

DIMENSION[®] PBX
DCTS
(DIMENSION CUSTOM TELEPHONE SERVICE)
CROSS CONNECTIONS

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1. GENERAL
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1. GENERAL

1.1 This section provides installation information for Electric Telephone Controller which is needed to provide DIMENSION Custom Telephone Service.

2. DOCUMENTATION

- | | | |
|-----|----------|-----------------------------------|
| 2.1 | SD-1E450 | Electronic Telephone Controller |
| | SD-1E443 | 201S Processor Interface Circuits |
| | SD-1E480 | 201L Systems Circuit |
| | COD | Customer Order Document |

3. MOUNTING

3.1 The DCTS controller carriers may be mounted either within the 201 cabinets, or within the ETC Stand Alone (J58879K-1) Cabinet.

3.2 Cross Connections (See Figure 1)

3.21 201 Processor to ETC Data Link

3.211 Refer to the Dual Data Channel Assignments section of the COD to determine the LC-34 ETC data channel assignments.

3.212 Using Figure 1, Table A, and Table B as a guide make the following cross connects between each of the LC-34's and its assigned ETC.

PRIVATE

THE INFORMATION CONTAINED HEREIN SHOULD NOT BE DISCLOSED TO UNAUTHORIZED PERSONS. IT IS MEANT SOLELY FOR USE BY AUTHORIZED BELL SYSTEM EMPLOYEES.

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<u>FROM</u>	<u>TO</u>
IOXA	RT
IOXB	RR
IORA	XT
IORB	XR

4. WIRING AND CABLING

4.1 Grounding

4.101 There are three methods of grounding the Electronic Telephone Controllers, as follows.

CASE 1: ETC Mounted within 201 Cabinet
 When the electronic Telephone Controller is mounted within the 201 cabinet, terminal 11 at the 207A power supply should be grounded to the cabinet ground block. On the 201S this connection is made via a 10-gauge wire (Comcode-996492112, KS-13385 L-1) and on the 201L a 16-gauge wire is used (Comcode-996339719, KS-13385 L-16).

CASE 2: ETC Mounted Within an ETC Cabinet, Co-located with 201 Cabinets
 When the Electronic Telephone Controller is mounted within an ETC cabinet and cabinet is located such that the 207A power is sourced from a 201 cabinet or the same outlet box as the 201 cabinet, terminal 11 from the 207A power supply should be grounded to the Wall Ground Window via a 10-gauge wire.

CASE 3: ETC Mounted Within an ETC Cabinet, Located Remotely
 When the Electronic Telephone Controller is mounted within an ETC cabinet and the cabinet is located such that the 107A power is not sourced from a 201 cabinet or the same outlet base as the 201 system cabinet, terminal 11 from the 207A power supply should be grounded to an approved ground and an equalizing ground should be run between terminal 11 of the 207A power supply and the PBX Wall Ground Window. The equalizing ground should be either a 10-gauge wire run, lashed to and following the same route as cables to the PBX or six spare pairs within the cable with the pairs gathered and connected or a combination of both.

4.22 Electronic Telephone Set Cross Connects

4.221 Per local instructions provide the Electronic Telephone Set cross connects. Figure I and Table B may be used as a guide for wiring, also Table C provides adapter wiring information.

Note: Wiring provided to Electronic Telephone Sets from the controller should be strictly point to point (i.e. there should be no bridge taps).

DCTS Cabling

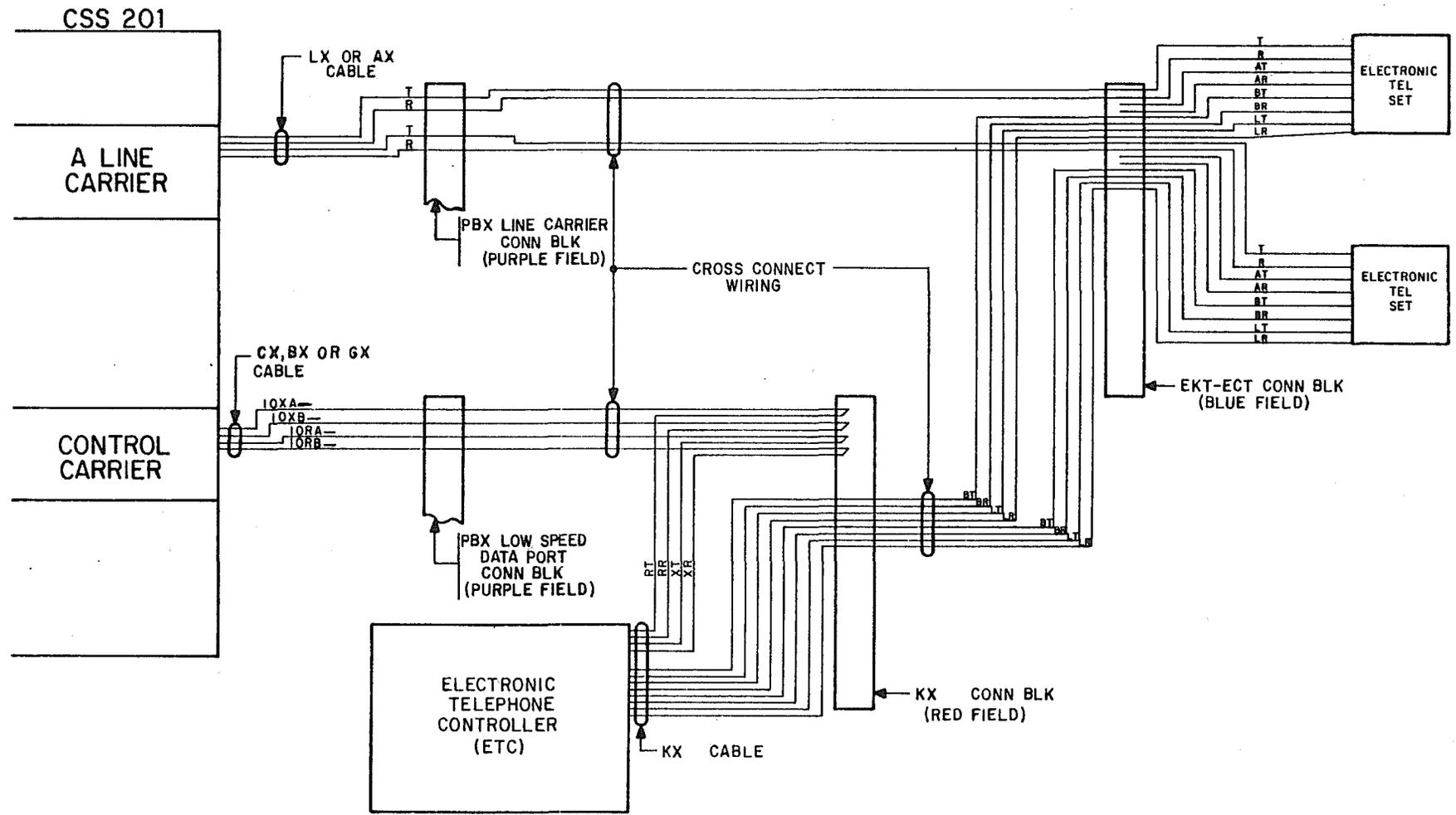


FIGURE 1

TABLE A

TERM		LEAD COLOR	DIMENSION 400			DIMENSION 2000 (BASIC CONTROL CARRIER)						
BLOCK	CONN		CX01			BX01			BX02			
			SLOT	CKT	LEAD	SLOT	CKT	LEAD	SLOT	CKT	LEAD	
1	26	W-BL	33	0	10XB6	32	0	10XB0004	38	0	10XB0016	
2	1	BL-W					10XA6					10XA0016
3	27	W-O					10RB6					10RB0016
4	2	O-W					10RA6					10RA0016
5	28	W-G	33	1	10XB7	32	1	10XB0005	38	1	10XB0017	
6	3	G-W					10XA7					10XA0017
7	29	W-BR					10RB7					10RB0017
8	4	BR-W					10RA7					10RA0017
9	30	W-S	34	0	10XB8	33	0	10XB0006	38	0	10XB0018	
10	5	S-W					10XA8					10XA0018
11	31	R-BL					10RB8					10RB0018
12	6	BL-R					10RA8					10RA0018
13	32	R-O	34	1	10XB9	33	1	10XB0007	38	1	10XB0019	
14	7	O-R					10XA9					10XA0019
15	33	R-G					10RB9					10RB0019
16	8	G-R					10RA9					10RA0019
17	34	R-BR	35	0	10XB10	34	0	10XB0008	38	0	10XB0020	
18	9	BR-R					10XA10					10XA0020
19	35	R-S					10RB10					10RB0020
20	10	S-R					10RA10					10RA0020
21	36	BK-BL	35	1	10XB11	34	1	10XB0009	38	1	10XB0021	
22	11	BL-BK					10XA11					10XA0021
23	37	BK-O					10RB11					10RB0021
24	12	O-BK					10RA11					10RA0021
25	38	BK-G	35			35	0	10XB0010	38			
26	13	G-BK										
27	39	BK-BR										
28	14	BR-BK										
29	40	BK-S	35			35	1	10XB0011	38			
30	15	S-BK										
31	41	Y-BL										
32	16	BL-Y										
33	42	Y-O	35			36	0	10XB0012	38			
34	17	O-Y										
35	43	Y-G										
36	18	G-Y										
37	44	Y-BR	35			36	1	10XB0013	38			
38	19	BR-Y										
39	45	Y-S										
40	20	S-Y										
41	46	V-BL	35			37	0	10XB0014	38			
42	21	BL-V										
43	47	V-O										
44	22	O-V										
45	48	V-G	35			37	1	10XB0015	38			
46	23	G-V										
47	49	V-BR										
48	24	BR-V										
49	50	V-S	35			37			38			
50	25	S-V										

TABLE A

TERM		LEAD COLOR	DIMENSION 2000 (GROWTH CONTROL CARRIER)								
BLOCK	CONN		GX01			GX02			GX03		
			SLOT	CKT	LEAD	SLOT	CKT	LEAD	SLOT	CKT	LEAD
1	26	W-BL	20	0	10XB0100	26	0	10XB0112	32	0	10XB0124
2	1	BL-W		0	10XA0100			10XA0112			10XA0124
3	27	W-O		0	10RB0100			10RB0112			10RB0124
4	2	O-W		0	10RA0100			10RA0112			10RA0124
5	28	W-G	20	1	10XB0101	26	1	10XB0113	32	1	10XB0125
6	3	G-W		1	10XA0101			10XA0113			10XA0125
7	29	W-BR		1	10RB0101			10RB0113			10RB0125
8	4	BR-W		1	10RA0101			10RA0113			10RA0125
9	30	W-S	21	0	10XB0102	27	0	10XB0114	33	0	10XB0126
10	5	S-W		0	10XA0102			10XA0114			10XA0126
11	31	R-BL		0	10RB0102			10RB0114			10RB0126
12	6	BL-R		0	10RA0102			10RA0114			10RA0126
13	32	R-O	21	1	10XB0103	27	1	10XB0115	33	1	10XB0127
14	7	O-R		1	10XA0103			10XA0115			10XA0127
15	33	R-G		1	10RB0103			10RB0115			10RB0127
16	8	G-R		1	10RA0103			10RA0115			10RA0127
17	34	R-BR	22	0	10XB0104	28	0	10XB0116	33	0	10XB0128
18	9	BR-R		0	10XA0104			10XA0116			10XA0128
19	35	R-S		0	10RB0104			10RB0116			10RB0128
20	10	S-R		0	10RA0104			10RA0116			10RA0128
21	36	BK-BL	22	1	10XB0105	28	1	10XB0117	33	1	10XB0129
22	11	BL-BK		1	10XA0105			10XA0117			10XA0129
23	37	BK-O.		1	10RB0105			10RB0117			10RB0129
24	12	O-BK		1	10RA0105			10RA0117			10RA0129
25	38	BK-G	23	0	10XB0106	29	0	10XB0118	33	0	10XB0130
26	13	G-BK		0	10XA0106			10XA0118			10XA0130
27	39	BK-BR		0	10RB0106			10RB0118			10RB0130
28	14	BR-BK		0	10RA0106			10RA0118			10RA0130
29	40	BK-S	23	1	10XB0107	29	1	10XB0119	33	1	10XB0131
30	15	S-BK		1	10XA0107			10XA0119			10XA0131
31	41	Y-BL		1	10RB0107			10RB0119			10RB0131
32	16	BL-Y		1	10RA0107			10RA0119			10RA0131
33	42	Y-O	24	0	10XB0108	30	0	10XB0120	33	0	10XB0132
34	17	O-Y		0	10XA0108			10XA0120			10XA0132
35	43	Y-G		0	10RB0108			10RB0120			10RB0132
36	18	G-Y		0	10RA0108			10RA0120			10RA0132
37	44	Y-BR	24	1	10XB0109	30	1	10XB0121	33	1	10XB0133
38	19	BR-Y		1	10XA0109			10XA0121			10XA0133
39	45	Y-S		1	10RB0109			10RB0121			10RB0133
40	20	S-Y		1	10RA0109			10RA0121			10RA0133
41	46	V-BL	25	0	10XB0110	31	0	10XB0122	33	0	10XB0134
42	21	BL-V		0	10XA0110			10XA0122			10XA0134
43	47	V-O		0	10RB0110			10RB0122			10RB0134
44	22	O-V		0	10RA0110			10RA0122			10RA0134
45	48	V-G	25	1	10XB0111	31	1	10XB0123	33	1	10XB0135
46	23	G-V		1	10XA0111			10XA0123			10XA0135
47	49	V-BR		1	10RB0111			10RB0123			10RB0135
48	24	BR-V		1	10RA0111			10RA0123			10RA0135
49	50	V-S	25								
50	25	S-V									

TABLE B

TGRM			BASIC (KA) CARRIER											
BLOCK	CONN	LEAD COLOR	KX01 CONN.			KX02 CONN.			KX03 CONN.			KX04 CONN.		
			SLOT	CKT	LEAD DESIG.	SLOT	CKT	LEAD DESIG.	SLOT	CKT	LEAD DESIG.	SLOT	CKT	LEAD DESIG.
1	26	W-BL			RT		0	BT010		4	BT024		0	BT040
2	1	BL-W			RR			BR010			BR024			BR040
3	27	W-O					1	BT011		5	BT025		1	BT041
4	2	O-W						BR011	02		BR025			BR041
5	28	W-G			XT		2	BT012		6	BT026		2	BT042
6	3	G-W			XR			BR012			BR026			BR042
7	29	W-BR					3	BT013		7	BT027		3	BT043
8	4	BR-W				01		BR013			BR027			BR043
9	30	W-S					4	BT014		0	BT030		4	BT044
10	5	S-W						BR014			BR030			BR044
11	31	R-BL		1	BT001		5	BT015		1	BT031		5	BT045
12	6	BL-R			BR001			BR015			BR031			BR045
13	32	R-O		2	BT002		6	BT016		2	BT032		6	BT046
14	7	O-R			BR002			BR016			BR032			BR046
15	33	R-G		3	BT003		7	BT017		3	BT033		7	BT047
16	8	G-R			BR003			BR017	03		BR033			BR047
17	34	R-BR		4	BT004		0	BT020		4	BT034		0	BT050
18	9	BR-R			BR004			BR020			BR034			BR050
19	35	R-SL		5	BT005		1	BT021		5	BT035		1	BT051
20	10	SL-R			BR005	02		BR021			BR035			BR051
21	36	BR-BL		6	BT006		2	BT022		6	BT036		2	BT052
22	11	BL-BK			BR006			BR022			BR036			BR052
23	37	BK-O		7	BT007		3	BT023		7	BT037		3	BT053
24	12	O-BK			BR007			BR023			BR037			BR053
25	38	BK-G												
26	13	G-BK												
27	39	BK-BR		0	T		0	LT010		4	LT024		0	LT040
28	14	BR-BK			R			LRO10			LRO24			LRO40
29	40	BK-S	00				1	LT011		5	LT025		1	LT041
30	15	S-BK						LRO11	02		LRO25			LRO41
31	41	Y-BL		0	AT		2	LT012		6	LT026		2	LT042
32	16	BL-Y			AR			LRO12			LRO26			LRO42
33	42	Y-O					3	LT013		7	LT027		3	LT043
34	17	O-Y				01		LRO13			LRO27			LRO43
35	43	Y-G					4	LT014		0	LT030		4	LT044
36	18	G-Y						LRO14			LRO30			LRO44
37	44	Y-BR		1	LT001		5	LT015		1	LT031		5	LT045
38	19	BR-Y			LRO01			LRO15			LRO31			LRO45
39	45	Y-S		2	LT002		6	LT016		2	LT032		6	LT046
40	20	S-Y			LRO02			LRO16	03		LRO32			LRO46
41	46	V-BL		3	LT003		7	LT017		3	LT033		7	LT047
42	21	BL-V			LRO03			LRO17			LRO33			LRO47
43	47	V-O		4	LT004		0	LT020		4	LT034		0	LT050
44	22	O-V			LRO04			LRO20			LRO34			LRO50
45	48	V-G		5	LT005		1	LT021		5	LT035		1	LT051
46	23	G-V			LRO05	02		LRO21			LRO35			LRO51
47	49	V-BR		6	LT006		2	LT022		6	LT036		2	LT052
48	24	BR-V			LRO06			LRO22			LRO36			LRO52
49	50	V-S		7	LT007		3	LT037		7	LT037		3	LT053
50	25	S-V			LRO07			LRO37			LRO37			LRO53

TABLE B

TGRM		BASIC(KA) CARRIER							SUPPLEMENTARY(KB) CARRIER					
BLOCK	CONN	LEAD COLOR	KX05 CONN.			KX06 CONN.			KX07 CONN.			KX08 CONN.		
			SLOT	CKT	LEAD DESIG.	SLOT	CKT	LEAD DESIG.	SLOT	CKT	LEAD DESIG.	SLOT	CKT	LEAD DESIG.
1	26	W-BL	05	4	BT054	07	0	BT070	13	0	BT130	14	4	BT144
2	1	BL-W		5	BR054		1	BR070		1	BR130		5	BR144
3	27	W-O		6	BT055		2	BT071		2	BT131		6	BT145
4	2	O-W		7	BR055		3	BR071		3	BR131		7	BR145
5	28	W-G	06	0	BT056	07	4	BT072	13	4	BT132	15	6	BT146
6	3	G-W		1	BR056		5	BR072		5	BR132		7	BR146
7	29	W-BR		2	BT057		6	BT073		6	BT133		0	BT147
8	4	BR-W		3	BR057		7	BR073		7	BR133		1	BR147
9	30	W-S	06	4	BT060	07	4	BT074	14	4	BT134	15	0	BT150
10	5	S-W		5	BR060		5	BR074		5	BR134		1	BR150
11	31	R-BL		6	BT061		6	BT075		6	BT135		2	BT151
12	6	BL-R		7	BR061		7	BR075		7	BR135		3	BR151
13	32	R-O	06	2	BT062	07	6	BT076	14	6	BT136	15	2	BT152
14	7	O-R		3	BR062		7	BR076		7	BR136		3	BR152
15	33	R-G		4	BT063		0	BT077		0	BT137		4	BT153
16	8	G-R		5	BR063		1	BR077		1	BR137		5	BR153
17	34	R-BR	06	6	BT064	07	14	BT140	14	0	BT140	15	4	BT154
18	9	BR-R		7	BR064		2	BR141		2	BR140		5	BR154
19	35	R-SL		0	BT065		3	BT141		3	BR141		6	BT155
20	10	SL-R		1	BR065		4	BR141		4	BR141		7	BR155
21	36	BK-BL	05	6	BT066	07	14	BT142	13	2	BT142	14	6	BT156
22	11	BL-BK		7	BR066		3	BR142		3	BR142		7	BR156
23	37	BK-O		0	BT067		0	BT143		0	BR143		0	BT157
24	12	O-BK		1	BR067		1	BR143		1	BR143		1	BR157
25	38	BK-G	06			07			14			15		
26	13	G-BK												
27	39	BK-BR		4	LT054		0	LT070		0	LT130		4	LT144
28	14	BR-BK		5	LR054		1	LR070		1	LR130		5	LR144
29	40	BK-S	05	5	LT055	07	1	LT071	13	1	LT131	14	5	LT145
30	15	S-BK		6	LR055		2	LR071		2	LR131		6	LR145
31	41	Y-BL		7	LT056		3	LR072		3	LR132		7	LT146
32	16	BL-Y		0	LR056		4	LR072		4	LR132		0	LR146
33	42	Y-O	06	1	LT057	07	13	LT073	14	3	LT133	15	7	LT147
34	17	O-Y		2	LR057		4	LR073		4	LR133		1	LR147
35	43	Y-G		3	LT060		5	LT074		5	LT134		2	LT150
36	18	G-Y		4	LR060		6	LR074		6	LR134		3	LR150
37	44	Y-BR	06	1	LT061	07	14	LT075	14	5	LT135	15	1	LT151
38	19	BR-Y		2	LR061		5	LR075		5	LR135		2	LR151
39	45	Y-S		3	LT062		6	LR075		6	LR135		3	LR151
40	20	S-Y		4	LR062		7	LR076		7	LR136		4	LR152
41	46	Y-BL	06	5	LT063	07	14	LT076	14	6	LT136	15	2	LT152
42	21	BL-Y		6	LR063		0	LR076		0	LR136		3	LR152
43	47	Y-O		7	LT064		1	LR077		1	LR137		4	LT153
44	22	O-V		0	LR064		2	LR077		2	LR137		5	LR153
45	48	V-G	06	1	LT065	07	14	LT077	14	3	LT137	15	4	LT154
46	23	G-V		2	LR065		0	LR077		0	LR137		5	LR154
47	49	V-BR		3	LT067		1	LR141		1	LR141		6	LT155
48	24	BR-V		4	LR067		2	LR141		2	LR141		7	LR155
49	50	V-S	06	5	LT066	07	14	LT077	14	3	LT142	15	6	LT156
50	25	S-V		6	LR066		0	LR077		0	LR142		7	LR156
				7	LT067					3	LT143		7	LT157
					LR067						LR143			LR157

TABLE B

TGRM		SUPPLEMENTARY (KB) CARRIER																
BLOCK	CONN	LEAD COLOR	KX09 CONN.			KX10 CONN.			KX11 CONN.			KX12 CONN.						
			SLOT	CKT	LEAD DESIG.	SLOT	CKT	LEAD DESIG.	SLOT	CKT	LEAD DESIG.	SLOT	CKT	LEAD DESIG.				
1	26	W-BL	16	0	BT160	17	4	BT174	19	0	BT190	20	4	BT204				
2	1	BL-W			BR160			BR174			BR190			BR204				
3	27	W-O			BT161			BT175			BT191			BT205				
4	2	O-W			BR161			BR175			BR191			BR205				
5	28	W-G			BT162			BT176			BT192			BT206				
6	3	G-W			BR162			BR176			BR192			BR206				
7	29	W-BR			BT163			BT177			BT193			BT207				
8	4	BR-W			BR163			BR177			BR193			BR207				
9	30	W-S			BT164			BT180			BT194							
10	5	S-W			BR164			BR180			BR194							
11	31	R-BL	17	5	BT165	18	1	BT181	20	5	BT195							
12	6	BL-R			BR165			BR181			BR195							
13	32	R-O			BT166			BT182			BT196							
14	7	O-R			BR166			BR182			BR196							
15	33	R-G			BT167			BT183			BT197							
16	8	G-R			BR167			BR183			BR197							
17	34	R-BR			BT170			BT184			BT200							
18	9	BR-R			BR170			BR184			BR200							
19	35	R-SL			BT171			BT185			BT201							
20	10	SL-R			BR171			BR185			BR201							
21	36	BK-BL	16	2	BT172	18	6	BT186	20	2	BT202							
22	11	BL-BK			BR172			BR186			BR202							
23	37	BK-O			BT173			BT187			BT203							
24	12	O-BK			BR173			BR187			BR203							
25	38	BK-G																
26	13	G-BK																
27	39	BK-BR		16	0		LT160	17		4	LT174		19	0	LT190	20	4	LT204
28	14	BR-BK					LR160				LR174				LR190			LR204
29	40	BK-S					LT161				LT175				LT191			LT205
30	15	S-BK					LR161				LR175				LR191			LR205
31	41	Y-BL			LT162		LT176			LT192		LT206						
32	16	BL-Y			LR162		LR176			LR192		LR206						
33	42	Y-O			LT163		LT177			LT193		LT207						
34	17	O-Y			LR163		LR177			LR193		LR207						
35	43	Y-G			LT164		LT180			LT194								
36	18	G-Y			LR164		LR180			LR194								
37	44	Y-BR	17	5	LT165	18	1	LT181	20	5	LT195							
38	19	BR-Y			LR165			LR181			LR195							
39	45	Y-S			LT166			LT182			LT196							
40	20	S-Y			LR166			LR182			LR196							
41	46	V-BL			LT167			LT183			LT197							
42	21	BL-V			LR167			LR183			LR197							
43	47	V-O			LT170			LT184			LT200							
44	22	O-V			LR170			LR184			LR200							
45	48	V-G			LT171			LT185			LT201							
46	23	G-V			LR171			LR185			LR201							
47	49	V-BR	17	2	LT172	18	6	LT186	20	2	LT202							
48	24	BR-V			LR172			LR186			LR202							
49	50	V-S			LT173			LT187			LT203							
50	25	S-V		LR173		LR187		LR203										

TABLE C

MET SET NUMBER	LEAD FUNCTION	D-INSIDE WIRE COLOR CODE	APPARATUS COLOR CODE	258A PIN NUMBERS	96A BLOCK TERMINALS	259A*/259B** PIN NUMBERS	85A/86A TERMINALS	641A JACK COLOR CODE
1	TALK TIP (TT)	W-BL	W-BL OR BL-W	26	1	26*	1	W-BL
	TALK RING (TR)	BL-W	BL	1	2	1	2	BL
	DATA BUTTON TIP (BT)	W-O	W	27	3	27*	3	W-G
	DATA BUTTON RING (BR)	O-W	Y	2	4	2*	4	G
	AUXILIARY TIP (AT)	W-G	R	28	5	28*	5	W-O
	AUXILIARY RING (AR)	G-W	BK	3	6	3*	6	O
	DATA LAMP TIP (LT)	W-BR	W-BR OR BK-W	29	7	29*	7	W-BR
	DATA LAMP RING (LR)	BR-W	BR	4	8	4*	8	BR
2	TT	W-S	W-BL OR BL-W	30	9	30**		
	TR	S-W	BL	5	10	5**		
	BT	R-BL	W	31	11	31**		
	BR	BL-R	Y	6	12	6**		
	AT	R-O	R	32	13	32**		
	AR	O-R	BK	7	14	7**		
	LT	R-G	W-BR OR BR-W	33	15	33**		
	LR	G-R	BR	8	16	8**		
	TT	R-BR	W-BL OR BL-W	34	17			
	TR	BR-R	BL	9	18			
3	BT	R-S	W	35	19			
	BR	S-R	Y	10	20			
	AT	BK-BL	R	36	21			
	AR	BL-BK	BK	11	22			
	LT	BK-O	W-BR OR BR-W	37	23			
	LR	O-BK	BR	12	24			
	TT	BK-G	W-BL OR BL-W	38				
	TR	G-BK	BL	13				
	BT	BK-BR	W	14				
	BR	BR-BK	R	40				
4	AT	BK-S	BK	15				
	AR	S-BK	W-BR OR BR-W	41				
	LT	Y-BL	BR	16				
	LR	BL-Y	W-BL OR BL-W	42				
	TT	Y-O	BL	17				
	TR	O-Y	W	43				
	BT	Y-G	Y	18				
	BR	G-Y	R	44				
	AT	Y-BR	BK	19				
	AR	BR-Y	W-BR OR BR-W	45				
5	LT	Y-S	BR	20				
	LR	S-Y	W-BL OR BL-W	46				
	TT	V-BL	BL	21				
	TR	BL-V	W	47				
	BT	V-O	Y	22				
	BR	O-V	R	48				
	AT	V-G	BK	23				
	AR	G-V	W-BR OR BR-W	49				
	LT	V-BR	BR	24				
	LR	BR-V	BR	50				
6	V-S	S-V		25				