SERVICE DATA

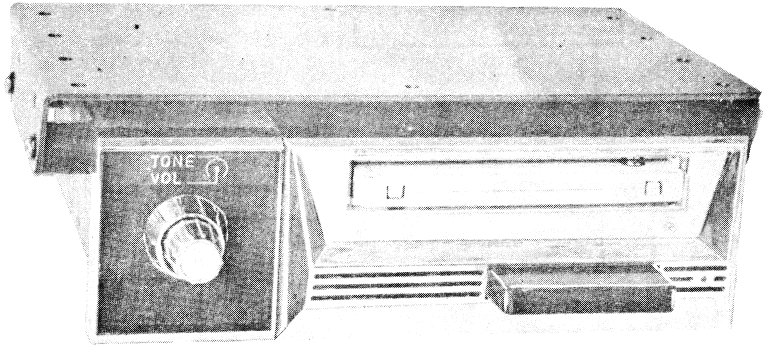
MODEL T5D

TAPE PLAYER UNIT

FOR OPERATION FROM A 12VOLT D.C. SUPPLY

DESIGNED FOR DUAL POLARITY OPERATION AND FITTED

WITH A SWITCH TYPE POLARITY CHANGE OVER FACILITY



WARNING: BATTERY CONNECTION OF INCORRECT POLARITY WILL DAMAGE UNIT.

Before connecting unit to supply source check and set polarity changeover switch to the correct position.

OPERATION

NOTE: Do not apply pressure to the operating button unless a cassette is inserted against stop inside unit.

Incorrect sequence of operation will damage the unit. Refer back page.

CHASSIS SERIAL NUMBER

The number is visible through a slot in the rear of the unit can.

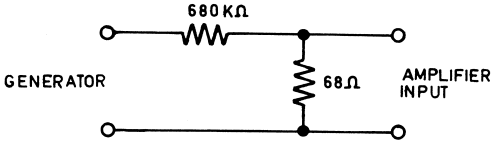
AUDIO AMPLIFIER TEST

EQUIPMENT

Audio Generator - 600 ohms output impedance
Output Meter - VT.VM. type

CONDITIONS

Supply Voltage - 13V.D.C.
Current Drain - 500mA. approx.
Voltage at Test Point 'C' - 9.7V. ± 1V.
Disconnect leads from tape head terminals
Assemble 10,000:1 attenuator



Connect generator via attenuator to amplifier inputs.
Turn volume and tone controls to fully clockwise position.
Connect 15 ohm impedance load and the voltmeter to the amplifier output socket.

Do not insert a cassette into the player unit.
To operate unit, press trip lever with fingers then push button 'IN' to switch amplifier 'ON'.

GAIN TEST

Set generator frequency to 1KHz and generator output level to 50mV.
The amplifier output level is to be approx. 50mW.
(between .7 and 1.0 volt indication)

EQUALIZATION TEST (connections as for gain test)

Set frequency to 100Hz and generator output to 80mV.
Output voltage level is to be between .7 and 1.0V.

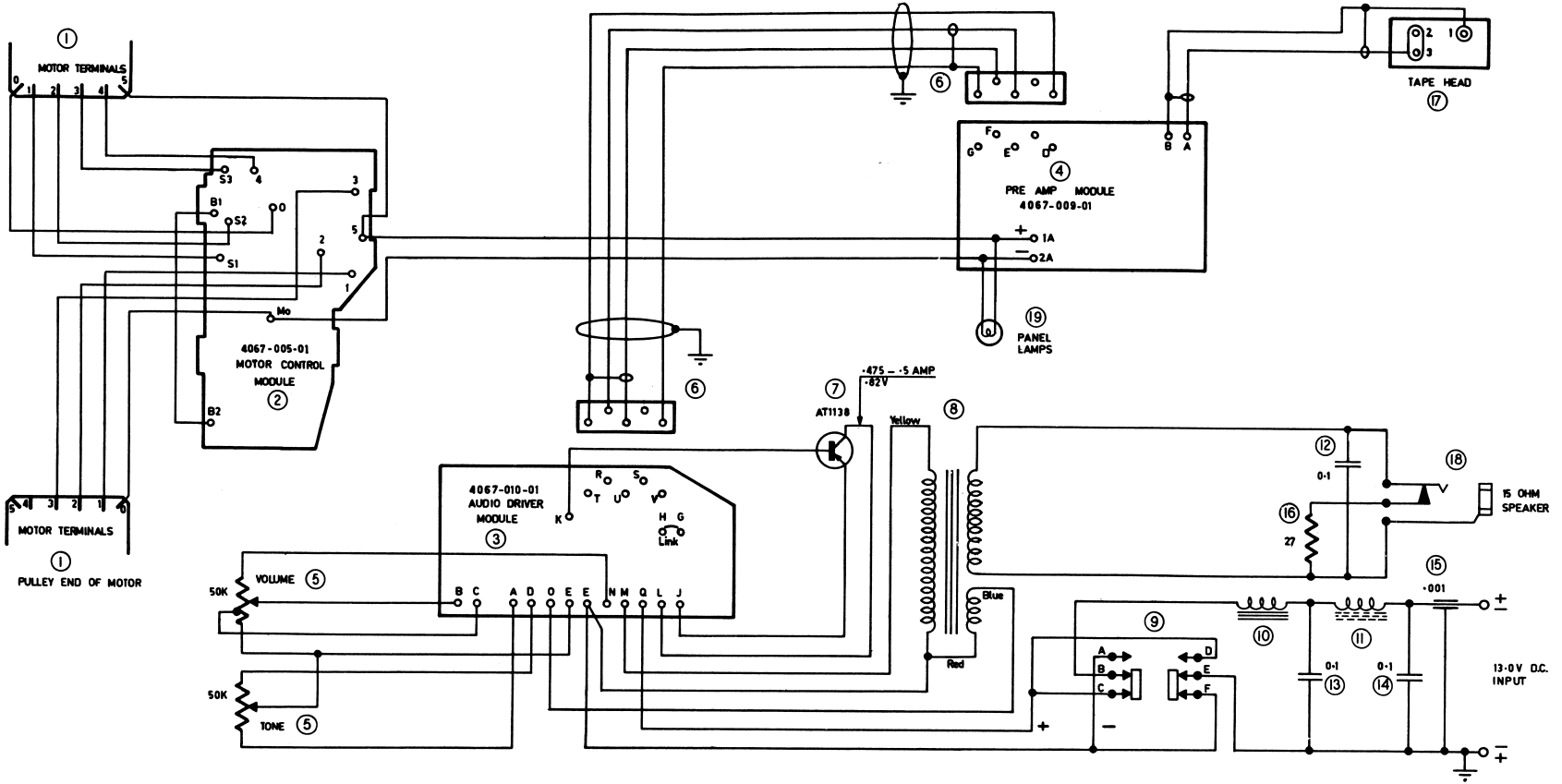
Set frequency to 8KHz and generator output to 95mV.
Output voltage level is to be between .7 and 1.0V.

POWER OUTPUT

Disconnect attenuator and connect generator output directly across the volume control.
Adjust the level until clipping occurs in the output.

At this point the power output should be greater than 1.5 Watts. (4.75 Volts).

A25 Astor T5D

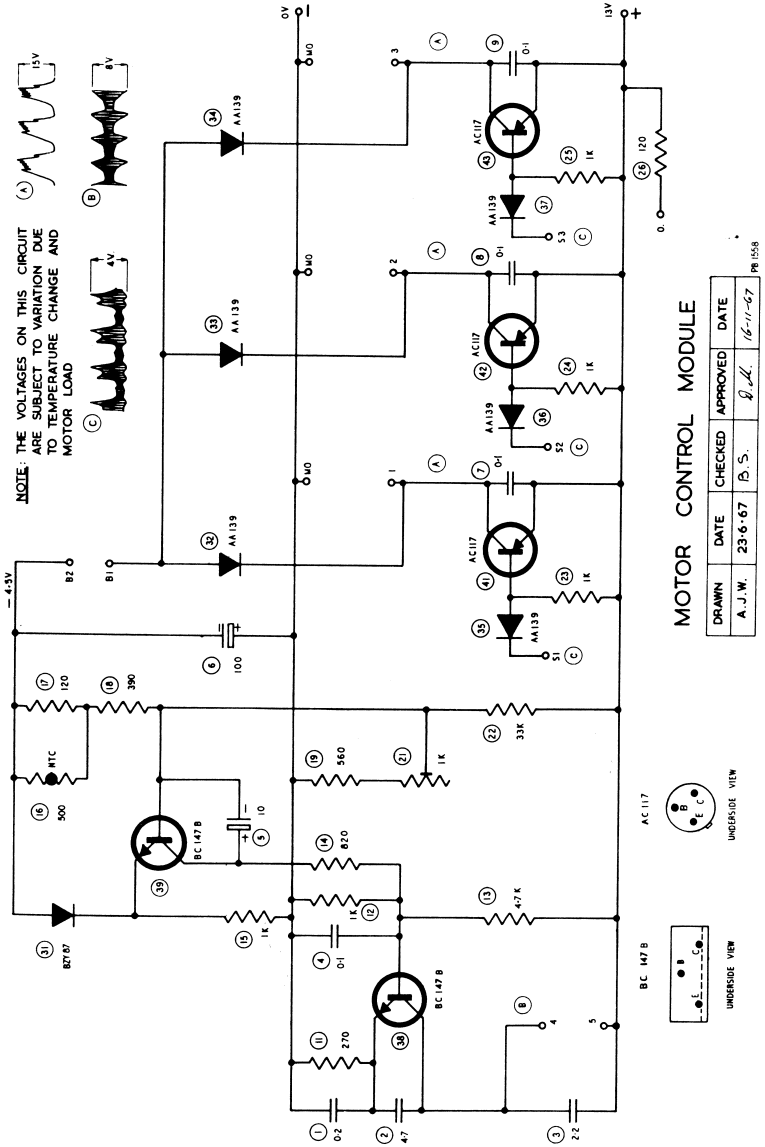


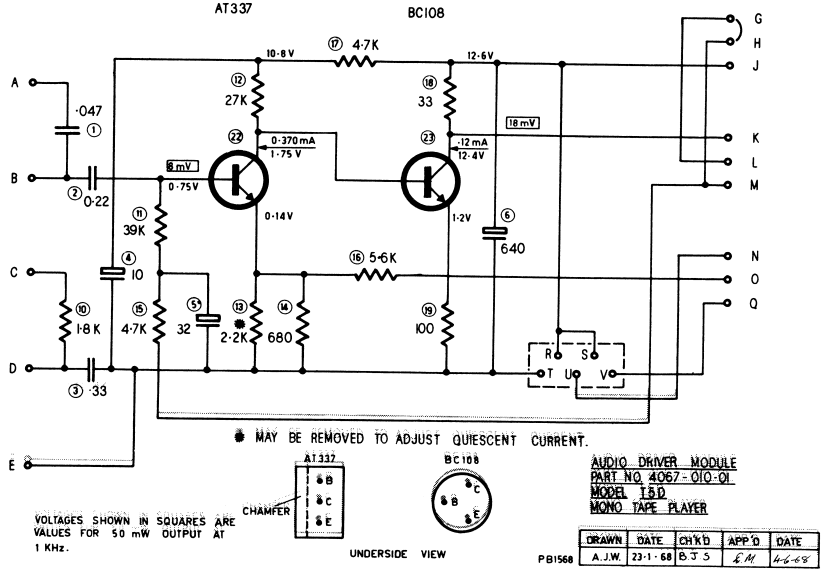
MOTOR CONTROL MODULE

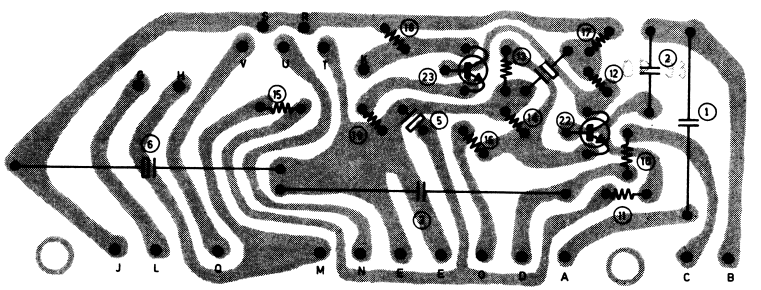
PART NO. 4067-005-01

This module is being serviced as a complete unit.

No individual components are available as spares.



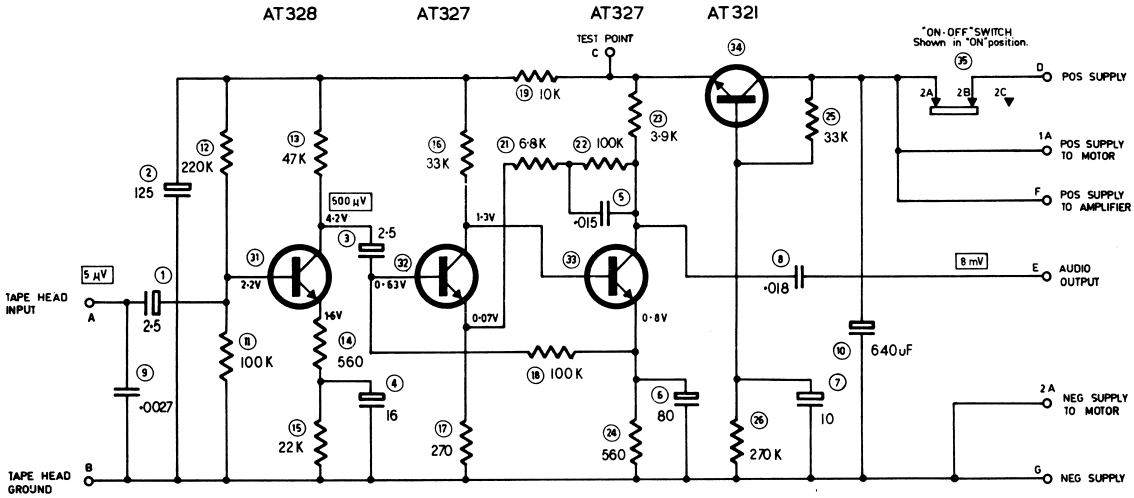


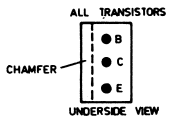


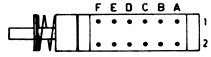
CIRCUIT BOARD
(PRINTED WIRING SIDE)
AUDIO DRIVER MODULE
PART NO. 4067-010-01

PB 1565 A

DRAWN	DATE	CH'K'D	APP'D	DATE
A.J.W.	27·2·68	B.J.S.	E.M.	4-6-68







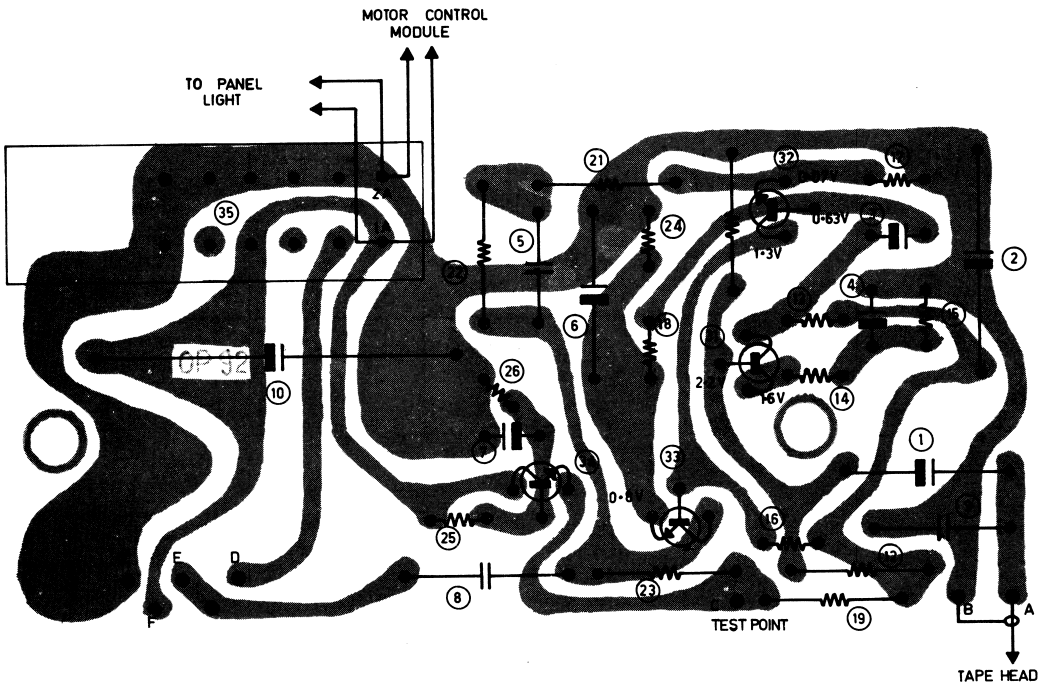
ALL VOLTAGES MEASURED BETWEEN NEGATIVE LINE AND POINTS INDICATED WITH A D.C. VACUUM TUBE VOLTMETER

VOLTAGES SHOWN IN SQUARES ARE VALUES FOR 50 mW OUTPUT AT 1 KHz

PRE-AMPLIFIER MODULE
PART NO. 4067-009-01

DRAWN	DATE	CHECKED	APP'D	DATE
A.J.W.	20-2-68	B.J.S.		4-6-68

PB 1567



CIRCUIT BOARD
(PRINTED WIRING SIDE)
PRE AMPLIFIER MODULE
4067-009-01

DRAWN	DATE	CH'K'D	APP'D	DATE
A.J.W.	27-2-68	B.J.S.		4-6-68

PB 1564 A

REPLACEMENT OF OUTPUT TRANSISTOR

When refitting or replacing an output transistor check that the mount positions and faces are clean and free from dust, grit or metal particles.

Smear a thin film of silicon compound, P/No.1036-001-09, on both sides of the mica washer, also mount faces of transistor and chassis.

Fit the insulating ferrules to the screw holes in chassis then fit mica washer and transistor securely with two screws and nuts.

MEASUREMENT AND ADJUSTMENT OF OUTPUT TRANSISTOR COLLECTOR CURRENT

EQUIPMENT: Current Meter: 0-1 Amp. D.C. terminated with lead and socket assy. Part No.4078-018-01, positive terminal to red sleeve.

Supply Source: 13.0V.D.C.

CONDITIONS: Player Unit polarity switch set at "-" chassis position. Connect positive supply lead to player unit battery lead. Connect negative to chassis

Set volume control to minimum position, anticlockwise. Remove link from test pins "G" and "H" and connect meter leads to these pins. Socket connector with red sleeving is to be connected to test pin "H".

Do not insert a cassette into the player unit. To operate unit, press trip level with fingers then push button 'IN' to switch amplifier 'ON'

1 After switching 'ON', allow to stabilize for at least two minutes.

2 Meter readings will vary with temperature. The following table shows permissable current ranges.

TEMPERATURE		COLLECTOR CURRENT Min.mA	-	Max.mA
Less than 60°F	-	475	-	500
60° - 80°F	-	465	-	490
Greater than 80°F	-	455	-	480

NOTE 1 It is essential that the supply voltage be maintained at 13.0V when measuring output stage current.

NOTE 2 If current reading is too low, resistor No.13 on circuit board may be cut off.

If current reading is too high, a 1000 ohm resistor may be wired across resistor No.13.