

**PERFORMANCE REQUIREMENTS**  
**ANNOUNCEMENT MACHINE INTERCEPT CIRCUITS**  
**GENERAL EQUIPMENT REQUIREMENTS**  
**COMMON SYSTEMS**

**1. GENERAL**

**1.01** This section covers the performance requirements for the machine intercept circuits.

**1.02** Reference shall be made to Section 800-630-180 covering general performance requirements for additional information necessary for the proper application of the requirements listed herein. However, the transmission requirements specified herein shall be met at the time of turnover whether or not requested by the customer.

*Caution: The amplifiers contain coils which may be permanently damaged through magnetization if direct current is passed through their windings.*

**2. CIRCUIT OPERATION TESTS**

**(A) Routine Tests**

**2.01 Control, Announcement Machine and Amplifier Circuits**

(a) Each machine shall test clear of trouble on the last 50 calls completed to it.

(b) A test shall be made consisting of the following cycle: (1) erasing the announcement (hold ERASE KEY operated for approximately 20 seconds), (2) recording a new announcement, (3) monitoring the announcement, and (4) manually and automatically transferring the machine to the load. This equipment shall test clear of trouble on the last five repeats of this cycle.

**2.02 Trunk and Distributing Circuits**

(a) A test shall be made consisting of the proper origination, completion and discon-

nection of calls for each class of intercepting service provided; namely: regular, trouble and machine. This equipment shall test clear of trouble on the last five calls in each class of intercepting service provided.

(b) When the feature for transfer to an operator on machine calls is provided, three of the five test clear machine calls shall be allowed to transfer to the operator.

**(B) Supplementary Tests**

**2.03 Control, Announcement Machine, and Amplifier Circuits**

Tests shall be made of all functions of the circuits not covered under the routine tests including the following:

(a) Automatic and manual transfer of a machine to the load.

(1) Connection to the load at the beginning of an announcement interval.

(2) On manual transfer, removal from the load at the end of an announcement interval.

(3) Transfer of machine from the load when associated TO jack is in use.

**2.04 Trunk and Distributing Circuits**

Tests shall be made of all functions of the circuits not covered under the routine tests.

**(C) Miscellaneous Supplementary Tests**

**2.05 Erasing Coil:** With the ERASE key operated check for a-c line voltage (117 volts  $\pm$  10%) across terminals 3 and 5 of TS5 on the Recorder Reproducer (Ref. BO-173985). Use a-c Voltmeter with 0-150 or 0-200 Volts scale. This shall be checked on each machine.

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### 3. TRANSMISSION TEST REQUIREMENTS

#### (A) Announcement Bureau

**3.01** The output at the 1000 cycle  $-24$  db jack on the control unit shall be  $-24$  dbm  $\pm 0.5$  db. Use the No. 13A transmission measuring set or equivalent.

**3.02** Each Recorder-Reproducer and Amplifier shall meet the following requirement:

(a) **Gain:** With a recording on the recording band of 1000 cycle down 24 dbm (1 milliwatt from a 1000 cycle oscillator connected through a 24 db pad to the (TI) jack and the REC key operated) the output of the amplifier during recording (ER key normal) shall give a reading of  $0 \pm 2$  db on the VOL IND Meter. The (REC) potentiometer shall be adjusted during recording to obtain this output reading. After recording, the reproduced gain (REC key normal) shall be such that the VOL IND Meter shall again read  $0 \pm 2$  db. The REP potentiometer shall be adjusted during reproducing to obtain this output reading. The recording and measuring shall be repeated until the requirement is met, the previous recording being erased (ER key operated) for 20 seconds or two to three revolutions of the drum prior to each recording.

(b) **Volume Indicator Check:** With a 13A transmission measuring set, or equivalent, connected at the TO jack, the reading on the VOL IND Meter shall not differ from the reading on the T.M.S. by more than  $\pm 0.5$  db on the basis that 0 reading on the VOL IND Meter corresponds to  $+8$  dbm on the T.M.S.

(c) **Noise:** With no recording on the recording band (ER key previously operated for approximately 20 seconds) the output of the amplifier (ER and REC keys normal) shall be at least  $-32$  dbm, as measured on the 13A T.M.S. As measured on the 2B N.M. set the output shall not exceed 40 dba on Line Weighting Basis.

(d) **Voice Alarm:** With a test recording as described above ( $0 \pm 2$  db reading on VOL IND Meter) readjust the REP potentiometer until a reading of  $-9 \pm 2$  db is obtained on the VOL IND Meter. The AL lamp shall light after a delay of not more than 6 seconds. After this test the REP potentiometer shall be returned to its previous setting ( $0 \pm 2$  db on the VOL IND Meter). When the amplifier is turned down by operating the a-c power switch to the off position the AL lamp shall light immediately.

#### (B) Trunk Circuits

**3.03** The trunk circuits shall meet the transmission requirements specified on the circuit drawings.

### 4. TEST REPORTS AND RECORDS

**4.01** In addition to the reports and records specified in Section 800-630-180, the results of all gain tests shall be recorded on a suitable data form and shall be turned over to the local representative of the Telephone Company in the office where the equipment is installed.

Bell Telephone Laboratories, Inc.