X 660

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## THE EF9 FOR EF8 VALVE SUBSTITUTION.

In many Philips receivers throughout New Zealand, the above substitution has been necessitated by the obsolescence of the low noise R.F. pentode EFS.

From the point of view of base connections, the EF8 and EF9 are identical.

In some cases, however, it will be found necessary to reduce the screen voltage of the EF9 to 80 volts by means of a 0.25 meg. series resistor.

The above precaution is necessary wherever this substitution results in an apparent overloading of the speaker.

## REPLACING THE VOLUME CONTROL ON MODEL 660

The value of volume control used in the push button Philips Model 660 is 0.7 meg. with tap.

In instances where these controls are temporarily unavailable it is found necessary to replace them with a standard 0.5 meg. control without tap.

Where this is done the .05 mfd. condenser normally connected to the tap on the 0.7 meg. control should be connected through a 50K  $\frac{1}{2}$ -watt resistor to the "low" end of the new 0.5 meg. control.

The above method will be found to be a satisfactory means of replacing the control whilst leaving intact the feedback circuit which is normally applied via the tapping point on the volume control.