

INSTALLATION & MAINTENANCE INSTRUCTIONS

For Electromni Electric Actuators

Positioning:

Refer to **ASSEMBLY DRAWING ELACT rev 0.**

1. Electromni actuators are recommended for Chemline safe-bloc, compact and multi-port ball valves. For positioning of actuator on valve refer to drawing.
2. The 12 & 24 VAC & VDC Electromni actuators utilize a DC motor wired for reversible action, with rectifiers (diodes) in the lead wires of the VAC units. This results in a powerful motor at relatively low current draw.
3. The motor requires a three way (SPDT) control switch, since power is required for the full travel in either cycle. The optional extra limit switch is 90 degrees out of phase with the motor's switch. Chemline presets the extra switch so that it trips slightly ahead of the motor's switch.
4. Standard enclosure for the above is weather resistant (NEMA 4).
5. Standard switches in actuator can be used for light indication utilizing the un-used conductors.
6. Travel is controlled by an internal single pole double throw limit switch activated by a cam/coupling with 90° positive and negative lobes. Power must be maintained for the full travel time of the unit.
7. Current draw values are maximum , i.e. for locked rotor position. Running current draw will be less.
8. Position indicator lights are built into actuator base. However activation is optional and may require an additional limit switch.

Model Number		Volts	Hz	Speed	Duty Cycle	Current Draw
Lights	No Lights			sec/90°		Amps
E01	EL1	120vac	60/50	5	25%	2.1
E02	EL2	220vac	60/50	5	25%	0.6
E03	EL3	12 vdc	-	5	75%	1.0
E04	EL4	24 vdc	-	5	75%	1.0
E05	EL5	12 vac	60/50	5	75%	2.25
E06	EL6	24 vac	60/50	5	75%	4.0

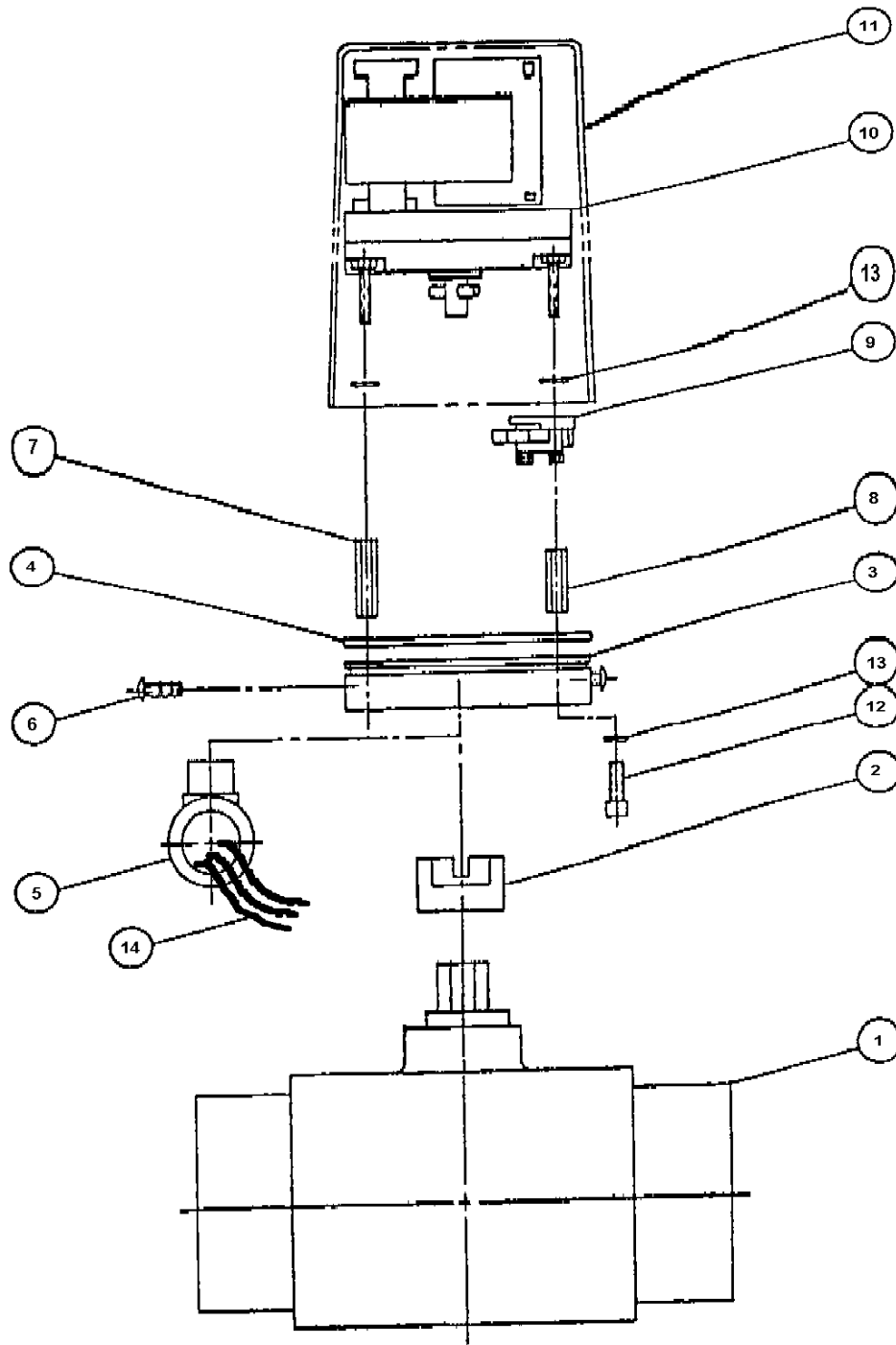


Installation & Maintenance Instructions A-Series Actuators cont.

Troubleshooting

Problem	Cause	Action
The actuator does not operate.	The power source is off.	Check/turn on the power source.
	Wrong or low supply voltage to the actuator.	Check voltage with a tester and set as specified.
	The wiring is incorrect.	Check wiring against the supplied diagram (inside actuator cover).
	Internal bolts may be loose.	Check/tighten all visible internal bolts.
	Travel stop cams may be loose/misadjusted.	Check/tighten/adjust all travel stop cam setscrews.
	Not enough operating torque.	Consult with Chemline technical staff.
	An obstruction may be in the valve.	Remove/check the valve.
The actuator operates, but the valve doesn't open or close.	The drive coupling is broken or disconnected.	Check/replace the coupling.
	The stem of the valve is broken.	Remove/check the valve.
Option doesn't function or functions erratically.	Option is misadjusted.	Adjust as per the drawing below.

		
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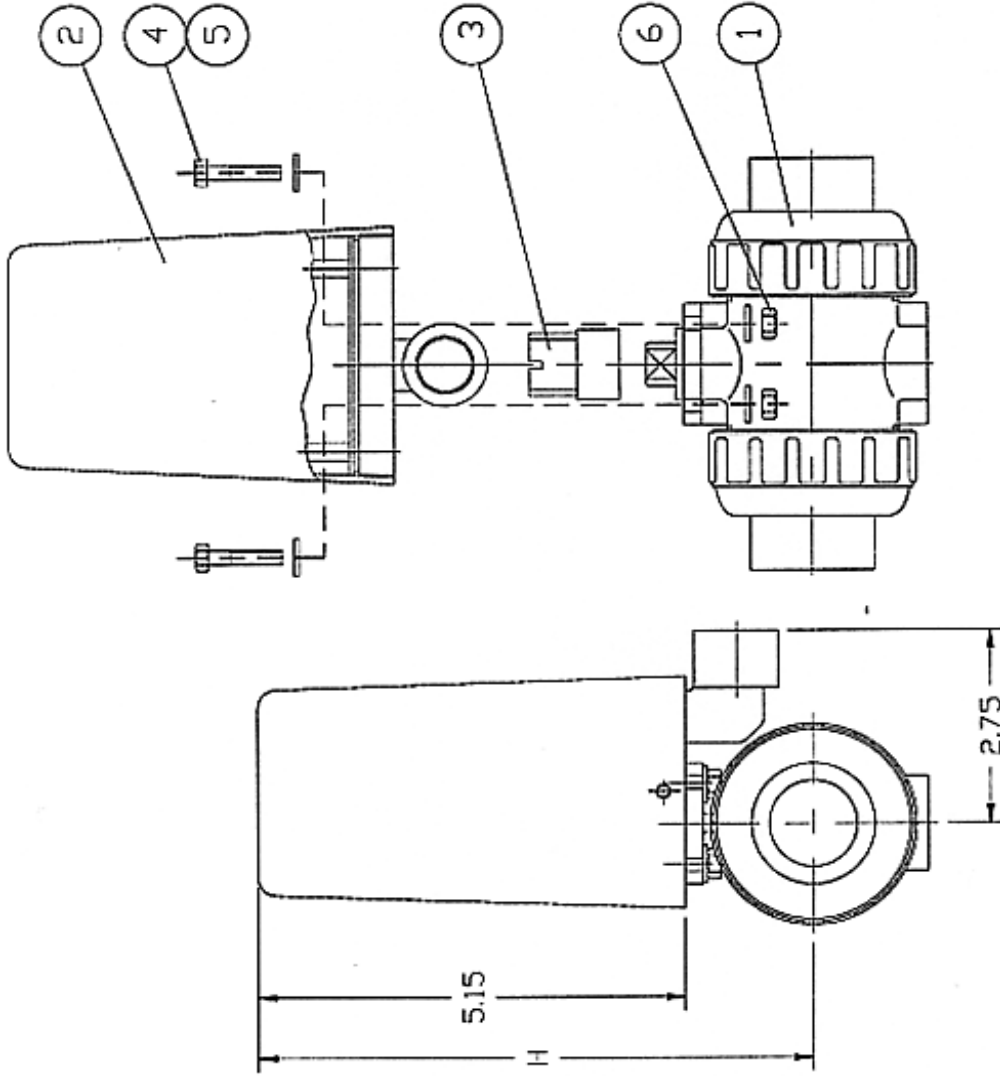


DATE		REV.	
SCALE	DATE	DWG. NO.	0
DR. BY		ELACT	
CHKD. BY			
APP. BY			
TITLE ELECTROMINI ACTUATOR			
REFERENCE			

PARTS LIST

ITEM	DESCRIPTION	MATERIAL	QTY
1	VALVE		1
2	CAM / COUPLING	ALUMINUM	1
3	PLATE BASE	PVC	1
4	O RING	EPDM	1
5	1/2 NPT CONDUIT CONN	PVC	1
6	SCREW NO. 10-24 X 1/2	300 SS	2
7	STAND OFF	ALUMINUM	3
8	STAND OFF LIMIT SW ASST	ALUMINUM	1
9	LIMIT SWITCH ASSY	MICRO SWITCH	1
10	MOTOR ACTUATOR	OEM	1
11	COVER	ABS	1
12	BOLT NO. 10-32 X 3/4	300 SS	4
13	WASHER INT TOOTH NO. 10	410 SS	8
14	LEAD WIRE		3





UNIT: INCH

SIZE	1/2"	3/4"	1"	1-1/2"	2"
H	6.33	6.59	6.86	7.55	8.00

NOTE: The shape and appearance of assembly differ a little with nominal size compared to this drawing.



ITEM	DESCRIPTION	MATERIAL	QTY
6 ^{PH}	NUT	STAINLESS STEEL	4
5 ^{PH}	FLAT WASHER	STAINLESS STEEL	8
4 ^{PH}	BOLT	STAINLESS STEEL	4
3	COUPLING	303 STAINLESS STEEL	1
2 ^{PH}	ELECTROMNI ACTUATOR	ABS & PVC	1
1	BALL VALVE TYPE 21	PVC,CPVC,PP,PVDF	1

1 - ELECTROMNI (SERIES 83) ACTUATOR IS AVAILABLE IN 110 VAC, 220 VAC, 24 VAC, 12 VAC, 24 VDC AND 12 VDC MODELS.

2 - FOR 1/2" THRU 1" VALVES USE:
 BOLT M5.0x8-30 LG, FLAT WASHER M5, NUT M5x8
 FOR 1-1/2" THRU 2" VALVES USE:
 BOLT M6.0x1-35 LG, FLAT WASHER M6, NUT M6.0x1

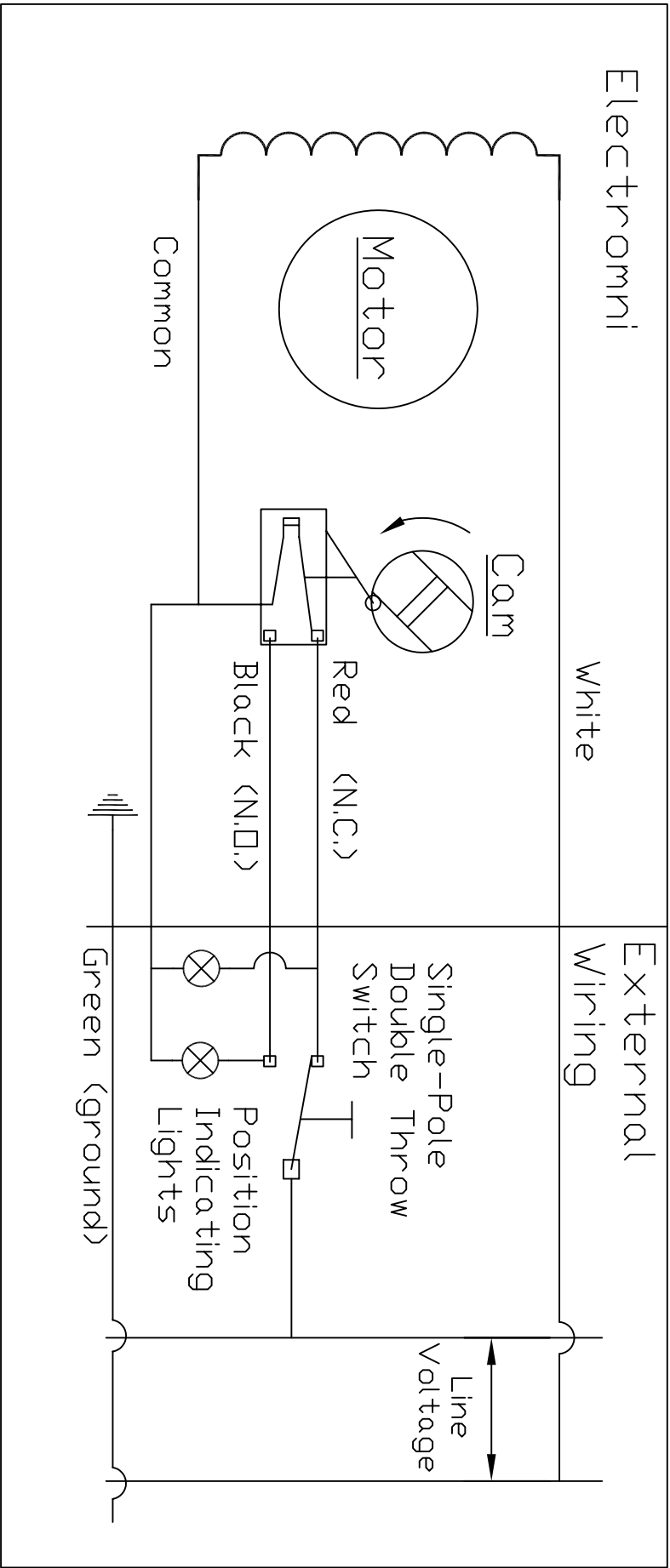
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NAME	DATE
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APPD DAVE HURLEY	8/29/01
PROD LEO LESIER	8/29/01
MOD/CO#	
FILE	

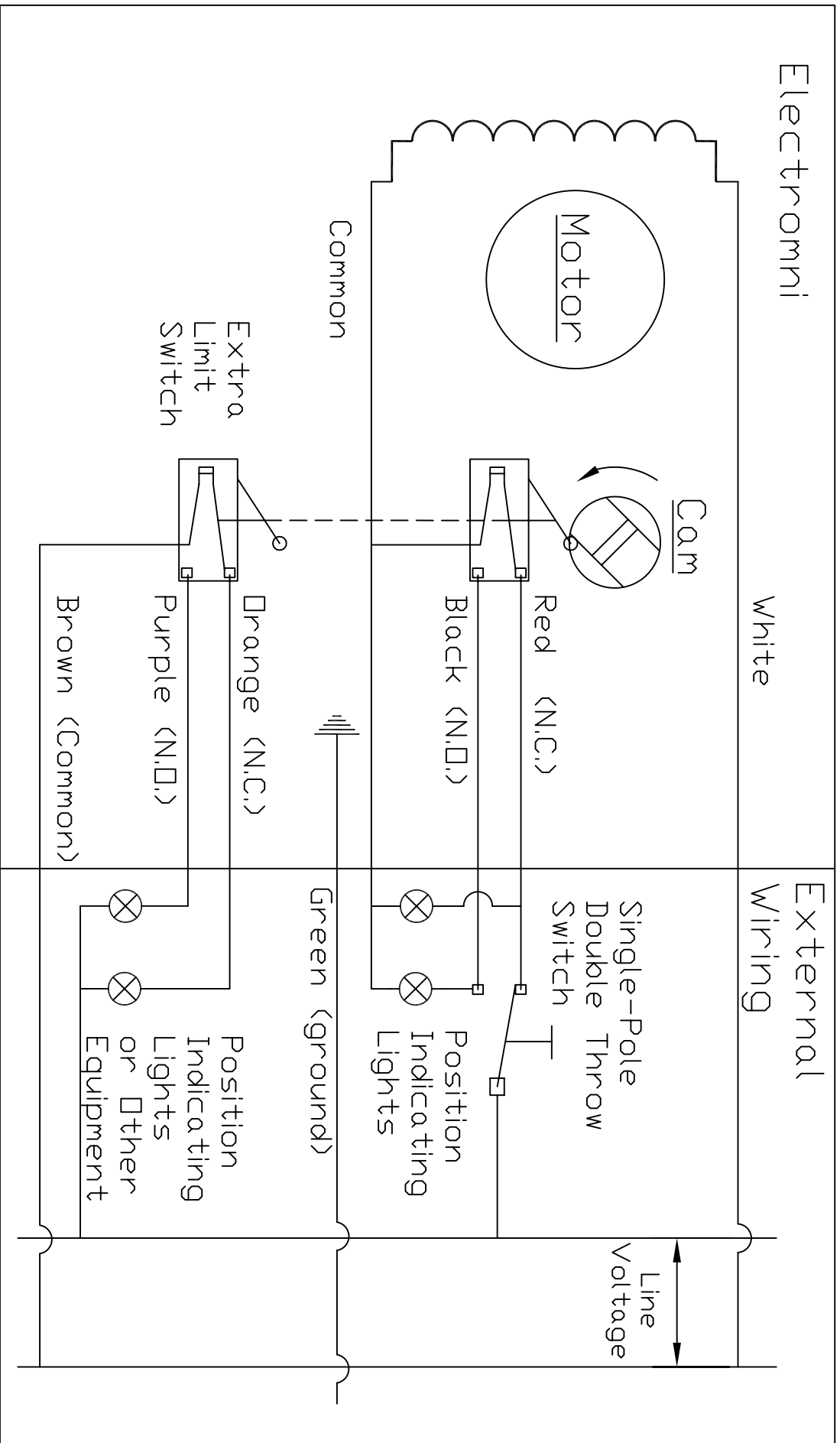
ELECTROMNI ACTUATOR WITH TYPE 21 BALL VALVE 1/2" - 2"

SIZE A DWG. NO. 0046BV REV A

SCALE NTS SHEET 1 OF 1



TITLE	Wiring diagram for			SCALE	NTS	DATE	DWG. NO	REV.
	Electromni 120/240 VAC							
REFERENCE				DR. BY	PJ	04/05	00001EL	
				CHKD BY				
				APP. BY				



TITLE		SCALE		DATE		DWG. NO 00002EL	REV.
Wiring diagram - Electromni		NTS		04/05			
120/240 VAC		PJ					
REFERENCE with extra limit switch		DR. BY	CHKD BY	APP. BY			

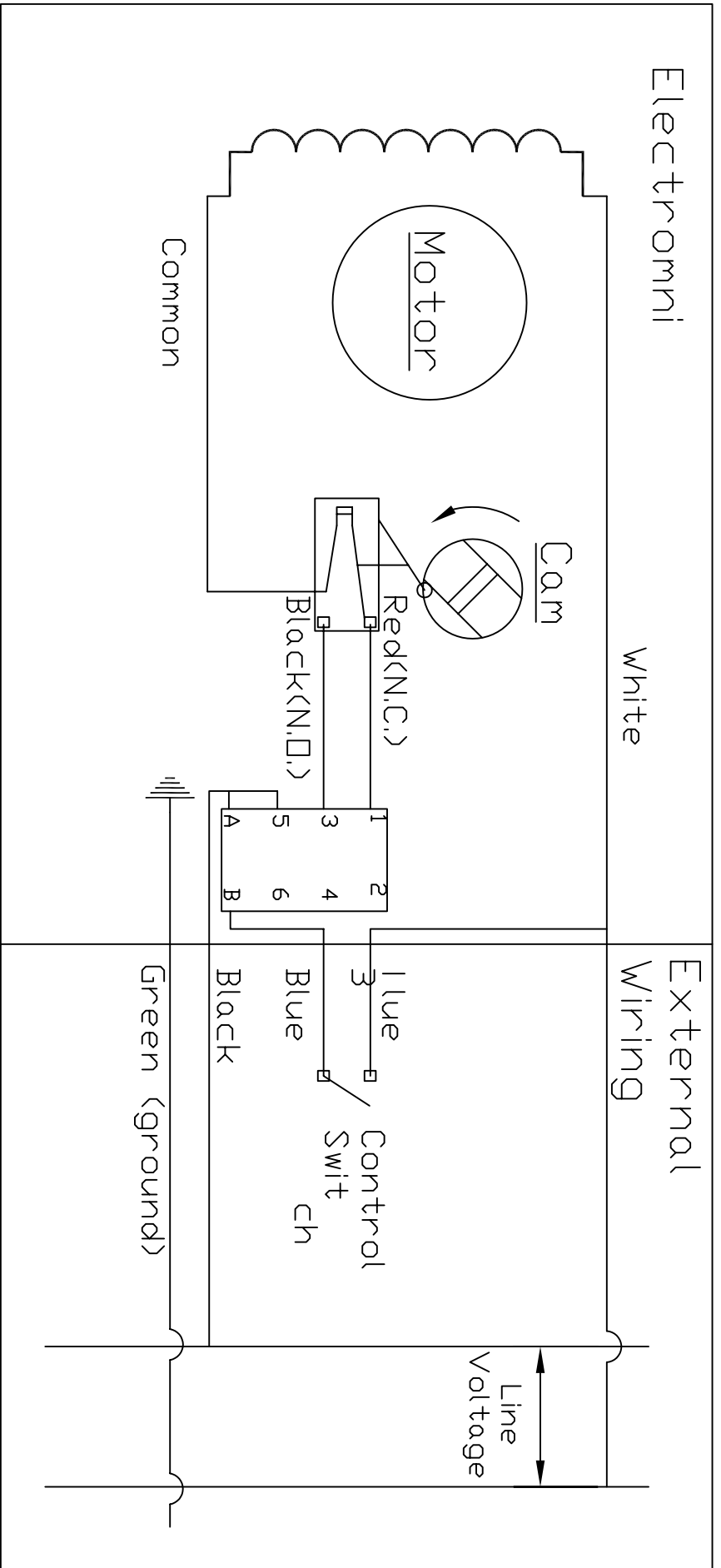
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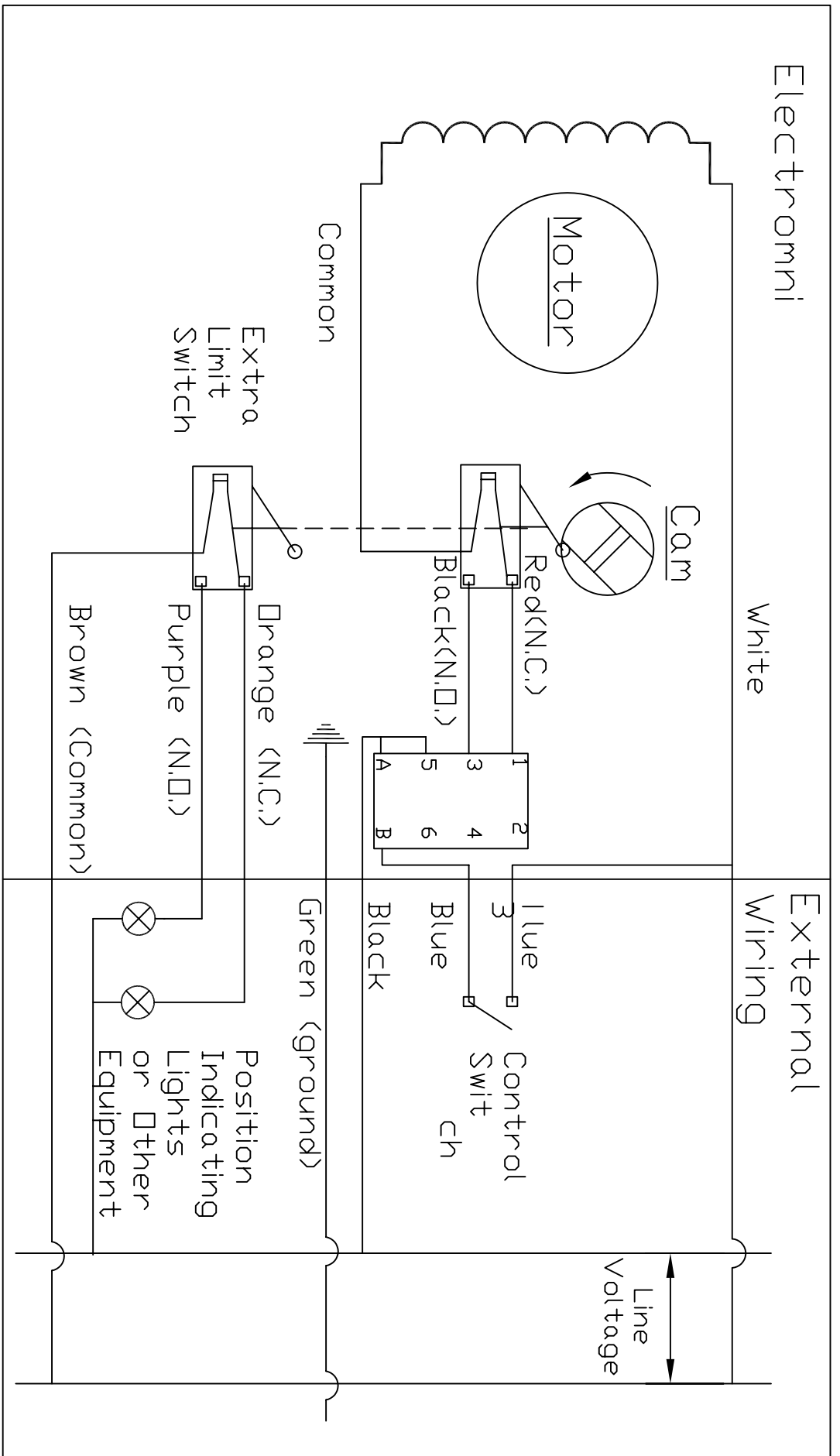
Toronto, ON



TITLE	Wiring diagram - Electromni			SCALE	NTS	DATE	DWG. NO	REV.
	120/240 VAC							
REFERENCE	with 2-wire control			DR. BY	PJ	04/05	00003EL	
				CHKD BY				
				APP. BY				



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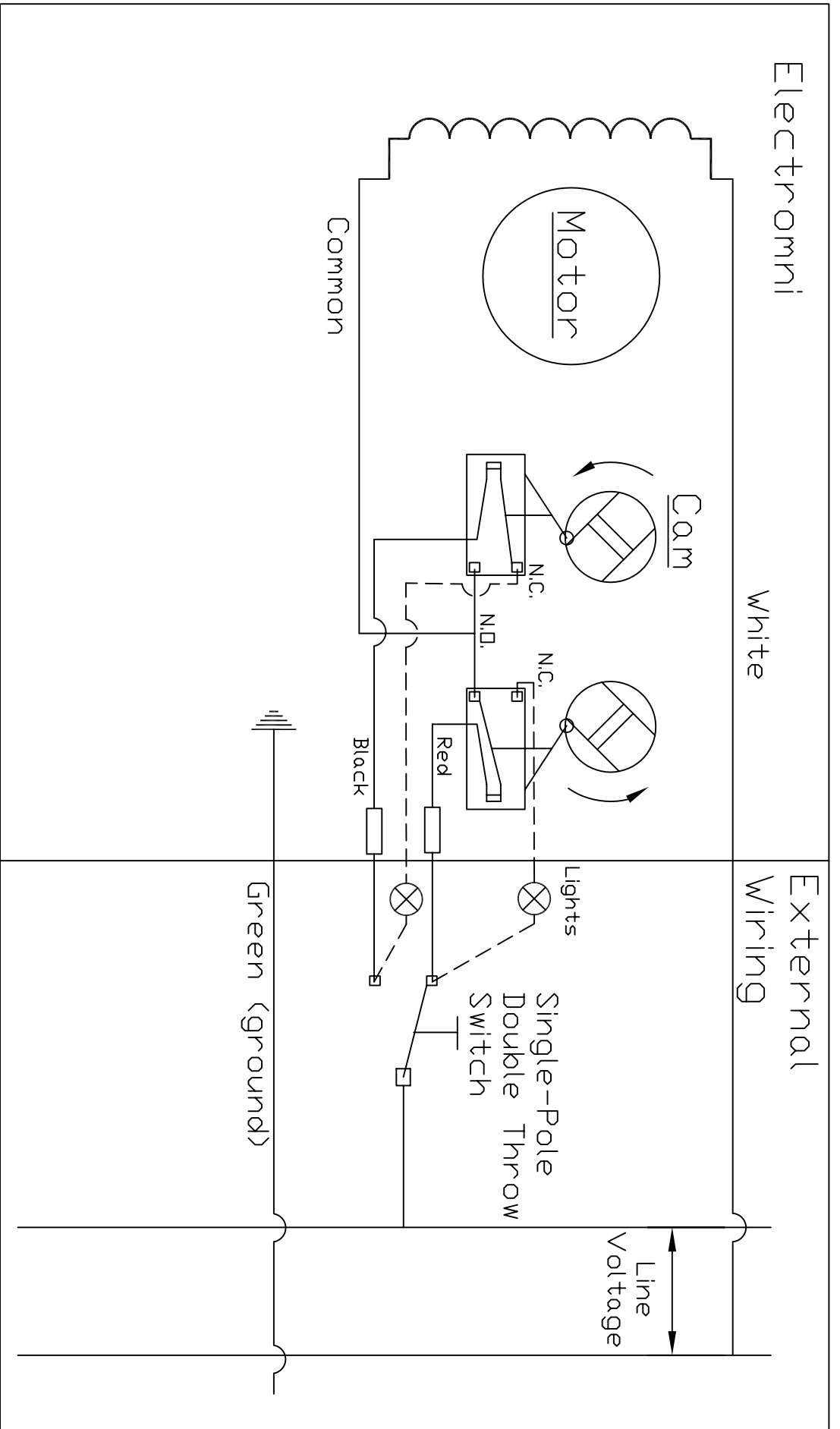


TITLE		Wiring diagram - Electromni	
SCALE		120/240 VAC	
DR. BY	NTS	DATE	04/05
CHKD BY	PJ		
APP. BY			
REFERENCE	with extra limit switch and 2-wire control		DWG. NO 00004EL
			REV.

Electromni

White

External Wiring



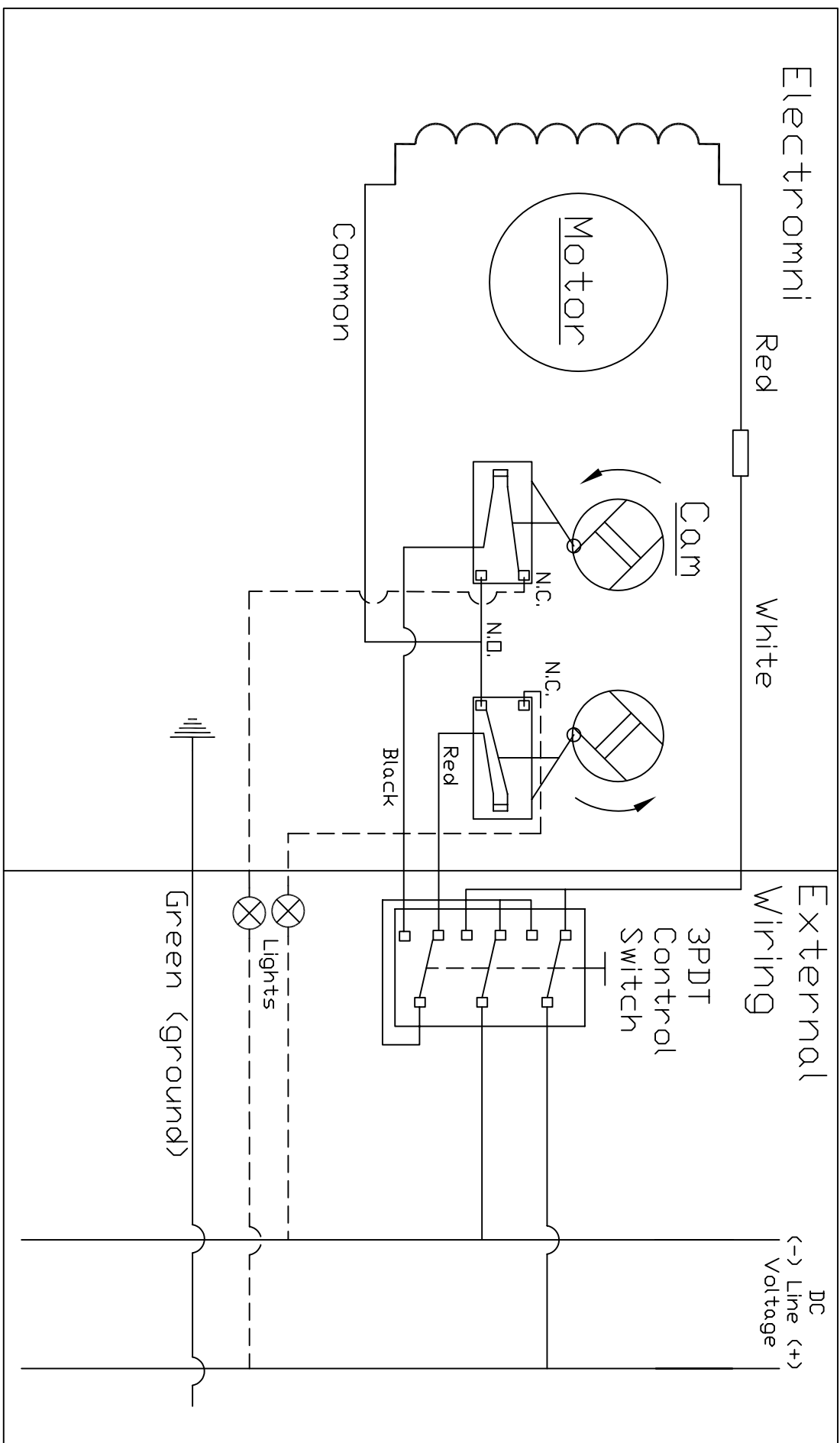
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TITLE	Wiring diagram - Electromni			SCALE	NTS	DATE	DWG. NO 00005EL	REV.
	12/24 VAC			DR. BY	PJ	04/05		
REFERENCE				CHKD BY				
				APP. BY				



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To Close: Neg. to White, Pos to Black.
To Open: Pos. to White, Neg. to Red



External
Wiring

3PDT
Control
Switch

DC
Line (+)
Voltage

Green (ground)

Lights

TITLE
Wiring diagram - Electromni
12/24 VDC

SCALE	NTS	DATE
DR. BY	PJ	04/05

REFERENCE

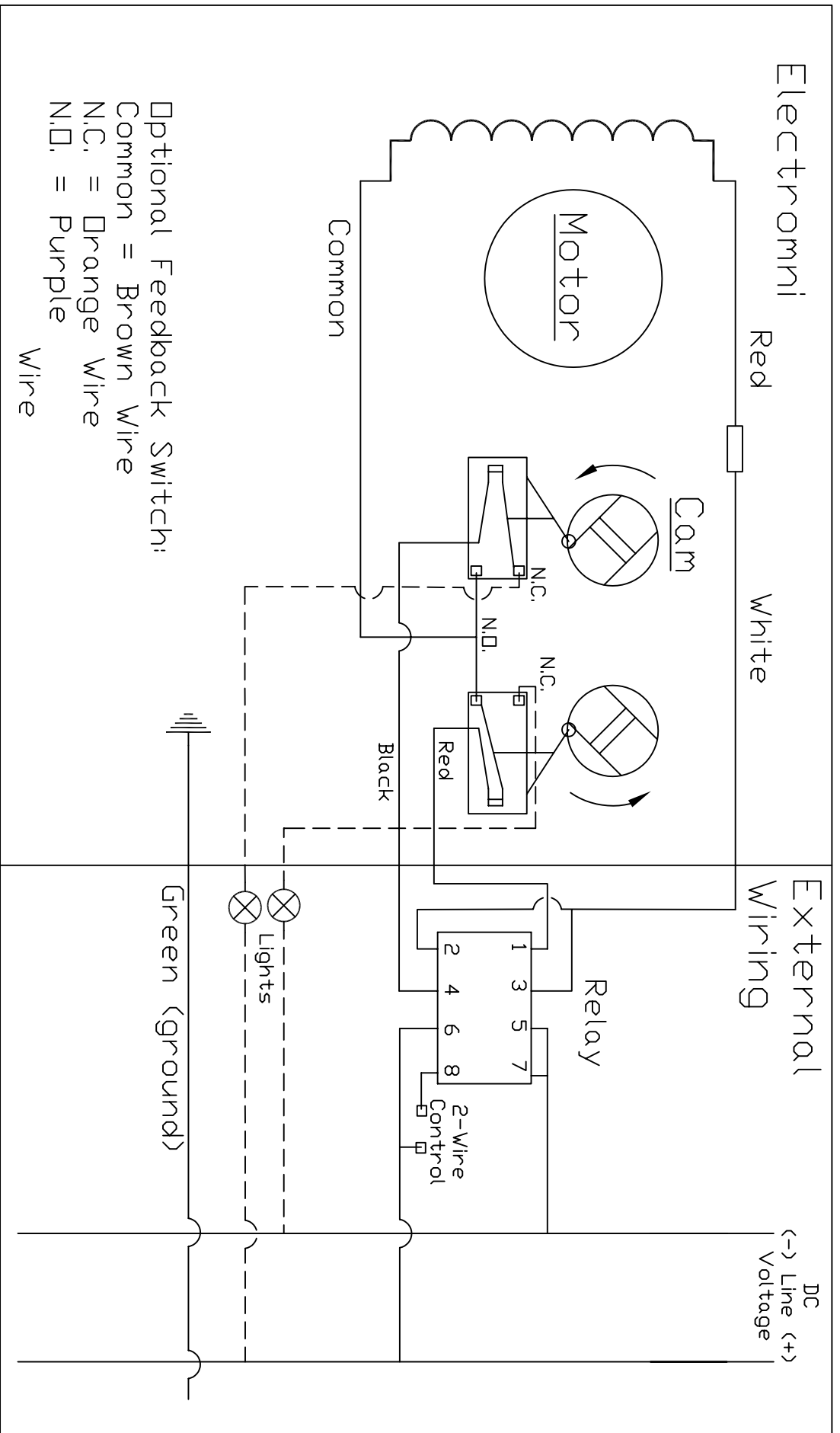
APP. BY

DWG. NO
00006EL

REV.

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Optional Feedback Switch:
 Common = Brown Wire
 N.C. = Orange Wire
 N.D. = Purple Wire

TITLE	Wiring diagram - Electromni		
SCALE	NTS	DATE	
DR. BY	PJ	04/05	
CHKD BY			
APP. BY			
REFERENCE	with 2-wire control		
DWG. NO	00007EL		
REV.			