	DUMMY PLUG ASSEMBLY
64	10688	TREBLE CONTROL
65	10791	BIAS CHOKE
65	F-9024	SPEAKER

PART NAME	PART Nº
SCHEMATIC DIAGRAM-720C-2 AMP.	50090

ISSUE	REVISIONS	MEMO
1	RELEASED FOR PRODUCTION 12-19-38	437



FIXED RESISTORS

ITEM	PART Nº	DESCRIPTION
1	82479	100 M OHMS ½ WATT ±10%
2	82429	2700 " ½ " ±10%
3	82477	1200 " ½ " ±10%
4	82479	100M " ½ " ±10%
5	82901	250M " ½ " ±10%
6	81000	200 " 10 " ±10%

PAPER CONDENSERS

ITEM	PART Nº	DESCRIPTION
7	86005	.015 MFD. 600 V. ±10%
9	86026	.015 400 V. 20%
10	86000	.01 400 V. 20%

PAPER CONDENSERS

ITEM	PART Nº	DESCRIPTION
27	86002	.006 MFD 400V. 20%
28	86025	.004 400V. 20%
29	86024	.003 400V. 20%

ELECT. CONDENSERS

ITEM	PART Nº	DESCRIPTION
11	87500	DUAL 12 MFD 25 V. DRY
12	87001	16 MFD 475 V. WET
13	87501	8 MFD 100 V. DRY
14	87001	16 MFD 475 V. WET
15	87002	8 MFD 475 V. WET

IRON CORE COILS

ITEM	PART Nº	DESCRIPTION
16	10033	TONE CHOKE ASSEMBLY
17	10034	INPUT TRANS. "
19	10035	OUT PUT TRANS. ASSEMBLY
20	10040	POWER TRANS.
21	10036	FILTER CHOKE

MISCELLANEOUS

ITEM	PART Nº	DESCRIPTION
22	10286	TREBLE CONTROL
23	10288	BASS CONTROL
24	10055	FUSE PLUG & FUSE
25	10041	LINE CORD & LUG ASSY.
26	10029	DUMMY PLUG ASS'Y.
27	81009	1400 OHM W.W. RESISTOR-17.5 WATTS ±10%
28	F-8024	SPEAKER

MICA CONDENSERS

ITEM	PART Nº	DESCRIPTION
30	85011	.002 MFD. 20%
31	85010	.0015 " 20%
32	85009	.001 " 20%
33	85006	.0005 " 20%

USED ON

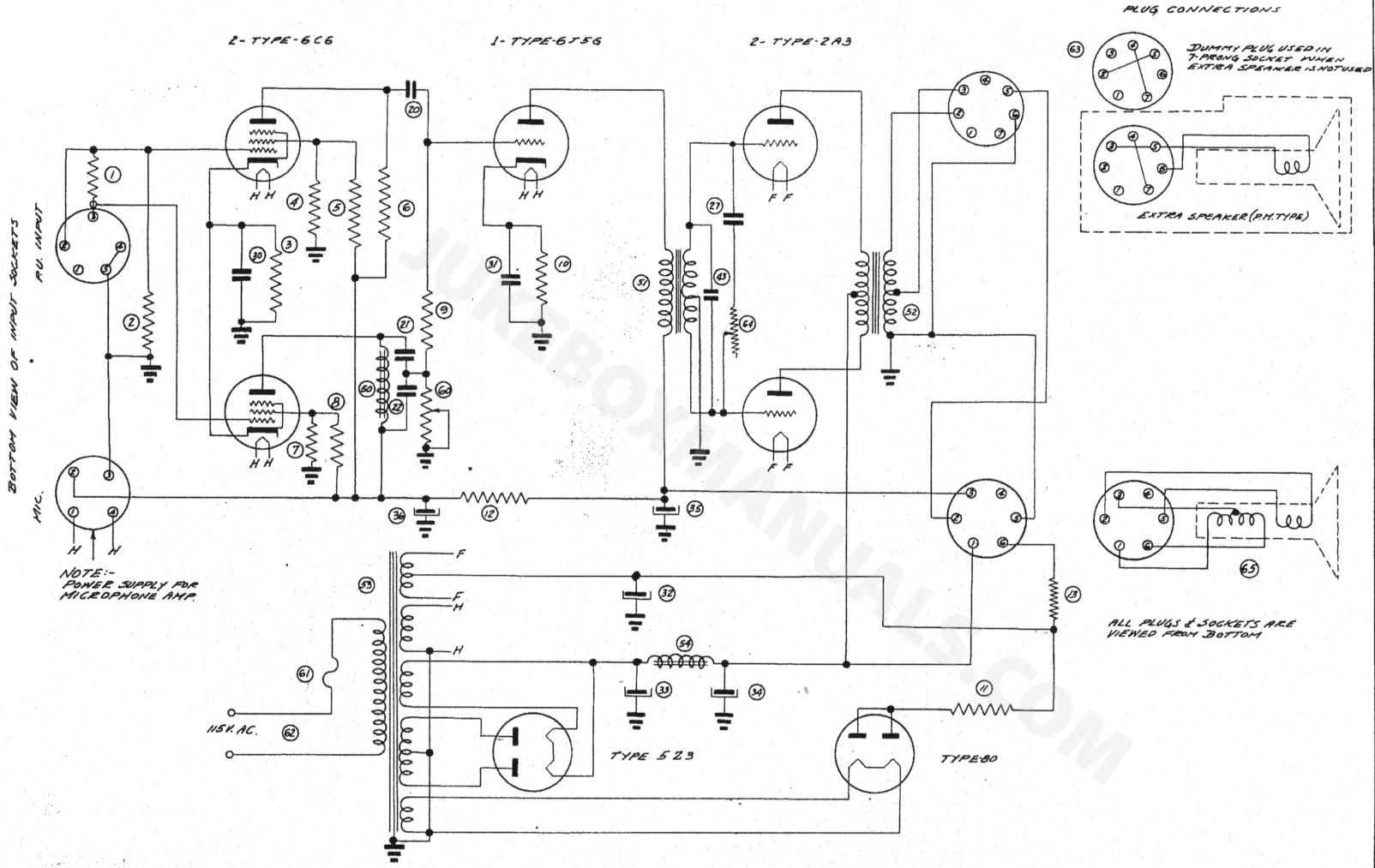
J. P. SEEBURG CORP.
CHICAGO ILL.

DR. C.F.N. 12-8-38
CHKD George Bock
APPVD.

PART NAME: SCHEMATIC DIAGRAM - 725-12 AMP.

PART NO. 50088

ISSUE	REVISIONS	MEMO
1	RELEASED FOR PRODUCTION 12-19-38	937
2	ITEM 27 WAS 86092	980
3	ITEM 43 WAS 85008	505



FIXED RESISTORS

ITEM	PART No.	DESCRIPTION
1	82902	1200 Ω ½ W 5%
2	82903	3900 Ω ½ W 5%
3	82480	2000 Ω ½ W 10%
4	82476	30 M ½ W 10%
5	82479	100 M ½ W 10%
6	82454	330 M ½ W 10%
7	82476	30 M ½ W 10%
8	82479	100 M ½ W 10%
9	82242	33 M ½ W 10%
10	82424	1000 Ω ½ W 10%
11	81003	200 Ω W.W. 2.5 W.

PAPER CONDENSERS

ITEM	PART No.	DESCRIPTION
20	86014	.002 MFD. 600 V. 20%
21	86029	.02 600 V. 10%
22	86028	.04 600 V. 10%
23		
24		
25		
26		
27	86031	.02 400 V. 10%

FIXED RESISTORS (CONT)

ITEM	PART No.	DESCRIPTION
12	82046	4700 Ω ½ W. 20%
13	81003	1400 Ω W.W. 17.5 W.

ELECT. CONDENSERS

ITEM	PART No.	DESCRIPTION
30	87512	20-20 MFD. DRY DUAL 25 V.
31		
32	87513	12 DRY 150 V.
33	87001	16 WET 475 V.
34	87002	8 WET 475 V.
35	87001	16 WET 475 V.
36	87514	16 DRY 350 W.V.

IRON CORE COILS

ITEM	PART No.	DESCRIPTION
50	10402	TONE CHOKE
51	10711	INPUT TRANS.
52	10272	OUTPUT TRANS.
53	10710	POWER TRANS.
54	10036	FILTER CHOKE

MICA CONDENSERS

ITEM	PART No.	DESCRIPTION
40		
41		
42		
43	85009	.001 20%

MISCELLANEOUS

ITEM	PART No.	DESCRIPTION
60	10039	BASS CONTROL
61	10689	FUSE ASSEMBLY
62	10041	LINE CORD & PLUG ASSEMBLY
63	10029	DUMMY PLUG ASSEMBLY
64	10688	TREBLE CONTROL
65	F-8024	SPEAKER

USED ON

J. P. SEEBURG CORP. CHICAGO, ILL.

DR. C.F.N. 12-13-38

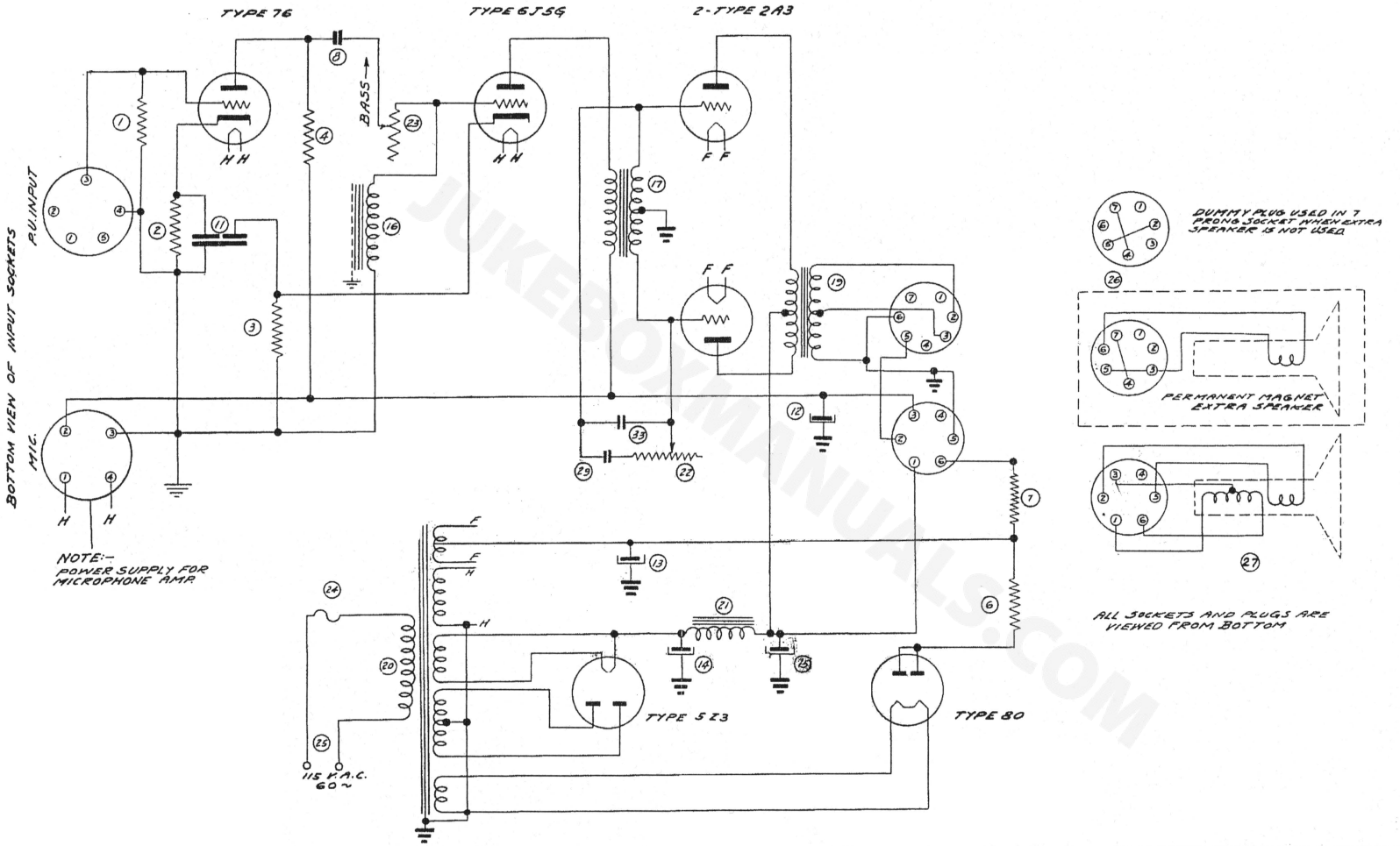
CHKD George Parch

APPVD

SCHEMATIC DIAGRAM-625-12 AMP.

PART NO. 50087

ISSUE	REVISIONS	MFR.
1	RELEASED FOR PRODUCTION 12-19-38	437
2	ITEM 29 WAS 86042	480
3	ITEM 33 WAS 85008	505



FIXED RESISTORS

ITEM	PART	DESCRIPTION
1	82479	100 M OHMS ½ WATT ± 10%
2	82429	2700 - ½ - ± 10%
3	82477	1200 - ½ - ± 10%
4	82479	100 M - ½ - ± 10%
5	82501	250 M - ½ - ± 10%
6	81003	200 - 10 - ± 10%
7		1400 - 17½ - ± 10%

PAPER CONDENSERS

ITEM	PART	DESCRIPTION
8	86005	.015 MFD 600 V ± 10%

PAPER CONDENSER

ITEM	PART	DESCRIPTION
29	86005	.015 600 V. ± 10 %

ELECT. CONDENSERS

11	87512	DUAL 20 MFD 25 V. DRY
12	87001	16 MFD 475 V. WET
13	87513	12 MFD 100 V. DRY
14	87001	16 MFD 475 V. WET
15	87002	8 MFD 475 V. WET

IRON CORE COILS

ITEM	PART	DESCRIPTION
16	10402	TONE CHOKE ASSEMBLY
17	10711	INPUT TRANSFORMER ASSY.
19	10272	OUTPUT TRANSFORMER ASSY.
20	10710	POWER TRANSFORMER
21	10736	FILTER CHOKE

MISCELLANEOUS

ITEM	PART	DESCRIPTION
22	10688	TREBLE CONTROL
23	10687	BASS CONTROL
24	10689	FUSE ASSEMBLY
25	10041	LINE CORD & PLUG ASSEMBLY
26	10029	DUMMY PLUG ASSEMBLY
27	F7018	SPEAKER

MICA CONDENSERS

ITEM	PART	DESCRIPTION
33	85005	.001 MFD. 20%

USED ON

J. P. SEEBURG CORP. CHICAGO ILL.

DR. - C.F.W. 12-5-38
CHKD- George Book
APPVD-