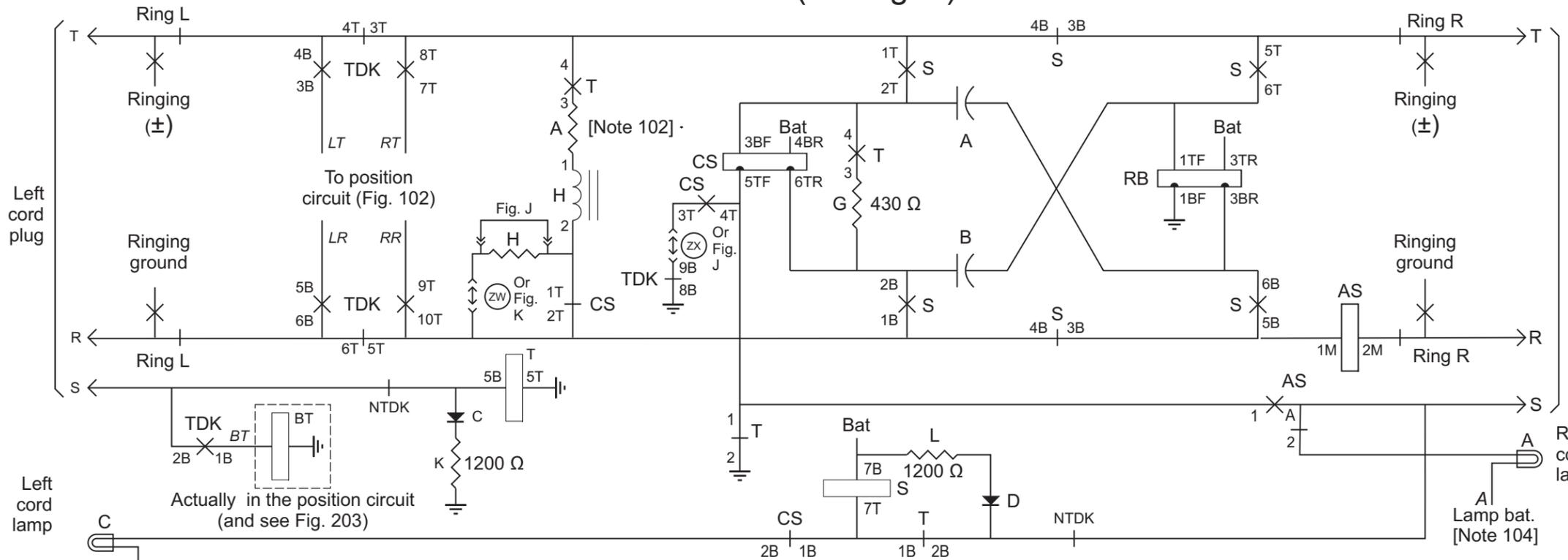


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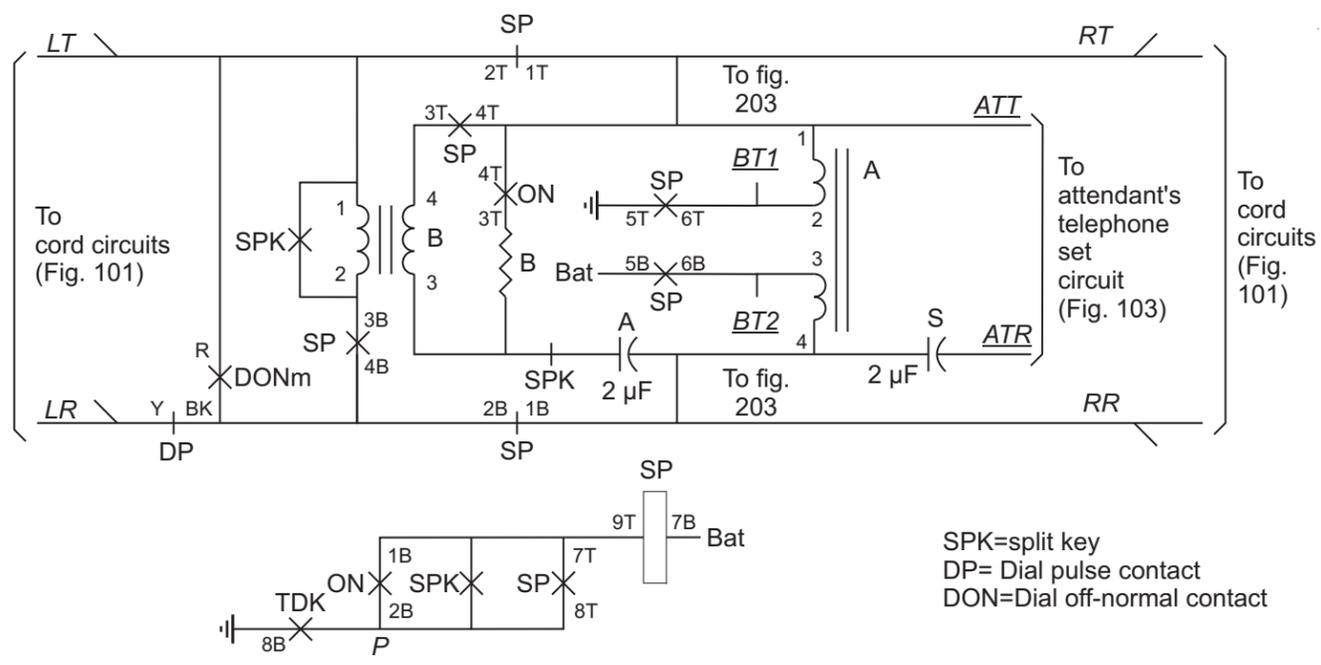
Fig. 101
Cord circuit (SD Fig. 1)



- Notes**
- 101 [Deleted]
 - 102 Resistance here may be, by option, 0, 100, 200, or 300 ohms.
 - 103 May have resistor and/or resistance lamp here.
 - 104 Lamp battery fed through NL relay of night alarm circuit.
 - 105 Figs. 101 and 102 are interconnected via a 204A connector, not shown on those figures The details of that are shown on Figure 301.
 - 105 Designations in italics are for leads. Those not found on the SD- drawing itself are also underscored.
 - 106 Fig. 1 and 2 are drawn with the tip conductor on top, consistent with the SD-drawing.
 - 107 [Deleted]
 - 108 Option ZX shown: thru supervision on all trunk calls.

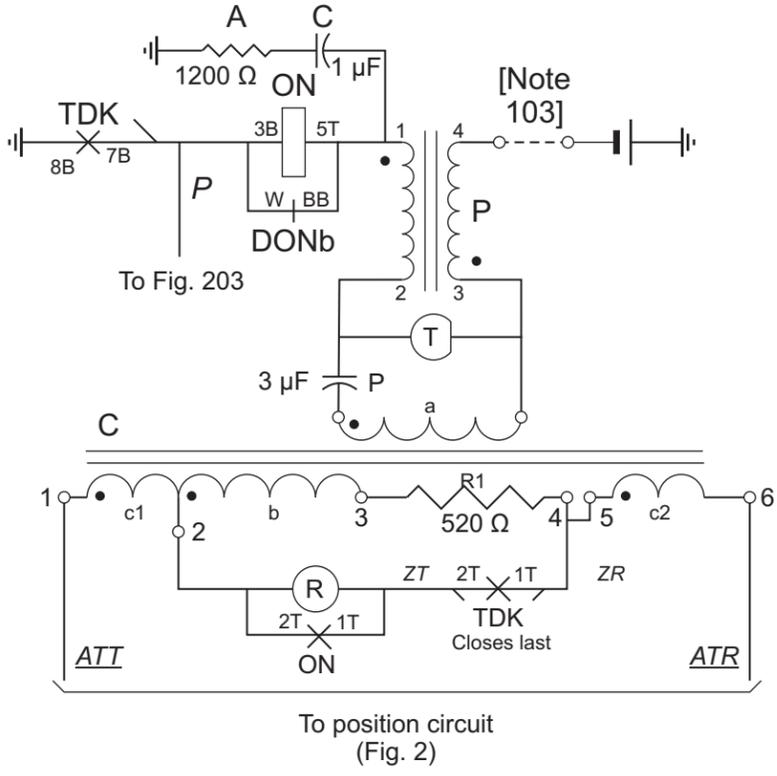
TDK= talk and dial key
NTDK=Night and through dial key
Fig. K or option ZW: Non-through supervision
Fig. J or option ZX: Through supervision

Fig. 102
Position circuit (SD Fig 2)



SPK=split key
DP= Dial pulse contact
DON=Dial off-normal contact

Figure 103
Attendant's telephone circuit (SD Fig 2)



This drawing is based on SD-66520-01 with figures 1, 2, 5, 8, 9, M, and P, and options ZT and ZX (among others)

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Principal circuits

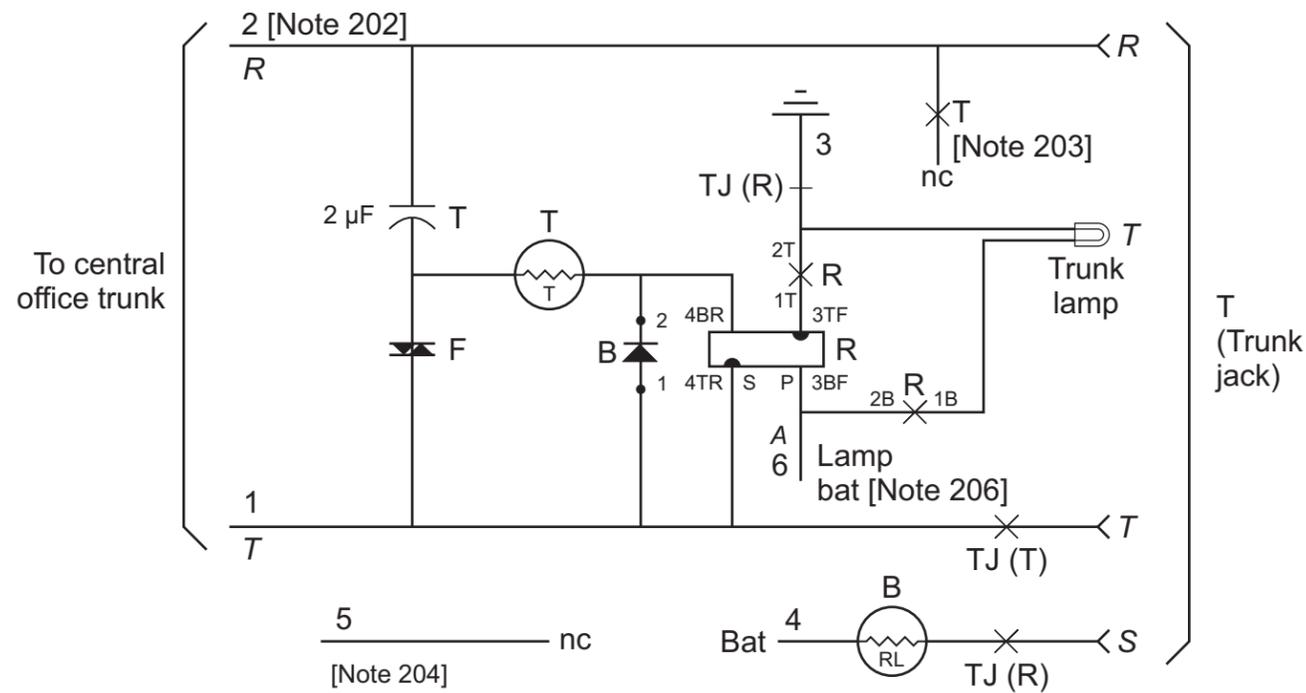
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Fig. 201
CO trunk circuit (SD Fig P)
[Note 201]



- Thermistor (negative temperature coefficient of resistance)
- Resistance lamp (positive temperature coefficient of resistance)

Fig. 202
Station line circuit (SD Fig 5)

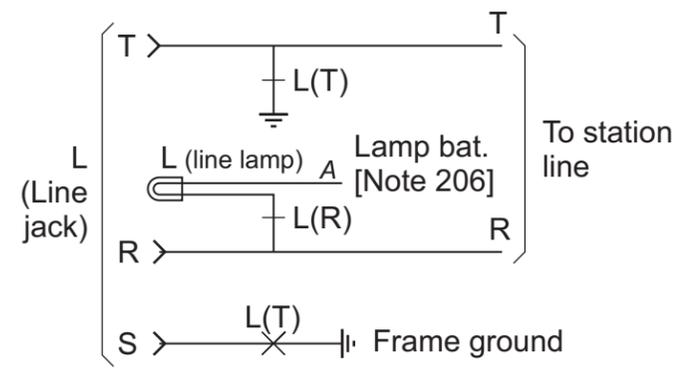
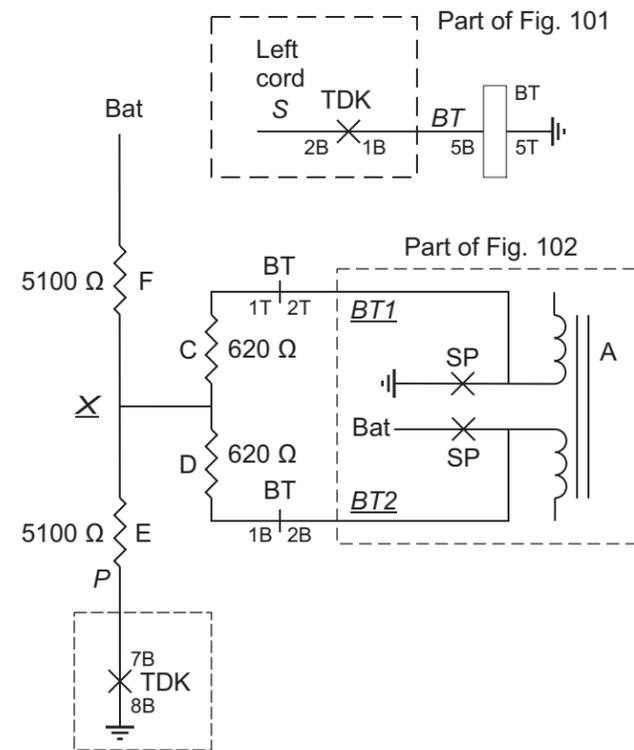


Fig. 203
Busy test circuit (SD Fig M)
[Note 205]

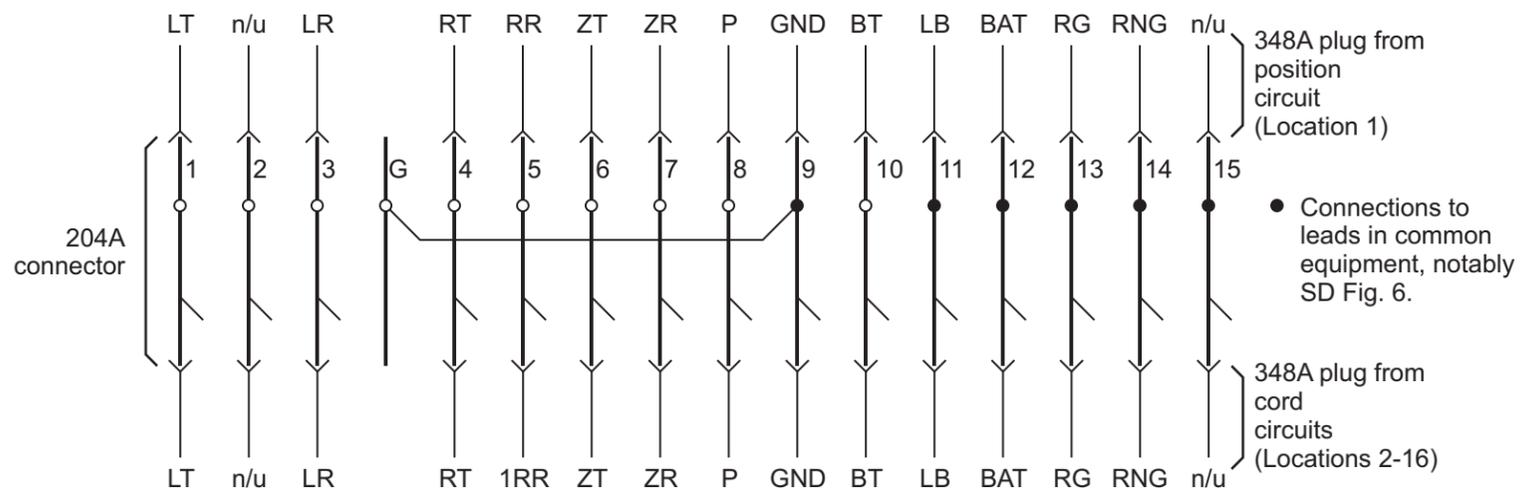


- Notes**
- 201 This circuit is drawn with the ring conductor on top for ease in following the circuit operation.
 - 202 Numbers on leads are pin numbers on the trunk circuit unit plug.
 - 203 This contact not used in this configuration but is shown for completeness.
 - 204 This connector pin not used in Internal event this configuration but is shown for completeness.
 - 205 Figure M only provided in multiple-position installations with multiple appearances of lines and/or trunks.
 - 206 Lamp battery fed through NL relay of night

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Principal circuits

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Figure 301
204A connector



G=Electrostatic shield "bus"
n/u=Not used

Ref. 301
List of relays

- AS right cord and trunk connection supervision
- BT Disables busy test resistors
- CS Station-to-station calls: left cord station battery feed and supervision; trunk calls: control of holding bridge
- T Left cord connected to CO trunk
- R Ring detection
- RB (not really a relay) Right cord battery feed
- S Sleeve—puts cord circuit in station-to-station mode
- SP Split—splits cord circuit

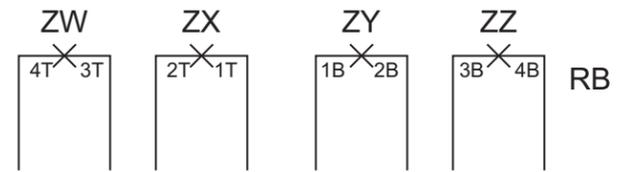
Ref. 302
Lead designations

- LT Tip of left cord
- LR Ring of left cord
- G Electrostatic shield
- RT Tip of right cord
- RR Ring of right cord
- ZT Receiver
- ZR Receiver output
- P Off-nomral ground
- GND Ground
- BT To busy test disabling relay
- LB Lamp battery
- BAT Battery
- RG Ringing ground
- RNG ringing (AC only)
- n/u Not used in this circuit version

Figure 302
SD Fig. Q RB contacts

Relay armature is forced permanently operated.
Contacts close if not insulated with insulating sleeve.

Uninsulate contacts to enact options shown
(See Ref. 303)



Ref. 303
Certain options

Ref. 301A Trunk supervisory option

Trunk supervisory option	Fig.	Options
Non through always	K	ZX
Through always	J	ZX
Through outgoing only	Fig. H*	

Ref. 301B Holding bridge resistance (resistor A)

Holding bridge resistance	Options			
150 ohms	T	W	ZY	ZZ
250 ohms	T		ZY	
350 ohms		W		ZZ
450 ohms	Neither	Neither		

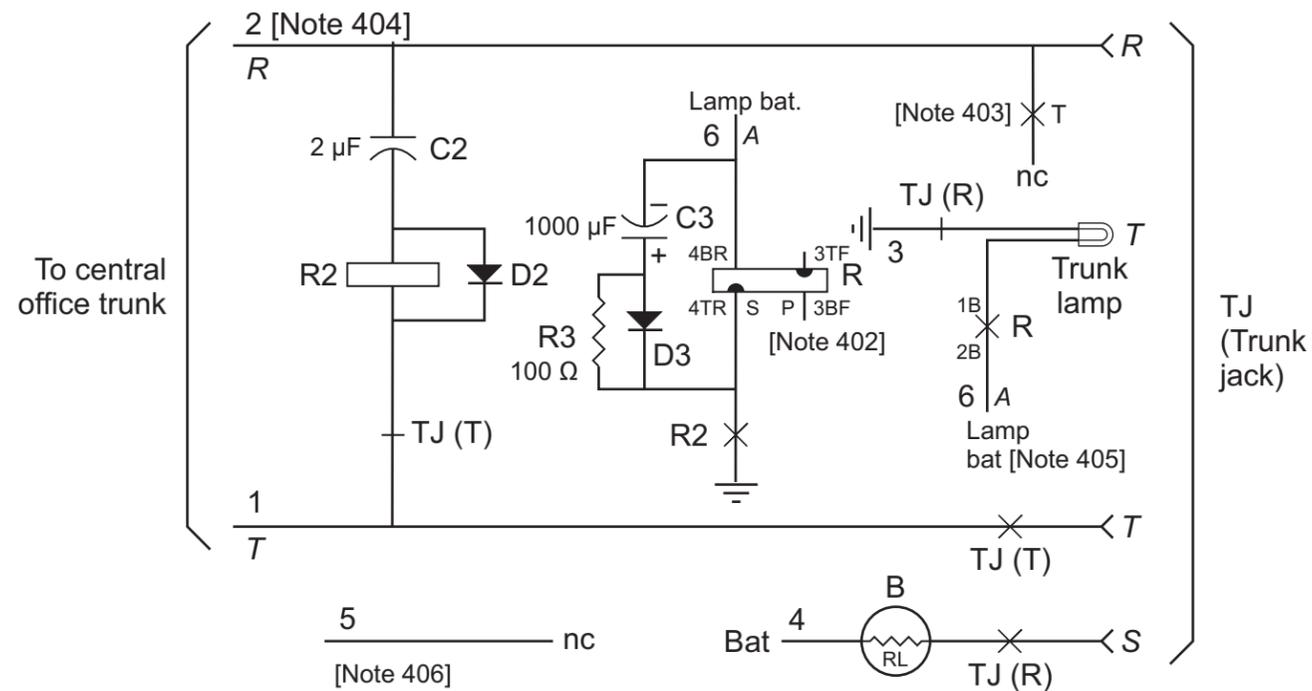
* Not shown on this CS

[a] Older version with no contacts on RB
[b] Newer version with contacts on RB [Fig. 302]

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Principal circuits

Figure 401
CO trunk circuit

Special version per Will Sherwood [Note 401]



Notes

- 401 This modified CO trunk circuit is arranged so that if the incoming call is abandoned before the attendant answers, the trunk lamp will retire after a delay following the last received ringing period
- 402 This winding not used
- 403 This contact not used
- 404 Numbers on leads are pin numbers on the trunk circuit unit plug.
- 405 Lamp battery fed through NL relay of night alarm circuit
- 406 This connector pin not used in this configuration but is shown for completeness

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Principal circuits

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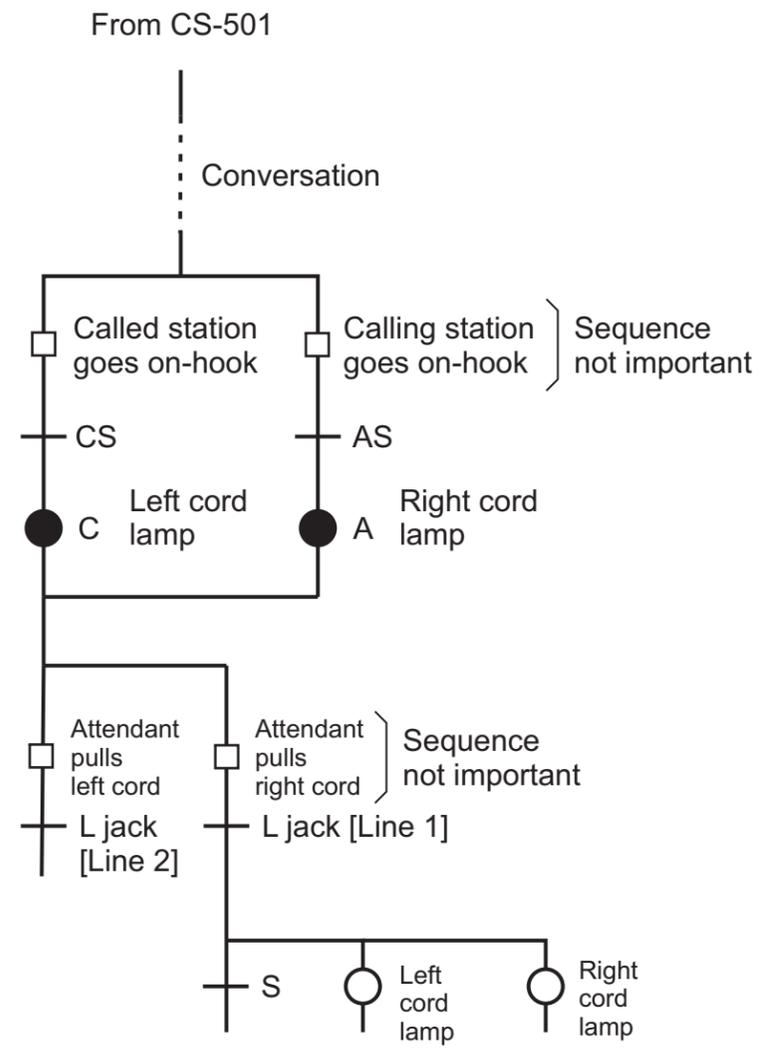
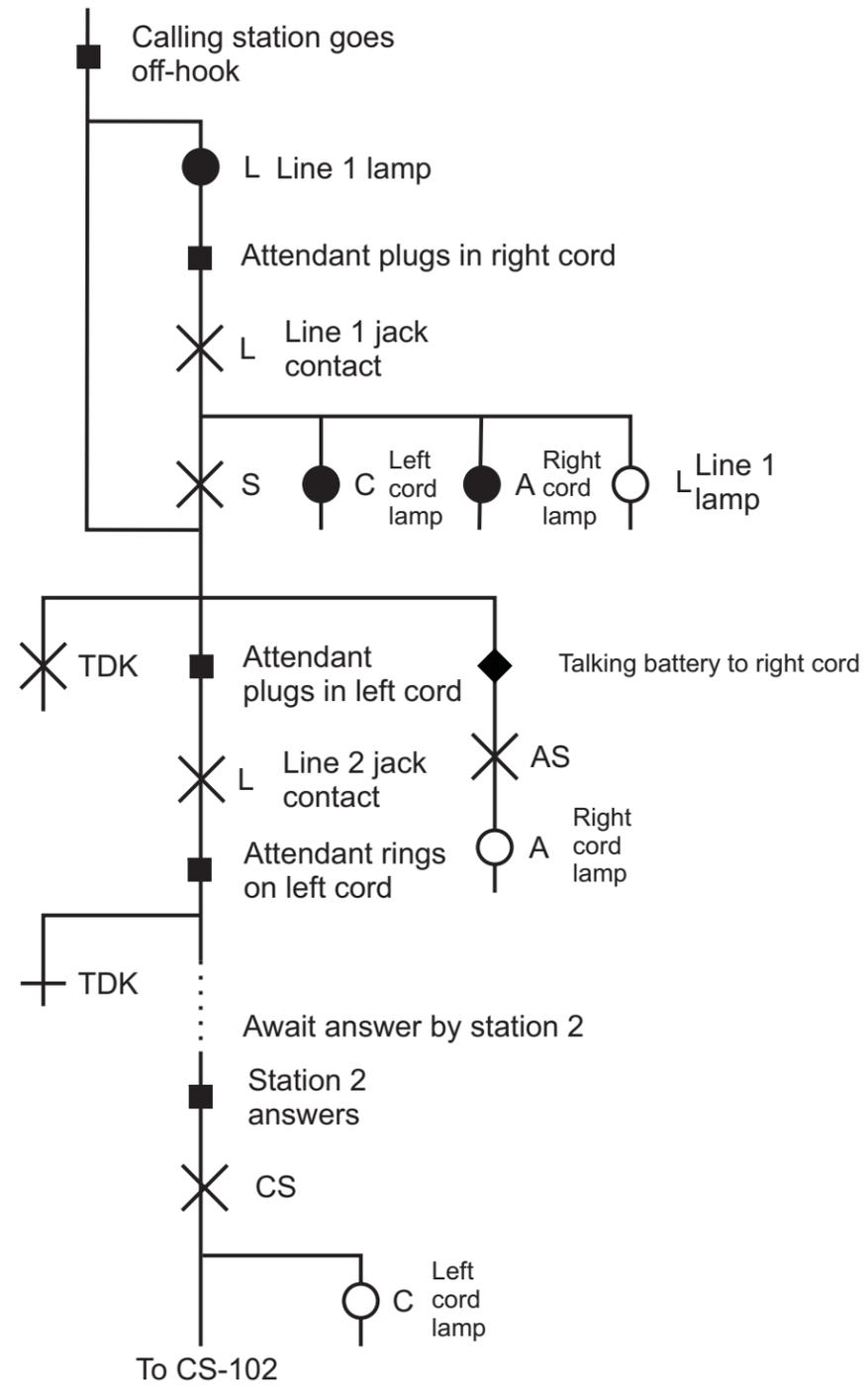
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SC 101
Station-to-station call
Connection setup

SC 102
Station-to-station call
Disconnect

Symbols

- ⊗ Relay, key, etc. operates
- Relay, key, etc. releases
- Lamp lights
- Lamp extinguishes
- External event
- External event negated
- ◆ Internal event
- ◇ Internal event negated



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Principal circuits

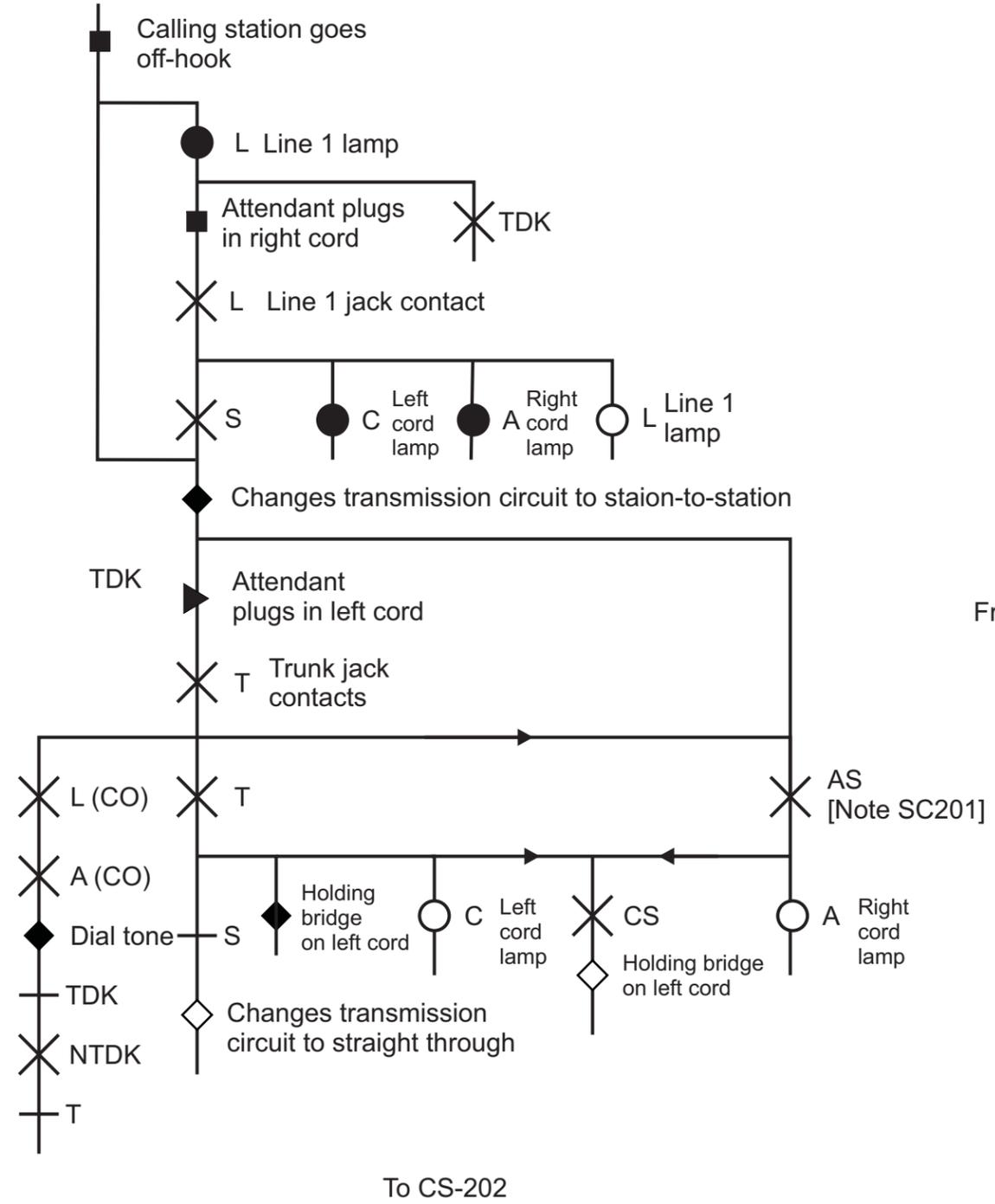
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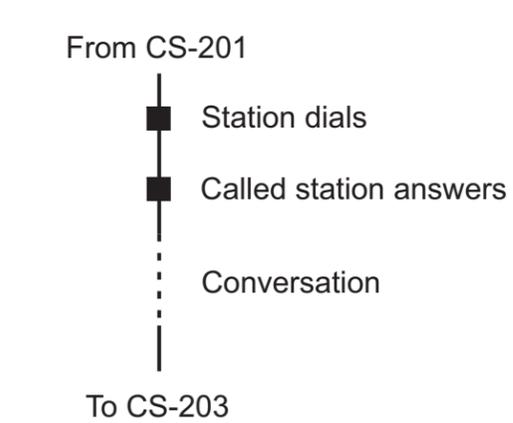
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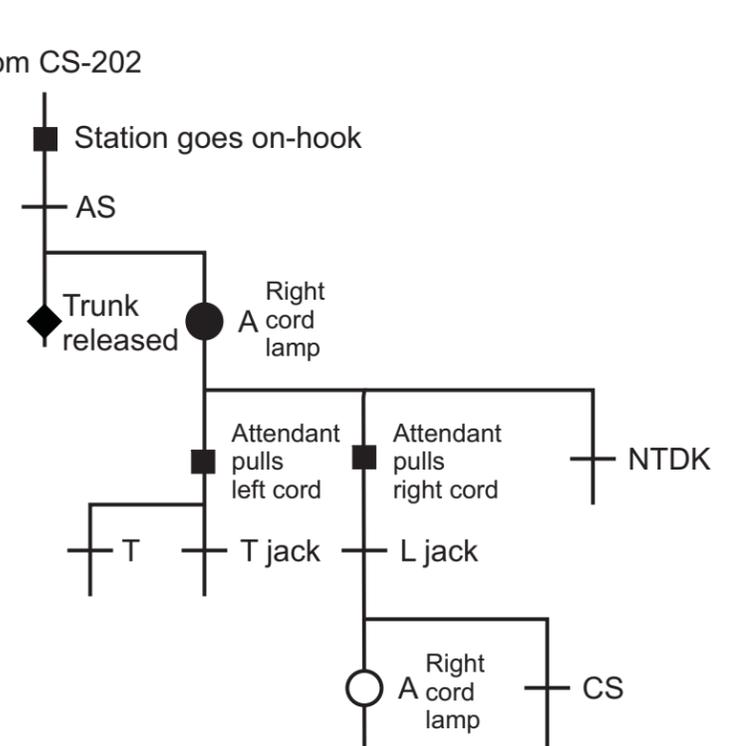
SC 201
Outgoing trunk call
Through supervision
Connection setup



SC 202
Outgoing trunk call
Through supervision
Station dials



SC 203
Outgoing trunk call
Through supervision
Station hangs up



Symbols

- ✕ Relay, key, etc. operates
- Relay, key, etc. releases
- Lamp lights
- Lamp extinguishes
- External event
- External event negated
- ◆ Internal event
- ◇ Internal event negated

Notes

SC201 Assumes AS will operate despite presence of holding bridge

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Principal circuits

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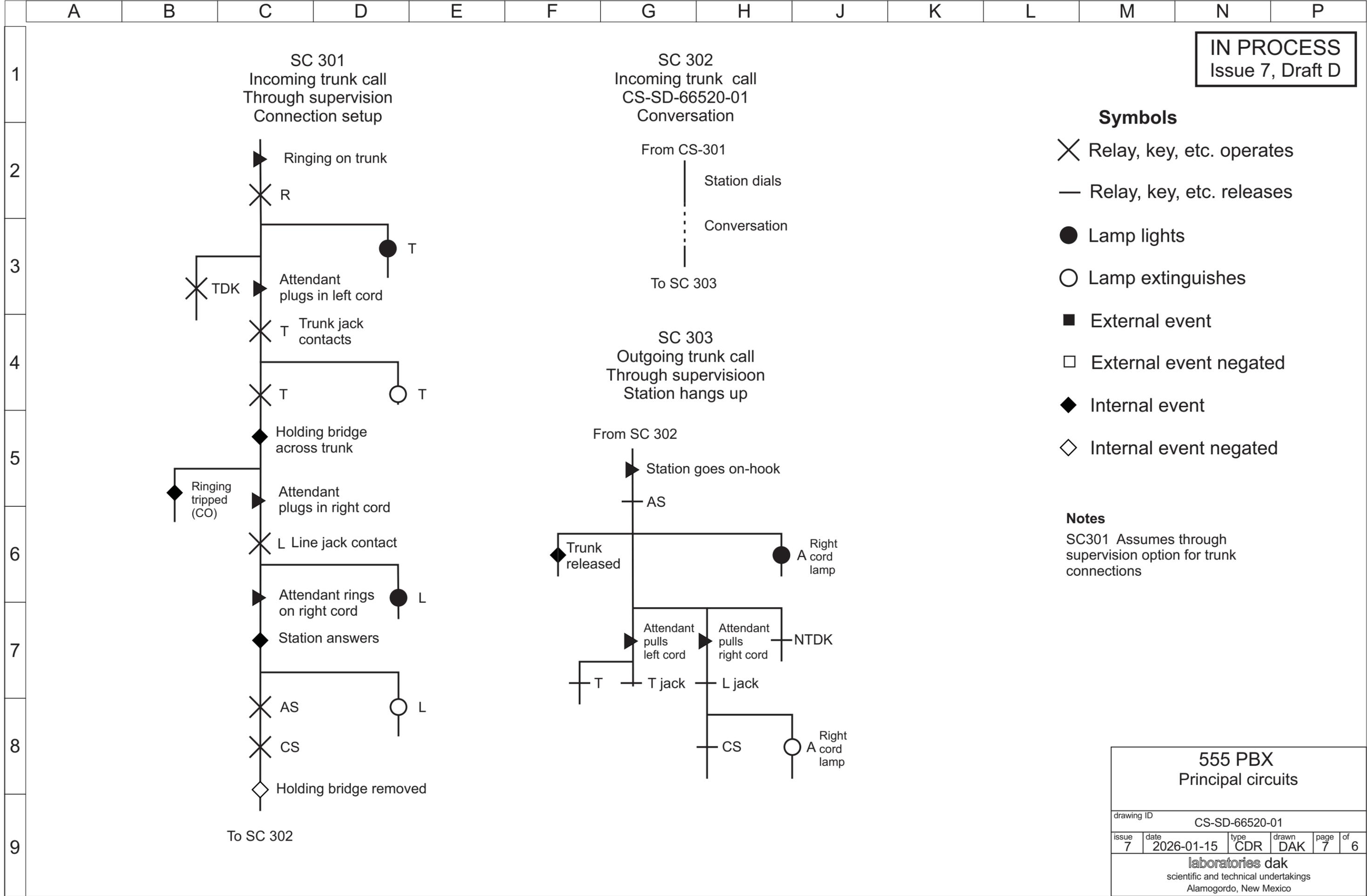
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Symbols

- ✕ Relay, key, etc. operates
- Relay, key, etc. releases
- Lamp lights
- Lamp extinguishes
- External event
- External event negated
- ◆ Internal event
- ◇ Internal event negated

Notes

SC301 Assumes through supervision option for trunk connections

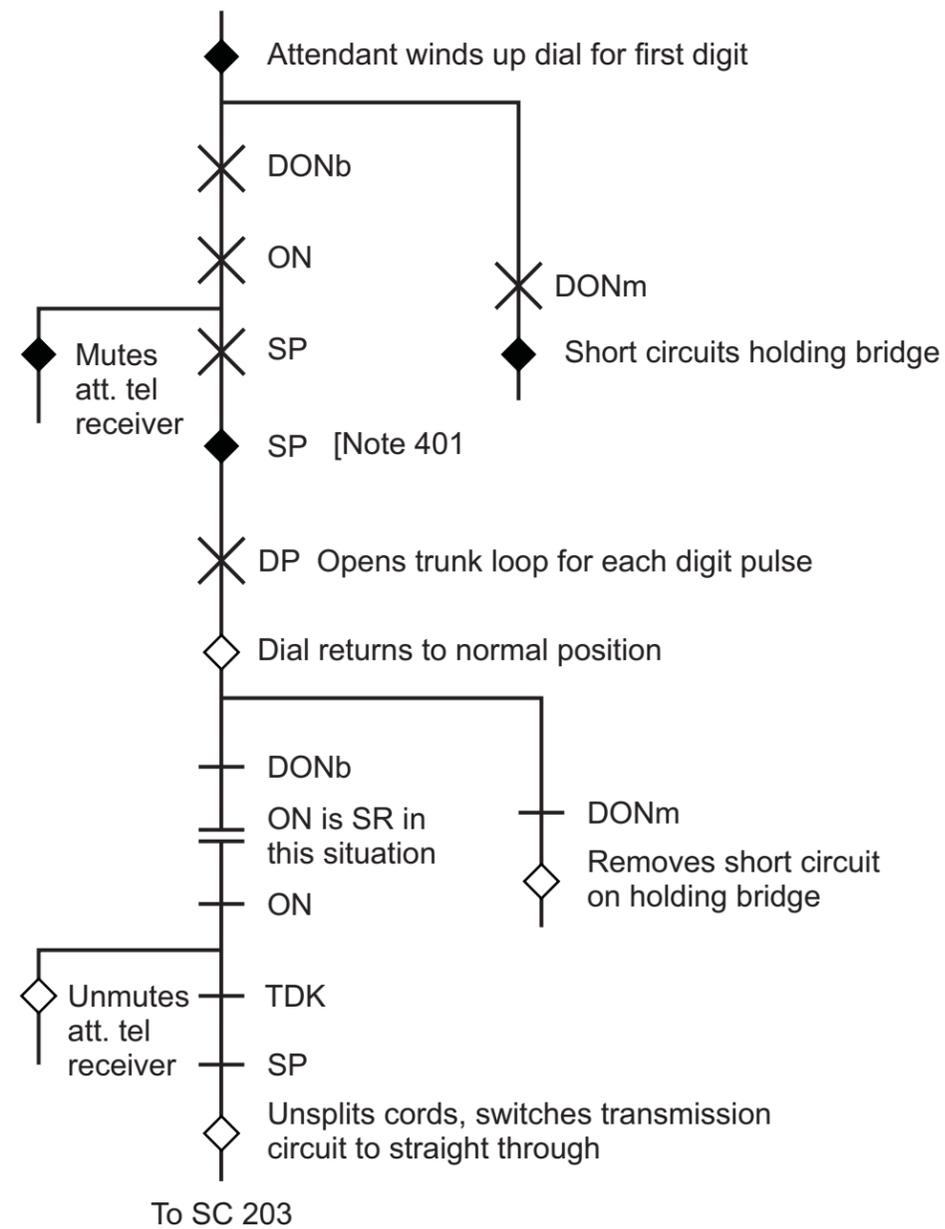


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SC 401
Outgoing trunk call
Attendant dials

From CS-30, except that TDK remains operated and NTDK is not operated



Symbols

- ✕ Relay, key, etc. operates
- Relay, key, etc. releases
- Lamp lights
- Lamp extinguishes
- External event
- External event negated
- ◆ Internal event
- ◇ Internal event negated
- = Time delay

401 Splits cord circuit, provides talking battery to right cord (station), provides transformer holding bridge to left cord (trunk) and speech transmission between the cords.

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Principal circuits					
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SC 501
Outgoing trunk call
Non-through trunk supervision
Connection setup

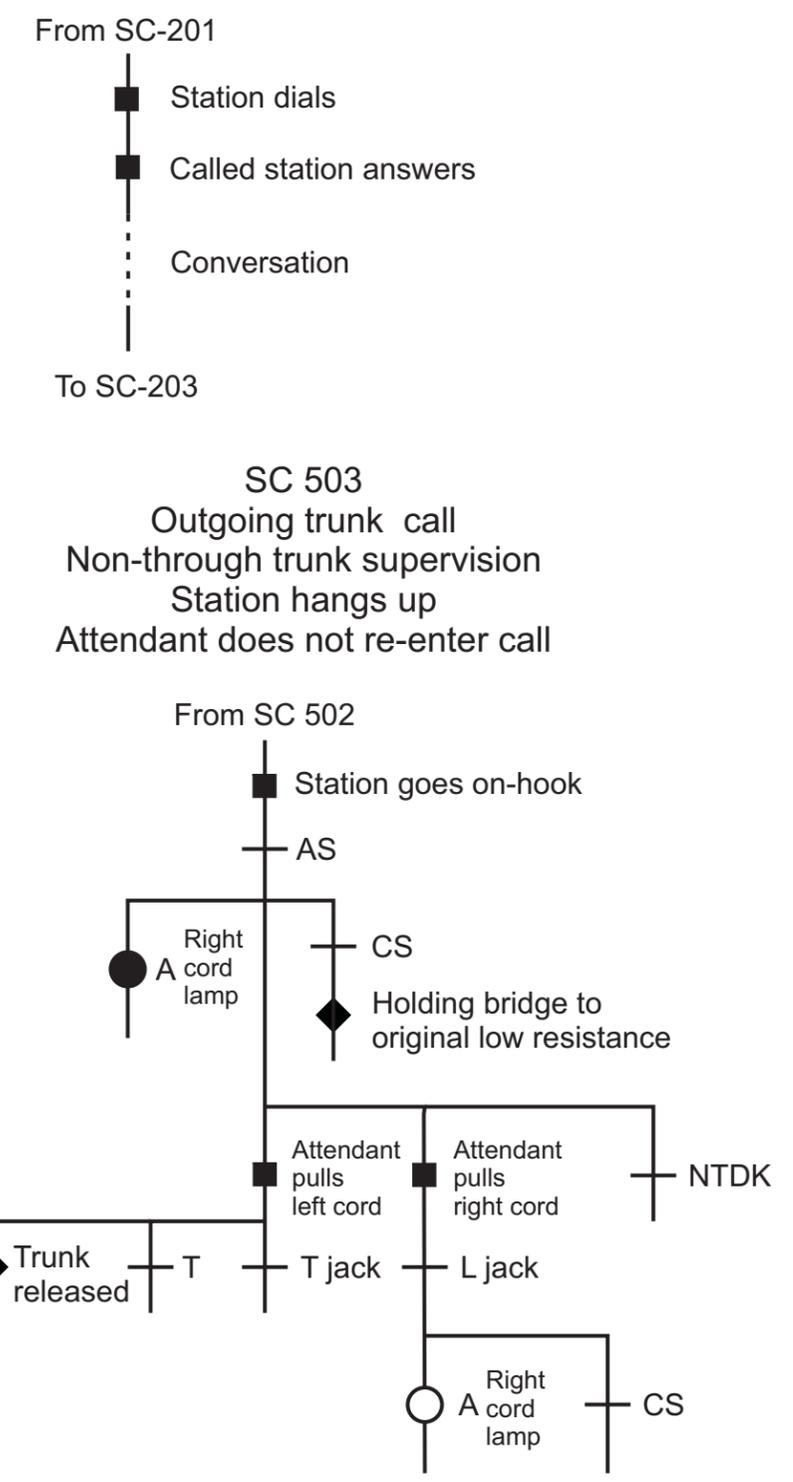
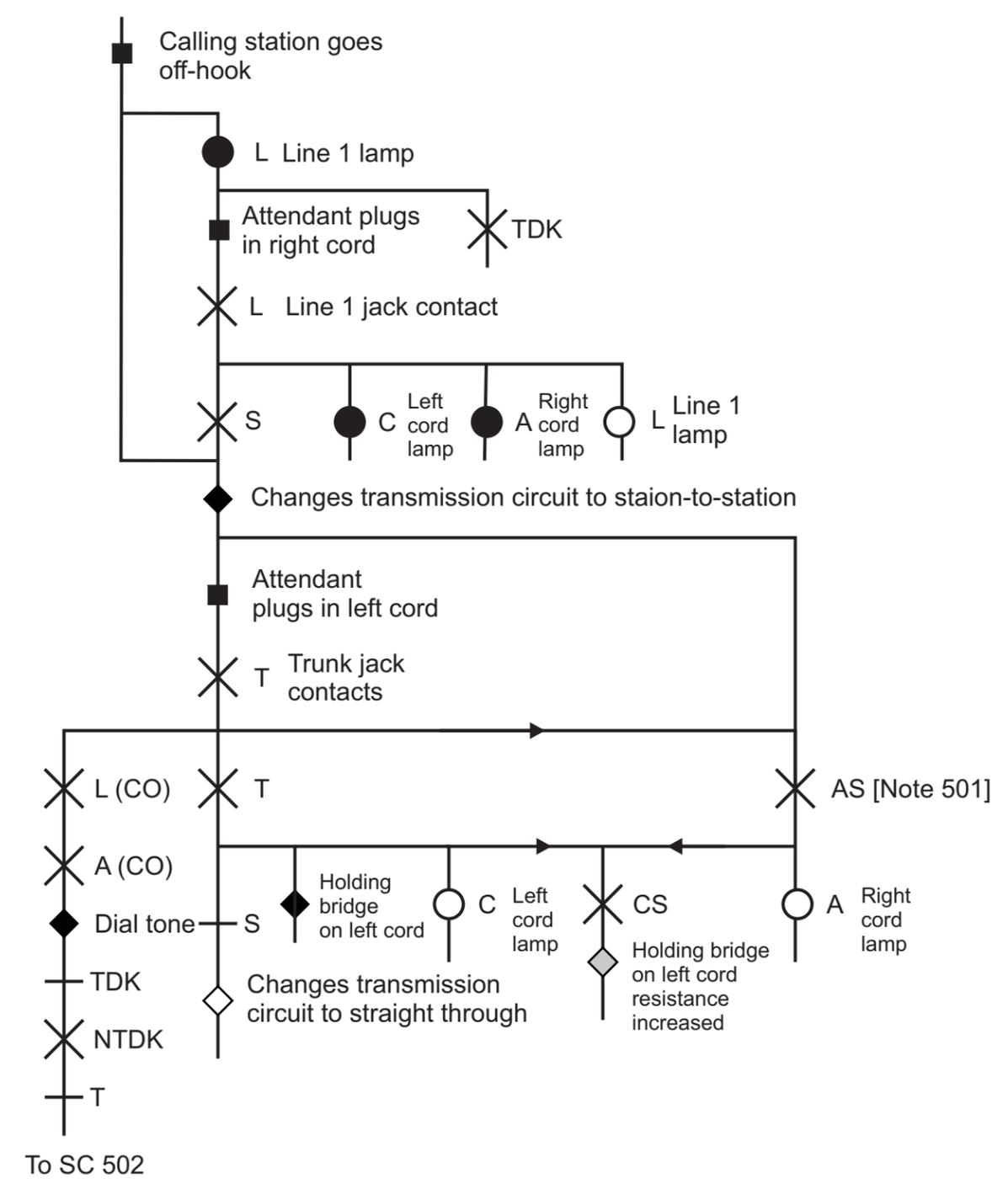
SC 502
Outgoing trunk call
Non-through trunk supervision
Station dials

Symbols

- ✕ Relay, key, etc. operates
- Relay, key, etc. releases
- Lamp lights
- Lamp extinguishes
- External event
- External event negated
- ◆ Internal event
- ◇ Internal event negated
- ◊ Internal event status changed; see notation

Notes

SC501 Assumes AS will operate despite presence of holding bridge



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Principal circuits

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