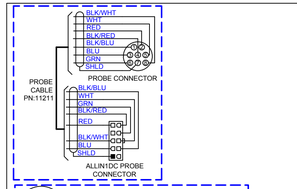
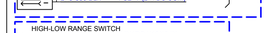
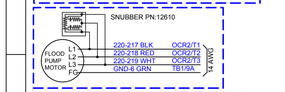


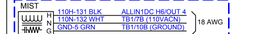


NOTE 1

110VAC SPINDLE COOLING FAN
110H-122 BLK connects from CNT1/L3 to TB1/3A.
Wire 110H-123 BLK connects to CNT1/T3.
Wire 110N-124 WHT connects to TB1/7A.
Wires are 18 AWG.

220VAC SPINDLE COOLING FAN
220-297 BLK connects from F3/LOAD to CNT1/L3. Wire 220-298 BLK connects to CNT1/T3. Wire 220-299 WHT connects to F4/LOAD.
Wires are 14 AWG

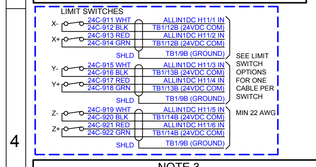




NOTE 2

110VAC LUBE PUMP
Wire 110H-126 BLK connects from TB1/2B to ALLIN1DC H6/OUT 2 COM.
Wire 110H-127 BLK connects to ALLIN1DC H6/OUT 2.
Wire 110N-128 WHT connects to TB1/5B.
Wire GND-3 GRN connects to TB1/8B.
Wires are 18 AWG.

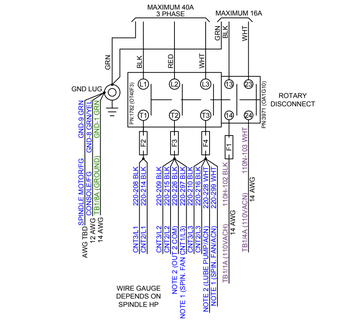
220VAC LUBE PUMP
220-226 BLK connects from F3/LOAD to ALLIN1DC H6/OUT 2 COM.
Wire 220-227 BLK connects to ALLIN1DC H6/OUT 2.
Wire 220-228 WHT connects to F4/LOAD.
Wire GND-3 GRN connects to TB1/8B.
Wires are 14 AWG

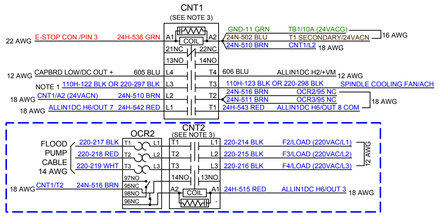


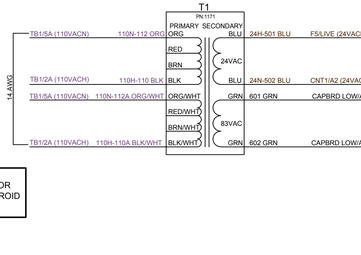
NOTE 3

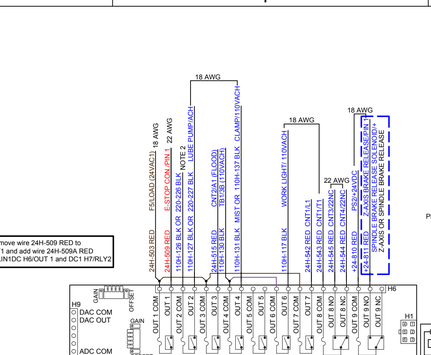
ALL CONTACTOR COILS REQUIRE A SNUBBER, EITHER CONTACTOR MANUFACTURERS RECOMMENDED SNAP ON SNUBBER OR CENTROID PN:1819 EXTERNAL QUENCHARC SNUBBER.

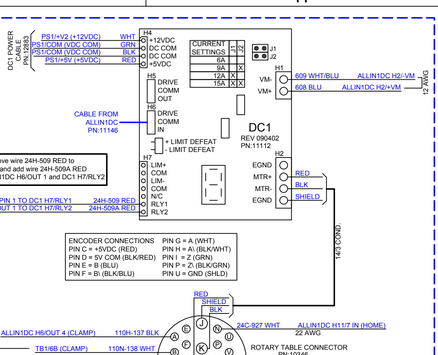
PART (MFG PN.)	LOCATION
ALLIN1DC (PN:11144)	E2-F4
CAPBRD LOW (PN:10766)	D3,D4
CNT1 (PN:14374)	B2
CNT2 (PN:14377)	B3
CNT3,4 (PN:14375)	B3
DC1 (PN:11112)	G1-H2
CONSOLE OPTIONS	C5-D6
DISCONNECT (OT40F3:)	B1
DISCONNECT, AUX (OA1G10)	B1
DOOR FAN	F5
E-STOP CONNECTOR	D5
E-STOP CON. CONSOLE	D6
E-STOP CON. PENDANT	E6
E-STOP SWITCH	D5
E-STOP SWITCH CONSOLE	D6
E-STOP SWITCH PENDANT	E6
F1,F2,F3,F4	B1
F5	D3
FLOOD PUMP MOTOR	A2,A3
FUSE TABLE	G6
GROUND LUG	B1
HIGH-LOW RANGE SWITCH	A2
LIMIT SWITCHES	A4
LIMIT SWITCH OPTIONS	F6,G6
LUBE PUMP	A3
MPG CABLE	E5-F6
NOTE 1	A2
NOTE 2	A3
NOTE 3	A4
NUC (PN:8520)	B6
OCR2 (LR2K0310)	B3
OCR3 (LR2K0310)	B3
OPERATOR CONTROL PANEL	E6
PROBE CABLE (PN:11211)	C1
PS1 (RQ-65D)	D4
PS2 (S-25-24)	C4
SPINDLE BRAKE RELEASE	A2
SPINDLE COOLING FAN	A2
SPINDLE MOTOR	A1
T1 (PN:1171)	B4
TB1	D2,D3
WORK LIGHT	A2
Z-AXIS BRAKE RELEASE	C4,D4

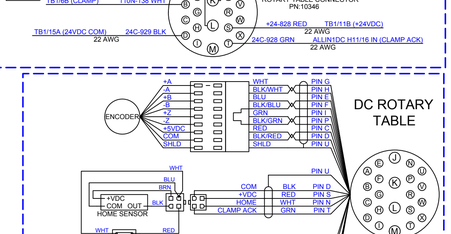


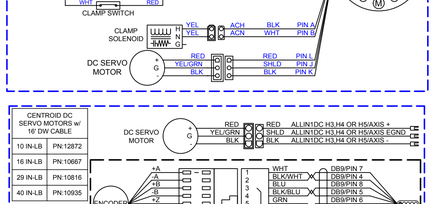












IF USING CIRCUIT BREAKERS INSTEAD OF FUSES, SEPARATE DEVICE SUPPLY CIRCUITS AND USE D CURVE CIRCUIT BREAKERS.
WE RECOMMEND THE FOLLOWING BREAKERS.

AMPERAGE	POLES	PART NUMBER (EATON)
5	1	FAZ-D5-1-NA-SP
15	1	FAZ-D15/1-NA-SP
2	2	FAZ-D2-2-NA
6	2	FAZ-D6-2-NA
10	2	FAZ-D10-2-NA
16	2	FAZ-D16-2-NA
30	2	FAZ-D30-2-NA
16	3	FAZ-D16-3-NA
32	3	FAZ-D30-3-NA
63	3	FAZ-D63-3-NA

E-STOP CONNECTIONS ARE SHOWN IN RED
OPTIONAL CONNECTIONS ARE SHOWN IN BLUE
GROUND CONNECTIONS ARE SHOWN IN GREEN
110VAC CONNECTIONS ARE SHOWN IN VIOLET
3 PHASE CONNECTIONS ARE SHOWN IN ORANGE
24VAC CONNECTIONS ARE SHOWN IN BROWN

REV	DATE	DESCRIPTION	BY
1	4-15-2016	INITIAL RELEASE	SPM
2	5-13-2016	DRAFTING CORRECTIONS PER REVIEW AND CHANGES TO STANDARD	SPM
3	5-16-2016	ADDED BRAKE WIRE GAUGE TO CONNECTOR FOR REDUNDANCY	SPM
4	6-20-2016	CHANGES TO STANDARD AND PART NUMBERS	SPM
5	9-12-2016	Corrected wire numbers and component depiction. Updated probe cable.	CEM

SUGGESTED WIRE CURRENT CAPACITY STRANDED MTW OR EQUIVALENT

18 AWG - UP TO	6A
16 AWG - UP TO	8A
14 AWG - UP TO	15A
12 AWG - UP TO	20A
10 AWG - UP TO	30A
8 AWG - UP TO	40A
6 AWG - UP TO	60A

LIMIT SWITCH OPTIONS

ONE CABLE PER SWITCH		ONE CABLE PER AXIS		ONE CABLE X,Y AXIS	
X- LIMIT	RED	X- LIMIT	WHITE	X- LIMIT	WHITE
X- COMMON	BLACK	X- COMMON	BLACK	X- COMMON	BLACK
X+ LIMIT	RED	X+ LIMIT	GREEN	X+ LIMIT	RED
X+ COMMON	BLACK	X+ COMMON	GREEN	X+ COMMON	GREEN
Y- LIMIT	RED	Y- LIMIT	WHITE	Y- LIMIT	ORANGE
Y- COMMON	BLACK	Y- COMMON	BLACK	Y- COMMON	BROWN
Y+ LIMIT	RED	Y+ LIMIT	RED	Y+ LIMIT	YELLOW
Y+ COMMON	BLACK	Y+ COMMON	BLUE	Y+ COMMON	BLUE
Z- LIMIT	RED	Z- LIMIT	WHITE	Z- LIMIT	WHITE
Z- COMMON	BLACK	Z- COMMON	BLACK	Z- COMMON	BLACK
Z+ LIMIT	RED	Z+ LIMIT	RED	Z+ LIMIT	RED
Z+ COMMON	BLACK	Z+ COMMON	GREEN	Z+ COMMON	GREEN

All limit switch cables minimum 22AWG shielded. All shields grounded

"NOTE" FUSE RATING DEPENDS ON SPINDLE HP			
FUSE	RATING	LOCATION	CIRCUIT
F1	10ATD	B1	INCOMING SINGLE PHASE
F2	NOTE	B1	INCOMING 3 PHASE
F3	NOTE	B1	INCOMING 3 PHASE
F4	NOTE	B1	INCOMING 3 PHASE
F5	5ATD	D3	24VAC

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Title: Mill, 220/110VAC, ALLIN1DC, 83 VAC Stepdown Transformer, Spindle Reversing Contactors

Size D | Number | Rev 5

Date 160414 | Drawn by SPM

Filename S14748.DWG | Sheet 1 of 1