

NO. 5 CROSSBAR
TROUBLE REFERENCE GUIDE - PART 4
OFFICE TEST FRAME
BIN LISTINGS----- G, H, I, J, K, L

1. GENERAL

- 1.01 This section is one of a series of sections comprising the information necessary to guide the central office maintenance force to an understanding of the nature of troubles reported by either trouble indicator display records or ATA exception reports.
- 1.02 Whenever this section is reissued, this paragraph will cover the reason for reissue. This issue does not affect Equipment Test Lists.
- 1.03 Refer to Section 218-404-500 for an explanation of a typical bin listing, along with a complete listing of all bins, and the Trouble Reference Guide part number in which they appear.
- 1.04 The method of trouble duplication using the office test frame is provided in Part 11, Section 218-404-510.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

GARBAGE

LAMP INFORMATION

Lamp - (Does not apply.)
No Lamp - (Does not apply.)

DESCRIPTION OF CIRCUIT OPERATION

(Does not apply.)

DESCRIPTION OF FAILURE

Invalid or conflicting information occurred while attempting to switch a call.

NORMAL SEQUENCE OF OPERATION

(Does not apply.)

TROUBLE DUPLICATION INFORMATION

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

(None)

GARBAGE

GT2

LAMP INFORMATION

Lamp - SL-JXP1-LXP1

No Lamp - GT2

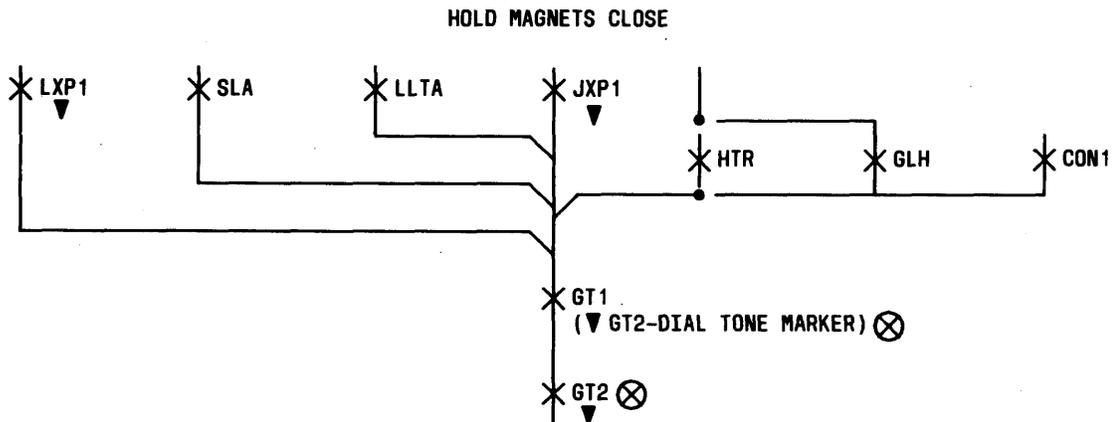
DESCRIPTION OF CIRCUIT OPERATION

The marker is checking that all the hold magnets have operated and that locking ground is present on the operate path. Operation of the (GT2) relay indicates that all the hold magnets are closed and the marker is ready to make ground test.

DESCRIPTION OF FAILURE

The (SL), (JXP1) and (LXP1) lighted indicates that all the hold magnets have operated. (GT2) not lighted indicates that hold magnet testing was not completely satisfied.

Probably will complete on second trial unless in call back linkage. (Results in dial tone after dialing.)

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26002-01	FS-47	SC-109	CD-26002-01	Para - 13.4
SD-26001-01	FS-20	SC-1	CD-26001-01	Para - 5.100

GT2

GT5

LAMP INFORMATION

Lamp - GT5
No Lamp - (Does not apply.)

DESCRIPTION OF CIRCUIT OPERATION

The marker is testing the tip and ring conductors for the presence of a false ground. If a false ground is indicated, the (GT) relay will not release. With the (GT) relay operated when the slow release (GT3) relay releases, the (GT5) relay operates to cause a trouble record.

DESCRIPTION OF FAILURE

(GT5) lighted indicates a false ground present on the tip or ring conductor.

(GT5) failure is a second trial failure.

NORMAL SEQUENCE OF OPERATION

(Does not apply.)

TROUBLE DUPLICATION INFORMATION

Line Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26002-01 FS-48 SC-109 CD-26002-01 Para - 13.24

GT5

HG

LAMP INFORMATION

Lamp- (Does not apply.)
 No Lamp - HG-

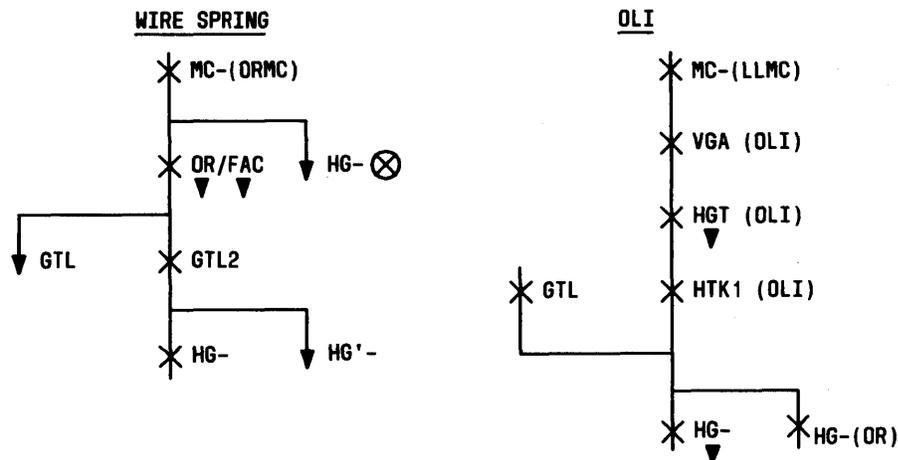
DESCRIPTION OF CIRCUIT OPERATION

The (HG-) information is received by the marker from the (OR) so the marker can establish the call back linkage. The (HG-) lamp should be present as soon as the (ORMC) establishes a connection to the marker. This information is also transmitted to the OR from the OLI.

DESCRIPTION OF FAILURE

(HG-) not lighted indicates that the marker did not receive any horizontal group information from the (OR).

Probably will not complete on second trial.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26002-01 FS-1 SC-101 CD-26002-01 Para. - 1.08

HG

HG'

LAMP INFORMATION

Lamp - (not available)
 No Lamp - HG-

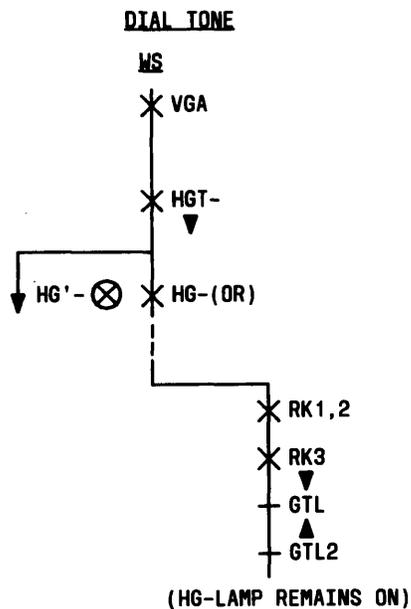
DESCRIPTION OF CIRCUIT OPERATION

On dial tone calls, the (HG-) lamp indicates that the (HG-) relay locked operated in the (OR).

DESCRIPTION OF FAILURE

With the (GTL) lamp present, no (HG-) lamp indicates an internal marker problem. Without the (GTL) lamp present, no (HG-) lamp indicates that the (HG-) relay did not lock operated in the (OR).

Probably will not complete on second trial.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

Dial Tone Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01 FS-9 SC-1 CD-26001-01 Para - 2.03

HG'

HGK

LAMP INFORMATION

Lamp - HGT- & LFK
 No Lamp - HGK

DESCRIPTION OF CIRCUIT OPERATION

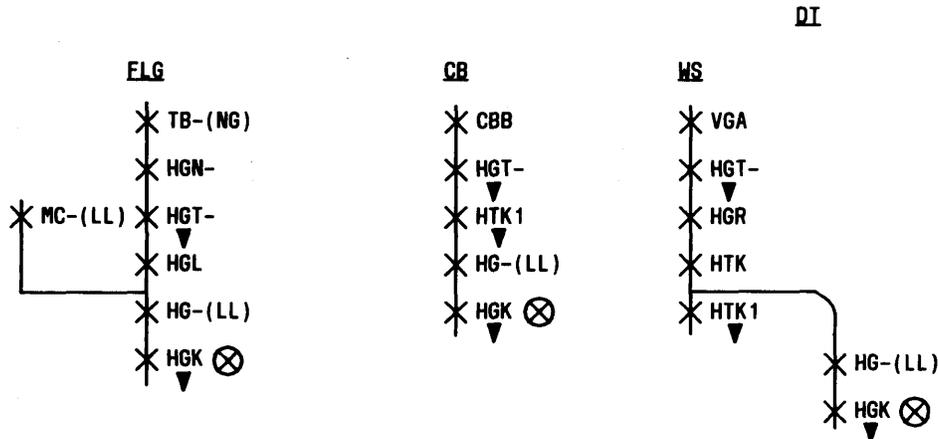
The (HGK) lamp indicates that the marker operated the (HG-) relay in the line link. After the line link has been seized, the marker operates the (HG-) relay as determined by the (HGT-) relay. Operation of the (HG-) relay in the (LL) operates the (HGK) relay in the marker.

DESCRIPTION OF FAILURE

The (LFK) relay operated indicates that the line link has been seized. The (HGT-) lighted indicates that the marker is ready to operate one (HG-) relay in the line link. (HGK) not lighted indicates that the marker did not verify that the (HG-) relay operated in the line link.

Probably will not complete on second trial.

NORMAL SEQUENCE OF OPERATION



DI

TROUBLE DUPLICATION INFORMATION

Dial Tone or OGT Test - Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-7	SC-1	CD-26001-01	Para - 2.47
SD-26002-01	FS-9	SC-106,107	CD-26002-01	Para - 6.04,11.77

HGK

HGT

LAMP INFORMATION

Lamp - (not available)
 No Lamp - HGT-

DESCRIPTION OF CIRCUIT OPERATION

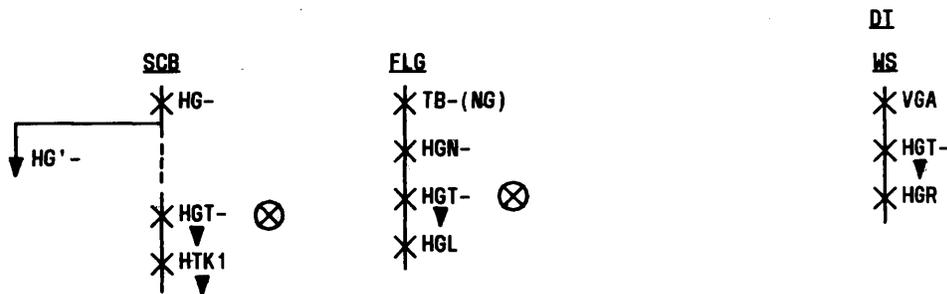
The (HGT-) relay operates to select the correct line link location. The completing marker receives the (HGT) information from the (HG-) relay on call back and from the (HGN-) relay on call forward linkage. The (HGN-) relay is operated from number group cross-connections. On dial tone calls the (HGT-) relay is operated from the line link location bidding for dial tone.

DESCRIPTION OF FAILURE

(HGT-) not lighted indicates that the marker cannot select the correct line link location. On dial tone calls, absence of the (HGT-) lamp indicates the marker did not receive the line link location from the line link.

Probably will not complete on second trial.

NORMAL SEQUENCE OF OPERATION



TROUBLE DUPLICATION INFORMATION

Dial Tone or INC Test - Section 218-404-510- - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-8	SC-1	CD-26001-01	Para - 2.31,2.32
SD-26002-01	FS-7	SC-106,107	CD-26002,01	Para - 6.04,6.11

HGT

HGT-X**LAMP INFORMATION**

Lamp - at least two (HGT-) lamps lighted
 No Lamp - HGT- in one-out-of-ten

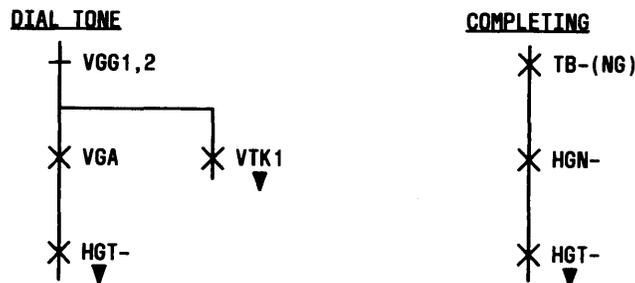
DESCRIPTION OF CIRCUIT OPERATION

Marker is verifying that the line link information received is valid. On dial tone calls this information is received from the line link. On completing marker usage, the (HGT-) information is received from the number group.

DESCRIPTION OF FAILURE

The (HGT-) lighted indicates that the marker started to receive the horizontal group information. Since the (HGT-) information was not received in one-out-of-ten, a (HGT-X) trouble is detected.

Probably will complete on second trial.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

Dial Tone or INC Test - See 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-7	SC-1	CD-26001-01	Para - 2.31 thru 2.34
SD-26002-01	FS-7	SC-116	CD-26002-01	Para - 6.04, 6.11

HGT-X

HMS1

LAMP INFORMATION

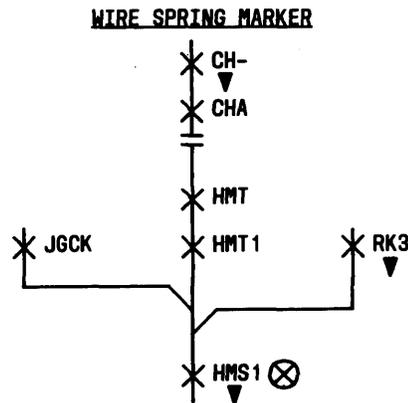
Lamp - CH
No Lamp - HMS1

DESCRIPTION OF CIRCUIT OPERATION

The marker is checking that all the linkages are idle and it is preparing to operate the hold magnets. (HMS1) operated would indicate that the marker is ready to operate the hold magnets.

DESCRIPTION OF FAILURE

The (CH-) relay operated indicates that the marker has selected an idle channel to be used on this call. (HMS1) not operated indicates that a trouble ground may have occurred on the linkage.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-20	SC-1	CD-26001-01	Para - 5.52
SD-26002-01	FS-47	SC-109	CD-26002-01	Para - 12.13

HMS1

I/O-MUT.DIG**LAMP INFORMATION**

Lamp - (Does not apply.)
No Lamp - A2/5 / B2/5 / C2/5 / etc.

DESCRIPTION OF CIRCUIT OPERATION

The marker is checking that the (A), (B), (C), etc, digits are registered in two-out-of-five format.

DESCRIPTION OF FAILURE

The digits registered from an IR were not recorded in two-out-of-five format, resulting in an incoming mutilated digit failure.

Probably will not complete.

NORMAL SEQUENCE OF OPERATION

(Does not apply.)

TROUBLE DUPLICATION INFORMATION

INC Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26002-01 FS-71,72,73,74,75 SC-101 CD-26002-01 Para - 1.08

I/O-MUT.DIG

I|O-TRS

LAMP INFORMATION

Lamp - TRS
 No Lamp -

DESCRIPTION OF CIRCUIT OPERATION

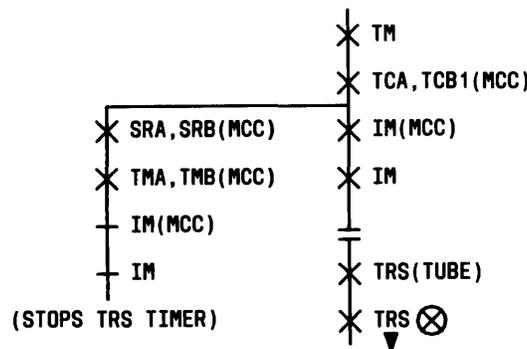
If the (TRS) relay operates in the preference control, the (TRS) relay is operated in the marker. With the (TRS) relay operated, the marker completes the call as usual but forces a trouble just before disconnect to indicate the trouble in the connector.

DESCRIPTION OF FAILURE

(TRS) lighted indicates that the preference control associated with an originating register marker connector or incoming register marker connector failed to seize an idle marker within one second. With (OR) lamp lighted, an originating register marker connector is indicated. (FR), (CN), and (CN,RG,S) lamps indicate frame, connector, and register position involved in the failure. This call did not fail in the marker, but the marker takes a trouble record to indicate that the call had trouble in the preference control circuit.

Call completes on first trial.

NORMAL SEQUENCE OF OPERATION



TROUBLE DUPLICATION INFORMATION

Dial Tone or INC Test - See Section 218-404-410 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-35			
SD-26002-01	FS-32			
SD-26029-01	FS-6	SC-3	CD-26029-01	Para - 3.19 thru 3.22

JCK

LAMP INFORMATION

Lamp - JC-
No Lamp - JCK

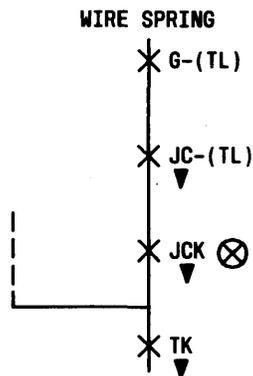
DESCRIPTION OF CIRCUIT OPERATION

When the (JC-) relay in the trunk link is operated, the marker checks for the presence of battery or ground thru the trunk link junctor select magnet. This is a positive check of the trunk link (JC-) relay operation.

DESCRIPTION OF FAILURE

Presence of the (JC-) lamp indicates that the marker applied battery potential to the trunk link to operate the (JC-) relay. (JCK) not lighted indicates that the marker could not verify that the (JC-) relay actually operated.

May complete on second trial.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-21,22	SC-1	CD-26001-01	Para - 4.73
SD-26002-01	FS-45	SC-105	CD-26002-01	Para - 11.69

JCK

JG

LAMP INFORMATION

Lamp - P
No Lamp - JG-

DESCRIPTION OF CIRCUIT OPERATION

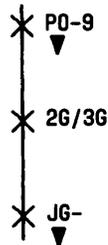
The (JG-) lamp indicates that the junctor subgroup has been selected. What this means as far as actual crosspoints is concerned depends upon the size and configuration of each office.

DESCRIPTION OF FAILURE

(JG-) not lighted indicates that the junctor subgroup has not been selected.

May complete on second trial.

NORMAL SEQUENCE OF OPERATION



TROUBLE DUPLICATION INFORMATION

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-16	SC-1	CD-26001-01	Para - 4.53
SD-26002-01	FS-17	SC-105	CD-26002-01	Para - 11.52

JG

JXP1

LAMP INFORMATION

Lamp - SL
No Lamp - JXP1

DESCRIPTION OF CIRCUIT OPERATION

The marker is checking the operation of the line link junctor hold magnets.

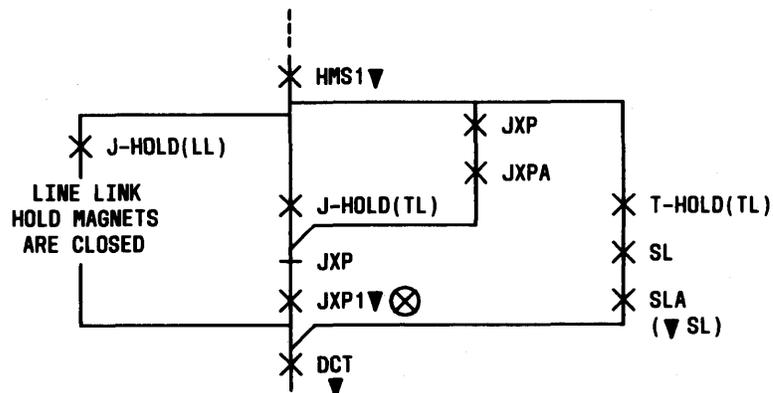
The (J-HOLD) (LL) is operated in series with the (JXP) relay in the marker. Operation of the (JXP) relay operates the (JXPA) relay which locks operated. When the (J-HOLD) crosspoints close, the (JXP) relay is shunted down by a ground provided by the marker via the LH- lead. Release of the (JXP) relay operates the (JXP1) relay.

DESCRIPTION OF FAILURE

The (SL) lamp indicates that the "shunt down" ground is present on the LH-lead from the marker to the line link.

(JXP1) not lighted indicates that the crosspoints (J-HOLD) did not close to shunt down the (JXP) relay.

Probably will complete on second trial - unless in call back linkage. (Results in dial tone after dialing).

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26002-01	FS-47	SC-109	CD-26002-01	Para - 13.01
SD-26001-01	FS-20	SC-1	CD-26001-01	Para - 5.57

JXP1

LC-

LAMP INFORMATION

Lamp - TCHK
 No Lamp - LC-, LCK

DESCRIPTION OF CIRCUIT OPERATION

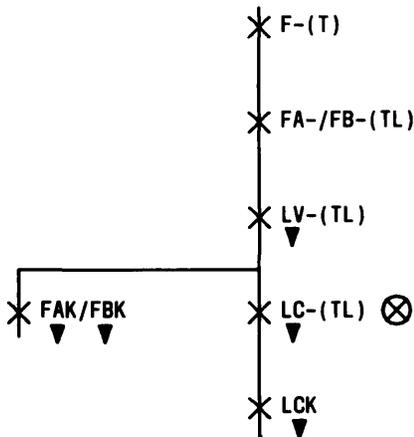
The marker has operated the (F) relay of the selected trunk or register circuit. The trunk can then be identified by switch and level by operation of the (LC-) and (LV-) relays in the trunk link.

DESCRIPTION OF FAILURE

(LC-) not lighted indicates that the (LC-) relay did not operate in the trunk link. Therefore, the marker cannot identify the trunk link switch number.

May complete on second trial.

NORMAL SEQUENCE OF OPERATION



TROUBLE DUPLICATION INFORMATION

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	SC-1	CD-26001-01	Para - 3.45
SD-26002-01	SC-104		
SD-26032-01	FS-1	CD-26032-01	Para - 1.25

LC-

LCK

LAMP INFORMATION

Lamp - LC-
No Lamp - LCK

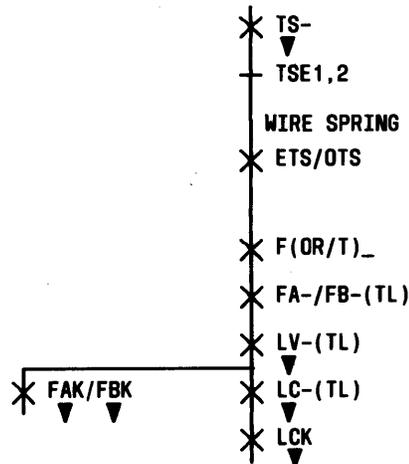
DESCRIPTION OF CIRCUIT OPERATION

The marker is verifying that the (LC-) relay operated in the trunk link. The (LC-) relay corresponds to the switch number of the trunk's switch and level identity.

DESCRIPTION OF FAILURE

The (LC-) lamp is present and has been checked to verify that it is in the correct format or (one-out-of-ten), (LCK) not lighted indicates that the marker could not verify operation of the (LC-) relay in the trunk link.

May complete on second trial.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-19	SC-1	CD-26001-01	Para - 3.46
SD-26002-01	FS-46	SC-104	CD-26002-01	Para - 11.73

LCK

LFK

LAMP INFORMATION

Lamp - FAK/FBK
 No Lamp - LFK

DESCRIPTION OF CIRCUIT OPERATION

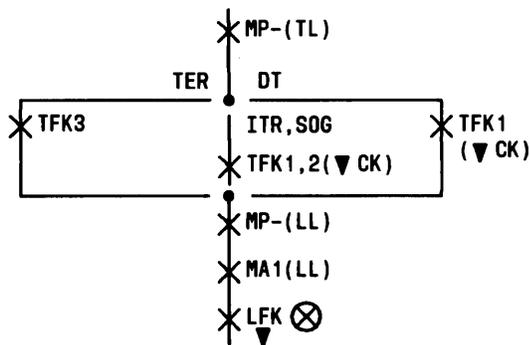
The marker is checking that the line link connector has operated. When the (MA1) relay in the line link connector operates, it operates the (LFK) relay in the marker.

DESCRIPTION OF FAILURE

The (FAK/FBK) relay operated indicates the trunk link was successfully seized and the trunk selected. (LFK) not operated indicates the line link was not seized.

Probably will not complete on second trial.

NORMAL SEQUENCE OF OPERATION



TROUBLE DUPLICATION INFORMATION

Dial Tone or INC Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-11	SC-1	CD-26001-01	Para - 2.39
SD-26002-01	FS-5	SC-106	CD-26002-01	Para - 6.01, 6.09

LFK

LFK-FLS|WT

LAMP INFORMATION

Lamp - WT
 No Lamp - LFK

DESCRIPTION OF CIRCUIT OPERATION

When the marker is ready to seize another circuit, it transfers timing from the Work Timer (WT) to the Short Delay Timer (SDT). This is to allow for other markers to finish with the circuit without causing a marker time-out.

DESCRIPTION OF FAILURE

(LFK) not lighted indicates that the marker did not verify operation of the line link (MAL-) relay. In addition, the presence of the (WT) lamp indicates that timing was not transferred to the (SDT) timer.

May complete on second trial.

NORMAL SEQUENCE OF OPERATION

(Does not apply.)

TROUBLE DUPLICATION INFORMATION

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26001-01	FS-11,25	CD-26001-01	Para - 2.39
SD-26002-01	FS-5,110	CD-26002-01	Para - 6.01, 17.17

LFK-FLS|WT

LK1

LAMP INFORMATION

Lamp -DCT1
No Lamp - LK1

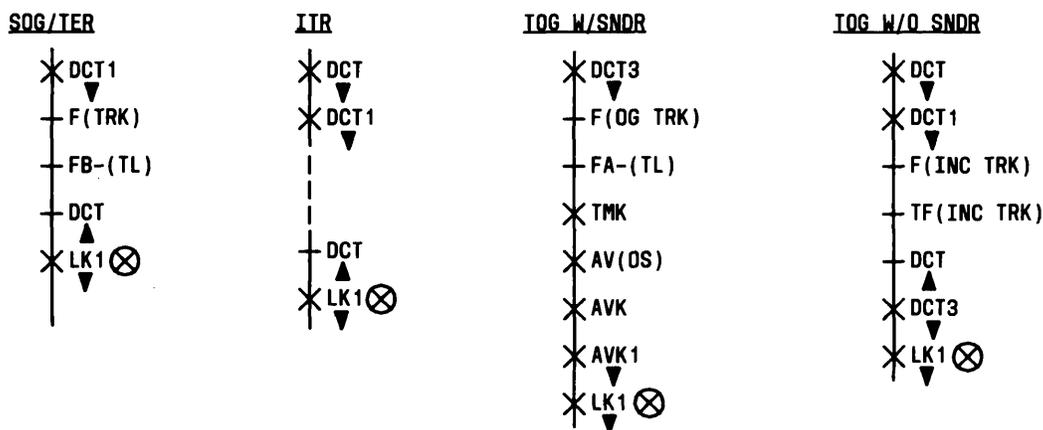
DESCRIPTION OF CIRCUIT OPERATION

The marker is verifying that the trunk can hold the crosspoint linkage operated. If the crosspoint linkage is held operated by the trunk, the (DCT) relay will be shunted down causing the operation of the (LK1) relay.

DESCRIPTION OF FAILURE

Operation of the (DCT1) relay indicates that the double connection test was successful. Operation of (DCT3) relay on TOG calls indicates that the incoming trunk has control of the linkage. (LK1) not lighted indicates failure to record that the trunk has control of the linkage or possible falsely held DCT relay indicating that the OR or trunk was not successful in holding the F relay.

May complete on second trial - unless in call back linkage. (Results in dial tone after dialing).

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

OGT, IAO or INC Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26002-01 FS-49 SC-110 CD-26002-01 Para - 13.40, 14.01

LK1

LR

LAMP INFORMATION

Lamp - LR
No Lamp - DCK

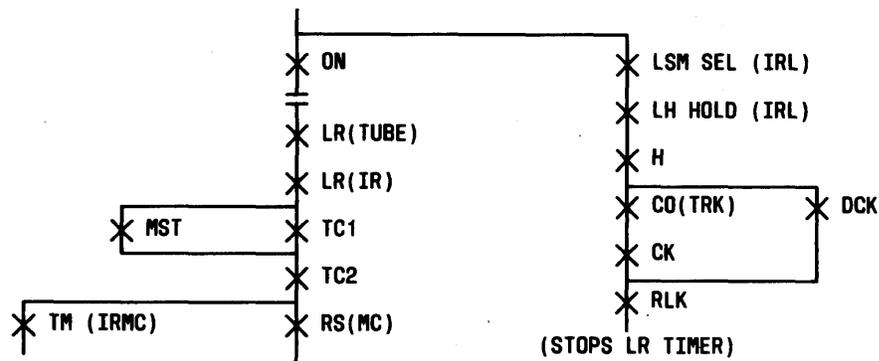
DESCRIPTION OF CIRCUIT OPERATION

Since the link circuit contains no timing, the incoming register times the completion of the link functions. If all the tests are not passed within 325 milliseconds, the (LR) relay operates in the incoming register to seize a marker and cause a trouble record to be taken.

DESCRIPTION OF FAILURE

(LR) lighted indicates a failure occurred while attaching an IR to an incoming trunk. (DCK) not lighted indicates that a double connection of the crosspoints on the (IRL) was detected.

Call will not complete - no second trial.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

INC Test - See Section - 218-105-320 - Part 11. (Identify trunk from LC- & LV-.)

REFERENCE DOCUMENTS

SD-26002-01	FS-33			
SD-26042-01	FS-1	SC-15	CD-26042-01	Para - 10.
SD-26043-01	FS-8	SC-5	CD-26043-01	Para - 8.3

LR

LR-NO. INC. CLASS

LAMP INFORMATION

Lamp - DCK & LR
 No Lamp - INC, TOL, TAN

DESCRIPTION OF CIRCUIT OPERATION

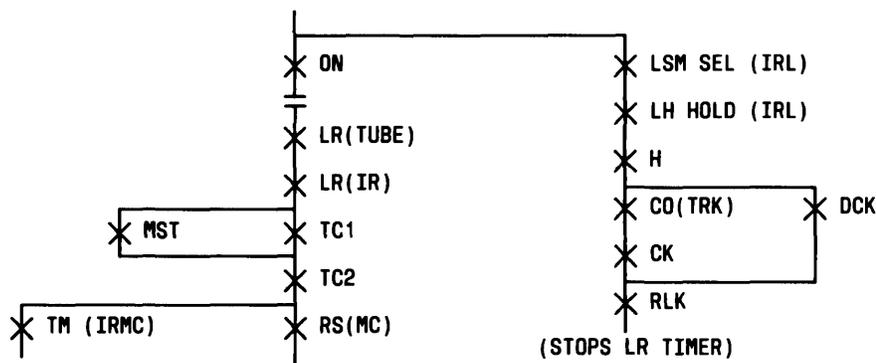
Since the link circuit contains no timing, the incoming register times the completion of the link functions. If all the tests are not passed within 325 milliseconds, the (LR) relay operates in the incoming register to seize a marker and cause a trouble record to be taken.

DESCRIPTION OF FAILURE

(LR) lighted indicates a failure occurred while attaching an IR to an incoming trunk. (DCK) lighted indicates that at least some of the crosspoints on the (IRL) closed.

(INC, TOL, TAN,) not lighted indicates that the marker did not receive the incoming trunk class.

Call will not complete - no second trial.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

INC Test - See Section 218-105-320 - Part 11. (Identify trunk from LC- & LV-.)

REFERENCE DOCUMENTS

SD-26002-01	FS-29,33	SC-101	CD-26002-01	Para - 1.08
SD-26042-01	FS-1	SC-15	CD-26042-01	Para - 10.
SD-26043-01	FS-8	SC-5	CD-26043-01	Para - 8.3

LR-NO. INC. CLASS

LR-NO.LV

LAMP INFORMATION

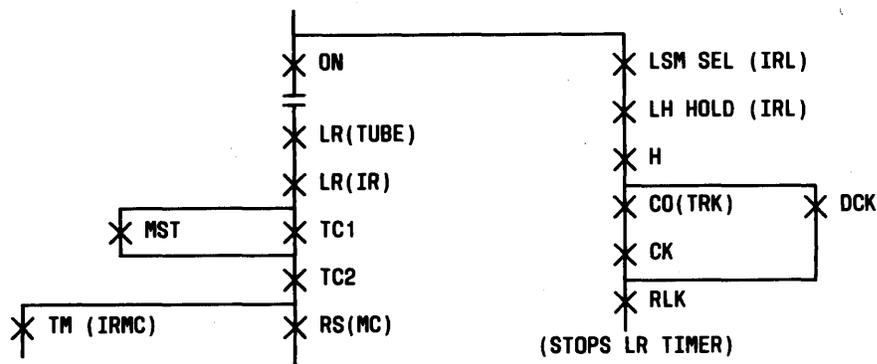
Lamp - LR
No Lamp - LV

DESCRIPTION OF CIRCUIT OPERATION

Since the link circuit contains no timing, the incoming register times the completion of the link functions. If all the tests are not passed within 325 milliseconds, the (LR) relay operates, in the incoming register, to seize a marker and cause a trouble record to be taken.

DESCRIPTION OF FAILURE

(LR) lighted indicates a failure occurred while attaching an IR to an incoming trunk.
(LV-) not lighted indicates that the trunk cannot be identified.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

(Not available.)

REFERENCE DOCUMENTS

SD-26002-01	FS-33			
SD-26042-01	FS-1	SC-15	CD-26042-01	Para - 10.
SD-26043-01	FS-8	SC-5	CD-26043-01	Para - 8.3

LR-NO.LV

LR-W|DCK

LAMP INFORMATION

Lamp - DCK & LR
 Not Lamp - (Does not apply.)

DESCRIPTION OF CIRCUIT OPERATION

Since the link circuit contains no timing, the incoming register times the completion of the link functions. If all the tests are not passed within 325 milliseconds, the (LR) relay operates in the incoming register to seize a marker and cause a trouble record to be taken.

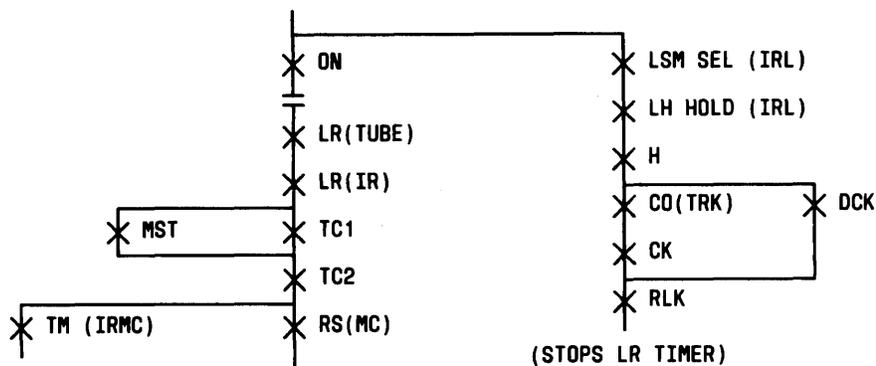
DESCRIPTION OF FAILURE

LR-W|DCK

(LR) lighted indicates a failure occurred while attaching an IR to an incoming trunk. (DCK) lighted indicates that at least some of the crosspoints on the (IRL) closed.

Call will not complete - no second trial.

NORMAL SEQUENCE OF OPERATION



TROUBLE DUPLICATION INFORMATION

INC Test - See Section 218-404-510 - Part 11. (Identify trunk from LC- & LV-.)

REFERENCE DOCUMENTS

SD-26002-01	FS-33			
SD-26042-01	FS-1	SC-15	CD-26042-01	Para - 10.
SD-26043-01	FS-8	SC-5	CD-26043-01	Para - 8.3

LR-W|DCK

LV-

LAMP INFORMATION

Lamp - MAK1 or TS
 No Lamp - LV -

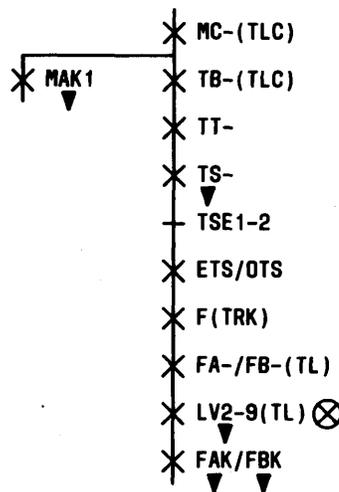
DESCRIPTION OF OPERATION

Seizure of the trunk causes operation of the (LV-) relay in the trunk link to identify the trunk by switch level. Operation of the trunk (F) relay operates the (FA-)/(FB-) relays in the trunk link. The (FA-)/(FB-) in turn operate the (LV-) relay, also in the trunk link.

DESCRIPTION OF FAILURE

Presence of the (MAK1 or TS) lamp indicates that the trunk link has been seized. (LV-) not lighted indicates that the trunk link level cannot be identified.

May complete on second trial.

NORMAL SEQUENCE OF OPERATION**TROUBLE DUPLICATION INFORMATION**

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

SD-26032-01	FS-1	SC-1	CD-26032-01	Para - 1.19
SD-27879-01	FS-1	SC-6	CD-27879-01	Para - 1.13

LV-

LXP1

LAMP INFORMATION

Lamp - JXP1
 No Lamp - LXP1

DESCRIPTION OF CIRCUIT OPERATION

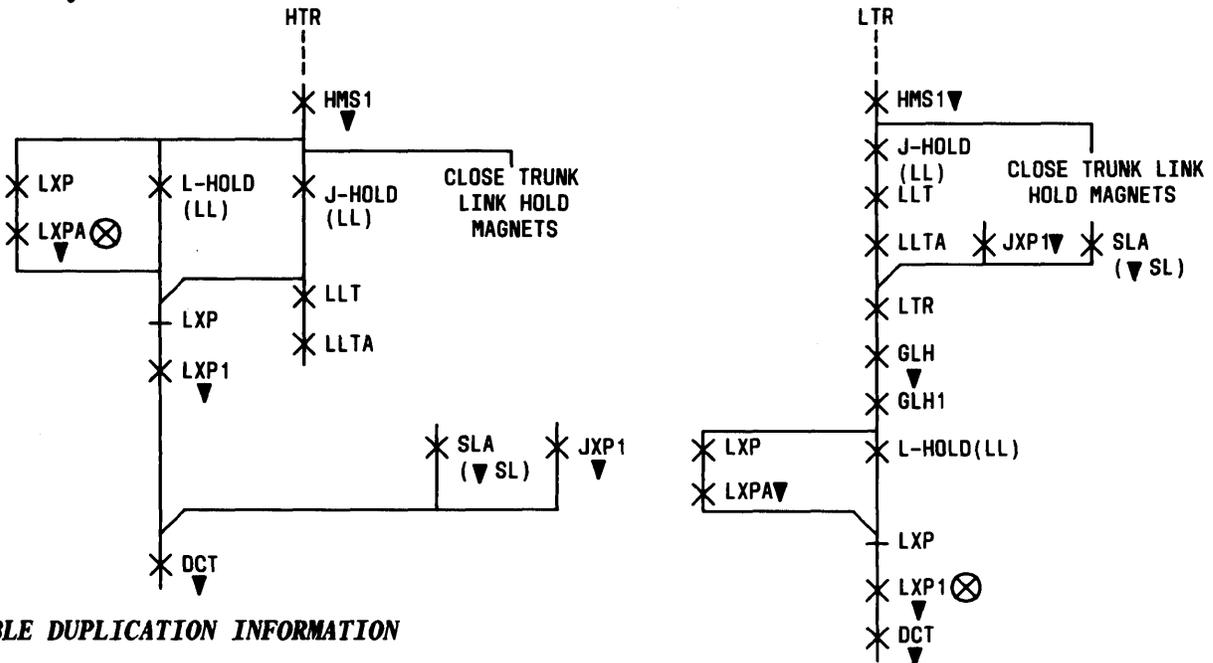
The marker is checking that the (L-HOLD) (LL) and the (T-HOLD) (TL) operated and that the crosspoints closed. When the crosspoints of the (L-HOLD) (LL) close, ground applied to the trunk link (LH-) lead is extended back to the marker via the (LH-) lead from the line link. This ground shunts down the (LXP) relay, operating the (LXP1) relay.

DESCRIPTION OF FAILURE

The (JXP1) lighted indicates that the (J-HOLD) (TL) operated and its crosspoints closed. Also, the (J-HOLD) (LL) should be operated. (LXP1) not lighted indicates that either the (L-HOLD) (LL) or the (J-HOLD) (LL) [heavy traffic only] failed to test closed by the marker.

Probably will not complete on second trial. Will not go second trial on call back linkage failure. (Results in dial tone after dialing).

NORMAL SEQUENCE OF OPERATION



TROUBLE DUPLICATION INFORMATION

Dial Tone or OGT Test - See Section 218-404-510 - Part 11

REFERENCE DOCUMENTS

- | | | | | |
|-------------|-------|--------|-------------|-------------|
| SD-26002-01 | FS-47 | SC-109 | CD-26002-01 | Para - 13.1 |
| SD-26001-01 | FS-20 | SC-1 | CD-26001-01 | Para - 5.54 |

LXP1