

# TECHNICAL SERVICE INFORMATION

ISSUED BY

## KRIESLER AUSTRALASIA PTY. LIMITED

12-30 CAWARRA ROAD, CARINGBAH. P.O. BOX 107, CARINGBAH. TELEPHONE: 5-2044

### DESCRIPTION.

Model 41-31 is a 7 transistor, 2 diode Broadcast Portable Radiogram employing printed wiring construction. It is equipped with the Kriesler Record Playing Unit Type 90-4390. This unit provides all four playing speeds and incorporates a mechanical variable speed adjustment. The pick-up is a stereophonic 'turnover' type so that both Mono or Stereo records may be played (mono sound). A socket for the connection of a car radio aerial is provided on the side of the cabinet.

MODEL No. 41-31

BATTERY OPERATED

PORTABLE RADIOGRAM



### DIAL SCALES.

Four dial scales are provided to cover all Australian Broadcast stations. Units are supplied fitted with the N.S.W. scale. Scales for the other States are attached to the underside of the battery compartment cover. To change dial scales, refer to the diagram on Page 4.

### PICK-UP CARTRIDGE.

B.S.R. Type TC8SM.

### REPLACEMENT STYLI.

TC8RS (L.P.) and TC8G (78).

### STYLUS PRESSURE.

8 to 10 grams.

### AERIAL INFORMATION.

The receiver is equipped with an inbuilt ferrite-rod aerial. An extension Aerial (identified by red washer) and Earth terminal is provided on the base of the cabinet. An earth connection is generally necessary when using a long-wire or extended aerial.

The 'Car Aerial' socket on the side of the cabinet is suitable for use with the Kriesler 'Tough-Rider Whip Aerial' Type 90-4751, which is fitted with the correct plug. If other than this aerial is to be used, the cable should be fitted with a Walbar BT32 plug and the total capacitance of the aerial and cable should not exceed 150 pF. The aerial trimmer may be re-peaked to favour car operation if required.

### BATTERIES.

Six 1.5 volt 'D' size cells. (Eveready 1050 or equivalent). Leakproof batteries are preferred.

To replace batteries, remove the battery compartment cover by turning the metal lever (with pick-up arm clip) to the position marked 'Battery Access'.

### TUNING RANGE.

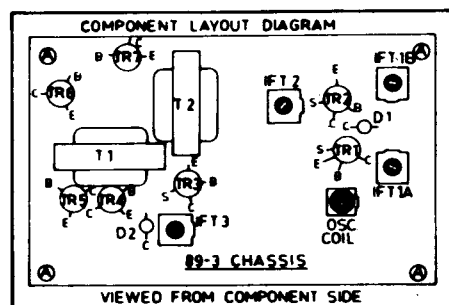
525 to 1635 Kc/s.

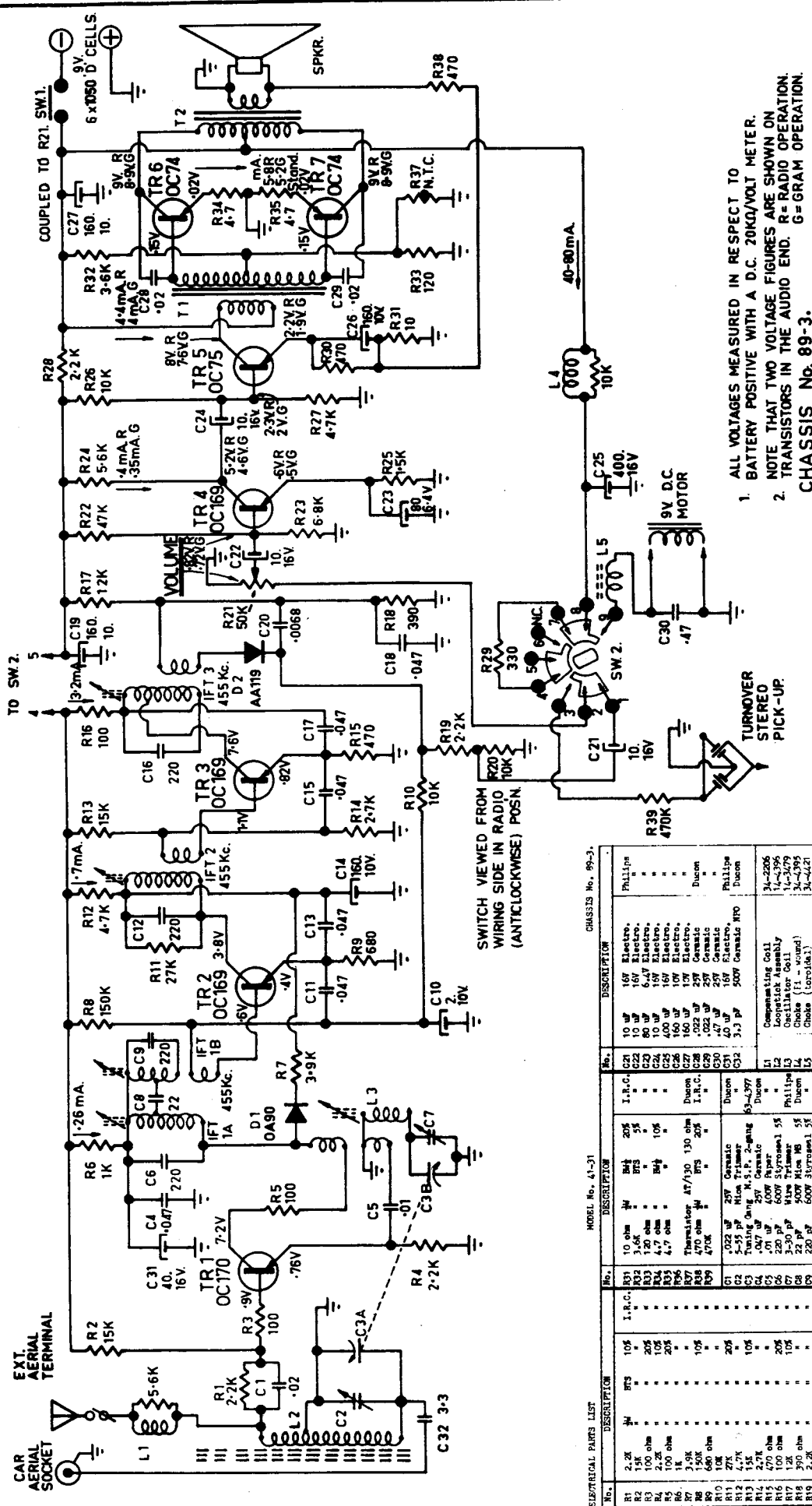
### ALIGNMENT PROCEDURE.

See Page 5.

### CHASSIS REMOVAL.

See diagram on Page 4.





ALL VOLTAGES MEASURED IN RESPECT TO BATTERY POSITIVE WITH A D.C. 20KΩ/VOLT METER.  
 NOTE THAT TWO VOLTAGE FIGURES ARE SHOWN ON TRANSISTORS IN THE AUDIO END. R = RADIO OPERATION. G = GRAM OPERATION.  
 CHASSIS No. 89-3.

SWITCH VIEWED FROM WIRING SIDE IN RADIO (ANTICLOCKWISE) POSN.

TURNOVER STEREO PICK-UP

SERIAL PARTS LIST MODEL No. 41-31 CHASSIS No. 89-3.

No.	DESCRIPTION	No.	DESCRIPTION	No.	DESCRIPTION
R1	2.2K	C1	10 ohm	C21	10 uF
R2	15K	C2	5-55 pf	C22	10 uF
R3	2.2K	C3	500 pf	C23	10 uF
R4	2.2K	C4	4.7 ohm	C24	10 uF
R5	10K	C5	4.7 ohm	C25	10 uF
R6	1K	C6	10K	C26	10 uF
R7	100 ohm	C7	10K	C27	10 uF
R8	150K	C8	10K	C28	10 uF
R9	100 ohm	C9	10K	C29	10 uF
R10	100 ohm	C10	10K	C30	10 uF
R11	27K	C11	10K	C31	10 uF
R12	4.7K	C12	10K	C32	10 uF
R13	15K	C13	10K	C33	10 uF
R14	2.7K	C14	10K	C34	10 uF
R15	470 ohm	C15	10K	C35	10 uF
R16	100 ohm	C16	10K	C36	10 uF
R17	1.2K	C17	10K	C37	10 uF
R18	1.2K	C18	10K	C38	10 uF
R19	270 ohm	C19	10K	C39	10 uF
R20	270 ohm	C20	10K	C40	10 uF
R21	10K	C21	10K	C41	10 uF
R22	47K	C22	10K	C42	10 uF
R23	6.8K	C23	10K	C43	10 uF
R24	1.5K	C24	10K	C44	10 uF
R25	1.5K	C25	10K	C45	10 uF
R26	10K	C26	10K	C46	10 uF
R27	4.7K	C27	10K	C47	10 uF
R28	2.2K	C28	10K	C48	10 uF
R29	330	C29	10K	C49	10 uF
R30	470K	C30	10K	C50	10 uF

ISSUE	CHANGE	DATE	BY
1	ORIGINAL	7/6/51	

MATERIAL	QUANTITY	PROJECT	QTY.	PROJECT	QTY.
GAUGE					
FINISH					

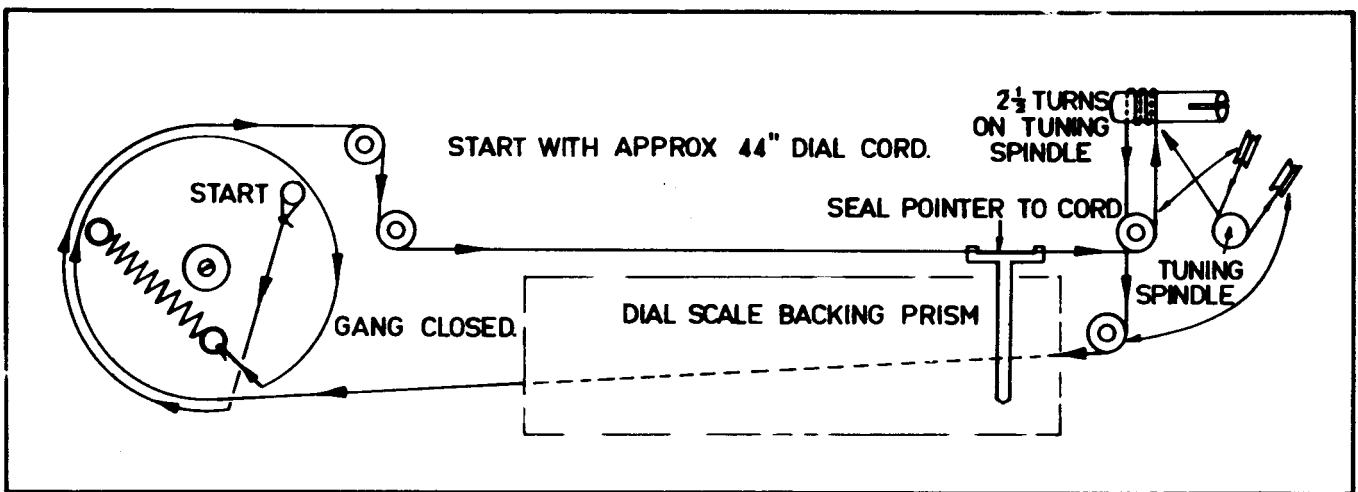
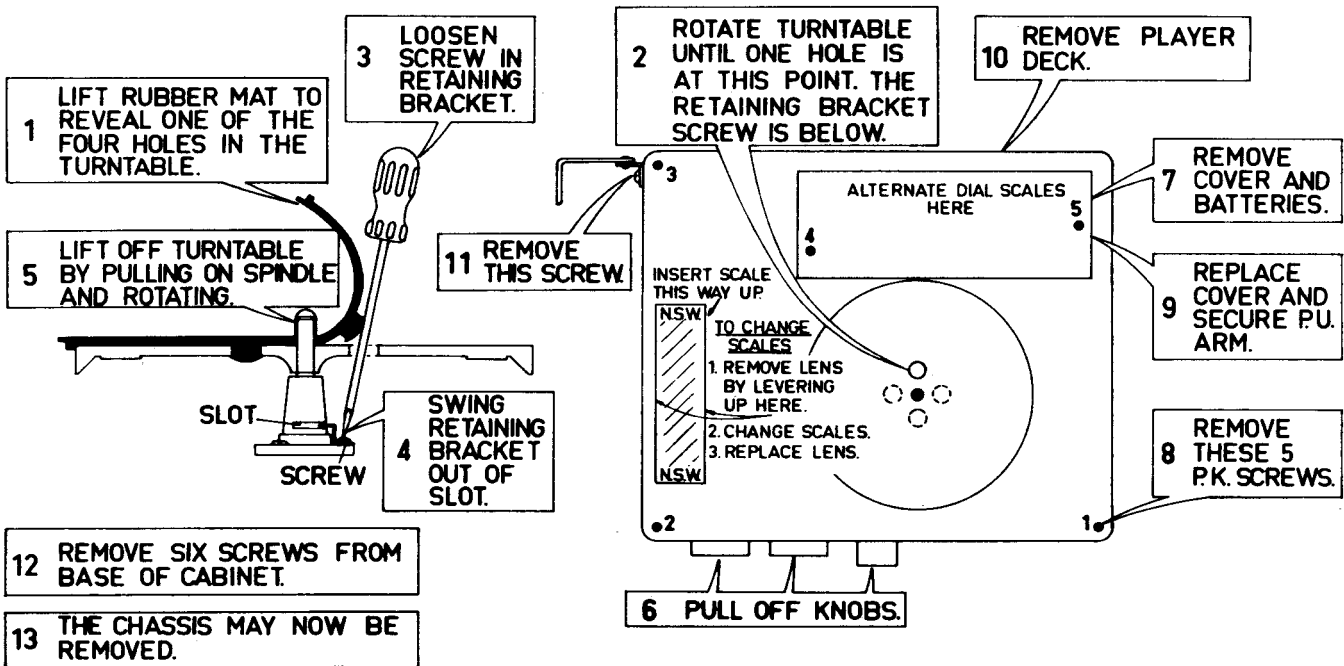
  

MODEL	QUANTITY	PROJECT	QTY.	PROJECT	QTY.
7 TRANSISTOR PORTABLE RADIOGRAM	41-31				

Work to dimensions only. Unless otherwise specified, tolerances to be read as ± 1/64" on Fractions, ± .005" on Decimals.  
 Before production is commenced 2 samples must be submitted to Drawing Office for approval.



# TO REMOVE CHASSIS



ALIGNMENT PROCEDURE.

STEP	SIGNAL GEN. FREQUENCY	CONNECT SIGNAL GENERATOR TO -	WITH TUNING GANG -	PROCEED AS FOLLOWS
1.	455 Kc/s.	Base of TR 1.	Closed	Peak core of IFT 3.
2.	" "	" " "	"	" " " IFT 2.
3.	" "	" " "	"	" " " IFT 1B.
4.	" "	" " "	"	" " " IFT 1A.
5.	" "	Radiated	"	Adjust all I.F.'s for maximum gain.
6.	_____	_____	Closed	Set dial pointer to 'Pointer-set' (P.S.) mark on scale backing prism at low frequency end.
7.	550 Kc/s.	Base of TR 1.	at 550 Kc/s.	Peak Oscillator core.
8.	1.5 Mc/s.	" " "	at 1.5 Mc/s.	Peak Oscillator trimmer.
9.	_____	_____	_____	Repeat until the calibration is correct at both ends of scale and at all intermediate points.
10.	1.5 Mc/s.	Radiate into Aerial	at 1.5 Mc/s.	Peak Aerial trimmer.
11.	550 Kc/s.	Radiate into Aerial	at 550 Kc/s.	Peak Aerial coil by sliding coil along ferrite-rod.
12.	_____	_____	_____	Repeat until no further gain is obtainable.

NOTE Whilst aligning the aerial trimmer, it is a good procedure to 'rock' the tuning gang.

## HINTS ON THE HANDLING OF THE CARRYGRAM.

The lid should not be closed when there is a record on the turntable.

After playing records, it is advisable to set the speed selector to the 'Radio' position. Not only does this lift the idler wheel from the motor pulley, but in the event of the receiver being accidentally switched on, some indication would probably be heard from the loudspeaker.

When selecting or changing motor speeds, do so with the set switched on.

The turntable is carefully balanced and runs in precision bearings of very low friction; hence, it may continue to revolve for some time after the unit is switched off but may be stopped by hand.

Observe caution when adjusting the turntable speed with the adjusting screw. Small discrepancies may be readily corrected with this adjustment, but if large discrepancies occur, it would indicate that a fault exists in the unit. Adjust only when the batteries are fresh. Adjust on '33 1/3', '45' and '78' should then be correct. If one or both of these latter speeds is incorrect, then a fault does exist in the unit and should be corrected. Adjustment of '16 2/3' R.P.M. is separate and independant, and is internal.

FOR SERVICE DATA ON THE RECORD PLAYING UNIT, REFER TO THE SERVICE HANDBOOK FOR THIS UNIT (PUBLISHED SEPARATELY).