

4

3

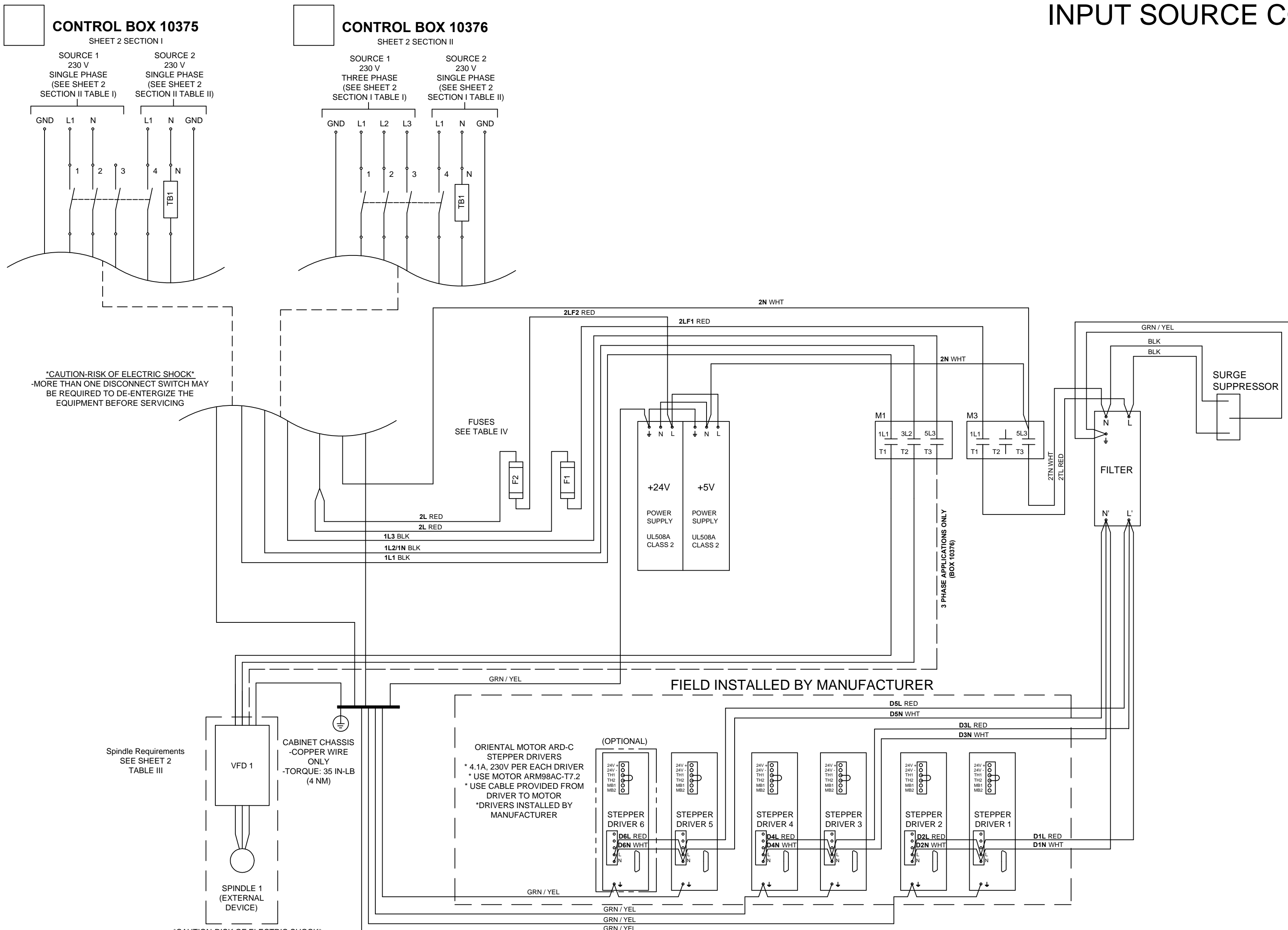
2

1

INPUT SOURCE CONFIGURATION



UL508A



CAUTION-RISK OF ELECTRIC SHOCK
 -MORE THAN ONE DISCONNECT SWITCH MAY
 BE REQUIRED TO DE-ENERGIZE THE
 EQUIPMENT BEFORE SERVICING

CAUTION-RISK OF ELECTRIC SHOCK
 -MORE THAN ONE DISCONNECT SWITCH MAY
 BE REQUIRED TO DE-ENERGIZE THE
 EQUIPMENT BEFORE SERVICING

Spindle Requirements
 SEE SHEET 2
 TABLE III

CABINET CHASSIS
 -COPPER WIRE
 ONLY
 -TORQUE: 35 IN-LB
 (4 NM)

ORIENTAL MOTOR ARD-C
 STEPPER DRIVERS
 * 4.1A, 230V PER EACH DRIVER
 * USE MOTOR ARM98AC-T7.2
 * USE CABLE PROVIDED FROM
 DRIVER TO MOTOR
 * DRIVERS INSTALLED BY
 MANUFACTURER

FIELD INSTALLED BY MANUFACTURER

FOR LOAD TABLES AND
 BREAKER INFO SEE
 SHEET 2

ALL WIRING, CONDUCTOR SIZE AND CONDUCTOR TYPE DEVIATIONS MUST BE APPROVED BY SHOPBOT TOOLS
 *CONTACT SHOPBOT TOOLS FOR OPTIONAL WIRING INFORMATION

DIM UNITS: MM SCALE: NONE
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 INFORMATION OF SHOPBOT TOOLS. IT IS
 NOT TO BE REPRODUCED BY ANY MEANS OR
 USED TO FURNISH INFORMATION TO OTHERS
 WITHOUT THE EXPRESS CONSENT TO THE
 OWNER. THE INFORMATION SHALL BE USED BY
 RECIPIENTS ONLY AS EXPRESSLY APPROVED
 BY OWNER AND THIS DOCUMENT SHALL BE
 RETURNED TO OWNER UPON REQUEST.
 ©2008, SHOPBOT TOOLS, INC.,
 ALL RIGHTS RESERVED



Durham, North Carolina

TITLE					POWER DIAGRAM BOX 010401-72				
DRAWN	DATE	CHECKED	DATE	APPROVED	DATE				
GAB	2/8/19	-	-	-	-				
SIZE	DRAWING NUMBER				REV				
C	003922-00				0				
PART NUMBER					003922-01		SHEET 1 OF 2		

0		2/8/19	GAB	Initial release
REV	CHG NOTICE	DATE	BY	REVISION DESCRIPTION

4

3

2

1

D

C

B

A

4

3

2

1

SECTION I: CONTROL BOX 10375

2 HP 5-AXIS SPINDLE: 220V SINGLE PHASE POWER FOR SPINDLE, 110V SINGLE PHASE POWER FOR CONTROLS

TABLE I								
INPUT SOURCE 1 - 230V 1 PHASE 50/60HZ								
SPINDLE 1 (FILL IN CIRCLE NEXT TO THE SPINDLE SHIPPED)	TOTAL FULL LOAD	LARGEST MOTOR LOAD	RECOMMENDED BRANCH PROTECTION (INVERSE TIME CIRCUIT BREAKER)(PROVIDED BY ELECTRICIAN)	FIELD WIRING TERMINALS	WIRE SIZE AWG (mm²)*	SO CORD AWG (mm²)*	WIRE TYPE *	SCREW TORQUE
o 2 HP HSD	18.9A	18.9A	25 A	DISCONNECT 1,2	10 (6.00)	10 (6.00)	75°C USE COPPER CONDUCTORS ONLY	25 IN-LBS (2.8 NM)

TABLE III							
OUTPUT LOAD - 230V 1 PHASE 50/60HZ							
SPINDLE 1 (FILL IN CIRCLE NEXT TO THE SPINDLE SHIPPED)	YASKAWA (VFD) VARIABLE FREQUENCY DRIVE	LOAD	FIELD WIRING TERMINALS	WIRE SIZE AWG (mm²)*	SO CORD AWG (mm²)*	WIRE TYPE *	SCREW TORQUE
o 2 HP HSD (AT/MT 1073-060)	CIMR-VU2A0020GAA	18.9A	CONTACTOR M1- T1, T2	10 (6.00)	12 (4.00)	75°C USE COPPER CONDUCTORS ONLY	17.5 IN-LBS (2 NM)

TABLE II							
INPUT SOURCE 2 - 230V 1 PHASE 50/60HZ							
TOTAL FULL LOAD	LARGEST MOTOR LOAD	RECOMMENDED FEEDER PROTECTION (INVERSE TIME CIRCUIT BREAKER) (PROVIDED BY ELECTRICIAN)	FIELD WIRING TERMINAL	WIRE SIZE AWG (mm²)*	SO CORD AWG (mm²)*	WIRE TYPE *	SCREW TORQUE
8 A	4.1 A	10 A	DISCONNECT 4 - LINE	12 (4.00)	12 (4.00)	75°C USE COPPER CONDUCTORS ONLY	25 IN-LBS (2.8 NM)
			TERMINAL BLOCK N- NEUTRAL	12 (4.00)	12 (4.00)		6 IN-LBS (0.7 NM)

TABLE IV	
FUSE NO.	RATING
F1	10A CLASS CC-600V (LITTLE FUSE CCMR10A)
F2	3A CLASS CC-600V (LITTLE FUSE CCMR3A)

SECTION II: CONTROL BOX 10376

2HP 5-AXIS SPINDLE: 230V THREE PHASE POWER FOR SPINDLE, 110V SINGLE PHASE POWER FOR CONTROLS

TABLE I								
INPUT SOURCE 1- 230V 3 PHASE 50/60HZ								
SPINDLE 1 (FILL IN CIRCLE NEXT TO THE SPINDLE SHIPPED)	TOTAL FULL LOAD	LARGEST MOTOR LOAD	RECOMMENDED BRANCH PROTECTION (INVERSE TIME CIRCUIT BREAKER)(PROVIDED BY ELECTRICIAN)	FIELD WIRING TERMINALS	WIRE SIZE AWG (mm²)*	SO CORD AWG (mm²)*	WIRE TYPE *	SCREW TORQUE
o 2 HP HSD	11 A	11 A	15 A	DISCONNECT 1,2,3	12 (4.00)	12 (4.00)	75°C USE COPPER CONDUCTORS ONLY	25 IN-LBS (2.8 NM)

TABLE III							
OUTPUT LOAD- 230V 3 PHASE 50/60HZ							
SPINDLE 1 (FILL IN CIRCLE NEXT TO THE SPINDLE SHIPPED)	YASKAWA (VFD) VARIABLE FREQUENCY DRIVE	LOAD	FIELD WIRING TERMINALS	WIRE SIZE AWG (mm²)*	SO CORD AWG (mm²)*	WIRE TYPE *	SCREW TORQUE
o 2 HP HSD (AT/MT 1073-060)	CIMR-VU2A0012GAA	11A	CONTACTOR M1- T1, T2, T3	12 (4.00)	12 (4.00)	75°C USE COPPER CONDUCTORS ONLY	17.5IN-LBS (2 NM)

TABLE II							
INPUT SOURCE 2 - 230V 1 PHASE 50/60HZ							
TOTAL FULL LOAD	LARGEST MOTOR LOAD	RECOMMENDED FEEDER PROTECTION (INVERSE TIME CIRCUIT BREAKER) (PROVIDED BY ELECTRICIAN)	FIELD WIRING TERMINAL	WIRE SIZE AWG (mm²)*	SO CORD AWG (mm²)*	WIRE TYPE *	SCREW TORQUE
8 A	4.1 A	10 A	DISCONNECT 4 - LINE	12 (4.00)	12 (4.00)	75°C USE COPPER CONDUCTORS ONLY	25 IN-LBS (2.8 NM)
			TERMINAL BLOCK N- NEUTRAL	12 (4.00)	12 (4.00)		6 IN-LBS (0.7 NM)

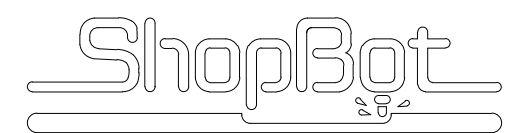
TABLE IV	
FUSE NO.	RATING
F1	10A CLASS CC-600V (LITTLE FUSE CCMR10A)
F2	3A CLASS CC-600V (LITTLE FUSE CCMR3A)



UL508A

DIM UNITS: MM SCALE: NONE

THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION OF SHOPBOT TOOLS. IT IS NOT TO BE REPRODUCED BY ANY MEANS OR USED TO FURNISH INFORMATION TO OTHERS WITHOUT THE EXPRESS CONSENT TO THE OWNER. THE INFORMATION SHALL BE USED BY RECIPIENTS ONLY AS EXPRESSLY APPROVED BY OWNER AND THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. ©2008, SHOPBOT TOOLS, INC., ALL RIGHTS RESERVED



Durham, North Carolina

TITLE					POWER DIAGRAM BOX 010401-72				
DRAWN	DATE	CHECKED	DATE	APPROVED	DATE				
GAB	2/8/19	-	-	-	-				
SIZE	DRAWING NUMBER				REV				
C	003922-00				0				
PART NUMBER 003922-01					SHEET 2 OF 2				

REV	CHG NOTICE	DATE	BY	REVISION DESCRIPTION
0		2/8/19	GAB	Initial release

4

3

2

1