



Rev - A:

- T12 Post-Production changes. Silk-screen, schematic and BOM changes needed to make the board match up to Service Manual. CAH 04 Aug 2016

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Rev D:
Added gate pull downs on low side drivers. TS
Changed threshold set circuitry on both H and Half bridges to allow higher setting voltages to mesh with the offset in the H and Half Bridges.
Added pulldown to BRIDGE_ENABLE to disable if micro is tristated.
Switched to a Homogeneous HV4882 symbol to fix unintended refdes changing behavior.
Using new set of Bridge Modules. See those schematics for change logs.
Changed opamp U8 in the 2nd order low pass filter and Half Bridge threshold set circuit from an LMV3580 to a LMV3580 to allow higher supply voltages.
Added a gain of 2x to the 2nd order low pass filter to allow full range of threshold setting now that we have a 2.8v offset.
Marked Half Bridge threshold setting to 4.8v (which works out to 40A +/-1.5A).
Added resistors R227 -> R242 (121 ohm) for improved test coverage.
Added resistors R243 -> R248 (48 ohm) and changed R65, R68, R76 Low side current sense circuit
Changed P1 the B+ stud hole size to 8.522".
Populated CAN Transceiver resistors R32 and R34
Corrected R38 QPL part number for 6.65k ohm threshold voltage
Added missing manufacture and manufacture part numbers to match the QPL listing
Corrected C12,C26,C27 QPL number to Q1602-840 to match the 8663 footprint
Updated J2 footprint for use with top entry part number B38-PH-SM-19
Updated schematic database for use with an allegro layout
Added mc pin properties to U19, U24, J2, J3, J4, J5, J6
Removed illegal characters '/' and '\' From footprints names
Added pin numbers to schematic capacitor and resistor symbols when missing
Added TVS diode SMAJ1 QPL# Q13807-006 across VBAT
Changed resistor values and tolerances for current threshold and power supply
Changed C61 from .1uF to 1uF to give a 18ms time constant instead of .1ms. .1ms would have let too much 2kHz ripple (on 12V) through. 1uF is better.
Added reference designtator capacitor property "R151 to 256 in module A2
Updated U22B in module A3 to have correct pinout. Just changed to "U22A" then "U22B" again. Stupid bug.
Added U22C to correct pinout. It was conflicting with a spare part, and previous revisions had U22B there.) I'm not sure how this got messed up.
Changed power supply reference resistors

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- Rev - J:
- T12 refresh board production.
- Added pullup to RESET_DRIVERS line.
- Change actuator driver current scaling.

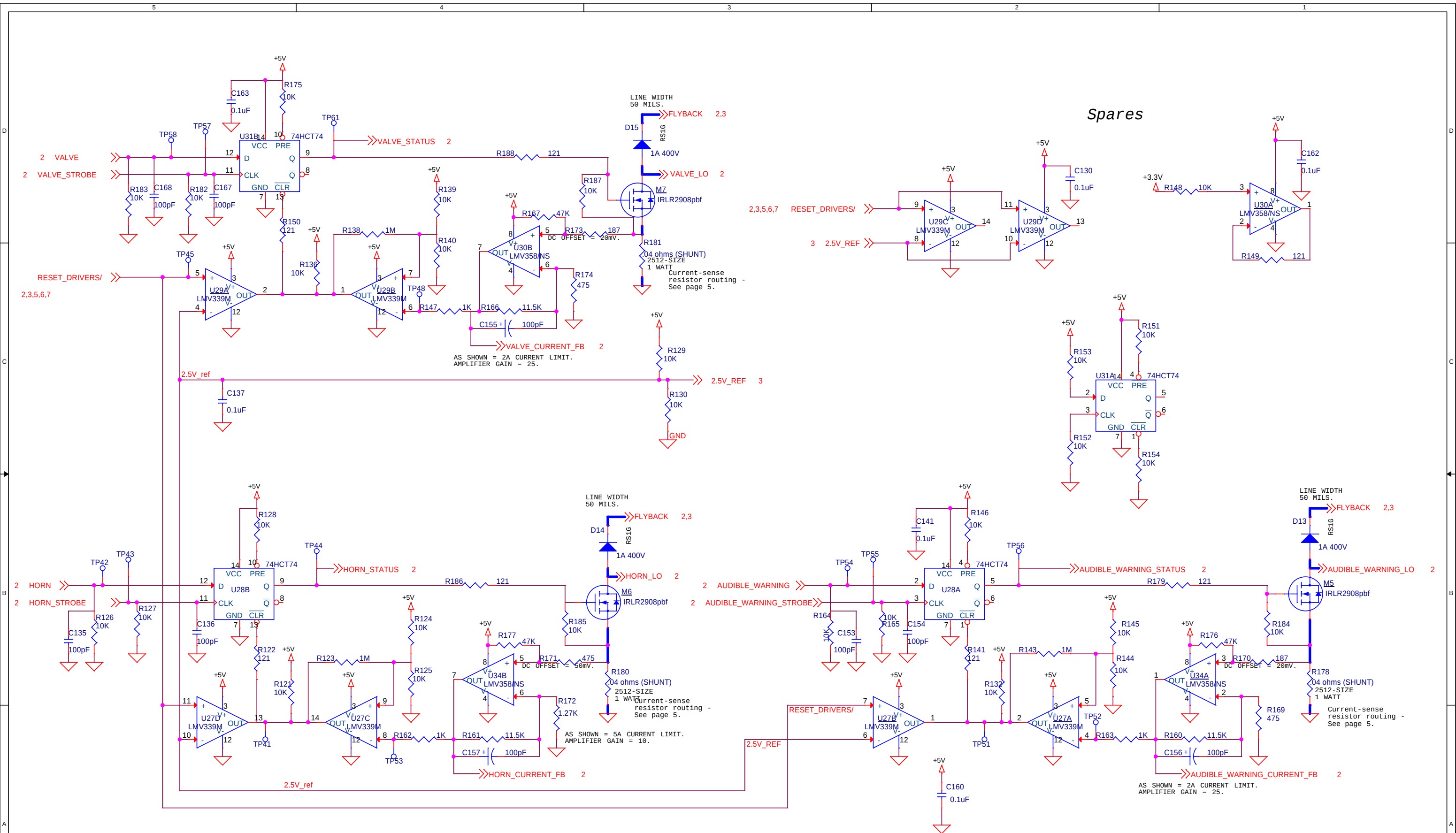
(REFERENCE ONLY) PCA 1219352

FW
FIRMWARE Q30038-003

○ PCB
PCB Q25038-007

SCHEMATIC
SCHEMATIC O26012-002

Title			
CASSODAY SCRUB MODULE			
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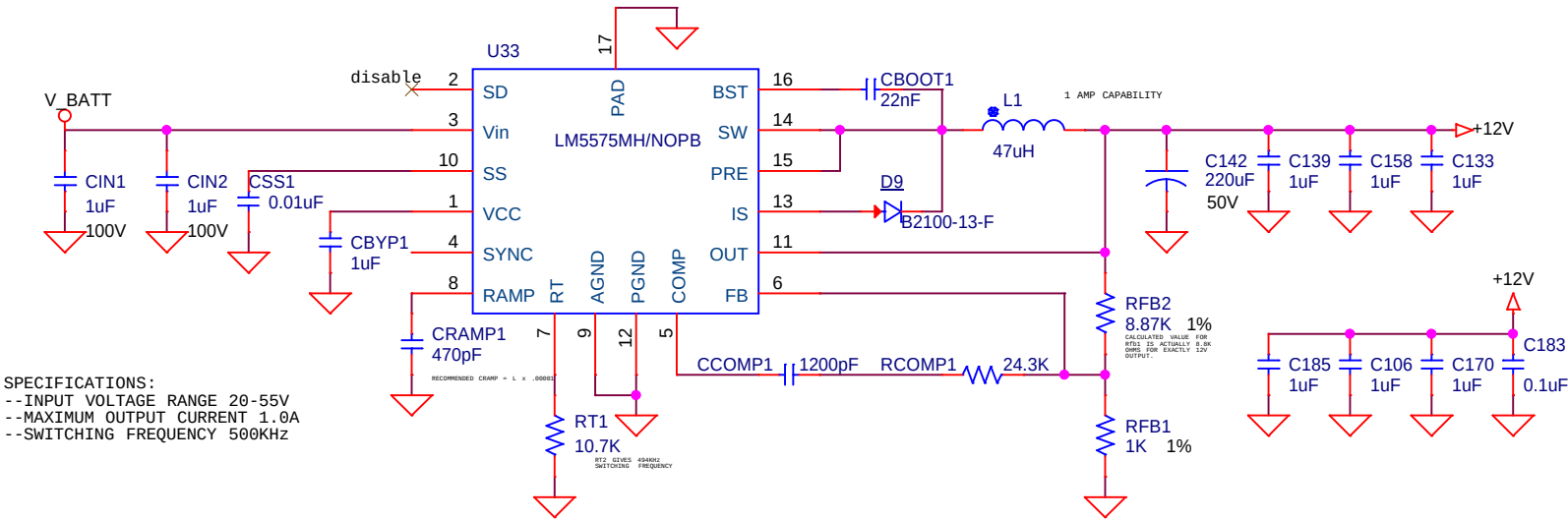


LOW SIDE DRIVERS

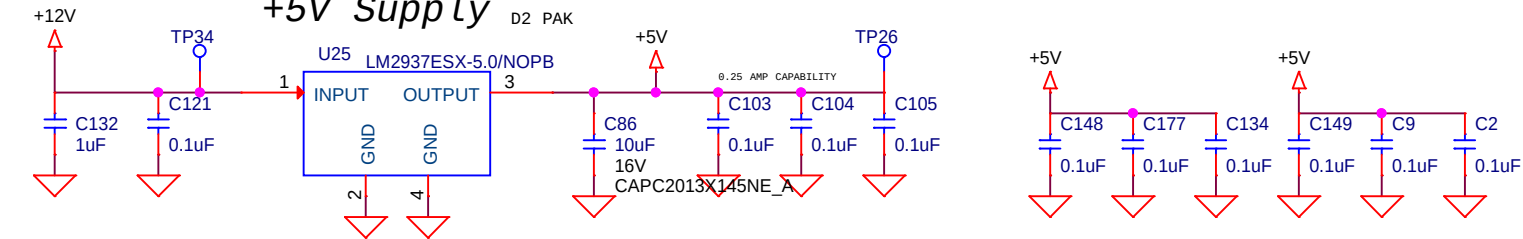
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Power Supplies

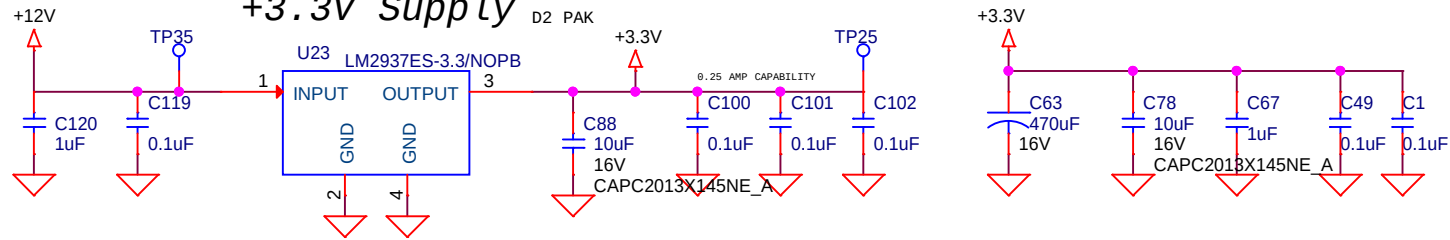
+12V Supply



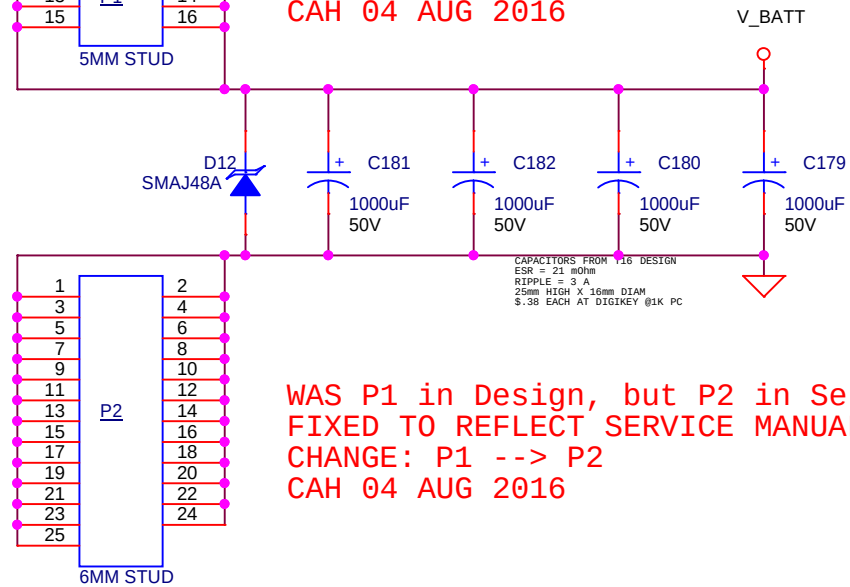
+5V Supply



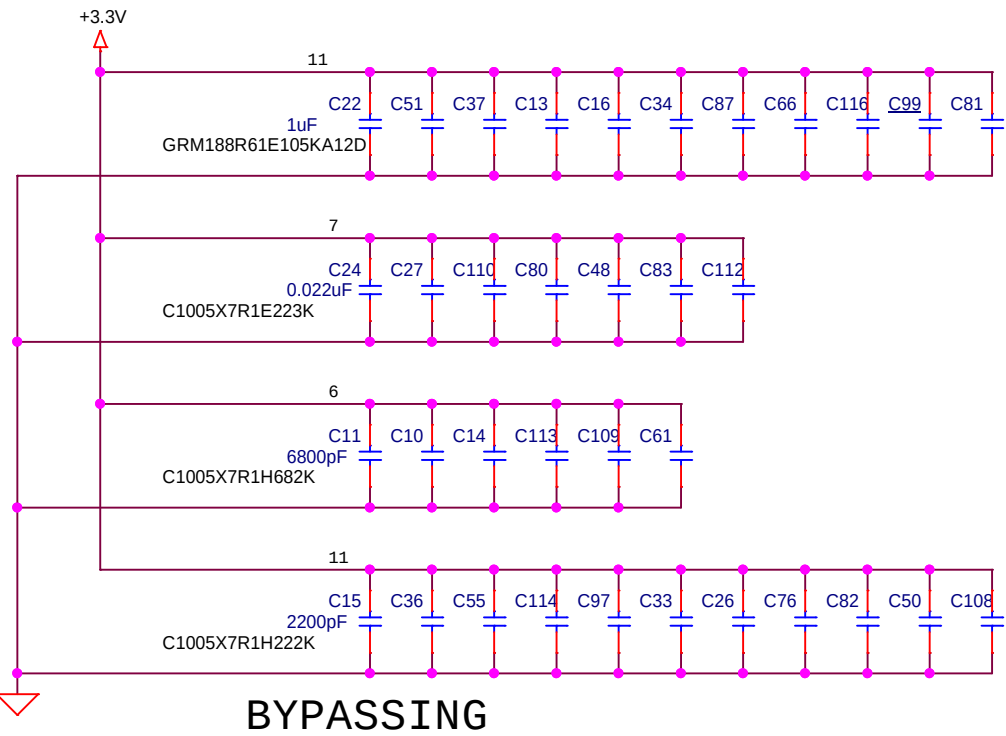
+3.3V Supply



WAS P2 in Design, but P1 in Service Manual.
FIXED TO REFLECT SERVICE MANUAL.
CHANGE: P2 --> P1
CAH 04 AUG 2016



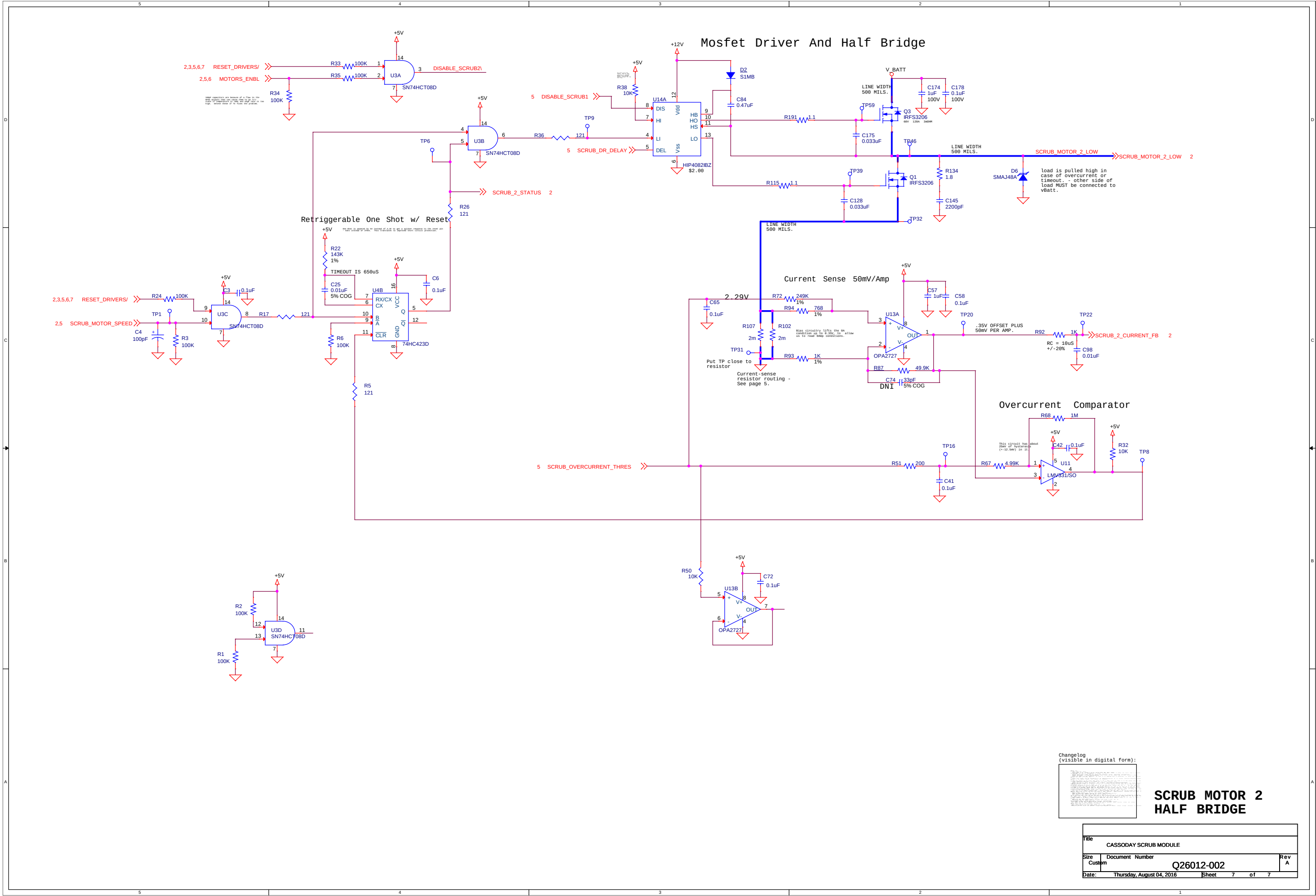
WAS P1 in Design, but P2 in Service Manual.
FIXED TO REFLECT SERVICE MANUAL.
CHANGE: P1 --> P2
CAH 04 AUG 2016



BYPASSING

FIDUCIAL/A
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Changelog
(visible in digital form):



**SCRUB MOTOR 2
HALF BRIDGE**

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