41-7 RECEIVER PORTABLE, BATTERY OPERATION 21-3 RECEIVER PORTABLE, BATTERY A.C. OPERATION



# TECHNICAL SERVICE INSTRUCTIONS <br> ISSUED BY <br> KRIESLER AUSTRALASIA PTY. LTD. 

## ALIGNMENT OF KRIESLER DUPLEX PORTABLE TYPE RECEIVERS

At the factory before despatch, all receivers are precision aligned and their appropriate trimming condensers sealed.

Re-alignment is necessary only if the tuned circuit components are replaced or the trimmer seals broken.

Do not attempt to re-align without the following equipment:-(a) A modulated oscillator
(b) 0 to 50 V output meter.

## ALIGNMENT PROCEDURE

To remove the chassis from the cabinet, set the pointer to approximately 2 KY on the dial scale, so that the pointer will not foul the cabinet. (Observe the same procedure when replacing the receiver.)

Do not remove the loop from the cabinet but connect the receiver with extension leads.
Remove dial and pointer assembly and connect the output meter between Pin 2 of 3V4 socket and chassis, making sure the output meter has a blocking condenser in series.

## I.F. STAGE ALIGNMENT

Connect a signal generator between chassis and control grid of 1R5 with a 1 capacitor in series with the signal generator. The ganged tuning capacitor should be fully meshed.

Set the signal generator to $455 \mathrm{k} / \mathrm{cs}$ and commence I.F. alignment starting with the second I.F. transformer and following with the first. Adjust the iron cores for maximum output as indicated by the output meter, then seal the iron cores.

NOTE.-It is desirable to keep the output from the signal generator as low as possible and the volume control at maximum during alignment.

## CALIBRATION AND OSCILLATOR ALIGNMENT

Replace the dial scale and pointer assembly and set the pointer to the pointer set mark on the dial scale with the gang fully meshed.

Attach an aerial to the loop and tune a station at approximately $550 \mathrm{kc} / \mathrm{s}$ and adjust the oscillator iron core until the station falls exactly where indicated on the dial scale. Repeat this procedure at $1450 \mathrm{kc} / \mathrm{s}$ using the oscillator trimming condenser for calibration adjustment. Check again at the $550 \mathrm{kc} / \mathrm{s}$ end if further adjustments are required.

NOTE.-If the signal generator has accurate frequency calibration, it may be used for this operation.

## R.F. STAGE ALIGNMENT (Where applicable)

Connect the signal generator between chassis and control grid of R.F. stage with a . 1 uf capacitor in series with the grid lead.

Set the signal generator and receiver to $600 \mathrm{kc} / \mathrm{s}$ and adjust the iron core of the R.F. coil for maximum output.

Repeat this procedure at $1450 \mathrm{kc} / \mathrm{s}$ using the R.F. coil trimming condenser for adjustment.
Repeat both adjustments to obtain maximum sensitivity, then seal the trimmers and R.F. coil iron core.

## LOOP AERIAL ALIGNMENT

Fit the receiver to cabinet and re-connect loop aerial.
NOTE.-The battery must be in position for correct loop alignment.
Tune a distant station at approximately $1450 \mathrm{kc} / \mathrm{s}$ and adjust the loop trimming condenser for maximum output.

Then tune a distant station at approx. $600 \mathrm{kc} / \mathrm{s}$ and check the loop alignment by means of the loop trimming condenser. Should loop need adjusting, the inductance may be varied by means of adujsting turns in the centre of the loop.

Repeat the above procedure for maximum sensitivity, then re-set loop trimming condenser at the high frequency end and seal all trimming condensers.

The loop alignment procedure is the same for the 4 valve receiver, except omitting the R.F. stage alignment.

IMPORTANT.-When operating set on A.C. mains. Always turn off at power point.


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## ALIGNMENT OF KRIESLER DUPLEX PORTABLE TYPE RECEIVERS

At the factory before despatch, all receivers are precision aligned and their appropriate trimming condensers sealed.

Re-alignment is necessary only if the tuned circuit components are replaced or the trimmer seals broken.

Do not attempt to re-align without the following equipment:-(a) A modulated oscillator
(b) 0 to 50 V output meter.

## ALIGNMENT PROCEDURE

To remove the chassis from the cabinet, set the pointer to approximately 2 KY on the dial scale, so that the pointer will not foul the cabinet. (Observe the same procedure when replacing the receiver.)

Do not remove the loop from the cabinet but connect the receiver with extension leads.
Remove dial and pointer assembly and connect the output meter between Pin 2 of 3V4 socket and chassis, making sure the output meter has a blocking condenser in series.

## I.F. STAGE ALIGNMENT

Connect a signal generator between chassis and control grid of 1 R5 with a 1 capacitor in series with the signal generator. The ganged tuning capacitor should be fully meshed.

Set the signal generator to $455 \mathrm{k} / \mathrm{cs}$ and commence I.F. alignment starting with the second I.F. transformer and following with the first. Adjust the iron cores for maximum output as indicated by the output meter, then seal the iron cores.

NOTE.-It is desirable to keep the output from the signal generator as low as possible and the volume control at maximum during alignment.

## CALIBRATION AND OSCILLATOR ALIGNMENT

Replace the dial scale and pointer assembly and set the pointer to the pointer set mark on the dial scale with the gang fully meshed.

Attach an aerial to the loop and tune a station at approximately $550 \mathrm{kc} / \mathrm{s}$ and adjust the oscillator iron core until the station falls exactly where indicated on the dial scale. Repeat this procedure at $1450 \mathrm{kc} / \mathrm{s}$ using the oscillator trimming condenser for calibration adjustment. Check again at the $550 \mathrm{kc} / \mathrm{s}$ end if further adjustments are required.

NOTE.-If the signal generator has accurate frequency calibration, it may be used for this operation.

## R.F. STAGE ALIGNMENT (Where applicable)

Connect the signal generator between chassis and control grid of R.F. stage with a . 1 uf capacitor in series with the grid lead.

Set the signal generator and receiver to $600 \mathrm{kc} / \mathrm{s}$ and adjust the iron core of the R.F. coil for maximum output.

Repeat this procedure at $1450 \mathrm{kc} / \mathrm{s}$ using the R.F. coil trimming condenser for adjustment.
Repeat both adjustments to obtain maximum sensitivity, then seal the trimmers and R.F. coil iron core.

## LOOP AERIAL ALIGNMENT

Fit the receiver to cabinet and re-connect loop aerial.
NOTE.-The battery must be in position for correct loop alignment.
Tune a distant station at approximately $1450 \mathrm{kc} / \mathrm{s}$ and adjust the loop trimming condenser for maximum output.

Then tune a distant station at approx. $600 \mathrm{kc} / \mathrm{s}$ and check the loop alignment by means of the loop trimming condenser. Should loop need adjusting, the inductance may be varied by means of adujsting turns in the centre of the loop.

Repeat the above procedure for maximum sensitivity, then re-set loop trimming condenser at the high frequency end and seal all trimming condensers.

The loop alignment procedure is the same for the 4 valve receiver, except omitting the R.F. stage alignment.

IMPORTANT.-When operating set on A.C. mains. Always turn off at power point.

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41-7 RECEIVER PORTABLE, BATTERY OPERATION 21-3A RECEIVER PORTABLE, BATTERY A.C. OPERATION


