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# GAUMONT-KALEE

SOUND - RECORDING SYSTEM

T.B. 128.

GAUMONT  
RECORDING  
KALEE

OPERATING INSTRUCTIONS

FOR MAGNETIC HEAD ATTACHMENT.

TYPE 1737, 401.







SPECIAL INSTALLATION NOTE

When installing a G.K.37 Projector, which has been fitted with a Magnetic Head Attachment, it is important that any source of hum interference, such as arc rectifiers, single/phase converters, etc., should be installed at least 15-ft away from the Projector, in order to lessen the risk of hum interference.

(To be inserted in G.K.37 Manual - following Sheet G.K.37T/105b - when the Projector is fitted with a Magnetic Head Attachment.)



No.T.B.128 (Issue 1)

MAGNETIC HEAD ATTACHMENT

Part No.1737,400

KEY TO DIAGRAM

- A MAGNETIC HEAD POLE PIECE
- B OPERATING LEVER
- C RETURN SPRING
- X MOUNTING SCREW & PIVOT

ADJUSTMENTS

- D.E.F TANGENTIAL
- G.H PRESSURE
- J.K SURFACING
- L.M TRACKING
- N.O AZIMUTH
- P HUMBUCKING COIL CARRIER
- Q HUMBUCKING COIL CARRIER LOCK SCREW
- R HUMBUCKING COIL
- S HUMBUCKING COIL LOCK SCREW
- T.U HUMBUCKING COIL INDUCTANCE ADJUSTMENT



# I N S T R U C T I O N S .

## FOR SETTING

### MAGNETIC HEAD ATTACHMENT.

Part No.1737,400

There are five adjustments provided on this Magnetic Head Attachment, and in order to obtain optimum results it is essential that they should all be carefully set in accordance with the following detailed instructions:

#### PROCEDURE

- 1 Switch on the equipment, including the amplifier employed with it, and allow a few minutes for warming up.
- 2 Connect a sensitive valve voltmeter to the output terminals of the amplifier, if necessary connecting a 500 ohm resistance across those terminals as a "dummy" load.

#### HUMBUCKING COIL.

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- 3 For this adjustment, the motor should be running but with no film in the machine.

Loosen the Humbucking Coil Carrier Lock screw (Q) and the Humbucking coil Lock screw (S) with a 6 BA Allen key, so that these two parts are free to swivel about their pivots.

Vary their relative settings until the minimum hum reading is obtained on the valve voltmeter, and then lock them in their most favourable positions by tightening lock screws (Q & S).

Finally, adjust the humbucking coil inductance by loosening the 6 BA lock nut (U) and then turning the knurled head adjusting screw (T) in either direction until the best result is obtained on the valve voltmeter. Then tighten lock screw (U) taking care not to alter the setting of knurled head screw (T)



The remaining five settings, viz, Tracking, Pressure, Surfacing, Tangential and Azimuth, are so closely inter related that a certain amount of cross-checking is necessary, and it is recommended that the following sequence of adjustments be followed:

Lace the machine with a loop of azimuth test film, such as the Gaumont-Kaleo Azimuth Test Film (Magnetic 35 m/m 200 mil track) Catalogue No. ML.30.

Switch on the motor and move the Magnetic Head Attachment into the operative position by means of the Operating Lever (B) which will lift the head into contact with the film. (See Para. 5 re regulating pressure)

#### PRELIMINARY MECHANICAL ADJUSTMENTS.

##### (4) TRACKING.

Loosen the centre Lock Screw (M) and make an approximate adjustment of tracking position by rotating the calibrated dial (L) until the Pole Piece (A) of the magnetic head lies inside the back row of sprocket holes by about 1/8" Tighten Lock Screw (M) slightly, taking care not to alter the setting of Dial (L)

##### (5) PRESSURE

The degree of pressure exerted by the magnetic head on the film should now be adjusted, so that the pole piece of the head makes good contact with the film, by means of the two 4 BA Socket Head Cap Screws (G) & (H) which can afterwards be locked by their respective lock nuts.

#### NOTE.

The Return Spring (C) will retract the head into the non-operative position when the Operating Lever (B) is returned to its original position.

##### (6) SURFACING.

Loosen the two 6 BA Grub Screws (J) & (K) with an Allen key, and then swivel the head assembly until the film makes full and even contact across the full width of the Pole Piece (A)



(6) SURFACING. Continued.

Tighten the Grub Screws (J) & (K) to hold the head firmly in its determined setting.

The following adjustments can now be made, each with the object of achieving the optimum reading on the valve meter.

(7) TANGENTIAL.

Loosen the 8 BA Lock Nut (F) and then adjust the setting of the magnetic head by means of the two opposing 6 BA Socket Head Grub Screws (E) & (D) in order to bring the magnetic gap in the Pole Piece into correct alignment with the film track passing over its face. The correct setting will be shown by the optimum reading on the valve voltmeter.

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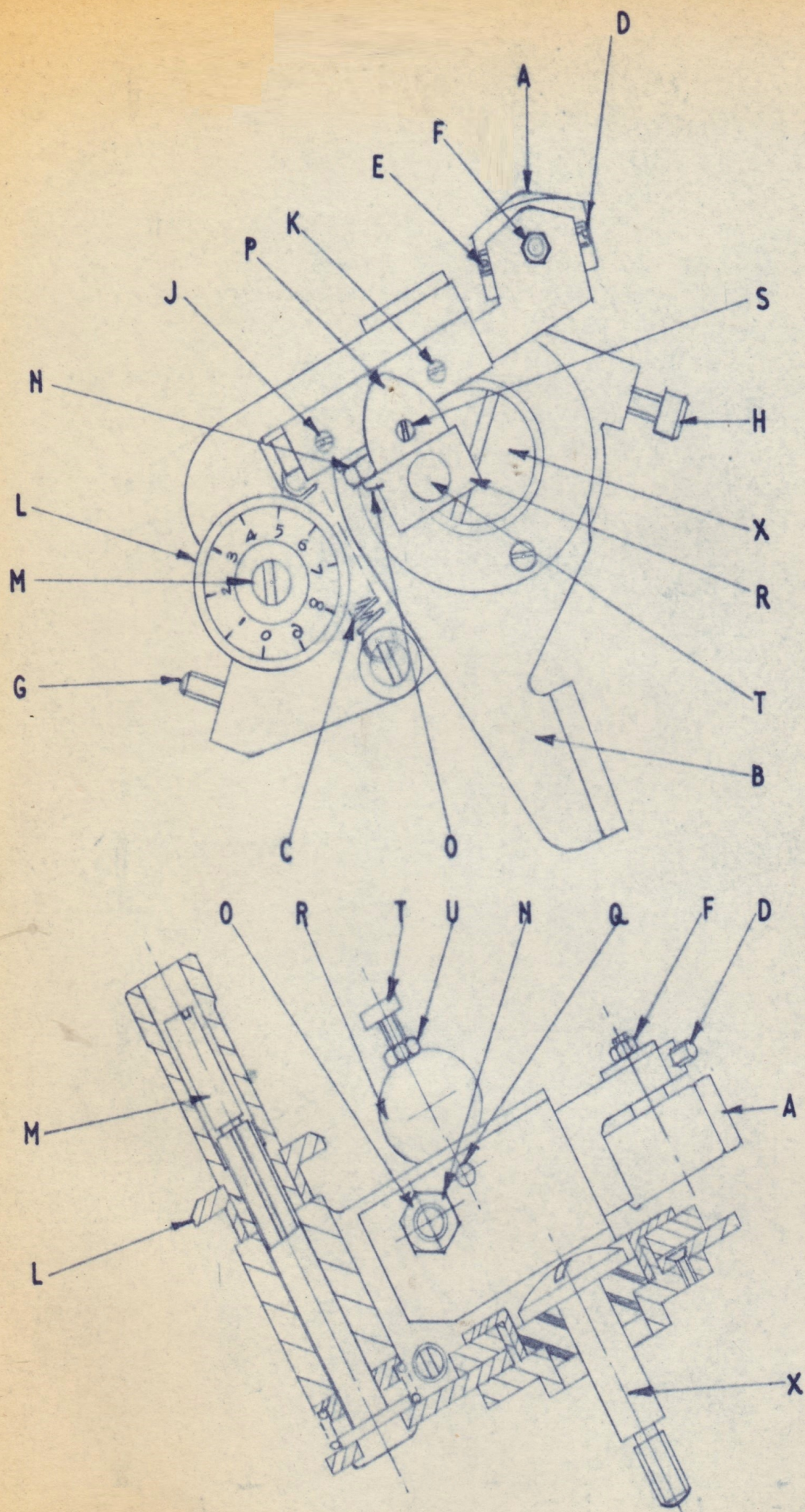
(8) At this stage it is advisable to revert to the Tracking adjustment (Para.4) the Pressure adjustment (Para 5) and the Surfacing adjustment (Para 6) to see whether any further improvement is possible.

(9) AZIMUTH.

This is adjusted by means of the screw-driver operated Screw (O) which swivels the magnetic head assembly about a pivot by way of an eccentric shaft. Thus loosening the 2 BA Lock Nut (N) allows the centre Screw (O) to be adjusted until a setting of azimuth is arrived at which gives optimum reading on the valve voltmeter. The Lock Nut (N) can then be tightened, but care must be taken not to alter the desired setting of the centre Screw (O)

(10) Finally, revert to the Tracking adjustment (Para 4) and make any further adjustment to Tracking which may be found advantageous.





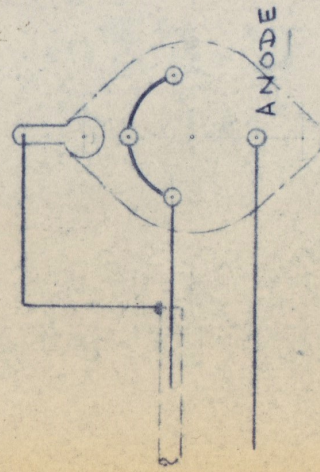
MAGNETIC HEAD ATTACHMENT.

PART NO. 1,737,400

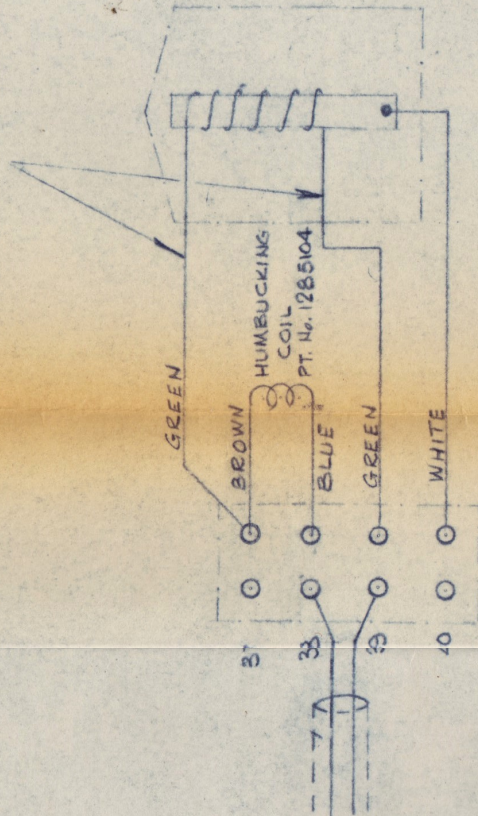


REFER TO PROCESS LAYOUT

THIRD ANGLE (AMERICAN) PROJECTION



GREEN LEADS TO BE  
TWISTED TOGETHER.



THE D.C. CONTINUITY OF THE  
PLAYBACK HEAD SHOULD NOT  
BE CHECKED.  
UNLESS DEMAGNETISED AFTERWARDS.

MODIFICATIONS				RANK PRECISION INDUSTRIES (B.A.F.) LTD.			
SCALE - FULL SIZE		DIN 118		USED ON ASSY. No.			
V NORMAL MACHINED FINISH		CHKD. PK		P.E.C. & P/B HEAD WIRING FOR GK 37 PROJECTOR			
VV GROUND OR FINE MACHINED FINISH		APPO. 8.0					
VVV FINE GROUND FINISH WITHOUT WHEELMARKS		DATE 14-1-59					
TOLERANCES UNLESS OTHERWISE STATED ON DECIMAL DIMS. ± ON OTHER DIMS. ±				SUPERSEDES	FINISH		
				C1765051			



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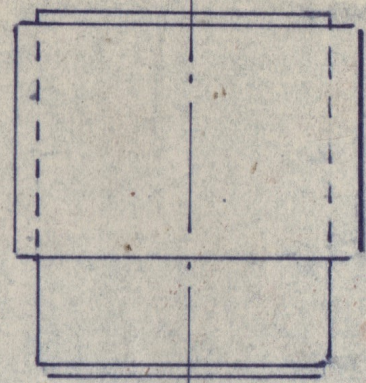
REFER TO PROCESS LAYOUT

TH

RD ANGLE (AMERICAN) PROJECTION

LIGHT SHIELD

TO CANCEL OPTICS AND RAISE MAGNETIC HEAD  
TO OPERATIONAL POSITION - OR VICE VERSA



ADJUSTABLE STOP

ADJUSTS MAGNETIC HEAD PRESSURE

TRACKING ADJUSTMENT

