

The major amateur radio bands are contained in bands B, C and D. Each amateur band is underlined in black on both the GENERAL COVERAGE and BANDSPREAD scales. On the GENERAL COVERAGE scale the amateur bands are identified by a circle located at the high end of each band which contains the band's wavelength designator (80 designates the 80 meter amateur band).

Calibration of the GENERAL COVERAGE scale is correct when the BANDSPREAD pointer is in its SET position. For correct calibration of the bandspread scales the GENERAL COVERAGE pointer must be set in the center of the designator circle for the band to be tuned. Figure 3-2 shows the correct pointer positions for bandspreading the 80 meter amateur band.

Short-wave bandspreading, for other than amateur bands, is accomplished by setting the BANDSPREAD pointer at SET and the GENERAL COVERAGE pointer at the high end of the short-wave band to be tuned. Adjust the bandspread control to select the desired station. Notation of the point on the LOG scale where the desired station was located will enable the operator to locate the same station in the future without difficulty.

### 3.3 MEASUREMENT OF SIGNAL STRENGTH

The S-meter provides a means of measuring the relative strength of incoming AM signals. Accurate

measurements of relative signal strength are taken with the SENSITIVITY control set in its extreme clockwise position. These measurements are read in S units from 1 to 9 and in decibels above S9 from 0 to 40 db. The S-meter circuit is disabled under CW and SSB operating conditions.

A screwdriver control, located at the rear of receiver, is provided for zeroing the S-meter electrically. This adjustment is made on "B" band with the antenna disconnected or shorted and the SENSITIVITY control set at maximum.

### 3.4 SHORT-WAVE LISTENING

Bands B, C and D are the high frequency or short-wave bands. The frequency range of these bands covers short-wave foreign broadcasts, amateur, and commercial radio transmitting stations all over the world. There are literally millions of radio stations in operation today most of which transmit signals within the tuning range of your NC109.

The principal short-wave broadcast stations operate on five major and two minor bands. One characteristic of short-waves is that reception will be good on some bands at certain times of day and, at the same time, poor on other bands. Table III lists the major short-wave broadcast bands, their frequencies and their normal signal strength characteristics at different times of day.

TABLE III

BAND	17 METER	19 METER	25 METER	31 METER	49 METER
FREQUENCY RANGE	17.7-17.9 mc	15.1-15.45 mc	11.7-11.95 mc	9.6-9.8 mc	6.0-6.2 mc
SUNRISE TO NOON	Eastern stations good	Same as 17 meter	West and southwest good	Same as 25 meter	Same as 25 meter
NOON TO SUNSET	South good	East and south good	Same as 19 meter	East good	Most signals weak
SUNSET TO MIDNIGHT	Stations fade-band goes dead	Same as 17 meter	East fades south strong	Same as 25 meter	North, south and east very good

