

American Telephone and Telegraph Company

BELL SYSTEM PRACTICES
Teletypewriter and Manual
Telegraph Station and PBX
Installation and Maintenance

SECTION P30.908
Appendix 4
Issue C, 2-1-52
Long Lines Department
Dist. Class. 600AC

PRIVATE LINE SERVICE - TELEGRAPH
DEPARTMENT OF COMMERCE, CIVIL AERONAUTICS
ADMINISTRATION-ONE WAY REPEATERS FOR
EXTENSION SERVICE

1. GENERAL

- *1.00 This issue supersedes Issue B. This appendix is reissued to revise the application of one way repeaters and make other minor changes.
- *1.01 This appendix describes the application of the 13-Z-1 and 13-Z-2 One Way Telegraph Repeaters to extension stations on teletypewriter circuits of the Civil Aeronautics Administration. The 13-Z-2 type supersedes the 13-Z-1; information on the latter is included only for use in connection with existing installations.
- *1.02 One way repeaters should be provided only when specified by a Private Line Service Order.
- 1.03 Complete details covering the theory, operation and physical makeup of the repeater are contained in the following instructions and drawings:

13-Z-1 Repeater

Long Lines Drawing 20295-SD-124
" " " 20295-T-124

13-Z-2 Repeater

Long Lines Drawing 20480-SD-124
" " " 20480-T-113

Common to Both Repeaters

B.S.P. Section P31.917 (Long Lines)
" " E45.922 (" ")

2. APPLICATION

2.01 These one way telegraph repeaters are designed to furnish receiving only teletypewriter service to one or more extension stations when operation of such station from a CAA station is specified.

2.02 As applied in connection with services of the CAA, the power to operate the loop and repeater shall not be obtained from the circuits or supply of the Civil Aeronautics Administration. It may be obtained from a separate power service supplied by the Telephone Company at the repeater location or from the supply to the subscriber receiving the extension service.

2.03 If power is obtained from a source at the repeater location (usually the CAA office) meeting the requirements of Paragraph 2.02, any extension service subscriber or combination of subscribers desired may be served from one repeater if within the transmission limits of the repeater as specified in Bell System Practices Section P31.917. If feasible, each subscriber served from a common repeater should be served by a separate loop facility rather than by connecting all subscribers in series on the same loop facility.

2.04 If power is obtained from the supply of the customer receiving the extension service, only those subscribers which are covered by a common contract may be connected to any one repeater.

Example: At one airport, extension service is furnished to 3 commercial airlines and a municipal department. Airlines A and B are covered by a contract with Aeronautical Radio and both may therefore be connected to one repeater. Airline C, however, is not a member

of Aeronautical Radio and must be served by a separate repeater. The municipal department extension is also a separate contract and must be served from a separate repeater. Thus 3 separate repeaters and three separate rectifiers are required to give extension service to these 4 customers.

2.05 If a suitable source of power could be obtained at the repeater location in the case cited above, all three airlines and the municipal department may be served from a single repeater, thereby saving two rectifiers and two repeaters.

3. INSTALLATION

3.01 The installation shall be in accordance with the standard practices and shall conform to all local rules and regulations.

3.02 The repeater shall be mounted in the telegraph terminal apparatus cabinet described in Appendix 2 of this section. The rectifier associated with the repeater may be located at the extension station, at the repeater location or at any other suitable location where the requirements for obtaining an A.C. power supply, described in Paragraph 2.02, are fulfilled.

3.03 If the power is obtained from the supply of the subscriber receiving extension service, use the utility outlet on the teletypewriter table associated with the receiving only teletypewriter. Connection plans for such an arrangement are given in B.S.P. Sections E45.922 and P31.917.

3.04 If it appears desirable to obtain power at the repeater location and the only power available there is from the circuits or supply of the CAA, arrange with the local power company to provide a metered lead for this purpose. (Any billing to the Telephone Company for this installation and power shall be handled through normal Plant channels.)