

to the left, sweeping through the group of stations until the desired station is heard clearly.

**BFO-MVC-AVC-ANL:** Usually in AVC position. May be switched to ANL during unusually noisy conditions, especially at the higher frequencies where automobile ignition and other man-made noises may interfere.

## CW (CODE) RECEPTION

**BFO-MVC-AVC-ANL**  
**RF GAIN**  
**A-B-BAND-C-D**  
**AF GAIN**

**BFO**  
 Use as volume control  
 Set for desired band  
 Set to maximum clockwise position

## AMATEUR FREQUENCIES

BAND SETTING	AMATEUR BAND	FREQUENCY RANGE
B	80 meters	3.5 — 4.0 mc
C	40 meters	7.0 — 7.3 mc
D	20 meters	14.0 — 14.35 mc
D	15 meters	21.0 — 21.45 mc
D	10 meters	28.0 — 29.7 mc

**MAIN TUNING:** Set the MAIN TUNING dial at the index mark for the desired Amateur band.

**BANDSPREAD:** Slowly turn the BANDSPREAD dial until the desired station is heard.

**BFO:** Adjust the BFO control for the most pleasing note.

## SINGLE SIDEBAND RECEPTION

**OFF-STBY-RCV-CAL:** RCV  
**BFO-MVC-AVC-ANL:** MVC

**MAIN TUNING:** To index mark for desired Amateur band.

**BANDSPREAD:** Precedence has established the use of SSB transmitters in certain sections of each Amateur band. At the present time, these are:

80 meter band	high frequency end
40 meter band	high & low freq. ends
20 meter band	high frequency end
15 meter band	high frequency end
10 meter band	around 28.65 mc

**RF GAIN:** AT MINIMUM

**AF GAIN:** AT MAXIMUM

A standard AM transmitted signal consists of an RF carrier and two sidebands, which results from the modulation of the RF carrier. A SSB signal is characterized by the suppression of the carrier and one of the side bands. Thus the transmitted signal consists of one sideband only. It is fast becoming an increasingly popular method of transmission because it occupies less space in the radio spectrum and because there is considerably less interference encountered among SSB signals during reception.

Reception of SSB signals requires the reinsertion of a carrier before the signal can be demodulated. This is done by the BFO.

Start by tuning to the portion of an Amateur band containing SSB signals. While tuning, turn the RF GAIN control up until loud, but unintelligible sounds are heard. It will sound something like duck quacking. Switch the BFO-MVC-AVC-ANL control to BFO and carefully tune the BFO control until intelligible sound is heard. The BFO control may be left at its setting while the BANDSPREAD dial is tuned to other stations. However, a change in sideband transmission from "lower" to "upper" sideband or vice-versa requires a readjustment of the BFO control.

## THE Q-MULTIPLIER

The purpose of the Q-Multiplier and its associated controls (QX SELECTIVITY and QX TUNE) is to improve the selectivity of the receiver. Selectivity is the ability to select only the desired station, separating it from adjacent stations which may be very close in frequency. For domestic and foreign broadcasts, it is recommended that the Q-Multiplier (PEAK-OFF-NUL) be in the OFF position, to maintain full audio quality. However, the Q-Multiplier can be used if you are trying for DX reception and are not concerned with audio quality.

The Q-Multiplier can be used either to peak (accentuate) a narrow band of desired frequencies, or to null (cancel) a narrow band of undesired frequencies. Experience with these controls will soon teach you the best settings for the existing conditions.