

CALL DISTRIBUTION CIRCUIT SD-65811-01
INDIVIDUAL OR MULTICUSTOMER CIRCUIT TESTS
STEP-BY-STEP TYPE PBX

1. GENERAL

1.01 This section describes the method of testing the call distribution circuit arranged for trunk and position finders, for use with individual or multicustomer service.

1.02 This section is reissued to make minor revisions, and to bring the section up to date.

1.03 The tests covered are:

A. Group: This test checks the operation of the group relays, and is applied when individual or multicustomer service is provided.

B. Start Selection: This test checks that the correct finders start, the correct trunk finder commutator level is grounded, start lead is advanced to the next finder in the start chain, and all finders will hold to the DB lead. This test is made when individual or multicustomer service is provided.

C. Position Finder Selection: This test checks that the operation of any G- relay grounds the preferred position finder commutator level. This test is made when individual service is provided. No call can be answered at the console while this test is being performed.

D. Finder Preference: This test checks that with all A or B first choice finders busy, the selection circuit will transfer the start lead ground to the second choice finders. This test is made when individual or multicustomer service is provided.

E. Preference: This test checks the operation of the PF relay, and is made when individual or multicustomer service is provided.

F. Position Finder Preference: This test checks that the preference circuit splits the position finder commutator leads between the A and B group of position finders, preventing connection of a trunk to another customer position. This test is made when multicustomer service is provided.

G. Through L. Position Finder Preference: These tests check that the call distribution circuit will evenly distribute calls between customers. These tests are made when multicustomer service is provided.

M. Through R. Trunk Finder Preference: These tests check that the call distribution circuit will evenly distribute calls between customers. These tests are made when multicustomer service is provided.

S. Through X. Finder Start Preference: These tests check the start circuit when multicustomer service is provided.

Y. Trunk Gate: This test checks the gate circuit when individual service is provided.

Z. Through AF. Trunk Gate: These tests check the gate circuit when multicustomer service is provided.

AG. Preference: This test checks the W, Z combination when multicustomer service is provided.

1.04 Table A covers a summary of the tests that are applicable to installations arranged for a maximum number of attendant positions to provide individual or multicustomer service.

TABLE A
LIST OF TESTS APPLICABLE TO VARIOUS INSTALLATIONS

NO. OF CUST	MAX NO. OF POSITIONS PER CUSTOMER				APPLICABLE TESTS																										
	CUST 1	CUST 2	CUST 3	CUST 4	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AG
1	10				A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AG
2	8	2			A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AG	
	7	3			A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AG	
	6	4			A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AG	
	5	5			A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AG	
3	5	3	2		A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AG	
	3	2	5		A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AG	
4	3	2	3	2	A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AG	

1.05 Table B indicates trunk and position finder start sequence and cut-in level.

TABLE B
TRUNK AND POSITION FINDER SEQUENCE OF OPERATION

POS AVAIL.	ASSOC G-REL	TRUNK AND POSITION FINDER START AND CUT-IN												CHOICE	
1	G1	A1	A6	A11	A5	A10	A4	A9	A3	A8	A2	A7	A12	FINDER SEQUENCE	FIRST
		1	1	1	2	2	3	3	4	4	5	5	5	CUT-IN LEVEL	
		B1	B6	B11	B5	B10	B4	B9	B3	B8	B2	B7	B12	FINDER SEQUENCE	SECOND
		6	6	6	7	7	8	8	9	9	10	10	10	CUT-IN LEVEL	
2	G2	A2	A7	A12	A1	A6	A11	A5	A10	A4	A9	A3	A8	FINDER SEQUENCE	FIRST
		1	1	1	2	2	2	3	3	4	4	5	5	CUT-IN LEVEL	
		B2	B7	B12	B1	B6	B11	B5	B10	B4	B9	B3	B8	FINDER SEQUENCE	SECOND
		6	6	6	7	7	7	8	8	9	9	10	10	CUT-IN LEVEL	
3	G3	A3	A8	A2	A7	A12	A1	A6	A11	A5	A10	A4	A9	FINDER SEQUENCE	FIRST
		1	1	2	2	2	3	3	3	4	4	5	5	CUT-IN LEVEL	
		B3	B8	B2	B7	B12	B1	B6	B11	B5	B10	B4	B9	FINDER SEQUENCE	SECOND
		6	6	7	7	7	8	8	8	9	9	10	10	CUT-IN LEVEL	
4	G4	A4	A9	A3	A8	A2	A7	A12	A1	A6	A11	A5	A10	FINDER SEQUENCE	FIRST
		1	1	2	2	3	3	3	4	4	4	5	5	CUT-IN LEVEL	
		B4	B9	B3	B8	B2	B7	B12	B1	B6	B11	B5	B10	FINDER SEQUENCE	SECOND
		6	6	7	7	8	8	8	9	9	9	10	10	CUT-IN LEVEL	
5	G5	A5	A10	A4	A9	A3	A8	A2	A7	A12	A1	A6	A11	FINDER SEQUENCE	FIRST
		1	1	2	2	3	3	4	4	4	5	5	5	CUT-IN LEVEL	
		B5	B10	B4	B9	B3	B8	B2	B7	B12	B1	B6	B11	FINDER SEQUENCE	SECOND
		6	6	7	7	8	8	9	9	9	10	10	10	CUT-IN LEVEL	
6	G6	B1	B6	B11	B5	B10	B4	B9	B3	B8	B2	B7	B12	FINDER SEQUENCE	FIRST
		1	1	1	2	2	3	3	4	4	5	5	5	CUT-IN LEVEL	
		A1	A6	A11	A5	A10	A4	A9	A3	A8	A2	A7	A12	FINDER SEQUENCE	SECOND
		6	6	6	7	7	8	8	9	9	10	10	10	CUT-IN LEVEL	
7	G7	B2	B7	B12	B1	B6	B11	B5	B10	B4	B9	B3	B8	FINDER SEQUENCE	FIRST
		1	1	1	2	2	2	3	3	4	4	5	5	CUT-IN LEVEL	
		A2	A7	A12	A1	A6	A11	A5	A10	A4	A9	A3	A8	FINDER SEQUENCE	SECOND
		6	6	6	7	7	7	8	8	9	9	10	10	CUT-IN LEVEL	
8	G8	B3	B8	B2	B7	B12	B1	B6	B11	B5	B10	B4	B9	FINDER SEQUENCE	FIRST
		1	1	2	2	2	3	3	3	4	4	5	5	CUT-IN LEVEL	
		A3	A8	A2	A7	A12	A1	A6	A11	A5	A10	A4	A9	FINDER SEQUENCE	SECOND
		6	6	7	7	7	8	8	8	9	9	10	10	CUT-IN LEVEL	
9	G9	B4	B9	B3	B8	B2	B7	B12	B1	B6	B11	B5	B10	FINDER SEQUENCE	FIRST
		1	1	2	2	3	3	3	4	4	4	5	5	CUT-IN LEVEL	
		A4	A9	A3	A8	A2	A7	A12	A1	A6	A11	A5	A10	FINDER SEQUENCE	SECOND
		6	6	7	7	8	8	8	9	9	9	10	10	CUT-IN LEVEL	
10	G10	B5	B10	B4	B9	B3	B8	B2	B7	B12	B1	B6	B11	FINDER SEQUENCE	FIRST
		1	1	2	2	3	3	4	4	4	5	5	5	CUT-IN LEVEL	
		A5	A10	A4	A9	A3	A8	A2	A7	A12	A1	A6	A11	FINDER SEQUENCE	SECOND
		6	6	7	7	8	8	9	9	9	10	10	10	CUT-IN LEVEL	

SECTION 540-530-501

1.06 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 4 of this section indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

2. APPARATUS

Tests A Through X, and AG

2.01 Testing cord, W1AL cord, 2 feet long, equipped with a P-15A864 chuck at each end(for connecting ground to terminals on terminal strip).

Tests A, C, and E Through AF

2.02 Blocking and insulating tools, as required. Use tools and apply as covered in Section 069-020-801.

Tests B, C, D, and F Through AF

2.03 Test receiver, 716C receiver, attached to a W2AB cord equipped with two 360A tools (2W21A cord); one KS-6278 connecting clip, and one 411A (test pick) tool (for use in checking for the presence or absence of battery or ground).

Tests C, E, G Through L, and S Through X

2.04 Testing cord, W1AL cord, 2 feet long, equipped with a P-15A864 chuck at each end (for connecting ground to terminals on terminal strip).

3. PREPARATION

STEP	ACTION	VERIFICATION
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Tests A Through E, and G Through X

- 1 Remove CBT relay.
- 2 Remove CWT relay.

Tests A Through X, and AG

- 3 Connect W1AL cord to ground terminal 41.

Tests C, E, G Through L and S Through X, and E Through AF

- 4 Connect W1AL cord to ground terminal 51.

4. METHOD

STEP	ACTION	VERIFICATION
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Note 1: Perform Tests A through AG in accordance with the correspondingly lettered test charts.

Note 2: The W1AL cords, connected to terminals 41 and 51, are intended for use in connecting ground to terminals as required in the various tests.

TEST A

GROUP — INDIVIDUAL OR MULTICUSTOMER

STEP	BLOCK RELAY OPERATED	CONNECT GRD TO TERMINAL	RELAY		REMOVE	
			OPERATED	NON-OPERATED	GRD FROM TERMINAL	BLOCKING TOOL FROM RELAY
4	CBB	113		G1	113	
5		123		G2	123	
6		133		G3	133	
7		143		G4	143	
8		153		G5	153	
9		114		G6	114	
10		124		G7	124	
11		134		G8	134	
12		144		G9	144	
13		154		G10	154	CBB
14		113	G1		113	
15		123	G2		123	
16		133	G3		133	
17		143	G4		143	
18		153	G5		153	
19		114	G6		114	
20		124	G7		124	
21		134	G8		134	
22		144	G9		144	
23		154	G10		154	
24a	If no further tests are to be made, remove test cord, insert CBT, CWT relays.					

TEST B

START SELECTION — INDIVIDUAL OF MULTICUSTOMER

STEP	RELAY POSITION BEFORE TEST	CONNECT GRD TO TERM.	RELAY OPR	SEQUENCE OF FINDER START	Individual Multicustomer			RELAY SEQUENCE WHEN LAST FINDER IS SEIZED	REMOVE GRD FROM TERMINAL	RELAY RE-LEASES	
					TEST TERMINAL FOR						
					GRD	GRD	NO GRD				
4		113	G1	A1, 6, 11, 5, 10, 4, 9, 3, 8, 2, 7, 12	13, 64	13	64		113	G1	FINDERS STOP
5		123	G2	A2, 7, 12, 1, 6, 11, 5, 10, 4, 9, 3, 8	23, 74	23	74		123	G2	
6		133	G3	A3, 8, 2, 7, 12, 1, 6, 11, 5, 10, 4, 9	33, 84	33	84		133	G3	
7		143	G4	A4, 9, 3, 8, 2, 7, 12, 1, 6, 11, 5, 10	43, 94	43	94		143	G4	
8		153	G5	A5, 10, 4, 9, 3, 8, 2, 7, 12, 1, 6, 11	53, 104	53	104		153	G5	
9		114	G6	B1, 6, 11, 5, 10, 4, 9, 3, 8, 2, 7, 12	14, 63	14	63		114	G6	
10		124	G7	B2, 7, 12, 1, 6, 11, 5, 10, 4, 9, 3, 8	24, 73	24	73		124	G7	
11		134	G8	B3, 8, 2, 7, 12, 1, 6, 11, 5, 10, 4, 9	34, 83	34	83		134	G8	
12		144	G9	B4, 9, 3, 8, 2, 7, 12, 1, 6, 11, 5, 10	44, 93	44	93		144	G9	
13		154	G10	B5, 10, 4, 9, 3, 8, 2, 7, 12, 1, 6, 11	54, 103	54	103		154	G10	

14a. If no further tests are to be made, remove test cord, insert CBT, CWT relays.

TEST C

POSITION FINDER SELECTION — INDIVIDUAL CUSTOMER

A	B	C	D	E	F	G	H	I
STEP	BLOCK RELAY		CONNECT GRD		TEST TERMINAL FOR		REMOVE GRD FROM TERMINAL	REMOVE BLOCKING TOOL FROM RELAY
	OPR	NONOPR	TO TERM.	TO TERM.	GRD	NO GRD		
5	CBB					15, 25, 35, 45, 55, 65, 75, 85, 95, 105, 16, 26, 36, 46, 56, 66, 76, 86, 96, 106		CBB
6		PA 2 through PA 10	18		15, 66	25, 35, 45, 55, 65, 75, 85, 95, 105, 16, 26, 36, 46, 56, 76, 86, 96, 106	154, 18	PA 2
7		PA 1	28	* 113 123 133 143 153 114 124 134 144 154	25, 76		154, 28	PA 3
8		PA 2	38		35, 86		154, 38	PA 4
9		PA 3	48		45, 96		154, 48	PA 5
10		PA 4	58		55, 106		154, 58	PA 6
11		PA 5	68		65, 16		154, 68	PA 7
12		PA 6	78		75, 26		154, 78	PA 8
13		PA 7	88		85, 36		154, 88	PA 9
14		PA 8	98		95, 46		154, 98	PA 10
15		PA 9	108		105, 56	15, 25, 35, 45, 55, 65, 75, 85, 95, 16, 26, 36, 46, 66, 76, 86, 96, 106	154, 108	PA 1 through PA 9
16a	If no further tests are to be made, remove test cords from terminals 41, 51, insert CBT, CWT relays.							
*	Connect GRD to first terminal and test Columns F and G, then connect GRD to each succeeding terminal and repeat test in Columns F and G. No ground on terminals 114, 124, 134, 144, and 154 unless group B finders are provided.							

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TEST D

FINDER PREFERENCE — INDIVIDUAL OR MULTICUSTOMER

STEP	OPR. ALL FINDER MB KEYS ON GROUP	RELAY POSITION BEFORE TEST	CONNECT GRD TO TERMINAL	FINDER STARTS	TEST TERMINAL FOR		REMOVE GRD FROM TERMINAL		RESTORE ALL FINDER MB KEYS ON GROUP	RELAY POSITION
					GRD	NO GRD				
4	A		113	B1	13, 64	17	113	FINDERS STOP	A	
5			123	B2	23, 74	27	123			
6			133	B3	33, 84	37	133			
7			143	B4	43, 94	47	143			
8			153	B5	53, 104	57	153			
9	B		114	A1	14, 63	67	114	FINDERS STOP	B	
10			124	A2	24, 73	77	124			
11			134	A3	34, 83	87	134			
12			144	A4	44, 93	97	144			
13			154	A5	54, 103	107	154			
<p>14a If no further tests are to be made, remove test cord, insert CBT, CWT relays.</p>										

TEST E

PREFERENCE — INDIVIDUAL OR MULTICUSTOMER

STEP	BLOCK RELAY	RELAY POSITION BEFORE TEST	CONNECT GROUND TO TERMINAL	RELAYS OPERATED	REMOVE GROUND FROM TERMINAL	RELAYS RELEASED	REMOVE BLOCKING TOOL	RELAY POSITIONS AFTER TEST	
5	CCA OPR — CCB NONOPR — CBB OPR		114	G6, PF PF1, PF2	114	G6, PF PF1, PF2			
6			124	G7, PF PF1, PF2	124	G7, PF PF1, PF2			
7			134	G8, PF PF1, PF2	134	G8, PF PF1, PF2			
8			144	G9, PF PF1, PF2	144	G9, PF PF1, PF2			
9			154	G10, PF PF1, PF2	154	G10, PF PF1, PF2	CCA, CCB CBB		
10	CCA NONOPR — CCB OPR — CBB NONOPR		113	G1, PF PF1, PF2	113	G1, PF PF1, PF2			
11			123	G2, PF PF1, PF2	123	G2, PF PF1, PF2			
12			133	G3, PF PF1, PF2	133	G3, PF PF1, PF2			
13			143	G4, PF PF1, PF2	143	G4, PF PF1, PF2			
14			153	G5, PF PF1, PF2	153	G5, PF PF1, PF2	CCA, CCB CBB		
15a If no further tests are to be made, remove test cords, insert CBT, CWT relays.									

TEST F

POSITION FINDER PREFERENCE — MULTICUSTOMER

STEP	BLOCK RELAY		CONNECT GRD TO TERMINAL	TEST TERM FOR		REMOVE GRD FROM TERMINAL	REMOVE BLOCKING TOOL
	OPERATED	NON- OPERATED		GRD	NO GRD		
4	PF		15		66	15	
5			25		76	25	
6			35		86	35	
7			45		96	45	
8			55		106	55	
9			65		16	65	
10			75		26	75	
11			85		36	85	
12			95		46	95	
13			105		56	105	PF
14		PF	15	66		15	
15			25	76		25	
16			35	86		35	
17			45	96		45	
18			55	106		55	
19			65	16		65	
20			75	26		75	
21			85	36		85	
22			95	46		95	
23			105	56		105	PF
24a	If no further tests are to be made, remove cord.						

TEST G

POSITION FINDER PREFERENCE — TWO CUSTOMERS (8 AND 2)

COLUMN	A	B	C	D	E	F	G	H	I	J	K	L	
STEP	BLOCK RELAY		CONNECT GRD		TEST TERM. FOR		REMOVE GRD FROM TERM.	CONNECT GRD TO TERM.	MANUAL OPR G-REL	TEST TERM. FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE GRD FROM TERM.	
	OPR	NON-OPR	TO TERM.	TO TERM.	GRD	NO GRD							
5		PA 10 PF 1	98	* 144 154	95, 46	105, 56			† 6, 7, 8	95, 46	PA 10	98, 154	
6		PA 9 Z	108		56, 105	95, 46	154	144		56, 105	PA 9, Z	108, 154	
7		PA 2 through PA 8	18	* 113 123 133 143 153 114 124 134	66, 15	25, 35, 45, 55, 65, 75, 85, 76, 86, 96, 106, 16, 26, 36, 46, 56, 95, 105					PA 2	18, 134	
8		PA 1	28		25, 76						PA 3	28, 134	
9		PA 2	38		35, 86						PA 4	38, 134	
10		PA 3	48		45, 96						PA 5	48, 134	
11		PA 4	58		55, 106						PA 6, Z	58, 134	
12	Z	PA 5	68		65, 16		134	114	† 9 10	65, 16	PA 7	68, 134	
13		PA 6	78		75, 26			124		75, 26	PA 8	78, 134	
14		PA 7	88		85, 36	15, 25, 35, 45, 55, 65, 75, 66, 76, 86, 96, 106, 16, 26				85, 36	PA 1 through PA 7 PF 1, Z	88, 134	
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.												
* Connect GRD to first terminal and test Columns E and F, then connect to each succeeding terminal and repeat test in Columns E and F.													
† Hold first G relay operated and test Column J, then release. Operate each succeeding numbered G relay and repeat test in Column J.													

TEST H

POSITION FINDER PREFERENCE — TWO CUSTOMERS (7 AND 3)

COLUMN	A	B	C	D	E	F	G	H	I	J	K	L	
STEP	BLOCK RELAY		CONNECT GRD		TEST TERM. FOR		REMOVE GRD FROM TERM.	CONNECT GRD TO TERM.	MANUAL OPR G-REL	TEST TERM. FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE GRD FROM TERM.	
	OPR	NON-OPR	TO TERM.	TO TERM.	GRD	NO GRD							
5		PA 8, 9 PF 1	108	* 134 144 154	105, 56	85, 95, 36, 46			† 6 7	105, 56	PA 9	108, 154	
6		PA 10 Z	98		95, 46		154	144		95, 46	PA 8	98, 144	
7		PA 9	88		85, 36	95, 105, 46, 56		134		85, 36	PA 9, 10	134, 88	
8		PA 2 through PA 8	18	* 113 123 133 143 153 114 124	66, 15	25, 35, 45, 55, 65, 75, 85, 76, 86, 96, 106, 16, 26, 36, 46, 56, 95, 105					PA 2	18, 134	
9		PA 1	28		25, 76						PA 3	28, 134	
10		PA 2	38		35, 86						PA 4	38, 134	
11		PA 3	48		45, 96						PA 5	48, 134	
12		PA 4	58		55, 106						PA 6, Z	58, 134	
13	Z	PA 5	68		65, 16			124	114	† 8 9 10	65, 16	PA 7	68, 114
14		PA 6	78		75, 26	15, 25, 35, 45, 55, 65, 85, 66, 76, 86, 96, 106, 16					75, 26	PA 1 through PA 6, PF 1, Z	78, 124
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.												
*	Connect GRD to first terminal and test Columns E and F, then connect cord to each succeeding terminal and repeat test in Columns E and F.												
†	Hold first G relay operated and test Column J, then release. Operate each succeeding numbered G relay and repeat test in Column J.												

TEST I

POSITION FINDER PREFERENCE — TWO CUSTOMERS (6 AND 4)

COLUMN	A	B	C	D	E	F	G	H	I	J	K	L		
STEP	BLOCK RELAY		CONNECT GRD		TEST TERM. FOR		REMOVE GRD FROM TERM.	CONNECT GRD TO TERM.	MANUAL OPR G-REL	TEST TERM. FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE GRD FROM TERM.		
	OPR	NON-OPR	TO TERM.	TO TERM.	GRD	NO GRD								
5		PA 7, 8, 9 PF 1, Z	108	* 124 134 144 154	105, 56	75, 85, 95, 26, 36, 46	154	144	† 6	105, 56	PA 9	108, 154		
6		PA 10	98		95, 46							95, 46	PA 8	98, 144
7		PA 9	88		85, 36						134	85, 36	PA 7	88, 134
8		PA 8	78		75, 26	105, 95, 85, 56, 46, 36					124	75, 26	PA 8 through 10	78, 124
9		PA 2 through PA 6	18	* 113 123 133 143 153 114	15, 66	25, 35, 45, 55, 65, 75, 85, 95, 105, 16, 26, 36, 46, 56, 76, 86, 96, 106					PA 2	18, 114		
10		PA 1	28		25, 76						PA 3	28, 114		
11		PA 2	38		35, 86						PA 4	38, 114		
12		PA 3	48		45, 96						PA 5	48, 114		
13		PA 4	58		55, 106						PA 6, Z	58, 114		
14	Z	PA 5	68		65, 16	25, 35, 45, 55, 75, 85, 95, 105, 26, 36, 46, 56, 76, 86, 96, 106			† 7 8 9	65, 16	PA 1 through PA5, PF1, Z	114, 68		
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.											I		
*	Connect GRD to first terminal and test Columns E and F, then connect cord to each succeeding terminal and repeat test in Columns E and F.											I		
†	Hold first G relay operated and test Column J, then release. Operate each succeeding numbered G relay and repeat test in Column J.													

TEST J

POSITION FINDER PREFERENCE — THREE CUSTOMERS (5, 3, AND 2)

COLUMN	A	B	C	D	E	F	G	H	I	J	K	L
STEP	BLOCK RELAY		CONNECT GRD		TEST TERM. FOR		REMOVE GRD FROM TERM.	CONNECT GRD TO TERM.	MANUAL OPR G-RELAY	TEST TERM. FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE GRD FROM TERM.
	OPR	NON-OPR	TO TERM.	TO TERM.	GRD	NO GRD						
5		PA 2 through PA 5 PF 1	18	* 113 123 133 143 153	15, 66	25, 35, 45, 55, 65					PA 2	153, 18
6		PA 1	28		25, 76						PA 3	153, 28
7		PA 2	38		35, 86						PA 4	153, 38
8		PA 3	48		45, 96						PA 5	153, 48
9		PA 4	58		55, 106	15, 25, 35, 45, 66					PA 1 through PA 4	153, 58
10	Z	PA 7, PA 8	68	* 114 124 134	16, 65	75, 85, 95	134	114	† 9 10	16, 65	PA 7	114, 68
11		PA 6	78		26, 75		134	124		26, 75	PA 8	124, 78
12		PA 7	88		36, 85	16, 26, 95				36, 85	PA 7 and 8, Z	134, 88
13		PA 10 Z	98	* 144 154	95, 46	105, 56			† 6 7 8	95, 46	PA 10	154, 98
14		PA 9	108		105, 56	95, 46				105, 56	PA 9 PF 1 Z	154, 108
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.											
*	Connect GRD to first terminal and test Columns E and F, then connect GRD to each succeeding terminal and repeat test in Columns E and F.											
†	Hold first G relay operated and test Column J, then release. Operate each succeeding numbered G relay and repeat test in Column J.											

TEST K

POSITION FINDER PREFERENCE — THREE CUSTOMERS (3, 2, AND 5)

COLUMN	A	B	C	D	E	F	G	H	I	J	K	L
STEP	BLOCK RELAY		CONNECT GRD		TEST TERM. FOR		REMOVE GRD FROM TERM.	CONNECT GRD TO TERM.	MANUAL OPR G-RELAY	TEST TERM. FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE GRD FROM TERM.
	OPR	NON-OPR	TO TERM.	TO TERM.	GRD	NO GRD						
5	Z	PA 2, PA 3 PF 1	18	* 113 123 133	15, 66	25, 35, 45, 76, 86, 96	133	113	† 4 5	15, 66	PA 2	18, 113
6		PA 1	28		25, 76		133	123		25, 76	PA 3	28, 123
7		PA 2	38		35, 86	15, 25, 45, 76, 66, 96				35, 86	PA 2, 3 Z	133, 38
8		PA 5 Z	48	* 143 153	45, 96	55, 106, 65	153	143	† 1 2 3	45, 96	PA 5	48, 143
9		PA 4	58		55, 106	45, 96, 65				55, 106	PA 4, Z	58, 153
10		PA 7 through PA 10	68	* 114 124 134 144 154	65, 16	55, 75, 85, 95, 105, 26, 36, 46, 56					PA 7	154, 68
11		PA 6	78		75, 26						PA 8	154, 78
12		PA 7	88		85, 36						PA 9	154, 88
13		PA 8	98		95, 46						PA 10	154, 98
14		PA 9	108		105, 56	55, 65, 75, 85, 95, 16, 26, 36, 46					PA 7 through PA 9, PF 1	154, 108
15a	If no further tests are to be made, remove cords, insert CBT, CWT relays.											
*	Connect GRD to first terminal and test Columns E and F, then connect GRD to each succeeding terminal and repeat test in Columns E and F.											
†	Hold first G relay operated and test Column J, then release. Operate each succeeding numbered G relay and repeat test in Column J.											

TEST L

POSITION FINDER PREFERENCE — FOUR CUSTOMERS (3, 2, 3, AND 2)

COLUMN	A	B	C	D	E	F	G	H	I	J	K	L
STEP	BLOCK RELAY		CONNECT GRD		TEST TERM. FOR		REMOVE GRD FROM TERM.	CONNECT GRD TO TERM.	MANUAL OPR G-RELAY	TEST TERM FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE GRD FROM TERM.
	OPR	NON-OPR	TO TERM.	TO TERM.	GRD	NO GRD						
5	Z	PA 2, 3 PF 1	18	* 113 123 133	15, 66	25, 35, 45, 76, 86, 96	133	113	† 4 5	15, 66	PA 2	18, 113
6		PA 1	28		25, 76		133	123		25, 76	PA 3	28, 123
7		PA 2	38		35, 86	15, 25, 45, 76, 66, 96				35, 86	PA 2, 3 Z	38, 133
8		PA 5 Z	48	* 143 153	45, 96	55, 106, 65	153	143	† 1 2 3	45, 96	PA 5	48, 153
9		PA 4	58		55, 106	45, 96, 65				55, 106	PA 4, Z	58, 153
10	Z	PA 7, 8	68	* 114 124 134	65, 16	75, 85, 95, 26, 36, 46	134	114	† 9 10	65, 16	PA 7	68, 114
11		PA 6	78		75, 26		134	124		75, 26	PA 8	78, 124
12		PA 7	88		85, 36	65, 75, 95, 16, 26, 46				85, 36	PA 6, 7 Z	88, 134
13		PA 10 Z	98	* 144 154	95, 46	105, 56	154	144	† 6 7 8	95, 46	PA 10	98, 144
14		PA 9	108		105, 56	95, 46				105, 56	PA 9, Z PF 1	108, 154
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.											
*	Connect GRD to first terminal and test Columns E and F, then connect GRD to each succeeding terminal and repeat test in Columns E and F.											
†	Hold first G relay operated and test Column J, then release. Operate each succeeding numbered G relay and repeat test in Column J.											

TEST M

TRUNK FINDER PREFERENCE — TWO CUSTOMERS (8 AND 2)

COLUMN	A	B	C	D	E	F	G	H
STEP	BLOCK RELAY		CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	MANUAL OPERATE G-RELAY	TEST TERMINAL FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE GRD FROM TERMINAL
	OPERATED	NON- OPERATED						
4		PF 1	113	13, 64				113
5			123	23, 74				123
6			133	33, 84				133
7			143	43, 94				143
8			153	53, 104				153
9	Z		114	63, 14	*9, 10	63, 14		114
10			124	73, 24	*9, 10	73, 24		124
11			134	83, 34	*9, 10	83, 34	Z	134
12		Z	144	93, 44	*6, 7, 8	93, 44		144
13			154	103, 54	*6, 7, 8	103, 54	Z, PF 1	154
14a	If no further tests are to be made, remove test cord, insert CBT, CWT relays.							
* Hold first G relay operated and test Column F, then release. Operate each succeeding numbered G relay and repeat test in Column F.								

TEST N

TRUNK FINDER PREFERENCE — TWO CUSTOMERS (7 AND 3)

COLUMN	A	B	C	D	E	F	G	H
	BLOCK RELAY		CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	MANUAL OPERATE G-RELAY	TEST TERMINAL FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE GRD FROM TERMINAL
STEP	OPERATED	NON- OPERATED						
4		PF 1	113	13, 64				113
5			123	23, 74				123
6			133	33, 84				133
7			143	43, 94				143
8			153	53, 104				153
9	Z		114	63, 14	*8, 9, 10	63, 14		114
10			124	73, 24	*8, 9, 10	73, 24	Z	124
11		Z	134	83, 34	*6, 7	83, 34		134
12			144	93, 44	*6, 7	93, 44		144
13			154	103, 54	*6, 7	103, 54	Z, PF1	154
14a	If no further tests are to be made, remove test cord, insert CBT, CWA relays.							
* Hold first G relay operated and test Column F, then release. Operate each succeeding numbered G relay and repeat test in Column F.								

TEST O

TRUNK FINDER PREFERENCE — TWO CUSTOMERS (6 AND 4)

COLUMN	A	B	C	D	E	F	G	H
STEP	BLOCK RELAY		CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	MANUAL OPERATE G-RELAY	TEST TERMINAL FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE CORD FROM TERMINAL
	OPERATED	NON- OPERATED						
4		PF 1	113	13, 64				113
5			123	23, 74				123
6			133	33, 84				133
7			143	43, 94				143
8			153	53, 104				153
9	Z		114	63, 14	*7, 8, 9, 10	63, 14	Z	114
10		Z	124	73, 24	6	73, 24		124
11			134	83, 34	6	83, 34		134
12			144	93, 44	6	93, 44		144
13			154	103, 54	6	103, 54	Z, PF1	154
14a	If no further tests are to be made, remove test cord, insert CBT, CWA relays.							
* Hold first G relay operated and test Column F, then release. Operate each succeeding numbered G relay and repeat test in Column F.								

TEST P

TRUNK FINDER PREFERENCE — THREE CUSTOMERS (5, 3, AND 2)

COLUMN	A	B	C	D	E	F	G	H
	BLOCK RELAY		CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	MANUAL OPERATE G-RELAY	TEST TERMINAL FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE CORD FROM TERMINAL
STEP	OPERATED	NON- OPERATED						
4		PF 1	113	13, 64				113
5			123	23, 74				123
6			133	33, 84				133
7			143	43, 94				143
8			153	53, 104				153
9	Z		114	63, 14	*9, 10	63, 14		114
10			124	73, 24	*9, 10	73, 24		124
11			134	83, 34	*9, 10	83, 34	Z	134
12		Z	144	93, 44	*6, 7, 8	93, 44		144
13			154	103, 54	*6, 7, 8	103, 54	Z, PF 1	154
14a	If no further tests are to be made, remove test cord, insert CBT, CWA relays.							
*	Hold first G relay operated and test Column F, then release. Operate each succeeding numbered G relay and repeat test in Column F.							

TEST Q

TRUNK FINDER PREFERENCE — THREE CUSTOMERS (3, 2, AND 5)

STEP	BLOCK RELAY		CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	MANUAL OPERATE G-RELAY	TEST TERMINAL FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE CORD FROM TERMINAL
	OPERATED	NON- OPERATED						
4	Z	PF 1	113	13, 64	*4, 5	13, 64		113
5			123	23, 74	*4, 5	23, 74		123
6			133	33, 84	*4, 5	33, 84	Z	133
7		Z	143	43, 94	*1, 2, 3	43, 94		143
8			153	53, 104	*1, 2, 3	53, 104		153
9			114	63, 14				114
10			124	73, 24				124
11			134	83, 34				134
12			144	93, 44				144
13			154	103, 54			PF 1, Z	154
14a	If no further tests are to be made, remove test cord, insert CBT, CWA relays.							
* Hold first G relay operated and test Column F then release. Operate each succeeding numbered G relay and repeat test in Column F.								

TEST R

TRUNK FINDER PREFERENCE — FOUR CUSTOMERS (3, 2, 3, AND 2)

COLUMN	A	B	C	D	E	F	G	H
	BLOCK RELAY							
STEP	OPERATED	NON-OPERATED	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	MANUAL OPERATE G-RELAY	TEST TERMINAL FOR NO GRD	REMOVE BLOCKING TOOL FROM RELAY	REMOVE CORD FROM TERMINAL
4	Z	PF 1	113	13, 64	*4, 5	13, 64		113
5			123	23, 74	*4, 5	23, 74		123
6			133	33, 84	*4, 5	33, 84	Z	133
7		Z	143	43, 94	*1, 2, 3	43, 94		143
8			153	53, 104	*1, 2, 3	53, 104	Z	153
9	Z		114	63, 14	* 9, 10	63, 14		114
10			124	73, 24	* 9, 10	73, 24		124
11			134	83, 34	* 9, 10	83, 34	Z	134
12		Z	144	93, 44	*6, 7, 8	93, 44		144
13			154	103, 54	*6, 7, 8	103, 54	PF 1, Z	154
14a	If no further tests are to be made, remove test cord, insert CBT, CWA relays.							
*	Hold first G relay operated and test Column F then release. Operate each succeeding numbered G relay and repeat test in Column F.							

TEST 5

FINDER START PREFERENCE — TWO CUSTOMERS (8 AND 2)

COLUMN	A	B	C	D	E	F	G	H	I	J
STEP	BLOCK RELAY		OPERATE ALL FINDER MB KEYS ON GROUP	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR NO GRD	REMOVE CORD FROM TERMINAL	RESTORE ALL FINDER MB KEYS ON GROUP	REMOVE BLOCKING TOOLS FROM RELAY
	OPR	NON-OPR								
5	PF			113	17			113		
6				123	27			123		
7				133	37			133		
8				143	47			143		
9				153	57			153		
10		W	B	114	67	* 144 154	67	114, 154		
11				124	77		77	124, 154		
12				134	87		87	134, 154		W
13	W			144	97	* 114 124 134	97	144, 134		
14				154	107		107	154, 134	B	W, PF
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.									
* Connect GRD to first terminal and test Column G, then connect GRD to each succeeding terminal and repeat test in Column G.										

TEST T

FINDER START PREFERENCE — TWO CUSTOMERS (7 AND 3)

COLUMN	A	B	C	D	E	F	G	H	I	J
	BLOCK RELAY									
STEP	OPR	NON-OPR	OPERATE ALL FINDER MB KEYS ON GROUP	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR NO GRD	REMOVE CORDS FROM TERMINAL	RESTORE ALL FINDER MB KEYS ON GROUP	REMOVE BLOCKING TOOLS FROM RELAY
5	PF			113	17			113		
6				123	27			123		
7				133	37			133		
8				143	47			143		
9				153	57			153		
10		W	B	114	67	* 134 144 154	67	114, 154		
11				124	77		77	124, 154		W
12	W			134	87	* 114 124	87	134, 124		
13				144	97		97	144, 124		
14				154	107		107	154, 124	B	W, PF
15a	If no further tests are to be made, remove test cords, insert CWT, CBT relays.									
* Connect GRD to first terminal and test Column G, then connect GRD to each succeeding terminal and repeat test in Column G.										

TEST U

FINDER START PREFERENCE — TWO CUSTOMERS (6 AND 4)

COLUMN	A	B	C	D	E	F	G	H	I	J
	BLOCK RELAY		OPERATE ALL FINDER MB KEYS ON GROUP	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR NO GRD	REMOVE CORDS FROM TERMINAL	RESTORE ALL FINDER MB KEYS ON GROUP	REMOVE BLOCKING TOOLS FROM RELAY
STEP	OPR	NON-OPR								
5	PF			113	17			113		
6				123	27			123		
7				133	37			133		
8				143	47			143		
9				153	57			153		
10		W	B	114	67	*124, 134 144, 154	67	114, 154		W
11	W			124	77	114	77	124, 114		
12				134	87		87	134, 114		
13				144	97		97	144, 114		
14				154	107		107	154, 114	B	W, PF
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.									
* Connect GRD to first terminal and test Column G, then connect GRD to each succeeding terminal and repeat test in Column G.										

TEST V

FINDER START PREFERENCE — THREE CUSTOMERS (5, 3, AND 2)

STEP	BLOCK RELAY		OPERATE ALL FINDER MB KEYS ON GROUP	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR NO GRD	REMOVE CORDS FROM TERMINAL	RESTORE ALL FINDER MB KEYS ON GROUP	REMOVE BLOCKING TOOLS FROM RELAY
	OPR	NON-OPR								
5	PF			113	17			113		
6				123	27			123		
7				133	37			133		
8				143	47			143		
9				153	57			153		
10		W	B	114	67	* 144 154	67	114, 154		
11				124	77		77	124, 154		
12				134	87		87	134, 154		W
13	W			144	97	* 114 124 134	97	144, 134		
14				154	107		107	154, 134	B	W, PF
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.									
* Connect GRD to first terminal and test Column G, then connect GRD to each succeeding terminal and repeat test in Column G.										

TEST W

FINDER START PREFERENCE — THREE CUSTOMERS (3, 2, AND 5)

COLUMN	A	B	C	D	E	F	G	H	I	J
	BLOCK RELAY		OPERATE ALL FINDER MB KEYS ON GROUP	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR NO GRD	REMOVE CORDS FROM TERMINAL	RESTORE ALL FINDER MB KEYS ON GROUP	REMOVE BLOCKING TOOLS FROM RELAY
	OPR	NON-OPR								
5	PF	W	A	113	17	* 143 153	17	113, 153		
6				123	27		27	123, 153		
7				133	37		37	133, 153		W
8	W			143	47	* 113 123 133	47	143, 133		
9				153	57		57	153, 133	A	W
10					114	67		114		
11				124	77		124			
12				134	87		134			
13				144	97		144			
14				154	107		154		PF	
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.									
* Connect GRD to first terminal and test Column G, then connect GRD to each succeeding terminal and repeat test in Column G.										

TEST X

FINDER START PREFERENCE — FOUR CUSTOMERS (3, 2, 3, AND 2)

COLUMN	A	B	C	D	E	F	G	H	I	J
STEP	BLOCK RELAY		OPERATE ALL FINDER MB KEYS ON GROUP	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR GRD	CONNECT GRD TO TERMINAL	TEST TERMINAL FOR NO GRD	REMOVE CORDS FROM TERMINAL	RESTORE ALL FINDER MB KEYS ON GROUP	REMOVE BLOCKING TOOLS FROM RELAY
	OPR	NON-OPR								
5	PF	W	A	113	17	* 143 153	17	113, 153		
6				123	27		27	123, 153		
7				133	37		37	133, 153		W
8	W			143	47	* 113 123 133	47	143, 133		
9				153	57		57	153, 133	A	W
10		W	B	114	67	* 144 154	67	114, 154		
11				124	77		77	124, 154		
12				134	87		87	134, 154		W
13	W			144	97	* 114 124 134	97	144, 134		
14				154	107		107	154, 134	B	W, PF
15a	If no further tests are to be made, remove test cords, insert CBT, CWT relays.									
* Connect GRD to first terminal and test Column G, then connect GRD to each succeeding terminal and repeat test in Column G.										

TEST Y
TRUNK GATE — INDIVIDUAL CUSTOMER

STEP	BLOCK RELAY		TEST TERM FOR				REMOVE BLOCKING TOOLS FROM RELAY
	OPERATED	NON- OPERATED	GRD	NO GRD	BAT.	NO BAT.	
1		GT	61				GT
→ 2	*GT			61			GT
→ 3		PA 1 through PA 10				†62	PA 1
4	PA 1				† 62		PA 1, 2
5	PA 2	PA 1					PA 2, 3
6	PA 3	PA 2					PA 3, 4
→ 7	PA 4	PA 3					PA 4, 5
8	PA 5	PA 4					PA 5, 6
9	PA 6	PA 5					PA 6, 7
10	PA 7	PA 6					PA 7, 8
11	PA 8	PA 7					PA 8, 9
12	PA 9	PA 8					PA 9, 10
13	PA 10	PA 9					PA 1 through PA 10
→	* Brings in gate alarm.						
→	† Terminal 62 wired with battery — ZA option.						

TEST Z

TRUNK GATE — TWO CUSTOMERS (8 AND 2)

STEP	BLOCK RELAY		TEST TERMINAL FOR				REMOVE BLOCKING TOOLS FROM RELAY
	OPERATED	NON- OPERATED	GRD	NO GRD	BAT.	NO BAT.	
1	GT			61, 91			GT
2		GT	61, 91				GT
3		PA 1 through PA 8				62	PA 1
4	PA 1				62		PA 1, 2
5	PA 2	PA 1					PA 2, 3
6	PA 3	PA 2					PA 3, 4
7	PA 4	PA 3					PA 4, 5
8	PA 5	PA 4					PA 5, 6
9	PA 6	PA 5					PA 6, 7
10	PA 7	PA 6					PA 7, 8
11	PA 8	PA 7					PA 1 through PA 8
12		PA 9, 10				92	PA 9
13	PA 9				92		PA 9, 10
14	PA 10	PA 9					PA 9, 10

TEST AA

TRUNK GATE — TWO CUSTOMERS (7 AND 3)

STEP	BLOCK RELAY		TEST TERMINAL FOR				REMOVE BLOCKING TOOLS FROM RELAY
	OPERATED	NON- OPERATED	GRD	NO GRD	BAT.	NO BAT.	
1	GT			61, 91			GT
2		GT	61, 91				GT
3		PA 1 through PA 7				62	PA 1
4	PA 1				62		PA 1, 2
5	PA 2	PA 1					PA 2, 3
6	PA 3	PA 2					PA 3, 4
7	PA 4	PA 3					PA 4, 5
8	PA 5	PA 4					PA 5, 6
9	PA 6	PA 5					PA 6, 7
10	PA 7	PA 6					PA 1 through PA 7
11		PA 8 through PA 10				92	PA 8
12	PA 8				92		PA 8, 9
13	PA 9	PA 8					PA 9, 10
14	PA 10	PA 9					PA 8 through PA 10

TEST AB

TRUNK GATE — TWO CUSTOMERS (6 AND 4)

STEP	BLOCK RELAY		TEST TERMINAL FOR				REMOVE BLOCKING TOOLS FROM RELAY
	OPERATED	NON- OPERATED	GRD	NO GRD	BAT.	NO BAT.	
1	GT			61, 91			GT
2		GT	61, 91				GT
3		PA 1 through PA 6				62	PA 1
4	PA 1				62		PA 1, 2
5	PA 2	PA 1					PA 2, 3
6	PA 3	PA 2					PA 3, 4
7	PA 4	PA 3					PA 4, 5
8	PA 5	PA 4					PA 5, 6
9	PA 6	PA 5					PA 1 through PA 6
10		PA 7 through PA 10				92	PA 7
11	PA 7				92		PA 7, 8
12	PA 8	PA 7					PA 8, 9
13	PA 9	PA 8					PA 9, 10
14	PA 10	PA 9					PA 7 through PA 10

TEST AC

TRUNK GATE — TWO CUSTOMERS (5 AND 5)

STEP	BLOCK RELAY		TEST TERMINAL FOR				REMOVE BLOCKING TOOLS FROM RELAY
	OPERATED	NON- OPERATED	GRD	NO GRD	BAT.	NO BAT.	
1	GT			61, 91			GT
2		GT	61, 91				GT
3		PA 1 through PA 5				62	PA 1
4	PA 1				62		PA 1, 2
5	PA 2	PA 1					PA 2, 3
6	PA 3	PA 2					PA 3, 4
7	PA 4	PA 3					PA 4, 5
8	PA 5	PA 4					PA 1 through PA 5
9		PA 6 through PA 10				92	PA 6
10	PA 6				92		PA 6, 7
11	PA 7	PA 6					PA 7, 8
12	PA 8	PA 7					PA 8, 9
13	PA 9	PA 8					PA 9, 10
14	PA 10	PA 9					PA 6 through PA 10

TEST AD

TRUNK GATE — THREE CUSTOMERS (5, 3, AND 2)

STEP	BLOCK RELAY		TEST TERMINAL FOR				REMOVE BLOCKING TOOLS FROM RELAY
	OPERATED	NON- OPERATED	GRD	NO GRD	BAT.	NO BAT.	
1	GT			61, 91			GT
2		GT	61, 91				GT
3		PA 1 through PA 5				62	PA 1
4	PA 1				62		PA 1, 2
5	PA 2	PA 1					PA 2, 3
6	PA 3	PA 2					PA 3, 4
7	PA 4	PA 3					PA 4, 5
8	PA 5	PA 4					PA 1 through PA 5
9		PA 6 through PA 8				82	PA 6
10	PA 6				82		PA 6, 7
11	PA 7	PA 6					PA 7, 8
12	PA 8	PA 7					PA 6 through PA 8
13		PA 9, 10				92	PA 9
14	PA 9				92		PA 9, 10
15	PA 10	PA 9					PA 9, 10

TEST AE

TRUNK GATE — THREE CUSTOMERS (3, 2, AND 5)

STEP	BLOCK RELAY		TEST TERMINAL FOR				REMOVE BLOCKING TOOLS FROM RELAY	
	OPERATED	NON- OPERATED	GRD	NO GRD	BAT.	NO BAT.		
1	GT			61, 71, 81			GT	
2		GT	61, 71, 81				GT	
3		PA 1 through PA 3				62	PA 1	
4	PA 1				62		PA 1, 2	
5	PA 2	PA 1						PA 2, 3
6	PA 3	PA 2						PA 1 through PA 3
7		PA 4, 5				72	PA 4	
8	PA 4				72		PA 4, 5	
9	PA 5	PA 4						PA 4, 5
10		PA 6 through PA 10				82	PA 6	
11	PA 6				82		PA 6, 7	
12	PA 7	PA 6						PA 7, 8
13	PA 8	PA 7						PA 8, 9
14	PA 9	PA 8						PA 9, 10
15	PA 10	PA 9						PA 6 through PA 10

TEST AF

TRUNK GATE — FOUR CUSTOMERS (3, 2, 3, AND 2)

STEP	BLOCK RELAY		TEST TERMINAL FOR				REMOVE BLOCKING TOOLS FROM RELAY	
	OPERATED	NON- OPERATED	GRD	NO GRD	BAT.	NO BAT.		
1	GT			61, 71, 81, 91			GT	
2		GT	61, 71, 81, 91				GT	
3		PA 1 through PA 3				62	PA 1	
4	PA 1				62		PA 1, 2	
5	PA 2	PA 1						PA 2, 3
6	PA 3	PA 2						PA 1 through PA 3
7		PA 4, 5				72	PA 4	
8	PA 4				72		PA 4, 5	
9	PA 5	PA 4						PA 4, 5
10		PA 6 through PA 8				82	PA 6	
11	PA 6				82		PA 6, 7	
12	PA 7	PA 6						PA 7, 8
13	PA 8	PA 7						PA 8, 9
14		PA 9, 10				92	PA 9	
15	PA 9				92		PA 9, 10	
16	PA 10	PA 9						PA 9, 10

TEST AG

PREFERENCE — MULTICUSTOMER

COLUMN	A	B	C	D	E
STEP *	RELAY POSITION BEFORE TEST	† CONNECT GRD TO TERMINAL 113	REMOVE GRD FROM TERMINAL 113	† CONNECT GRD TO TERMINAL 113	REMOVE GRD FROM TERMINAL 113
4a	+ GA + W + Z	* GA * W + Z	+ GA * W * Z	* GA + W * Z	+ GA + W + Z
5b	+ GA * W * Z	* GA + W * Z	+ GA + W + Z	* GA * W + Z	+ GA * W * Z
* Perform Step 4a or 5b as indicated by relay position in Column A. † Causes finders to step.					