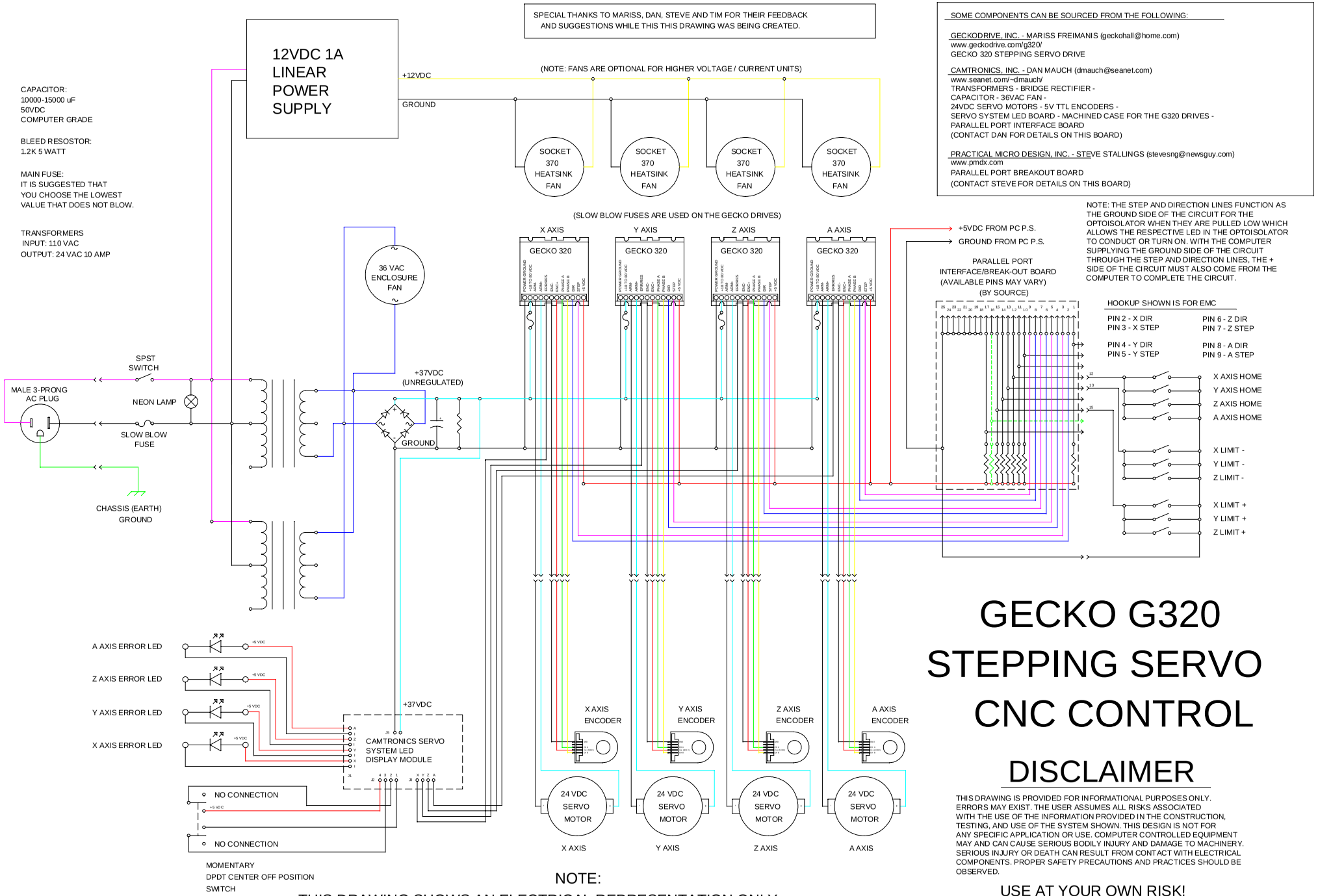
SPECIAL THANKS TO MARISS, DAN, STEVE AND TIM FOR THEIR FEEDBACK AND SUGGESTIONS WHILE THIS THIS DRAWING WAS BEING CREATED.
SOME COMPONENTS CAN BE SOURCED FROM THE FOLLOWING:
GECKODRIVE, INC. - MARISS FREIMANIS (geckohall@home.com)
www.geckodrive.com/g320/
GECKO 320 STEPPING SERVO DRIVE
CAMTRONICS, INC. - DAN MAUCH (dmauch@seanet.com)
www.seanet.com/~dmauch/
TRANSFORMERS - BRIDGE RECTIFIER -
CAPACITOR - 36VAC FAN -
24VDC SERVO MOTORS - 5V TTL ENCODERS -
SERVO SYSTEM LED BOARD - MACHINED CASE FOR THE G320 DRIVES -
PARALLEL PORT INTERFACE BOARD
(CONTACT DAN FOR DETAILS ON THIS BOARD)
PRACTICAL MICRO DESIGN, INC. - STEVE STALLINGS (stevesng@newsguy.com)
www.pmdx.com
PARALLEL PORT BREAKOUT BOARD
(CONTACT STEVE FOR DETAILS ON THIS BOARD)
12VDC 1A LINEAR POWER SUPPLY
+12VDC
GROUND
(NOTE: FANS ARE OPTIONAL FOR HIGHER VOLTAGE / CURRENT UNITS)
SOCKET 370 HEATSINK FAN
SOCKET 370 HEATSINK FAN
SOCKET 370 HEATSINK FAN
SOCKET 370 HEATSINK FAN
CAPACITOR:
10000-15000 uF
50VDC
COMPUTER GRADE
BLEED RESOSTOR:
1.2K 5 WATT
MAIN FUSE:
IT IS SUGGESTED THAT
YOU CHOOSE THE LOWEST
VALUE THAT DOES NOT BLOW.
TRANSFORMERS
INPUT: 110 VAC
OUTPUT: 24 VAC 10 AMP
(SLOW BLOW FUSES ARE USED ON THE GECKO DRIVES)
X AXIS
Y AXIS
Z AXIS
A AXIS
GECKO 320
36 VAC ENCLOSURE FAN
+5VDC FROM PC P.S.
GROUND FROM PC P.S.
PARALLEL PORT INTERFACE/BREAK-OUT BOARD (AVAILABLE PINS MAY VARY) (BY SOURCE)
NOTE: THE STEP AND DIRECTION LINES FUNCTION AS THE GROUND SIDE OF THE CIRCUIT FOR THE OPTOISOLATOR WHEN THEY ARE PULLED LOW WHICH ALLOWS THE RESPECTIVE LED IN THE OPTOISOLATOR TO CONDUCT OR TURN ON. WITH THE COMPUTER SUPPLYING THE GROUND SIDE OF THE CIRCUIT THROUGH THE STEP AND DIRECTION LINES, THE + SIDE OF THE CIRCUIT MUST ALSO COME FROM THE COMPUTER TO COMPLETE THE CIRCUIT.
HOOKUP SHOWN IS FOR EMC
PIN 2 - X DIR
PIN 3 - X STEP
PIN 4 - Y DIR
PIN 5 - Y STEP
PIN 6 - Z DIR
PIN 7 - Z STEP
PIN 8 - A DIR
PIN 9 - A STEP
X AXIS HOME
Y AXIS HOME
Z AXIS HOME
A AXIS HOME
X LIMIT -
Y LIMIT -
Z LIMIT -
X LIMIT +
Y LIMIT +
Z LIMIT +
SPST SWITCH
MALE 3-PRONG AC PLUG
NEON LAMP
SLOW BLOW FUSE
CHASSIS (EARTH) GROUND
+37VDC (UNREGULATED)
GROUND
A AXIS ERROR LED
Z AXIS ERROR LED
Y AXIS ERROR LED
X AXIS ERROR LED
+5 VDC
+37VDC
CAMTRONICS SERVO SYSTEM LED DISPLAY MODULE
NO CONNECTION
+5 VDC
NO CONNECTION
MOMENTARY
DPDT CENTER OFF POSITION
SWITCH
X AXIS ENCODER
Y AXIS ENCODER
Z AXIS ENCODER
A AXIS ENCODER
24 VDC SERVO MOTOR
X AXIS
Y AXIS
Z AXIS
A AXIS
GECKO G320
STEPPING SERVO
CNC CONTROL
DISCLAIMER
THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. ERRORS MAY EXIST. THE USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE OF THE INFORMATION PROVIDED IN THE CONSTRUCTION, TESTING, AND USE OF THE SYSTEM SHOWN. THIS DESIGN IS NOT FOR ANY SPECIFIC APPLICATION OR USE. COMPUTER CONTROLLED EQUIPMENT MAY AND CAN CAUSE SERIOUS BODILY INJURY AND DAMAGE TO MACHINERY. SERIOUS INJURY OR DEATH CAN RESULT FROM CONTACT WITH ELECTRICAL COMPONENTS. PROPER SAFETY PRECAUTIONS AND PRACTICES SHOULD BE OBSERVED.
USE AT YOUR OWN RISK!
NOTE:
THIS DRAWING SHOWS AN ELECTRICAL REPRESENTATION ONLY.
IT IS NOT AN ACTUAL WIRING DIAGRAM. DO NOT DAISEY-CHAIN CONNECTIONS.
OBSERVE PROPER WIRING PROCEDURES AND PRACTICES.
DRAWN BY: DONALD BROCK 04/14/2001
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