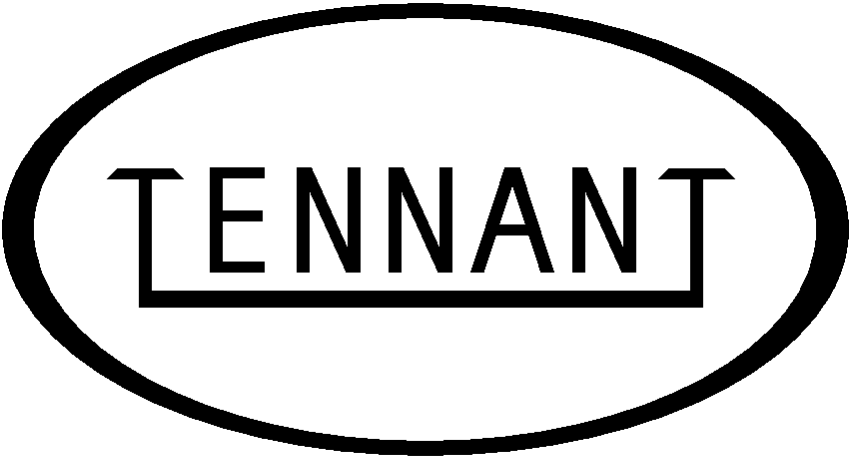




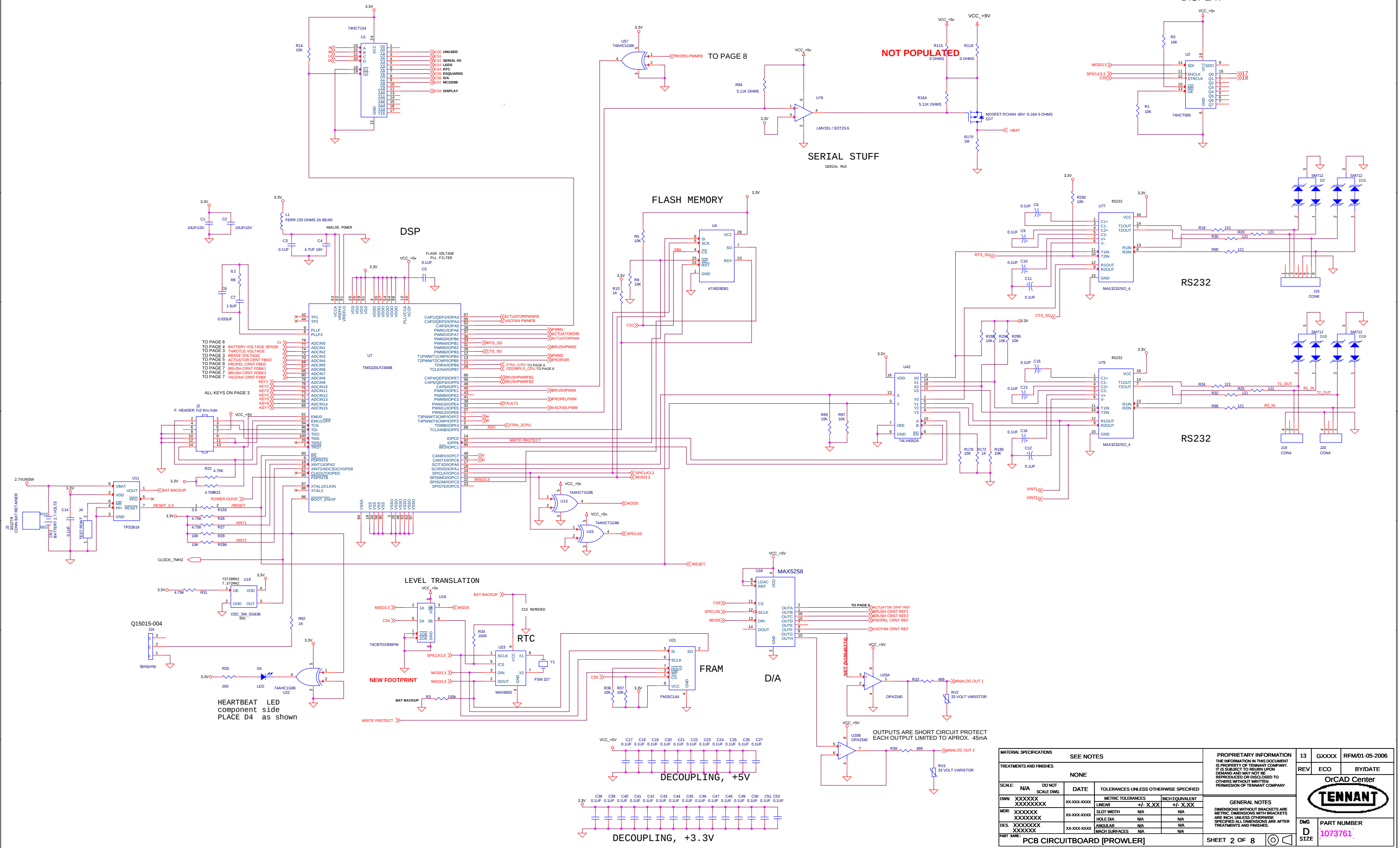
T7

- PAGE 1: COVER SHEET, INDEX
- PAGE 2: DSP, FLASH, EEPROM, RTC, RS232, RS485, IR, DISPLAY
- PAGE 3: POWER SUPPLIES, INPUTS, LED DRIVERS KEYPAD, ANALOG
- PAGE 4: LOWSIDE DRIVERS / DIGITAL INPUTS
- PAGE 5: ACTUATOR (SQUEEGE OR HEAD)
- PAGE 6: BATTERY CONNECTION
- PAGE 7: SCRUB BRUSHES VAC FAN
- PAGE 8: PROPEL

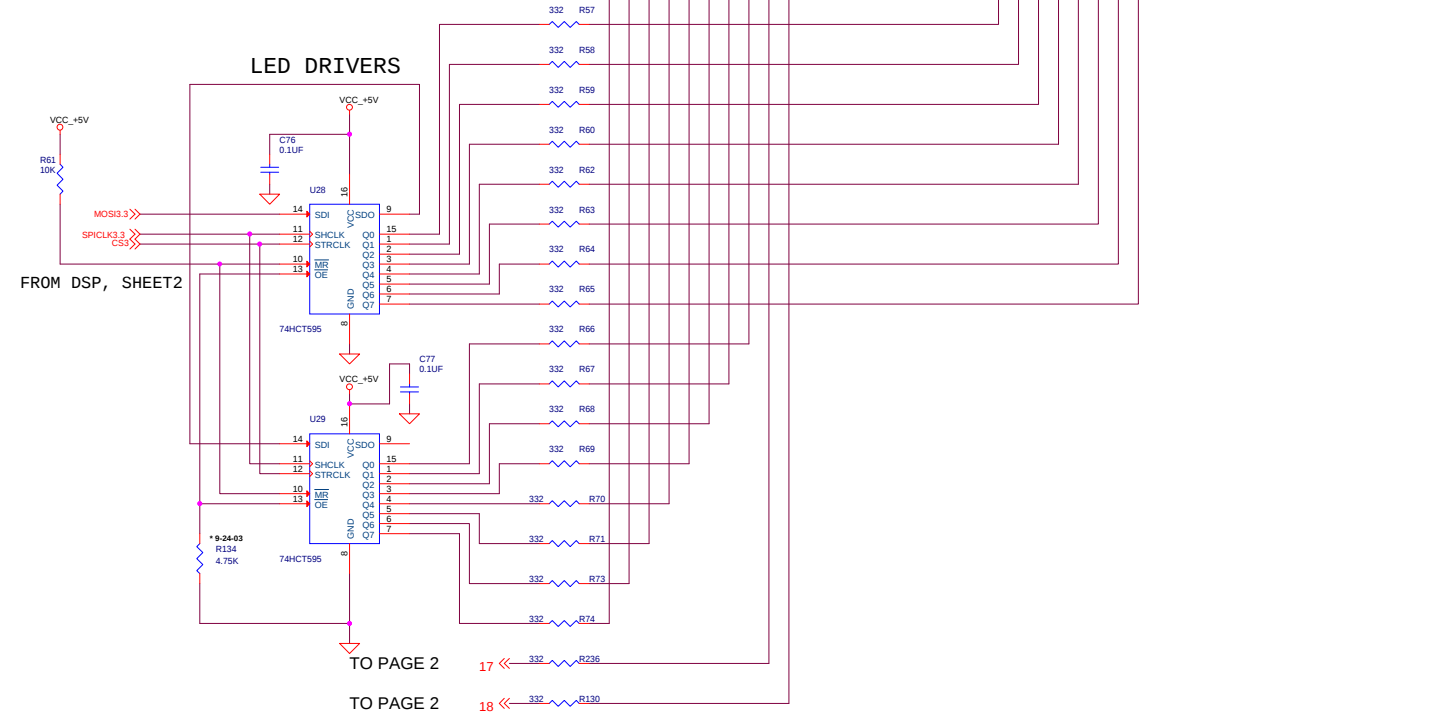
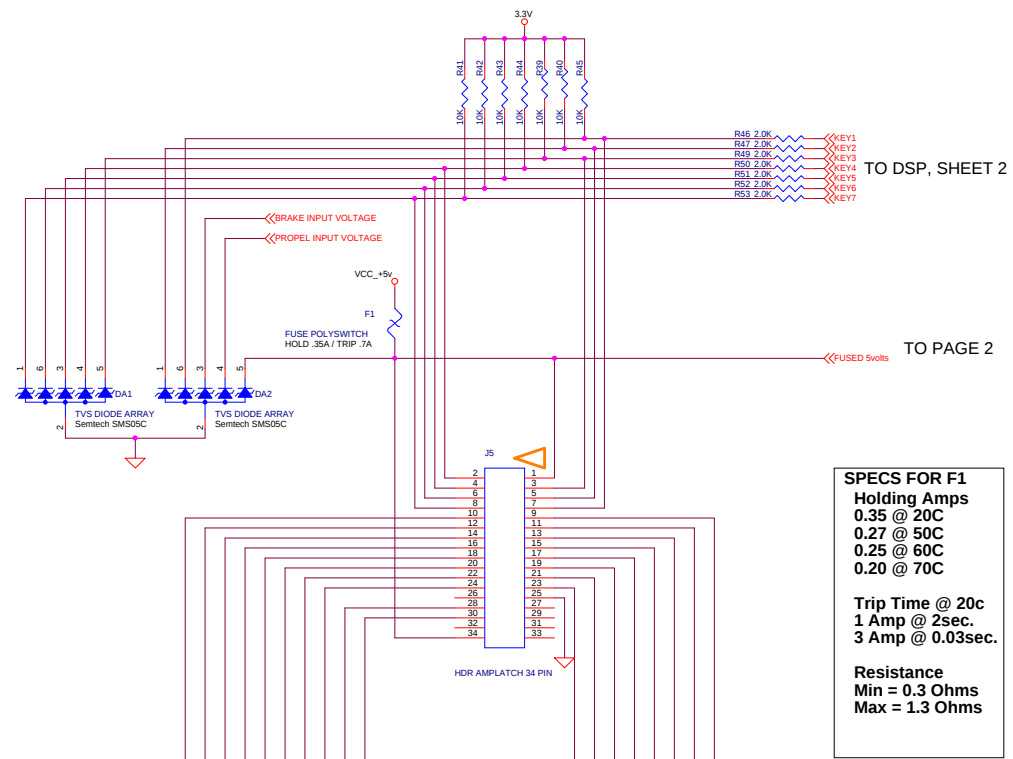
Componant Ref #	T5	Prowler	Gator
	Value, QPL#	Value, QPL#	Value, QPL#
R33	2.00K, Q10002-222	499, Q10002-164	499, Q10002-164
R38	1.0K, Q10002-193	499, Q10002-164	499, Q10002-164
R76	30.1K, Q10002-335	15.0K, Q10002-306	15.0K, Q10002-306
R77	64.9K, Q10002-367	30.1K, Q10002-335	30.1K, Q10002-335
Q1	IRFR3518, Q19033-005	IRFR3518, Q19033-005	STD35NF06, Q19033-007
Q19,Q20,Q21,Q46	NOT USED	NOT USED	IRF3205S, Q19033-002
R249,R216,R251,R250	NOT USED	NOT USED	45.3, Q10002-064
C203,C204	NOT USED	NOT USED	0.0330UF, Q11003-008
J9, J10	NOT USED	42820-2212	NOT USED
J12, J14	42819-2212	NOT USED	NOT USED
J17, J18	NOT USED	NOT USED	39425-0002
J13	42819-4212, Q15020-004	NOT USED	NOT USED
J8	NOT USED	42820-4212, Q15020-001	42820-4212, Q15020-001

MATERIAL SPECIFICATIONS		SEE NOTES		PROPRIETARY INFORMATION		13	GXXXX	RFM/01-05-2006
TREATMENTS AND FINISHES		NONE		THE INFORMATION IN THIS DOCUMENT IS PROPERTY OF TENNANT COMPANY. IT IS SUBJECT TO RETURN UPON DEMAND AND MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION OF TENNANT COMPANY		REV	ECO	BY/DATE
SCALE: N/A	DO NOT SCALE DWG	DATE	TOLERANCES UNLESS OTHERWISE SPECIFIED		GENERAL NOTES		OrCAD Center	
DWN: XXXXXX XXXXXXXX	XX-XXX-XXXX		METRIC TOLERANCES		DIMENSIONS WITHOUT BRACKETS ARE METRIC. DIMENSIONS WITH BRACKETS ARE INCH UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.		TENNANT	
MDR: XXXXXX XXXXXXXX	XX-XXX-XXXX		LINEAR	+/- X.XX	+/- X.XX	DWG D SIZE		PART NUMBER
DES: XXXXXX XXXXXXXX	XX-XXX-XXXX		SLOT WIDTH	N/A	N/A	1073761		
PART NAME:			HOLE DIA	N/A	N/A			
			ANGULAR	N/A	N/A			
			MACH SURFACES	N/A	N/A			
PCB CIRCUITBOARD [PROWLER]					SHEET 1 of 8			

CHIP SELECT DECODER



MATERIAL SPECIFICATIONS		SEE NOTES		PROPRIETARY INFORMATION THE INFORMATION IN THIS DOCUMENT IS PROPERTY OF TENNANT COMPANY. IT IS SUBJECT TO RETURN UPON DEMAND AND MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION OF TENNANT COMPANY		13	GXXXX	RFM/01-05-2006
TREATMENTS AND FINISHES		NONE				REV	ECO	BY/DATE
SCALE: N/A DO NOT SCALE DWG		DATE		TOLERANCES UNLESS OTHERWISE SPECIFIED		OrCAD Center 		
DWN: XXXXXX XXXXXXX		xx-xxx-xxxx		METRIC TOLERANCES LINEAR +/- X.XX INCH EQUIVALENT +/- X.XX		GENERAL NOTES DIMENSIONS WITHOUT BRACKETS ARE METRIC. DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.		
MDR: XXXXXX XXXXXXX		xx-xxx-xxxx		SLOT WIDTH N/A HOLE DIA N/A				
DES: XXXXXX XXXXXXX		xx-xxx-xxxx		ANGULAR N/A MACH SURFACES N/A				
PART NAME:		PCB CIRCUITBOARD [PROWLER]						
				SHEET 2 OF 8		DWG D SIZE 		PART NUMBER 1073761



MATERIAL SPECIFICATIONS		SEE NOTES		PROPRIETARY INFORMATION THE INFORMATION IN THIS DOCUMENT IS PROPERTY OF TENNANT COMPANY. IT IS SUBJECT TO RETURN UPON DEMAND AND MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION OF TENNANT COMPANY		13	GXXXX	RFM/01-05-006
TREATMENTS AND FINISHES		NONE		GENERAL NOTES DIMENSIONS WITHOUT BRACKETS ARE METRIC. DIMENSIONS WITH BRACKETS ARE INCH UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.		REV	ECO	BY/DATE
SCALE: N/A DO NOT SCALE DWG		DATE	TOLERANCES UNLESS OTHERWISE SPECIFIED			OrCAD Center		
DWN	XXXXXX XXXXXX	XX-XXX-XXXX	METRIC TOLERANCES LINEAR +/- .XX SLOT WIDTH .N/A HOLE DIA .N/A ANGULAR .N/A MACH SURFACES .N/A		INCH EQUIVALENT +/- .XX .N/A .N/A .N/A .N/A			
MDR	XXXXXX XXXXXX	XX-XXX-XXXX						
DES	XXXXXX XXXXXX	XX-XXX-XXXX				DWG	PART NUMBER	
PART NAME: PCB CIRCUITBOARD [PROWLER]					SHEET 3 OF 8	 	D SIZE	1073761

MUST WIDEN TRACES
* "FLYBACK / FUSED POWER"
* "VBAT"

If output is used for Main Contactor, D16 must be used.

*Use D16 for flyback, when high side of load is connected to "1AMP LOWD"
 *Use D21 for flyback, when high side of load is connected to "FLYBACK / FUSED POWER"

Locate C166 next to Q1, Q2, Q3.
Locate C167 next to Q4, Q5, Q6.

Q19009-001
Q19001-001

**Locate C121, C163 next to U34 PIN 28.
Ground side directly to Signal GND.**

TO J6 -13 ON PAGE 4

TRACES FROM FETs Q1 - 12 DRAIN TO J6 MUST HAVE 10 AMP CAPACITY.

CONNECT TO POWER GROUND PLANE
MOSFET's SOURCE
PIN 15 OF U34 & 35
C85, C88, R91, R100

CONN 35POS V AMPSEAL

J6

1	DIGITAL INPUT 1 ODOMETER PULSE
2	EXTRA DIGITAL INPUT
3	FUSED 5VDS
4	WATER SOLENOID
5	MAIN CONTACTOR
6	UNUSED OUTPUT 5'S AMP
7	SEAT SWITCH
8	REC. FILL
9	SQUEEZE ACTUATOR B
10	HORN SWITCH
11	FORWARD SWITCH
12	SQUEEZE ACTUATOR A
13	FLYBACK AMP
14	HOUR METER
15	HORN / BEEPER
16	UNUSED OUTPUT 1 AMP
17	E-STOP INPUT
18	CHARGER INTERLOCK
19	UNUSED OUTPUT 1 AMP
20	REC. FILL
21	HEAD ACTUATOR B
22	REVERSE SWITCH
23	HEAD ACTUATOR A
24	
25	FAST PUMP
26	UNUSED
27	ELECT BRAKE
28	
29	LAMP LOW
30	
31	
32	
33	
34	
35	SENSOR RETURN

NOT POPULATED

INDUCTOR FERRITE 4A

Grounding path for "SENSOR GROUND RETURN".
J5-35 through ferrite to power ground, instead of directly
to SIGNAL GROUND.

L4
NOT POPULATED

INDUCTOR FERRITE 4A

ORIGINAL Grounding path for "SIGNAL GROUND PLAIN".

GND SIGNAL

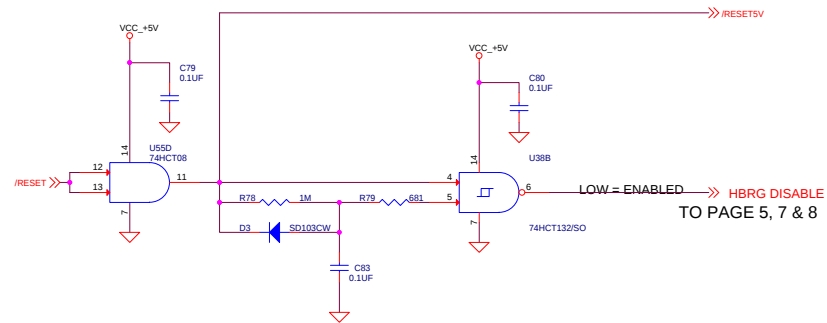
GND POWER

Located on pin 35 side of J6

GND SIGNAL

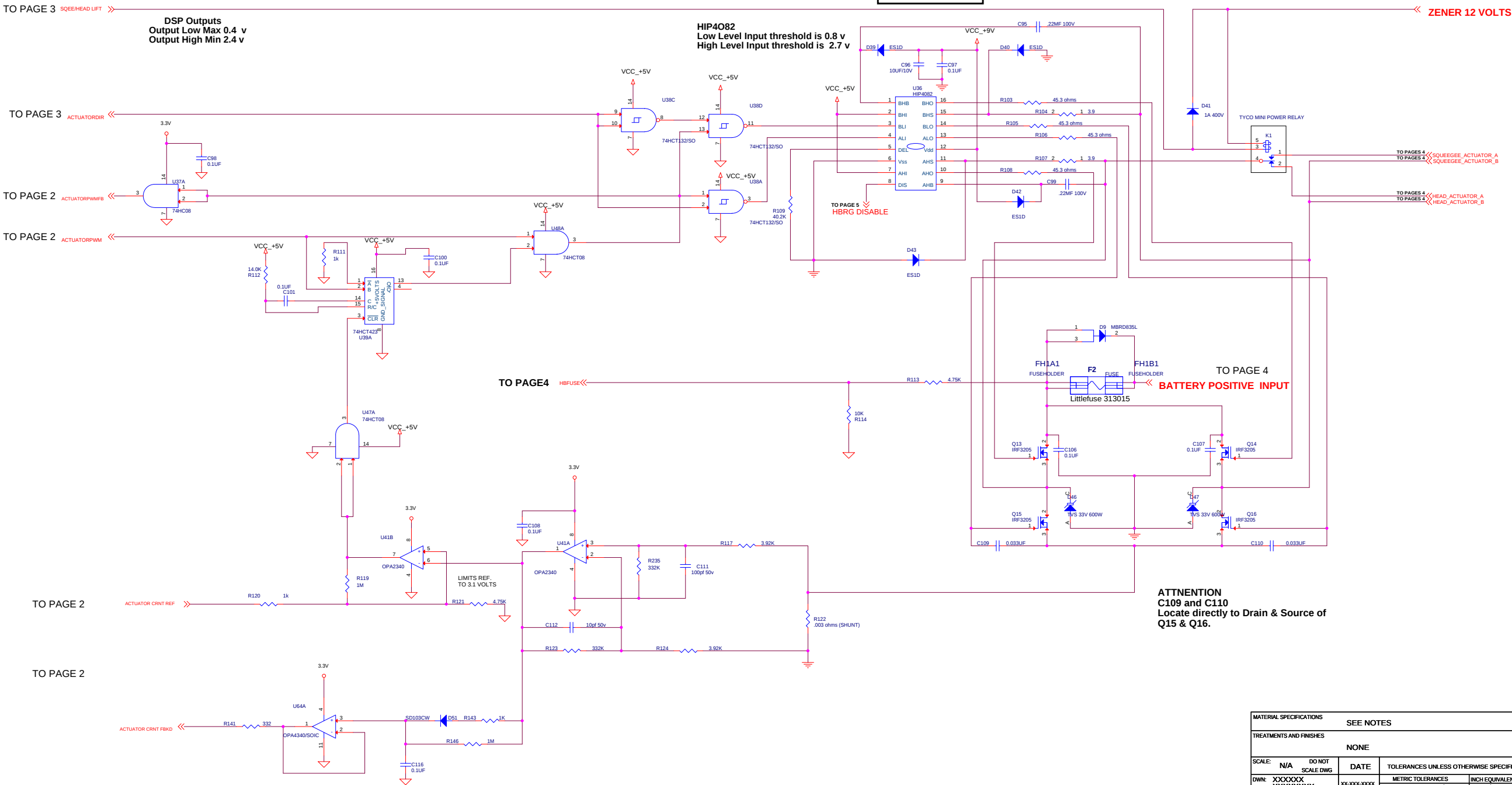
GND POWER

MATERIAL SPECIFICATIONS		SEE NOTES		PROPRIETARY INFORMATION		11	GXXXX	RFM/08-09-2005
TREATMENTS AND FINISHES		NONE		THE INFORMATION IN THIS DOCUMENT IS PROPERTY OF TENNANT COMPANY. IT IS SUBJECT TO RETURN UPON DEMAND AND MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION OF TENNANT COMPANY		REV	ECO	BY/DATE
SCALE: N/A DO NOT SCALE DWG		DATE		TOLERANCES UNLESS OTHERWISE SPECIFIED		OrCAD Center 		
DWN: XXXXXXXX XXXXXXX		XX-XXX-XXXX		METRIC TOLERANCES LINEAR +/- .X_XX +/- .X_XX SLOT WIDTH N/A N/A HOLE DIA N/A N/A ANGULAR N/A N/A MACH SURFACES N/A N/A		GENERAL NOTES DIMENSIONS WITHOUT BRACKETS ARE METRIC. DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.		
MDR: XXXXXXXX XXXXXXXXX		XX-XXX-XXXX						
DES: XXXXXXXX XXXXXXX		XX-XXX-XXXX				DWG	PART NUMBER	
PART NAME		PCB CIRCUITBOARD [PROWLER]		SHEET 4 OF 8		D SIZE	1073761	



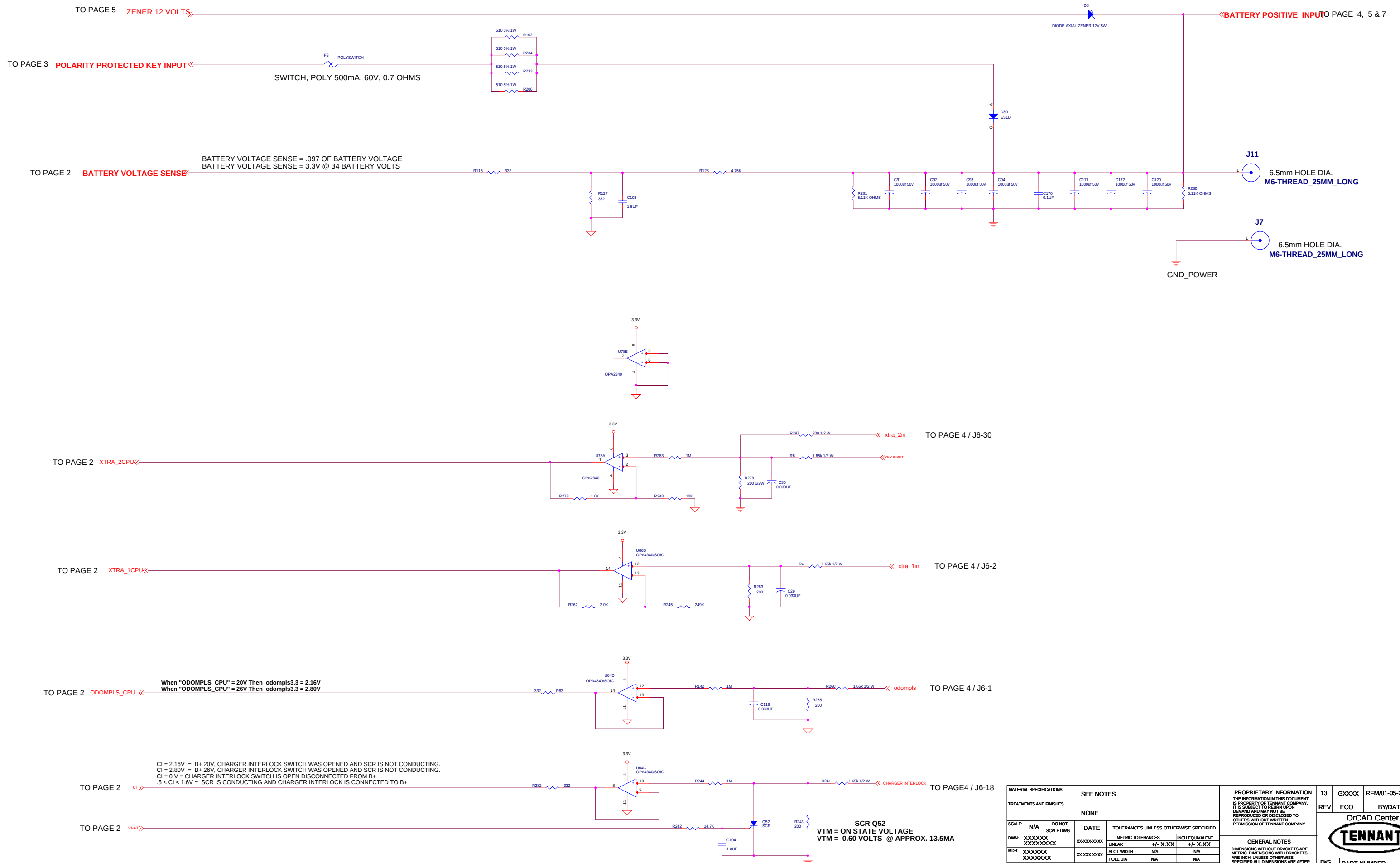
5V RESET & H-BRIGE DISABLE

LOCATE C96 & C97 CLOSE TO PINS 6 & 12. ALSO CONNECT DIRECTLY TO PINS 6 & 12.

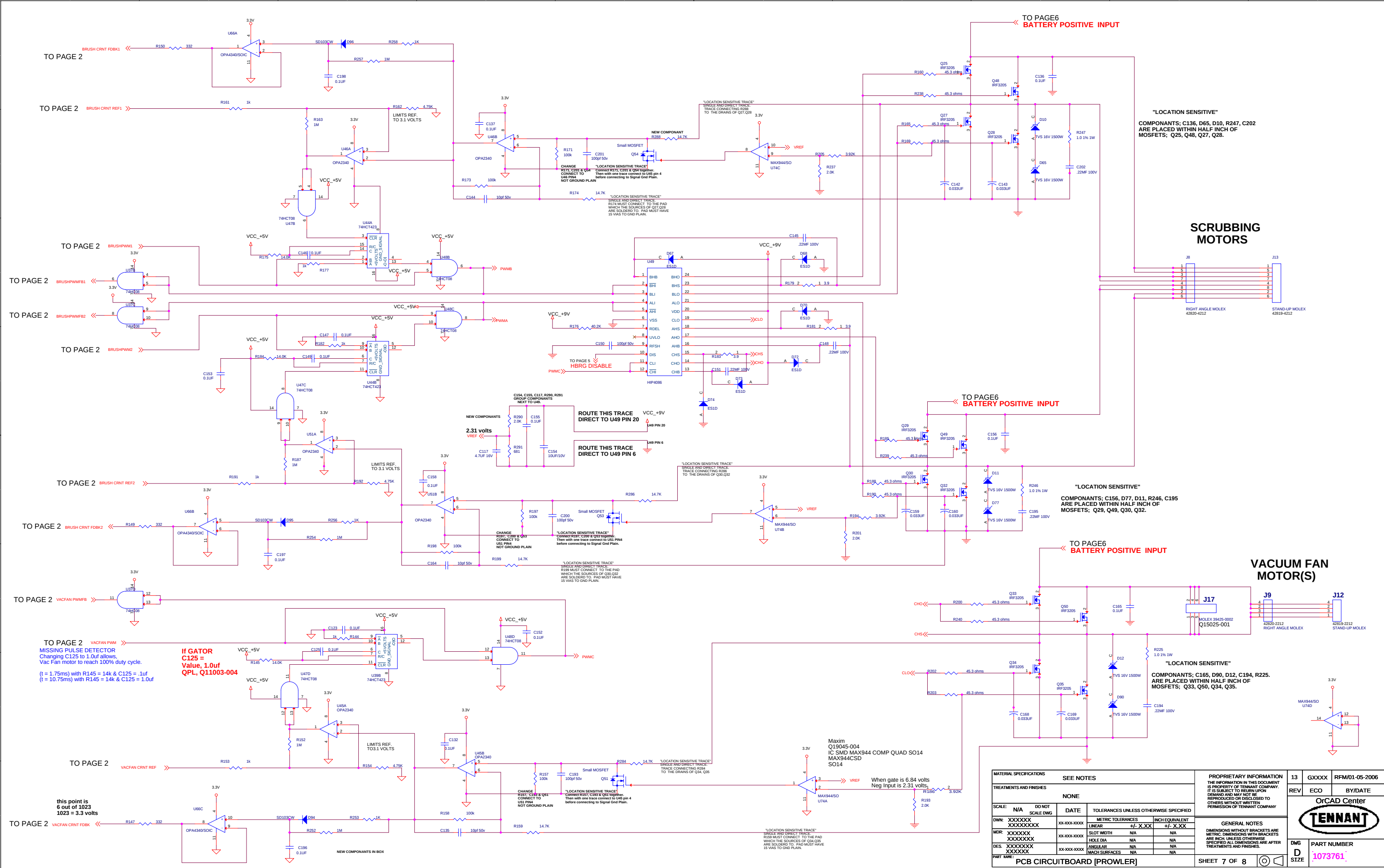


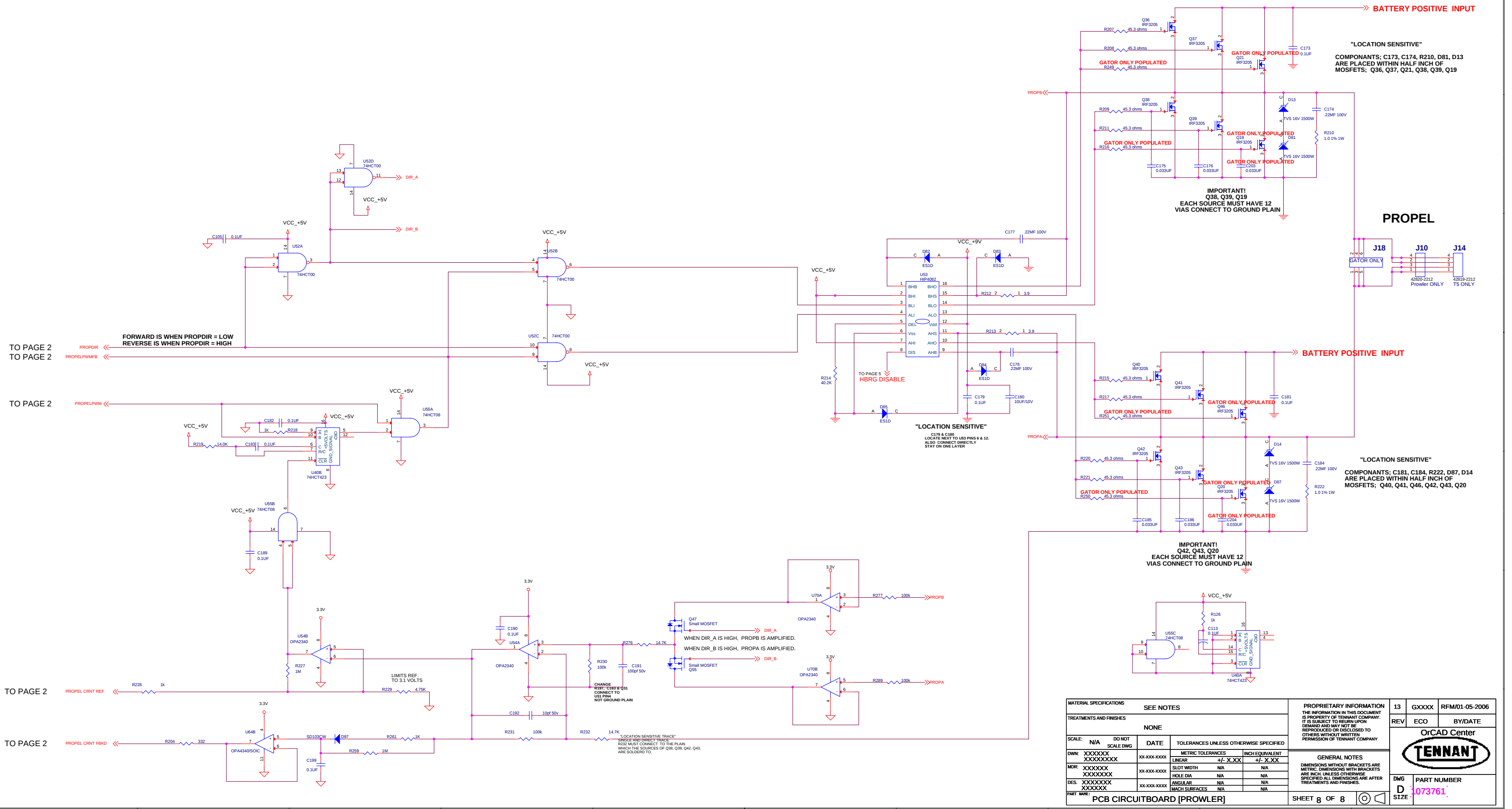
ACTUATOR LIFT /LOWER SQUEEGEE / BRUSH

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TREATMENTS AND FINISHES		NONE		GENERAL NOTES DIMENSIONS WITHOUT BRACKETS ARE METRIC. DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.		REV	ECO	BY/DATE
SCALE: N/A		DO NOT SCALE DWG				OrCAD Center TENNANT		
DWN: XXXXXXXX XXXXXXXXXX		xx-xxx-xxxx		METRIC TOLERANCES LINEAR +/- X.XX				
MCR: XXXXXXXX XXXXXXXXXX		xx-xxx-xxxx		SLIT WIDTH N/A		N/A		DWG D SIZE
DES: XXXXXXXX XXXXXXXXXX		xx-xxx-xxxx		HOLE DIA N/A		N/A		
				ANGULAR N/A		N/A		PART NUMBER 1073761
				MACH SURFACES N/A		N/A		
PART NAME:		PCB CIRCUITBOARD [PROWLER]		SHEET 5 OF 8				



MATERIAL SPECIFICATIONS		SEE NOTES		PROPRIETARY INFORMATION		13	GXXXX	RFM/01-05-2006	
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SCALE: N/A DO NOT SCALE DWG		DATE:		TOLERANCES UNLESS OTHERWISE SPECIFIED		OrCAD Center			
									
DWN:	XXXXXX XXXXXXXXXX	XXX-XXX-XXXX		METRIC TOLERANCES	INCH EQUIVALENT				
				LINEAR	+/- X.XX +/- X.XX				
MDR:	XXXXXX XXXXXXXXXX	XXX-XXX-XXXX		SLOT WIDTH	N/A N/A	GENERAL NOTES			
				HOLE DIA	N/A N/A	DIMENSIONS WITHOUT BRACKETS ARE METRIC. DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.			
DES:	XXXXXXXX XXXXXXXXXX	XXX-XXX-XXXX		ANGULAR	N/A N/A				
				MACH SURFACES	N/A N/A				
PART NAME:	PCB CIRCUITBOARD [PROWLER]					SHEET 6 OF 8	 	DWG D SIZE	PART NUMBER 1073761





MATERIAL SPECIFICATIONS		SEE NOTES		PROPRIETARY INFORMATION		13	GXXXX	RFM/01-05-2006
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SCALE:	N/A	DO NOT SCALE DWG	DATE	TOLERANCES UNLESS OTHERWISE SPECIFIED		OrCAD Center TENNANT DWG D SIZE PART NUMBER 1073761		
DWN:	XXXXXX	XXXXXXX	XX-XXX-XXXX	METRIC TOLERANCES	INCH EQUIVALENT			
MDR:	XXXXXX	XXXXXX	XX-XXX-XXXX	LINEAR	+/- X.XX			
DES:	XXXXXX	XXXXXX	XX-XXX-XXXX	SLOT WIDTH	N/A			
PART NAME:	PCB CIRCUITBOARD [PROWLER]			HOLE DIA	N/A			
				ANGULAR	N/A	SHEET 8 OF 8		
				MACH SURFACES	N/A			