

TROIKA/7300

CIRCUIT BOARD

SCHEMATIC

11/18/03 JPH	CHANGE Q8: FROM, BTS141 TO, BTS133
3/4/14 TBS	CHANGE DS1286 TO DS1511Y

INDEX

NOTE: THE BARE CIRCUIT BOARD CREATED FROM THIS SCHEMATIC (374207) IS USED TO BUILD 7300/8300/NEXGEN. CIRCUIT BOARDS P/N 399611, P/N 374204
SCHEMATIC SIGNAL NAMES IN (XXXX) DENOTE 7300/8300 NAMES

PAGE 1	CPU, PSD, JTAG, CLOCK, RS232, DISPLAY, BATT DETECT, TEST POINTS
PAGE 2	INPUTS, SHUNT AMPS, OUTPUT REGISTERS, SWEEPER CONNECTOR, D2A
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PAGE 5	H-BRIDGE 1 (SQUEEGEE & BURNISH), HEAT SINK, HARDWARE

MEMORY MAP:

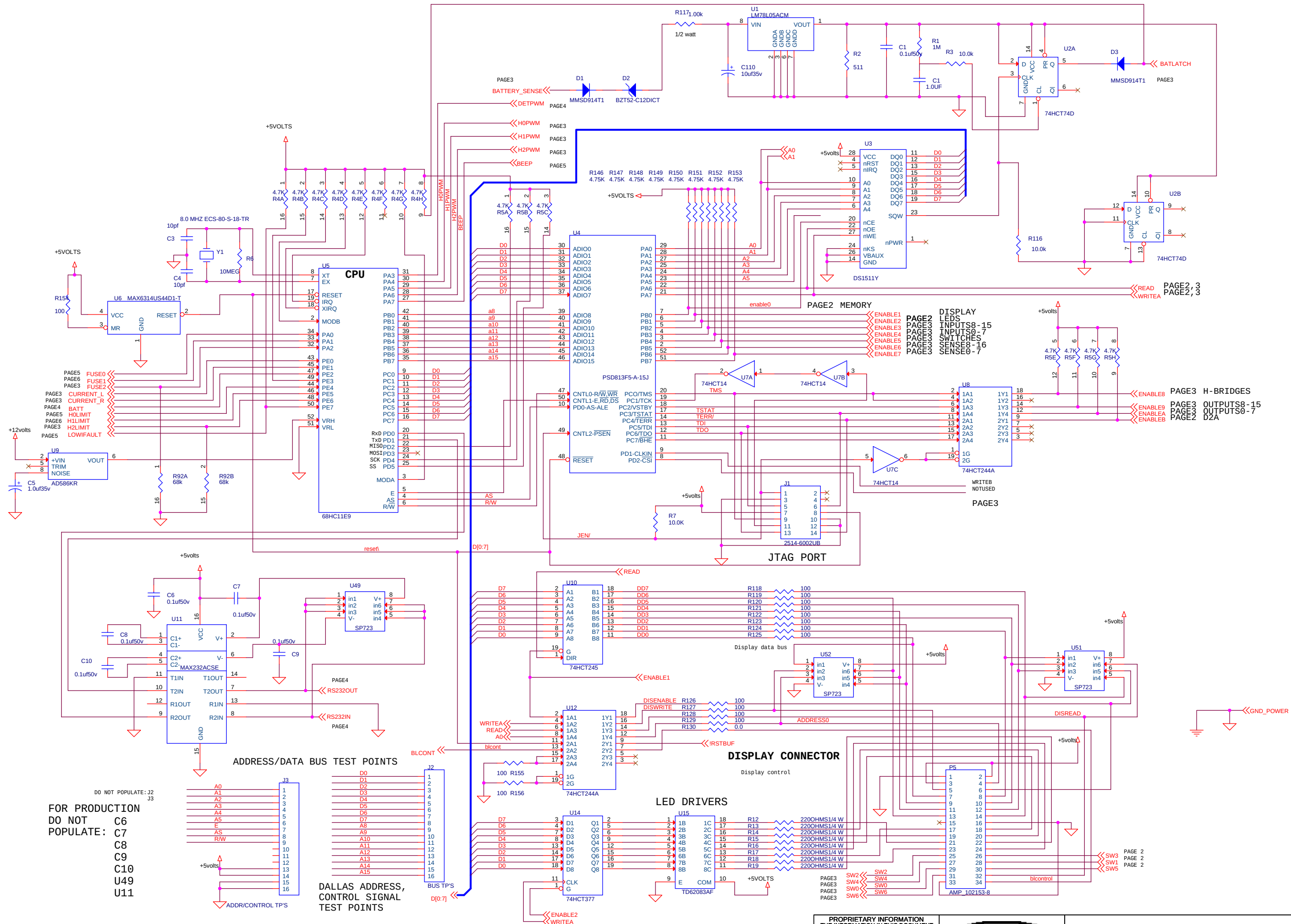
fs0	0byyyyyyyy	0x9000	0xB5FF	F	// & !pdn
fs1	0byyyyyyyy	0xB600	0xBFFF	F	// & !pdn
fs2	0byyyyyyyy	0xC000	0xFFFF	F	// & !pdn
csiop	0byyyyyyyy	0x2000	0x20FF	V	// & !pdn
!enable0	0byyyyyyyy	0x3000	0x30FF	Peripheral	// & !as MEMORY
!enable1	0byyyyyyyy	0x3100	0x31FF	Peripheral	// & !as DISPLAY
!enable2	0byyyyyyyy	0x3200	0x32FF	Peripheral	// & !as LEDS
!enable3	0byyyyyyyy	0x3300	0x33FF	Peripheral	// & !as INPUTS 8-15
!enable4	0byyyyyyyy	0x3400	0x34FF	Peripheral	// & !as INPUTS 0-7
!enable5	0byyyyyyyy	0x3500	0x35FF	Peripheral	// & !as SWITCHES
!enable6	0byyyyyyyy	0x3600	0x36FF	Peripheral	// & !as SENSE 8-15
!enable7	0byyyyyyyy	0x3700	0x37FF	Peripheral	// & !as SENSE 0-7
!enable8	0byyyyyyyy	0x3800	0x38FF	Peripheral	// & !as H-BRIDGES
!enable9	0byyyyyyyy	0x3900	0x39FF	Peripheral	// & !as OUTPUTS 8-15
!enablea	0byyyyyyyy	0x3A00	0x3AFF	Peripheral	// & !as OUTPUTS 0-7
!enableb	0byyyyyyyy	0x3B00	0x3BFF	Peripheral	// & e & !r_w & !as

D2A WRITE

Rev 5: Modified to replace the obsolete DS1286 with the not quite obsolete DS1511Y. Glenn Okan made code changes, the battery disconnect detect circuit is now useless. Battery gauge functionality is all in software and the gauge can go UP or DOWN.
I updated the schematic with QPL numbers. _TS_

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MATERIAL SPECIFICATIONS			SEE NOTES		PROPRIETARY INFORMATION		0	G8870	PLG 09-23-2002
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						
DWN: XXXXXX XXXXXXXXXX		XX-XXX-XXXX	METRIC TOLERANCES		INCH EQUIVALENT				
MDR: XXXXXX XXXXXXXXXX		XX-XXX-XXXX	LINEAR		+/- X.XX	GENERAL NOTES DIMENSIONS WITHOUT BRACKETS ARE METRIC. DIMENSIONS WITH BRACKETS ARE INCH. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE AFTER TREATMENTS AND FINISHES.			
DES: XXXXXX XXXXXXX		XX-XXX-XXXX	SLOT WIDTH		N/A				
			HOLE DIA		N/A				
			ANGULAR		N/A				
PART NAME:		SCHEMATIC, CIRCUITBOARD,[7300NEWRTC]			SHEET 1 OF 6		DWG C SIZE		PART NUMBER 374207



FOR PRODUCTION
DO NOT
POPULATE: C6
C7
C8
C9
C10
U49
U11

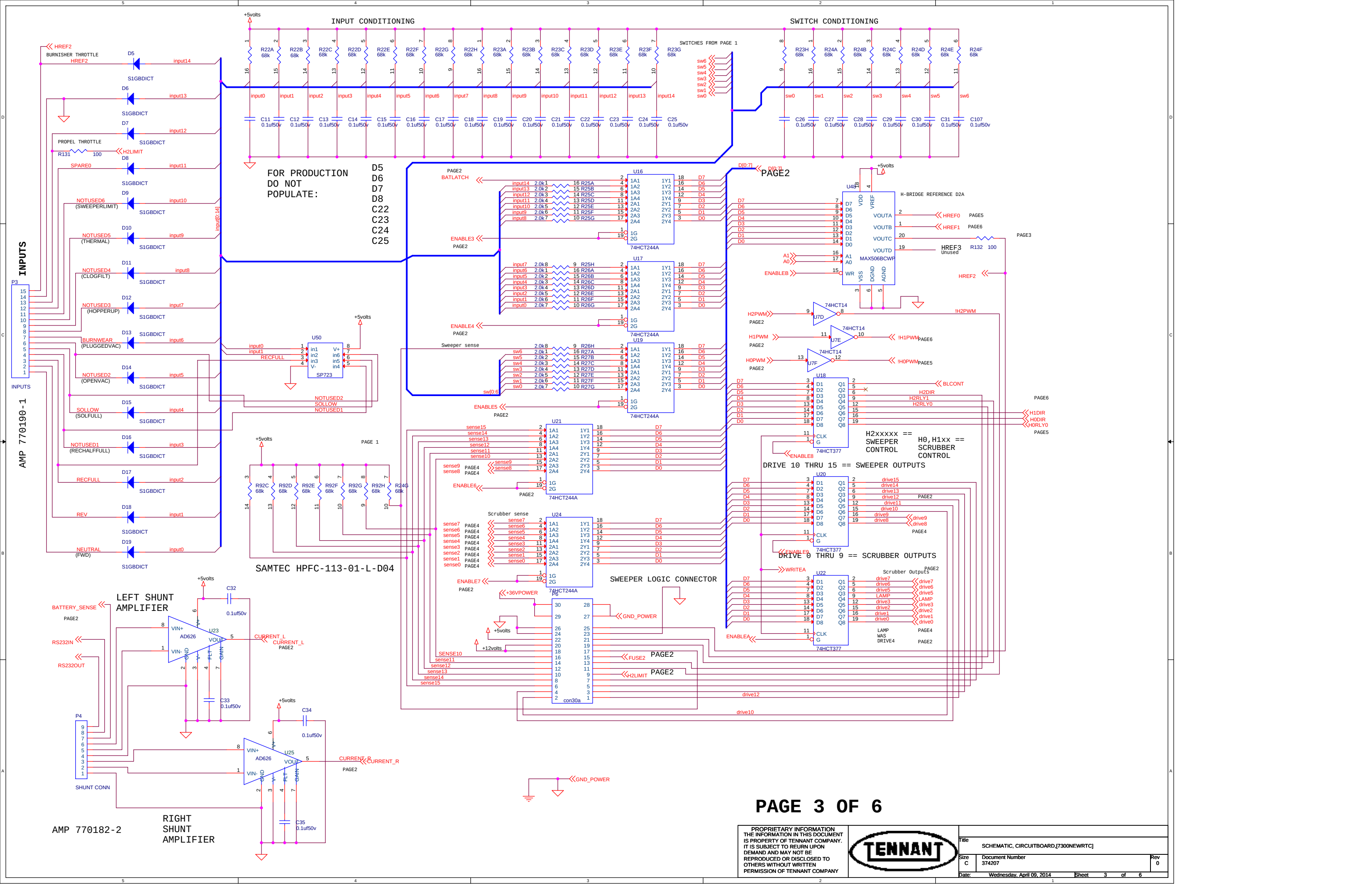
DO NOT POPULATE: J2
J3

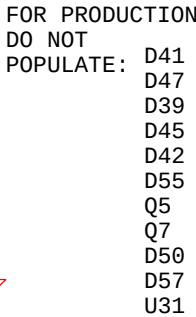
ADDRESS/DATA BUS TEST POINTS

Pin	Signal
1	A0
2	A1
3	A2
4	A3
5	A4
6	A5
7	A6
8	A7
9	A8
10	A9
11	A10
12	A11
13	A12
14	A13
15	A14
16	A15

DALLAS ADDRESS, CONTROL SIGNAL TEST POINTS

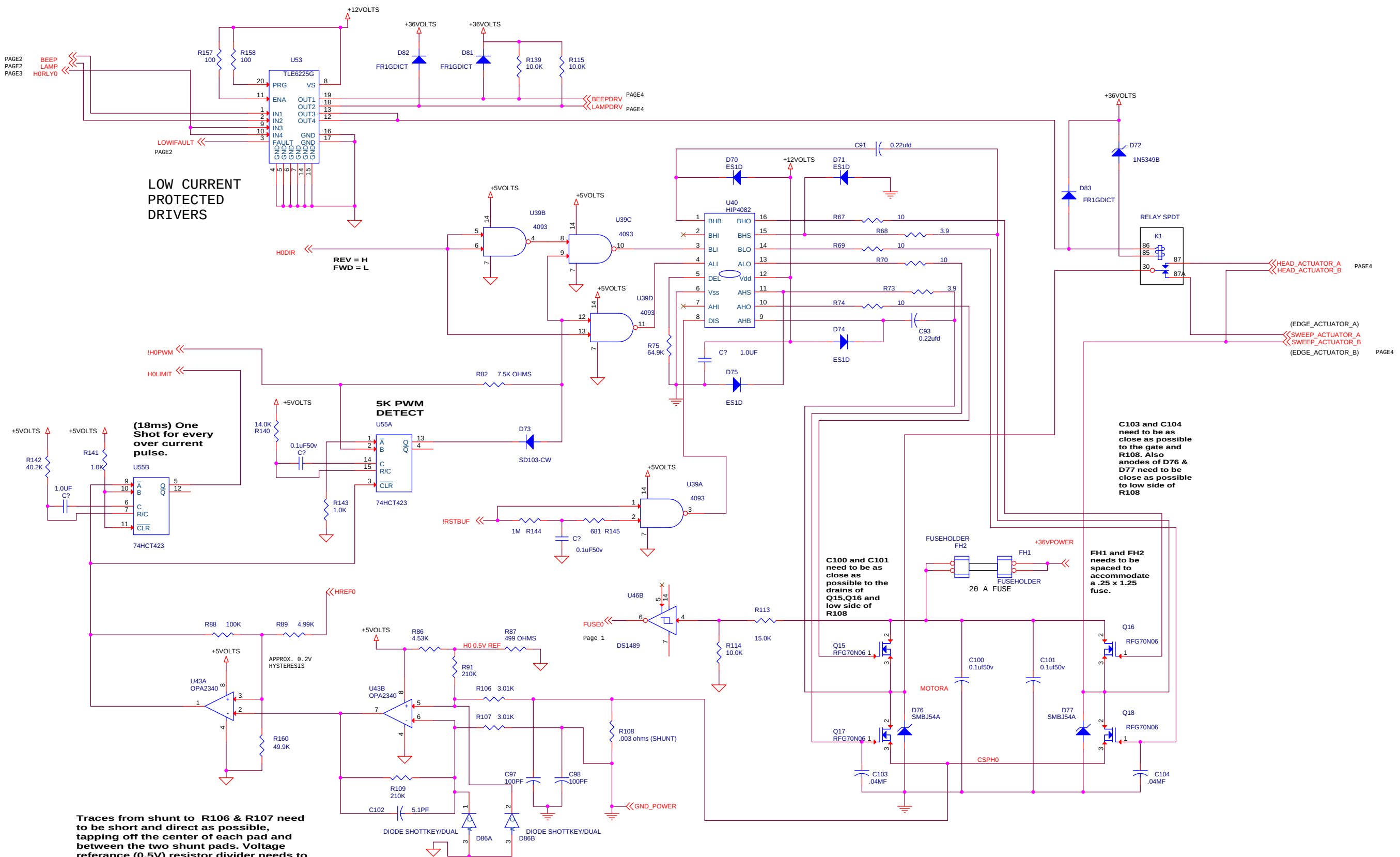
Pin	Signal
1	AS
2	R/W





Title			
SCHEMATIC, CIRCUITBOARD,[7300NEWRTC]			
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SCRUBBER HBRIDGE 0



Traces from shunt to R106 & R107 need to be short and direct as possible, tapping off the center of each pad and between the two shunt pads. Voltage reference (0.5V) resistor divider needs to be located on other side of U43 away from shunt but near U43.

High side of shunt resistor needs to be as close as possible to the source of Q17 and Q18. Also low side of shunt must be connected directly to GND_POWER plane.

C100 and C101 need to be as close as possible to the drains of Q15, Q16 and low side of R108

C103 and C104 need to be as close as possible to the gate and R108. Also anodes of D76 & D77 need to be close as possible to low side of R108

FH1 and FH2 needs to be spaced to accommodate a .25 x 1.25 fuse.



