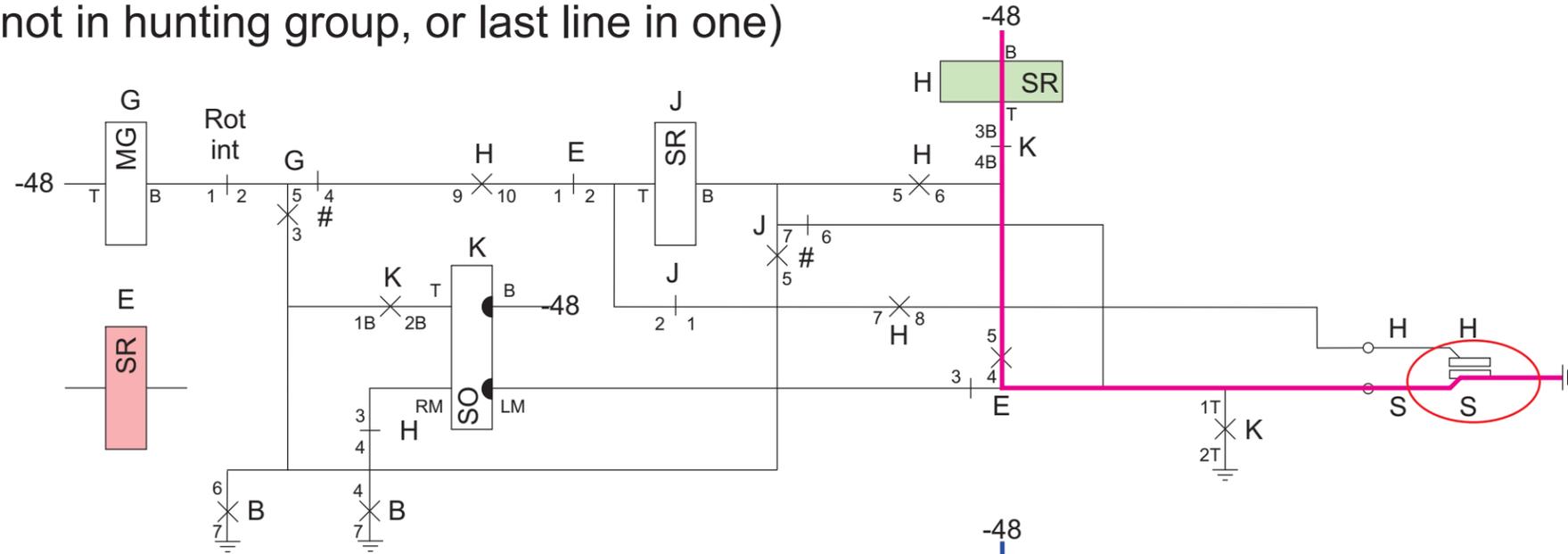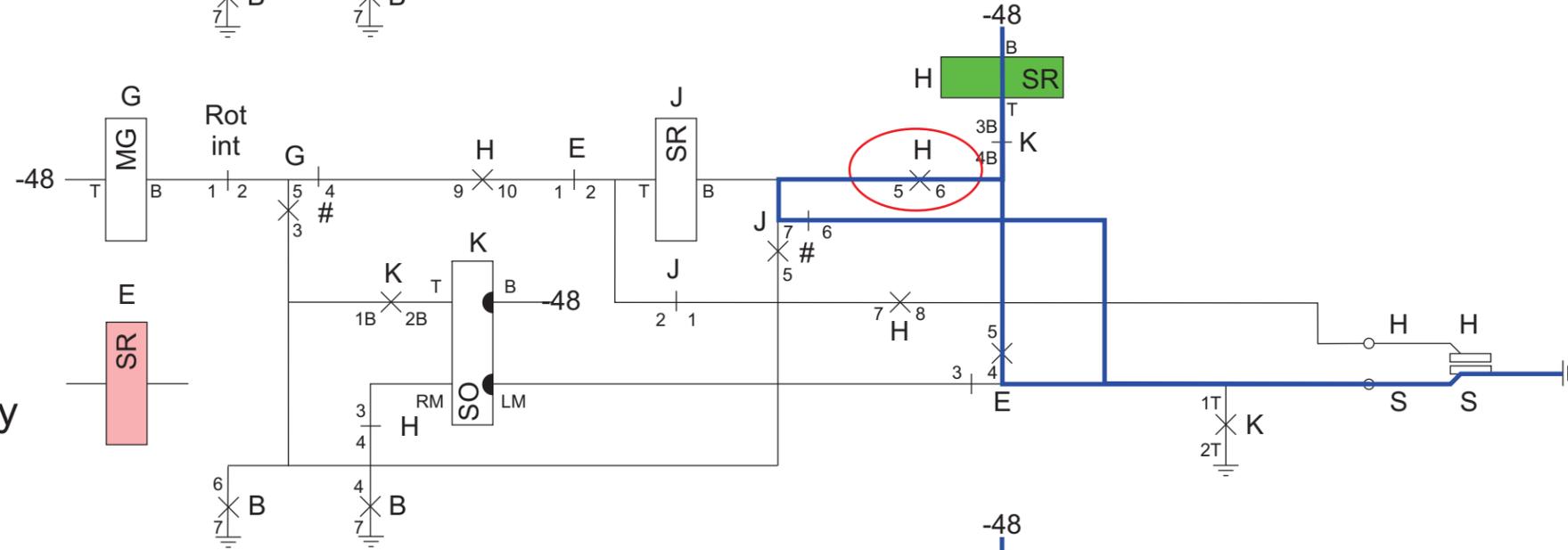# Figure 1. Called line busy (not in hunting group, or last line in one)

a. Landing on busy line,
H energized
(Also true when passing
busy line on the way to
the called line.)
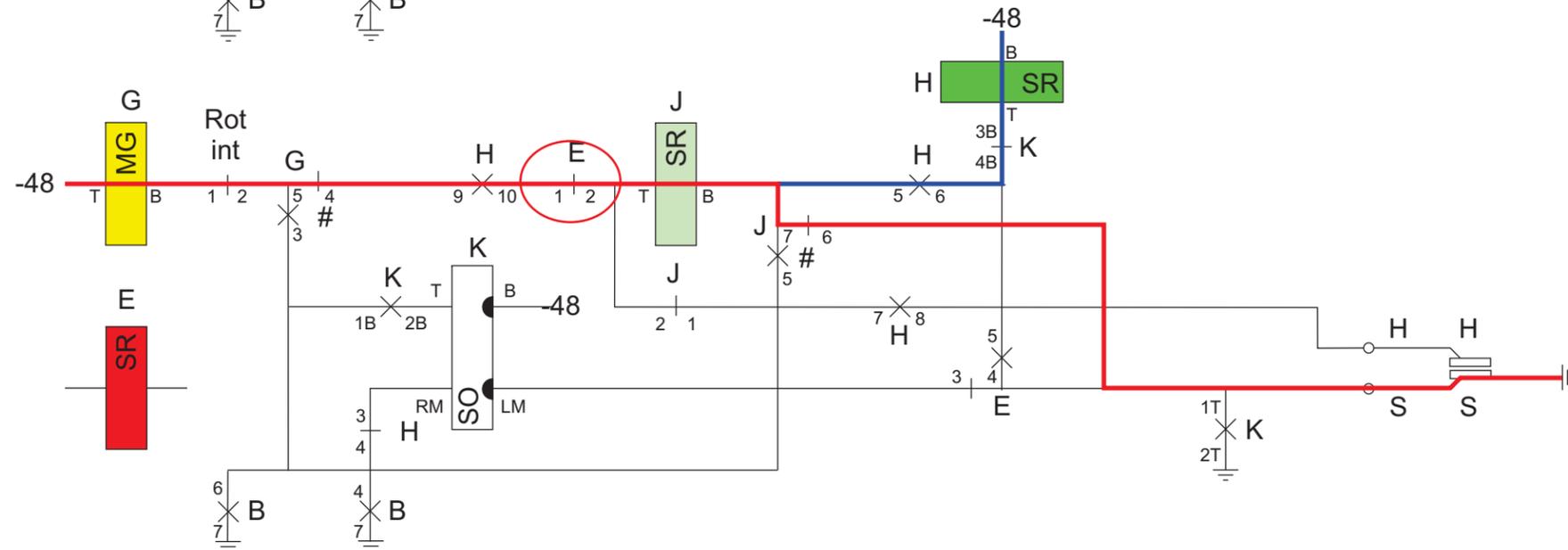E still operated from
rotary stepping.

b. H operates,
locks to called sleeve.

If arriving here from
Fig. 3g, H will already
be operated. E will already
be released, so we
proceed immediately
to Fig. 1c.

c. E releases,
J and G energized
in series (but current
too little to operate G).

(Continued on
next sheet)

Key to symbols and
relay index on sheet 2

Path development for
busy test, busy,
cut through, and
rotary hunting.

Figure 1. Called line busy (not in hunting group, or last line in one) (continued)

d. J operates, locks, gives busy tone to calling line (current too little to operate G).
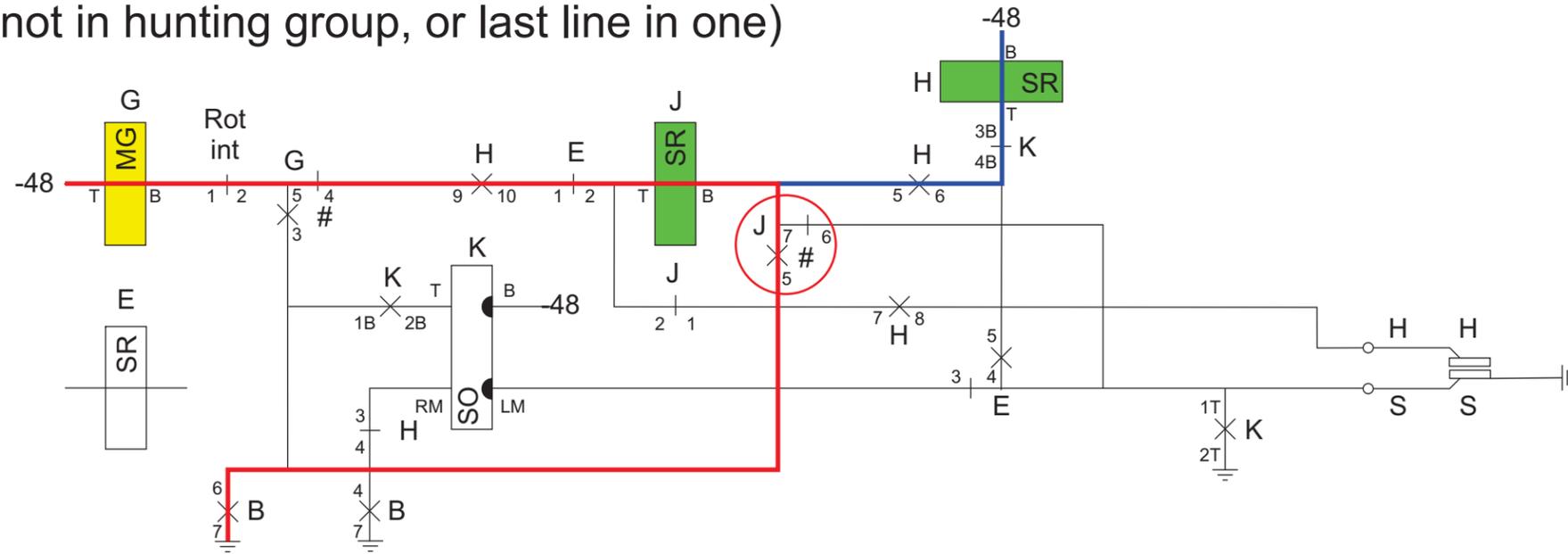
Key

☐	Relay released
☐	Coil energized but relay not yet operated
☐	Relay operated
☐	Coil energized but current too little to operate
☐	Relay de-energized but not yet released
☐	Just now or recently released
☐	Status varies
——	Path newly shown this figure
——	Path first shown earlier
◯	Contact change signficant

Relays with functions*

E Rotary pulsing in progress
G Rotary hunt step
H Busy test
J Busy tone
K Cut through

*Only relays seen in this drawing.
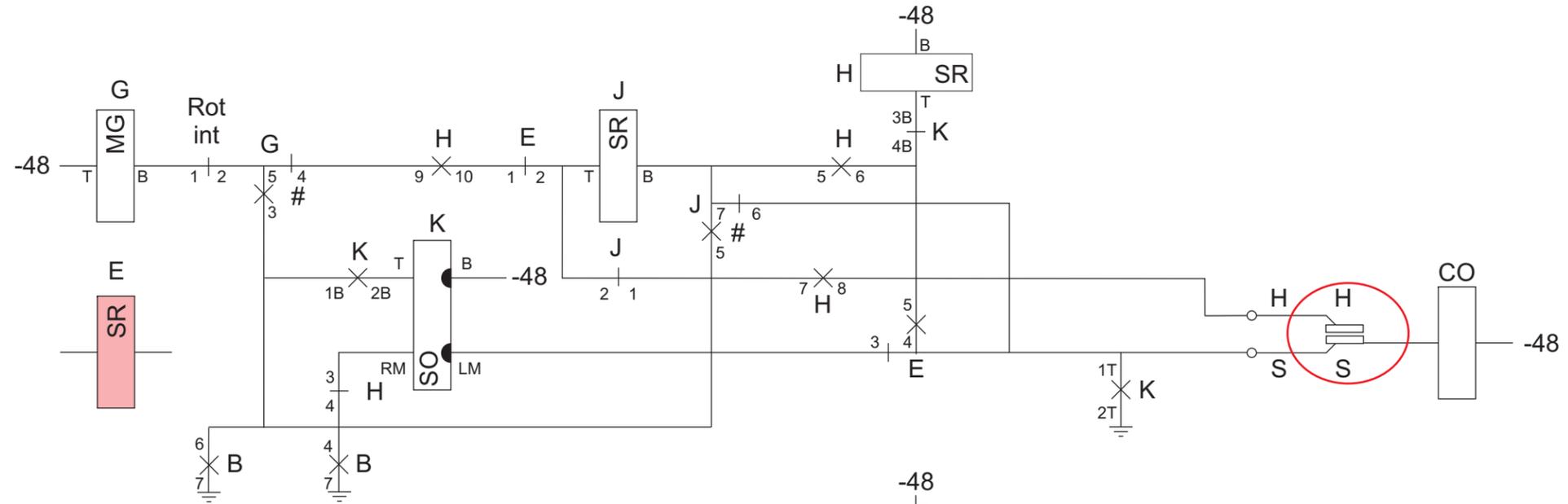
Path development for busy test, busy, cut through, and rotary hunting.

Step-by-step system
SD-30215-01 switch
Local rotary hunting connector

num SXS-SK1056	iss 03	date 2020.02.05	sht 02
proj SXS study	type CDR	dwn DAK	of 06

laboratories dak
scientific and technical undertakings
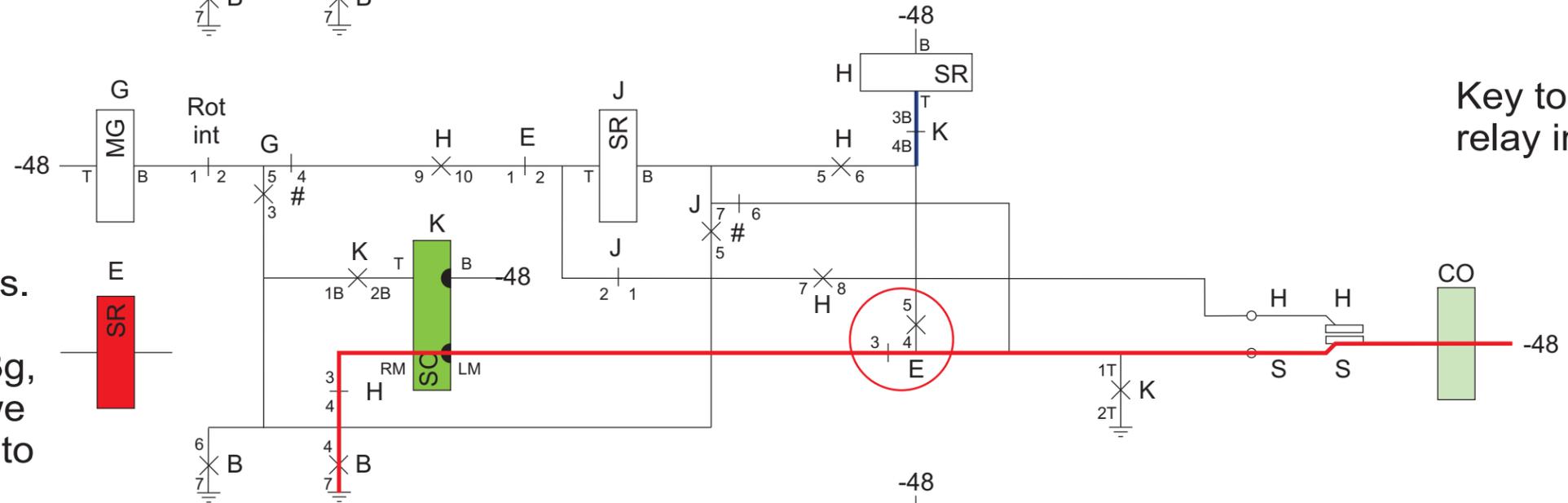Alamogordo, New Mexico

Figure 2. Called line idle

a. Landing on idle line,
H not energized,
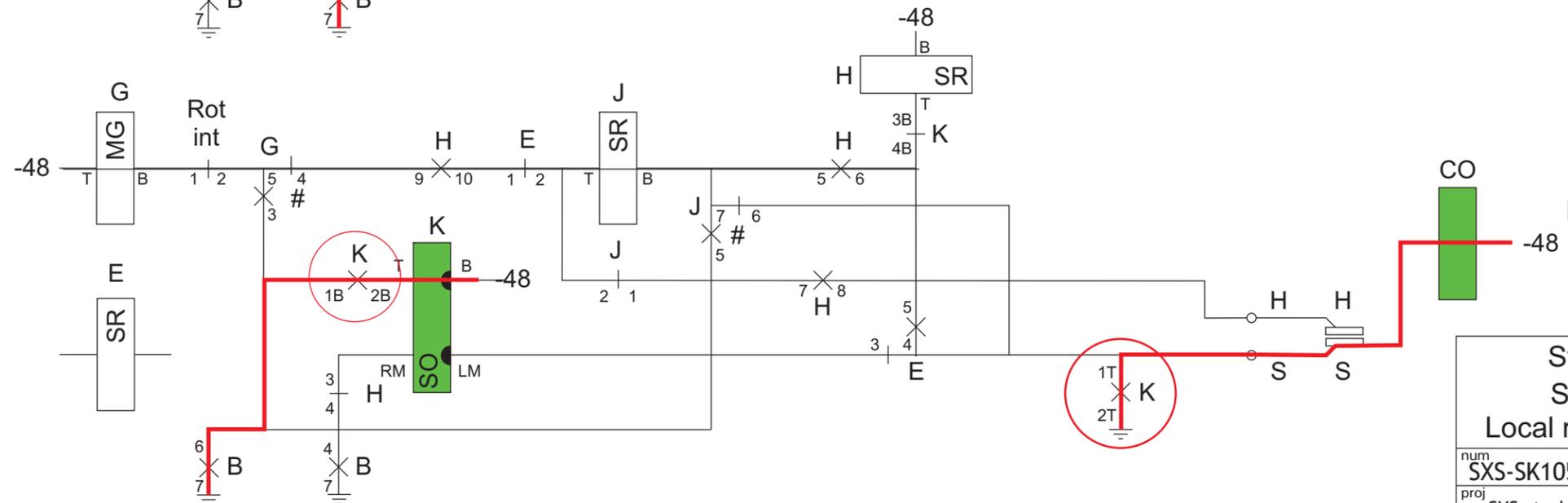E still operated from
rotary stepping.

b. E releases,
K energized in series with
CO, CO probably operates.

If arriving here from Fig. 3g,
Hi will be operated, and we
must wait for it to release to
complete path to K..

Key to symbols and
relay index on sheet 2

c. K operates,
locks, cuts through
to called line,
grounds called line
sleeve, CO operates
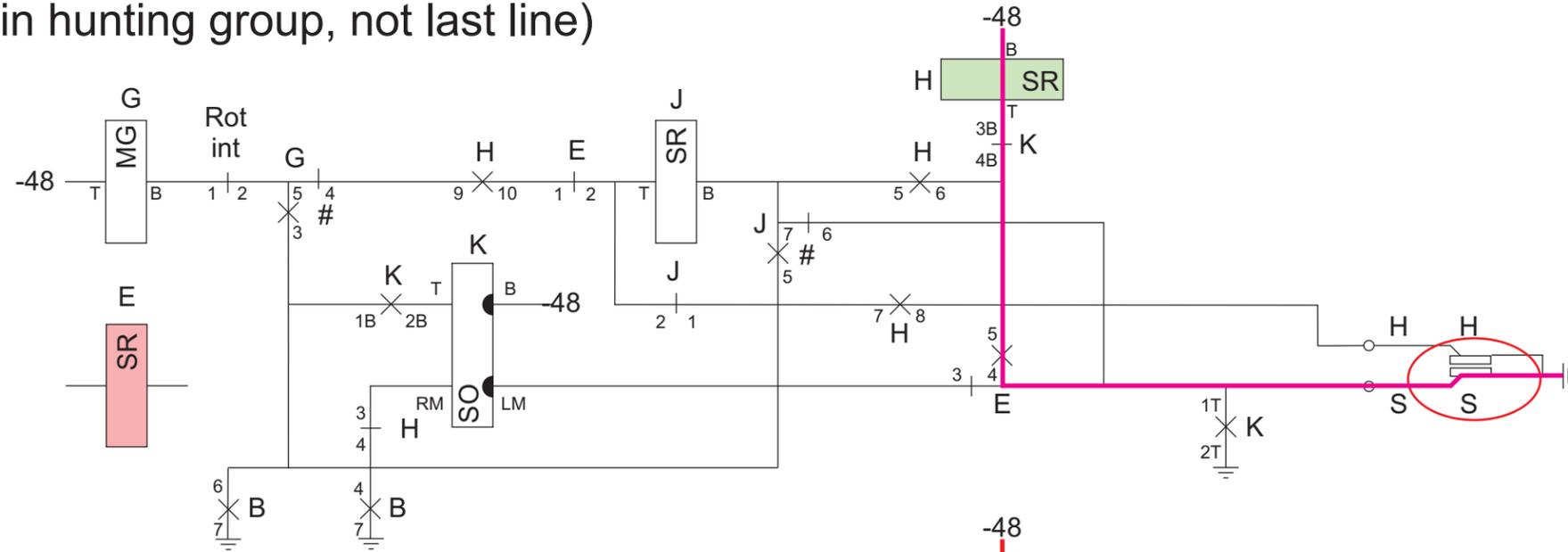if it did not in the previous
stage, ringing starts.

Path development for
busy test, busy,
cut through, and
rotary hunting.

Step-by-step system
SD-30215-01 switch
Local rotary hunting connector

| num SXS-SK1056 | iss 03 | date 2020.02.05 | sht 03 |
| proj SXS study | type CDR | dwn DAK | of 06 |

laboratories dak
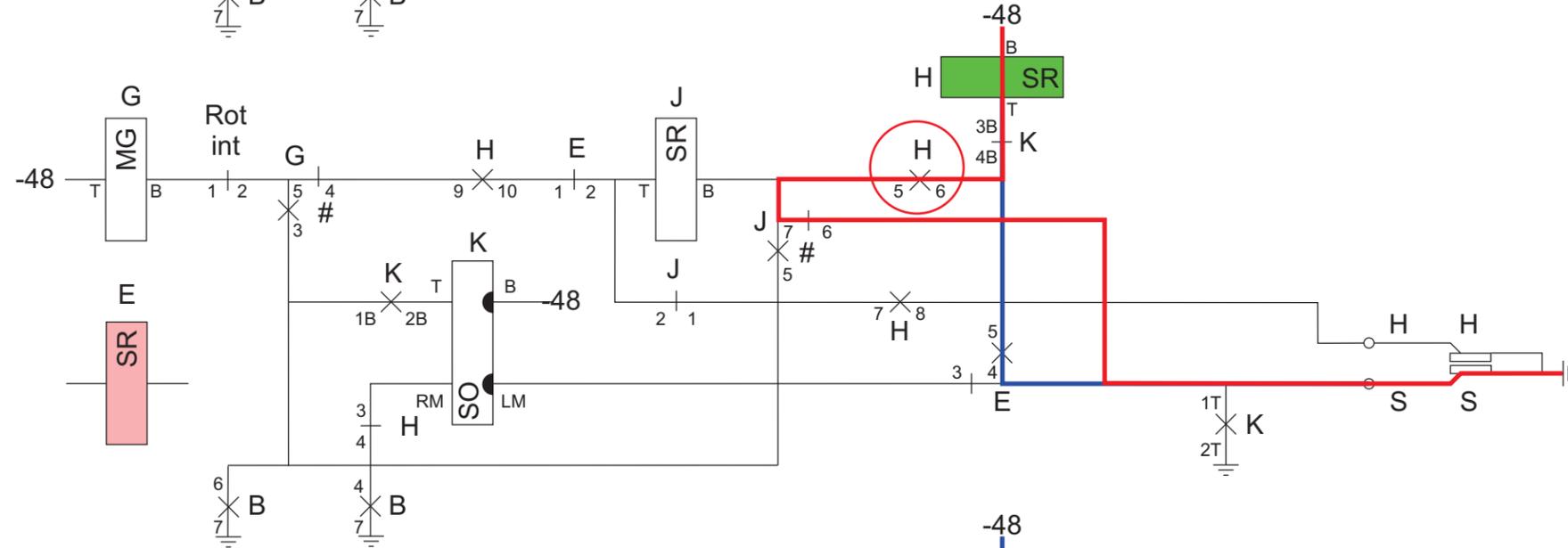scientific and technical undertakings
Alamogordo, New Mexico

Figure 3. Called line busy (in hunting group, not last line)

a. Landing on busy line, H energized, E still operated from rotary stepping.
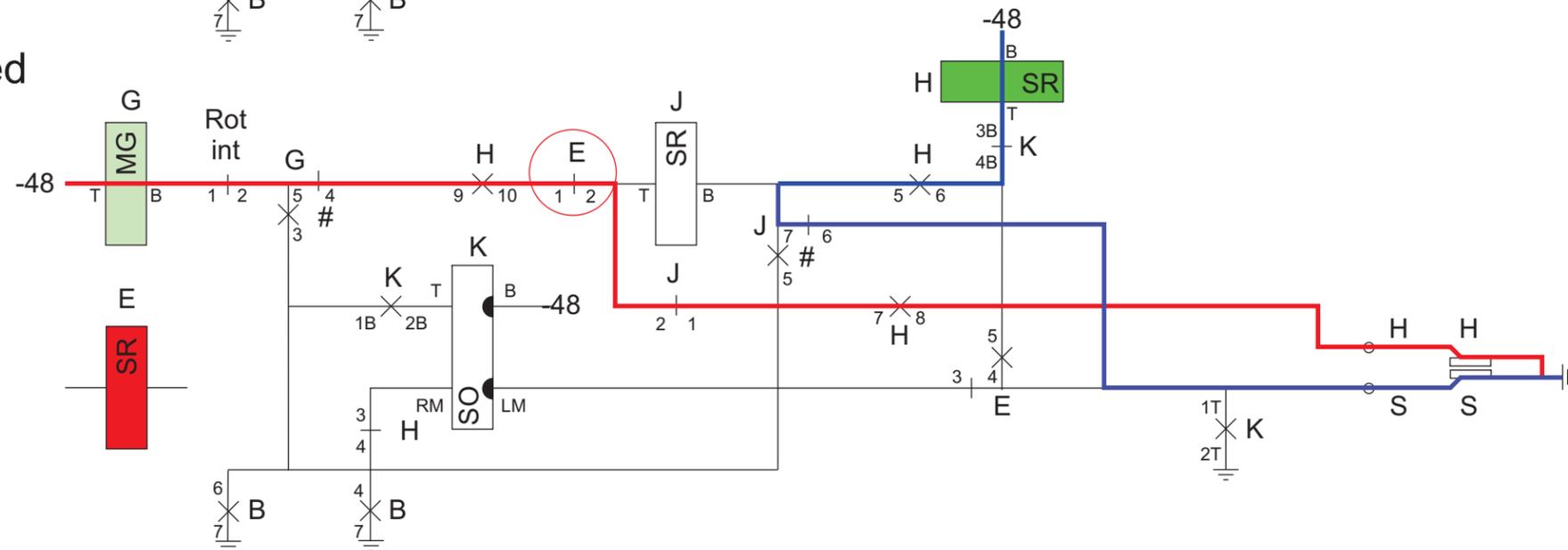
b. H operates, locks.

If we arrived here from Fig. 3g, H will already be operated.

c. E releases, G energized (J is shorted out so does not operate).

(Continued on next sheet)

Path development for busy test, busy, cut through, and rotary hunting.

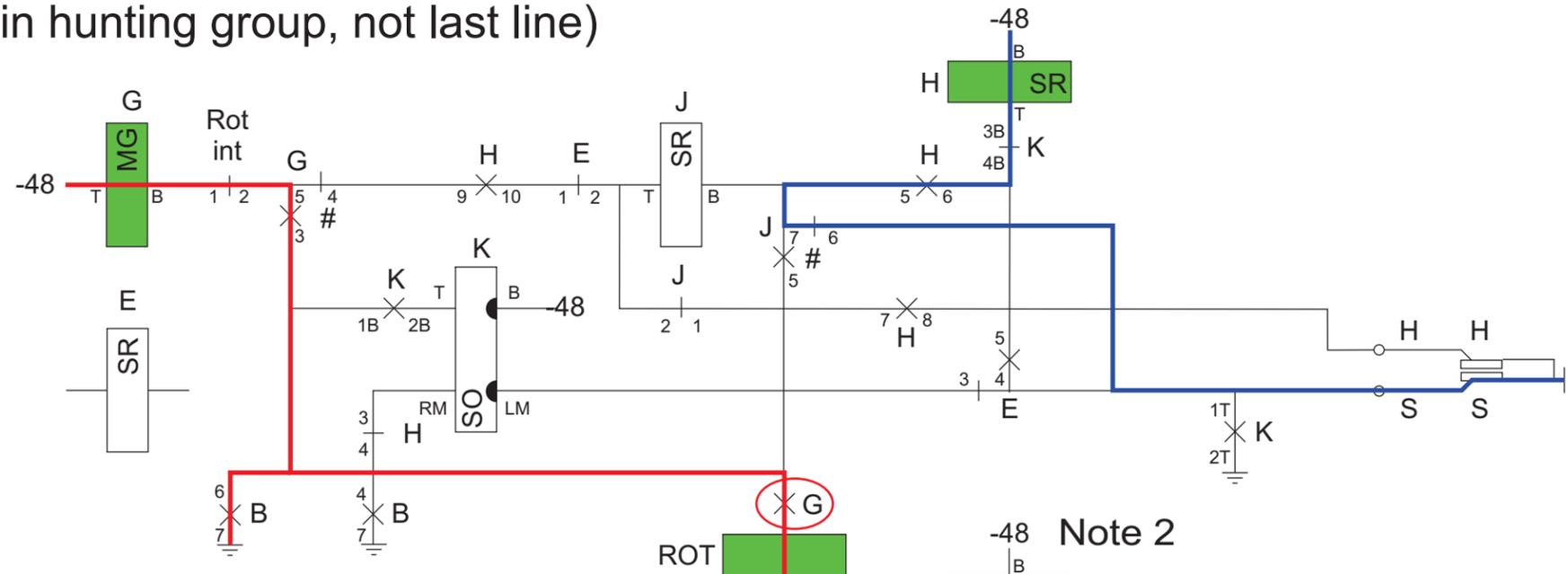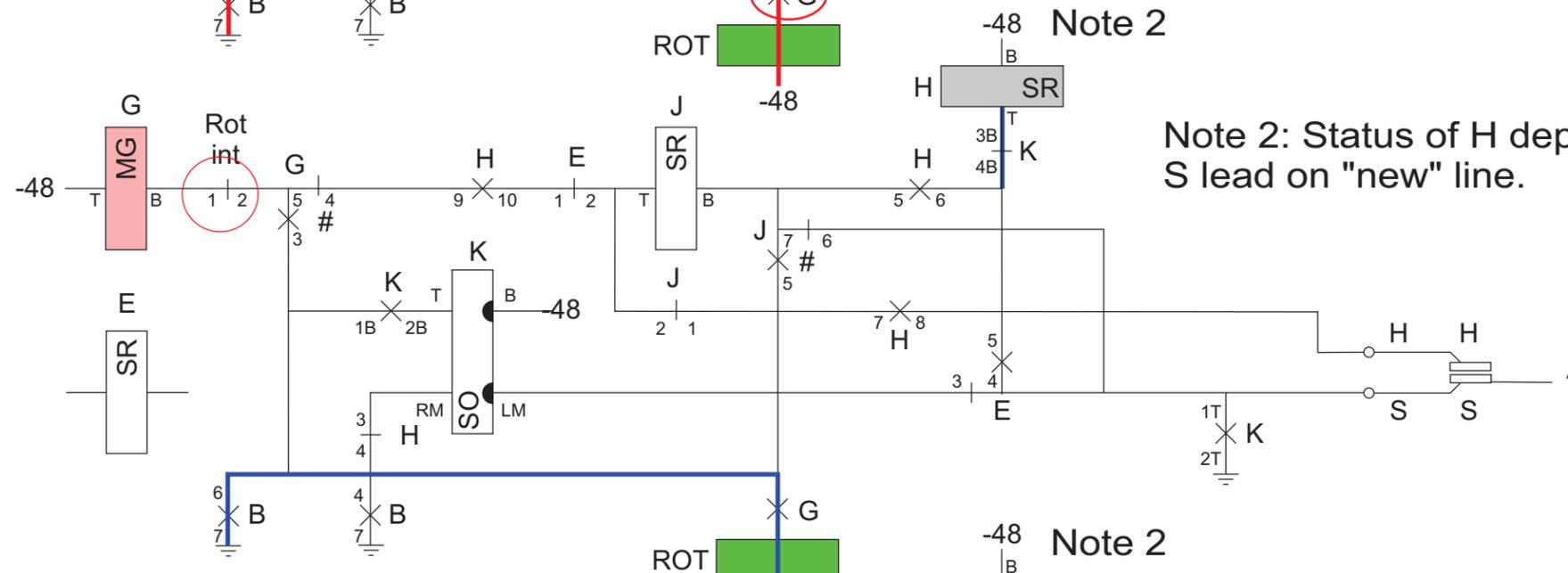| Step-by-step system SD-30215-01 switch Local rotary hunting connector			
num SXS-SK1056	iss 03	date 2020.02.05	sht 04
proj SXS study	type CDR	dwn DAK	of 06
laboratories dak scientific and technical undertakings Alamogordo, New Mexico			

Figure 3. Called line busy (in hunting group, not last line)

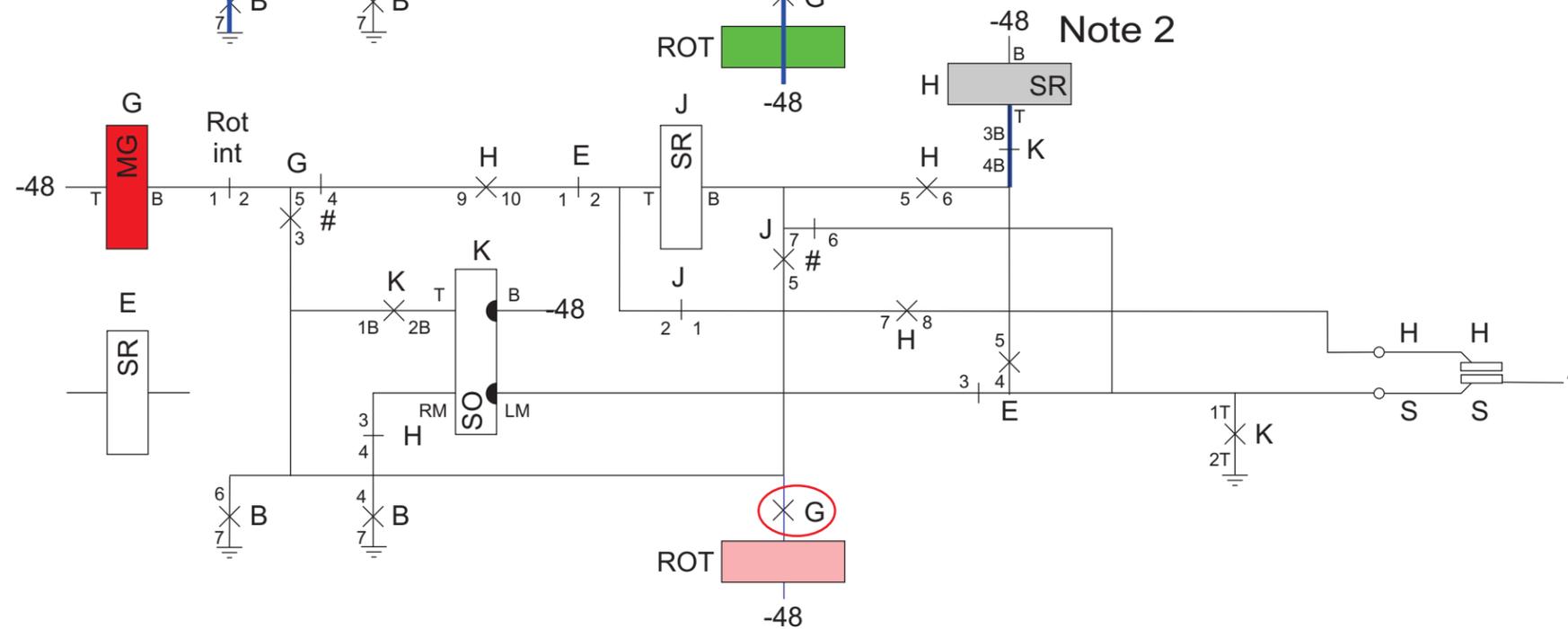d. G operates, holds, operates ROT; switch steps to next line.

e. ROT operated de-energizes G.

Note 2: Status of H depends on state of S lead on "new" line.

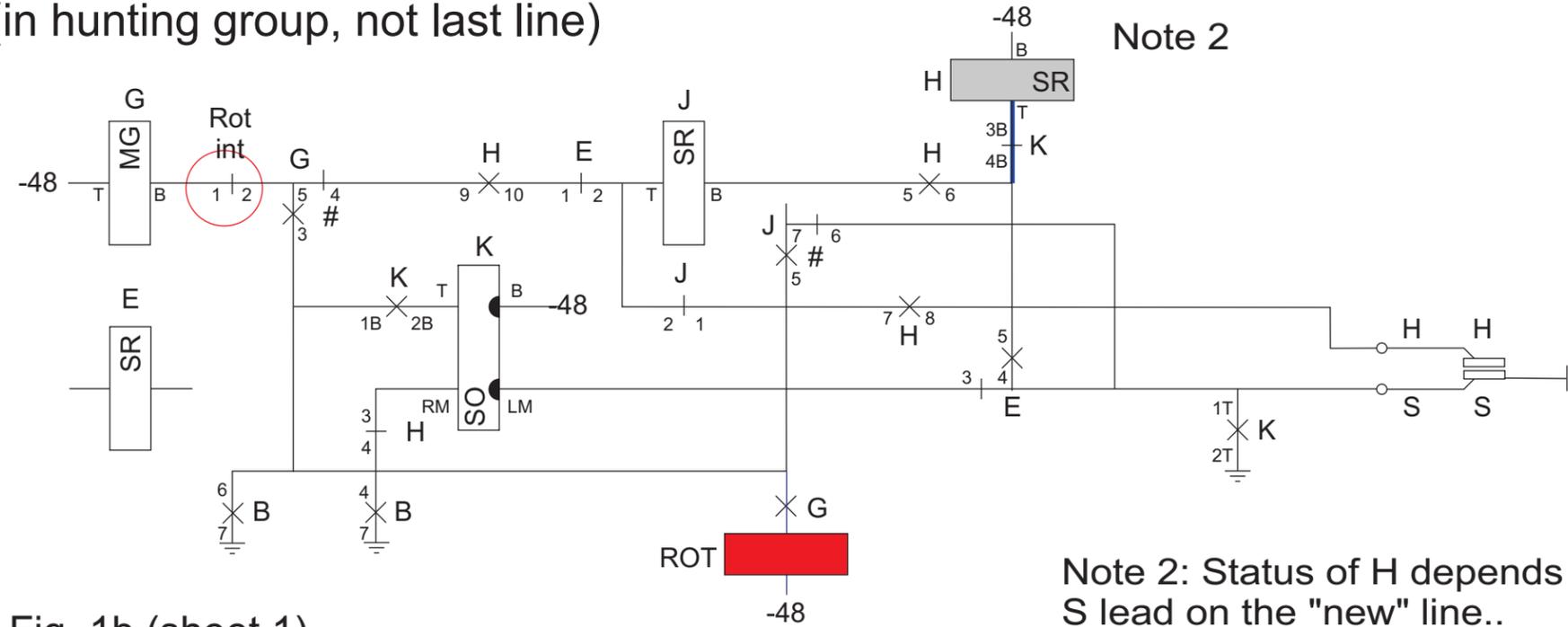f. G releases, G released de-enrgizes ROT.

(Continued on next sheet)

Path development for busy test, busy, cut through, and rotary hunting.

Step-by-step system SD-30215-01 switch Local rotary hunting connector			
num SXS-SK1056	iss 03	date 2020.02.05	sht 05
proj SXS study	type CDR	dwn DAK	of 06
laboratories dak scientific and technical undertakings Alamogordo, New Mexico			

Figure 3. Called line busy (in hunting group, not last line)

Note 2

g. ROT releases;
Rot, Int. recloses path
for G to be re-operated.

Then if, on the "new" line:

S (only) is grounded, go to Fig. 1b (sheet 1)
S and H are grounded, go to Fig. 3b (sheet 4)
S (or S and H) has battery, go to Fig. 2b (sheet 3)

Note 2: Status of H depends on state of
S lead on the "new" line..