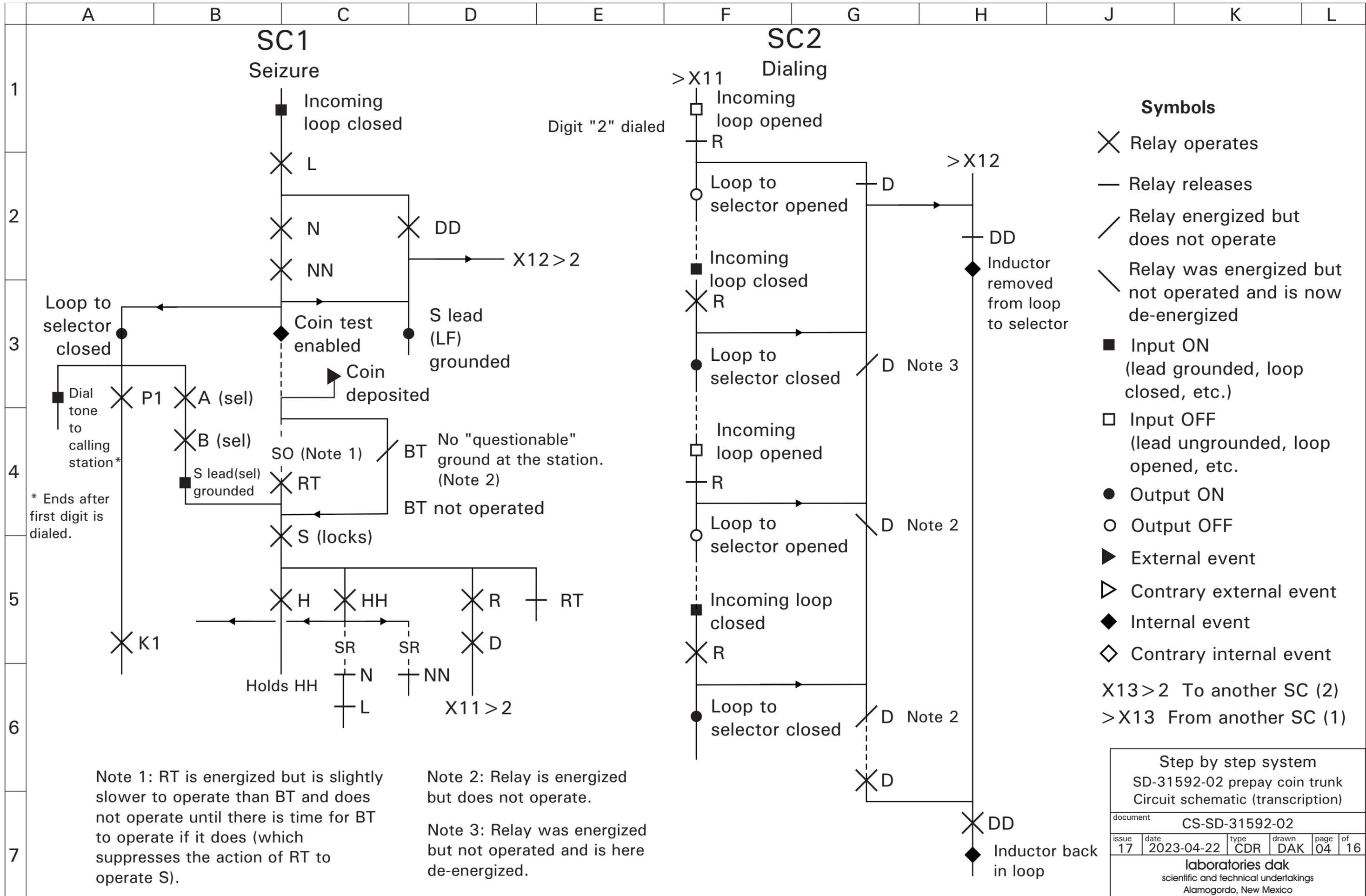


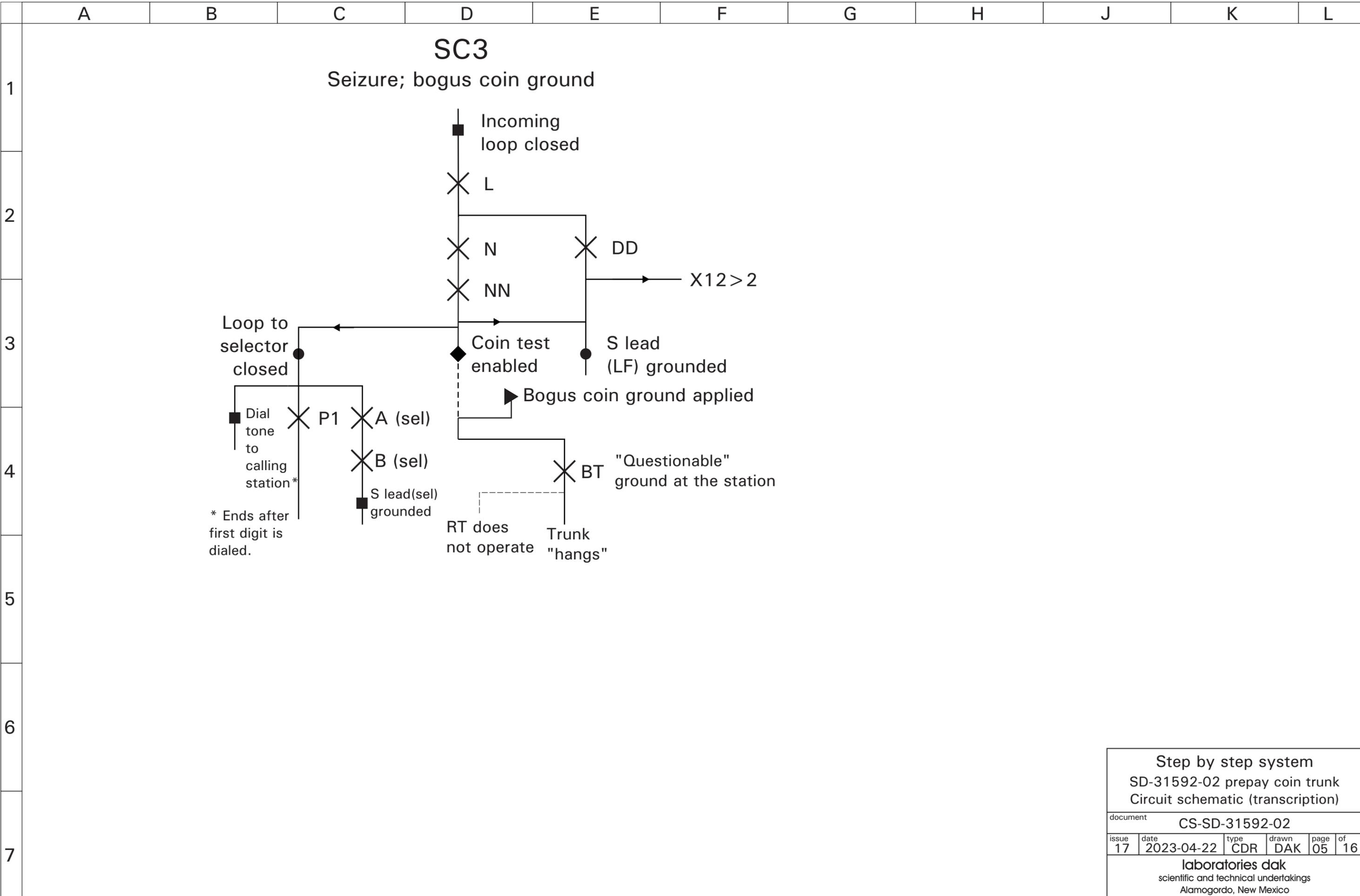




	A	B	C	D	E	F	G	H	J	K	L
1	<b>REF1</b>										
	<b>Reference information</b>										
2	<b>Major features provided</b>					<b>Common features not provided</b>					
	<ul style="list-style-type: none"> <li>• Coin relay test</li> <li>• Fraudulent ground test</li> <li>• Charge delay</li> <li>• Coin relay validation at disposal time</li> <li>• Stuck coin test and clearance attempt</li> </ul>					<ul style="list-style-type: none"> <li>• Dial tone provided before dialing enabled</li> <li>• Local coin overtime charge (LCOT)</li> <li>• Auxiliary coin trunk</li> <li>• Lines served by rotary line switches</li> <li>• Lines served by long line facilities</li> </ul>					
3	<b>Options assumed</b>					<b>Index of relays with basic functions</b>					
	(Based on options known or assumed in effect on the specimen SD-31592-02 coin trunk owned by Will Sherwood)					Note that many relays have multiple functions, only one of which is mentioned here.					
4	Fig. B Fig. D F G H P T TD ZC ZR ZW ZX YA YE					L - Trunk seizure A - Cut-through for conversation B - Apply coin control voltage C - Answer supervision received I - Coin control current detect J - Negates reversal from switch train N - SR follower of L NN - Closes loop to 1st selector RT- Coin relay detect BT - Bogus coin relay ground detect P - Supervision reverse P1 - Supervision normal P2 - Supervision for charge R - Repeats dialed pulses into selector S - Observes sleeve from 1st selector H - SR follower of S, holds HH HH - Proceed (enables many things) T - Delayed charge pickup T1 - Delayed charge D - SO follower of R (discerns pulse train) DD - Grounds LF sleeve; released during dialing K - Controls K1 K1 - Shorts P Y - Starts coin control process					
5											
6											
7											

<b>Step by step system</b>					
SD-31592-02 prepay coin trunk					
Circuit schematic (transcription)					
document					
CS-SD-31592-02					
issue	date	type	drawn	page	of
17	2023-04-22	CDR	DAK	03	16
<b>laboratories dak</b>					
scientific and technical undertakings					
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A

B

C

D

E

F

G

H

J

K

L

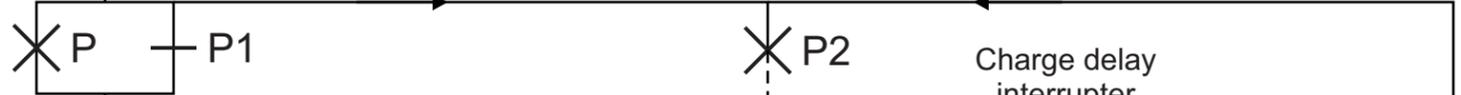
# SC4

## Answer by called party (answer supervision received)

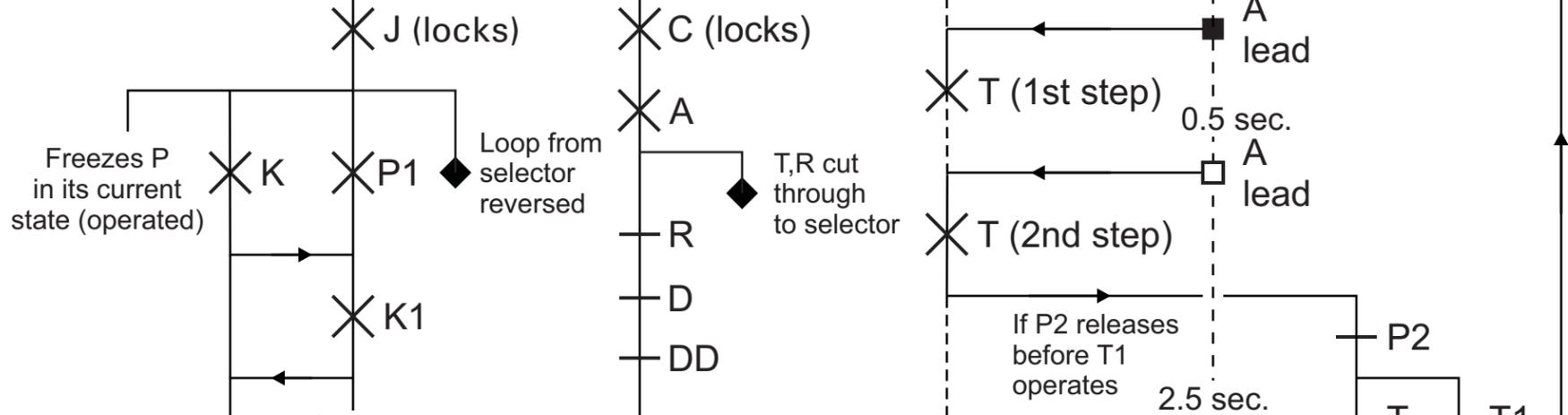
1

Called party answers  
 Loop current from selector reverses

2



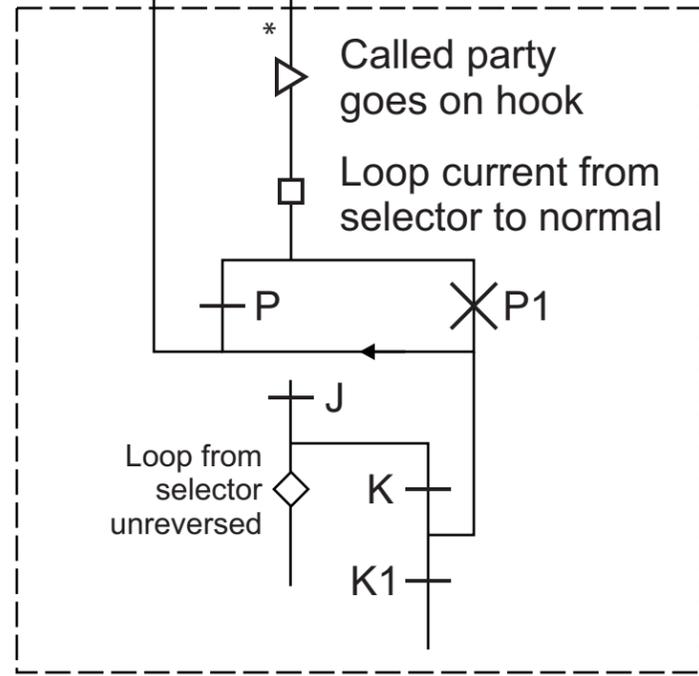
3



4



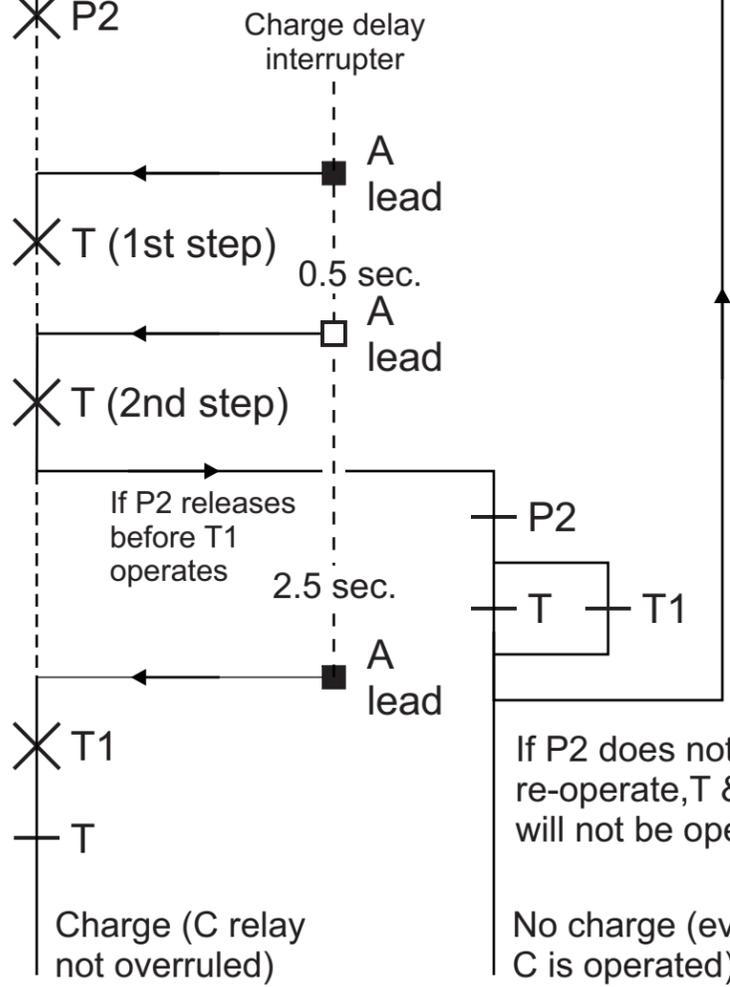
5



6

\* Only if called party goes on hook before calling station goes on hook. Otherwise, go to SC4 or SC5.

7



### Charge delay

The circuit will not be set up to charge for the call unless reverse battery supervision is received from the switch train continuously for about 2.5 sec (at one limit of the circuit operation) or about 5.5 seconds (at the other limit of circuit operation).

If P2 does not re-operate, T & T1 will not be operated.

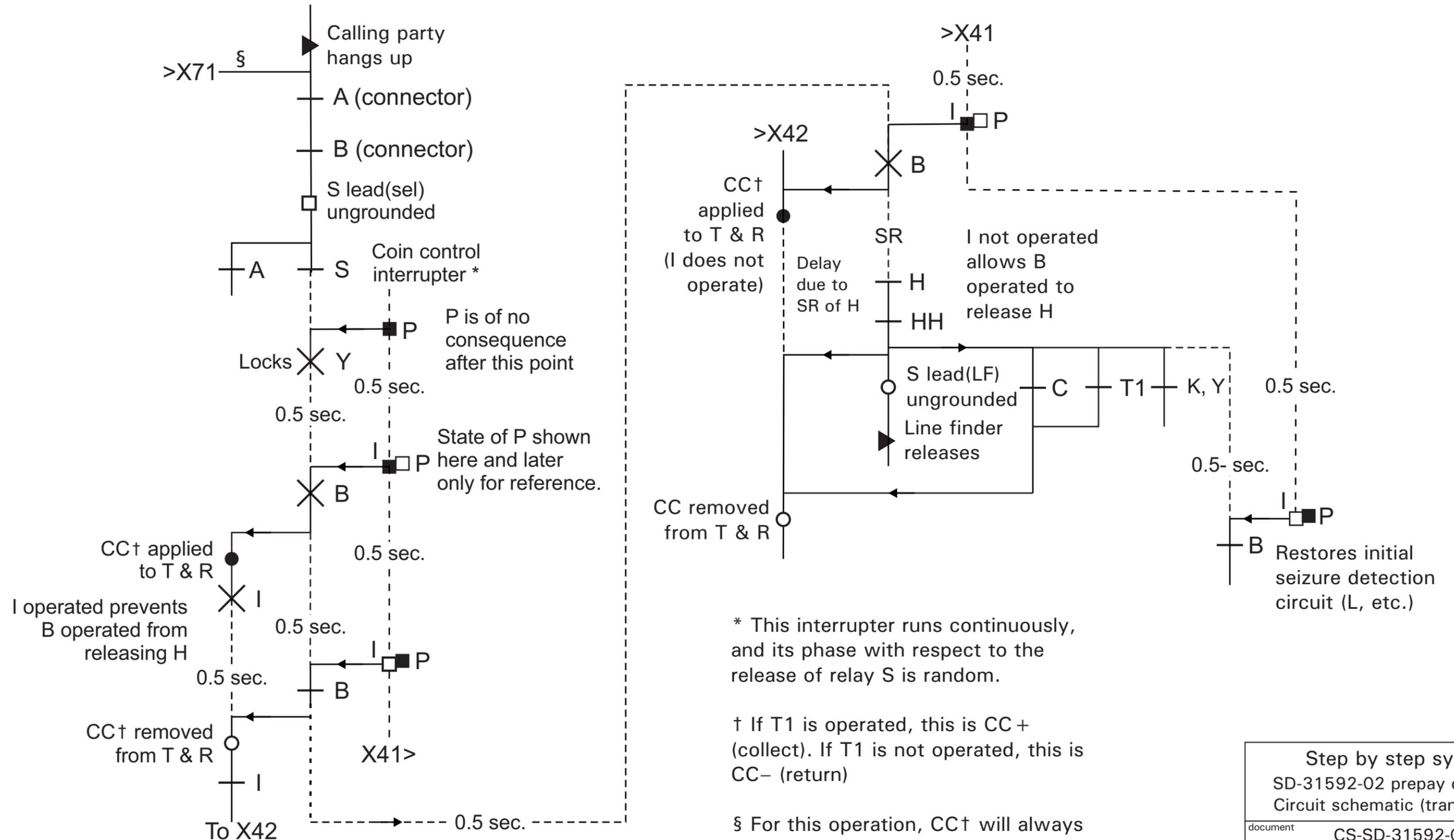
No charge (even though C is operated)

Step by step system					
SD-31592-02 prepay coin trunk					
Circuit schematic (transcription)					
document	CS-SD-31592-02				
issue	date	type	drawn	page	of
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scientific and technical undertakings					
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# SC5

## Disconnect, coin disposal, release

Assumes calling party control of connector release,  
C relay operated\*, calling party hangs up first



\* This interrupter runs continuously, and its phase with respect to the release of relay S is random.

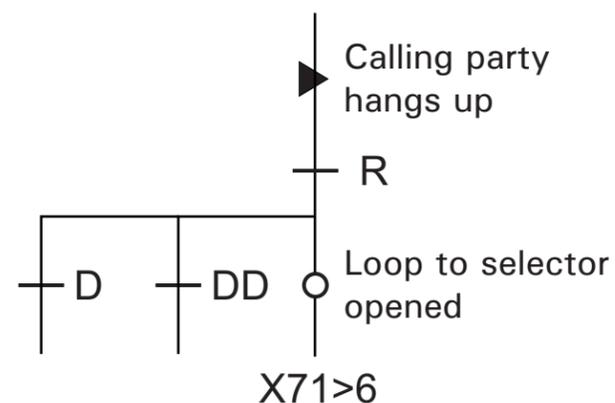
† If T1 is operated, this is CC+ (collect). If T1 is not operated, this is CC- (return)

§ For this operation, CC† will always be CC- (return). The A relay will not have been operated.

# SC6

## Disconnect, coin return, release

Assumes calling party control of connector release,  
C relay not operated\*, calling party hangs up first



The rest of the scenario  
plays out per SC6 except:

- J, K, and K1 will not have been operated
- Coin control voltage will be CC- (return) rather than CC+ (collect)

\*With the C relay not operated,  
the call is non-chargable.

With C not operated, T1 could  
not be operated, so here we  
assume it is not operated.

Step by step system

SD-31592-02 prepay coin trunk  
Circuit schematic (transcription)

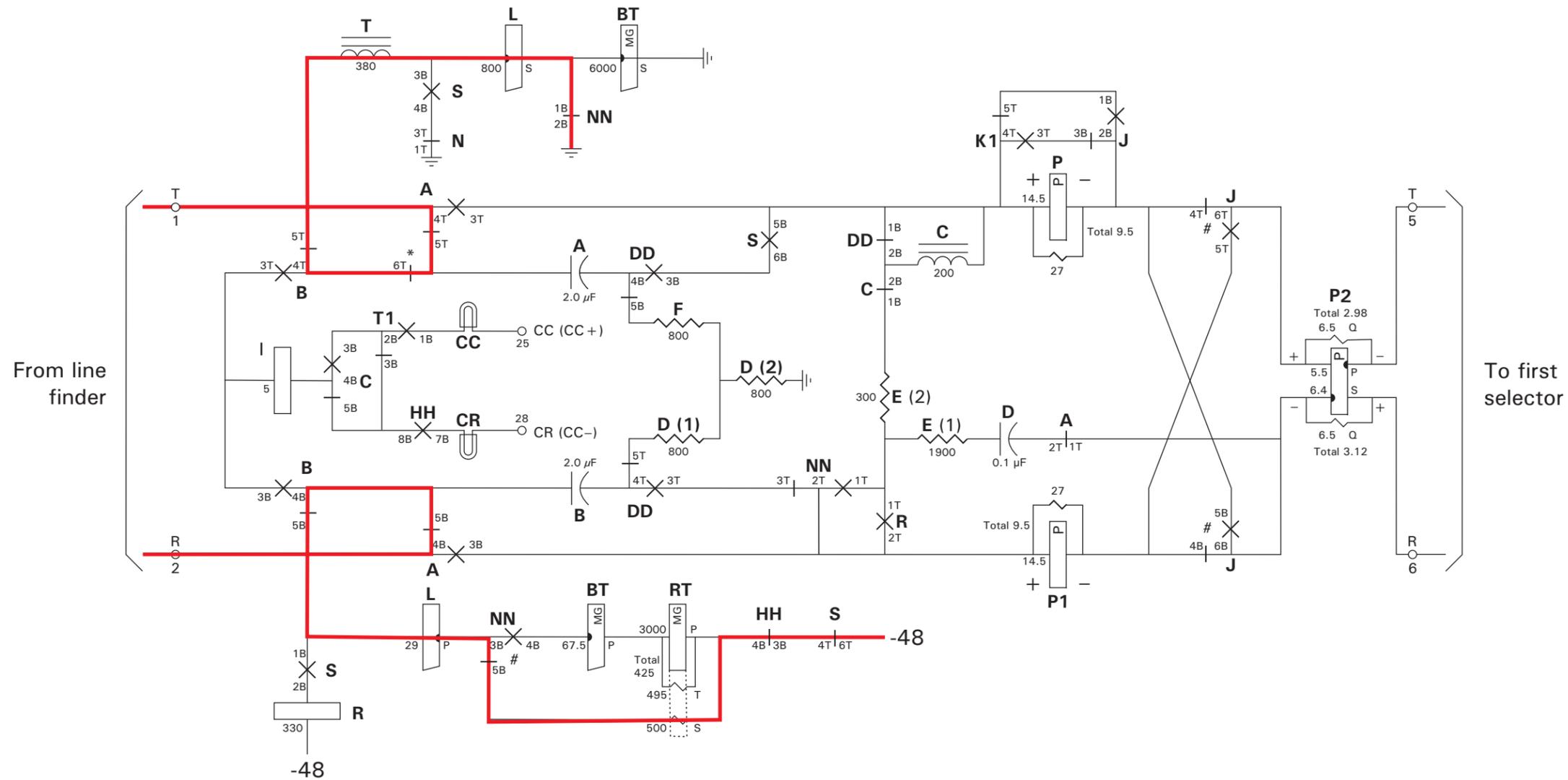
document CS-SD-31592-02

issue	date	type	drawn	page	of
17	2023-04-22	CDR	DAK	08	16

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# SK1

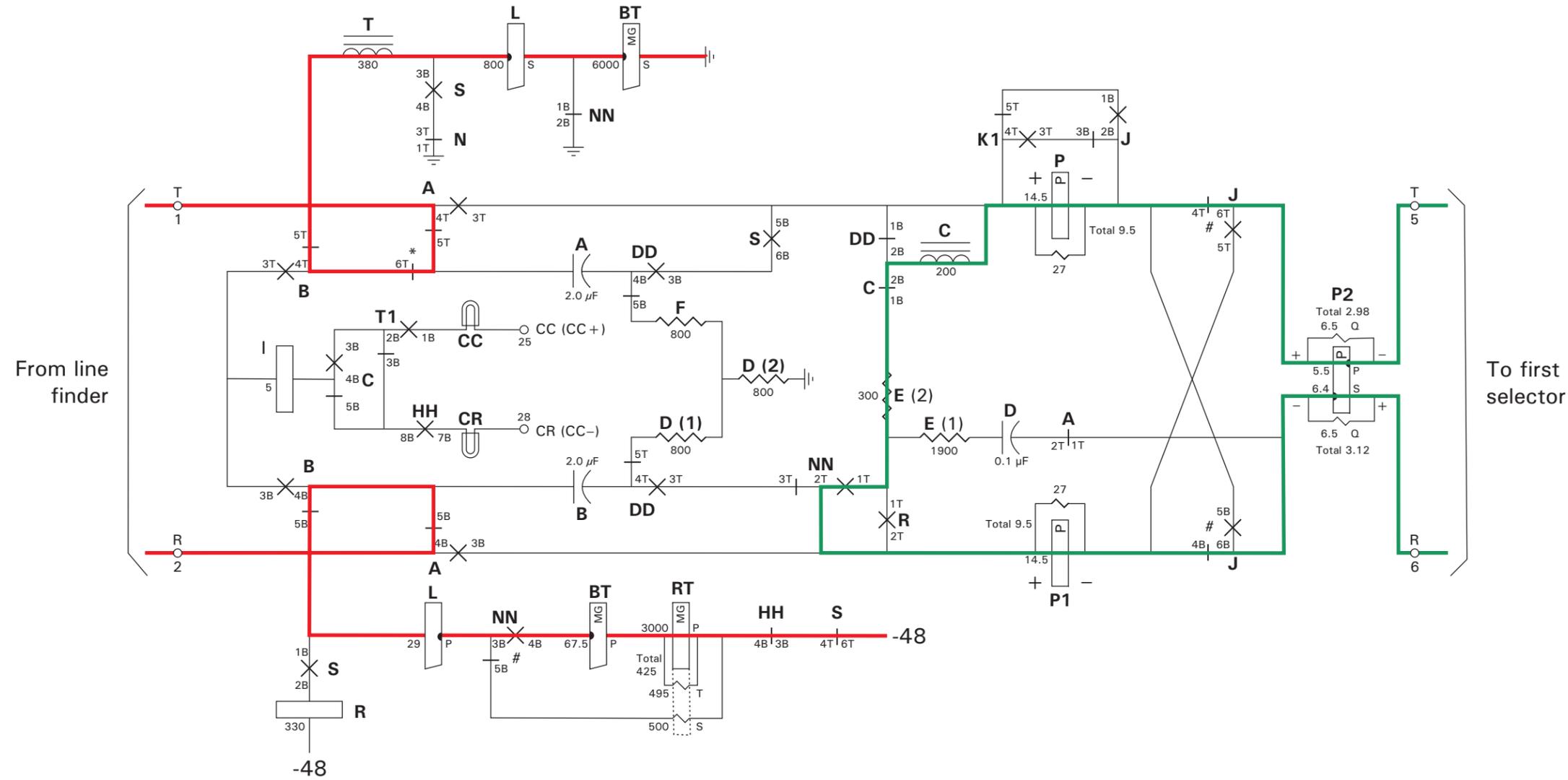
## Idle and initial seizure



<b>Step by step system</b> SD-31592-02 prepay coin trunk Circuit schematic (transcription)					
document		CS-SD-31592-02			
issue	date	type	drawn	page	of
17	2023-04-22	CDR	DAK	09	16
<b>laboratories dak</b> scientific and technical undertakings Alamogordo, New Mexico					

# SK2

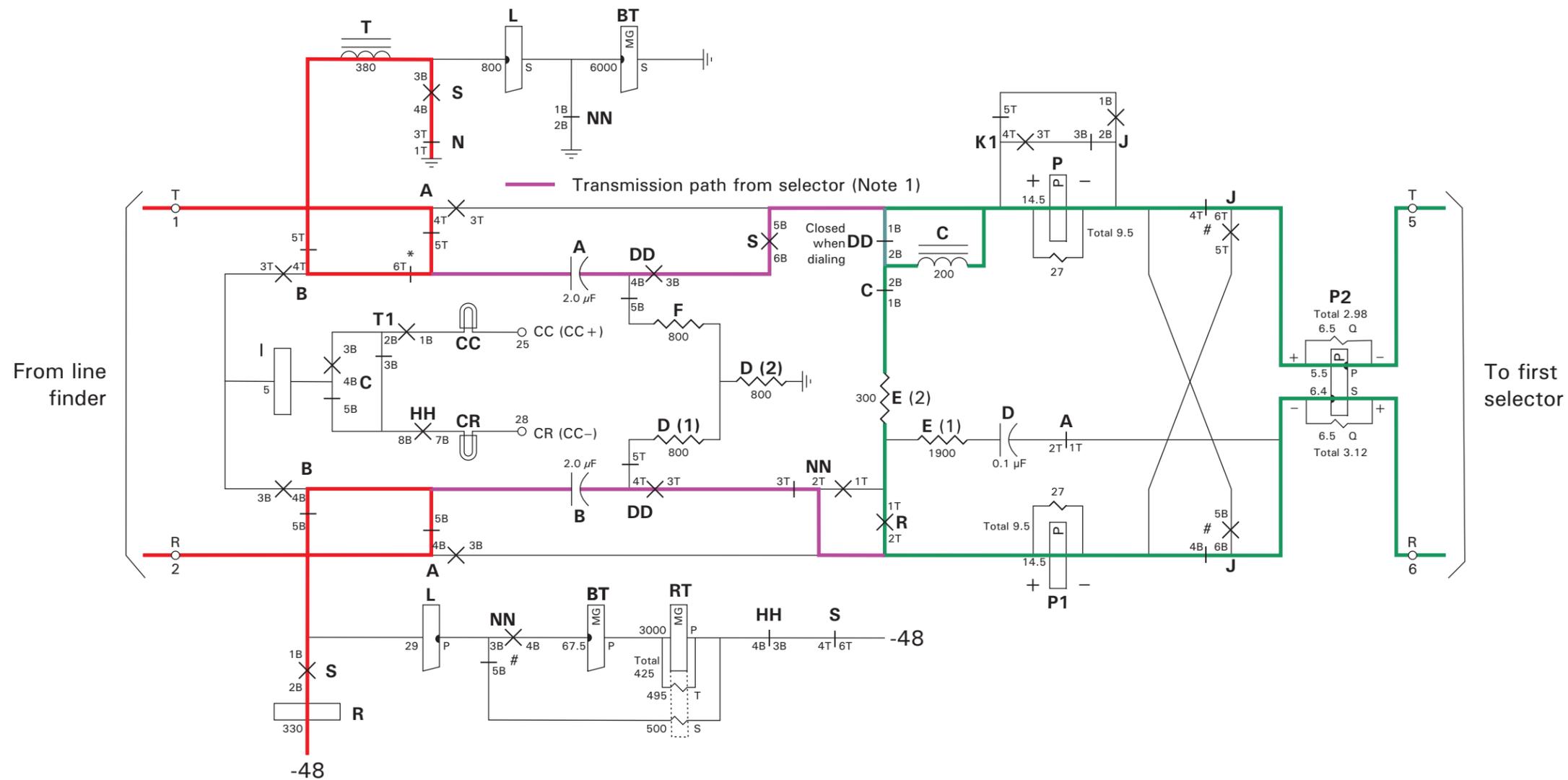
## Selector seizure and coin relay test



To first selector  
Coin relay test is satisfied by RT operating but not BT.

# SK3

Coin relay test satisfied—ready to dial/dialing  
and connection complete but answer supervision never received

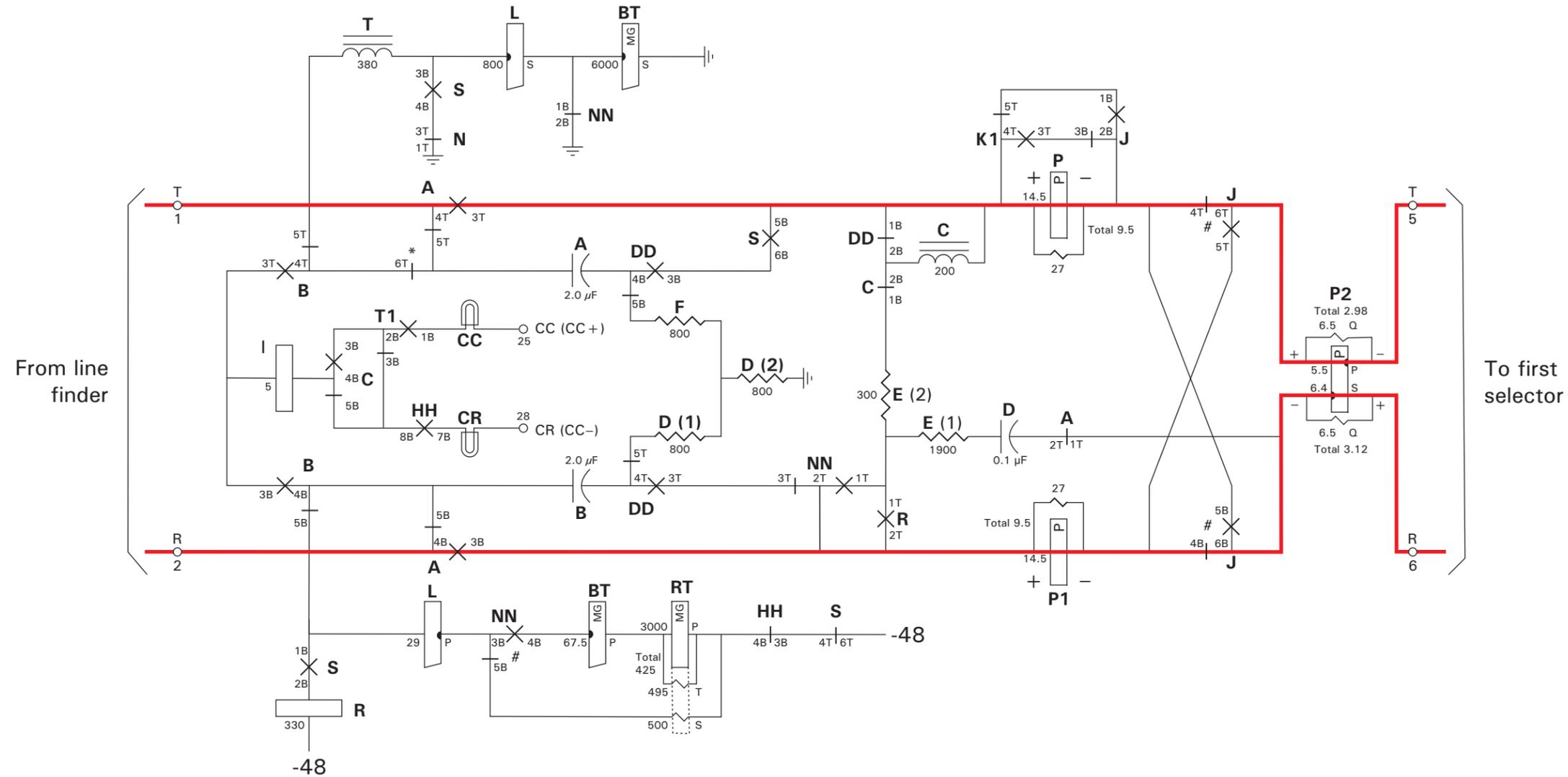


Note 1: Initially allows dial tone from first selector to be heard at calling line. Dial tone disappears after the first digit is dialed and the connection advances into a second selector. During dialing and afterwards, but before answer supervision is received, the purple path provides for the calling line to hear call progress tones. If the called line answers but there is no answer supervision ("free" call) this path provides transmission between the parties.

Step by step system					
SD-31592-02 prepay coin trunk					
Circuit schematic (transcription)					
document		CS-SD-31592-02			
issue	date	type	drawn	page	of
17	2023-04-22	CDR	DAK	11	16
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Alamogordo, New Mexico					

# SK4

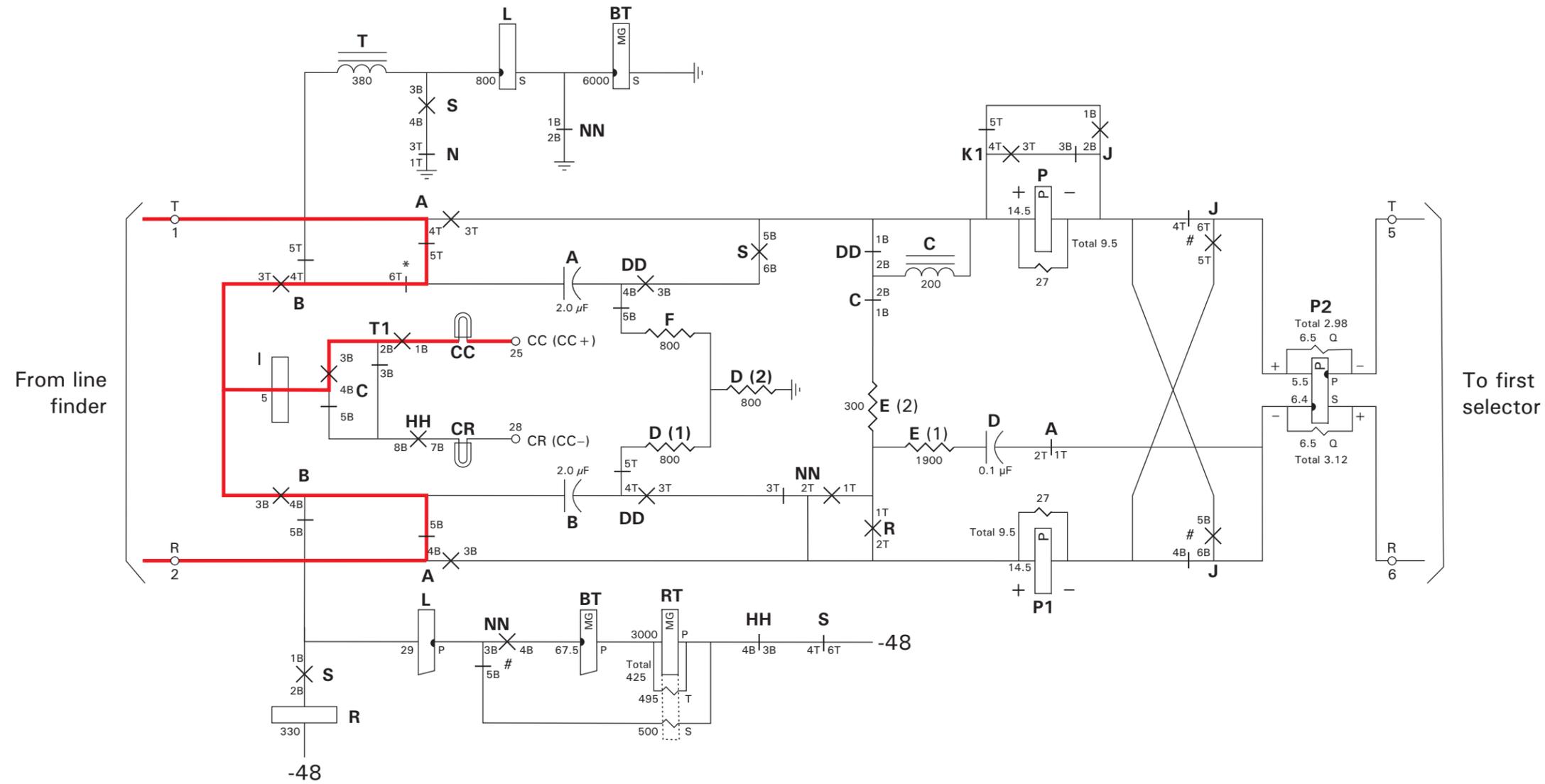
Cut-through (occurs after answer supervision received)



Step by step system						
SD-31592-02 prepay coin trunk						
Circuit schematic (transcription)						
document		CS-SD-31592-02				
issue	date	type	drawn	page	of	
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Alamogordo, New Mexico						

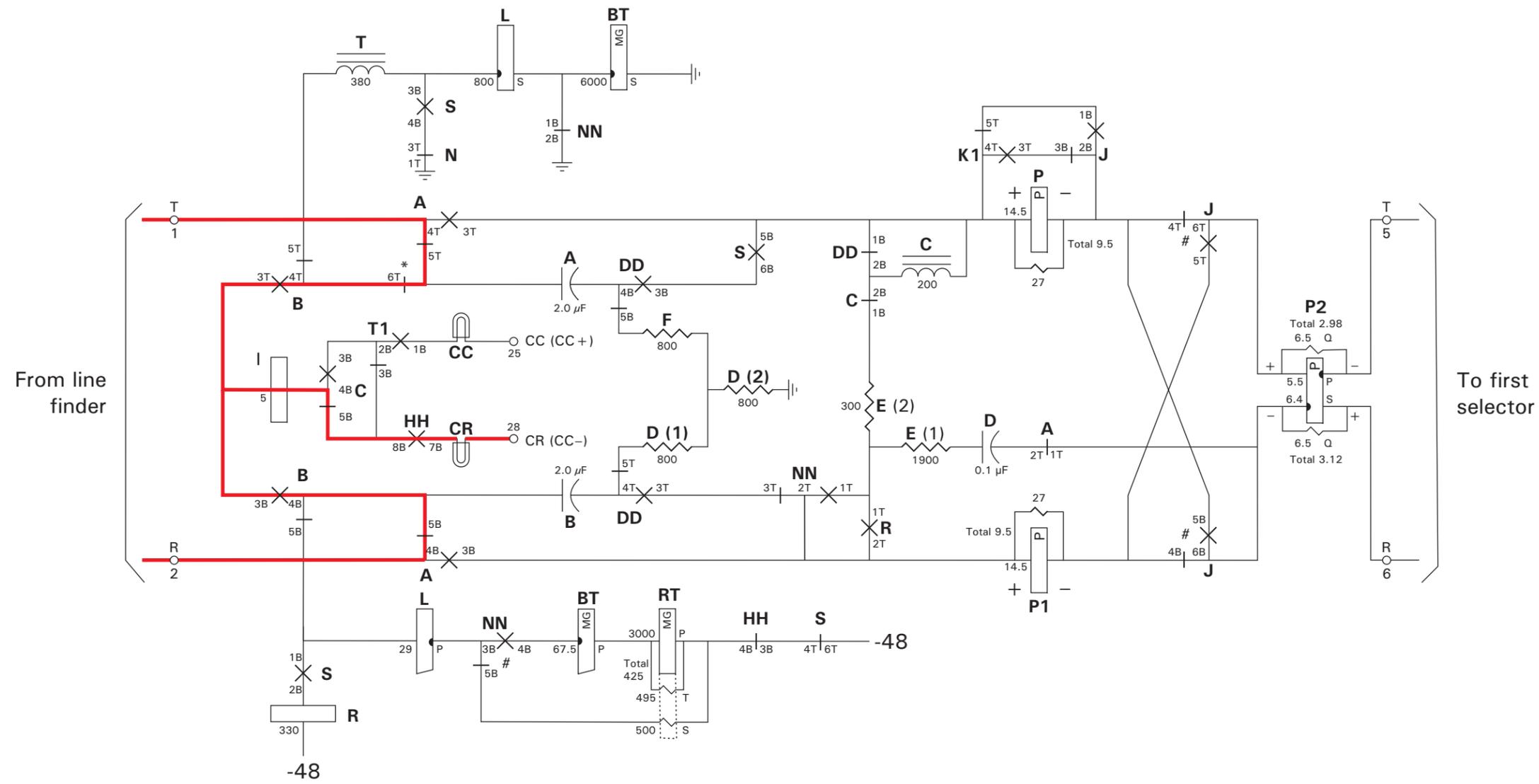
# SK5

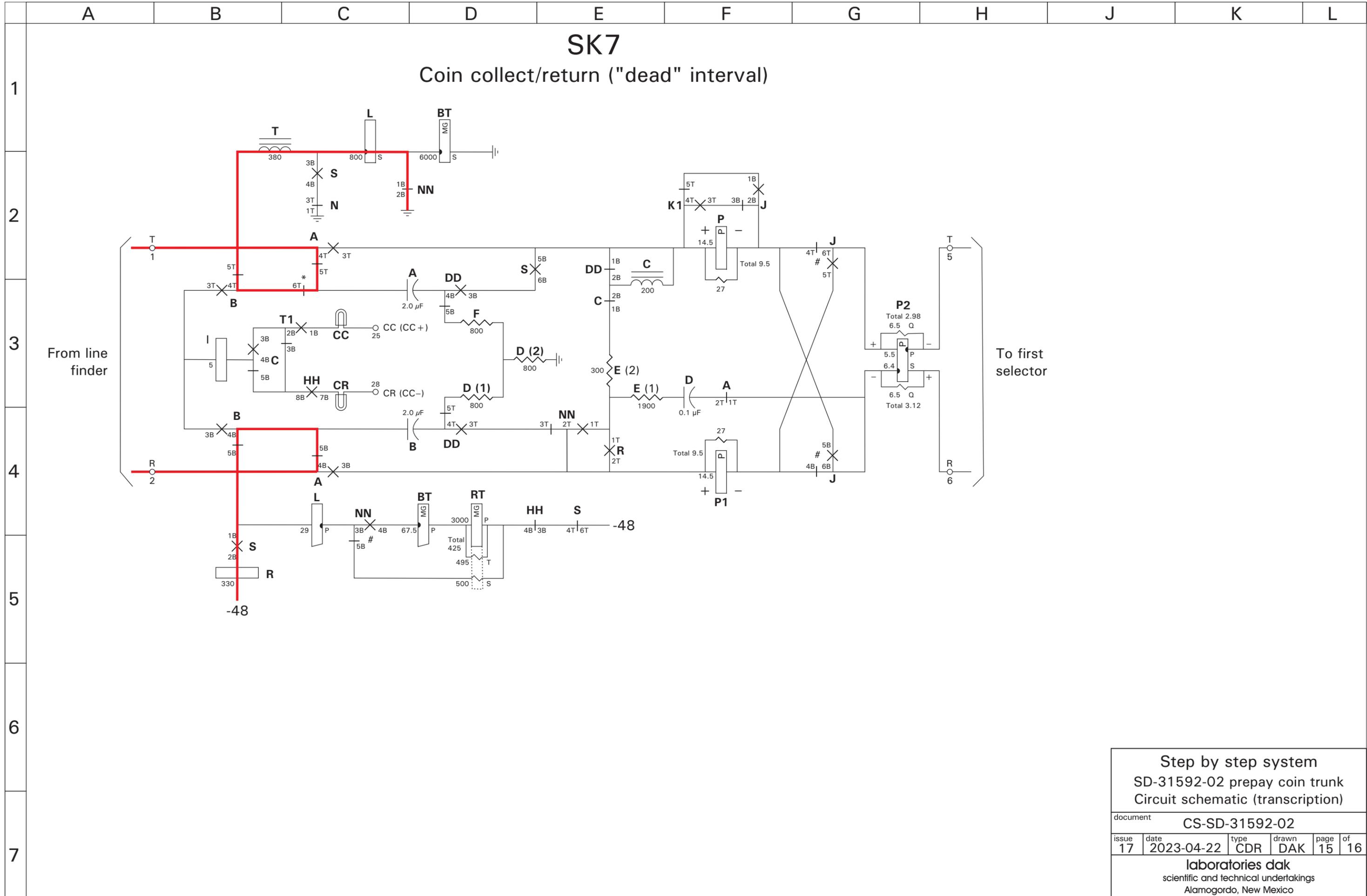
## Coin collect ("live" interval)



# SK6

## Coin return ("live" interval)





<b>Step by step system</b>						
SD-31592-02 prepay coin trunk						
Circuit schematic (transcription)						
document		CS-SD-31592-02				
issue	date	type	drawn	page	of	
17	2023-04-22	CDR	DAK	15	16	
<b>laboratories dak</b> scientific and technical undertakings Alamogordo, New Mexico						

	A	B	C	D	E	F	G	H	J	K	L
1	<b>Issue record</b>										
	Issue	Date	Changes								
	17	2023-04-22	Add grid coordinates.								
2											
3											
4											
5											
6											
7											

<b>Step by step system</b> SD-31592-02 prepay coin trunk Circuit schematic (transcription)					
document					
CS-SD-31592-02					
issue	date	type	drawn	page	of
17	2023-04-22	CDR	DAK	16	16
<b>laboratories dak</b> scientific and technical undertakings Alamogordo, New Mexico					