

## 6. Operation

- (1) Check the connection of each cable again by referring to the illustration at page 6.  
Turn on the power of the radio. Leave the power switch of this amplifier off.  
In the receiving state, the received signal from the antenna passes through the amplifier, and you can hear the received signal sound from the radio. Use an antenna that handles rf power of 400 W PEP minimum.
- (2) Next, select an empty frequency channel, and check the matching state of the antenna with an SWR meter. Use CW mode. If the SWR is too high, check the antenna system or adjust the element length. Keep the SWR within 1.5.
- (3) If the antenna matching is good, turn on the power of the amplifier.
- (4) Select either AUTO (automatic) or MANU (manual).  
When AUTO mode is selected, LED of AUTO/MANU lights. Key the radio to drive the amplifier. When in MANU (manual) mode, press the button and the LED of the selected band lights. The band is shifted upward every time the button is pressed.
- (5) When the radio is keyed into the transmission state, the HL-450B is automatically switched to the transmission (amplification state), and a high output power is emitted from the antenna. Then, the power meter swings according to the output level.
- (6) Adjust the ALC pot of the HL-450B, and suppress the maximum output to 400 W or the desired level.  
(In this case, the output of the transceiver is suppressed to a maximum of 50 W.)  
The ALC pot is turned fully clockwise at the factory shipment, and the output voltage is set to DC 0 V. When it is gradually turned counter-clockwise, a negative ALC voltage (−1 to −10 V) is generated.  
Adjust the voltage according to the ALC design of the radio.  
(Generally, the ALC works at approx. −4 V with ICOM, and at −4 V to −6 V with YAESU and KENWOOD.)
- (7) When operating without this amplifier (or bare foot), simply turn off the power switch of this amplifier with each cable left as it is. The reception/transmission signal to and from the radio passes through the inside of this amplifier.