

### C. Function Switch - Bypass/Operate

In the OPERATE position, the 1500Z will provide linear amplification of the exciter output. In the BYPASS position, the output of the exciter is connected directly to the antenna.

### D. Meter and Controls

The panel meter switch has three positions. When it is in the Ip position, the meter is reading the total plate current of the amplifier tubes. It therefore serves as a tuning meter to indicate tuning of the amplifier to resonance with a "dip" in the reading. It also indicates the loading of the antenna when the LOAD control is operated. When the switch is in the RELATIVE POWER position, the meter is measuring the voltage on the center conductor of the transmission line and, thus, is an indicator of relative power output. When in the Ep position, the meter is reading the voltage applied to the plates of the amplifier tubes.

## 5.0 TUNING INSTRUCTIONS

1. Set the BYPASS/OPERATE switch of the 1500Z to the BYPASS position and the POWER switch to ON. The meter lamp should light and the tube filaments should be on. The exciter is now connected directly to the antenna through the 1500Z. Proceed with the tune up of the exciter in accordance with the manufacturer's instructions.
2. Make certain the exciter is not producing power and that its function switch is in the SSB position. Also, be certain that the carrier has been balanced out (if applicable to your exciter) and that the microphone gain is set to its minimum position. Set the meter switch to Ip position.
3. Key the exciter and note the 1500Z panel meter reading. It should be 90 ma.,  $\pm$  10 ma.
4. Preset the PLATE and LOAD controls in accordance with Table 1. Place the BANDSWITCH to a range that includes the frequency of the exciter output. All initial tuning should be accomplished at a low power level to prevent damage to the final amplifier tubes. Key the exciter and adjust output power level using the carrier balance control or, if the exciter is a solid state unit place the function switch to CW and adjust drive level to obtain a slight indication on the panel meter. Adjust PLATE tuning to obtain a dip on the meter.

TABLE 1.

MHz RANGE	PLATE	LOAD
3.5	80	10 to 11 o'clock
7.0	40	10 to 11 o'clock
14.0	20	12 to 1 o'clock
21.0	15	2 to 3 o'clock