

DIMENSION<sup>®</sup> PBX

CUSTOMER PREMISES FACILITY TERMINAL (CPFT)

CONTENTS

1. GENERAL
  2. SINGLE MODULE CARRIER (J99380A)
  3. TERMINAL BALANCING NETWORK PANEL (J99380B)
  4. TERMINAL BALANCING NETWORK SHELF (J99380C)
  5. DOUBLE SHELF ASSEMBLY (J99380D)
  6. DOUBLE MODULE SHELF (J99380E)
  7. TEST EXTENDER (J99380TA)
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1. GENERAL

- 1.1 Customer Premises Facility Terminal (CPFT) equipment provides transmission and signaling range extension for CSS 201S line and trunk circuits. The CPFT equipment consists of Metallic Facility Terminal (MFT) circuit packs housed in connectorized carriers.
- 1.2 This section will cover the following equipment:
  - J99380A - SINGLE MODULE SHELF
  - J99380B - TERMINAL BALANCING NETWORK PANEL
  - J99380C - TERMINAL BALANCING NETWORK SHELF
  - J99380D - DOUBLE DEPTH SHELF
  - J99380E - DOUBLE MODULE SHELF
  - J99380TA - TEST EXTENDER BOARD
- 1.3 See Table A for cross reference of Comcode Number and description of apparatus.

2. SINGLE MODULE CARRIER (J99380A)

- 2.01 The single module unit is used when only transmission or signaling treatment is required. Twelve circuits are provided per carrier.
- 2.1 Mounting
  - 2.11 Determine location of carriers from Telephone Company equipment drawing. Start mounting carriers from the bottom.

PRIVATE

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- 2.12 Attach left adapter bracket 841611981 to shelf base P30H561 using two .216-20X3/8 screws. Fuse and Alarm Unit may already be mounted to the adapter plate. See Figure 1.
- 2.13 Mount left adapter plate with shelf base attached to left cabinet frame using three .216-24X5/8 screws.
- 2.14 If extender card holder 841611650 is to be installed slip it between adapter and right side of shelf base. See Figure 2.
- 2.15 Secure right side of shelf base to adapter bracket assembly using two .215-24X3/8 screws.
- 2.16 If another shelf is being mounted above it will serve as the top of the initial shelf. Repeat paragraphs 2.11 to 2.15 until all bottom shelves have been mounted.
- 2.17 On last shelf mount shelf cover P30H560 to left and right adapter bracket assemblies using .216-24X3/8 screws.
- 2.18 If the Fuse and Alarm Units were not shipped mounted to the adapter, mount these units to left adapter using three .164-32X1/4 screws. Repeat for all other shelves as required.

2.2 Wiring

- 2.21 Connect wiring for battery and ground leads to each Fuse and Alarm Unit. These leads connect to the terminal strips on top of the AC distribution unit in the lower left corner of the cabinet.

RUN	<u>FROM</u> DESIG	CABLE	<u>TO</u> AC DISTRIBUTION UNIT
1	-48V	Red - Black	Terminal Strip ACTS - 10
2	GRD	Black	Terminal Strip ACTS - 11

- 2.22 Remove three plastic blanks from side of adapter bracket assembly on the right side. Snap the three KS connectors (J2, J3 & J4) into place. Stamp connector designation on adapter bracket assembly if not already identified.

- 2.23 Connect leads from shelf connector and Fuse and Alarm Unit.

RUN	<u>FROM</u> LEAD	<u>TO</u>
3	O1R	MN ALM FBLK Terminal B
4	O2R (odd)	Center Terminal F1 FBLK
5	O2R (even)	Center Terminal F2 FBLK
6	R-BR	R-1 Resistance Lamp

Dress wiring as required.

- 2.24 Repeat paragraphs 2.21 to 2.23 for each additional shelf provided.

TABLE A	
IDENT. NO.	DESCRIPTION
840060180	PHM SCR .216-24 X 3/8
840059034	PHM SCR .164-32 X 3/16
840060164	PHM SCR .216-24 X 1/4
840060222	PHM SCR .216-24 X 5/8
840059042	PHM SCR .164-32 X 1/4
996799748	HEX HEAD SCR .216-24 X 5/8
P-252606	LOCKWASHER .164
P-284148	WASHER .164

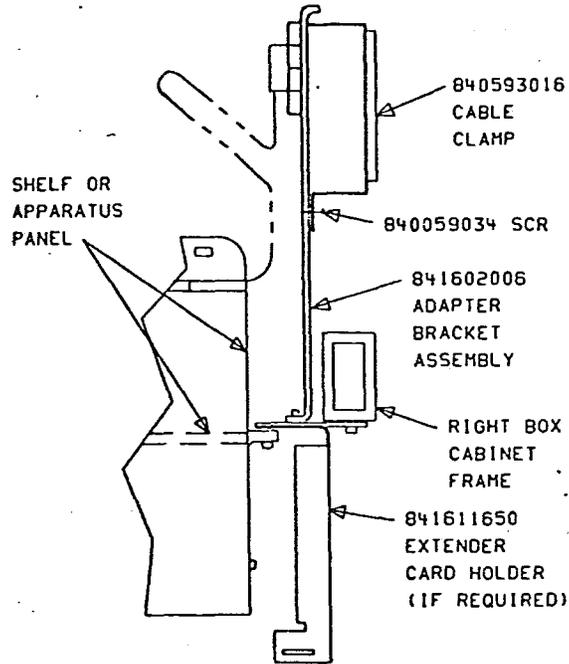


FIGURE 2

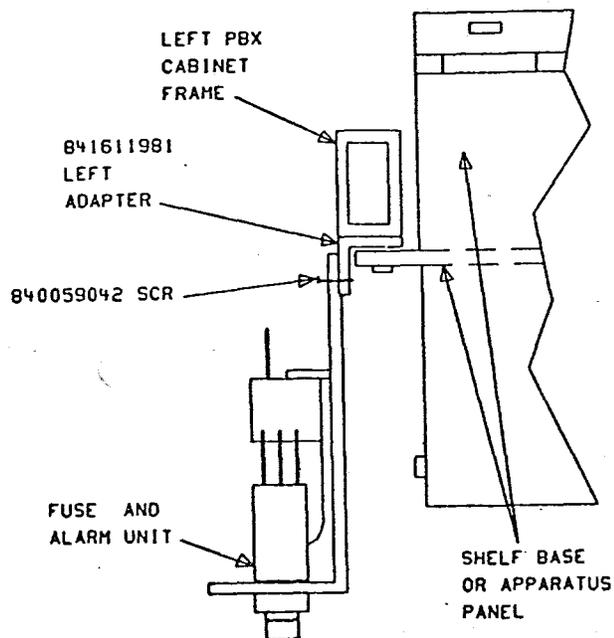


FIGURE 1

### 2.3 Cabling

- 2.31 Connect Minor Alarm mult between shelves using 6 pin connector cable provided with each Alarm Unit.
- 2.32 Connect top shelf to PF01 on Auxiliary Fuse Panel (if provided) or to Group 30 Alarm mult cable from Cabinet 0 for CSS 201S, and connect the Alarm mult cable PF00 to PF01 (ED1E367-10 Grp 900) per the Intercabinet Cable Running List - Miscellaneous cables of the COD for CSS 201L.
- 2.33 Determine location of connector blocks for cables to be terminated at the cross connect field from Telephone Company cross connect field sketch. Normally in Yellow field.
- 2.34 Label connector and raw ends of cable. Run cables from Auxiliary Cabinet to cross connect field. Install cable clamp over KS connections.
- 2.35 Install connector blocks at cross connect field if required and terminate cables.
- 2.36 Cross connect the shelf cables per cross connect information provided by Telephone Company for Single Module CPFT Transmission Equipment. The leads cross connect to CSS Trunk Circuits (Purple) and Incoming Trunk Circuits (Green).
- 2.37 From Telephone Company information determine type of circuit pack to be plugged into each shelf slot.
- 2.38 If circuit pack requires micro switch setting adjust switches as required per Telephone Company information.
- 2.39 After switches are set to correct position plug circuit pack into assigned carrier location. Repeat until all circuit packs are plugged in.

### 3. TERMINAL BALANCING NETWORK PANEL (J99380B)

- 3.01 This panel is used for terminal balancing and impedance matching. It is arranged to provide mounting for the following arrangements.

- 12 837D or 837E Networks
- 6 837G Networks with 120T Repeater Coils

#### 3.1 837D or 837E Networks

- 3.11 Mount 837D or 837E Networks on 356A Mounting Plate.
- 3.12 Make connections from network to terminal strip TS-1 per Table F.
- 3.13 Repeat paragraphs 3.11 and 3.12 for additional panels as required.

#### 3.2 837G Networks

- 3.21 Mount 837G Networks and 120T Transformers in alternate positions on 356A Mounting Plate. Repeat for each additional unit as required.

TABLE F					
CONNECTIONS TO BE MADE			CONNECTIONS TO BE MADE		
TSI TERMINALS	NETWORK	TERMINAL	TSI TERMINALS	NETWORK	TERMINAL
1	1ST	1	25	7TH	1
2		2	26		2
3		3	27		3
4		4	28		4
5	2ND	1	29	8TH	1
6		2	30		2
7		3	31		3
8		4	32		4
9	3RD	1	33	9TH	1
10		2	34		2
11		3	35		3
12		4	36		4
13	4TH	1	37	10TH	1
14		2	38		2
15		3	39		3
16		4	40		4
17	5TH	1	41	11TH	1
18		2	42		2
19		3	43		3
20		4	44		4
21	6TH	1	45	12TH	1
22		2	46		2
23		3	47		3
24		4	48		4

TABLE F

- 3.22 Make connections from each 837G Network to 120T Transformer as follows. Refer to Figure 3.

<u>FROM</u>	<u>TO</u>
837G Network	120T Transformer
Terminal 3	Terminal 4H
Terminal 4	Terminal 7H

- 3.23 Connect a 535DK Capacitor across terminals 3 and 8 of each 120T Transformer.
- 3.24 Make connections from 837G Networks and 120T Transformers to terminal strip TS-1 per Table C.
- 3.25 Repeat paragraphs 3.22 to 3.24 for each additional unit as required.
- 3.3 Mounting and Cabling
- 3.31 Mount each 356A Mounting Plate in positions as specified by the Telephone Company.
- 3.32 Remove plastic blank from side of adapter bracket assembly and snap KS connector in place. Repeat for each unit provided.
- 3.33 Select connectorized cable to be run for Network Panels, Designate Connectors and tag raw end of cable. Run cables from each Network Panel to the cross connect field. Install cable clamp over each connector at the adapter bracket assembly. Determine location of cable termination at cross connect field from sketch provided by Telephone Company. Normally the Yellow field.
- 3.34 Add connector block at cross connect field if required and terminate cables.
- 3.35 Run cross connections per information provided by Telephone Company for 837 Type Networks mounted on a panel. These leads cross connect to the CSS Trunk Circuit (Purple) and Incoming Trunk Circuits (Green).

#### 4. TERMINAL BALANCING NETWORK SHELF (J99380C)

- 4.01 This shelf provides terminal balancing by providing circuit packs containing 837 Type Networks. Up to 14 circuit packs may be plugged into one shelf assembly.
- 4.1 Mounting and Cabling
- 4.11 Mount shelves in positions specified by Telephone Company.
- 4.12 Remove three plastic blanks from side of adapter bracket assembly on the right side. Snap the three KS connectors (J15, J16 & J17) into place. Stamp connector designations on adapter bracket assembly if not already identified.

**NOTES**

1. WHEN 837G NETWORKS ARE USED, ONE 120T TRANSFORMER AND ONE 535DK CAPACITOR ARE REQUIRED FOR EACH NETWORK AND ARE MOUNTED IN SPACE ADJACENT TO NETWORK

2. TS1 IS MADE UP OF TWO 315A TERMINAL STRIPS

TABLE C				
CONNECTIONS TO BE MADE				
TS1 TERMINAL	NETWORK	TERMINAL	TRANSFORMER	TERMINAL
5		1		--
6	1ST	2	---	--
7		-		4L
8	---	-	1ST	7L
13		1		--
14	2ND	2	---	--
15		-		4L
16	---	-	2ND	7L
21		1		--
22	3RD	2	---	--
23		-		4L
24	---	-	3RD	7L
29		1		--
30	4TH	2	---	--
31		-		4L
32	---	-	4TH	7L
37		1		--
38	5TH	2	---	--
39		-		4L
40	---	-	5TH	7L
45		1		--
46	6TH	2	---	--
47		-		4L
48	---	-	6TH	7L

TABLE C

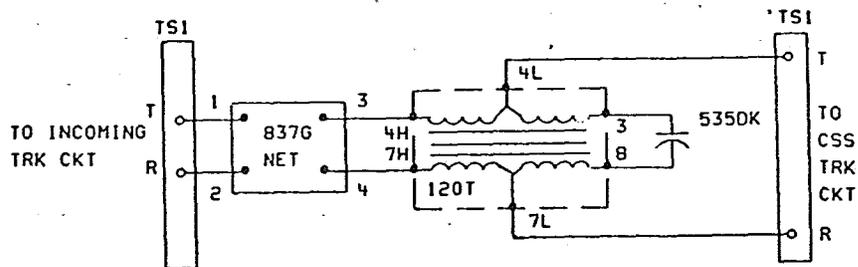


FIGURE 3

- 4.13 Select connectorized cable to be run for Network Shelves, Designate Connectors and tag raw end of cable.
- 4.14 Determine terminating location on cross connect field for Network Shelves. Normally the Yellow field. Run cable from each Network Shelf to the cross connect field. Install cable clamp over each connector at the adapter bracket assembly.
- 4.15 Add connector block at cross connect field if required and terminate cables.
- 4.16 Cross connect the shelf cables per cross connect information provided by the Telephone Company for CPFT Equipment (Networks mounted in Circuit Packs). These leads cross connect to CSS Trunk Circuit (Purple) and Incoming Trunk Circuits (Green).
- 4.17 Plug circuit packs into shelf positions as specified by the Telephone Company.

5. DOUBLE SHELF ASSEMBLY (J99380D)

5.01 The double depth arrangement provides a compact mounting arrangement for CPFT equipment. The double depth assembly provides for mounting a front unit and a rear unit. The unit arrangement may be as follows.

QUANTITY REQUIRED	FRONT SECTION	QUANTITY REQUIRED	REAR SECTION
1	J99380A	0	
	OR	1 OR 2	J99380B
	J99380E	1	J99380C
1 OR 2	J99380B	0 - 2	J99380B
1 OR 2	J99380B	1	J99380C
1	J99380C	0	
1	J99380C	1 OR 2	J99380B
1	J99380C	1	J99380C

5.1 Mounting, Wiring and Cabling

- 5.11 Determine location of shelves from Telephone Company Equipment Drawing.
- 5.12 Remove adapter bracket at right side of cabinet at level to which shelf is to be installed. Mount shelf. Repeat until all shelves are mounted.

- 5.13 Determine types of units to be mounted in the front and rear units of the shelf.
- 5.14 If Terminal Balancing Network Panels (J99380B) are being provided mount networks and wire unit before it is mounted. Refer to paragraphs 3.1 and 3.2 of this section.
- 5.15 Mount units in shelf assembly. Refer to individual section on type of equipment being mounted. Wire and cable units per instructions covering particular unit furnished. Refer to Sections as follows:

<u>TYPE</u>	<u>SECTION</u>
J99380A	2
J99380B	3
J99380C	4
J99380E	6

#### 6. DOUBLE MODULE SHELF (J99380E)

- 6.01 The Double Module Shelf is used when both transmission and signaling treatment are required. This shelf provides for six circuits and has a transmission circuit pack and a signaling circuit pack in alternating slots starting at the left.
- 6.1 Mounting
- 6.11 Determine location of carriers from Telephone Company Equipment Drawing. Start mounting carriers from the bottom.
- 6.12 Attach left adapter bracket 841611981 to shelf base P30H561 using two .216-20X3/8 screws. Fuse and Alarm Unit may already be mounted to the adapter plate. See Figure 1.
- 6.13 Mount left adapter plate with shelf base attached to left cabinet frame using three .216-24X5/8 screws.
- 6.14 If extender card holder 841611650 is to be installed slip it between adapter and right side of shelf base. See Figure 2.
- 6.15 Secure right side of shelf base to adapter bracket assembly using two .216-24X3/8 screws.
- 6.16 If another shelf is being mounted above it will serve as the top of the initial shelf. Repeat paragraphs 6.11 to 6.15 until all bottom shelves have been mounted.
- 6.17 On last shelf mount shelf cover P30H560 to left and right adapter bracket assemblies using two .216-24X3/8 screws.
- 6.18 If the Fuse and Alarm Units were not shipped mounted to the adapter, mount these units to left adapter using three .164-32X1/4 screws. Repeat for all other shelves as required.

6.2 Wiring

6.21 Connect wiring for battery and ground leads to each Fuse and Alarm Unit. These leads connect to the terminal strips on top of the AC Distribution Unit in the lower left corner of the cabinet.

RUN	<u>FROM</u> DESIG	CABLE	<u>TO</u> AC DISTRIBUTION UNIT
1	-48V	Red - Black	Terminal Strip ACTS - 10
2	GRD	Black	Terminal Strip ACTS - 11 Aux. Fuse Panel
3	20Hz	R-BR	PFTS (1) Terminal 6,7,8 or 9
4	GRD	BR	PFTS (1) Terminal 1,2,3 or 4

6.22 Remove three plastic blanks from side of adapter bracket assembly on the right side. Snap the three KS connectors (J2, J3 & J4) into place. Stamp connector designation on adapter bracket assembly if not already identified.

6.23 Connect leads from shelf connector and Fuse and Alarm Unit.

RUN	<u>FROM</u> LEAD	<u>TO</u>
5	01R	MN ALM FBLK Terminal B
6	02R (odd)	Center Terminal F1 FBLK
7	02R (even)	Center Terminal F2 FBLK
8	R-BR	R-1 Resistance Lamp

Dress wiring as required.

6.24 Repeat paragraphs 6.21 to 6.23 for each additional shelf provided.

6.3 Cabling

6.31 Connect Minor Alarm mult between shelves using 6 pin connector cable provided with each Alarm Unit.

6.32 Connect top shelf to PF01 on Auxiliary Fuse Panel (if provided) or to Group 30 Alarm mult cable from Cabinet 0 for CSS 201S, and connect the Alarm mult cable PF00 to PF01 (ED1E367-10 Grp 100) per the Intercabinet Cable Running List - Miscellaneous Cables of the COD for CSS 201L.

6.33 Determine location of connector blocks for cables to be terminated at the cross connect field from Telephone Company cross connect field sketch. Normally in Yellow field.

6.34 Label connector and raw ends of cable. Run cables from Auxiliary Cabinet to cross connect field. Install cable clamp over KS connectors.

- 6.35 Install connector blocks at cross connect field if required and terminate cables.
- 6.36 Cross connect the shelf cables per cross connect information provided by Telephone Company for Double Module CPFT Transmission Equipment. The leads cross connect to CSS Trunk Circuits (Purple) and Incoming Trunk Circuits (Green).
- 6.37 From Telephone Company information determine type of circuit pack to be plugged into each shelf slot.
- 6.38 If circuit pack requires micro switch setting adjust switches as required per Telephone Company information.
- 6.39 After switches are set to correct position plug circuit pack into assigned carrier location. Repeat until all circuit packs are plugged in.

7. TEST EXTENDER (J99380TA)

- 7.01 The Test Extender Board allows access to adjustments and test points when aligning and testing the MFT circuit packs in the CPFT installation.
- 7.02 If single depth arrangement is provided a test extender storage compartment mounts on the side of the shelf. Mount storage compartment on side of shelf at a convenient location.
- 7.03 When double depth arrangement is provided a storage compartment for the test extender is provided as part of the CPFT assembly.