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COMMON SYSTEMS  
FILTER CIRCUIT  
FOR TALKING OR FILAMENT  
BATTERY SUPPLY

CHANGES

D. Description of Changes

- D.1 Fig. 5 and option R are added. They provide a figure for use where a +V talk battery is required.
- D.2 Fig. 6 and option N are added. They provide a filter figure for use where a +V and -V talk battery are required.
- D.3 Circuit Notes 101 and 102 are revised.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT 5223-CEH-COR

CIRCUIT DESCRIPTION

CD-95571-01  
Issue 2-D  
Appendix 3-D  
Dwg. Issue 5 -D

COMMON SYSTEMS  
FILTER CIRCUIT  
FOR TALKING OR FILAMENT  
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CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 "S" option is added and "T" option is designated to arrange this circuit for

use in SXS switch frames equipped with 70-type fuse panels on switch shelves.

D.2 Note 101 and the Options Used table are expanded, and Note 102 is added to cover this change.

All other headings, no change.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 2321-RDK-AAB-ML

CIRCUIT DESCRIPTION  
SWITCHING SYSTEMS DEVELOPMENT DEPARTMENT

CD-95571-01  
Issue 2-D  
Appendix 2-D  
Dwg. Issue 4-D

COMMON SYSTEMS  
FILTER CIRCUIT  
FOR TALKING OR FILAMENT  
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CHANGES

E. CHANGES IN ELECTROLYTIC CONDENSER  
REQUIREMENTS

D.1 The Electrolytic Condenser Test  
requirements table is corrected to

remove the following, "Note 1 Dev. = Max.  
deviation from short circuited reading",  
and also the reference "+" to the note  
in the two columns headed "Min. Loss in  
db", since the note does not apply.

All other headings, no change.

BELL TELEPHONE LABORATORIES, INC.

DEPT. 3440-JPD-EWO-P1

**CIRCUIT DESCRIPTION  
SWITCHING SYSTEMS DEVELOPMENT DEPARTMENT**

**CD-95571-01  
Issue 2-D  
Appendix 1-D  
Dwg. Issue 3-D**

**COMMON SYSTEMS  
FILTER CIRCUIT  
FOR TALKING OR FILAMENT  
BATTERY SUPPLY**

**CHANGES**

**D. DESCRIPTION OF CIRCUIT CHANGES**

D.1 Information Note 301 specified filters for selector repeaters and toll transmission selectors. These were shown inadvertently and are removed since the talking battery for these frames is supplied from a miscellaneous fuse bay.

All other headings, no change.

**BELL TELEPHONE LABORATORIES, INC.**

**DEPT. 3440-TJP-EWO-G9**

COMMON SYSTEMS  
FILTER CIRCUIT  
FOR TALKING OR FILAMENT  
BATTERY SUPPLY

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 The heading of the second column of circuit note 101 was changed from "Amp. Cap." to "Busy Hour Load Amps."

D.2 Equipment note 201 was added.

D.3 Equipment note 202 formerly was numbered 201 and read, "The maximum resistance of leads "A" and "B" (including cable and/or bus bars) shall not exceed .007 ohms".

D.4 Equipment note 203 formerly was numbered 202 and read, "The maximum resistance of leads "A" and "B" (including cable and/or bus bars) shall not exceed 0.1 ohms."

D.5 Information note 301 was changed as follows:

Selector repeaters - 3rd line -  
from 50 to 25  
Selector repeaters - 4th line -  
from 112 to 50  
Single repeater units - 2nd line -  
from 50 to 25  
Double repeater units - 2nd line -  
from 112 to 50  
Connectors all types - 4th line -  
from 112 to 25

A complete item was added as follows: 1st column

1 or 2 misc. frames for misc. items  
Reverting call selectors  
Test distributors

20 2nd column

10

3rd column

25

D.6 Note references were revised as follows:

In figure 1

Reference to note 202 was added.

In figure 2

Reference to notes 201, 203 and 301 were added and reference to note 202 was removed.

In figure 3

Reference to note 202 was added and reference to note 301 was removed.

In figure 4

Reference to notes 201 and 203 were added and reference to notes 202 and 301 were removed.

D.7 Lead designations were revised as follows:-

B, C, D, E and F were added to the leads of figures 1 and 3.

B, C, D1, D2, E1, E2, F1 and F2 were added to the leads of figures 2 and 4.

D.8 Wire size data were removed from figures 1, 2, 3 and 4.

D.9 The terminal numbering of the retardation coil of figures 1, 2, 3 and 4 were removed.

All other headings under Changes, no change.

1. PURPOSE OF CIRCUIT

1.1 To provide a quiet source of battery supply for talking battery and filament current supply.

2. WORKING LIMITS

2.1 None.

3. FUNCTIONS

3.1 To provide a filter for eliminating objectionable noise from the battery supply to talking circuit and to the filaments of vacuum tubes.

3.2 To protect the filter from excessive current drain in case a filter condenser should break down.

3.3 To provide a fuse alarm in case a fuse operates in the circuit to the filter condenser.

4. CONNECTING CIRCUITS

When this circuit is listed on a key sheet the connecting information thereon is to be followed.

- 4.1 Power battery distributing circuit SD-80440-01 (typical).
- 4.2 Power discharge circuit SD-80577-01 (Typical).

DESCRIPTION OF OPERATION

5. FILTER

The use of retardation coil (CC) and by pass condenser (C1) (for figures 1 and 3) or condensers (C1) and (C2) in parallel (for figures 2 and 4) reduces the audible disturbance of the battery

supply to a level satisfactory for use with talking circuits. In addition the by pass condenser or condensers provide an impedance low enough to keep cross-talk within permissible limits when the resistance of the wiring between the battery and ground bus bars and the units of the filter does not exceed 0.02 ohms for the single condenser filter per figures 1 and 3 or 0.11 ohms for the 2 condensers of the filter for figures 2 or 4. Should a condenser break down the fuses in circuit will operate giving an alarm indication of the condition.

BELL TELEPHONE LABORATORIES, INC.

DEPT. 3310-HGWB-RLL-LI