

Technical Data Package

MODEL HCU265 / HCU317

Headset Control Unit

PROPRIETARY NOTICE

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WARRANTY NOTICE

See the enclosed warranty card for further details.

CUSTOMER SUPPORT

Technical questions should be directed to:

Customer Service Department
RTS/Telex Communications, Inc.
12000 Portland Avenue South
Burnsville, MN 55337 USA
Telephone: 800-392-3497
Fax: 800-323-0498

RETURN SHIPPING INSTRUCTIONS

Customer Service Department
Telex Communications, Inc. (Lincoln, NE)
Telephone: 402-467-5321
Fax: 402-467-3279
Factory Service: 800-553-5992

Please include a note in the box which supplies the company name, address, phone number, a person to contact regarding the repair, the type and quantity of equipment, a description of the problem and the serial number(s).

SHIPPING TO THE MANUFACTURER

All shipments of product should be made via UPS Ground, prepaid (you may request from Factory Service a different shipment method). Any shipment upgrades will be paid by the customer. The equipment should be shipped in the original packing carton. If the original carton is not available, use any suitable container that is rigid and of adequate size. If a substitute container is used, the equipment should be wrapped in paper and surrounded with at least four (4) inches of excelsior or similar shock-absorbing material. All shipments must be sent to the following address and must include the Proof of Purchase for warranty repair. Upon completion of any repair the equipment will be returned via United Parcel Service or specified shipper, collect.

Factory Service Department
Telex Communications, Inc.
8601 East Cornhusker Hwy.
Lincoln, NE 68507 U.S.A.
Attn: Service

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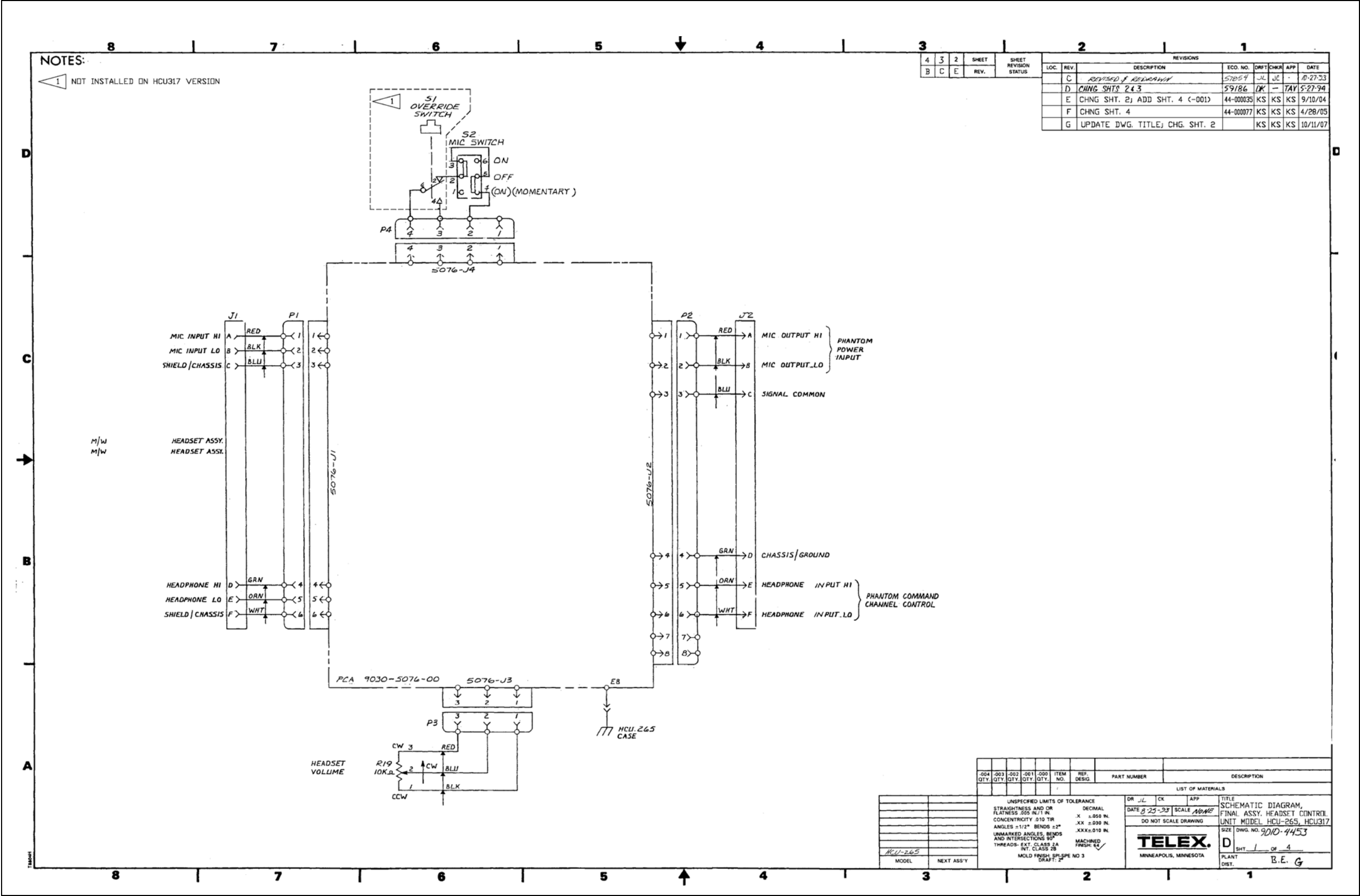
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TELEX B E		INDENTED BILL		DATE 10/22/93 TIME 11.25.45 PAGE 1 AMEF72					
PARENT ITEM NO. 9000445300		DESCRIPTION HCU 265 ENGR DRAW STANDARD BATCH QUANTITY		1.000	QTY	1	ITEM TYPE 1 UNIT MEAS EA	LOW LEVEL 00 PLANNER 34	
RELATIVE LEVEL	COMPONENT ITEM NO.	DESCRIPTION	ENGINEERING DRAWING NUMBER	QUANTITY PER	ITEM UM TYP	OPT NO.	FIRST OP SEQ	LT ADJ	EFFECTIVE DATES FROM TO
.1	3101000400	SERIAL LABEL RTS		1.000	EA	4			
.1	50783003	BAG PLASTIC	REVA	1.000	EA	4			
.1	58145000	LABEL ACCESS.	REVD6	1.000	EA	4			
.1	9010445300	FINAL ASSY, HCU265	REVB9	1.000	EA	4			
.2	1008607700	SEELSKREW, 6-32X1/4"		1.000	EA	0			
.2	1008608200	SEELSKREW, 6-32X1/2"		2.000	EA	4			
.2	1008802900	SEELSKREW, 8-32X1/2"		4.000	EA	4			
.2	588800WK	WIRE KIT		8.000	EA	4			
.3	58343002	WIRE, 24 AWG RED		1.000	EA	1			
.4	BE491	WIRE CODE INK RED	REVA	1.583	EA	0			
.4	58343009	WIRE 7692302		.002	GL	4			
.4	58343003	WIRE, 24 AWG ORANGE	REVA	1.583	FT	4			
.4	BE492	WIRE CODE INK ORN	REVA	.583	EA	0			
.4	58343009	WIRE 7692302		.001	GL	4			
.3	58343005	WIRE 24 AWG GRN	REVA	.583	FT	4			
.4	BE494	WIRE CODE INK GRN	REVA	.583	EA	0			
.4	58343009	WIRE 7692302		.001	GL	4			
.3	58343006	WIRE 24 AWG BLUE	REVA	.583	FT	4			
.4	BE495	WIRE CODE INK BLU	REVA	1.500	EA	0			
.4	58343009	WIRE 7692302		.002	GL	4			
.3	58343009	WIRE 7692302	REVA	1.500	FT	4			
.3	58343010	WIRE 24 AWG BLACK	REVA	.583	FT	4			
.4	BE489	WIRE CODE INK BLK	REVA	1.708	EA	0			
.4	58343009	WIRE 7692302		.002	GL	4			
.2	9020511500	FRONT PANEL ASSY, HCU265	REVA	1.708	FT	4			
.3	1003002900	RECEPTACLE, CONTACT		1.000	EA	0			
.3	1005012500	SEAL, SHAFT		6.000	EA	4			
.3	1005016300	BOOT, SW LEVER/PNL SL		1.000	EA	4			
.3	1005016400	SEAL, PANEL		1.000	EA	4			
.3	1301000300	USE 51379004		1.000	EA	4			
.4	51379004	TUBING		.042	FT	0			
.3	1414000100	POT, 10K OHM AB WA4T040S1	REVJ	.042	FT	4			
.3	1903006600	SWITCH, TOGGLE		1.000	EA	4			
.3	1911002900	SWITCH, PUSHBUTTON		1.000	EA	4			
.3	2019001000	CONTACT HOUSING 3 POS AM		1.000	EA	4			
.3	2019001100	CONTACT HOUSING 47 POSAMP		1.000	EA	4			
.3	2703002000	KNOB		1.000	EA	4			
.3	9070511500	FRONT PANEL, HCU265		1.000	EA	4			
.4	9070588700R	PANEL FRONT		1.000	EA	1			
.2	9020511600	BACK PANEL ASSY, HCU265		1.000	EA	9			
.3	1003002900	RECEPTACLE, CONTACT		1.000	EA	0			
.3	1008405600	SEELSKREW, 4-40X3/8"		14.000	EA	4			
.3	1301000300	USE 51379004		8.000	EA	4			
.4	51379004	TUBING		.417	FT	0			
.3	2008005100	RECEPTACLE, MALE PANEL	REVJ	.417	FT	4			
.3	2008005800	RECEPTACLE, FEMALE PANEL		1.000	EA	4			
.3	2019001200	CONTACT HOUSING 6 POSAMP		1.000	EA	4			
.3	2019001300	CONTACT HSG, 8 POS		1.000	EA	4			

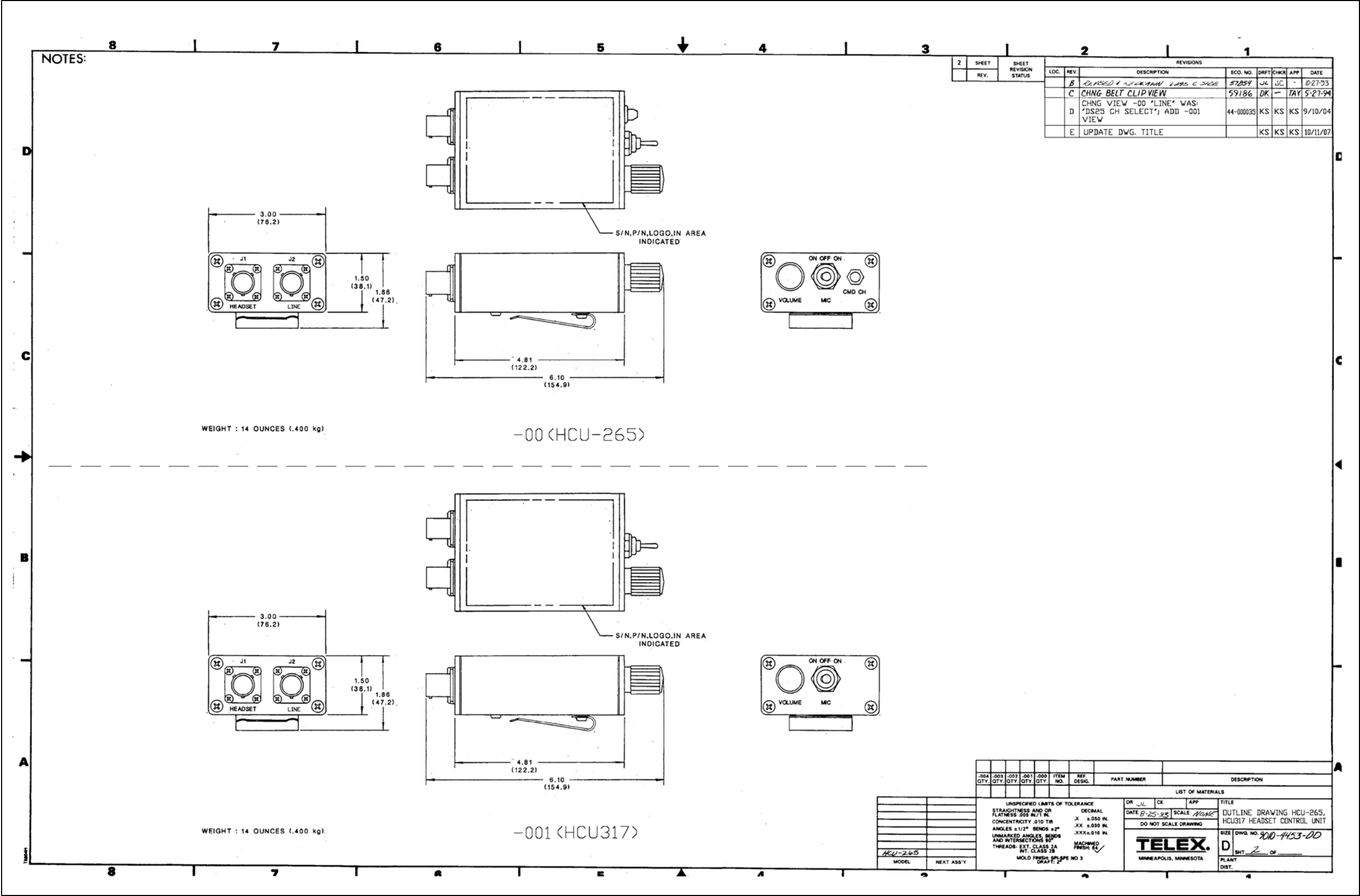
TELEX B E		INDENTED BILL		DATE 10/22/93 TIME 11.25.45 PAGE 2 AMEF72.						
PARENT ITEM NO. 9000445300		DESCRIPTION HCU 265 ENGR DRAW STANDARD BATCH QUANTITY		1.000	QTY	1	ITEM TYPE 1 UNIT MEAS EA	LOW LEVEL 00 PLANNER 34		
RELATIVE LEVEL	COMPONENT ITEM NO.	DESCRIPTION	ENGINEERING DRAWING NUMBER	QUANTITY PER	ITEM UM TYP	OPT NO.	FIRST OP SEQ	LT ADJ	EFFECTIVE FROM	DATES TO
...3	9080511600	BACK PANEL, HCU265		1.000	EA	1				
....4	9080588600R	PANEL REAR		1.000	EA	9				
...3	9130434800	GASKET		2.000	EA	9				
..2	9030507600	PC BD ASSY, HCU266		1.000	EA	1				
...3	1001003300	SPACER 6-32X3/16" SWAGE		4.000	EA	4				
...3	1006002600	WASHER, LOCK #6 EXT TOOTH		1.000	EA	4				
...3	143010022D	RES, 10.0K, 1% MIL-R-10509F		1.000	EA	4				
...3	143010032D	RES, 100K, 1% MIL-R-10509F		2.000	EA	4				
...3	143010052D	RES, 10.0M, 1% MIL-R-10509F		1.000	EA	4				
...3	143018202D	RES, 182 OHM, 1% MIL-R-10509F		1.000	EA	4				
...3	143020022D	RES, 20.0K, 1% MIL-R-10509F		3.000	EA	4				
...3	143022R12D	RES, 22.1 OHM, 1% MIL-R-10509F		1.000	EA	4				
...3	143022102D	RES, 221 OHM, 1% MIL-R-10509F		2.000	EA	4				
...3	143022122D	RES, 22.1K, 1% MIL-R-10509F		3.000	EA	4				
...3	143047R52D	RES, 47.5 OHM, 1% MIL-R-10509F		1.000	EA	4				
...3	143047502D	RES, 475 OHM, 1% MIL-R-10509F		1.000	EA	4				
...3	143047512D	RES, 4.75K, 1% MIL-R-10509F		1.000	EA	4				
...3	143047532D	RES, 475K, 1% MIL-R-10509F		1.000	EA	4				
...3	1510R1042Q	CAP, .1UF/500V		1.000	EA	4				
...3	1514R1032J	CAP, .01UF 63V		1.000	EA	4				
...3	1515R1063I	CAP, TAN 10UF/50		2.000	EA	4				
...3	1515R1073F	CAPACITOR TANT RAD 100		2.000	EA	4				
...3	1523R1042I	USE 52719104		4.000	EA	0				
....4	52719104	CAP .1UF 63V	REVV	4.000	EA	4				
...3	1525R3302Z	CAP, 33PF 200V MIL-R-39014/1		2.000	EA	4				
...3	1601400400T	USE 50745005T		5.000	EA	0				
....4	50745005T	DIODE 1N4004	REVV	5.000	EA	4				
...3	160152310BTM	DIODE, MOTOROLA ONLY, 1N5231B		1.000	EA	4				
...3	1602030500	TRANSISTOR, J305		1.000	EA	4				
...3	1602521000	TRANSISTOR 2N5210		1.000	EA	4				
...3	160355340N	USE 53293000		1.000	EA	0				
....4	53293000	IC	REVD	1.000	EA	4				
...3	1625000100	DIODE, 1N914 MIL-5-19500/116		1.000	EA	4				
...3	2007008600	HEADER, 3 POS SINGE ROW		1.000	EA	4				
...3	2007008700	HEADER, 6 POS DUAL ROW		1.000	EA	4				
...3	2007009000	HEADER, 8 POS DUAL ROW		1.000	EA	4				
...3	2007010300	HEADER 4 POS SINGLEAMP		1.000	EA	4				
...3	2306000105	TRANSFORMERDYN-AMERICA, PWR ST		2.000	EA	4				
...3	56406000	TUBING 5" (500 FT/ROLL)		.333	FT	4				
...3	9030507600OV	COATING CHARGE		1.000	EA	0				
...3	9040507600	PC BOARD	REVE	1.000	EA	9				
..2	9060511700	CASE, HCU265		1.000	EA	1				
...3	9060588500R	CASE		1.000	EA	9				
..2	9110138500	BELT CLIP	REVC	1.000	EA	4				
..2	9130435000	GASKET		1.000	EA	9				
..2	9130453000	GASKET		2.000	EA	9				
.1	9310628401	PACKING GASKTON	REVB	1.000	EA	4				
.1	9310628402	PACKING FOAM		1.000	EA	4				

TELEX B E		INDENTED BILL		DATE 10/22/93 TIME 11.25.45 PAGE 3 AMEF72					
PARENT ITEM NO. 9000445300		DESCRIPTION HCU 265 ENGR DRAW STANDARD BATCH QUANTITY		QTY	1	ITEM TYPE 1		LOW LEVEL 00	
		1.000				UNIT MEAS EA		PLANNER 34	
RELATIVE LEVEL	COMPONENT ITEM NO.	DESCRIPTION	ENGINEERING DRAWING NUMBER	QUANTITY PER	ITEM UM TYP	OPT NO. OP	FIRST SEQ	LT ADJ	EFFECTIVE DATES FROM TO
.1	9350588800	TDP, HCU266		1.000	EA	4			

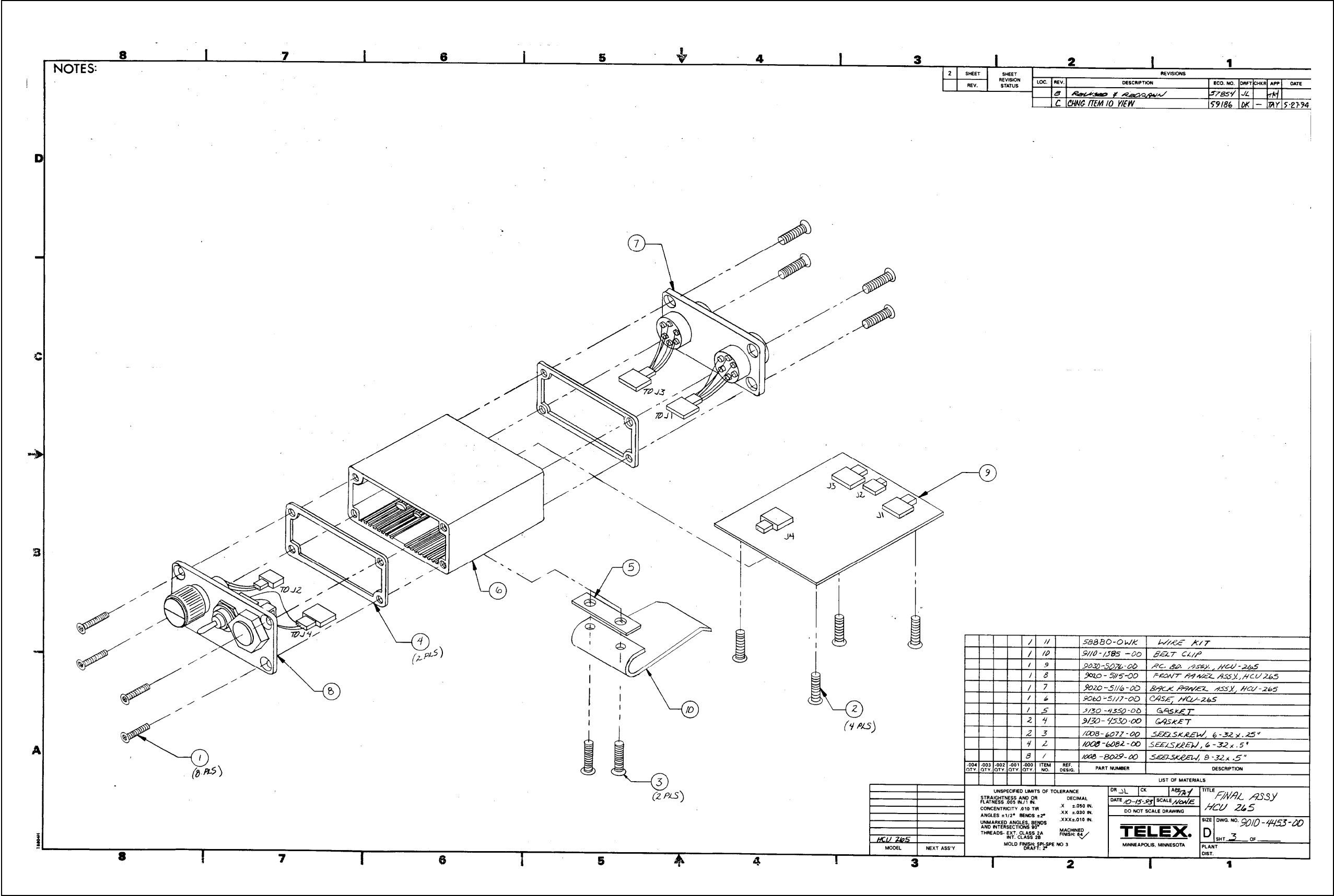
Drawing 4: Schematic Diagram, Final Assy. Headset Control Unit Model HCU-265



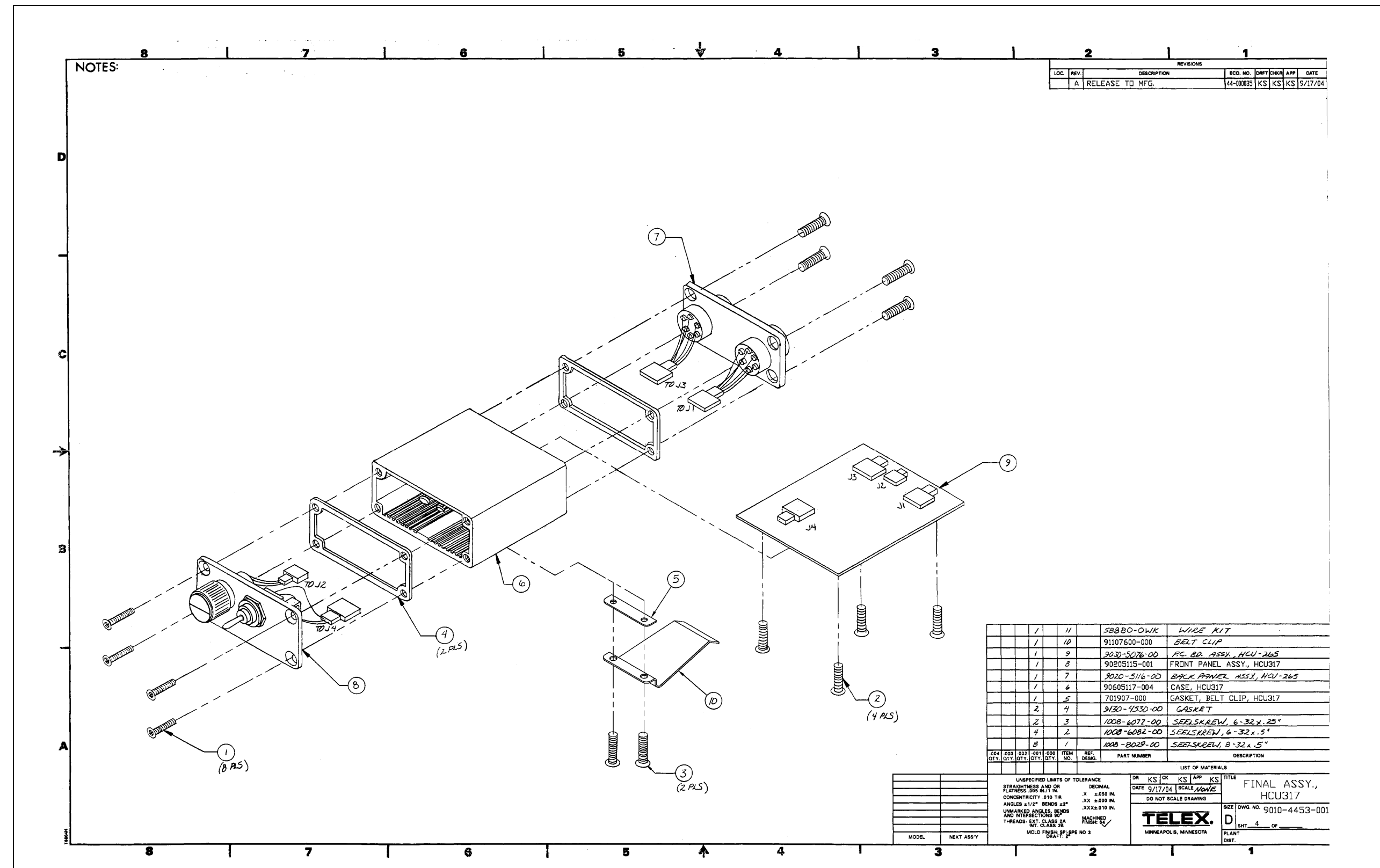
Drawing 5: Outline Drawing HCU 265 Headset Control Unit



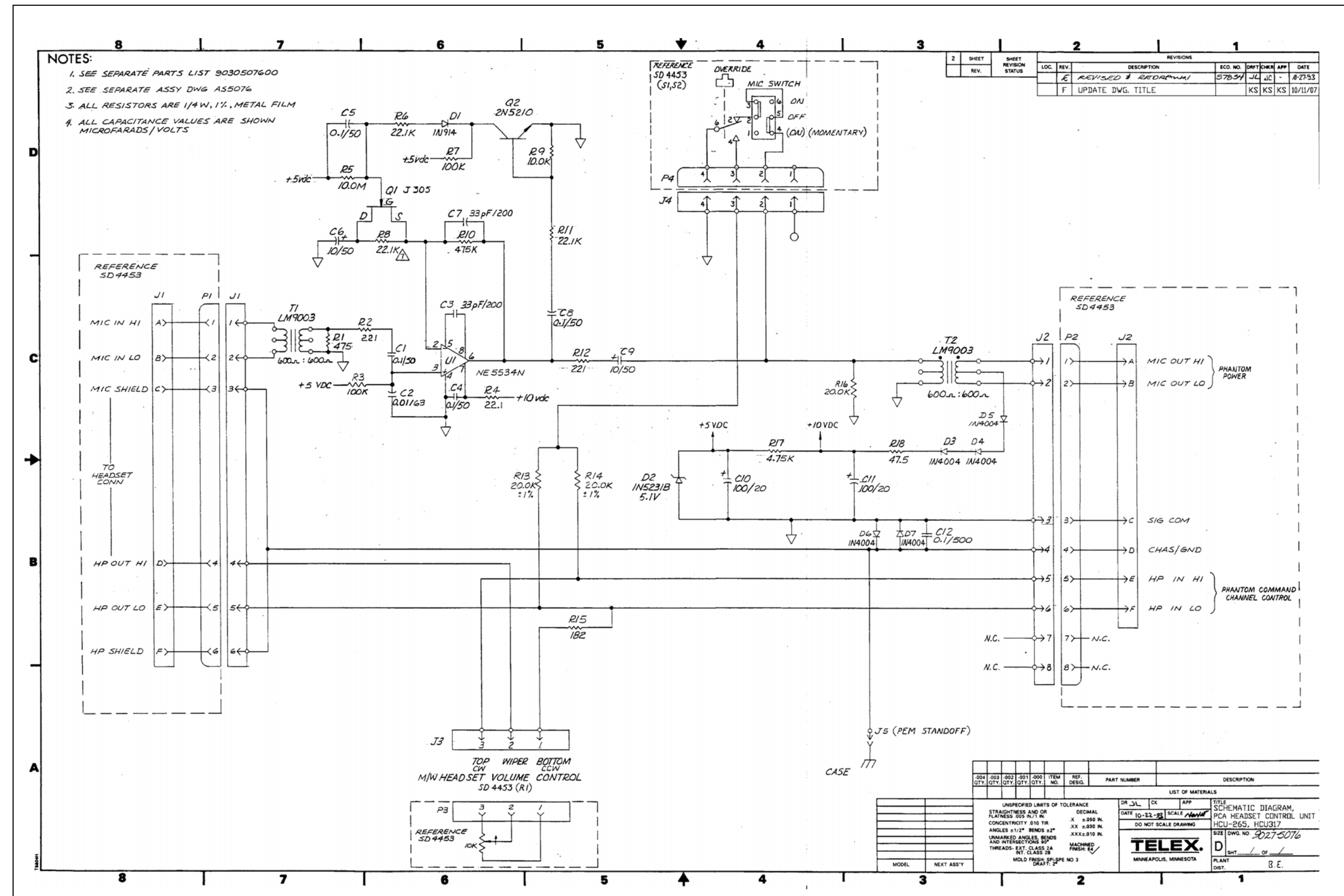
Drawing 6: Final Assy HCU265



Drawing 7: Final Assy HCU317



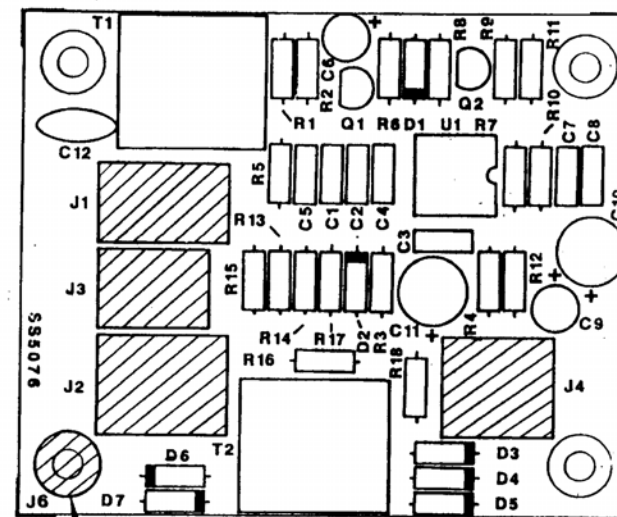
Drawing 8: Schematic Diagram, PCA Headset Control Unit 265



Drawing 9: P.C.B. HCU-265 HAICS

NOTES:

1. SEE SEPERATE SCHEMATIC SD5076.
2. CONFORMAL COAT ASSEMBLED AND TESTED PC BOARD WITH 2 COATS OF MILLER-STEPHENSON MS 470/472 URETHANE COATING OR EQUIV. MASK EXPOSED CONNECTORS AS SHOWN BY ZZZZZ. MASK PINS OF HOUSING ON J1-J4.
3. COAT PER UL913 SECTION 6.7, A SINGLE LAYER NOT LESS THAN 0.7MM (0.028 IN) THICK WILL ALSO BE ACCEPTABLE.
4. PARTS LIST FILED SEPERATELY. 9030507600 REV, F.
- 5.



(FARSIDE)



3046B632B STANDOFF (RAF)
(4 REQD)

										SHEET		SHEET		REVISIONS						
										REV.	REVISION		LOC.	REV.	DESCRIPTION	ECO. NO.	DRFT	CHKR	APP	DATE
													B	REVISED & REDRAWN, WAS B SIZE	52854	JL	JL	-	11-9-93	
												C	CHANGE ITEM 14 P/N WAS 143022102D ITEM 25 P/N WAS 23060010D		58553		TF		01/14/94	
												D	REVISED AND REDRAWN FOR CLARITY NO CHANGES FROM REV. C		44-000031		KS		08/31/04	
												E	DELETE ITEM 32, ADD ITEM 33		44-000493		FJ		05/22/07	
												F	ADD NOTES 4 AND 5. RENAME 90305076_02 TO 9030507600, REMOVE 90305076_01, ADD 9030507600.XLS TO REPLACE 90305076_01		46-000901		SMC		09/17/07	
												G	ADD PREVIOUS HISTORY AND NOTES		46-000921		SMC		09/26/07	
												H	UPDATE DWG. TITLE; DELETE NOTE 5				KS		10/11/07	

-004 QTY.	-003 QTY.	-002 QTY.	-001 QTY.	-000 QTY.	ITEM NO.	REF. DESIG.	PART NUMBER	DESCRIPTION
							LIST OF MATERIALS	
UNSPECIFIED LIMITS OF TOLERANCE							DO NOT SCALE DRAWING	
STRAIGHTNESS AND OR FLATNESS .005 IN./1 IN.							DECIMAL	
CONCENTRICITY .010 TIR							.X ±.032 IN.	
ANGLES ±1/2° BENDS ±2°							.XX ±0.15 IN.	
UNMARKED ANGLES, BENDS AND INTERSECTIONS 90°							.XXX±.005 IN.	
THREADS- EXT. CLASS 2A INT. CLASS 2B							MACHINED FINISH: 64 ✓	
MOLD FINISH: SPI-SPE NO 3								
DRAFT: 2°								
HCU-265							DR JL CK APP DATE 8-25-93 SCALE NONE TELEX. MINNEAPOLIS, MINNESOTA	
MODEL							TITLE	
NEXT ASS'Y							ASSY- P.C.B., HCU 265 HAICS, HCU317	
							SIZE DWG. NO.	
							C 9030507600	
							SHT 1 OF 1	

NOTES:

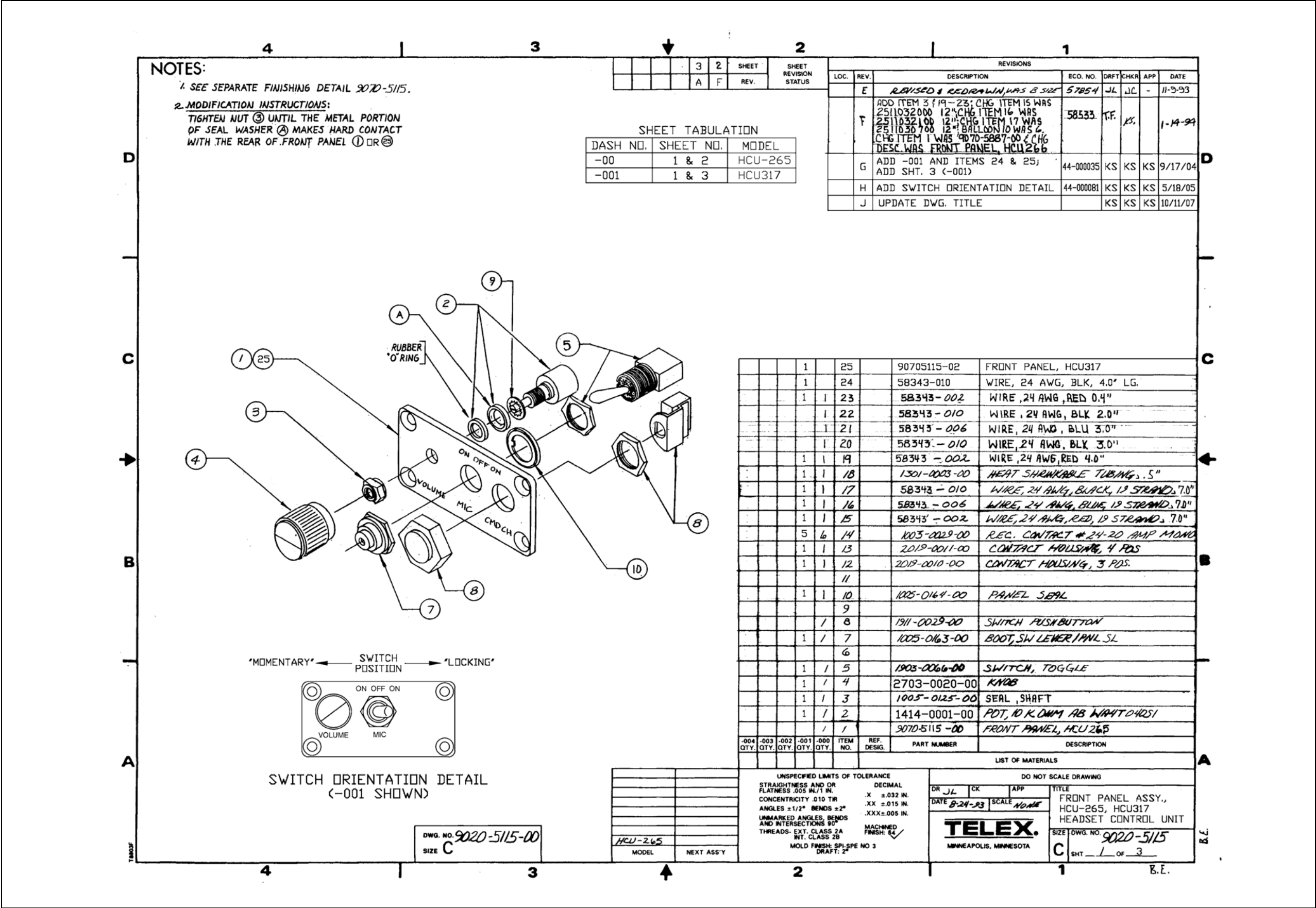
SHEET		SHEET		REVISIONS									
REV.		REVISION		LOC.	REV.	DESCRIPTION	ECO. NO.	DFT	CHKR	APP	DATE		
					B	REVISED & REDRAWN, WAS B SIDE	57854	JL	JL	-	11-3-93		

3046B632B STANDOFF (RAF)
(4 REQD)

DWG. NO. 9030-5076-00
SIZE C

.004 QTY.	.003 QTY.	.002 QTY.	.001 QTY.	.000 QTY.	ITEM NO.	REF. DESIG.	PART NUMBER	DESCRIPTION
LIST OF MATERIALS								
UNSPECIFIED LIMITS OF TOLERANCE								DO NOT SCALE DRAWING
STRAIGHTNESS AND OR FLATNESS .005 IN/1 IN.						DECIMAL		
CONCENTRICITY .010 TIR						.X ±.032 IN.		
ANGLES ±1/2° BENDS ±2°						.XX ±.015 IN.		
UNMARKED ANGLES, BENDS AND INTERSECTIONS 90°						.XXX ±.005 IN.		
THREADS: EXT. CLASS 2A INT. CLASS 2B						MACHINED FINISH: 64		
MOLD FINISH: SPI-SPE NO 3						DRAFT: 2°		
DATE 8-25-93 SCALE NONE								TITLE ASSY-P.C.B., HCU 265 HAICS.
TELEX. MINNEAPOLIS, MINNESOTA								SIZE DWG. NO. 9030-5076-00 C SHT 2 OF

Drawing 11: Front Panel Assy, HCU265, Headset Control Unit



NOTES:

1. SOLDER AND SHRINK SLEEVE CONTACTS SHOWN ON ITEMS 2 AND 5. USE 1/8" OD BLACK SHRINK SLEEVE, ITEM 18.
2. USE AMP CRIMP TOOL P/N 90345-1 (RTS P/N 1005-098-00) OR EQUIVILANT.
3. SEE DETAIL B. WHEN CRIMPING WIRES INTO THE CRIMP RECEPTACLE, ITEM 14, THE WIRE END MUST BE STRIPPED JUST LONG ENOUGH TO SHOW SLIGHTLY ON BOTH SIDES OF THE 'WIRE CRIMP' AREA (APPROX .170") THE WIRE INSULATION MUST SHOW ON BOTH SIDES OF THE INSULATION CRIMP AREA.

REAR VIEW OF SWITCHES & POT

WIRE CRIMP RECEPTACLE 14

DETAIL A NO SCALE (TYP WIRE TO CONNECTOR INSTALLATION, SEE DETAIL B)

DETAIL B

LIST OF MATERIALS

QTY.	ITEM NO.	REF. DESIG.	PART NUMBER	DESCRIPTION
1	2		4053-R19	POTENTIOMETER
1	5		4053-S2	SWITCH
1	8		4053-S1	SWITCH
1	12		4053-P3	WIRE CRIMP RECEPTACLE
1	13		4053-P4	WIRE CRIMP RECEPTACLE
1	18			SHRINK SLEEVE
1	22		2.0 L	WIRE
1	23		0.4 L	WIRE
1	20		3.0 L	WIRE
1	21		3.0 L	WIRE
1	19		4.0 L	WIRE

UNSPECIFIED LIMITS OF TOLERANCE

QTY.	ITEM NO.	REF. DESIG.	PART NUMBER	DESCRIPTION
1	2		4053-R19	POTENTIOMETER
1	5		4053-S2	SWITCH
1	8		4053-S1	SWITCH
1	12		4053-P3	WIRE CRIMP RECEPTACLE
1	13		4053-P4	WIRE CRIMP RECEPTACLE
1	18			SHRINK SLEEVE
1	22		2.0 L	WIRE
1	23		0.4 L	WIRE
1	20		3.0 L	WIRE
1	21		3.0 L	WIRE
1	19		4.0 L	WIRE

TELEX

MINNEAPOLIS, MINNESOTA

DO NOT SCALE DRAWING

DATE 8-25-93 **SCALE** NONE

TITLE WIRING DIAGRAM - FRONT PANEL, HCU265

SIZE C **DWG. NO.** 9020-5115-00 **SHT** 2 OF 2

DWG. NO. 9020-5115-00 **SIZE** C

MODEL HCU265 **NEXT ASSY** 9020-4453-DD

UNSPECIFIED LIMITS OF TOLERANCE

QTY.	ITEM NO.	REF. DESIG.	PART NUMBER	DESCRIPTION
1	2		4053-R19	POTENTIOMETER
1	5		4053-S2	SWITCH
1	8		4053-S1	SWITCH
1	12		4053-P3	WIRE CRIMP RECEPTACLE
1	13		4053-P4	WIRE CRIMP RECEPTACLE
1	18			SHRINK SLEEVE
1	22		2.0 L	WIRE
1	23		0.4 L	WIRE
1	20		3.0 L	WIRE
1	21		3.0 L	WIRE
1	19		4.0 L	WIRE

STRAIGHTNESS AND OR FLATNESS .005 IN/1 IN.

CONCENTRICITY .010 IN.

ANGLES ±1/2° BENDS ±2°

UNMARKED ANGLES, BENDS AND INTERSECTIONS 90°

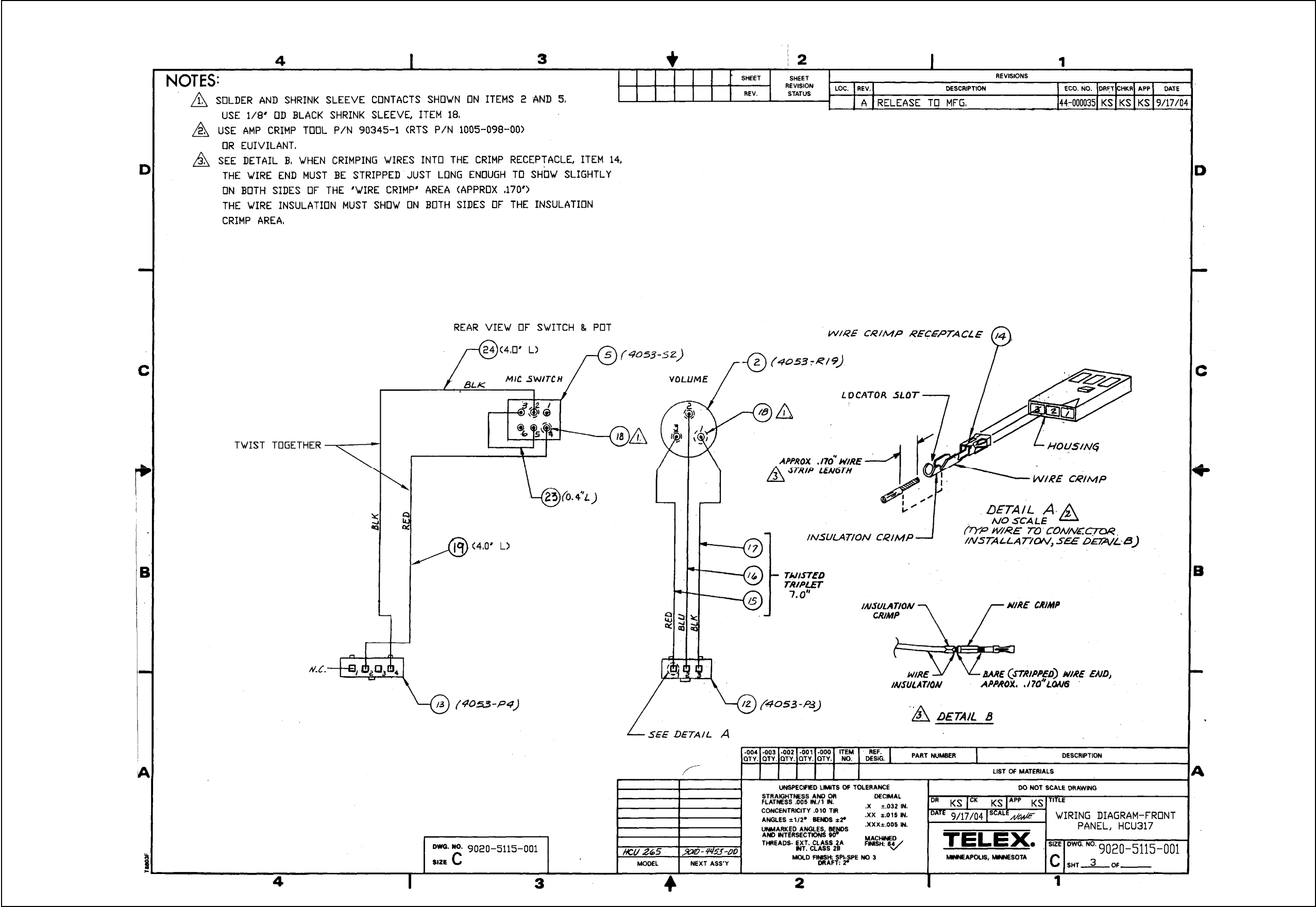
THREADS: EXT. CLASS 2A INT. CLASS 2B

MOLD FINISH: SPI-SPE NO 3

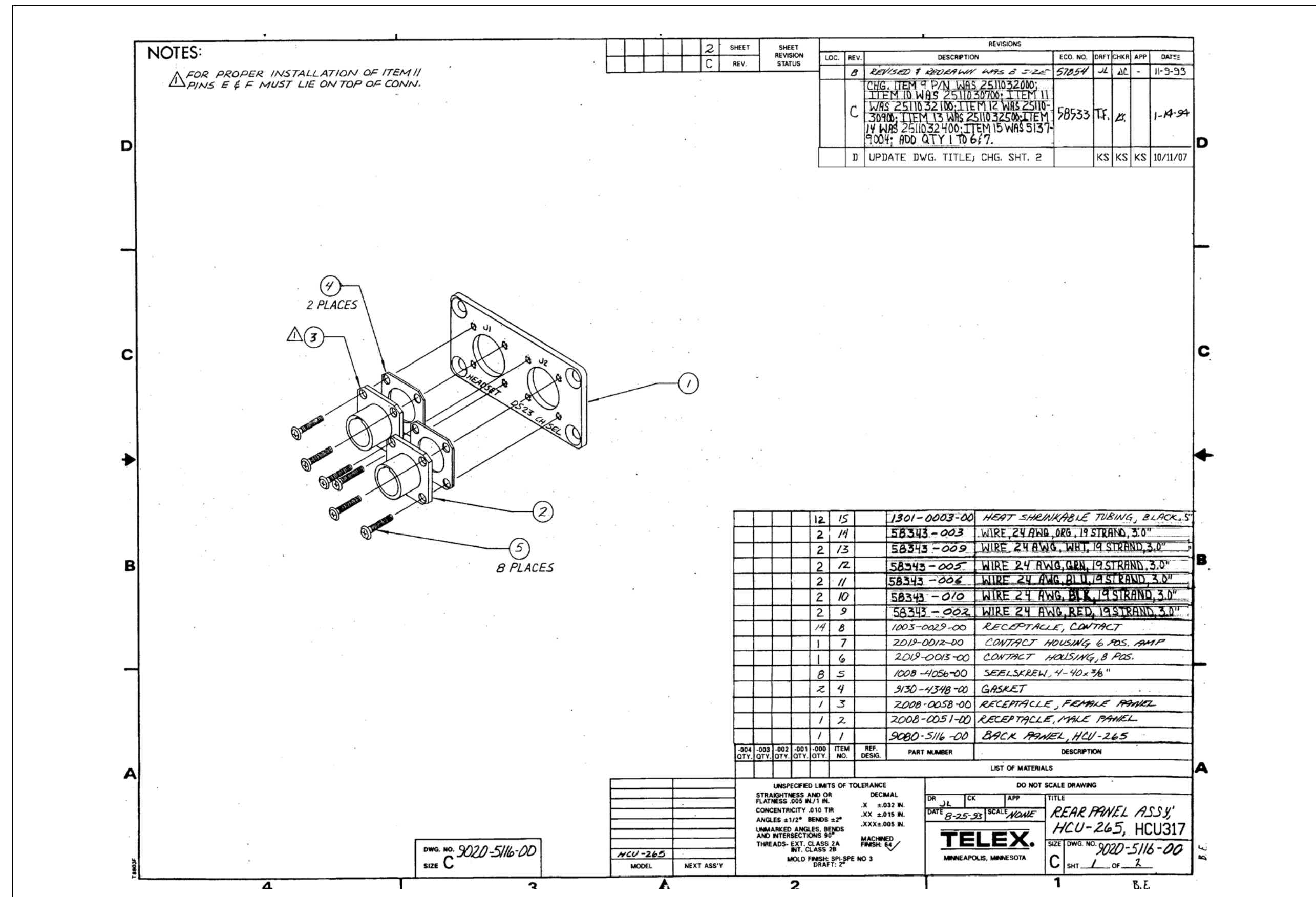
DRAFT: 2°

MACHINED FINISH: 64

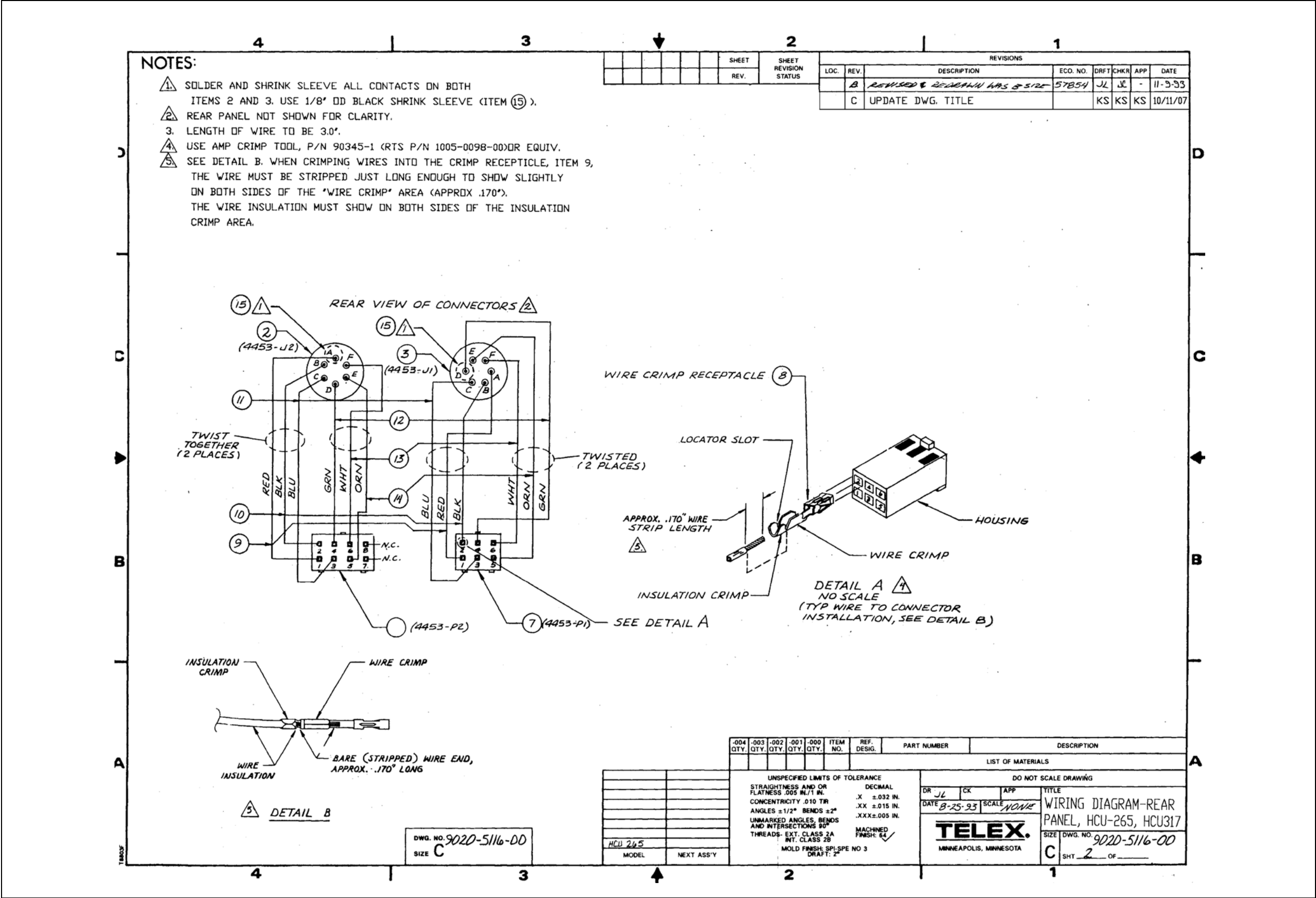
Drawing 13: Wiring Diagram - Front Panel, HCU317



Drawing 14: Rear Panel Assy - HCU265



Drawing 15: Wiring Diagram - Rear Panel, HCU265



Drawing 16: FAB Detail - P.C.B. , HCU265, HAICS

LOC.	REV.	DESCRIPTION	ECO. NO.	DRFT	CHKR	APP	DATE
	F	REVISED & REDRAWN	57854	JL	JL	-	11-9-98
	G	ADD ROHS COMPLIANT NOTES	46-000901	SMC			09/17/07
	H	UPDATE DWG. TITLE		KS	KS	KS	10/11/07

NOTES:

UNLESS OTHERWISE SPECIFIED:

- INCHES ARE THE CONTROLLING DIMENSIONS FOR THE DRAWINGS AND SUPPLIED DATA.
- FABRICATE PCB IN ACCORDANCE WITH IPC-6012B, CLASS 2; PER IPC 6011 USING TELEX SUPPLIED DATA FILES.
- MATERIALS:
 - LAMINATE AND PREPREG (B-STAGE) TO BE IN ACCORDANCE WITH IPC-4101B / 126 .
 - COPPER FOIL TO BE IN ACCORDANCE WITH IPC-MF-150. REFER TO CROSS SECTION DETAIL FOR COPPER WEIGHT. SPECIFIED COPPER WEIGHT IS TO BE CONSIDERED "FINISHED".
 - MINIMUM COPPER PLATE IN ALL HOLES TO BE .0007"
 - BARE BOARDS MUST BE ROHS COMPLIANT AND ALLOW FOR A ROHS ASSEMBLY PROCESS.
- ALL HOLES SHALL BE LOCATED WITHIN 0.003" DIAMETER OF TRUE POSITION. LAYER TO LAYER REGISTRATION SHALL BE WITHIN 0.003"
- FINISH:
 - ALL EXPOSED CONDUCTIVE PATTERN AREAS NOT COVERED WITH SOLDER MASK OR OTHER PLATING SHALL BE PLATED WITH ENIG AT 0.000003"-0.000008" OF IMMERSION GOLD OVER A MINIMUM OF 0.0001" OF ELECTROLESS NICKEL-PHOS.
 - APPLY LIQUID PHOTO IMAGEABLE SOLDER MASK MATTE (COLOR GREEN) PER IPC-SM-840, CLASS H, TO BOTH SIDES OF THE BOARD OVER BARE COPPER. VIA HOLES COVERED WITH SOLDER MASK DO NOT NEED TO BE PLUGGED. ONLY SOLDER MASK IMAGES THAT ARE THE SAME SIZE AS THE COMPONENT PADS MAY BE ENLARGED, AND SHALL NOT BE ENLARGED BEYOND 0.003" PER SIDE OR 0.006" OVERALL. ALL OTHER SOLDER MASK IMAGES SHALL NOT BE ENLARGED.
 - SILKSCREEN SHALL BE WHITE, PERMANENT, ORGANIC, NON-CONDUCTIVE INK. THERE SHALL BE NO SILKSCREEN ON ANY SOLDERABLE COMPONENT PAD.
- MARKING:
 - BOARD PART NUMBER AND REVISION LETTER TO BE RENDERED IN ETCH ON THE BOARD WHERE SHOWN. REVISION LETTER SHALL BE IDENTICAL TO THIS DRAWING.
 - UL LOGO, MANUFACTURER'S IDENTIFICATION AND DATE CODE LETTER SHALL BE RENDERED IN ETCH ON THE TOP SIDE OF THE BOARD.
- TEST REQUIREMENTS:
 - 100% NETLIST ELECTRICAL VERIFICATION USING TELEX SUPPLIED IPC-D-356 NETLIST FOR OPENS AND SHORTS WHEN "GERBER DATA" IS PROVIDED. ALL NETS SHALL BE ACCESSED SIMULTANEOUSLY OR AS OTHERWISE MUTUALLY AGREED UPON WITH TELEX ENGINEERING. IF YOU DON'T RECEIVE A NET LIST, PLEASE ASK FOR ONE.
- TOLERANCES:
 - WARP AND TWIST OF BOARD SHALL NOT EXCEED 0.75%.
 - CONDUCTOR WIDTH AND SPACING SHALL BE WITHIN 10% OF GERBER DATA.
 - REMOVE ALL BURRS AND BREAK SHARP EDGES 0.015" MAXIMUM.
 - SURFACE MOUNT PAD PLATING MUST BE FLAT TO A MAXIMUM OF 0.003" ABOVE BOARD SURFACE.
 - 0.06" MAXIMUM RADIUS ON ANY INSIDE CORNER.
- THIEVING:
 - SUPPLIER MAY ADD THIEVING TO COMPENSATE FOR LOW COPPER DENSITY AREAS ON THIS DESIGN EXCEPT FOR AREAS INDICATED ON THIS DRAWING.
 - THE FOLLOWING GUIDELINES MUST BE ADHERED TO IN ORDER TO MAINTAIN ELECTRICAL AND MECHANICAL INTEGRITY OF THE DESIGN:
 - THIEVING TO CARD EDGE SPACING 0.100" MINIMUM.
 - THIEVING TO FIDUCIAL SPACING 0.200" MINIMUM.
 - THIEVING TO NON-PLATED THROUGH HOLES 0.200" MINIMUM.
 - THIEVING TO ALL OTHER FEATURES 0.025" MINIMUM.
 - THERE SHALL BE NO EXPOSED THIEVING IN ANY AREA FREE OF SOLDER MASK OR INTERNAL COPPER PLANE.
- FABRICATE BOARD USING ARTWORK 90405076_01 REV G

COPPER WEIGHT TO BE 1/2 OZ. PLATED UP TO 1 OZ.

3.00

2.50

.035 DIA HOLE (121 PLACES)

'A' HOLE .188 DIA HOLE (4 PLACES)

QTY.	QTY.	QTY.	QTY.	QTY.	QTY.	ITEM NO.	REF. DESIG.	PART NUMBER	DESCRIPTION
						AR 2			SILKSCREEN, INK, WHITE
						AR 1		51731-004	.062 THK ANSI FR-4, 1oz, 2 SIDES

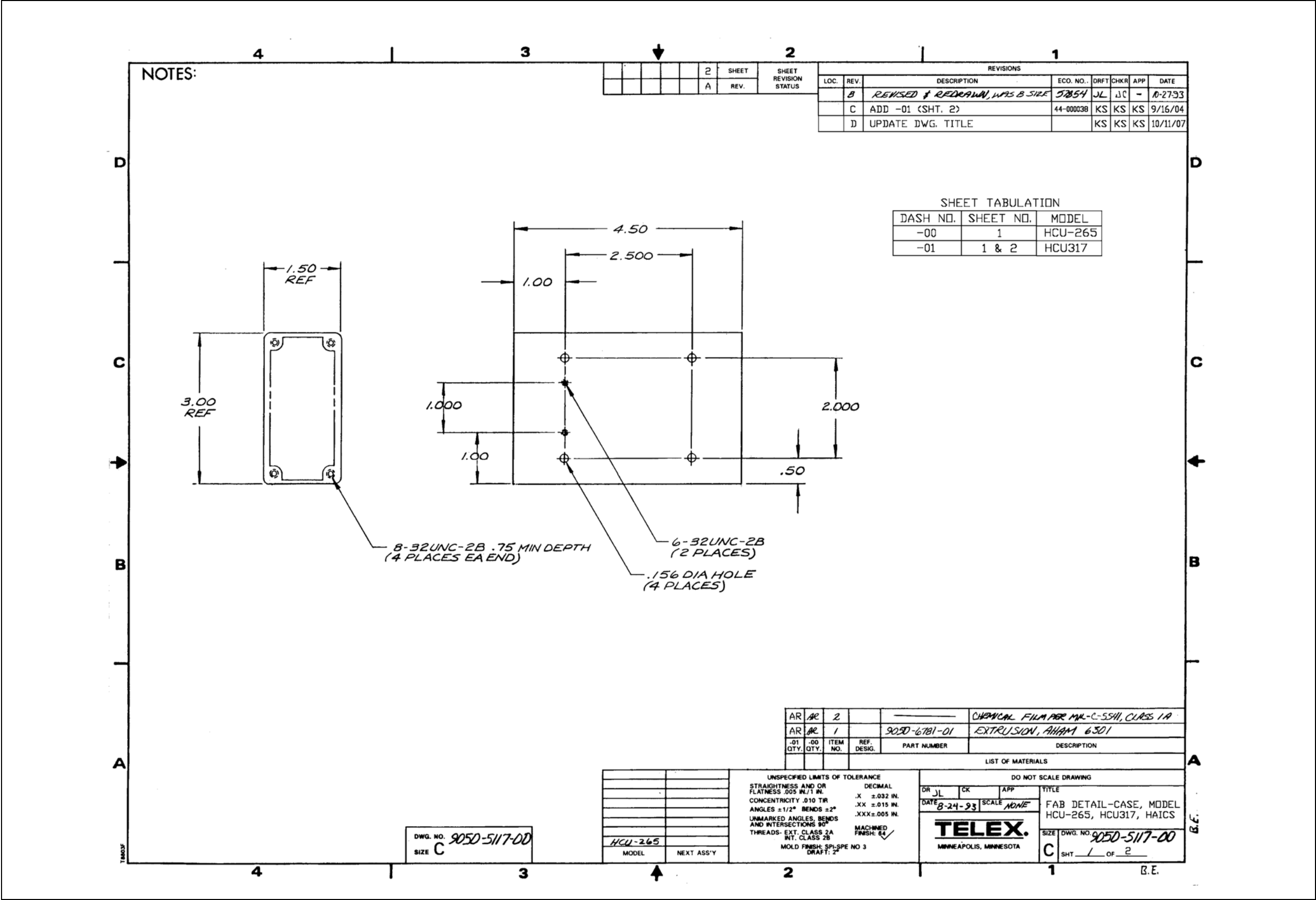
UNSPECIFIED LIMITS OF TOLERANCE										DO NOT SCALE DRAWING			
STRAIGHTNESS AND OR FLATNESS .005 IN/1 IN.										DR JL CK APP			
CONCENTRICITY .010 TH										DATE 8-23-93 SCALE NONE			
ANGLES ±1/2° BENDS ±2°										TITLE			
UNMARKED ANGLES, BENDS AND INTERSECTIONS 90°										FAB DETAIL-P.C.B., HCU-265, HCU317, HAICS			
THREADS- EXT. CLASS 2A INT. CLASS 2B										SIZE DWG. NO. 9040-5076-00			
MOLD FINISH: SPL: SPC NO 3 DRAFT: 2°										C SHT 1 OF 1			
HCU-265										MINNEAPOLIS, MINNESOTA			
MODEL										B.E.			

DWG. NO. 9040-5076-00

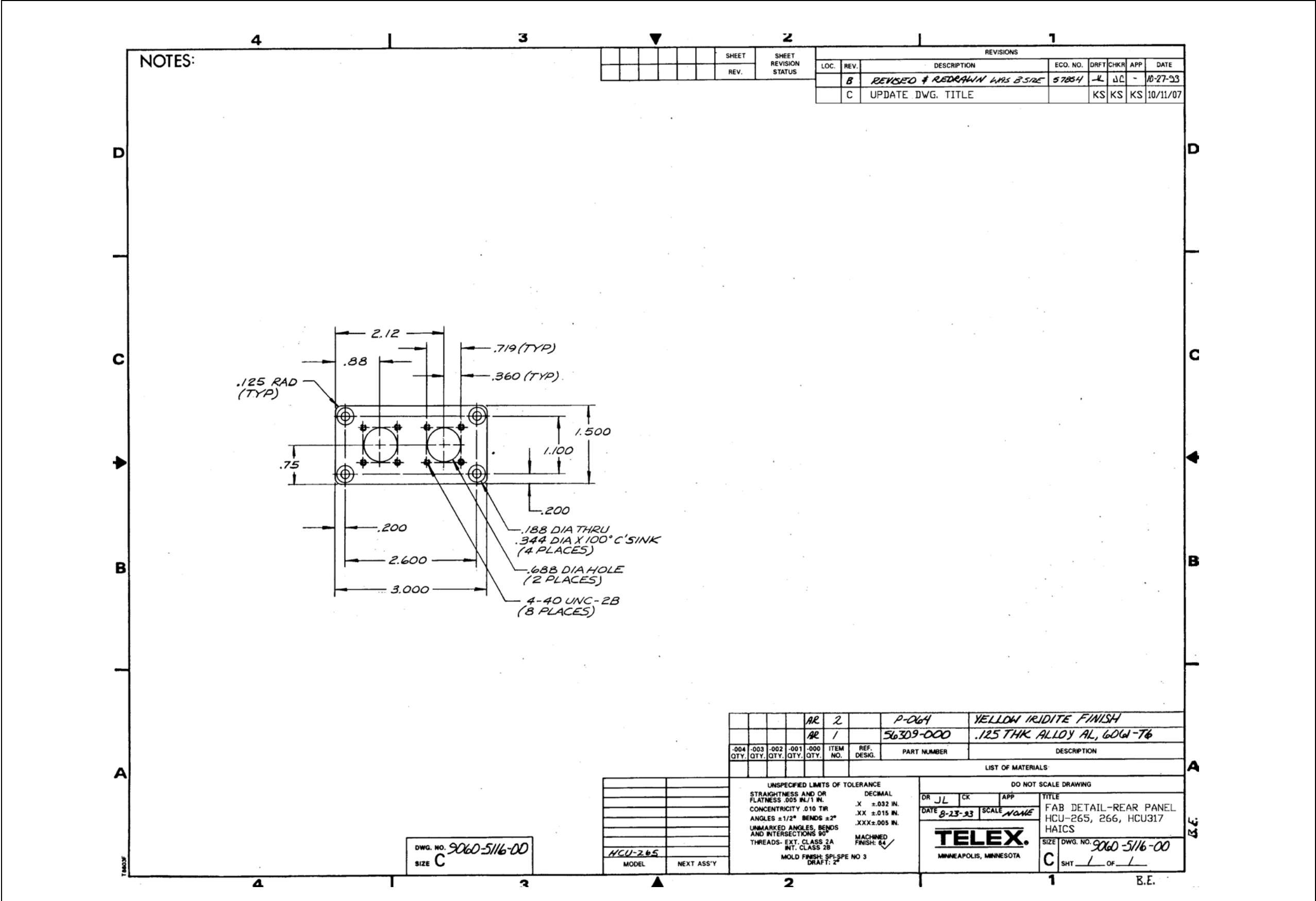
SIZE C

4 3 2 1

Drawing 17: FAB Detail - Case, Model HCU265, HAICS



Drawing 18: FAB Detail, Rear Panel HCU265, 1266 HAICS

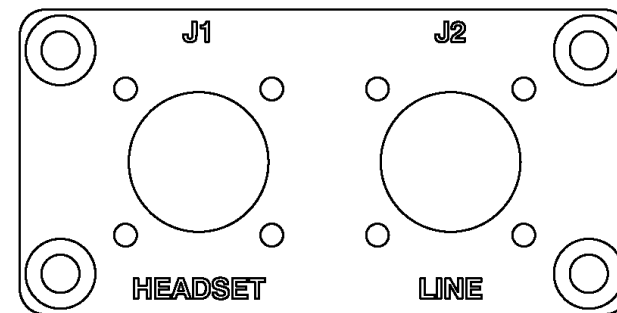


Drawing 19: Finishing Detail - Rear Panel, HCU265/266, HAICS, HCU317

NOTES:

1. CHARACTER DEFINITION TO MATCH ORIGINAL
ARTWORK SS5117 REV. C

				SHEET	SHEET REVISION STATUS	REVISIONS						
				REV.		LOC.	REV.	DESCRIPTION	ECD. NO.	DRFT	CHKR	APP
						C	REVISED AND REDRAWN - PREV. REV. B ECD# 57854; CHG. ARTWORK VIEW;' LINE' WAS 'DS25 CH SELECT'	44-000035	KS	KS	KS	9/10/04
						D	CHG. ITEM 5 P/N WAS: P-049-6	44-000053	KS	KS	KS	11/18/04

[illegible]

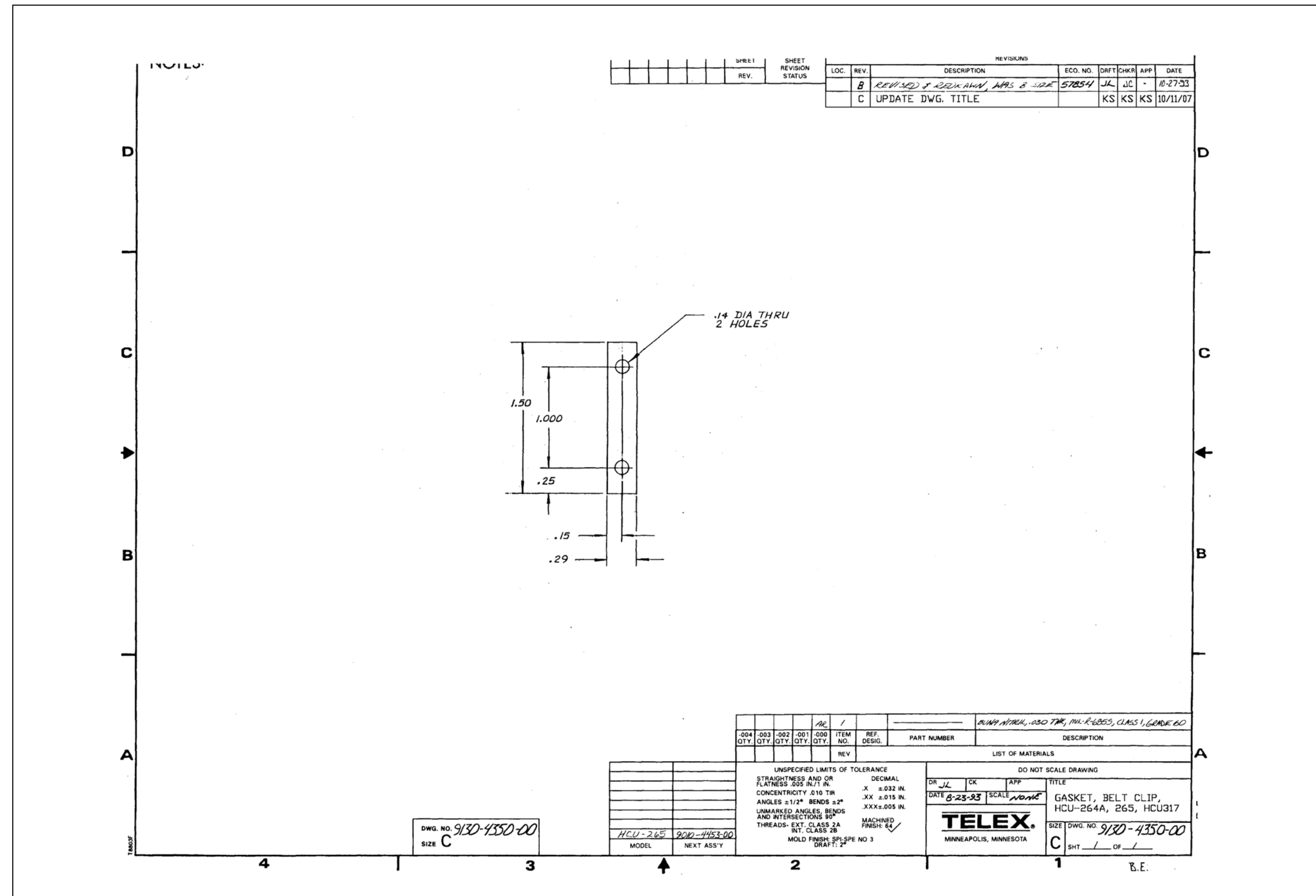
Drawing 20: Belt Clip Model 753

NOTES:

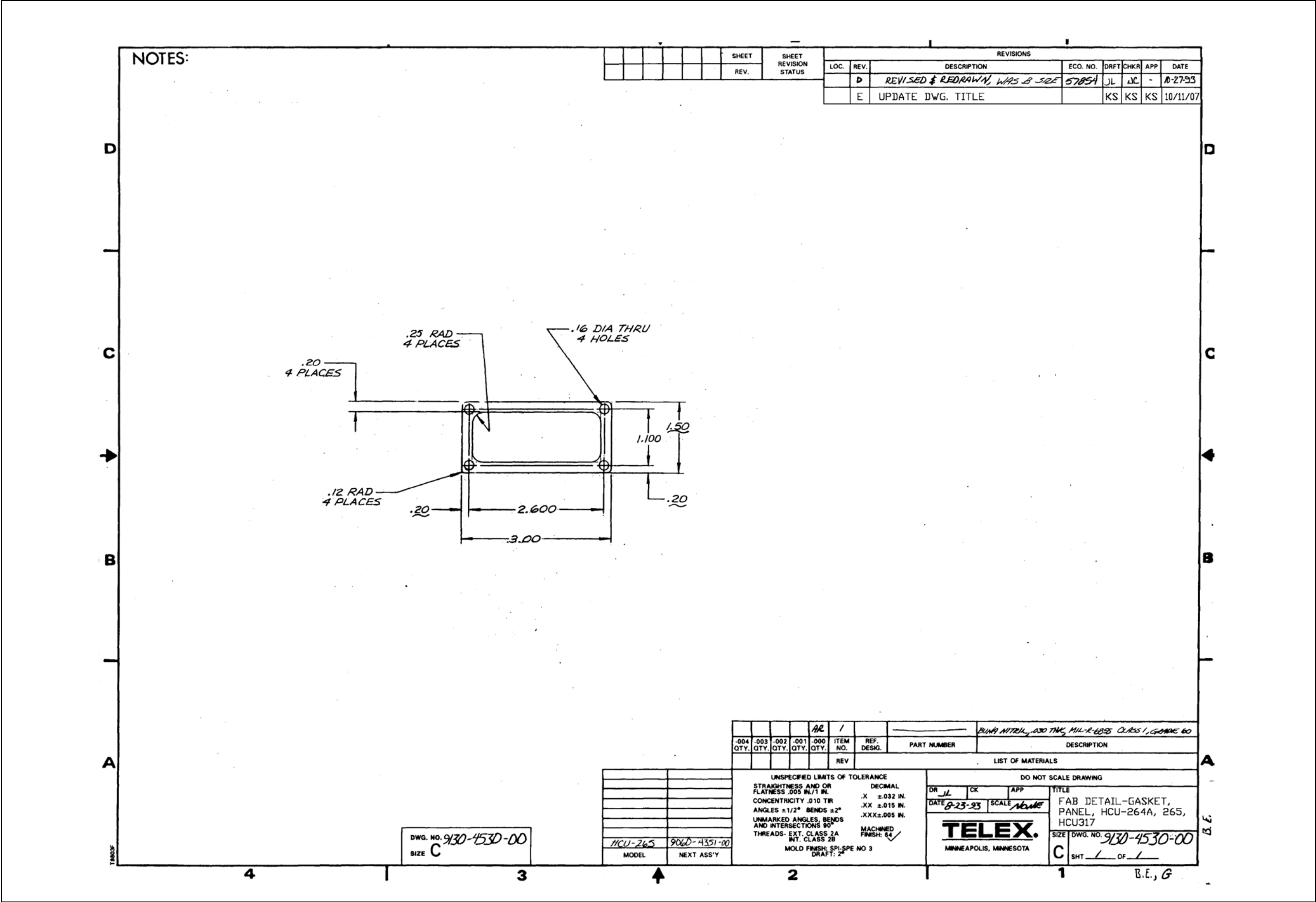
1. REMOVE ALL BURRS AND BREAK ALL EDGES.

2. TO USE ITEM 3, THE BELT PACK CASE
MUST BE MODIFIED PER DETAIL A.
SEND THIS PRINT WITH -004 ONLY.

Drawing 21: Gasket, Belt Clip, HCU-264A



Drawing 22: FAB Detail - Gasket, Panel, HCU-264A



Drawing 23: FAB Detail - Front Panel, HCU265, HAICS, HCU317

NOTES:

				SHEET	SHEET	REVISIONS							
				REV.	REVISION	LOC.	REV.	DESCRIPTION	ECO. NO.	DFT	CHKR	APP	DATE
							C	REVISED AND REDRAWN - PREV. REV. B ECO# 57854; ADD -001	44-000035	KS	KS	KS	9/10/04

-00

-001

A/CAD GENERATED DRAWING

FILE NAME: 90505115_01C.DWG

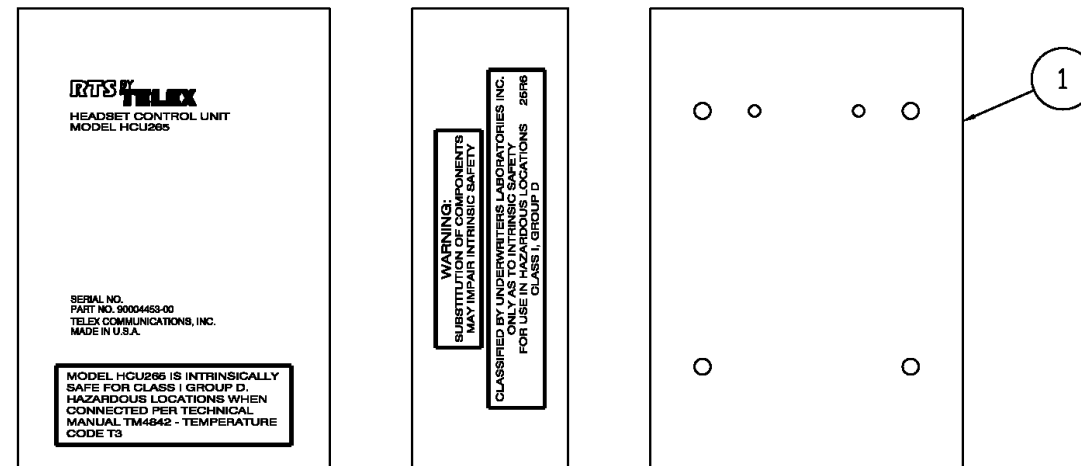
AR	AR	2	P-064	YELLOW IRIDITE FINISH										
AR	AR	1	56309-000	.125 THK. ALUMINUM, ALLOY 6061-T6										
QTY.	QTY.	QTY.	QTY.	QTY.	ITEM	REF	PART NUMBER		DESCRIPTION					
NO.	DESIG.	NO.	DESIG.	NO.	DESIG.	NO.	DESIG.	NO.	DESIG.	NO.	DESIG.	NO.		
UNSPECIFIED LIMITS OF TOLERANCE										DR	KS	CK		
STRAIGHTNESS AND/OR FLATNESS .005 IN/1 IN.										DATE	9/10/04	SCALE		
CONCENTRICITY .010 TIR										DO NOT SCALE DRAWING	APP			
ANGLES ±1/2° BENDS ±2°										TITLE				
UNMARKED ANGLES, BENDS AND INTERSECTIONS 90°										FAB DETAIL-FRONT				
THREADS- EXT. CLASS 2A INT. CLASS 2B										PANEL, HCU265, HAICS, HCU317				
MOLD FINISH: SPI-SPE NO. 3 DRAFT 2°										SIZE	DWG. NO. 90505115			
MACHINED FINISH: 64										C	SHEET 1 OF 1			
MINNEAPOLIS, MINNESOTA										PLANT DIST. G., B.E.				

Drawing 24: Finishing Detail - Case Model: HCU265, HCU317

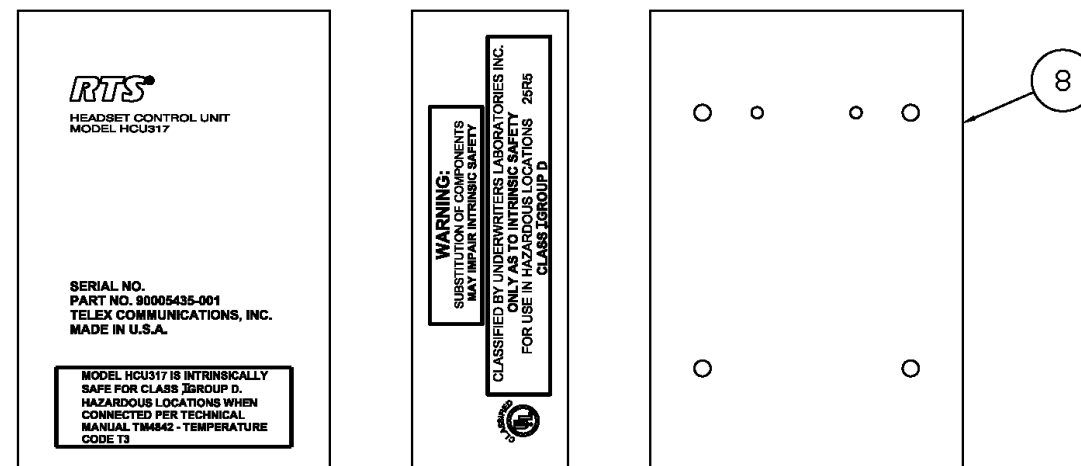
NOTES:

1. TELEX TO SUPPLY ARTWORK.
-000: TO MATCH ORIGINAL ARTWORK SS5117-01, REV B & SS5117-02, REV B.
-004: REF. ARTWORK FILE 90605117-004_D.CDR REV. E

				SHEET	SHEET REVISION STATUS	REVISIONS							
				REV.		LDC.	REV.	DESCRIPTION	ECO. NO.	DRFT	CHKR	APP	DATE
						E	REVISED AND REDRAWN - PREV. REV. D ECO# 57854; ADD -004, -005, -006	44-000035	KS	KS	KS	9/10/04	
						F	CHG. ITEM 5 P/N WAS: P-049-6	44-000053	KS	KS	KS	11/18/04	
						G	CHG. NOTE 1: -004 ARTWORK REV. WAS A	44-000066	KS	KS	KS	2/8/05	
						H	CHG. NOTE 1: -004 ARTWORK REV. WAS D	X	KS	KS	KS	10/11/07	



-00, -01, -02, -03



-004, -005, -006

		1					10		90605117-005	CASE, HCU317, PAINTED
	1						9		90605117-006	CASE, HCU317, PRIMED
1							8		90505117-001	CASE, HCU317
		AR				AR	7		85955-002	SILKSCREEN INK, BLACK
						1	6		90605117-01	CASE, GRAY
	AR					AR	5		P-049-4	PAINT, GRAY
						1	4		90605117-02	CASE
AR				AR			3		_____	PRIMER
				1			2		90605117-03	CASE
				1			1		90505117-00	CASE, HCU265 / 266
-006-005 QTY, QTY,	-004-03 QTY, QTY,	-02 QTY,	-01 QTY,	-00 QTY,	ITEM NO.	REF DESIG.			PART NUMBER	DESCRIPTION

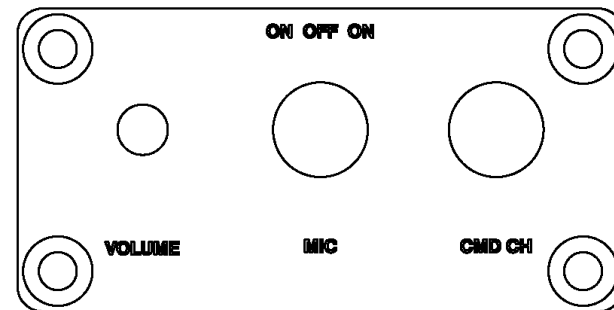
-006			UNSPECIFIED LIMITS OF TOLERANCE		DR KS CK KS APP KS		TITLE		
			STRAIGHTNESS AND/OR DECIMAL		DATE 9/10/04 SCALE FULL		FINISHING DETAIL- CASE		
			CONCENTRICITY .010 TIR .X ±.032 IN.		DO NOT SCALE DRAWING		MODEL: HCU265, HCU317		
			ANGLES ±1/2° BENDS ±2° .JXX ±.015 IN.						
			UNMARKED ANGLES, BENDS AND INTERSECTIONS 90° .JXXX ±.005 IN.		TELEX®		SIZE		
A/CAD GENERATED DRAWING		THREADS- EXT. CLASS 2A MACHINED		C			DWG. NO. 90605117		
FILE NAME: 90605117_01G.DWG		INT. CLASS 2B FINISH: 64 ✓		MINNEAPOLIS, MINNESOTA		SHEET 1 OF 1		PLANT DIST. G., LN., B.E.	
		MOLD FINISH SPI-SPE NO. 3							
		DRAFT 2"							
MODEL		NEXT ASS'Y							

Drawing 25: Finishing Detail - Front Panel, HCU265, HAICS, HCU317

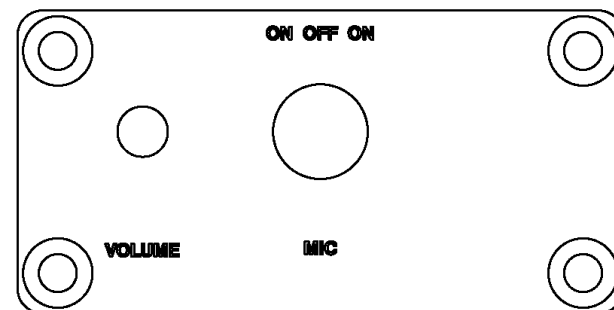
NOTES:

1. TELEX TO SUPPLY ARTWORK.
-00: TO MATCH ORIGINAL ARTWORK SS5115.
-002: REF. ARTWORK FILE 90705115-002_A.CDR REV. A

				SHEET	SHEET REVISION STATUS	REVISIONS						
				REV.		LDC.	REV.	DESCRIPTION	ECO. NO.	DRFT	CHKR	APP
						C	REVISED AND REDRAWN - PREV. REV. B ECO# 57854; ADD -002, -003; ITEMS 5 & 6	44-000035	KS	KS	KS	9/10/04
						D	CHG. ITEM 2 P/N WAS; P-049-6	44-000053	KS	KS	KS	11/18/04



-00, -01



-002, -003

		1		6		90705115-003	FRONT PANEL, PAINTED, HCU317
	1			5		90505115-001	FRONT PANEL, HCU317
		AR		AR	4	85955-002	SILK SCREEN INK, BLACK
				1	3	90705115-01	FRONT PANEL, GRAY
		AR		AR	2	P-049-4	PAINT GRAY AND PRIMER
			1		1	90505115-00	FRONT PANEL, HCU265/266

004-003-002-01-00	ITEM NO.	REF. DESIG.	PART NUMBER	DESCRIPTION
QTY.	QTY.	QTY.	QTY.	
UNSPECIFIED LIMITS OF TOLERANCE			DR KS	CK KS
STRAIGHTNESS AND/OR			DATE	APP KS
FLATNESS .005 IN/1 IN.			9/10/04	2X
CONCENTRICITY .010 TIR			DO NOT SCALE DRAWING	
ANGLES $\pm 1/2^\circ$ BENDS $\pm 2^\circ$				
UNMARKED ANGLES, BENDS AND INTERSECTIONS 90°				
THREADS- EXT. CLASS 2A				
INT. CLASS 2B			SIZE	
MACHINED FINISH $64 \checkmark$			DWG. NO. 90705115	
MOLD FINISH SPI-SPE NO. 3			SHEET 1 OF 1	
DRIFT 2°			PLANT DIST. LN., B.E.	
MINNEAPOLIS, MINNESOTA				

A/CAD GENERATED DRAWING

FILE NAME: 90705115_01D.DWG

MODEL

	NEXT ASS'Y
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