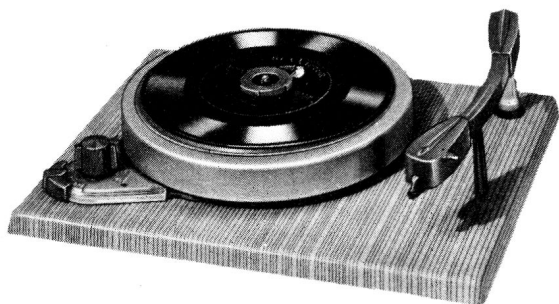




RCA VICTOR



MODEL TU-9

Four Speed Turntable Unit

Model TU-9

SERVICE DATA

— 1958 No. 18 —

ISSUED BY
SERVICE DIVISION
RCA VICTOR COMPANY, LIMITED
MONTREAL, CANADA

OPERATING INSTRUCTIONS

TU9 UNIT.

This unit is designed to play 7", 10" and 12" diameter records at $16\frac{2}{3}$, $33\frac{1}{3}$, 45 or 78 r.p.m. as required.

An on/off knob (Item 20) is provided to enable the turntable (Item 29) to be stopped while the record is being changed, this lever does **not** switch off the motor but merely disconnects the drive mechanism from the turntable. A separate mains switch must be used to switch off the motor.

The on/off knob (Item 20) should always be set to "off" when the unit is not in use, in order to take the pressure of the motor spindle off the rubber rim of the jockey pulley (Item 12).

The speeds are altered very simply by rotation of the speed change knob (Item 1) which it is advisable to operate when the motor is running.

The turntable adapter (Item 37) is provided for use with 7" records having large centre holes. To use this adapter it should be lifted gently until it can be turned in an anti-clockwise direction. After turning it will remain in the raised position and will be sufficiently high above the turntable level to locate a large centre hole record. When a record with a normal small centre hole is to be played it is only necessary to turn the turntable adapter (Item 37) in a clockwise direction and lower it down below the record level. An alternative type of turntable adapter may be fitted to your unit; this adapter will clip into the up or down position by simply raising or depressing it as required.

PICK-UP ARM.

For normal transit the P.U. Arm (Item 59) is provided with securing ribs which engage in the recess at the top of the P.U. Rest (Item 50). To clip the P.U. Arm in position exert a firm downward pressure on the portion of the arm directly above the rest. To unclip the P.U. Arm grasp firmly as close as possible to the rest and lift upward. For arduous transit conditions, a string hole is provided so that the P.U. Arm may be tied in position. Any such securing string must be removed before attempting to lift the P.U. Arm.

OPERATION.

1. Switch on motor, with the on/off knob (Item 20) in the on position.
2. Set the speed change knob (Item 1) to the speed required.
3. Move the on/off knob (Item 20) to the off position and load the required record on to the turntable (Item 29).
4. Make sure that the cartridge (Item 66) is set to the correct stylus. The cartridge indicator should show red L.P. upwards for long playing records and green 78 upwards for standard records. When the correct stylus has been chosen move the on/off knob (Item 20) to on and place the stylus point carefully on the start of the record which should now be revolving at the correct speed.

ADJUSTMENT.

Only two adjustments are normally necessary on this unit, these are the stylus pressure (i.e. the pressure with which the stylus bears on the record) and the position of the jockey pulley (Item 12) in relation to the driving steps on the motor shaft. These two points are correctly adjusted before the unit leaves the factory and should not be touched unless they have been upset by exceptionally rough handling. In the unlikely event that these points do need re-setting the following procedure should be adopted:

1 Stylus Pressure. This may be adjusted by lifting the pick-up (Item 59) to the near vertical and moving the spring adjuster (Item 58) forward or backward one hole on the peg provided in the pick-up arm (Item 59). If a hole is used which stretches the spring (Item 57) farther, the stylus pressure will be reduced, and vice versa.

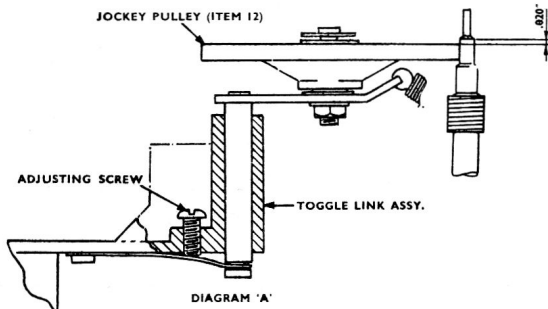
WARNING.

It is possible to reduce the stylus pressure to such a low degree that the pick-up (Item 59) will not track, i.e.,

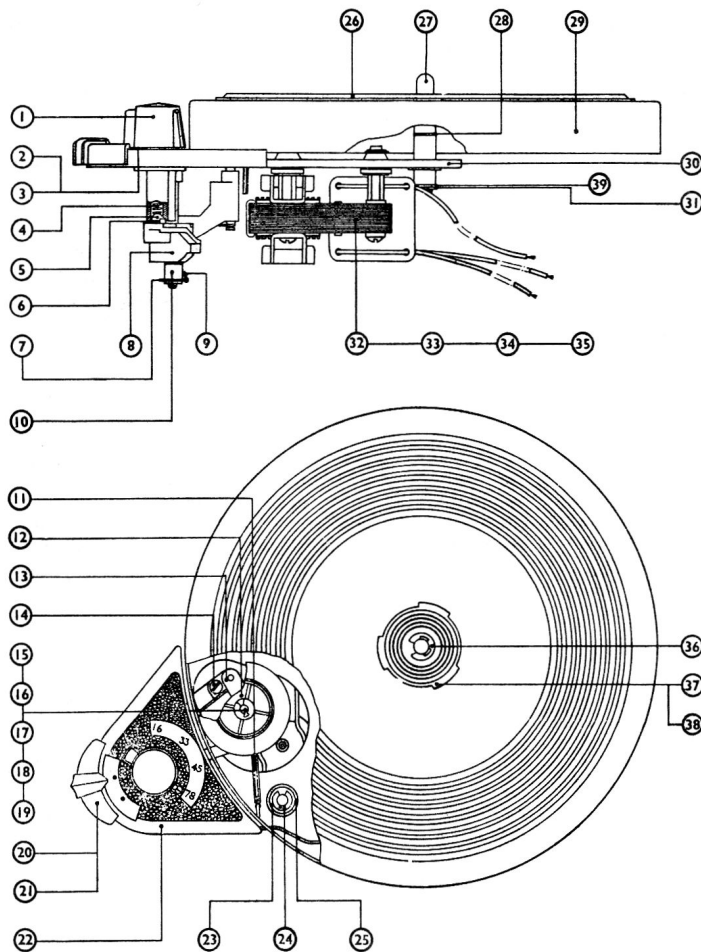
OPERATING INSTRUCTIONS (Cont'd.)

it jumps out of the groove; this effect would be particularly noticeable on poor records so the user is advised not to try to reduce the stylus pressure by too great a degree.

2. Jockey Pulley (Item 12). In order to adjust the height of the jockey pulley (Item 12), the speed change knob (Item 1), should first be set to the $33\frac{1}{3}$ r.p.m. position with the unit running, the unit should then be switched off and the turntable (Item 29) removed (see—How to remove turntable). When the turntable has been removed the drive mechanism will be seen as shown through the cut away turntable on the main diagram 2. The top of the jockey pulley rubber rim should be .020" below first step as shown in Diagram A; if this is not so the jockey pulley height should be

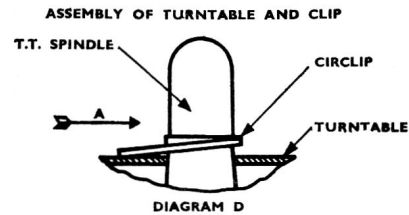


adjusted by means of the screw (Item 14) provided for this purpose. During this operation, the motor (Item 32) should hang free on its rubber mountings (Item 25) and care should be taken not to distort the toggle assembly (Item 13). Operating the screw clockwise will lower the jockey pulley and anti-clockwise will raise it. When the jockey pulley (Item 12) has been set correctly the turntable (Item 29) should be replaced (see—How to replace turntable).



HOW TO REMOVE TURNTABLE. (Item 29).

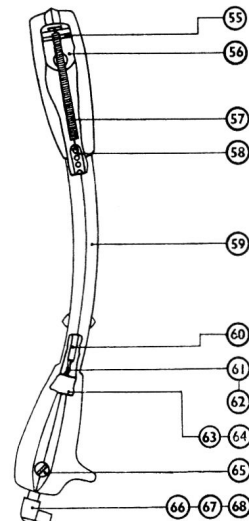
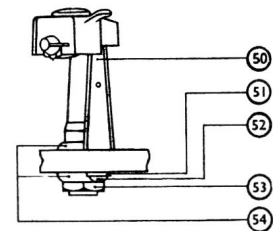
First operate the on/off knob (Item 20) to off, then remove the turntable circlip (Item 36), next lift the turntable (Item 29) slightly, and gently tap the top of the turntable spindle (Item 27), this will free the turntable (Item 29) from the taper on which it locates. The turntable (Item 29) can then be removed.



HOW TO REPLACE THE TURNTABLE.

First make sure that the on/off knob (Item 20) is in the off position, then place the turntable (Item 29) carefully on the turntable spindle (Item 27), pushing the jockey pulley (Item 12) carefully inside the turntable (Item 29). Care must be taken not to lower the turntable (Item 29) on to the jockey pulley (Item 12) during this operation since this may alter the setting of the mechanism. Make sure that the turntable (Item 29) is correctly seated on its taper (dirt on the taper or in the hole will upset this) and then push the circlip (Item 36) into position.

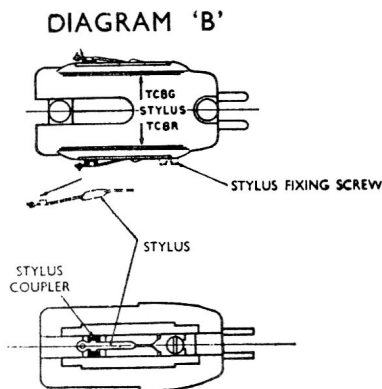
(NOTE:—When the circlip is pushed into position (in the direction of arrow A—see diagram D) the angled outer portion of the clip **must** press down against the top of the turntable.



OPERATING INSTRUCTIONS (Cont'd.)

HOW TO REPLACE THE NEEDLE.

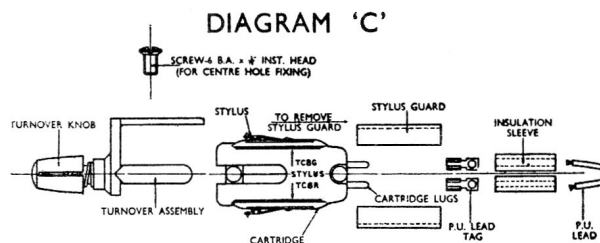
To remove worn out stylus (Item 67 or 68), slacken screw at rear of stylus. (Do not try to remove this screw—it only requires one turn to slacken). Ease stylus (Item 67 or 68) out in direction of arrow (see diagram B). Replace with new stylus (Item 67 or 68) and, when tightening the fixing screw, ensure that the stylus is correctly seated and that the head is positioned centrally on the stylus coupler (see diagram B). Make sure that the microgroove stylus (Item 67) coloured red, is replaced only with a microgroove stylus type TC8R. Similarly, the 78 r.p.m. stylus (Item 68) coloured green, should be replaced with the 78 r.p.m. stylus TC8G. The stylus is clearly marked on the side of the cartridge case and an arrow indicates the correct position of each one.



HOW TO REPLACE TC8H or TC8M CARTRIDGES (Item 66).

When replacing TC8M or TC8H cartridges, it is not necessary to remove the turnover assembly from

the P.U. arm. Simply remove the pick-up lead tags from the cartridge lugs, grip the cartridge case firmly and pull backwards out of its snap fork housing (see exploded view, Diagram C). It is impossible to put the cartridge into the cradle incorrectly, because of the non-reversible housing. When positioning the new cartridge into the turnover assembly ensure that it is securely home, otherwise the styli positioning will not be correctly related to the tone arm and incorrect tracking may result.



LUBRICATION.

From time to time various parts of the unit may require lubricating as follows:

Parts to be lubricated with thin oil.

Jockey Pulley spindle (Item 17).

(Care must be taken not to get oil on the rubber rim of the jockey pulley (Item 12), or on the rim of the turntable (Item 29) when lubricating this component).

Parts to be lubricated with medium oil.

Guide spindle.

Cam spindle.

Parts to be lubricated with medium grease.

The Cam surface which lifts the jockey pulley assembly.

The notches which locate the speed change cam.

The TU9 is a well-built unit, but by virtue of the fact that it is a portable unit it must inevitably come in for rough treatment. The following list has therefore been

prepared as an aid to the correction of any small faults which may occur.

Fault	Cause	Remedy.
1 Turntable (Item 29) fails to revolve.	(a) No current reaching motor (Item 32). (b) Dud motor (Item 32). (c) On/off knob (Item 20) not in the on position. (d) Jockey pulley spring (Item 11) loose. (e) Stiff toggle joint. (f) Jockey pulley (Item 12) trapped under turntable rim.	Check motor connections. Change motor (Item 32). Switch to on. Hook into position on unit plate. Clean and oil. Push jockey pulley carefully inside the turntable rim, making sure that the turntable is correctly seated on its taper.
2 Turntable (Item 29) not revolving at the correct speed.	(a) Oil on jockey pulley tyre or inside turntable rim. (b) Jockey pulley height set incorrectly. (c) Stiff jockey pulley (Item 12). (d) Stiff toggle joint. (e) Turntable spindle friction. (f) Jockey Pulley (Item 12) buckled.	Remove turntable (Item 29) and clean inside rim and jockey pulley tyre. Re-set as instructed under "Adjustments." Oil jockey pulley (Item 12) taking great care not to get oil on the rubber rim. Oil the toggle joint. Remove turntable spindle (Item 27), clean and re-grease. Replace jockey pulley.
3 Stiff speed-change.	(a) Lack of lubrication on mechanism.	Lubricate speed change mechanism as instructed, under "Lubrication."
4 Poor quality reproduction.	(a) Damaged or worn stylus (Item 67 or 68). (b) Stylus out of position.	Replace stylus (Item 67 or 68) as instructed under "Stylus Replacement." Carefully put the stylus back in position (shown on diagram).
5 No pick-up output.	(a) Faulty connections. (b) Dud cartridge.	Check connections to cartridge lugs and repair if faulty. Replace cartridge (Item 66) as instructed under "Cartridge Replacement."

REPLACEMENT PARTS LIST

Insist on Genuine Factory Tested Parts, which are readily identified and may be purchased from Authorized Dealers.

SYMBOL	STOCK NO.	DESCRIPTION	SYMBOL	STOCK NO.	DESCRIPTION
1	*S-22564	Knob Ass'y. - 4 Speed Knob Ass'y.	30	*S-22579	Unit Plate Ass'y.
2	*S-22565	Washer - Shim Washer	31	*S-22378	Circlip
3	*S-22378	Circlip	32	*S-22372	Motor Assembly
4	*S-22566	Detent Spring	33	*S-22580	Rotor Ass'y.
5		Ball Bearing	34		Drive Spring
6		Spring Washer	35		Bobbin Ass'y.
7		Circlip	36	*S-22378	Circlip
8	*S-22567	4 Speed Cam Ass'y.	37	*S-22581	Turntable Adapter
9	*S-22568	Toggle Link Spring	38		6 BA Washer
10	*S-22569	Guide Sleeve	39		Washer
11	*S-22570	Jockey Arm Spring	50	*S-22376	Pick-up rest
12	*S-22571	Jockey Pulley Ass'y.	51		2 BA Lockwasher
13	*S-22572	Toggle Link Ass'y.	52		2 BA x 3/4" R.H. Screw
14		No. 4 x 1/4 S. 1 Screw	53	*S-22582	Nut
15	*S-22573	Circlip	54		Rubber Mounting
6		Spindle Washer	55		Pivot Pin
17		Jockey Pulley Spindle	56	S-23046	P. U. Pedestal Ass'y.
18		6 BA Lock-Washer	57	*S-22583	P. U. Balance Spring
19		6 BA Nut	58	*S-22584	Spring Adjuster
20	*S-22574	Off-On Knob	59	*S-22585	P. U. Arm
21	*S-22575	Off-On Lever	60		1-1/2" x 2 m. m P. V. C. Sleeving
22	*S-22576	Escutcheon	61		P. U. Lead
23		Motor Mounting Washer	62		Rubber Sleeve
24	*S-22573	Circlip	63		Weight
25		Rubber Mounting	64		Weight
26	*S-22577	Turntable Mat.	65		6 BA x 5/16" ins. Head Screw
27	*S-22578	Turntable Spindle	66	*S-22358	Cartridge - TC8-M
28		Fibre Washer	66	*S-22361	Cartridge - TC8-H
29	*S-22377	Turntable Ass'y.	67	*S-22374	Replacement Stylus (TC8R)
			88	*S-22375	Replacement Stylus (TC8C)

* Indicates New Stock Items. Only items listed under stock numbers are available as Replacement Parts.

All parts subject to change or withdrawal without notice.