



VOLGA BURNISHER CONTROL MODULE

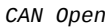
- Changelog:
- REV A: SEND OUT FOR QUOTES.
 - REV B: SEPARATE 74HC423 SECTIONS TO MAKE H-BRIDGE AND LSD DRIVER BLOCKS INDEPENDENT.
 - REV C:
 - REV D: RENUMBER REFERENCE DESIGNATORS. THIS IS P1 AS BUILT.
 - REV E: CHANGE U31 FROM LMV321 TO LM321.
CHANGE C43 FRROM .1uF TO .001uF.
CHANGE R114 FROM PULLDOWN TO PULLUP ON ACTUATOR_ENABLE\
ADD R149 PULLDOWN ON ACTUATOR_MOTOR_DIRECTION.
FIX Q2 PINOUT.
FIX U17 GROUND.
CHANGE C96,C109,C115 FROM ELECTROLYTIC TO CERAMIC.
FIX POWER CONNECTION ON U12.
ADD 100K PULLDOWN TO J11-11.
 - REV F: CHANGE PROCESSOR TO M4 CORTEX.
POPULATE CAN TERMINATION.
ADD Q2 PULLDOWNS.
CHANGE CONTACTOR TO BE POWERED FROM KEYSWITCH INSTEAD OF CIRCUIT BREAKER POWER.
ADD REVERSE BATTERY PROTECTION ON KEYSWITCH POWER INPUT.
ADD TRANSZORB ON CAN.
MOVE I-DRIVE PEDAL IN TO J12-3.
MOVE E-STOP READ SIGNAL TO PA7
ADD POWER GOOD SIGNAL.
 - REV G: FIX P2 BOM
 - REV H: UP REV FOR PREPRODUCTION.
 - REV I: FIX J11-9, J11-11 NAMES.

THIS SCHEMATIC APPLIES TO ASSEMBLIES 1205770 AND 1208467. COMPONENTS DESIGNATED "1208467 DNI" ARE DEPOPULATED ON THAT ASSEMBLY.

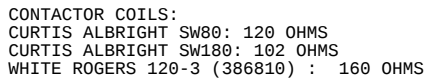
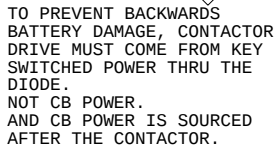
- BOM ITEMS:
- ☐ FW
FIRMWARE Q30045-003
 - ☐ PCB1
PCB Q25041-003
 - ☐ SCHEMATIC1
SCHEMATIC Q26002-003

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RS-232 SERIAL PORT



Note: Tranceiver is an endpoint
resistors are populated.
47nF cap reduces noise.



The schematic diagram illustrates the 100A Half Bridge Interface circuit. It features a 2nd Order Low Pass Filter with a 1kHz cutoff, a precision reference, and various op-amp stages (74AHC1G86, 74HC14A/SO_0) for signal conditioning. The circuit also includes a ribbon cable connector for interfacing with a motor driver and status monitoring. Key components include U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, U11, U12, U13, U14, U15, U16, U17, U18, U19, U20, U21, U22, U23, U24, U25, U26, U27, U28, U29, U30, U31, U32, U33, U34, U35, U36, U37, U38, U39, U40, U41, U42, U43, U44, U45, U46, U47, U48, U49, U50, U51, U52, U53, U54, U55, U56, U57, U58, U59, U60, U61, U62, U63, U64, U65, U66, U67, U68, U69, U70, U71, U72, U73, U74, U75, U76, U77, U78, U79, U80, U81, U82, U83, U84, U85, U86, U87, U88, U89, U90, U91, U92, U93, U94, U95, U96, U97, U98, U99, U100.

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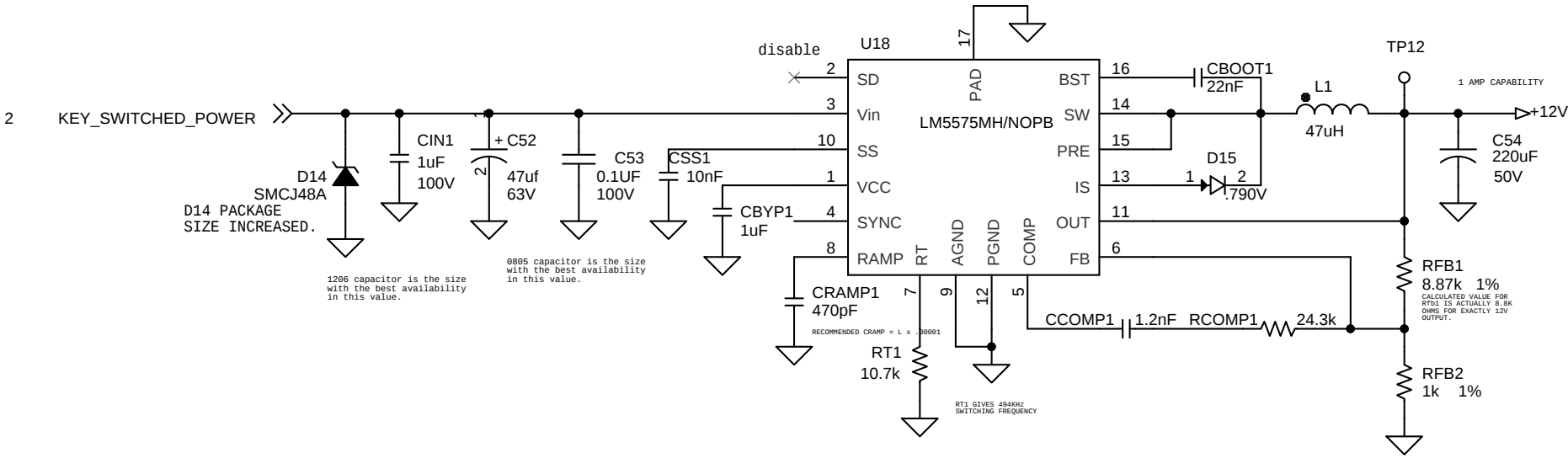


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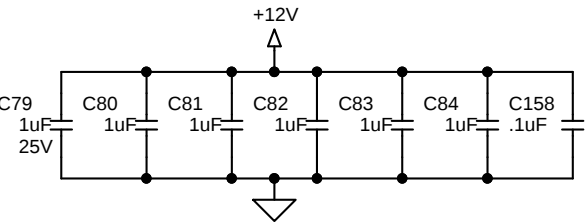
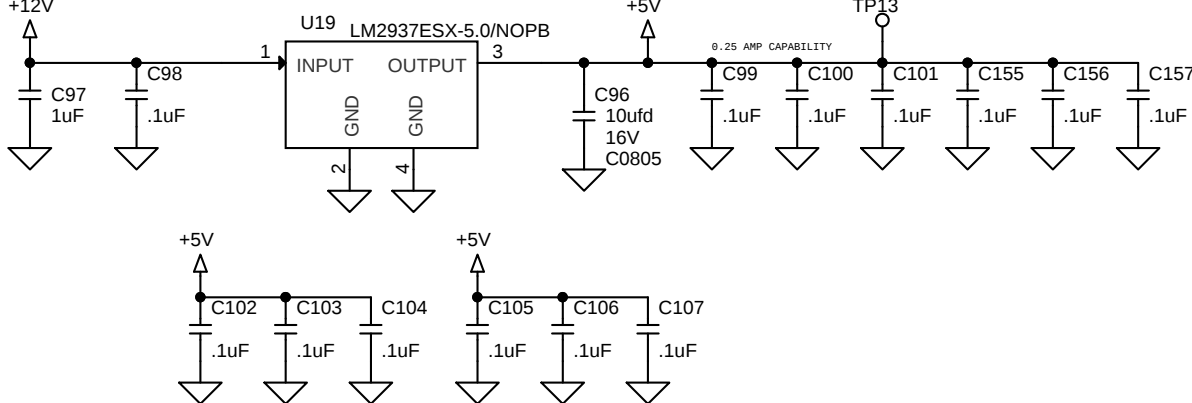
Power Supplies

+12V Supply

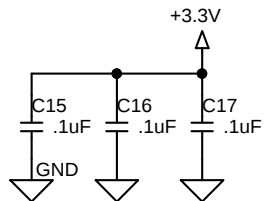
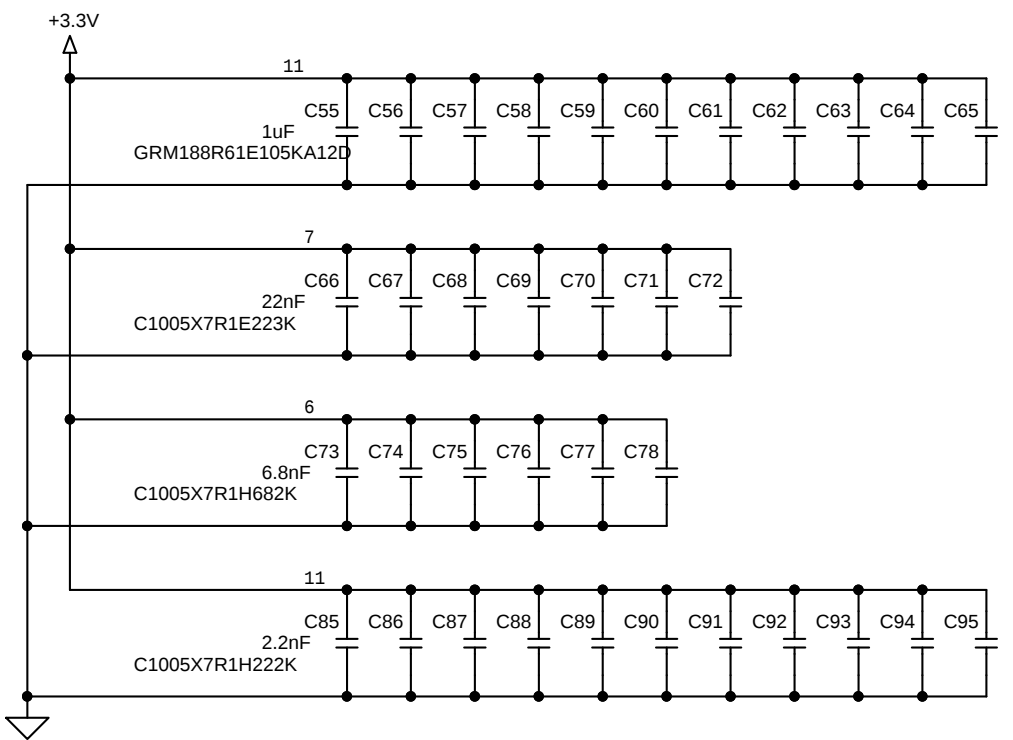
SPECIFICATIONS:
--INPUT VOLTAGE RANGE 20-55V
--MAXIMUM OUTPUT CURRENT 1.0A
--SWITCHING FREQUENCY 500KHz



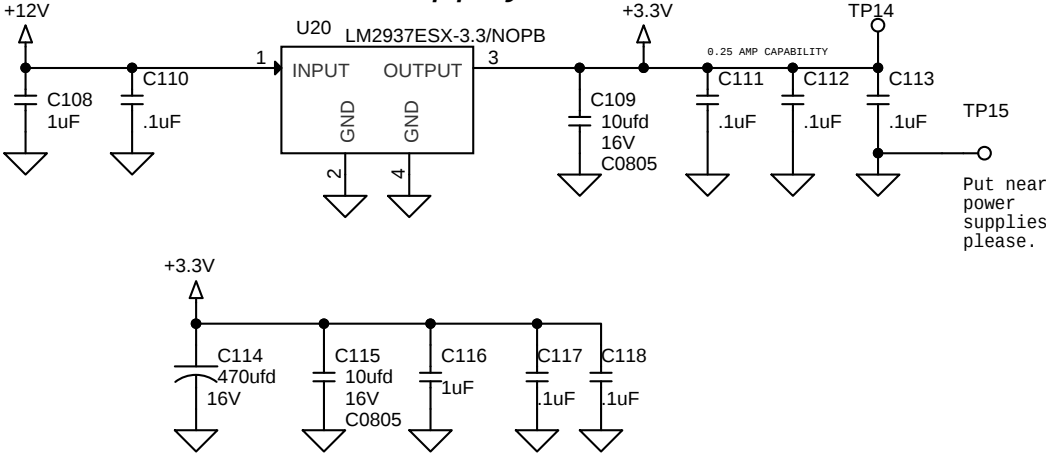
+5V Supply



BYPASSING



+3.3V Supply



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