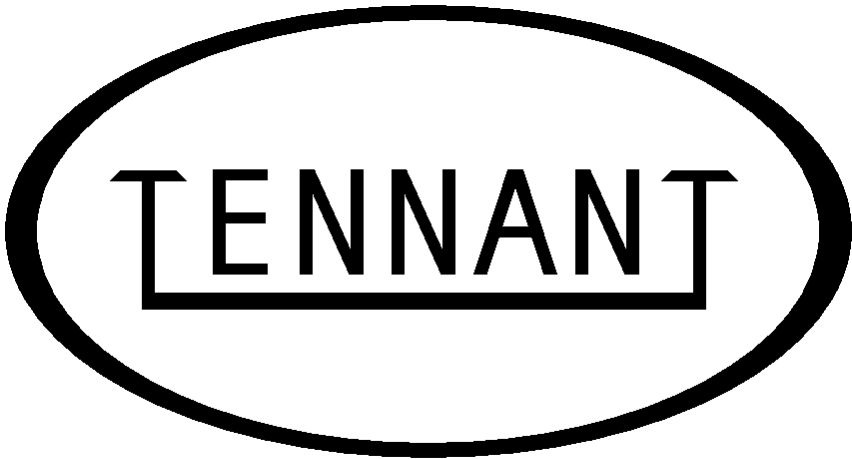




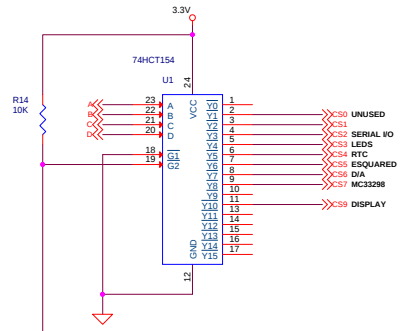
T7

- 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

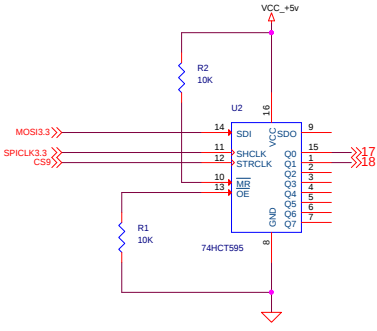
Componant Ref #	T5	Prowler	Gator
	Value, QPL#	Value, QPL#	Value, QPL#
R33	2.00K, Q10002-222	499, Q10002-164	499, Q10002-164
R38	1.0K, Q10002-193	499, Q10002-164	499, Q10002-164
R76	30.1K, Q10002-335	15.0K, Q10002-306	15.0K, Q10002-306
R77	64.9K, Q10002-367	30.1K, Q10002-335	30.1K, Q10002-335
Q1	IRFR3518, 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 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: XXXXXXXX XXXXXXXXXX		XX-XXX-XXXX	METRIC TOLERANCES		INCH EQUIVALENT			
			LINEAR		+/- X.XX +/- X.XX			
MDR: XXXXXXXX XXXXXXXXXX		XX-XXX-XXXX	SLOT WIDTH		N/A N/A			
			HOLE DIA		N/A N/A			
DES: XXXXXXXX XXXXXXXXXX		XX-XXX-XXXX	ANGULAR		N/A N/A			
			MACH SURFACES		N/A N/A			
PART NAME:		PCB CIRCUITBOARD [PROWLER]				SHEET 1 OF 8		
						DWG D SIZE		PART NUMBER 1073763

CHIP SELECT DECODER



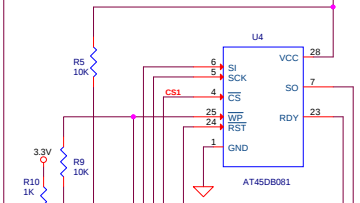
DISPLAY



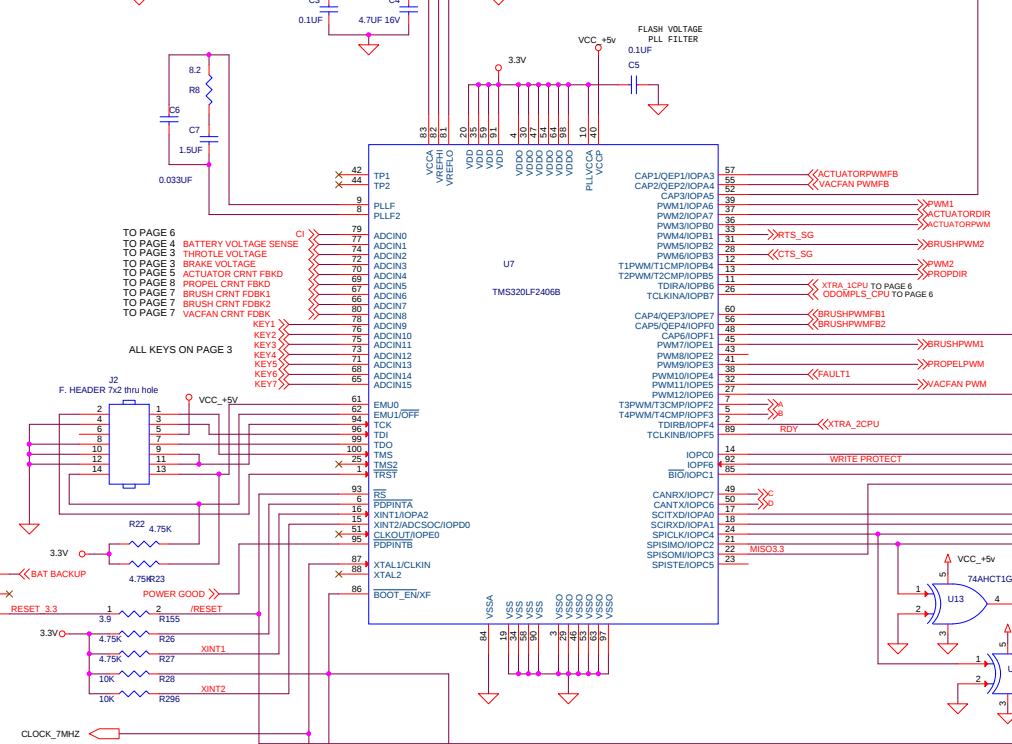
SERIAL STUFF



FLASH MEMORY



DSP



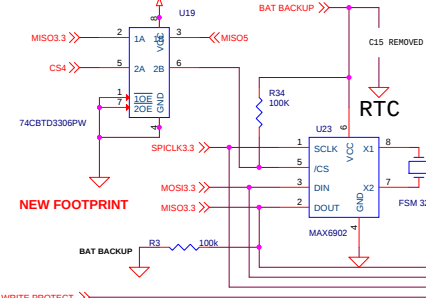
RS232



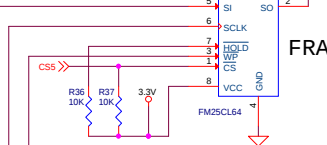
RS232



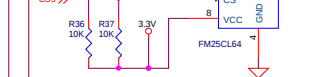
LEVEL TRANSLATION



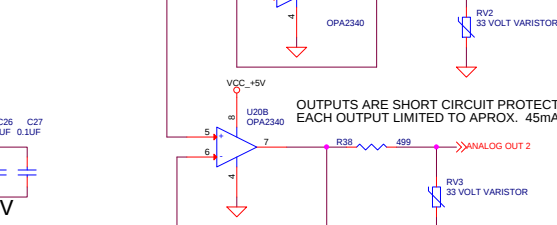
RTC



FRAM



D/A



DECOUPLING, +5V

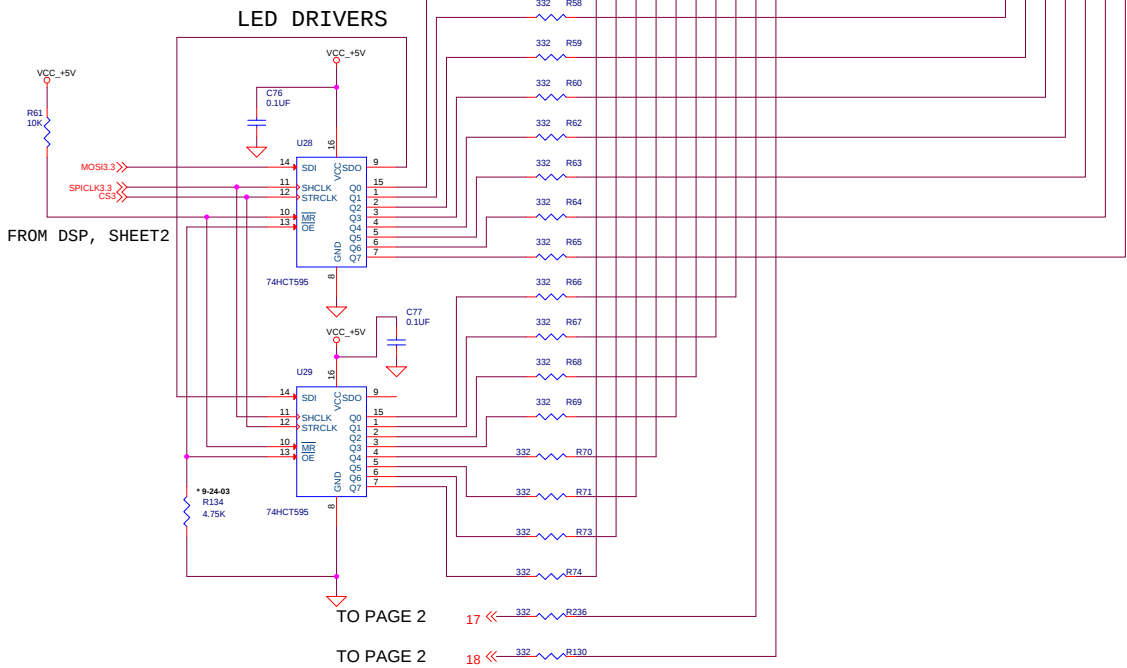
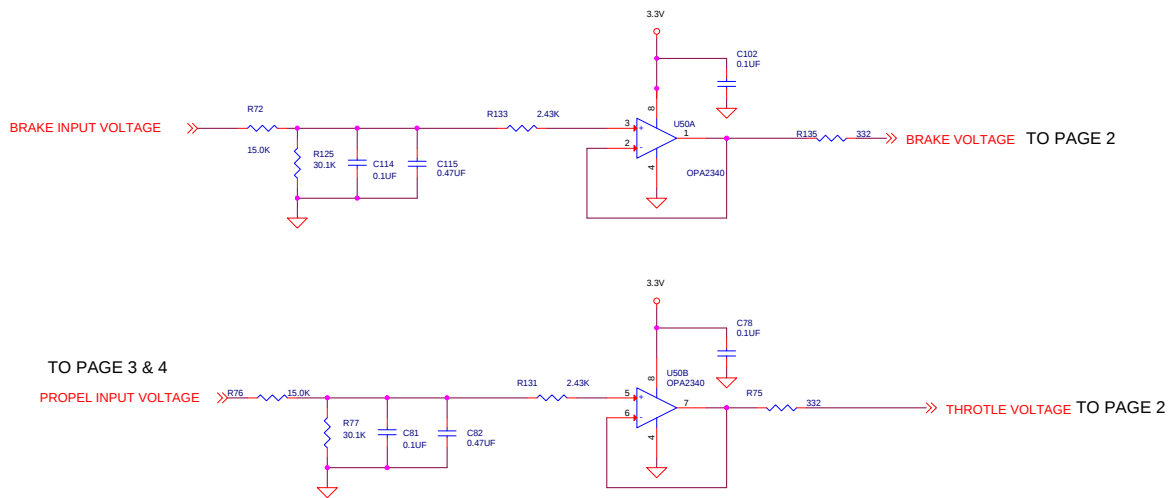
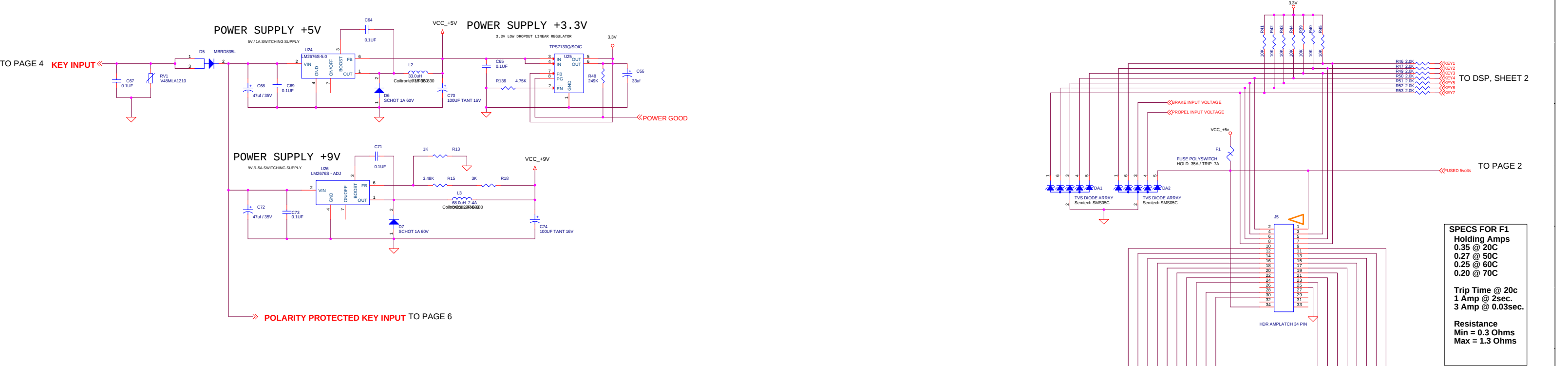


DECOUPLING, +3.3V



HEARTBEAT LED component side PLACE D4 as shown

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 XXXXXXXX				XX-XXX-XXXX		METRIC TOLERANCES LINEAR +/- X.XX INCH EQUIVALENT +/- X.XX				
MDR: XXXXXX XXXXXXXX				XX-XXX-XXXX		SLOT WIDTH N/A N/A HOLE DIA N/A N/A				
DES: XXXXXXXX XXXXXXXX				XX-XXX-XXXX		ANGULAR N/A N/A MACH SURFACES N/A N/A				
PART NAME: PCB CIRCUITBOARD [PROWLER]								GENERAL NOTES DIMENSIONS WITHOUT BRACKETS ARE METRIC. DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.		
								DWG D SIZE		
						SHEET 2 OF 8				



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		OrCAD Center TENNANT		
DWN:	XXXXXX	XXXXXXX	XX-XXX-XXXX	METRIC TOLERANCES	INCH EQUIVALENT			
MDR:	XXXXXX	XXXXXX	XX-XXX-XXXX	LINEAR	+/- X.XX	GENERAL NOTES		
DES:	XXXXXX	XXXXXX	XX-XXX-XXXX	SLOT WIDTH	N/A			
PART NAME:		PCB CIRCUITBOARD [PROWLER]		ANGLE DIA	N/A	DIMENSIONS WITHOUT BRACKETS ARE METRIC. DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.		
				ANGULAR	N/A			
				MACH SURFACES	N/A	PART NUMBER		
						1073763		
						D SIZE		
						SHEET 3 OF 8		

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 PLAIN
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 1
3	FUSED SWIRLS
4	WATER SOLENOID
5	MAIN CONTACTOR
6	UNUSED OUTPUT 1 AMP
7	SEAT SWITCH
8	REC. FULL
9	SQUEEZE ACTUATOR B
10	HORN SWITCH
11	FORWARD SWITCH
12	SQUEEZE ACTUATOR A
13	FLYBACK PATH
14	HOUR METER
15	HORN / BEEPERS
16	UNUSED OUTPUT 1 AMP
17	6-STOP INPUT
18	CHARGER INTERLOCK
19	UNUSED OUTPUT 1 AMP
20	REC. FULL
21	HEAD ACTUATOR B
22	REVERSE SWITCH
23	HEAD ACTUATOR A
24	FAST PUMP
25	UNUSED
26	ELECT BRAKE
27	REC. FULL
28	UNUSED
29	UNUSED
30	UNUSED
31	UNUSED
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171	UNUSED
172	UNUSED

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

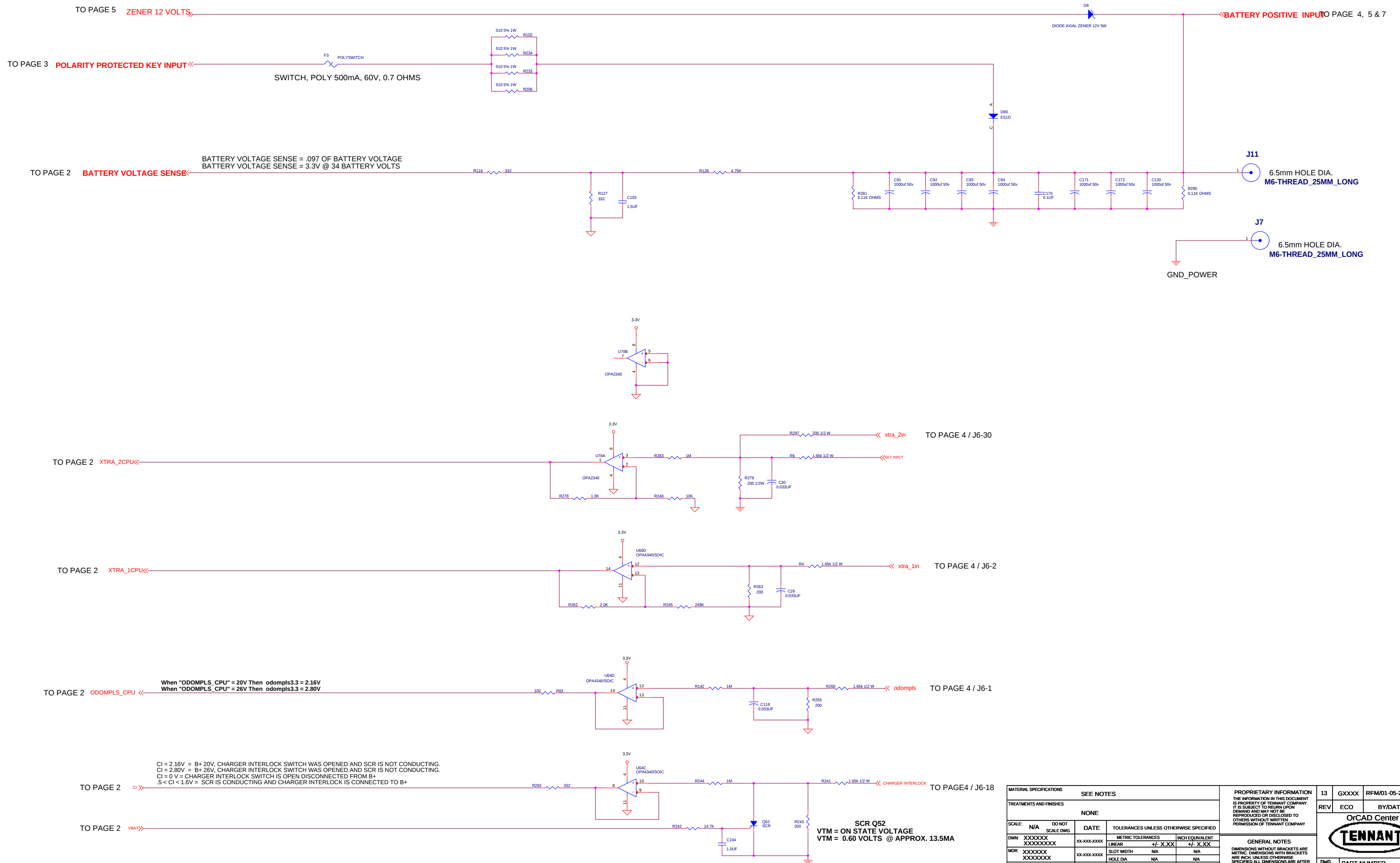
Located on pin 35 side of J6

Located on pin 1 side of J6

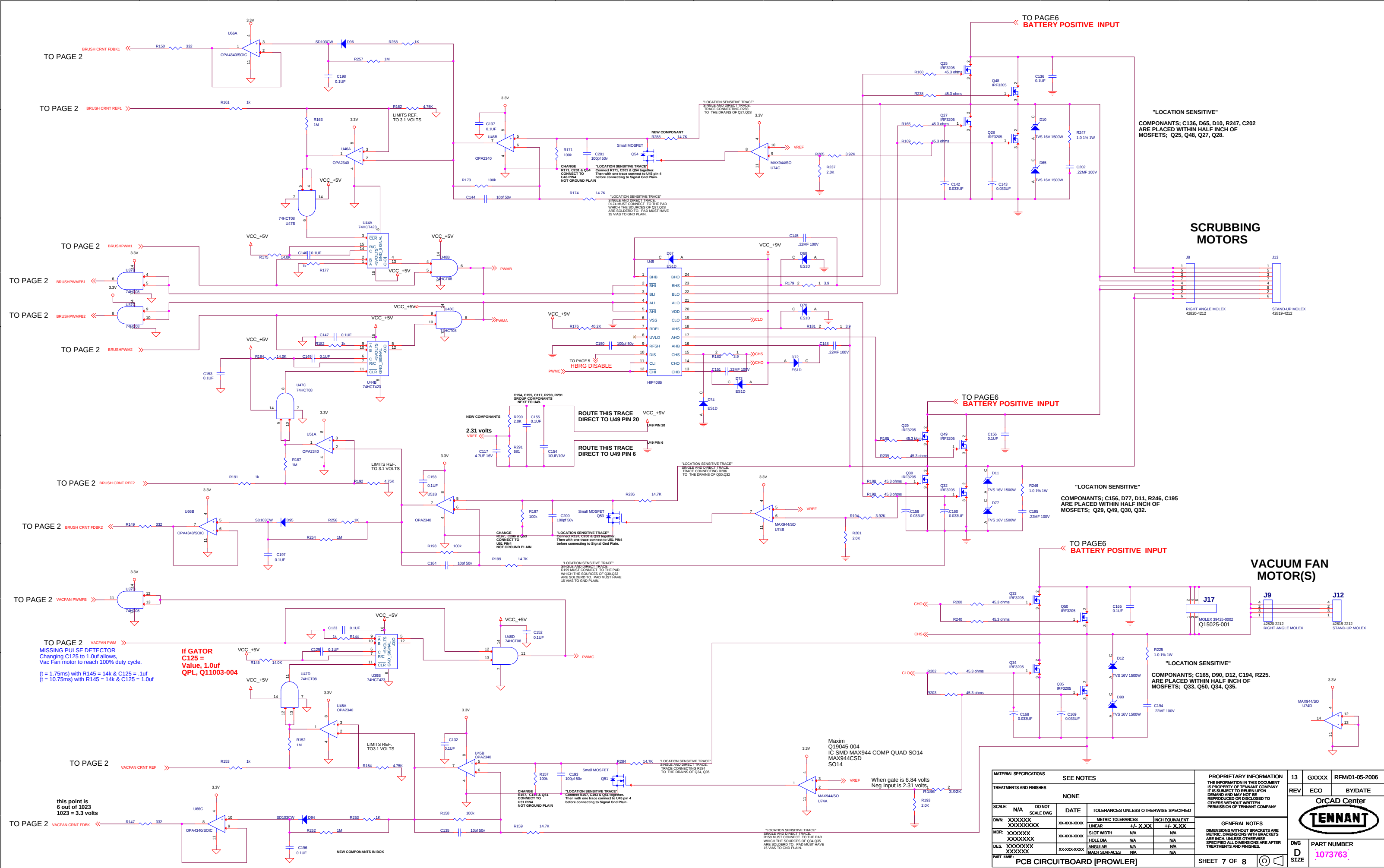
GND_SIGNAL

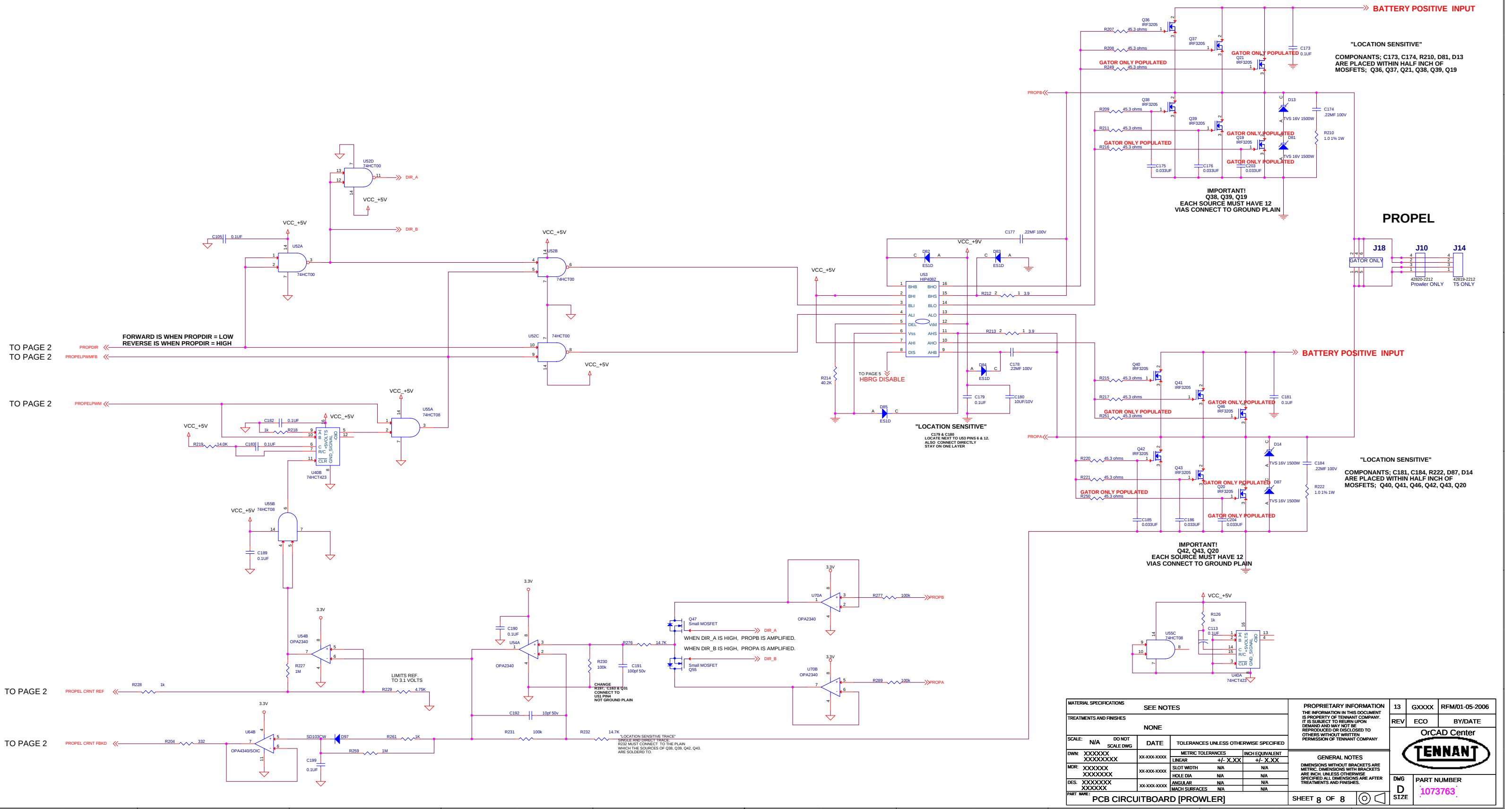
GND_POWER

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				DWG D SIZE		
DES: XXXXXXXX XXXXXXX		XX-XXX-XXXX				PART NUMBER 1073763		
PART NAME		PCB CIRCUITBOARD [PROWLER]		SHEET 4 OF 8				



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		OrCAD Center 		
DWN: XXXXXX XXXXXXXXXX		XX-XXX-XXXX		METRIC TOLERANCES LINEAR +/- .X XX +/- .X XX		INCH EQUIVALENT N/A N/A		DWG D SIZE PART NUMBER 1073763
MOR: XXXXXX XXXXXXXXXX		XX-XXX-XXXX		SLOT WIDTH N/A N/A		HOLE DIA N/A N/A		
DES: XXXXXX XXXXXXX		XX-XXX-XXXX		ANGULAR N/A N/A		MACH SURFACES N/A N/A		
PART NAME:		PCB CIRCUITBOARD [PROWLER]		SHEET 6 OF 8				





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 TENNANT PART NUMBER 1073763			
DWN: XXXXXXXX		XXXXXXX	XX-XXX-XXXX	METRIC TOLERANCES		INCH EQUIVALENT				
MDR: XXXXXXXX		XXXXXXX	XX-XXX-XXXX	LINEAR		+/- X.XX				
DES: XXXXXXXX		XXXXXXX	XX-XXX-XXXX	SLOT WIDTH		N/A				
PART NAME:		PCB CIRCUITBOARD [PROWLER]			HOLE DIA					
					HOLE DIA		N/A	DWG D SIZE		
					ANGULAR		N/A			
					MACH SURFACES		N/A			
									SHEET 8 OF 8	