KNOBS AND NOISES

LAST week we discussed the broad technical requirements for good listening. They were: an efficient, well-aligned receiver; an adequate aerial-and-earth system; and, absence of local interference. In this article we turn to the question of how to use your receiver—where to place it, and how to use its controls effectively.

With listening, as with other matters of individual preference, no rigid rules can be laid down. As Bernard Shaw once wrote: "Do not do unto others as you would they should do unto you. Their tastes may not be the same." But generally speaking, people derive greater pleasure from listening when the sound is as natural as possible. Sets are frequently turned off for no other reason than that a voice or instrument sounds unduly strident, or because they tend to boom. True, speakers and instruments sometimes possess one or other of these characteristics, but more often the listener's own negligence is responsible.

Almost all radio sets have three main control knobs: Tuning, Tone and Volume. Incorrect adjustment of any one

of these can turn a pleasant programme into a painful experience.

The tuning knob, which allows the listener to obtain the station he wants. is the most commonly misused. Each station, to give the best reproduction of sound, transmits over a narrow band of wavelengths. In other words, a station can be received not merely at one point but across a small section of the dial. When turning the knob we actually tune in the top notes first and then come to point at which the full range-low. medium and high—can be heard. This is the correct setting. If the knob is turned further the low notes are cut out and the top notes again predominate. The set will also tend to pick up other signals, not connected with the transmission wanted. In short, the best tuning is obtained in the centre of the wavelength band. Many modern receivers are fitted with a "magic eye" to assist the listener in finding the correct position on the dial, and these are more accurate than the ear. They have the added advantage of pinpointing the position even when no actual sound is being broadcast.

A final point to remember about the tuning knob is that it should never be used as a volume control. There is a separate knob for this. Tuning "off" the



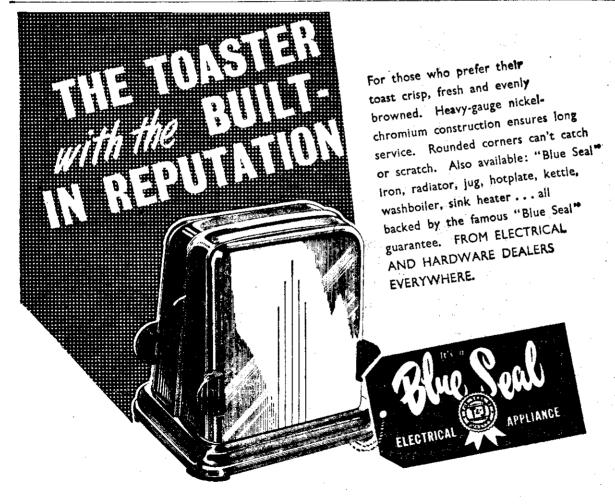
"Many listeners like the volume of a spoken programme to be greater than that of the natural human voice"

station certainly reduces volume, but it also reduces clarity and increases interference.

Of the three main controls, the tone control takes second place to the tuning for misuse. Its function in most domestic receivers is to cut off a portion of the higher notes, thus giving a comparative emphasis to the lower registers. Where a set is tuned to a weak and distant station the tone control can serve a useful purpose by reducing the attendant hiss. Apart from that its use is almost entirely a matter of personal pre-

ference. Purists in sound resent its very existence: others use it to modify what they regard as the stridency of certain instruments; others again prefer their music slightly mushy. The second category has perhaps the best case, since most broadcast receivers tend to accentuate the top notes by understating the hass. The tone-control built into most sets is by far the least expensive "cure" for this. It should be remembered, though, that where the control is used, say, for a musical programme, it will, if left, tend to make voices boom. Turning the knob back to "treble" will remedy this. Mis-tuning in order to restore the balance is the alternative often wrongly adopted.

Last of the offenders is the volume control. Of the three it is probably the best understood, its use and abuse being the subject of almost continuous debate in many homes. Misunderstandings about it frequently arise because many listeners like the volume of a spoken programme to be greater than that of the natural human voice. If the spoken programme is followed by, say, a symphony concert, the volume will be found to be too great. Often the transmitter is blamed for this apparent fault, where, in fact, the cause is the listener's own preference in sound. For musical programmes, the ideal volume-control setting is that which allows the full range of frequencies to be heard as well as each of the individual instruments. Above this point it will be found that some notes or types of instrument will



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