

MR. F.



# **G.B. TAPE RECORDER TYPE 732**

**Technical Information  
Spare Parts Lists & Illustrations**



# **TYPE 732 TAPE RECORDER**

**TECHNICAL INFORMATION  
SPARE PARTS LISTS  
& ILLUSTRATIONS**

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# Introduction

This manual has been prepared to aid the Service Agent in the repairs and adjustments of the Type 732 Tape Recorder. Due to the simple mechanical design of this recorder, no attempt has been made to explain the disassembly or re-assembly in a step by step procedure. Before commencing to repair one of these recorders, the Service Agent should thoroughly familiarize himself with the manner in which the recorder has been assembled and the function each part is called upon to perform.

The quality of service work performed will depend upon the ability, ingenuity and personal care of the individual Service Agent. As parts are removed, place them in a clean tray or on a clean cloth to prevent accidental loss or damage. Attaching parts (such as screws, nuts etc.) should be loosely assembled to the parts which they attach or temporarily reinstalled into the tapped holes from which they are removed. Above all, choose your tools to fit each task. In other words, use a screwdriver with a blade which exactly fits each screw slot. Remove hexagon nuts with an appropriate wrench rather than a pair of pliers.



# General Information

The G.B. Tape Recorder is a high quality instrument designed to record two separate sound tracks on standard  $\frac{1}{4}$ " magnetic tape. It has two input sockets, one for a high impedance low level input marked "Microphone". The other socket is for a high level input and is marked "Radio". It may be fed from such sources as the output of a radio set. The two inputs can be fed with two separate signals which will be simultaneously recorded.

Two tape speeds are provided,  $7\frac{1}{2}$ " per second and  $3\frac{3}{4}$ " per second. At  $7\frac{1}{2}$ " per second, the total playing time of one hour is available on a standard 7" diameter reel, (half an hour in each direction). At this speed, the quality of reproduction of speech and music is extremely good. At the lower tape speed, the quality of reproduction is not quite so good, but a 7" reel will provide a total of two hours' playing time.

The Magnetic Head Assembly is a self-contained pre-aligned unit accurately dowelled to facilitate servicing. It contains both the erase and record/play heads. The erasure of old recordings takes place automatically when recording.

The Recorder contains a 6" Loudspeaker located on the left hand side of the cabinet. To obtain high quality and power output the recorder is capable of giving, a high quality external speaker should be used.

## TECHNICAL SPECIFICATION FOR TYPE 732.

### SUPPLY VOLTAGE.

Standard model-200 to 250v A.C. 50 c.p.s.  
(Special model is available which will also work with mains 110 to 130v and is approximately 1 lb heavier than the standard model).

### POWER CONSUMPTION.

Amplifier alone 60 watts. With motor running 120 watts, approx.

|  |  |
|--|--|
| <b>RECORDING MEDIUM.</b>                                   | ¼" plastic coated tape of the magnetically hard or high coercivity type.                     |
| <b>NUMBER OF TRACKS.</b>                                   | 2. Direction left to right records upper track.  |
| <b>OPERATING TAPE SPEEDS.</b>                              | 7½" per second and 3¾" per second.   |
| <b>PLAYING TIME PER TRACK.</b>                             | 1200 ft. reel 32 minutes at 7½" per second.<br>64 minutes at 3¾" per second.                 |
| <b>REWIND TIME</b>   | 2 minutes maximum.   |
| <b>FREQUENCY RESPONSE.</b><br>(TONE CONTROL MAXIMUM BASS). | 50-5,000 c.p.s. at 3¾" per )<br>second. ) ± 3db.<br>50-10,000 c.p.s. at 7½" per )<br>second. |
| <b>"WOW" AND "FLUTTER".</b>                                | 0.25% maximum  |
| <b>ERASE AND BIAS FREQUENCY.</b>                           | 50 kc/s.   |
| <b>MINIMUM INPUT LEVELS FOR FULL MODULATED RECORDING.</b>  |  |
| <b>"MICROPHONE".</b>                                       | 1½ mv. Maximum impedance 1 meg-ohm.  |
| <b>"RADIO".</b>  | 0.1v. Maximum impedance 700-ohms.  |
| <b>OUTPUT POWER.</b>                                       | 12 watts on 15-ohms for external speakers.<br>4 watts on 6" internal speaker.                |
| <b>SIGNAL TO NOISE RATIO (WEIGHTED).</b>                   | 50 db.   |
| <b>OVERALL DIMENSIONS.</b>                                 | 15¼" x 12½" x 11¼" high.   |
| <b>WEIGHT.</b>   | 44 lbs. complete with microphone and spool of tape.  |



**CONTROLS**

Single knob function control, volume and tone controls.

**VOLUME INDICATOR.**

Magic eye peak recording level indicator.

**STOWAGE.**

Space for microphone, mains lead and two spare spools.

**LUBRICATION.**

The bearings used in the recorder are of the self lubricating type, and they should not need attention very often. Occasionally oil has to be applied and full lubricating instructions are contained in the Instruction Book Pages 17 and 18.

**FUNCTIONS OF MECHANISM**

The recorder has a single motor drive and is belt driven to each spool shaft with a friction drive to the capstan. The motor always rotates in the same direction (counter clockwise). The spool shafts are contra-rotating, and each spool shaft assembly contains two clutches. The light felt faced clutch serves for the take-up and take-off duty in the record/play position and the heavier corked faced clutch for the take-up duty in the fast rewind and forward positions.

**RECORD/PLAY POSITION**

The pressure roller engages on the capstan which is a constant drive, the clutch plates on each spool shaft drop away from the cork facing, allowing the felt facing contained in the pulley to operate on the clutch plate. The right hand felt clutch performs the take-up duty and the left hand clutch provides an opposing take-off tension to keep the tape from being driven out between the capstans and pressure roller, and to reduce flutter.

**NOTE:**

The left hand take-off pulley is running in the opposite direction to the spool shaft.



## **STOP POSITION**

In this position, both the left and right hand clutch plates engage on the cork facings and provide an almost positive drive to the motor. This acts as a brake to the spools through the inertia of the system. In this position, the amplifier can be used as a P.A. system. It is not desirable to use the recorder for P.A. work at the same time as recording since the same circuit feeds the loudspeaker and recording head, and the loudspeaker power is therefore reduced.

## **REWIND POSITION**

The left hand cork faced clutch remains engaged, this then becomes the positive drive. The right hand clutch plate drops away from the cork facing (as in the Record/Play position) and provides an opposing take-off tension to the tape to ensure that the tape winds on to the spool tightly.

## **FORWARD POSITION**

The right hand cork faced clutch remains engaged, this then becomes the positive drive. The left hand clutch plate then drops away from the cork facing (as in Record/Play position) and provides an opposing take-off tension to the tape to ensure that the tape winds on to the spool tightly.

There is of course a relationship between the various driving torques, tape tensions and the capstan drive. The following are the recommended figures.

|              |  |
|--------------|--|
| Light Clutch | 0.63 oz ins + 0.62 oz ins (Low 18 grm ins.)<br>- 0 oz ins (High 30 grm ins.) |
|--------------|--|

|              |                                  |
|--------------|----------------------------------|
| Heavy Clutch | 21 oz ins minimum (600 grm ins). |
|--------------|----------------------------------|

Capstan Load (on 5/32" dia). 2¼ lbs. minimum (1245 grms).

## **GENERAL**

Care should be taken during disassembly of the mechanism to avoid damage or loss of the parts removed. When dismantling, the clutch assemblies (Key

No's 11 to 19 Fig. 4), the three small compression springs (17) should be carefully removed from the pulley (16)

Before reassembling the mechanism, make certain that the periphery of the flywheel (22) and the intermediate drive wheel (50) are clean and free of oil. Dirt which may accumulate on these surfaces will cause rattle etc. The presence of oil on the driving mechanism may result in speed variation due to slipping drive. Similar precautions should be taken with the rubber drive belts and associated pulleys.



# Cleaning

## **MECHANISM PARTS**

All mechanism parts should be cleaned with carbon tetrachloride to remove old grease and lubricating oil. Dry thoroughly. The most ideal method of drying is with compressed air. However, this method is highly impractical in many instances. Therefore dry with a clean cloth as much as possible and then allow parts to dry thoroughly in the air.

## **HEAD ASSEMBLY**

Both the record and erase heads, should be cleaned thoroughly. This can be accomplished readily by using a matchstick wrapped in a lint free piece of cloth, preferably linen.

## **CAUTION**

Only alcohol should be used as a cleaning agent.

Do not flood the heads with alcohol; moisten only enough to remove foreign materials.

# Procedure for Setting and Adjusting Clutch

Check that the clutch plates and felt facings are clean and free of dirt, swarf etc. Then turn the control knob to the Record/Play position. Place a .025" minimum spacer between the clutch plate and cork facing and adjust the allen grub screw until it just touches the ball on the clutch plate. (The spacer should be an easy slide fit). The same procedure is carried out on both the clutches. Then turn the control knob to the "stop" position, and check that the cam follower pins on the curved arms are clear of the cam. If the pins touch the cam in the "off" position, the clutch plates will be held off from the cork facings and so cause excessive slip in the fast position and non-braking and probability of failure to drive. The clearance between the pins and the cam is really the limiting factor in the gap between the clutch plates and the cork facings. Check that the clutch torques are as previously stated.

## **LIGHT CLUTCH**

It is possible that the light clutch readings will be higher than the top limit. If this is so, run the clutch for about ½ hour and re-check. By this time the felts should have bedded down correctly and give the correct reading.

### **NOTE:**

There is no adjustment to either felt clutches. The spring rate is so low, that a change in spring force due to the clutch faces wearing is negligible.

## **CAPSTAN LOAD**

On the smaller diameter capstan (5/32") if the force due to the pressure roller is less than 2¼ lbs, this could cause the slipping of tape on the capstan drive. The recommended method of checking this is with a spring balance. Loop a piece of string around the rubber roller spindle, and pull off with the spring



balance until the roller is just free to turn.

*NOTE:*

The increase in slip experienced in the "slow speed" position is due to a decreased load on the capstan caused by the spring not being deflected so far as in the "fast forward" position. The reduced area of the contact on the smaller capstan has no significant effect on slip.



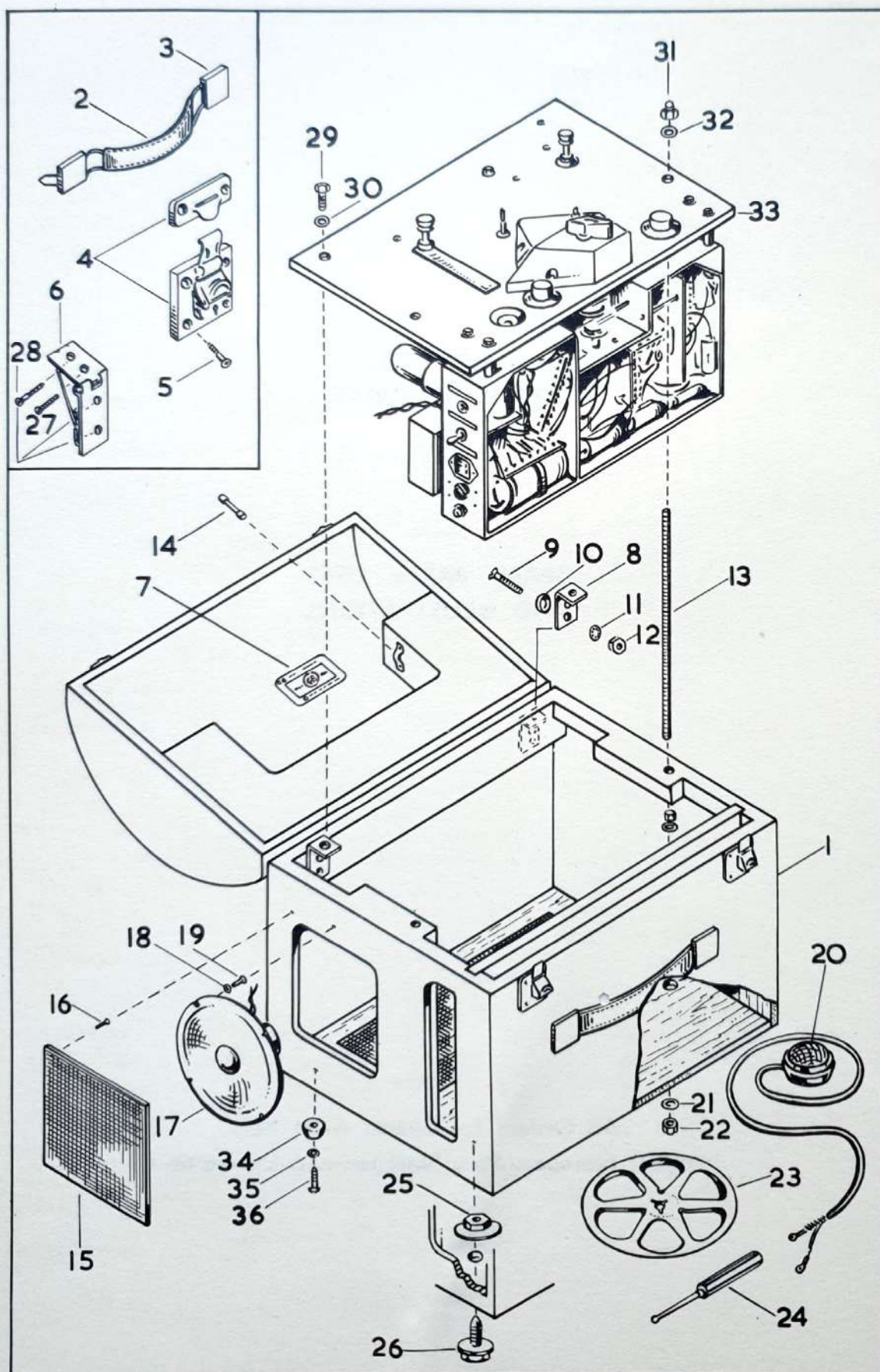
**TYPE 732  
TAPE RECORDER**

**SPARE PARTS LISTS  
AND ILLUSTRATIONS**

**All Orders for Spares must bear  
Model Number, Part Number and Description.**



FIG. 1



# TYPE 732 TAPE RECORDER

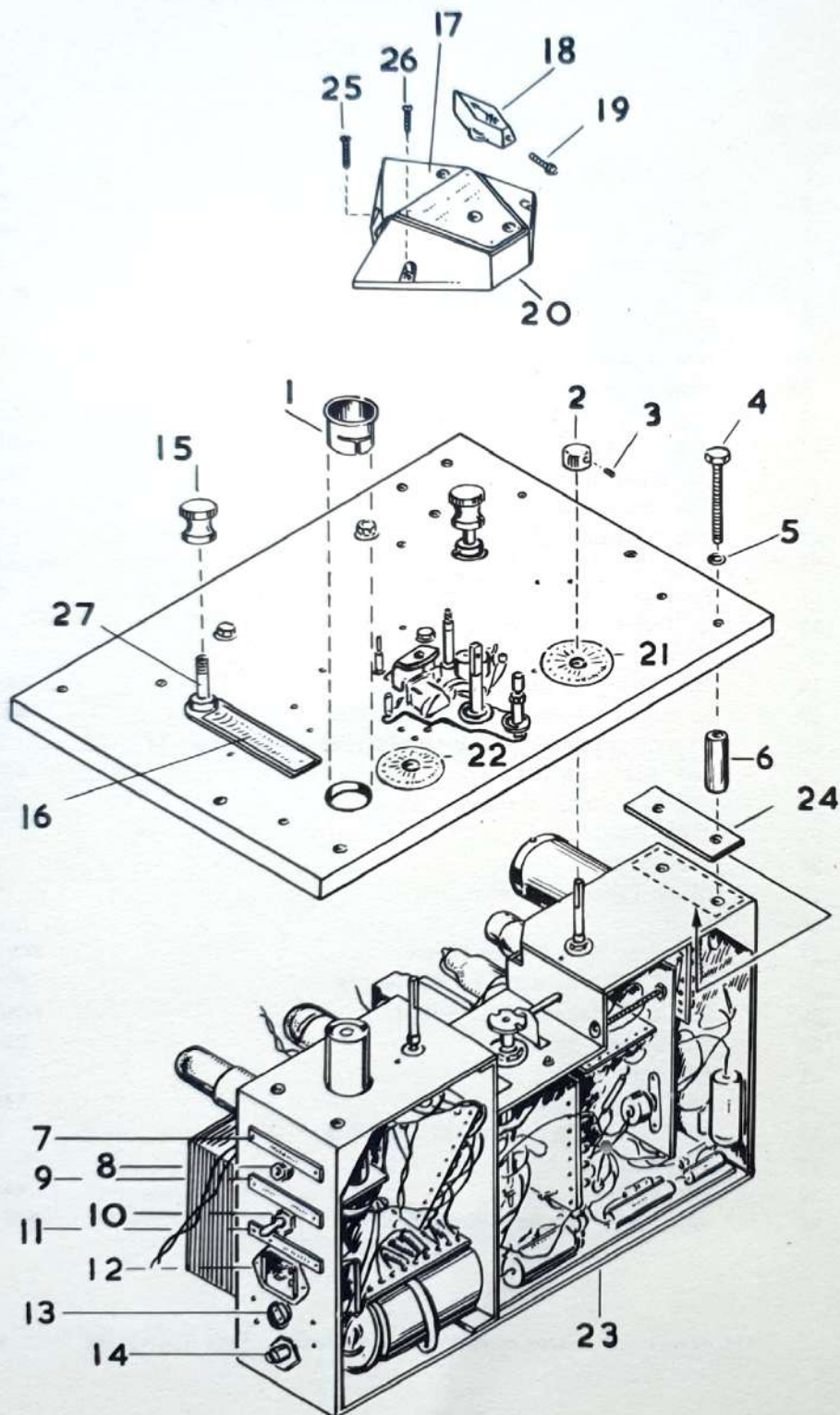
FIG-1

| Key No. | Description                                      | Part No.   |
|---------|--|------------|
| 1       | Case Assembly                                    | 732096     |
| 2       | Handle   | BHS30M     |
| 3       | Handle Box                                       | 204201B    |
| 4       | Case Lock  | 203205     |
| 5       | No. 4 x ½ CSK Wood Screw                         | WSP3/127   |
| 6       | Hinge  | HWS3       |
| 7       | Name Plate                                       | 732302     |
| 8       | Support Bracket                                  | 732419     |
| 9       | 2BA x 1¼" Screw CSK Head                         | SCR3/121   |
| 10      | 2BA Cup Washer                                   | WAT3/601   |
| 11      | 2BA Shakeproof Washer                            | WAS9/508   |
| 12      | 2BA Hexagon Nut                                  | NUT2/3     |
| 13      | OBA Studing                                      | 732346     |
| 14      | Fuse 1.5 Amp                                     | FCL562/1.5 |
| 15      | Speaker Grille                                   | 732433     |
| 16      | ¼" Tack  |            |
| 17      | Speaker  | 92027      |
| 18      | 2BA Washer, Plain                                | WAS3/403   |
| 19      | Wood Screw No. 7 x ½" Round Head                 | WS9/2255   |
| 20      | Microphone and Lead Assembly (including Item 24) | 732113     |
| 21      | OBA Plain Washer                                 | WAS3/401   |
| 22      | OBA Half Nut, Hexagon                            | NUT3/41    |
| 23      | 1200' Reel                                       | 732249     |
| 24      | Jack Plug  | M50766     |
| 25      | Clamp Plate Assembly                             | 732423     |
| 26      | Stud   | 732422     |
| 27      | 4BA x ½" Round Head Screw                        | SCR3/2073  |
| 28      | No. 7 x ½" Round Head Woodscrew                  | WS9/2255   |
| 29      | 2BA x ½" Heagon Head Screw                       | SCR3/3072  |
| 30      | 2BA Chrome Washer                                | WAS9/508   |
| 31      | OBA Dome Nut                                     | DNS3/0     |
| 32      | OBA Chrome Washer                                | WAS3/401   |
| 33      | Top Plate and Amplifier Assembly                 | 732208     |
| 34      | Rubber Foot                                      | FRC%       |
| 35      | 4BA Washer                                       | WAS3/405   |
| 36      | No. 4 x ½ Round Head Woodscrew                   | WSP3/2155  |

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FIG. 2



## TYPE 732 TAPE RECORDER

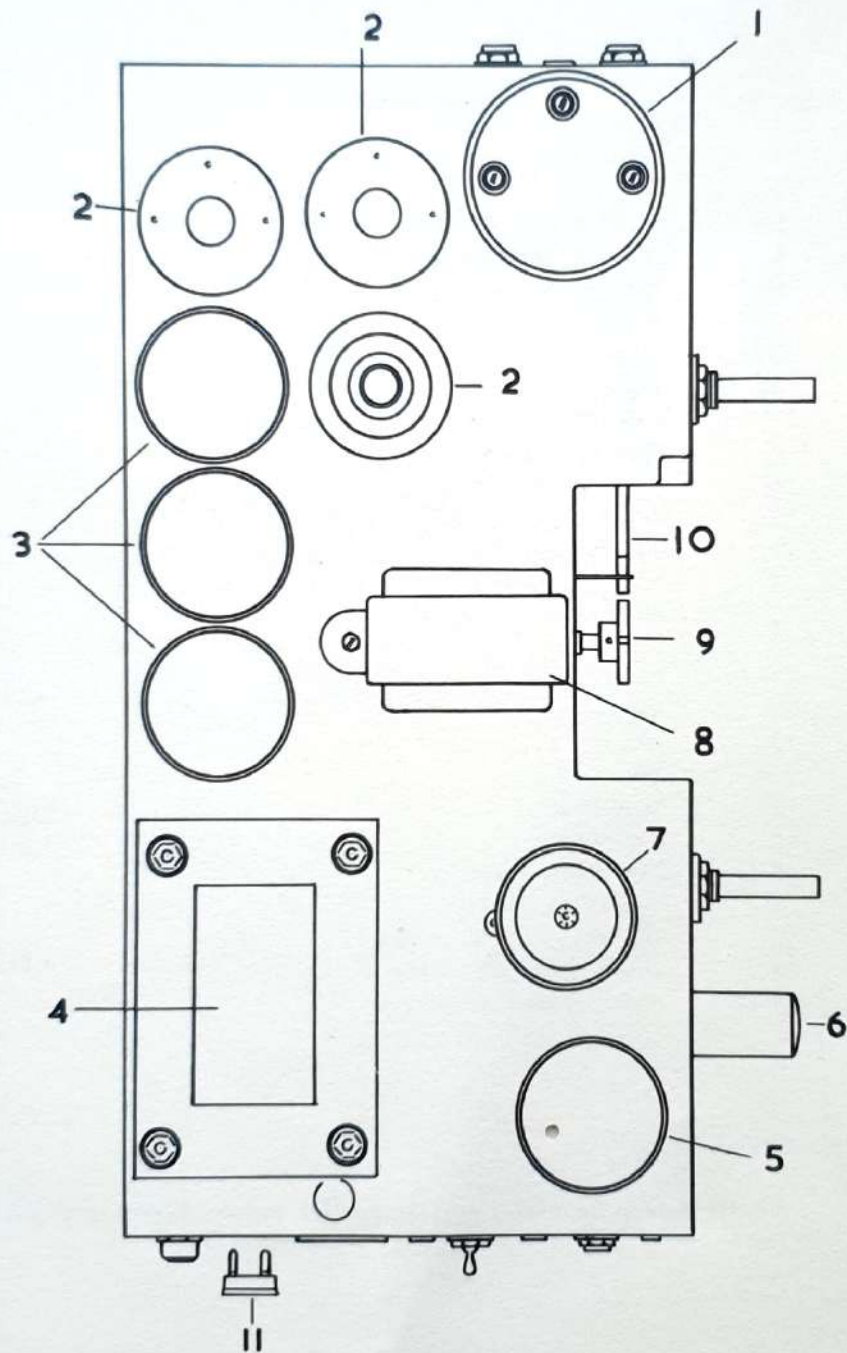
FIG-2

| Key No. | Description                  | Part No.  |
|---------|------------------------------|-----------|
| 1       | Bezel                        | 732286    |
| 2       | Knob                         | 732288    |
| 3       | No.00 x 3/16 Pk. Drive Screw | S2990002  |
| 4       | 2BA x 1½ HexagonScrew        | SCP3/3135 |
| 5       | 2BA Chrome Washer            | WAS3/403  |
| 6       | Spacer                       | 732401    |
| 7       | Name Plate                   | 732301    |
| 8       | Input Jack                   | 732281    |
| 9       | Name Plate                   | 732297    |
| 10      | Speaker Switch               | 13813R    |
| 11      | Name Plate                   | 732300    |
| 12      | Mains Input Socket           | 202028    |
| 13      | Voltage Selector             | 75/880    |
| 14      | Fuse Holder                  | L575      |
| 15      | Spool Knob                   | 732090    |
| 16      | Scale                        | 732299    |
| 17      | Cover, Heads                 | 732111    |
| 18      | Knob                         | 732287    |
| 19      | Screw ½ x 1/8 Cheese Hd.     | SSP16     |
| 20      | Cover                        | 732110    |
| 21      | Name Plate                   | 732304    |
| 22      | Name Plate                   | 732303    |
| 23      | Amplifier Assembly           | 732156    |
| 24      | Retaining Plate              | 732400    |
| 25      | 4BA x 1" Rd. Hd. Screw       | SCR3/2108 |
| 26      | 4BA x ½ Rd. Hd. Screw        | SCR3/2073 |
| 27      | Spool Spigot Assembly        | 732014    |

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FIG. 3



## TYPE 732 TAPE RECORDER

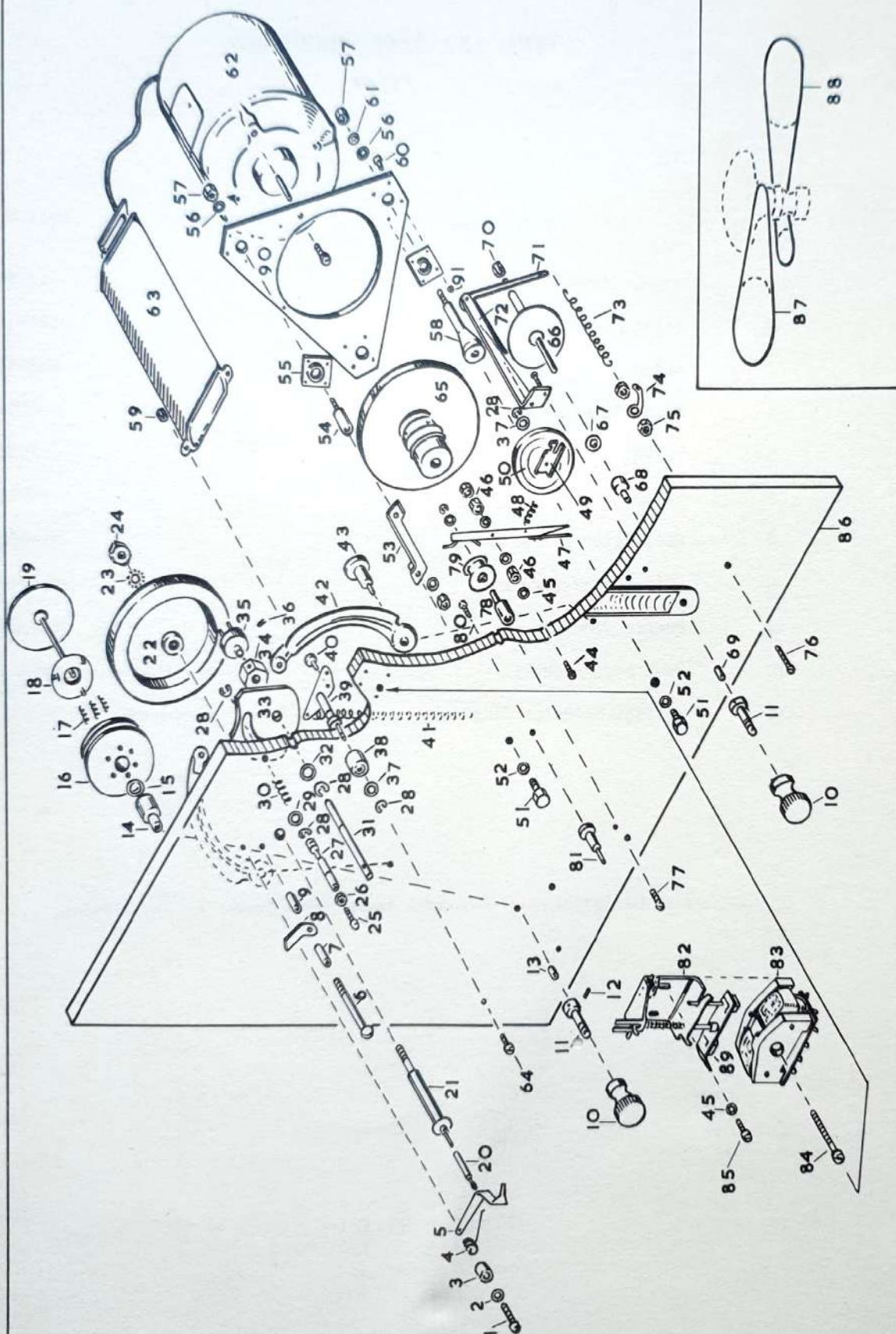
FIG-3

| Key No. | Description            | Part No. |
|---------|------------------------|----------|
| 1       | Input Transformer      | 819000   |
| 2       | Valve                  | VEF37A   |
| 3       | Valve                  | V6V6GT   |
| 4       | Mains Transformer      | 844000   |
| 5       | Valve                  | V5Z4     |
| 6       | Valve                  | VEM34    |
| 7       | Oscillator Transformer | 818000   |
| 8       | Output Transformer     | 732237   |
| 9       | Female Coupling        | 732108   |
| 10      | Push Rod Assembly      | 732255   |
| 11      | Voltage Selector Plug  | 75/883   |

All orders for Spares must bear Model Number, Part Number and Description.



FIG. 4





# TYPE 732 TAPE RECORDER

FIG-4

| Key No. | Description                                | Part No.   | Key No. | Description                            | Part No.   |
|---------|--|------------|---------|--|------------|
| 1       | Screw, 6BA 1/2" Ch Head.                   | SCR2/1074  | 46      | Nut 6BA                                | NUT2/7     |
| 2       | Washer                                     | 732273     | 47      | Release Arm Assembly                   | 732415     |
| 3       | Bush                                       | 732270     | 48      | Spring Idler Wheel                     | 732166     |
| 4       | Lever Spring                               | 732269     | 49      | Bearing Plate Assembly                 | 732365     |
| 5       | Lever                                      | 732267     | 50      | Intermediate Wheel Assembly            | 732404     |
| 6       | Special Screw                              | 732236     | 51      | OBA x 3/4" Hexagon Head Screw          | SCR3/3092  |
| 7       | Guide Post                                 | 732330     | 52      | OBA Washer                             | WAS3/401   |
| 8       | Guide Finger                               | 732080     | 53      | Bracket Assembly                       | 732058     |
| 9       | Spacer                                     | 732331     | 54      | Spacer                                 | 732370     |
| 10      | Spool Knob                                 | 732090     | 55      | Mounting                               | CMM17/393  |
| 11      | Spool Spigot                               | 732014     | 56      | 2BA Plain Washer                       | WAS2/403   |
| 12      | 6BA x 3/16 Allen Screw                     | CRV2       | 57      | 2BA Nut                                | NUT2/3     |
| 13      | Oilite Bush                                | BCT171x3/8 | 58      | Pillar                                 | 732420     |
| 14      | Liner                                      | 732025     | 59      | 4BA Nut                                | NUT2/5     |
| 15      | Shim                                       | 732355     | 60      | 4BA x 3/8 Ch Hd Screw                  | SCR2/1059  |
| 16      | Pulley                                     | 732087     | 61      | Washer                                 | WAS508     |
| 17      | Springs                                    | 732394     | 62      | Motor                                  | 732290     |
| 18      | Light Clutch Assembly                      | 732013     | 63      | Condenser Assembly                     | 732436     |
| 19      | Clutch Plate and Spingle Assembly R.H.     | 732398     | 64      | 4BA x 7/16 Inst. Hd Screw              | SCR3/4066  |
| 20      | Capstan Sleeve Assembly                    | 732280     | 65      | Motor Pulley                           | 732250     |
| 21      | Capstan                                    | 732030     | 66      | Clutch Plate and Spindle Assembly L.H. | 732397     |
| 22      | Flywheel                                   | 732257     | 67      | Steel Bush                             | 732396     |
| 23      | OBA External Washer                        | WAS2/577   | 68      | Liner                                  | 732026     |
| 24      | OBA Hexagon Nut                            | NUT2/1     | 69      | Oilite Bush                            | BCT171x3/8 |
| 25      | Stop Pin Head                              | 732334     | 70      | 2BA Nut                                | NUT3       |
| 26      | 4BA Lock Nut                               | NUT2/45    | 71      | Clutch Lever                           | 732040     |
| 27      | Stop Pin                                   | 732292     | 72      | Bracket                                | 732008     |
| 28      | Circlip                                    | 83404      | 73      | Spring (heavy clutch)                  | 732358     |
| 29      | OBA Washer                                 | WAS2/412   | 74      | Tag                                    | TIG5121    |
| 30      | Stop Spring                                | 732293     | 75      | 2BA Lock Nut                           | NUT2/43    |
| 31      | Cam Assembly including Items 33, 34 and 36 | 732093     | 76      | 2BA x 3/4" Ins. Hd. Screw              | SCR3/4093  |
| 32      | Washer                                     | 732053     | 77      | 2BA x 1/2 " " "                        | SCR3/4072  |
| 33      | Cam (Part of Item 31)                      |            | 78      | Stud                                   | 732049     |
| 34      | Nut ( " " " " )                            |            | 79      | Pulley Assembly                        | 732050     |
| 35      | Male Coupling                              | 732015     | 80      | 4BA x 1/2 Csk. Hd. Screw               | SCR2/72    |
| 36      | Spring Pin                                 | PIN2.5/16  | 81      | Sleeve Post                            | 732285     |
| 37      | Washer                                     | 732053     | 82      | Carriage Assembly                      | 732258     |
| 38      | Roller and Tyre Assembly                   | 732065     | 83      | Heads and Mounting Assembly            | 732146     |
| 39      | Roller Plate Assembly                      | 732064     | 84      | 4BA x 1 1/4 Ch. Hd Screw               | SCR3/1622  |
| 40      | Pivot Pin                                  | 732078     | 85      | 6BA x 3/8 Ch. Hd Screw                 | SCR2/1060  |
| 41      | Spring Pressure Roller                     | 732167     | 86      | Top Plate                              | 732374     |
| 42      | Cam Arm Assembly                           | 732084     | 87      | Belt                                   | 732393     |
| 43      | Pivot Pin                                  | 732083     | 88      | Belt                                   | 732430     |
| 44      | Screw 6BA x 5/8 csk. hd.                   | SCR2/88    | 89      | Felt Pad                               | 732076     |
| 45      | Washer 6BA                                 | WAS2/447   | 90      | Adaptor Plate                          | 732361     |
|         |  |            | 91      | 4BA Nut                                | NUOH4      |

All order for Spares must bear Model Number, Part Number and Description.



# TYPE 732 TAPE RECORDER

FIG-5

| Circuit<br>Ref. | Description                        | Part No. |
|-----------------|------------------------------------|----------|
| R3              | Resistor 10,000 ohm $\pm$ 20%      | REW8103  |
| R4              | " 22,000 ohm $\pm$ 20%             | REW8223  |
| R5              | " 220,000 ohm $\pm$ 5%             | REY8224  |
| R6              | " 270,000 ohm $\pm$ 5%             | REY2274  |
| R7              | " 1 meg. ohm $\pm$ 20%             | REW8105  |
| R8              | " 2,700 ohm $\pm$ 20%              | REW8272  |
| R9              | Potentiometer 500,000 ohm $\pm$    | 732205   |
| R10             | Resistor 47,000 ohm $\pm$ 20%      | REW8473  |
| R11             | " 270,000 ohm $\pm$ 20%            | REW8274  |
| R12             | " 22,000 ohm $\pm$ 5%              | REY8223  |
| R13             | " 1,000 ohm $\pm$ 20%              | REW8102  |
| R14             | " 470 ohm $\pm$ 10%                | REX8471  |
| R15             | " 1,500 ohm $\pm$ 20%              | REW8152  |
| R16             | " 22,000 ohm $\pm$ 5%              | REY8223  |
| R17             | " 1 meg ohm $\pm$ 20%              | REW8105  |
| R18             | " 22,000 ohm $\pm$ 20%             | REW8223  |
| R19             | Potentiometer 10,000 ohm $\pm$ 15% | 732204   |
| R20             | Resistor 220,000 ohm $\pm$ 20%     | REW8224  |
| R21             | " 220,000 ohm $\pm$ 20%            | REW8224  |
| R22             | " 250 ohm $\pm$ 5%                 | REI3251  |
| R23             | " 1 meg ohm $\pm$ 20%              | REW8105  |
| R24             | " 1 meg ohm $\pm$ 20%              | REW8105  |
| R25             | " 10 meg ohm $\pm$ 20%             | REW8106  |
| R26             | " 3,000 ohm $\pm$ 20%              | REW8302  |
| R27             | " 1,500 ohm $\pm$ 10%              | REX2152  |
| R29             | " 47,000 ohm $\pm$ 10%             | REX2473  |
| R31             | " 470,000 ohm $\pm$ 20%            | REW8474  |
| R32             | " 1,500 ohm $\pm$ 10%              | REX8152  |
| R33             | " 4,700 ohm $\pm$ 10%              | REX8472  |
| R34             | " 10,000 ohm $\pm$ 20%             | REW8103  |
| R36             | " 1 meg ohm $\pm$ 20%              | REW8105  |
| R38             | " 220,000 ohm $\pm$ 20%            | REW8224  |
| R40             | " 4,700 ohm $\pm$ 10%              | REX8472  |
| R41             | " 680 ohm $\pm$ 10%                | REX8681  |
| R42             | " 16 ohm $\pm$ 10%                 | RWV6160  |
| R43             | " 22,000 ohm $\pm$ 10%             | REX8223  |
| R44             | " 22,000 ohm $\pm$ 10%             | REX8223  |
| R45             | " 4,700 ohm $\pm$ 20%              | REW8472  |
| R49             | " 3,300 ohm $\pm$ 20%              | REW8332  |
| R50             | " 220 ohm $\pm$ 20%                | REW8221  |
| R51             | " 100 ohm $\pm$ 20%                | REW8101  |
| R52             | " 2.2 meg ohm $\pm$ 20%            | REW8225  |
| R54             | " 10 ohm $\pm$ 20%                 | REW8100  |
| R55             | " 680 ohm $\pm$ 20%                | REW8681  |
| R56             | " 220 ohm $\pm$ 20%                | REW8221  |
| R57             | " 100 ohm $\pm$ 5%                 | 13982    |
| R58             | " 15,000 ohm $\pm$ 20%             | REW8153  |
| C1              | Capacitor 0.003 mfd                | CX2608   |
| C2              | " 25 mfd                           | CS1495   |
| C3              | " 0.005 mfd                        | CY0703   |
| C4              | " 0.01 mfd                         | CS2517   |

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# TYPE 732 TAPE RECORDER

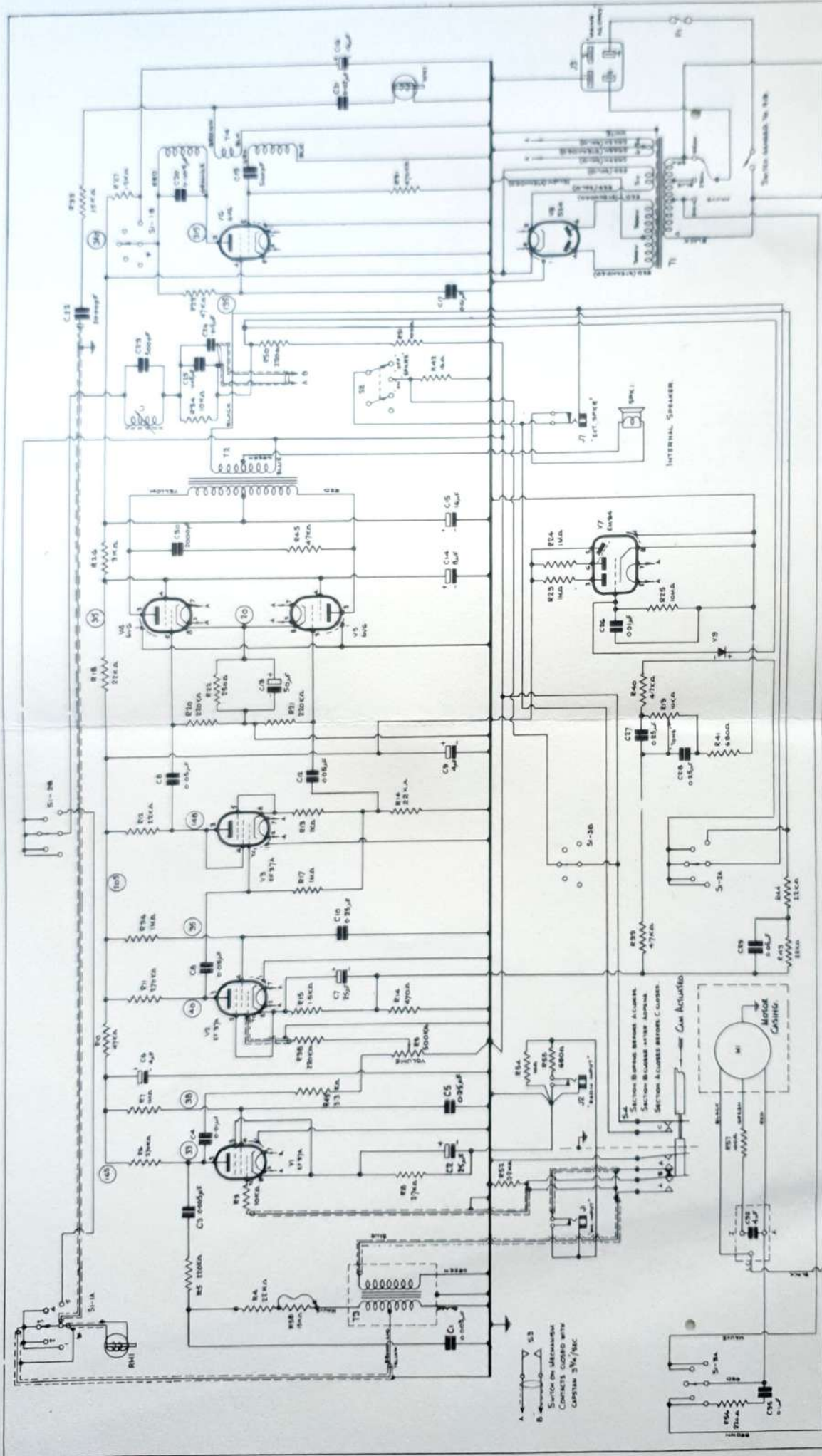
FIG-5 (Cont.)

| Circuit<br>Ref | Description | Part No.   |
|----------------|-------------|------------|
| C5             | " 0.25 mfd  | CS3204     |
| C6             | " 4 mfd     | CS1475     |
| C7             | " 25 mfd    | CS1456     |
| C8             | " 0.05 mfd  | CS3082     |
| C9             | " 4 mfd     | CS1475     |
| C10            | " 0.25 mfd  | CS3204     |
| C11            | " 0.05 mfd  | CS3082     |
| C12            | " 0.05 mfd  | CS3082     |
| C13            | " 50 mfd    | CS2485     |
| C14            | " 8 mfd     | 202073     |
| C15            | " 16 mfd    | 202073     |
| C16            | " 16 mfd    | 202073     |
| C17            | " 0.01 mfd  | CS3089/US  |
| C19            | " 500 pf    | CS2204     |
| C20            | " 0.005 mfd | CY0703     |
| C21            | " 0.02 mfd  | CS2855     |
| C22            | " 2000 pf   | CS3090/US  |
| C23            | " 500 pf    | CZ4058     |
| C25            | " 0.005 mfd | CX0703     |
| C26            | " 0.01 mfd  | CS3854/US  |
| C27            | " 0.25 mfd  | CS3204     |
| C28            | " 0.25 mfd  | CS32041    |
| C29            | " 0.05 mfd  | CS3082     |
| C30            | " 2000 pf   | CS1802     |
| C32            | " 4 mfd     | 732291     |
| C35            | " 0.1 mfd   | CS1822/US  |
| C36            | " 0.015 mfd | CX1279     |
| F1 Fuse        | 1.5 Amp     | FCL562/1.5 |
| J1 Socket      | Input       | 732281     |
| J2 Socket      | Input       | 732281     |
| J3 Socket      | Mains       | 202028     |
| J7 Socket      | Output      | 732281     |
| L1 Choke       | Stopper     | 767000     |
| M1 Motor       | 1/50 H.P.   | 732290     |
| RH1 Head       | Recording   | 732146     |
| S1 Switch      | Control     | 732203     |
| S2             | Speaker     | 13813R     |
| S3             | Set         | 732258     |
| S4             | Spring Set  | 732241     |
| SPK1 Speaker   | 6 inch.     | 92027      |
| T1 Transformer | Mains       | 844,000    |
| T2             | Output      | 732237     |
| T3             | Input       | 819,000    |
| T4             | Oscillator  | 818000     |
| V1 Valve       | EF37A       | VEF37A     |
| V2             | "           | VEF37A     |
| V3             | "           | VEF37A     |
| V4             | 6V6GT       | V6V6GT     |
| V5             | "           | V6V6GT     |
| V6             | "           | V6V6GT     |
| V7             | EM34        | VEM34      |
| V8             | 5Z4         | V5Z4       |
| V9 Rectifier   | St and C    | REM1       |
| WHI Head       | Erase       | 732146     |



FIG. 5

# TYPE 732 TAPE RECORDER AMPLIFIER CIRCUIT DIAGRAM



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