NOTE: ALL REWORKS MUST BE DONE ON THE COMPONENT SIDE OF THE BOARD. KEEP ALL WIRES AS SHORT AS POSSIBLE.

REWORK PROCEDURE 1: (RTC FIX)
(FOR TT030 REV B.1 ABD REV D BOARDS, SEE FIGURE 1.)

FAB	ACTION REQUIRED	REF
B.1 & D	1. CUT ALL PINS OF U402, R407, AND C406. REMOVE THESE COMPONENTS FROM BOARD.	
	2. RUN A WIRE FROM U402 SOLDER PAD 2, TO C406 LEFT SOLDER PAD.	J1
	3. ADD R412, 22M, P/N 14-5226, BETWEEN U401 PIN 2 AND 3.	R412
	4. ADD R413, 470K, P/N 14-5474, BETWEEN U401 PIN 3, AND R407 TOP SOLDER PAD.	R413
	5. ADD C414, 5-30pF, P/N C070474, BETWEEN U402 SOLDER PAD 3 AND 7.	C414
	6. ADD C415, 20pF, P/N C014179-13, BETWEEN U402 SOLDER PAD 1, AND U405 PIN 7.	C415
	7. CONNECT A FREQUENCY COUNTER BETWEEN U401 PIN 3 AND GROUND.	U401
	8. MEASURE THE AMBIENT ROOM TEMPERATURE.	
	9. ADJUST THE TRIMMER CAPACITOR TO THE FREQUENCY INDICATED IN TABLE 1, AS CLOSE AS POSSIBLE.	C414

REWORK PROCEDURE 2: (VME BUS FIX)
(SEE FIGURE 2 FOR REV B.1 BOARD, & FIGURE 3 FOR REV D BOA

FAB	ACTION REQUIRED	REF
B.1 & D	1. REPLACE 74ALS30, POSITION U711, WITH 7430, PART NUMBER C101609-030. NOTE: DO NOT SOLDER PIN8.	
	2. REPLACE 74LS244, POSITION U705, WITH 74F244, PART NUMBER C300259-244.	
	3. CUT PIN 6 OF U701.	C1
	4. RUN A WIRE FROM U704 PIN 1, TO U702 PIN 11.	J1
	5. CUT PINS 17, 18, AND 19 OF U703. NOTE: KEEP IC PINS ABOUT 1/32 INCHES LONG FOR SOLDERING IN THE NEXT 3 STEPS.	C2
	6. RUN A WIRE FROM U703 PIN 17, TO U705 PIN 13.	J2
	7. RUN A WIRE FROM U703 PIN 18, TO U705 PIN 17.	J3
	8. RUN A WIRE FROM U703 PIN 19, TO U705 PIN 15.	J4
	9. RUN A WIRE FROM U705 PIN 3, TO U701 PIN 12.	J5
	10. RUN A WIRE FROM U705 PIN 5, TO U702 PIN 13.	J6
	11. RUN A WIRE FROM U705 PIN 7, TO U702 PIN 14.	J7
	12. CUT PIN 8 OF U711. NOTE: KEEP IC PIN ABOUT 1/32 INCHES LONG FOR SOLDERING IN THE NEXT STEP.	C5
	13. INSERT R702, 47 Ohms, PART NUMBER 14-5470/A BETWEEN U711 PIN 8 OF THE IC, AND U711 PIN 8 SOLDER PAD ON THE BOARD.	R702

LAZER SHADOW PRINTING FIX, MULTIPLE MEGASTE
READING FIX, AND DATA SETUP TIME FIX

FAB	ACTION REQUIRED	REF
B.1	1. REPLACE THE 68 Ohm RESISTOR NETWORK, POSITION RP42, WITH 10 Ohm RESISTOR NETWORK, P/N C101006-100.	RP42

ASCI DATA HOLD TIME FIX

FAB	ACTION REQUIRED	REF
B1 & D	1. REPLACE THE 74LS244, POSITION U403, WITH 74F244, P/N C300259-244.	U403

OSCILLATOR FIX
SEE FIGURE 4

FAB	ACTION REQUIRED	REF
D	1. LIFT LEFT SIDE OF R888 (SIDE NEAREST U111).	C1
	2. CONNECT A JUMPER WIRE (AS SHORT AS POSSIBLE) FROM PIN 1 OF U110 TO LEFT SIDE OF R888 (SIDE NEAREST U111). INSULATE THE CONNECTION WITH A PIECE OF HEATSHRINK TUBING TO PREVENT SHORTING TO SOLDER PAD UNDER R888.	J1
	3. MARK PCB WITH NEW ASSEMBLY REVISION LEVEL.	

REWORK PROCEDURE

FAB	ACTION REQUIRED	REF	ECO#
B.1	1. JUMPER GROUND PLANES ON SOLDER SIDE. 2. MARK PCB WITH NEW ASSY REV LEVEL.	J1	1269
B.1	0. APPLY CUTS AND JUMPERS TO COMPONENT SIDE. 1. CUT ETCH FROM U206-43 (MCU). 2. JUMPER U206-43 TO U110-13 (74F04) 3. JUMPER U110-12 TO U712-12, 13 (74LS74). 4. JUMPER RP204-6 (68 ohm) TO U907-1 (74LS86). 5. JUMPER U907-2 TO U907-14. 6. JUMPER U907-3 TO U712-11. 7. JUMPER U712-10 TO U712-4. 8. JUMPER U712-8 TO U900-83 (DMAC). 9. MARK PCB WITH NEW ASSY REV LEVEL.	C1 J1 J2 J3 J4 J5 J6 J7	1322
D	0. APPLY CUTS AND JUMPERS TO COMPONENT SIDE. 1. CUT U110-13 AT THE BOTTOM OF THE IC LEG. 2. JUMPER U110-13 TO U900-81. 3. JUMPER U110-12 TO U712-12, 13. 4. JUMPER U712-10 TO U712-4. 5. CUT ETCH AT UA00-83. 6. JUMPER U712-8 TO UA00-83. 7. JUMPER U907-1 TO U907-14. 8. JUMPER U907-2 TO U309-8. 9. JUMPER U907-3 TO U712-11. 10. COVER FUSE F61 WITH INSULATING TUBING TO PREVENT SHORTING TO POWER SUPPLY FOOT. 11. COVER FERRITE BEAD L601 WITH INSULATING TUBING TO PREVENT SHORTING TO POWER SUPPLY. 12. PLACE INSULATING TAPE OVER FUSE F61 AND FERRITE BEAD L601 TO PREVENT SHORTING TO POWER SUPPLY MOUNTING FOOT. 13. MARK PCB WITH NEW ASSY REV LEVEL.	C1 J1 J2 J3 C2 J4 J5 J6 J7 F61 L601 F61, L601	1323

△ 5

DRAWING NO.	SHEET	REV
CA400961	1	K

B
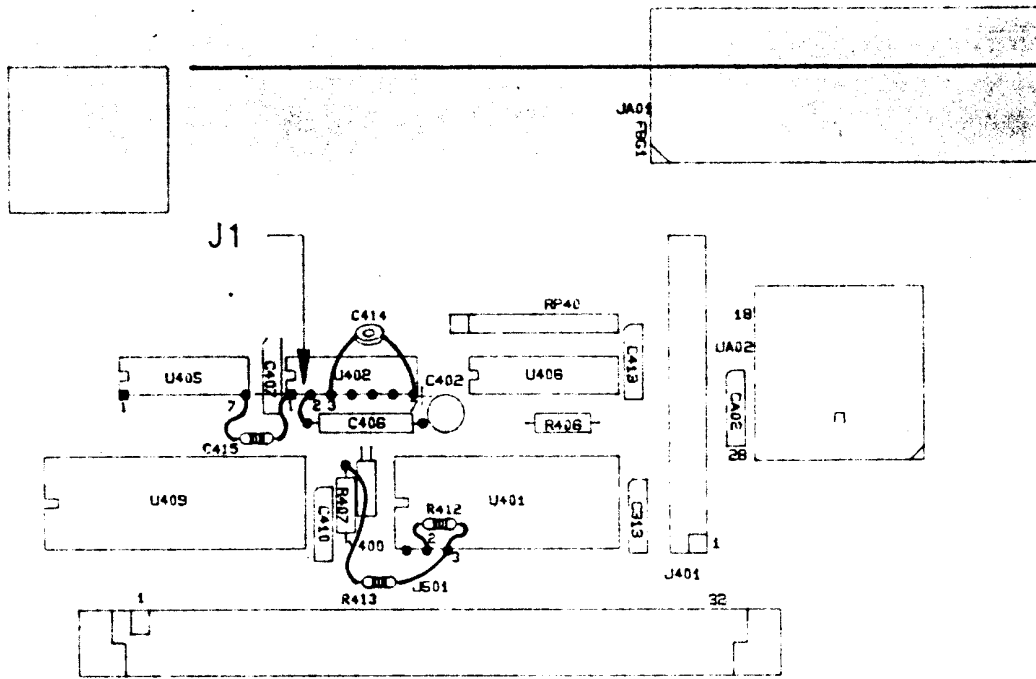
FIGURE 1
REV B.1 & REV D
TT030 BOARD REWORK

A

TITLE	SUB ASSY. DRAWING, TT030 32 Mhz		
SIZE **D**	DRAWING NO. **CA400961**		REV **K**
SCALE **NONE**		SHEET **2** OF **2**	

1

TABLE 1
REAL TIME CLOCK FREQUENCY vs AMBIENT TEMPERATURE

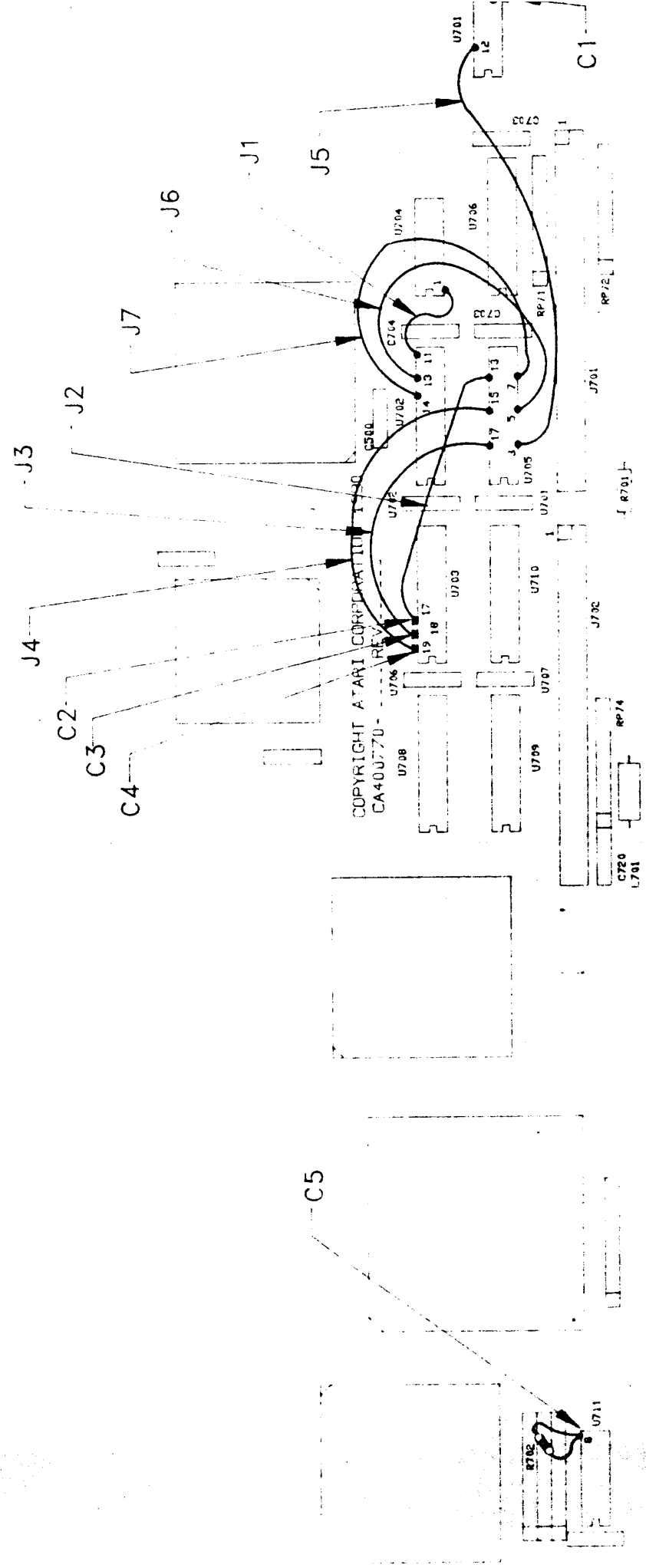| AMBIENT TEMPERATURE (°C)	TARGET FREQUENCY (hz)
25	32,768.046
26	32,768.090
27	32,768.134
28	32,768.178
29	32,768.222
30	32,768.266
31	32,768.310
32	32,768.354
33	32,768.400
34	32,768.444
35	32,768.488
36	32,768.532
37	32,768.576
38	32,768.620
39	32,768.664
40	32,768.708
41	32,768.752
42	32,768.796
43	32,768.840
44	32,768.884
45	32,768.928
46	32,768.972
47	32,769.016
48	32,769.060

D

C

REV K

FIGURE 2
REV B.1 TT030
BOARD RFWORK

FIGURE 3
REV D TT030
BOARD REWORK

FIGURE 4
REV D TT030
BOARD REWORK

HEATSHRINK TUBING

C1

J1