

## PRIVATE LINE TELEPHONE SERVICE ALTERNATE USE OF CHANNELS

	CONTENTS	PAGE
1.	GENERAL . . . . .	1
2.	ARRANGEMENTS AT CUSTOMER LOCATIONS . . . . .	1
3.	LOCAL CHANNELS . . . . .	2
4.	INTEREXCHANGE CHANNELS . . . . .	2
5.	INITIAL AND PERIODIC LINEUPS . . . . .	3
6.	TESTING ARRANGEMENTS . . . . .	3
7.	TROUBLE HANDLING PROCEDURES . . . . .	4
8.	REPORTS OF SERVICE INTERRUPTIONS . . . . .	4
9.	ALTERNATE USE SERVICES INVOLVING INDEPENDENT COMPANIES . . . . .	4

### 1. GENERAL

1.01 This practice covers a description of the over-all circuit layout arrangements and the operating procedures in test rooms for service maintenance on private line telephone services utilizing Telephone Company voice station equipment arranged for alternate use with teletypewriter, telephotograph, data transmission, signaling or facsimile equipment utilizing either Telephone Company or other than Telephone Company station equipment. In each instance the channel terminating and in most cases pulse converting equipment is provided by the Telephone Company.

1.02 This practice outlines special considerations that apply generally to all such alternate services and covers the details of the application of these principles to specific groups of circuits where this appears desirable. One such group of circuits are those furnished under the Agency arrangement with Western Union Telegraph Company where customer-provided non-voice station equipment, i.e, provided by some one other than the Telephone Company is used.

1.03 Unless otherwise stated by this practice, standard practices should be followed with respect to matters relating to the design,

establishment and maintenance of service. They should also be followed in connection with equipment or facility testing, maintenance and on problems relating to Plant, Commercial and Customer coordination.

1.04 The layouts will be designated in the usual manner for that portion to be provided, owned and maintained by the Telephone Company. The circuit layout sketch card when provided should show this portion in the normal manner. In addition, it should clearly indicate the line of demarcation, 1000 cycle telephone circuit lineup levels or dc voltages, or currents applicable at this point, and show such details of the customer-provided equipment as is furnished in the service order. This latter information would be shown on the circuit layout card together with a note as to the location of the demarcation strip only as an aid to test room personnel in handling contacts regarding troubles and service problems.

1.05 In connection with customer equipment provided by Western Union under the Agency arrangement, the order received from Western Union will show their Area Superintendent as the Plant contact. This information should be included on the service order and it is the responsibility of the Telephone Company contact shown on the service order to coordinate intercompany arrangements. Questions on engineering design of specific service layouts which require discussion with Western Union engineering people should be referred to the Transmission Engineer, Western Union Telegraph Company, 60 Hudson Street, New York.

### 2. ARRANGEMENTS AT CUSTOMER LOCATIONS — (Equipment Arrangements)

2.01 Equipment arrangements for the customer private line telephone termination and for the alternate service switching arrangement shall be specified in the usual manner on

the service order or the engineering supplement to the service order. This equipment will be owned and maintained by the Telephone Company. Where the alternate use is for teletype-writer service, a digital subset or a 130-type subset will usually be specified at the customer's station. Where the alternate use is for data service, a Telephone Company owned digital subset will usually be specified.

**2.02** A simple locking type switching key will usually be specified for use at the customer's premises for the alternate transmission. However, this is subject to customer (service order) requirements and may be part of a key set or standard key equipment.

**2.03** Telephone Company equipment at customer's premises will be located in a Telephone Company owned floor or wall mounted cabinet. Where customer-provided equipment is used for the alternate (non-voice) service, a demarcation strip will be provided by the Telephone Company, one side of which will be used to connect the customer-provided equipment to the Telephone Company equipment. The demarcation strip should, if practicable, be located close to the station equipment.

**2.04** Isolation coils or similar protection, if specified, shall be provided between the Telephone Company terminal equipment and other station equipment. However, this type of protection may not normally be required.

**2.05** Means should be provided at the customer's premises for readily determining whether a trouble condition locates in Telephone Company or customer-provided equipment. Wherever practicable, this should be arranged for determination remotely from the test room to minimize trouble locating visits to customer premises. It may involve having the customer operate the alternate service key to a third or "test" position to cut the loops together or otherwise provide for remote testing.

### **3. LOCAL CHANNELS**

**3.01** In accordance with standard practice 2- or 4-wire local channels may be used for the service and will be routed from the customer's location to the Telephone Company's telephone testboard. Local channels should appear in the

Telephone Private Line test bay or equivalent centralized location in the test room to insure prompt service attention.

**3.02** In accordance with the standard practice which does not provide for delay equalization on private line telephone layouts the service order or the engineering supplement to the service order and the circuit layout record cards will specify the information necessary for gain or delay equalizing of the local channels when required. These sources will also indicate lamps, etc, when and as required for indicating whether the facilities are in the telephone or the alternate use condition of transmission. All of these arrangements will be provided and maintained by the Telephone Company.

### **4. INTEREXCHANGE CHANNELS — (Type, Equalization and Conditioning for Alternate Use)**

**4.01** The Telephone Company will provide all necessary equipment for equalizing line facilities and conditioning them for the alternate type transmission. Such requirements will be detailed on the circuit layout record cards in the normal manner. Standard practices do not provide for delay equalization on private line telephone layouts.

**4.02** Suitable jack arrangements should be provided so that when reroutes or patches are utilized in case of trouble on the regular line, the equalization and line conditioning equipment may, if needed and applicable, be carried over to the make-good line facilities.

**4.03** Wherever desirable and practicable, suitably equalized and conditioned traffic release emergency layouts should be provided so that prompt restoration of service can be made. In those cases where lack of coverage is a factor consideration should be given to remote control of these layouts to insure prompt service restoration. District Plant Superintendents in whose territory control offices are located should recommend provision of such remotely controlled traffic release emergency layouts via line of organization when service conditions indicate their provision necessary. The requirements for such arrangements are the same whether or not the Telephone Company provides the complete service.

**4.04** Service orders and circuit layout record cards will indicate by suitable notations which circuits are for alternate use, whether they are Western Union Agency circuits, etc, the type of alternate use, by whom the alternate use station equipment is provided, and any other information that will assist the maintenance forces. These records will also indicate the priority classifications assigned.

**5. INITIAL AND PERIODIC LINEUPS — (Initial Lineups)**

**5.01** Depending on the type of alternate service specified, the circuit order lineup tests should be made and limits applicable should be met as specified in the appropriate Sections. In every case, the initial lineup should include a check to make sure that the alternate service switching arrangement at the customer's premises properly conditions the layout intended in each of the two or three positions for which it is designed. This check should also include assurance that signaling is satisfactory and that proper operation of indicating lamps is obtained, where provided, to show the condition of the circuit.

**5.02** The initial lineup should include a check of remotely controlled make-good arrangements using either regular message or traffic release emergency facilities where provided. This check is desirable in every case to insure that all offices enroute have provided adequate patching and rerouting plans and equipment and are familiar with such arrangements.

**5.03** Suitable local records of all tests should be preserved by control offices to compare with periodic or trouble test results. Alternate use circuits should be tested periodically in accordance with appropriate instructions. Results of periodic tests should be supervised and analyzed by the control office involved and action taken to investigate excessive troubles and instability of results where indicated. This action should be the responsibility of the Telephone Company testboard forces at the control office. The appropriate Telephone Company forces shall be responsible for the alternate Telephone Company provided teletypewriter service as outlined in existing practices covering telegraph test room circuit maintenance and trouble clearing procedures.

**5.04** Where results indicate unsatisfactory performance on periodic tests and causes are not readily apparent, action should be taken to set up a program of special tests and observations in order to disclose the cause.

**6. TESTING ARRANGEMENTS**

**6.01** Arrangements should be made by each serving test room to enlist the aid of the customer in operating switching keys and in making patches in order to segregate trouble conditions to (a) customer-provided station equipment, or (b) alternate use Telephone Company terminating equipment, or (c) telephone station equipment.

**6.02** Telephone Company representatives on visits to the customer prior to the establishment of service and on periodic visits thereafter, should insure that the customer is familiar with the arrangements, that patch cords where required are provided and readily accessible, and that the customer is prepared to cooperate in such activities.

**6.03** Testing trunks, as required, should be provided within the Telephone Company serving test room between the private line telephone terminating bays and the telegraph or telephotograph testboard, or other appropriate location for access to special test equipment, for special observations, etc.

**6.04** Where a 4-wire bridge is used and the service layout does not include a spare 4-wire bridge leg for testing and monitoring purposes, a 4-wire bridge should be provided for patch-in test use. One such testing bridge will usually care for all layouts in the test bay which do not have a spare bridge leg in the assigned service layout.

**6.05** The testing trunks and bridges should be checked for 1000 cycle transmission and frequency net loss as required and a record should be kept so that measurements on local and interexchange channels may be corrected for the losses in the testing facilities.

**6.06** The use of multiple type testing trunks should be avoided where practicable. Where multiple type trunks are provided, suitable busy indicating arrangements should be used, and care taken to insure that only idle test-

ing trunks are employed when testing on or patching alternate use line or loop facilities between the testboards at the serving test room.

## **7. TROUBLE HANDLING PROCEDURES**

**7.01** In general trouble reports should be handled in accordance with the procedures contained in B.S.P. sections covering this subject with exceptions and amplifications as outlined by this Practice. All trouble reports from the customer except obvious cases of trouble on customer-provided machines are to be given initially to the Telephone Company and the Telephone Company will be responsible for the over-all trouble clearing. Where the alternate use station equipment is customer-provided, obvious causes of machine trouble such as paper jam, torn ribbon or type pile-up will be reported direct by the customer to the supplier or maintainer of his equipment.

**7.02** Whenever it has been determined that a trouble condition on an alternate use service is not in the Telephone Company portion of the line and equipment the Telephone Company will advise the customer that the trouble appears to be in the equipment provided by him.

**7.03** If his equipment is provided by Western Union under the Agency arrangement, the Telephone Company will notify the Telegraph Company and advise the customer that the Telegraph Company has been informed of the difficulty. Thereafter all contacts regarding the trouble should be between the customer and Western Union. After the Telegraph Company has cleared the trouble in its portion of the equipment it will notify the Telephone Company accordingly and the Telephone Company will check to make sure that the service is restored.

**7.04** Should the trouble locate in the interexchange channel, the local channel, or Telephone Company channel terminating equipment, prompt action should be taken to patch or reroute the interexchange facilities, to complete repairs on or have the local channel facilities replaced, or repair the station equipment, whichever may be the case. Close coordination between

the Telephone Company forces involved should be maintained so that a minimum amount of time is used in locating and eliminating the cause of trouble.

**7.05** Should the trouble be such that a make-good is not possible and the service can be used for voice transmission but not for the alternate use, the customer should be informed of this fact so that he may use the circuit for this purpose pending clearance of the trouble on the alternate transmission.

## **8. REPORTS OF SERVICE INTERRUPTIONS**

**8.01** It will be necessary for the control office to keep complete records of all interruptions to service and of all periods where the alternate service is not available for service or is impaired.

**8.02** Reports of interruptions and impairments should be made in accordance with appropriate local instructions in order that any allowances due the customer may be made in accordance with the tariffs applicable.

**8.03** In the case of services provided under the Agency arrangement with Western Union the circuit control office shall notify Western Union of the time the circuit is not available for its alternate use and the cause of the trouble. The procedures to be used should be established locally.

## **9. ALTERNATE USE SERVICES INVOLVING INDEPENDENT COMPANIES**

**9.01** When Independent Companies participate in furnishing alternate use services by providing local channels and station equipment, the same or similar facility and operating arrangements are desirable. When Independent Company interexchange facilities are required it is expected that requests for such facilities would follow the procedures normally used in obtaining Independent Company facilities for any private line service. Wherever practicable, it would seem desirable for a Bell Company office to act as serving test center for any stations in Independent Company territory.