

## **BDA OPERATION**

Refer to figure 3 for adjustment access location and label.

### **Variable Step Attenuator**

BDA gain can be reduced by up to 30 dB in 2 dB steps using the variable step attenuator. Gain adjustment is made with rotary switches accessible via the access door on the BDA enclosure. Arrows on the shafts of these switches point to the value of attenuation selected. BDA gain can be determined by subtracting the attenuation value from the gain reported on the BDA Test Data Sheet for that side of the unit. The attenuators are labeled for Uplink and Downlink.

### **ALC (Automatic Level Control)**

To minimize intermodulation products, each amplifier in the BDA contains an ALC feedback loop. The ALC circuit senses the output power and limits it to the factory preset level of +25 dBm on the Uplink and Downlink.

ALC function is selected with on/off toggle switches located on each amplifier and accessible via the access door on the BDA enclosure. A red indicator lamp located on each amplifier illuminates when output power meets or exceeds the ALC set point. The indicator is functional regardless of the position of the ALC switch.

Units are shipped with both ALC switches in the “ON” position.

To ensure distortion-free operation limited to the set point, keep the ALC's turned ON.

To establish proper operating gain on the Uplink and Downlink sides, start with the Uplink. Observe the red indicator lamp on the Uplink amplifier. If the lamp is lit, verify that the ALC switch is in the “ON” position. Then, using the Uplink step attenuator, reduce the gain until the lamp goes off. Repeat the process for the Downlink. The level indicator is accurate to +/- 0.4 dB of the ALC set point.

**Operation of BDA-XXX-1/1W-80-A at maximum gain with greater than -45 dBm average power incident on either BASE or MOBILE port can cause damage to the BDA.**