LIVE

OPTIONAL 4TH AXIS

MSD 556 DRV6

5V
CLOCK
5V
DIRECTION
GROUND
MOTOR +V
A+
A-
B+
B-

4TH AXIS

MSD 880

PUL-
PUL+
DIR-
DIR+
ENA-
ENA+
A+
A-
B+
B-
VDC
GND

X AXIS

MSD 880

Y AXIS

MSD 880

Z AXIS

STEPPER MOTOR WIRING 4.2A

RED & BLUE	---- RED	PHASE 1
RED/WH & BLU/WH	---- BLU	
GRN/WH & BLK/WH	---- BLK	PHASE 2
GREEN & BLACK	---- GRN	

CAROCEL POWER

CAROCEL DIRECTION

MOTOR
CAROCEL

SPEED OVERRIDE

FEED OVERRIDE

NextMove ST

TB6 X Axis: D0 C0 B0 A0 Shield

TB5 Y Axis: D1 C1 B1 A1 Shield

TB4 Analog In: Shield AN 1+ AN 1- AN 2+ AN 2- An GND

TB3 Digital Outputs 8-7: Shield Out 0 Out 1 Out 2 Out 3 Out 4 Out 5 Out 6 Out 7 Out Com0 Ground Shield

TB2 Digital Outputs 8-15: Shield Out 8 Out 9 Out 10 Out 11 Out 12 Out 13 Out 14 Out 15 Out Com1 Ground Shield

TB1 Digital Inputs 8-15: Shield Ground INPUT8 INPUT9 INPUT10 STOP 11 X Datum Y Datum Z Datum Fast INT Ground Shield

TB12 Z Axis: Shield A2 B2 C2 D2

TB11 Power In: Logic 24V Logic 24V Shield Drive PSU Ground Drive PSU

TB10 Power Out: Shield -12V out Shield +12V out Ground +5V out

TB9 Digital Inputs 8-7: Shield Ground Input 7 Input 6 Input 5 Input 4 Input 3 Input 2 Input 1 Input 0 Ground Shield

TB8 Digital Inputs 16-23: Shield Ground Input 23 Input 22 Input 21 Input 20 Input 19 Input 18 Input 17 Input 16 Ground Shield

TB7 Misc: Shield Ground Aux Z IN Aux dir IN Aux step IN Boost2 Dir 2 Step 2 Ground NC Spindle Ground Spindle Analog

SPINDLE ENABLE WH
COOLANT ON BLK
CAROCEL DIRECTION GRY
E-STOP CONTROL RED
DRAW BAR RELEASE ORG
CAROCEL POWER BLU
GUARD INTERLOCK VIO
24V RED
0V BLK
SPINDLE DISCONNECT YEL
Z BRAKE RELEASE RED
24V RED

COOLANT ON COR RL11a
CAROCEL DIRECTION CDR RL10a
DRAW BAR RELEASE DBR RL7a
CAROCEL POWER CPR RL10a
+24V

E-STOP STAT
0V
24V
GUARD INTERLOCK
SPINDLE ENABLE

CAROCEL SENSOR CSR RL9a
COOLANT ON RL11b
COOLANT SOL E2 E1
MANUAL TOOL RELEASE
CAROCEL SENSOR CSR RL9b
GUARD SWITCH STATUS
CAROCEL COUNTER
LOW AIR
T/CHANGE CON
E-STOP STAT
MICROSTEPPING
V1O SPIN CONNECTED
SCALE SELECT
DRAW BAR RELAY DBR
DRAW BAR SOLENOID RL7b
SPIN CONNECTED RL12c

CONN6 CONN9 CONN7 CONN10 CONN11 CONN8 CONN4 CONN2 CONN3 CONN5 CONN1 CONN13 CONN12

RL1f RL4b RL1d RL1a RL1b RL1g RL2b RL3a RL4a RL2a RL3b RL5a RL1e

RC2 RC1 C2 47800uF R2 6K8 LED2 R3 C1 D3 D4 D2 D5 R1 LED1 D1

BR2 BR1

PL4 RED BLK YEL YEL
PL2 BLU PINK V1O ORG BLK RED GRY WH
PL6 PL9 PL7 PL10 PL11 PL8 PL3 PL5 PL5A PL1 PL13 PL12

FS2 6.3A
FS3 3.15A
FS5 3.15A
FS1 3.15A
FS4 6.3A

TX2 BI00372Z
0V 45V 0V 18V
115 0V 115 0V

FAN 110V
220V
110V

Z BRAKE E2 E1
LAMP +24V

MOTOR THERMAL TRIP RED K1 K2

10V MIN 1/P COM RUN 6 7 A+ A- N L

CHOKE 60mH 6A

L1 L2

RL12a RL12b

MOTOR
SPINDLE MOTOR

TACHO BLU T1 T2 RED

MAINS INPUT L N E BRN BLU E LINE L N LOAD BRN BLU

E Change to 24V Airnist Coolant
D Addition of Airnist coolant

RL1: E-STOP
RL2: SPINDLE ENABLE
RL3: GUARD RELEASE
RL4: NOT USED
RL5: Z AXIS BRAKE RELEASE
RL6: NOT USED
RL7: DRAW BAR RELEASE (DBR) MURR
RL8: CAROCEL POWER RELAY (CPR) MURR
RL9: CAROCEL SENSOR RELAY (CSR) 24V
RL10: CAROCEL DIRECTION (CDR) 8 Pin
RL11: COOLANT ON RELAY (COR)
RL12: SPINDLE DISCONNECT

E	D	C	B	A	Drawn	Check	Projection
27/2/12	24/8/10	14/1/10	31/1/08	1/10/2006	S. ODDY	S. ODDY	Do Not Scale
Drn SO	Drn SO	Drn SO	Drn SO	Project VMC 1300		Client	
Chk SO	Chk SO	Chk SO	Chk SO	Title ELECTRICAL SCHEMATIC		Filename	Drawing No. VMC001000E	Sheet 1 of 1