LTR	ZONE	DESCRIPTION OF CHANGE
A	C-3 B-4 C-8 B-7	1. ITEM 16 QTY 60 WAS 59. ADDED R86 TO REF. DES. 2. ADDED FLAG NOTE 3 CALLOUT TO ITEM 31. 3. FLAG NOTE 9 WAS. STAKE C1. AND C2 (ITEM 7) WITH ADHESIVE (ITEM 6) PER NASA 5300.4 (3J-1). 4. SHEETS 2 AND 4. ADDED FLAG NOTE 29 TO FIELD OF DRAWING.

RELEASED

19. FOR -301 ONLY. DO NOT INSTALL R98. INSTALLL JUMPER WIRE (ITEM 31) FROM R98 TO R100 AS SHOWN.
18. INSTALL CONNECTOR P1 (ITEM 13) ON COMPONENT SIDE AS SHOWN, AND SOLDER IN PLACE.
17. MASK OFF AREA AS SHOWN USING TAPE (ITEM 28). AND DO NOT APPLY CONFORMAL COAT TO THIS AREA.
16. BRUSH APPLY CONFORMAL COATING (ITEM 5) THINNED WITH 2713 NAPTHA (ITEM 26). TO BOTH SIDES OF BOARD. .003-.009 (.1MM-.2MM) THICK PER NAS 5300.4 (3J-1) PARA 3J500. 3J501. AND 3J502.
15. PRIME PER NHB 5300.4 (3J) PARA 3J402 USING 1204 PRIMER (ITEM 29)
14. MAXIM. SUNNYVALE. CA.
13. PARK CORP.. SUMMERSET. MA.
12. LITTON. DES PLAINES. IL.
11. 3M CORP.. ST. PAUL. MIN.
10. DOW CORNING. MIDLAND. MI.
9. STAKE C1. AND C2. (ITEM 7). AND JUMPERS. WITH ADHESIVE (ITEM 6) PER NAS 5300.4 (3J-1).
8. PHILLIPS COMPONENTS. LOS ANGELES. CA.
7. DALE ELECTRONICS. NORFORK. NE.
6. HARRIS SEMICONDUCTOR. MELBOURNE. FL.
5. LITTLE FUSE. DES PLAINES. IL.
4. AIRBORN. GEORGETOWN. TX.
3. DELETED
2. PERMANENT INK MARK ASSY DASH NO.. S/N AND REV. IN .12 HIGH CHARACTERS 73X WHITE INK PER JSCM-SPEC-M-1. PARA 3.7.8. SERIAL NUMBERS SHALL BE ASSIGNED BY EDCC IN ACCORDANCE WITH EDS MANUAL JPG 8500.4. PARA. 3.1.2.
1. INDEPENDENT INK INC.. GARDENA. CA.

FLAG NOTES:

29. FOR -301 AND -302. DO NOT INSTALL R24. R25. R26. R29. AND R30.
28. SN74HC04D IS EQUIVALENT TO CD74HC04M (ITEM 21).
27. M39014/02-1419 IS EQUIVALENT TO CKR06BX105KSV (ITEM 8).
26. FOR -301 ONLY. DO NOT INSTALL U21. AND U22
25. FOR -301 ONLY. DO NOT INSTALL U20 INSTALL THE FOLLOWING JUMPER WIRES (ITEM 31) AS SHOWN. U20-6 TO U20-14. U20-7 TO U20-13. U20-8 TO U20-12. U20-9 TO U20-11
24. FOR -301 ONLY. DO NOT INSTALL U19 INSTALL THE FOLLOWING JUMPER WIRES (ITEM 31) AS SHOWN. U19-3 TO U19-17. U19-4 TO U19-16. U19-5 TO U19-15. U19-6 TO U19-14 U19-7 TO U19-13. U19-8 TO U19-12. U19-9 TO U19-11. U19-10 TO U19-18
23. FOR -301 ONLY. INSTALLL JUMPER WIRE (ITEM 31) FROM U13-4 TO U13-9 AS SHOWN
22. FOR -301 ONLY. DO NOT INSTALL R81 AND R82. INSTALLL JUMPER WIRE (ITEM 31) FROM R81-1 TO R82-2 AND FROM R81-2 TO R82-1 AS SHOWN.
21. FOR -301 ONLY. DO NOT INSTALL R5 AND R6. INSTALLL JUMPER WIRE (ITEM 31) FROM R5-1 TO R6-2 AND FROM R5-2 TO R6-1 AS SHOWN.
20. FOR -301 ONLY. DO NOT INSTALL R1 AND R2. INSTALLL JUMPER WIRE (ITEM 31) FROM R1-1 TO R2-2 AND FROM R1-2 TO R2-1 AS SHOWN.

10. ALL REFERENCED SPECIFICATIONS AND STANDARDS SHALL BE OF THE LATEST REVISION LEVEL OR AS SPECIFIED IN THE PROCUREMENT DOCUMENT. IN THE CASE OF CONFLICT. THE PROCUREMENT DOCUMENT SHALL TAKE PRECEDENCE.
9. THIS ASSEMBLY DOES NOT CONTAIN FRACTURE CRITICAL PARTS.
8. THESE RESISTORS ARE NOT INSTALLED: R9. R10. R60. R64. R72. R74. R80. R83. R88. R107. R157. R161-R164. R166. R167.
7. AFTER THE BOARD HAS PASSED ELECTRICAL TEST. APPLY CONFORMAL COATING (ITEM 5) TO BOTH SIDES OF BOARD PER NAS 5300.4 (3J-1).
6. INSTALL ALL COMPONENTS TO SOLDER SIDE OF BOARD FIRST. THEN INSTALL ALL COMPONENTS ON THE COMPONENT SIDE OF PCB. SOLDER SURFACE MOUNT COMPONENTS PER NHB 5300.4(3M). USING SOLDER PASTE NC-840 (ITEM 27).
5. THIS ASSEMBLY CONTAINS SOME COMPONENTS THAT ARE ESD SENSITIVE; HANDLE PER NASA-STD-8739.7.
4. CLEANLINESS REQUIREMENTS PER SN-C-0005 GC LEVEL.
3. APPLY 3140 CONFORMAL COATING. THINNING WITH (ITEM 26) TO BOTH SIDES OF PRINTED WIRING BOARD .003 - .009 THICK PER NAS 5300.4 (3J-1). CONNECTOR PINS AND .2 MINIMUM FROM EDGE OF MOUNTING HOLES SHALL BE FREE OF CONFORMAL COATING.
2. SOLDER PER NASA-STD-8739.3.
1. INTERPRET PER EDS MANUAL JPG 8500.4.

NOTES: UNLESS OTHERWISE SPECIFIED.

-302	-301	PART NUMBER	DESCRIPTION	REFERENCE DESIGNATOR	SPECIFICATION	ITEM
	10	M22759/33-30-9	JUMPER WIRE	TEFLON	M22759 9	31
2	2	107-50-3-BLK	INSERTER-EXTRACTOR		10	30
AR	AR	1204	PRIMER		10	29
AR	AR	5419	TAPE. SILICON	POLYIMIDE/SILICONE	11	28
AR	AR	NC-840	SOLDER PASTE		12	27
AR	AR	2713	THINNER. NAPTHA		13	26
						25
4		CD74HC541M	IC.. BUFFER/LINE DRV/ LINE/RECEIVER	U19.U20.U21.U22	6	24
3	3	CD74HC195M	IC.. 4-BIT SHIFT REGISTER	U16.U17.U18	6	23
1	1	CD74HC125M	IC.. QUAD NONINVERTING BUFFER	U15	6	22
	1	CD74HC04M	IC.. HEX INVERTER	U23 6	28	21
4	4	MAX453CNG	IC..TRI/QUAD VIDEO SWITCH AND BUFFER	U5. U6. U9. U10	14	20
5	5	MAX465CNG	IC..TRI/QUAD VIDEO SWITCH AND BUFFER	U3.U7.U8.U11.U12	14	19
2	2	MAX4147ESD	IC. DIFFERENTIAL LINE DRIVER	U4. U14	14	18
3	3	MAX4144ESD	IC. LINE RECEIVER	U1. U2. U13	14	17
60	60	D55342K07B75D0R	RESISTOR.CHIP.75	R3.R4.R7.R8.R11-R23 R27. R28. R31-R42 R51-R63.R65-R66.R68 R75-R80.R84.R85.R89 R92.R93.R97.R105	7 MIL-R-55342/07	16
2	2	D55342K07B4E02R	RESISTOR.CHIP.4.02K	R95.R96 7	MIL-R-55342/07	15
36	29	CALCRCW1206000Z	RESISTOR. CHIP. 0	R1.R2.R5.R6.R43-R50 R67-R74.R81.R82.R86 R87.R90.R91.R94 R98-R104.R106.R108	7 MIL-R-55342/07	14
1	1	FM372-206-341-5500	CONNECTOR. 206 PIN	P1	4	13
2	2	251007	FUSE. 7A	F1. F2 5	MIL-F-23149/10	12
57	57	CDR32BX103BKWS	CAPACITOR.CHIP .01 uF. 100V	C11-C58.C61-C65 C67-C70	MIL-C-55681	11
1	1	CWR11KH475KC	CAPACITOR.CHIP 4.7uF. 35/23V	C66	MIL-C-55365/8	10
6	6	CDR32BP100BKWS	CAPACITOR. 10uF. 100V	C5-C10	MIL-C-55681	9
2	2	CKR06BX105KSV	CAPACITOR. 1uF. 50V	C3.C4 27	MIL-C-39014/02	8
2	2	M39006/22-0534	CAPACITOR. TANTALUM 120uF. 25V	C1.C2 8 9	MIL-C-39006/22	7
AR	AR	3145	ADHESIVE. RTV		10	6
AR	AR	3140	SEALANT		10	5
AR	AR	73X	INK. MARKING.WHITE		1	4
AR	AR	63/37.025P3REL15	SOLDER		QQ-S-571	3
1		SDG46114440-002	PRINTED WIRING BOARD		15 16	2
	1	SDG46114440-001	PRINTED WIRING BOARD		15 16	1
REF	REF	SIG46114441	PRINTED WIRING DIAGRAM.			
-		-302	PRINTED WIRING ASSEMBLY			
	-	-301	PRINTED WIRING ASSEMBLY			

SIGNATURES	DATE
DR Z. PALMER	06/10/99
ENG	6/14/99
CK	7/14/99
APP	7/14/99
QE	7/14/99
MATL	7/14/99
STRESS	7/14/99
AUTH	

DIMENSIONS/TOL TOLERANCE UNLESS NOTED OTHERWISE .XX ± .010 .XXX ± .005 ANGLES ± 0 DEG.

PROTECTIVE CRITICAL: YES / NO — N/A

NEXT ASSY

NAME FILE: 4439A1A.HP
DRAWING: PCAD\RELEASE\ASST

FLT HDWR / SHRP EDGES — APPLICABLE BOX

NATIONAL AERONAUTICS & SPACE ADMINISTRATION

PRINTED WIRING ASSEMBLY
VIDEO
HRF WORKSTATION

PROJECT J104

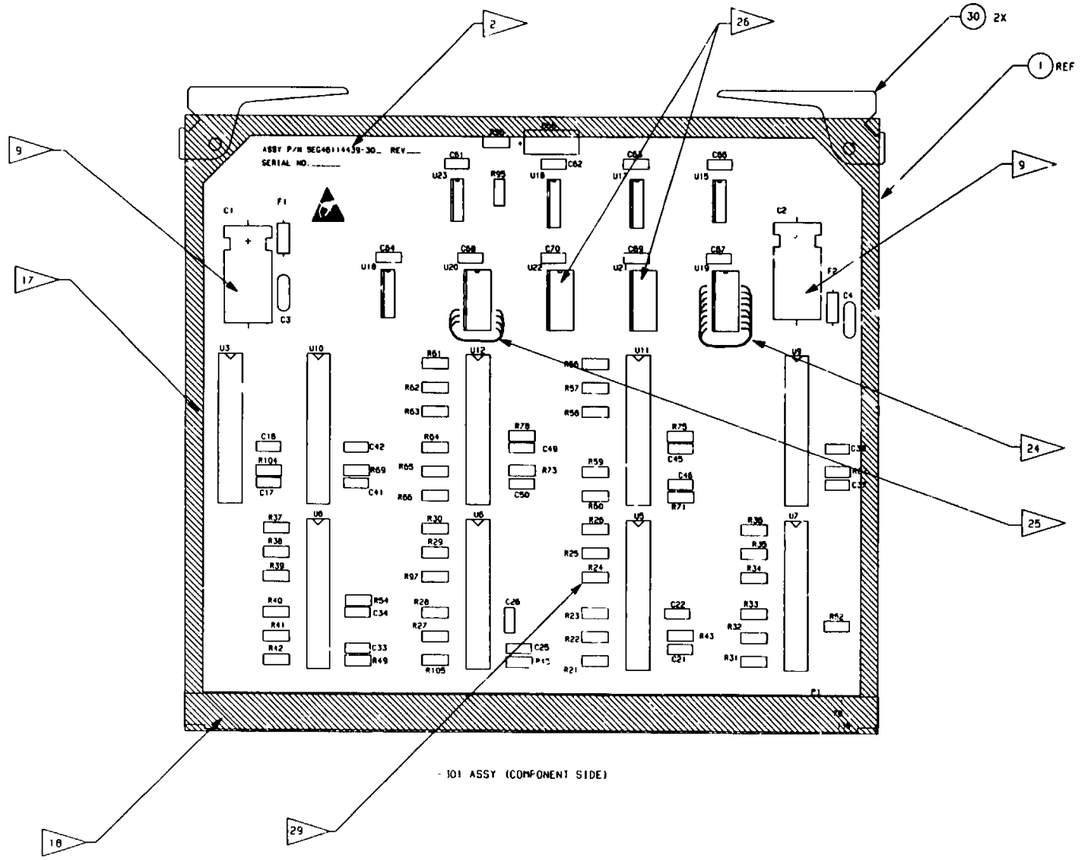
SIZE D — CODE IDENT NO. 21356 — DWG NO. SEG46114439 — REV A

SCALE 2 / 1 — ORG. EAS — SHEET 1 OF 5

136

LTR	ZONE	DESCRIPTION OF CHANGE
A		SEE SHEET 1.

RELEASED

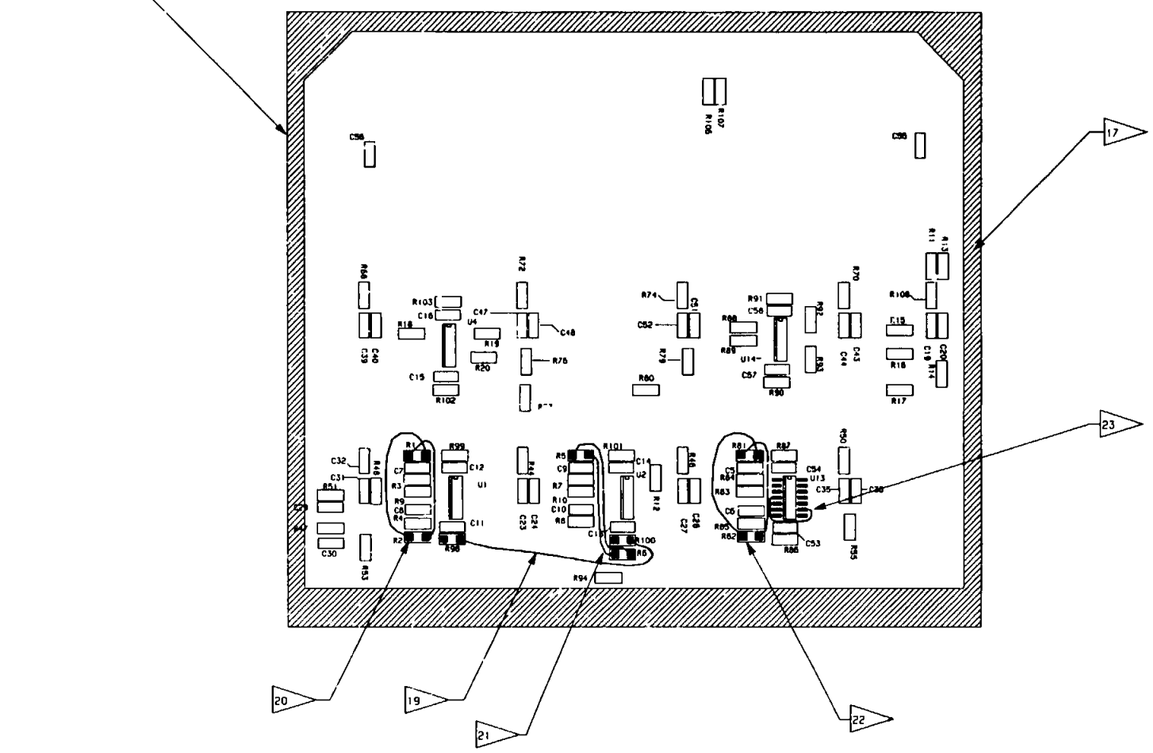


101 ASSY (COMPONENT SIDE)

44391A2A.HP \PCAD\RELEASE\ASST	SIZE D	21356	SEG46114439 A
	SCALE 2 / 1	DRG. EAS	SHEET 2 OF 5

137

LTR	ZONE	DSECRIPTION OF CHANGE
A		SEE SHEET 1

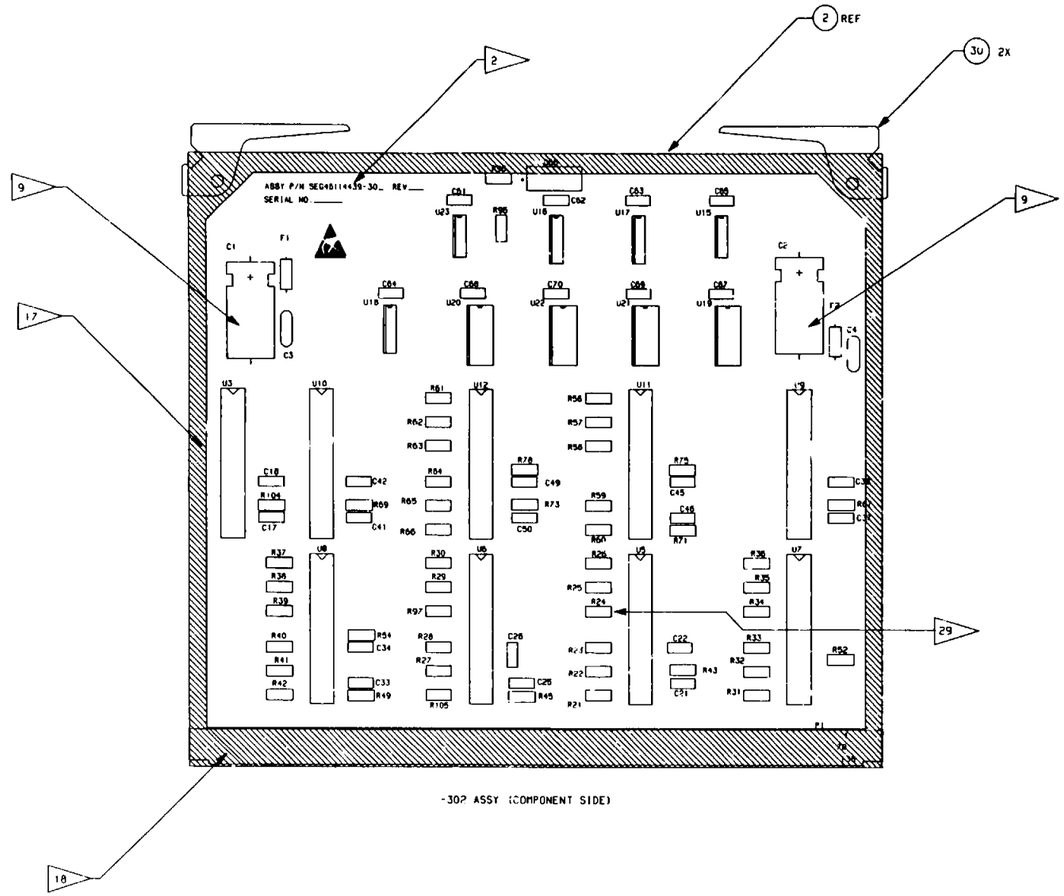


-301 ASSY (SOLDER SIDE)

44391A3A.HP	D	21356	SEG46114439 A
APCAD\RELEASE\ASBY	SCALE 2/1	ORG. EA5	SHEET 3 OF 5

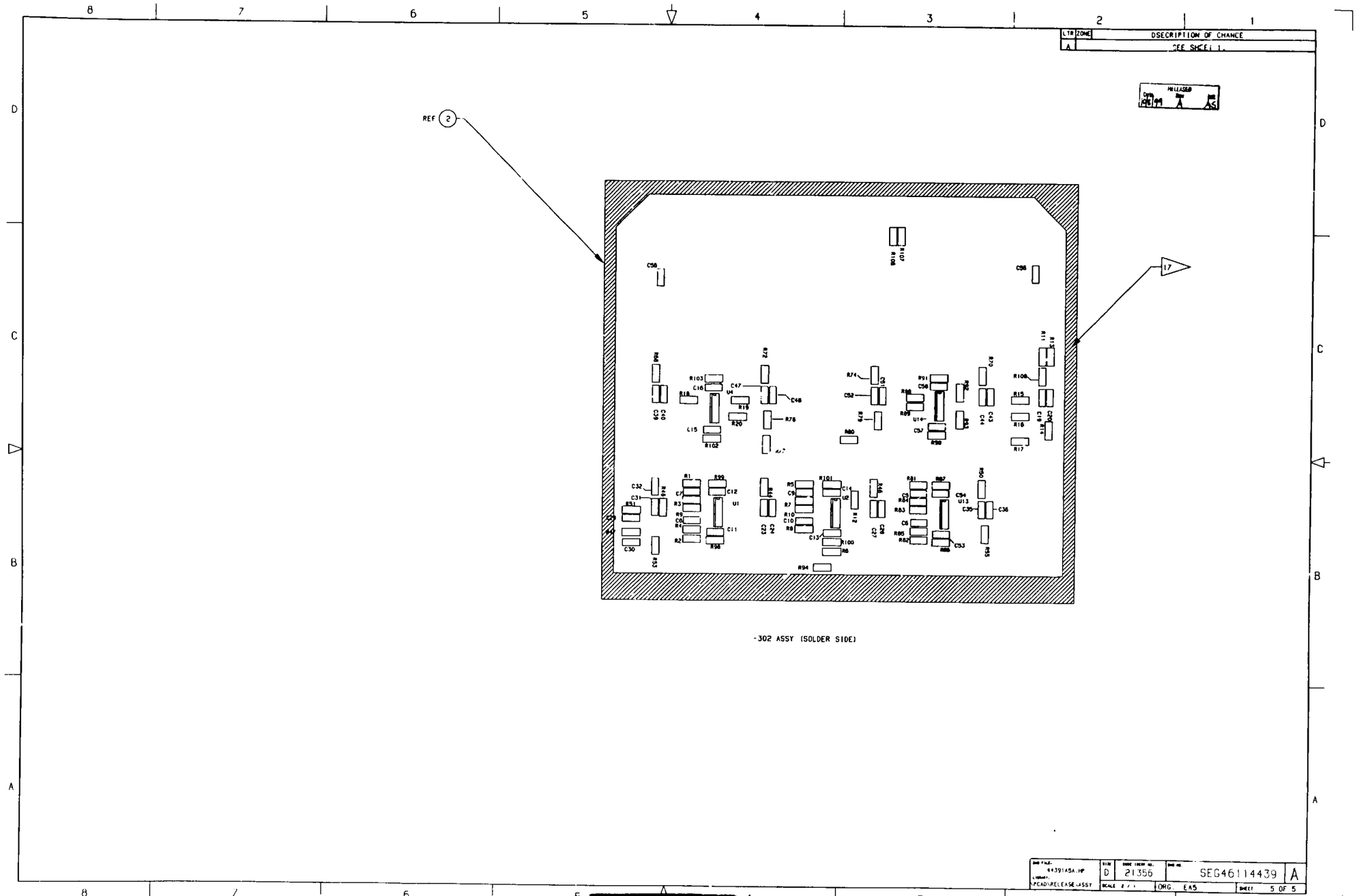
138

LTR	ZONE	DESCRIPTION OF CHANGE
A		SEE SHEET 1.



-302 ASSY (COMPONENT SIDE)

4439 1A4A.HP	D	21356	SEG46114439 A
\PCADV\RELEASE\ASSY	SCALE 2 / 1	DRG. EAS	SHEET 4 OF 5



LTR ZONE DSECRIPTION OF CHANCE
A SEE SHEET 1.
REF 2
17
-302 ASSY (SOLDER SIDE)
D 21356
SEG46114439 A
ORG. EA5
SHEET 5 OF 5