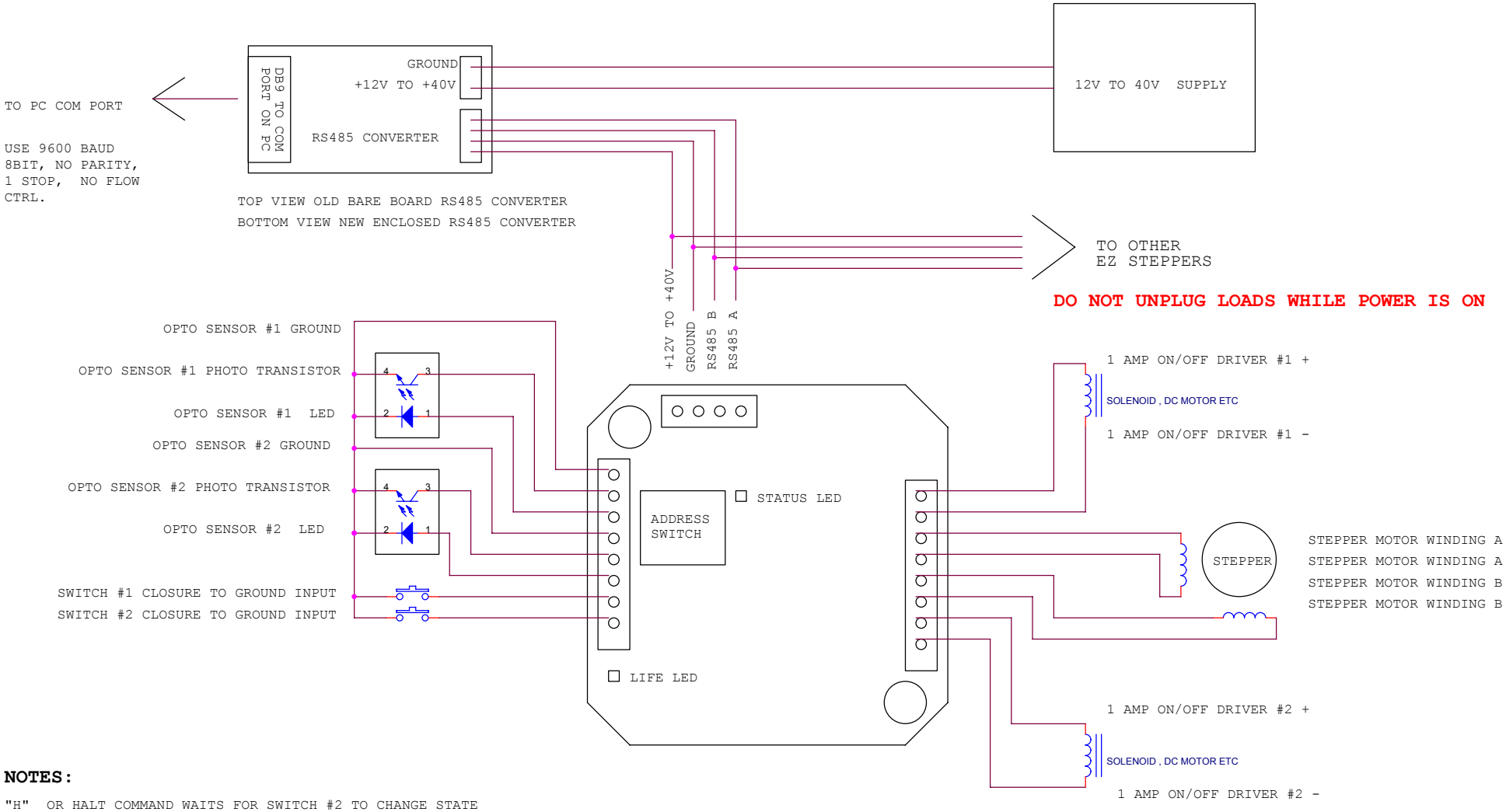

NOTES:

"H" OR HALT COMMAND WAITS FOR SWITCH #2 TO CHANGE STATE

"Z" OR HOME COMMAND RUNS MOTOR UNTIL OPTO #1 IS ON FLAG EDGE.

A SWITCH CAN REPLACE THE OPTO FOR HOMING, CONNECT SWITCH FROM PHOTO TRANSISTOR INPUT TO GROUND.

SEE PAGE 2 FOR WIRING DETAILS
SEE PAGE 3 FOR ACESSORIES
SEE PAGE 4 FOR DIMENSIONAL INFO

EZ17 AND EZ23 WIRING DIAGRAM

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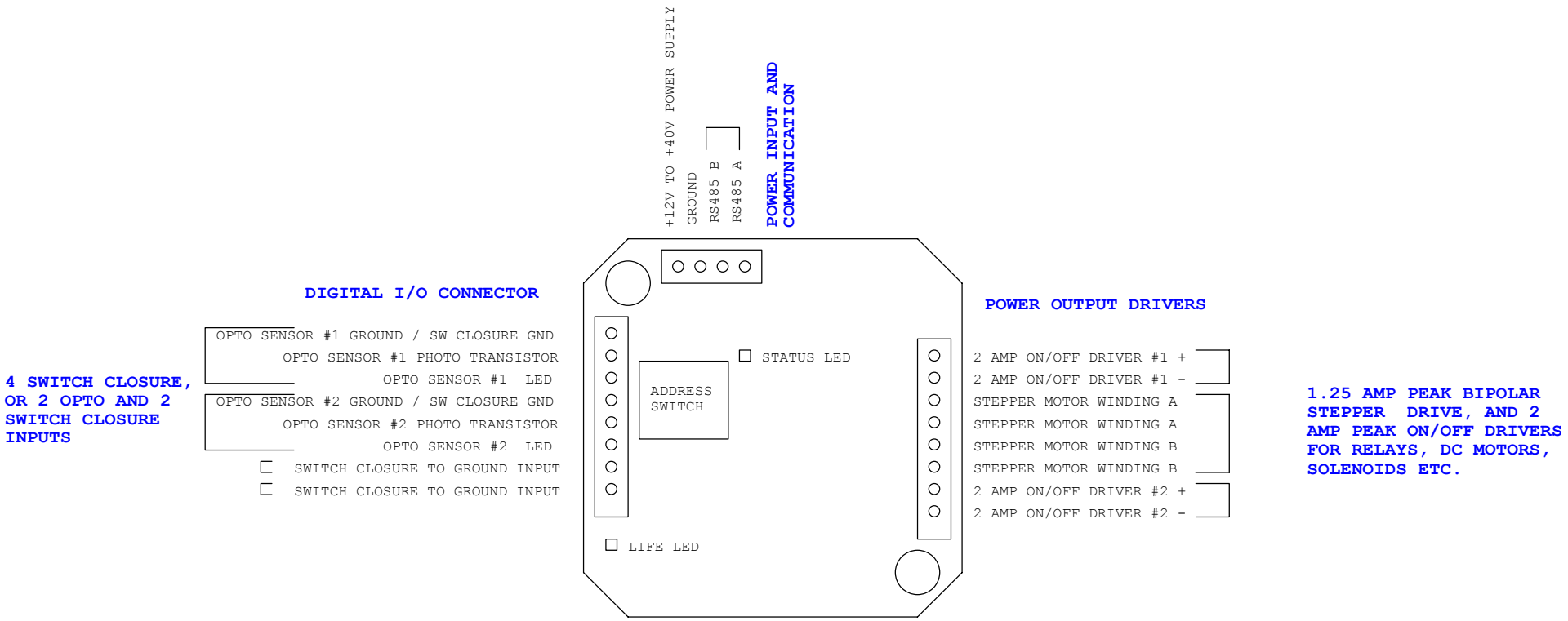

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EZ17 AND EZ23 ACESSORIES AND OTHER ELECTRICAL NOTES

MATING CONNECTORS:

AMP MTA 100 SERIES

4PIN 22 GA DIGIKEY P/N A31108 (INPUT CONNECTOR)

8PIN 22 GA DIGIKEY P/N A31111 (NEMA23 MOTOR)

8PIN 24 GA DIGIKEY P/N A31023 (NEMA17 MOTOR)

8PIN 26 GA DIGIKEY P/N A31030 (FOR OPTOS)

5PIN 26 GA DIGIKEY P/N A31027 (FOR ENCODER)

T HANDLE CRIMP TOOL DIGIKEY P/N A9982

PISTOL GRIP TOOL DIGIKEY P/N A1998 + A2031

MOTORS:

1) THE EZ STEPPER WILL DRIVE MOST STEPPER MOTORS

2) FOR BEST PERFORMANCE SELECT A MOTOR THAT IS RATED AT ABOUT 1/4 OF THE SUPPLY VOLTAGE. (Eg USE A 6V MOTOR WITH A 24V SUPPLY).

3) FOR (UNIPOLAR) STEPPER MOTORS WITH CENTER TAPPED WINDINGS , TYPICALLY LEAVE THE CENTER TAP UNCONNECTED, OR WIRE PER MANUFACTURERS RECOMMENDATIONS.

SUITABLE POWER SUPPLIES:

1) FOR FIRST TIME USERS, TO GUARD AGAINST A POSSIBLE MISWIRE, A CURRENT LIMITED LAB SUPPLY SET TO 12V AND 0.5A IS RECOMMENDED.

2) A SUPPLY OF 24V AND 2A CAPABILITY IS GOOD FOR MOST PURPOSES. POSSIBLE CHOICES ARE:

DIGIKEY P/N 271-1112

DIGIKEY P/N Z1158 (ENCLOSED)

3) INPUT CURRENT IS MUCH LESS THAN MOTOR CURRENT DUE TO THE SWITCHING (PWM). IT CAN BE CALULATED BY CONSIDERING CONSERVATION OF POWER. HOWEVER IT IS IMPORTANT TO MAKE SURE THAT THE SUPPLY WILL NOT FOLD BACK AS IT IS COMING UP SINCE THE EZ STEPPER WILL DRAW MORE CURRENT AT LOWER VOLTAGES.

OPTO HOME SWITCH:

1) "Z" OR HOME COMMAND RUNS MOTOR UNTIL OPTO #1 IS ON FLAG EDGE.

2) AN OPTO SWITCH PROVIDED WITH EACH STARTER KIT

3) USE TRANSISTOR OPTO THAT HAS Ic > 1mA @ IF = 20mA.

4) EXAMPLES OF ACCEPTABLE OPTOS ARE:

DIGIKEY P/N QVA11134

DIGIKEY P/N H21A1

HONEYWELL HOA1887-012 (IS PREWIRED)

HONEYWELL HOA1870-33 (IS PREWIRED)

OPTEK OPB830W11 (IS PREWIRED)

5) THE OPTO COUPLER LED PIN HAS 150 OHM TO 5V IN SERIES ON THE BOARD. THE 150 OHM CAN BE REMOVED IF DESIRED FOR RUNNING SENSORS THAT REQUIRE DIRECT ACESS TO 5V. THE COLLECTOR OF THE TRANSISTOR HAS A 10K PULLUP TO 5V.

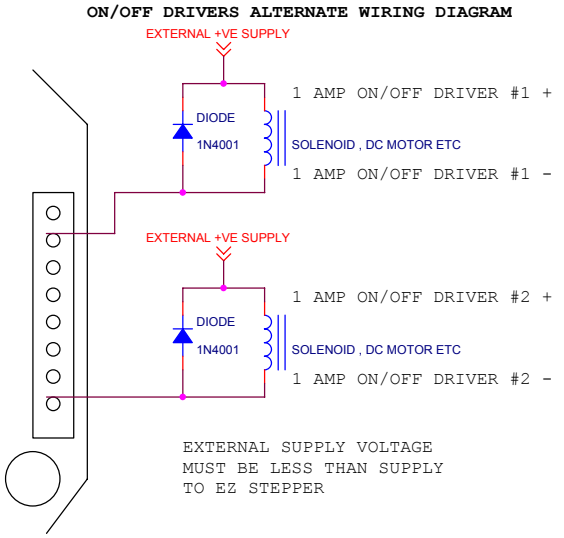
6) ALL INPUTS WORK ON TTL LEVEL SIGNALS

ON/OFF DRIVERS ALTERNATE WIRING DIAGRAM

1) ON/OFF DRIVERS RATED AT 2 AMPS PEAK, 1 AMP CONTINUOUS.

2) THE NEGATIVE PIN OF THESE DRIVERS IS ACTUALLY AN OPEN COLLECTOR TYPE OUTPUT THAT PULLS DOWN TO GROUND. IT IS POSSIBLE TO DRIVE LOADS THAT ARE OF A DIFFERENT VOLTAGE THAN THE SUPPLY VOLTAGE, BY CONNECTING THE POSITIVE SIDE OF THE LOAD TO AN EXTERNAL SUPPLY, AND THE NEGATIVE SIDE TO THE -VE OUTPUT PIN. HOWEVER, IN CASE THIS IS DONE IT IS NECESSARY TO PLACE AN EXTERNAL "FREE WHEELING" DIODE ACROSS ANY INDUCTIVE LOADS. EXTERNAL SUPPLY VOLTAGE MUST BE LESS THAN SUPPLY VOLTAGE TO EZ STEPPER

3) EXTERNAL DIODE IS NOT NECESSARY IF BOTH SIDES OF LOAD ARE WIRED BACK TO THE EZ STEPPER.



SEE NEXT PAGE FOR DIMENSIONAL INFO

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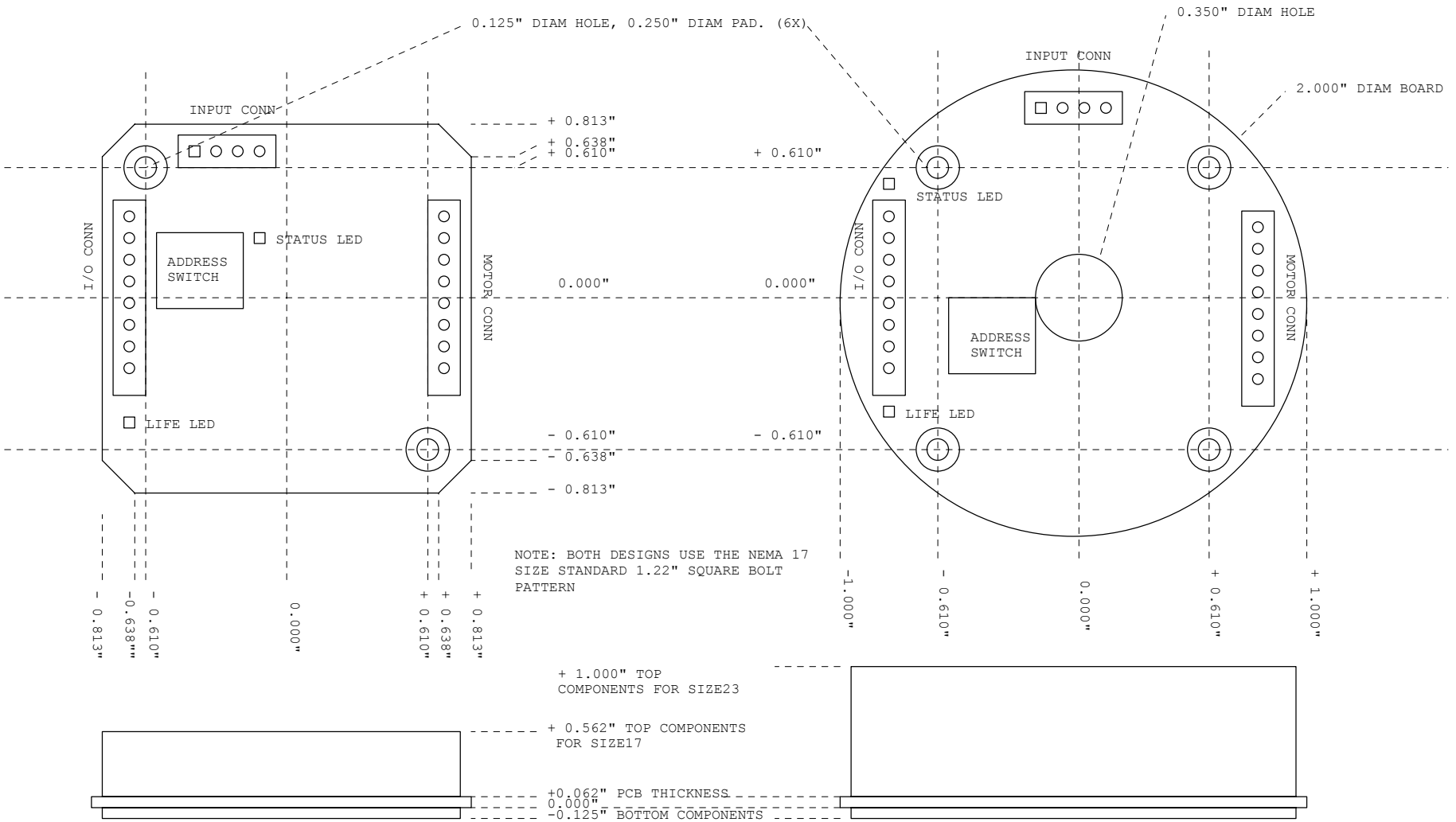

EZ17 AND EZ23 DIMENSIONAL INFORMATION

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