

OPERATOR'S CONTROLS, INDICATORS AND FACILITIES

(See Figures 1, 2 and 3)

1. **RECEIVER AUDIO OUTPUT Meter.**
 - a. Measures receiver audio output power on 0-.1, 0-1 and 0-10 watt scales.
 - b. Auxiliary dB scale reads from -20 to +3 dB for convenience in making comparative measurements.
 - c. Measures percentage of distortion of 1000 Hz test signal on 0-30% scale.
2. **Meter Zero Adjust.** Adjusts RECEIVER AUDIO OUTPUT meter (1) to zero with no input applied.
3. **LOAD Switch.** Selects 4-ohms, 8-ohms or 16-ohm load impedance for receiver audio output signal.
4. **RECEIVER FUNCTION Switch.**
 - a. **WATTS** positions:
 - (1). .1. Selects 0-.1 watt scale (0-100 milliwatts) for meter (1).
 - (2). 1. Selects 0-1 watt scale for meter (1).
 - (3). 10. Selects 0-10 watt scale for meter (1).
 - b. **% DIST** positions:
 - (1). **SET FULL SCALE.** Used with control (5) and meter (1) to set and read reference for distortion measurement.
 - (2). **ADJ FOR MIN.** Used with control (6) and meter (1) to set up and read percentage of distortion.
5. **% DIST, SET FULL SCALE Control.** Adjust meter (1) for full-scale reference in preparation for distortion measurement.
6. **% DIST, NULL Control.** Adjust meter (1) for null (minimum) before distortion measurement reading is taken.
7. **POWER Switch.** Turns unit ON and OFF.
8. **POWER Indicator.** Lights when unit is on.
9. **AUDIO SOURCE Switch.**
 - a. **2-TONE.** Selects 500 Hz and 2400 Hz two-tone signal at speaker (12) and AUDIO OUTPUT jacks (21).
 - b. **1 kHz.** Selects 1 kHz signal at speaker (12) and AUDIO OUTPUT jacks (21).
 - c. **RECVR AUDIO.** Selects receiver audio output signal at speaker (12) and AUDIO OUTPUT jacks (21).
10. **AUDIO GAIN Control.** Adjusts level of signal at speaker (12) and AUDIO OUTPUT jacks (21).
11. **SPEAKER Switch.** Turns speaker (12) ON and OFF.
12. **Speaker.**
 - a. Monitors receiver audio output.
- b. Drives microphone of transmitter with 1 kHz or 2-tone test signal when face of microphone is placed over speaker.
13. **TRANSMITTER RF OUTPUT Meter.**
 - a. Measures transmitter RF output power, both forward and reverse, on 0-10, 0-50 and 0-100 watt scales.
 - b. Measures standing wave ratio directly on SWR scale.
14. **Meter Zero Adjust.** Adjusts TRANSMITTER RF OUTPUT meter (13) to zero with no input applied (adjusted with unit turned on).
15. **RANGE Switch.**
 - a. **10.** Selects 0-10 watt scale for meter (13).
 - b. **50.** Selects 0-50 watt scale for meter (13).
 - c. **100.** Selects 0-100 watt scale for meter (13).
16. **TRANSMITTER FUNCTION Switch.**
 - a. **FWD.** Selects forward power for measurement on meter (13).
 - b. **REV.** Selects reverse power for measurement on meter (13).
 - c. **SET REF.** Selects control (17) to set reference for SWR reading. Reference is read on meter (13).
 - d. **READ SWR.** Selects SWR for measurement on meter (13).
17. **SET REF Control.** Adjusts meter (13) to full scale reference in preparation for making SWR measurement.
18. **RF LOAD Switch.**
 - a. **EXT.** Terminates transmitter RF output in external antenna or dummy load that is connected to EXT RF LOAD jack (22).
 - b. **INT.** Terminates transmitter RF output signal in internal 50-ohm dummy load.
19. **RF POWER Switch.**
 - a. **AVG.** Selects average power reading for meter (13); used for AM transmitter output measurements.
 - b. **PEAK.** Selects peak power reading for meter (13); used for SSB transmitter output measurements.
20. **RECEIVER AUDIO Jacks.** Connects receiver audio output (typically external speaker output) of Citizen's Band transceiver to RECEIVER AUDIO OUTPUT meter (1).
21. **AUDIO OUTPUT Jacks.** Connects audio output of CB ServiceMaster to external equipment, such as the external modulation input of an RF signal generator. The type of signal (1 kHz, 2-tone or receiver audio) is selected by AUDIO SOURCE switch (9).