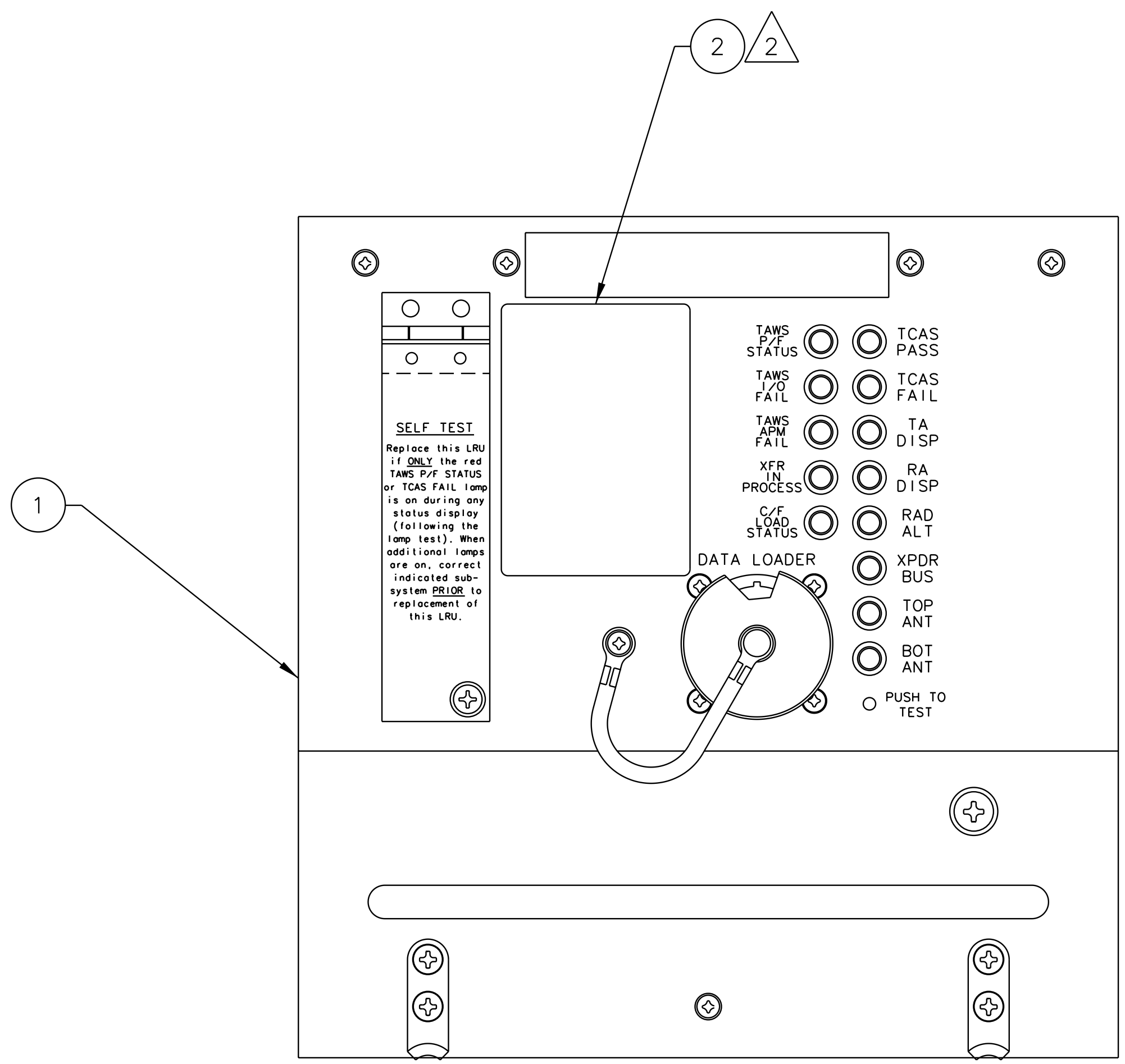


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REVISONS		DESCRIPTION	
CRNO.	REV		
	-	INITIAL RELEASE	07/03/02
5240	A	SEE DESCRIPTION PER CHANGE REQUEST	08/09/02
5371	B	SEE DESCRIPTION PER CHANGE REQUEST	09/09/02
5527	C	SEE DESCRIPTION PER CHANGE REQUEST	09/26/02
5555 5607	D	SEE DESCRIPTION PER CHANGE REQUEST	11/05/02



NOTES:

- THIS DEVICE IS SUBJECT TO DAMAGE BY ELECTROSTATIC CHARGES.
- INSTALL TO FRONT PLATE PER M7015353. LOCATE APPROXIMATELY AS SHOWN. TYPE APPLICABLE HARDWARE DASH NUMBER, SERIAL NUMBER, AND MARK APPLICABLE HARDWARE MODIFICATION LETTER ON ITEM 2.
- TEST PER ITEM 3 (SPEC 8000253-001).
- SEE ITEM 5 (SPEC 8000445-001) FOR THE DESIGN CONFIGURATION AND QUALITY CONTROL SYSTEM REQUIREMENTS SPECIFIC TO THE SERIAL NUMBERS IDENTIFIED IN TABLES I AND II.
- THIS DRAWING DEFINES END ITEM UNIT 9000000-YYTZZ.
 YY = HARDWARE CONFIGURATION FROM 10 TO 99.
 T = TCAS SOFTWARE CONFIGURATION FROM 0 TO 9.
 ZZ = TAWS CONFIGURATION FROM 01 TO 99.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES: TOLERANCES: ANGLES ± - 2 PL DEC ± - 3 PL DEC ± -		THIRD ANGLE PROJECTION	OPERATIONAL NOTE
INTERPRET DIMENSIONS AND TOLERANCES PER AMSE Y14.5M-1994			
FOR REFERENCE			
ORIGINAL C.R.		TITLE	
PRODUCT LINE NO.		ASSEMBLY, T2CAS	
AW/PS ANALYSIS EB		MODEL TT-952	
REF DWG	REF SPEC		
9000000-20001	9000000-20001	SIZE	CAGE CODE
NEXT ASSY	END ITEM	E 11WYD3	9000000-20001
APPLICATION		SCALE	NONE
		DRAWING NO.	9000000-20001
		REV	D
		SHEET	1 OF 3

NO. 9000000-20001
 SHEET 1 OF 3

REVISONS		DESCRIPTION	
CRNO.	REV		
5240	A	SEE DESCRIPTION PER CHANGE REQUEST	08/09/02
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5555 5607	D	SEE DESCRIPTION PER CHANGE REQUEST	11/05/02

TABLE I
T2CAS PROTOTYPE COMPUTER UNIT MODIFICATION TABLE

PART NUMBER	LRU S/N	LRU MOD	AFFECTED SUBASSEMBLY		SUBASSEMBLY MODS INSTALLED AS IN TABLE III (SHEET 3)		
			PART NUMBER	MIN REV			
9000000-20001	ENG0001 ENG0004	1	9000020-001	F	1, 2, 7, 14		
		2			3, 4, 5, 6		
		3			16		
		4			19, 21		
		5			22		
		6			24		
		7			25, 26		
		8			18		
		9			30, 31		
		11			32		
		9000000-20001			ENG0015	1	9000020-001
2	3, 4, 5, 6						
3	16						
4	19, 21						
5	22						
6	24						
7	25, 26						
8	18						
9	30, 31						
11	32						
13	33						
14	34						
16, 18	9000005-001		N				

TABLE II
PROTOTYPE SOFTWARE/FIRMWARE CONFIGURATION TABLE

PART NUMBER	LRU S/N	SOFTWARE			FIRMWARE	
		TCAS BOOT	TCAS OPERATIONAL	HBIT	CPLD	FPGA
9000000-20001	ENG0001 ENG0004	4084562-102 7517989-103	4084561-912	9000229-002	9000230-001	9000231-001
9000000-20001	ENG0015	4084562-102 7517989-103	4084561-912	9000229-002	9000230-001	9000231-002



SEE FIRST SHEET FOR CONTRACT NUMBER.
USE OR DISCLOSURE OF INFORMATION ON
THIS SHEET IS SUBJECT TO THE RESTRICTIONS
ON THE FIRST SHEET OF THIS DOCUMENT.

SIZE/CAGE CODE
E 11WYD3

DRAWING NO.
9000000-20001

REV
D

FIG
NO. 9000000-20001
SHEET 2

REVISED		DESCRIPTION	DATE
5240	A	SEE DESCRIPTION PER CHANGE REQUEST	08/09/02
5555	D	SEE DESCRIPTION PER CHANGE REQUEST	11/05/02

TABLE III - SUBASSEMBLY MODS	
TAWS CCA 9000020-001	
MOD #	Item added or changed, describe here
1	Install 4.99k resistor (R1139), 9000164-459, from U134-31 (Via) to R1030-2 (Via) using 32 AWG wire on Side A. Install 4.99k resistor (R1140), 9000164-459, from U111-31 (Via) to R569-2 (Via) using 32 AWG wire on Side A.
2	Install 10k resistor (R1141), 7022518-488, from U15-1 (Via) to U15-7 (Via) using 32 AWG wire on Side B. Install 10k resistor (R1142), 7022518-488, from U27-25 (Via) to U27-31 (Via) using 32 AWG wire on Side B.
3	Install 10k resistor (R1145), 7022518-488, from J7-17 (Via) to C95-Left using 32 AWG wire on Side A. Install 1k resistor (R1143), 7022518-392, from R995-Right (Pad) to U58-AF2 (Via) using 32 AWG wire on Side A. Install 1k resistor (R1144), 7022518-392, from U7-AF2 (Via) to C397-Bottom (Pad) using 32 AWG wire on Side A.
4	Remove C83. Install 2k resistor (R1148), 9000164-421 at C83 location. Install 1000pF capacitor (C83), 9000126-1, from U40-5 (Via) to C545-Left on Side A.
5	Replace VR7 with 9000216-1 (Voltage Reference). Replace R285, R324, R1083 with 10k resistor, 9000164-488. Replace R1074 with 0 ohm resistor, 7500044-1. Replace R1002 with 1k resistor, 9000164-392. Replace R970 with 25.5k resistor, 9000164-527. Cut trace between VR7-1 (Pad) and VR7-1 (Via). Cut trace between VR7-2 (Pad) and VR7-2 (Via). Install 32 AWG wire from VR7-1 (Pad) to R328-Right. Install 32 AWG wire from VR7-2 (Pad) to R324-Left. Remove CR157.
6	Cut trace between U94-8 (Pad) and U94-8 (Via) under IC. Cut trace between U94-9 (Pad) and U94-9 (Via) under IC. Cut trace between U94-14 (Pad) and U94-14 (Via). Cut trace between U94-15 (Pad) and U94-15 (Via). Install 32 AWG wire from U94-8 (Pad) to VIA-2 (Side A) connected to P1-B77. Install 32 AWG wire from U94-9 (Pad) to VIA-1 side B directly right of U96-10. Install 32 AWG wire from U94-14 (Pad) to VIA-3 (Side A) connected to P1-B76. Install 32 AWG wire from U94-15 (Pad) to U94-14 (Via).
7	Replace the following incorrectly installed (initially installed as 45.3k) Syncro resistors with 1 Meg ohm, 7022518-680 resistors: R823, R166, R131, R741, R243, R941, R202, R201, R345, R1124, R315, R314, R939, R272, R291, R297, R262, R229, R962, R905, R550, R549, R54. Replace the following incorrectly installed (initially installed as 1 Meg) Syncro resistors with 45.3k, 7022518-551 resistors: R181, R167, R132, R133, R244, R252, R206, R200, R354, R1109, R1080, R304, R271, R256, R292, R296, R260, R228, R936, R912, R34, R25, R587.
14	Add coating to bottom of U45, U46, U47, U52, U53, U54. Change from 1000pF to 0.1uF capacitor, 7011730-200: C311, C375.
16	Replace U11, U14 with 9000195-2 (SN75452BD) part. Install 301 ohm resistor (R1146), 7022518-342, from C55 top to U14-1 using 32 AWG wire. Install 301 ohm resistor (R1147), 7022518-342, from R19 left to U11-6 using 32 AWG wire.
18	Replace U36 (CPLD) with 9000182-2 (ISPLSI5512VE-100LF256I) upgraded CPLD. Replace U7 (Proc. 1) and U8 (Proc. 2) with 9000197-2 (MPC8245TZU300B) upgraded microprocessor. Replace U21 (FPGA) with 9000196-3 (XC2V2000-4FF896C) upgraded FPGA.
19	Install 32 AWG wire from U32-7 to U32-14. Install 32 AWG wire from U32-11 to U32-12. Install 10k resistor (R1149), 7022518-488, from U65-2 via to C150-Left using 32 AWG wire. Install 10k resistor (R1151), 7022518-488, from U120-32 via to C509-Right using 32 AWG wire. Install 10k resistor (R1152), 7022518-488, from U84-9 via to R268-Right using 32 AWG wire. Install 32 AWG wire from R954-Right to R891-Right for 3.3 volt plane.
21	Change from 100k to 1.5k resistor, 7022518-409: R241, R843, R850, R893, R922, R955, R958, R979, R989, R990, R991, R992, R1042, R1043, R1044, R1045, R1085, R1096, R1103, R1104, R1119, R1120, R1125, R1126. Change from 0.47 uF to 2.2 uF capacitors, 9000127-001: C114, C117, C130, C135, C140, C152, C153, C160, C163, C164, C175, C176, C198, C199, C205, C206, C218, C222, C223, C224, C231, C232, C235, C238.
22	Replace R338, R1090 with 5.11k (7500042-460) and R1007 with 15k (7022518-505) resistor.
24	Remove the following parts - R99, R509, R436, R437, R438, R455, R783, R430, R426, R467, R521, R428, R86, R664, R85, R650, R413, R414, R427, R444, R451, R466, R784, R808, R147, R493, R494, R528, R415, R416, R429, R864, R197, R149, R150, C14, C16, C20, C28, C15, C102, CR103, CR105, CR113, CR102, U5, U8, U9, U4, U3, U10, U54, VR5, Y1. Install R479 with 0 ohm resistor (7500044-4) and Install R692 with 10K ohm resistor (7022518-488). Cut R815-Left, R799-Left, R790-Left, R407-Left, R408-Left, R403-Right. Install 32 AWG wire for the following: R799-Left to R814-Left, R790-Left to R803-Left, R815-Left to R816-Right. Install 32 AWG wire for the following: R407-Left to R406-Left, R408-Left to R402-Left, R403-Right to R409-Right.
25	Install 32 AWG wire on Side A from U36-A7 to U36-B7.
26	Install 10k resistor (R1158), 7022518-488, on side A near C382. Then jumper from R1158-Top to C382-Top (+3.3V). Then jumper from R1158-Bottom to REQ_PD# (U21-H4) signal via located directly below C393 left.
30	Replace U40, 9000188-001 (OP284ES). Cut trace between U40-3 (Pad) and U40-3 (Via). Install 1k resistor (R1156), 9000164-392, between U40-3 (Pad) and U40-3 (Via) using 32 AWG wire. Cut trace between U40-1 (Pad) and U40-2 (Pad). Install 1k resistor (R1157), 9000164-392, between U40-1 (Pad) and U40-2 (Pad) using 32 AWG wire. Install 32 AWG wire from U131-9 to C678 right.
31	Install 10k resistor (R1150), 7022518-488, from U131-2 to R879-Bottom (Pad) using 32 AWG wire. Install 10k resistor (R1153), 7022518-488, from U131-1 to R963-Right (Pad) using 32 AWG wire. Install 10k resistor (R1154), 7022518-488, from U131-16 to R879-Bottom (Pad) using 32 AWG wire. Install 10k resistor (R1155), 7022518-488, from U131-15 to R963-Right (Pad) using 32 AWG wire.
32	Change from 1.5k to 150 ohm resistor, 7022518-313: R103, R104, R113, R114, R123, R124, R142, R143, R203, R204, R212, R226, R234, R235, R236, R237, R249, R250, R254, R270, R337, R346, R347, R365, R366, R375, R857, R887, R897, R907, R1091, R1123. Change from 0.1uF to 1.0uF capacitor, 9000235-001: C124, C128, C132, C137, C142, C158, C220, C239, C506, C508, C517, C518, C524, C525, C537, C539, C618, C619, C625, C634, C639, C641, C653, C654, C665, C674, C725, C730, C740, C741, C755, C770.
33	Remove 32 AWG wire from U32-7 to U32-14. Install 32 AWG wire from U32-14 to Via located directly below U28 and above R101-Left (Pad) on Side B.
34	At Compact Flash Connector, J2, Install the following Hardware at each mounting hole (2 locations). Install from CCA Side B: 1, 0919-4 Screw and 1, 0164-3 Lockwasher. Then Install from CCA Side A: 1, 0164-3 Lockwasher and 1, 2504359-4 Nut.