Title:
ACORN CONNECTIONS TO CLEARPATH SDSK SERIES MOTORS

PLC Program: acorn-mill-universal.src

Date: 170118 | Drawn by: CEM

Filename: S14811.DWG | Sheet 1 of 1

E-STOP

ENABLE- ORG
24V COM
ENABLE- ORG
E-STOP SIGNAL

OPTIONAL LIMIT SWITCHES

ENABLE

DIRECTION
STEP

DIRECTION
STEP

CPM-CABLE-CTRL-MU120

ENABLE- ORG
INPUT A- BRN
INPUT B- YEL
ENABLE+ BLU
INPUT A+ WHT
INPUT B+ BLK
HLFB+ GRN
HLFB- RED

DRIVE OK SIGNAL

PROBE DETECT
PROBE SIGNAL
E-STOP SIGNAL

INPUT B- YEL
INPUT A- BRN
ENABLE- ORG

CLEARPATH SDSK MOTOR

CLEARPATH POWER SUPPLY

CPM-CABLE-PWR-MS120

IPC-5

Intelligent Power Center 5

110VAC IPC35-CABLE-110

H1: IN5 IN6 IN7 IN8 24 IN

H2: ST1 DR1 EN1 COM ST2 DR2 EN2 COM

H3: ST3 DR3 EN3 COM ST4 DR4 EN4 COM

H4
+24VDC
24 IN
4TH HOME/LIMIT SWITCH — IN4
3RD HOME/LIMIT SWITCH — IN3
2ND HOME/LIMIT SWITCH — IN2
1ST HOME/LIMIT SWITCH — IN1

H5
COM — RELAY PS/V-
OC8 — CLAMP RELAY COIL/V-
OC7 — FLOOD RELAY COIL/V-
COM — VFD/COMMON
OC6 — VFD/RESET
OC5 — VFD/SPIN REVERSE
COM
OC4 — VFD/SPIN FORWARD
OC3 — SPINDLE BRAKE RELAY

H6
COM
13 Input 4
12 Input 3
11 Input 2
10 Input 1
9 Direction 4
8 Step 4
7 Direction 3
6 Step 3
5 Direction 2
4 Step 2
3 Direction 1
2 Step 1
1 Output 1
Output 4 17
Output 3 16
Input 5 15
Output 2 14
Chassis GND

P10
PIN 9 = +5VDC
PIN 8 = B
PIN 7 = A
PIN 6 = Z
PIN 5 = B\
PIN 4 = A\
PIN 3 = Z\
PIN 2 = COM
PIN 1 = N/C

H7
NO2 — LUBE PUMP/ACH
RL2 — 110VACH
NO1
RL1
RL1 TURNS ON (CLOSES) WITH RELEASE OF THE E-STOP BUTTON

H8: AN GND AN OUT

ETHERNET

H9: CHASSIS COM COM +24VDC +24VDC

FROM SPINDLE ENCODER

VFD/0-10VDC COM
VFD/0-10VDC

SHIELDED ETHERNET CABLE FROM PC

24V COM
+24VDC

24V COM
+24VDC

ACORN
REV 160830
PN:14445

MEANWELL S-25-24
BLK -V (24V COM)
YEL +V (+24 VDC)
GRN
GRN OR GRN/YEL
BLK OR BRN
WHT OR BLU
OUTPUT +24 VDC 1.1 AMP
L
N

110VAC

1.Connect ClearPath motor
2. Install CNC12 software.
3. Run the Acorn setup wizard and set Steps/Rev to 800 for a -RLN motor or 6400 for a -ELN motor on the appropriate axis.
4. Start the CNC12 software and wait for it to communicate with the ACORN board.
5. You are now ready to run your ClearPath motor.

E-STOP CIRCUITS ARE RED
OPTIONAL CONNECTIONS ARE BLUE
GROUNDS ARE GREEN
110VAC IS VIOLET