

TRANSMISSION MAINTENANCE

ECHO SUPPRESSOR TESTS USING

58-TYPE ECHO SUPPRESSOR MEASURING SYSTEM

1. GENERAL

1.01 This section covers the trunk tests using the 58-Type Echo Suppressor Measuring System (ESMS). These tests are made to determine if all functions of the echo suppressor(s) in the trunk are being performed satisfactorily.

1.02 This section affects Equipment Test Lists.

1.03 ESMS tests are applied *at a testboard to the trunk* containing the suppressor(s) to be tested. Detailed instructions covering the operation of the ESMS are contained in Section 103-105-310.

2. MAINTENANCE GUIDES

2.01 This section *does not* replace the echo suppressor maintenance tests provided in the 332 division of the Bell System Practices; however, when echo suppressors are *tested by the ESMS*, other maintenance tests should be unnecessary *unless* a suppressor fails one or more of the ESMS tests.

2.02 When a failure occurs on a 1A, 3A, or 3B echo suppressor:

- (a) The failure should be confirmed by testing the suppressor, using the corresponding part of the appropriate maintenance section in the 332 division. (See Table A or B in Section 103-105-310.)
- (b) The failure should be corrected by adjustment, plug-in unit replacement, or trouble clearance.
- (c) The trunk containing the echo suppressor should be retested by the ESMS to ascertain that it passes all tests.

2.03 When a failure occurs on a 4A echo suppressor, the defective plug-in unit should be replaced and the trunk retested with the ESMS to ascertain that it passes all tests. The test extender and

trouble-location section for the 4A echo suppressor (332 division) should be used to determine which plug-in unit is defective unless it is obvious from the results of the tests with the ESMS.

2.04 When an ESMS is *not* available, *or* when a trunk containing an echo suppressor is not accessible from an ESMS, the maintenance tests specified in the Equipment Test List for the 332 division must be performed. Since the 4A echo suppressor is nonadjustable, the maintenance section provides trouble-locating procedures only.

3. TESTING

3.01 ESMS tests should be applied to any trunk whenever there is an indication of echo suppressor trouble. In addition, ESMS tests should be applied periodically as preventive maintenance. Past experience indicates that when an echo suppressor is properly adjusted and passes the ESMS tests, it will operate satisfactorily for a long time. The time between tests is therefore largely dependent on the type of suppressor being used. Based on the best data available, the following intervals are recommended as the maximum periods between the application of ESMS tests. When a trunk is equipped with two types of echo suppressors and two intervals are specified, both echo suppressors should be tested at the shortest interval.

| ECHO SUPPRESSOR | ESMS TEST INTERVAL |
|---------------------|--------------------|
| (a) 1A (Unmodified) | 3M |
| (b) 1A (Modified) | 6M |
| (c) 3A | 12M |
| (d) 3B | 12M |
| (e) 4A | 12M |