COMMON SYSTEMS
TELEPHONE REPEATER
APPLICATION SCHEMATIC
22 TYPE TELEPHONE REPEATER
FOR USE IN P.B.X. OR LONG SUBSCRIBER LINES
OR TRUNK CIRCUITS

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 Rating was changed from AT&TCo.Std. to Mfr. Disc.

All other headings, no change.

BELL TELEPHONE LABORATORIES, INC.

DEPT. 2540-DNR-PGE-WY

COMMON SYSTEMS
TELEPHONE REPEATER
APPLICATION SCHEMATIC
22 TYPE TELEPHONE REPEATER
FOR USE IN P.B.X. OR LONG SUBSCRIBER LINES
OR TRUNK CIRCUITS

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 The cross connections shown in figures L and M were added.

D.2 Cross connection figure K was not previously rated "Mfr. Disc.".

All other headings -- No change.

AMERICAN TELEPHONE & TELEGRAPH CO.,
BELL TELEPHONE LABORATORIES, INC.

DEPT. 333-A

HBN
BWK } OH

COMMON SYSTEMS TELEPHONE REPEATER APPLICATION SCHEMATIC 22 TYPE TELEPHONE REPEATER FOR USE IN P.B.X. OR LONG SUBSCRIBER LINES OR TRUNK CIRCUITS

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 The rating was changed from "Provisional" to "Provisional Standard".

All other headings no change.

AMERICAN TELEPHONE & TELEGRAPH CO.,
DEPT. OF DEVELOPMENT & RESEARCH.
BELL TELEPHONE LABORATORIES, INC.

DEPT. 333-A

HBN)
BWK) VS

COMMON SYSTEMS
TELEPHONE REPEATER
APPLICATION SCHEMATIC
22 TYPE TELEPHONE REPEATER
FOR USE IN P.B.X. OR LONG SUBSCRIBER LINES OR TRUNK CIRCUITS

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 Figures A and B and Note 101 were added to indicate the method of monitoring with available apparatus.

D.2 Reference to repeater circuit SD-62421-01 was changed to SD-62421-02, as the former circuit is now rated "Manufacture Discontinued".

All other headings - No change.

AMERICAN TELEPHONE & TELEGRAPH CO.,
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BELL TELEPHONE LABORATORIES, INC.

DEPT. 333-A

HBN
BWK } VD

COMMON SYSTEMS
TELEPHONE REPEATER
APPLICATION SCHEMATIC
22-TYPE TELEPHONE REPEATER
FOR USE IN P.B.X.OR LONG SUBSCRIBER LINES
OR TRUNK CIRCUITS

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 A Fig. of cross connections was added for this drawing.

D.2 The leads at the monitoring jacks were changed from the tip to the sleeve of the jacks.

All other headings no change.

AMERICAN TELEPHONE & TELEGRAPH CO.,
DEPT. OF DEVELOPMENT & RESEARCH.
BELL TELEPHONE LABORATORIES, INC.

DEPT. 533-A

HEP
BWK } MA

CIRCUIT DESCRIPTION
AMERICAN TELEPHONE & TELEGRAPH CO.,
DEPT. OF DEVELOPMENT & RESEARCH.
BELL TELEPHONE LABORATORIES, INC.
PRINTED IN U.S.A.

CD-90515-01
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COMMON SYSTEMS
TELEPHONE REPEATER
APPLICATION SCHEMATIC
22-TYPE TELEPHONE REPEATER
FOR USE IN P.B.X. OR LONG SUBSCRIBER LINES OR TRUNK CIRCUITS

CHANGES

A. CHANGED AND ADDED FUNCTIONS

A.1 No change.

B. CHANGES IN APPARATUS

B.1 No change.

C. CHANGES IN CIRCUIT REQUIREMENTS OTHER THAN THOSE APPLYING TO ADDED OR REMOVED APPARATUS

C.1 No change.

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 Prior to this issue a cross-connection diagram was shown.

DEVELOPMENT

1. PURPOSE OF CIRCUIT

1.1 No change.

2. WORKING LIMITS

2.1 No change.

OPERATION

3. FUNCTIONS

3.1 No change.

4. CONNECTING CIRCUITS

4.1 No change.

DETAILED DESCRIPTION

No change.

AMERICAN TELEPHONE & TELEGRAPH CO.,
DEPT. OF DEVELOPMENT & RESEARCH.
BELL TELEPHONE LABORATORIES, INC.

DEPT. 333-A

WWF)
BWK) GG

CIRCUIT DESCRIPTION
AMERICAN TELEPHONE & TELEGRAPH CO.
DEPT. OF DEVELOPMENT & RESEARCH.
BELL TELEPHONE LABORATORIES, INC.
PRINTED IN U.S.A.

CD-90515-01
Issue 1
April 8, 1931
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COMMON SYSTEMS
TELEPHONE REPEATER
APPLICATION SCHEMATIC
22 TYPE TELEPHONE REPEATER
FOR USE IN P.B.X. OR LONG SUBSCRIBER LINES OR TRUNK CIRCUITS

DEVELOPMENT

1. PURPOSE OF CIRCUIT

1.1 This circuit was designed to show the external connections to a 22 type telephone repeater when used with PBX line or trunk circuits or long subscriber lines.

2. WORKING LIMITS

2.1 None.

OPERATION

3. FUNCTIONS

3.1 Provides means for connecting 22 type repeaters to PBX lines or trunks, networks, monitoring jacks and battery supply circuits.

4. CONNECTING CIRCUITS

4.1 22 type telephone repeater.

4.2 Battery supply circuits.

4.3 PBX line or trunk circuits, or long subscriber lines.

DETAILED DESCRIPTION

5. GENERAL

This circuit shows the external connections to a 22 type telephone repeater when used in PBX line or trunk circuits or long subscriber lines. The repeater, located at a manual, panel or step-by-step central office, is permanently connected to a trunk or line. Except for monitoring jacks there are no other jacks nor any testing apparatus provided for making tests on the repeater. All tests

are made with portable apparatus at the time of installation and, afterward, transmission tests are made from the line or trunk terminal. Means for making filament activity tests are not required since the repeater tubes are replaced every six months.

6. BATTERY SUPPLY

This circuit is connected to a battery supply circuit which is arranged for lighting the repeater tube filament for the duration of a call. The source of filament current is the non-regulated 24 volt office battery. Grid voltages are obtained from voltage drops in the filament circuit and plate potential is supplied by a small 130 volt power plant.

7. SIGNALING

The bridge points of the repeater are strapped as there is no demand for 20, 135 or 1000 cycle signaling of PBX circuits. All ringing is accomplished by transmitting direct current over the tip and ring leads of the circuit.

8. MONITORING

The E-W and W-E monitoring winding of the repeater are connected in series thru the 1600 ohm resistance (A) to a pair of monitoring jacks.

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BELL TELEPHONE LABORATORIES, INC.

DEPT. 333-A

WB)
BWK)QG