



Where Inspiration Meets Innovation™

PRODUCT MANUAL- M083

MODEL CH-5000 CAN CRUSHER

Rev H

PLC Version 7/20/06

Please read thoroughly before operation and keep for future reference



MODEL CH-5000 INSTRUCTIONS

A. INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

WARNING - When using electrical appliances, basic precautions should always be followed, including the following:

IMPORTANT SAFETY INSTRUCTIONS:

1. Read all instructions before using the appliance.
2. To reduce the risk of injury, close supervision is necessary when used near children.
3. Do not attempt to put hands or fingers into crusher, except during loading.
4. Disconnect the power before attempting to clear a jam.
5. When attempting to loosen a jam, use a long wooden object such as a mop handle.
6. When attempting to remove a crushed can by hand, use gloves or other suitable protection from sharp edges.
7. To reduce the risk of injury by materials that may be expelled, do not put the following into the can crusher:
 - a. shells, bones or other food wastes
 - b. drain cleaner or any other chemicals
 - c. glass, china or plastic
 - d. any metal such as bottle caps or aluminum foil other than cans
8. When not operating the can crusher leave the door closed to reduce the risk of improper objects dropping into the crusher opening.

SAVE THESE INSTRUCTIONS

Grounding instructions:

This appliance must be grounded. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the appliance is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet; have a proper outlet installed by a qualified electrician.

B. INSTALLATION INSTRUCTIONS

1. The can crusher is intended to be installed in or near the kitchen facility where cans are opened. Do not install it where it will be exposed to rain.
2. Find a suitable counter or heavy duty cart located near a 120/220 volt 20 amp service outlet and a waste container that is lower in height than the counter.
3. We recommend two people to place the unit on the cart or counter so the right end of the unit hangs 4" over the edge. Be sure the footpads rest full on the surface. Place the waste container under the overhanging part of the crusher so the crushed cans falling out the chute will drop into it.



C. OPERATING INSTRUCTIONS

1. Open the door on the right and place a can in sideways.
2. Close the door to actuate the safety interlock and prevent risk of injury.
3. Press on-off rocker switch to on and the motor will begin to run.
4. Depress green button on the left until red light indicates crushing cycle has begun. When the can is compacted, it will fall out and the red light will go out when the door is ready to be opened.
5. Listen for the crusher to complete its cycle and watch the light go out before opening the door and continuing. If you open the door too soon, you will have to close it and repeat the crushing cycle so the cylinder will be retracted all the way for a can to fit in the opening.
6. As soon as your desired crushing is done and the crusher cycle is complete, press the on-off switch to off. The switch light will go out and the motor will stop.
7. Never, under any circumstances, alter the wiring or tamper with interlock switches. Unit should never be operated with the door open or anything inserted in the chute below. Disconnect and return unit for servicing if it is not functioning properly.

D. USER - MAINTENANCE INSTRUCTIONS

This unit has no adjustments the user can make and aside from tightening loose outside screws only needs to be washed with soap and water. It is designed to be water resistant, but is not waterproof or submersible. Disconnect power source whenever cleaning inside the crushing box or chute. A qualified technician should only do all other repairs or hydraulic fluid maintenance.

E. MOVING AND STORAGE INSTRUCTIONS

Because the unit weighs approximately 140 pounds it requires at least two people or mechanical assistance like a forklift to move it. If frequent moving is necessary, a heavy-duty cart is recommended for installation. Store in a clean, dry place.



TROUBLESHOOTING

Symptom	Cause	Remedy
1. Motor will not start		
No power to the cord	Check outlet	
No power to relay or motor (Q1)		Check fuse and connections
Rocker switch faulty		Replace
2. Unit will not crush		
(check the small window in the back to see if the PLC is on) The light above and below the 1 should be lit and the motor should turn on with rocker switch.		
Door not closed (I2)		Close door
No power to power supply		Reset breaker
Faulty connection		Repair
Power Supply Faulty		Replace
Push switch faulty (I3)		Replace
Small PLC faulty		Replace or reprogram
Interlock switch faulty		Adjust or Replace
Return limit switch faulty (I4)		Adjust or Replace
Solenoid valve faulty (Q2/Q3)		Replace
3. Cycle light will not come on when operating		
Light burned out (Q4)		Replace
Bad connection		Repair
4. Unit will not crush down far enough		
Pressure switch set too low		Adjust higher or replace
Faulty pump or cylinder		Repair or replace
Low hydraulic oil		Fill unit to top using a Hydraulic oil of VG-100 or greater
Pressure relief valve set too low		Adjust higher
5. Unit will crush can but will not return		
Faulty connections		Repair
Pressure switch set too high (I5)		Adjust lower or replace
pressure relief valve set too low		Adjust higher
Small PLC faulty		Repair or replace
Solenoid valve faulty (Q2/Q3)		Repair or replace
6. Unit too noisy during operation		
Pump or cylinder faulty		Repair or replace
Low oil level		Replenish
7. Cycle light stays on after crusher ram or motor stops.		
Return limit switch faulty		Adjust or Replace
Crusher plate loose or broken		Tighten or replace
Motor thermal switch		Let unit cool/ try later

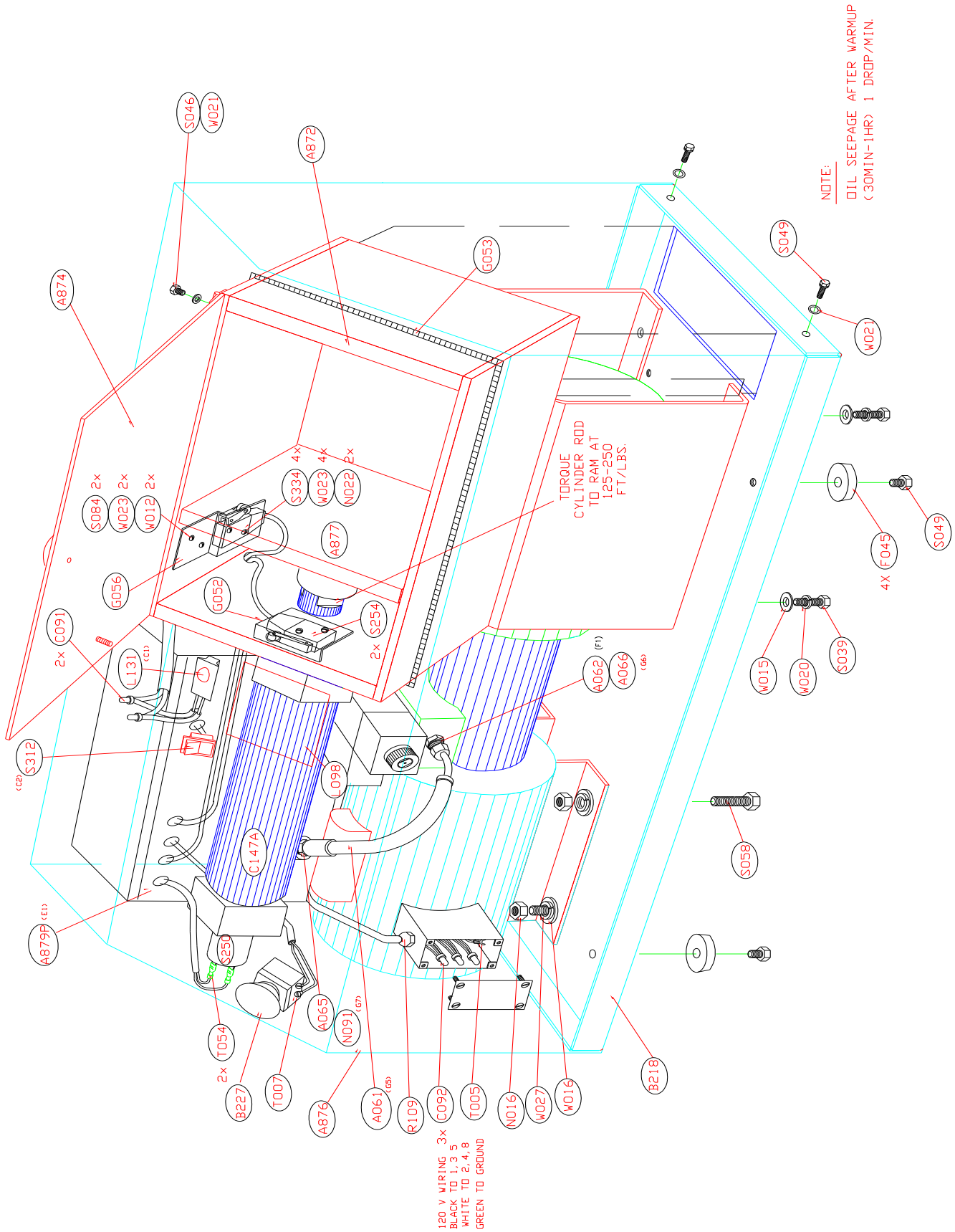


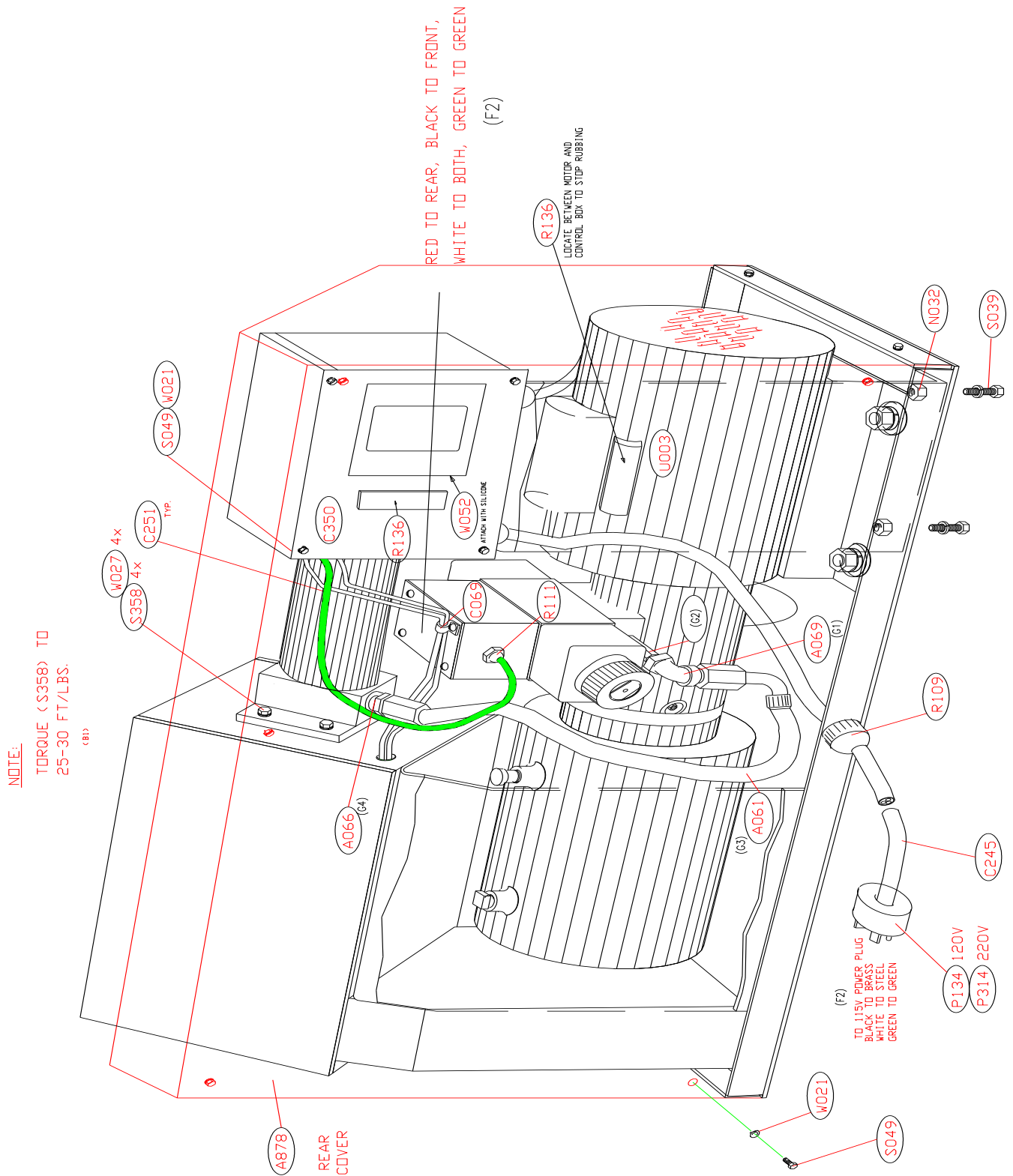
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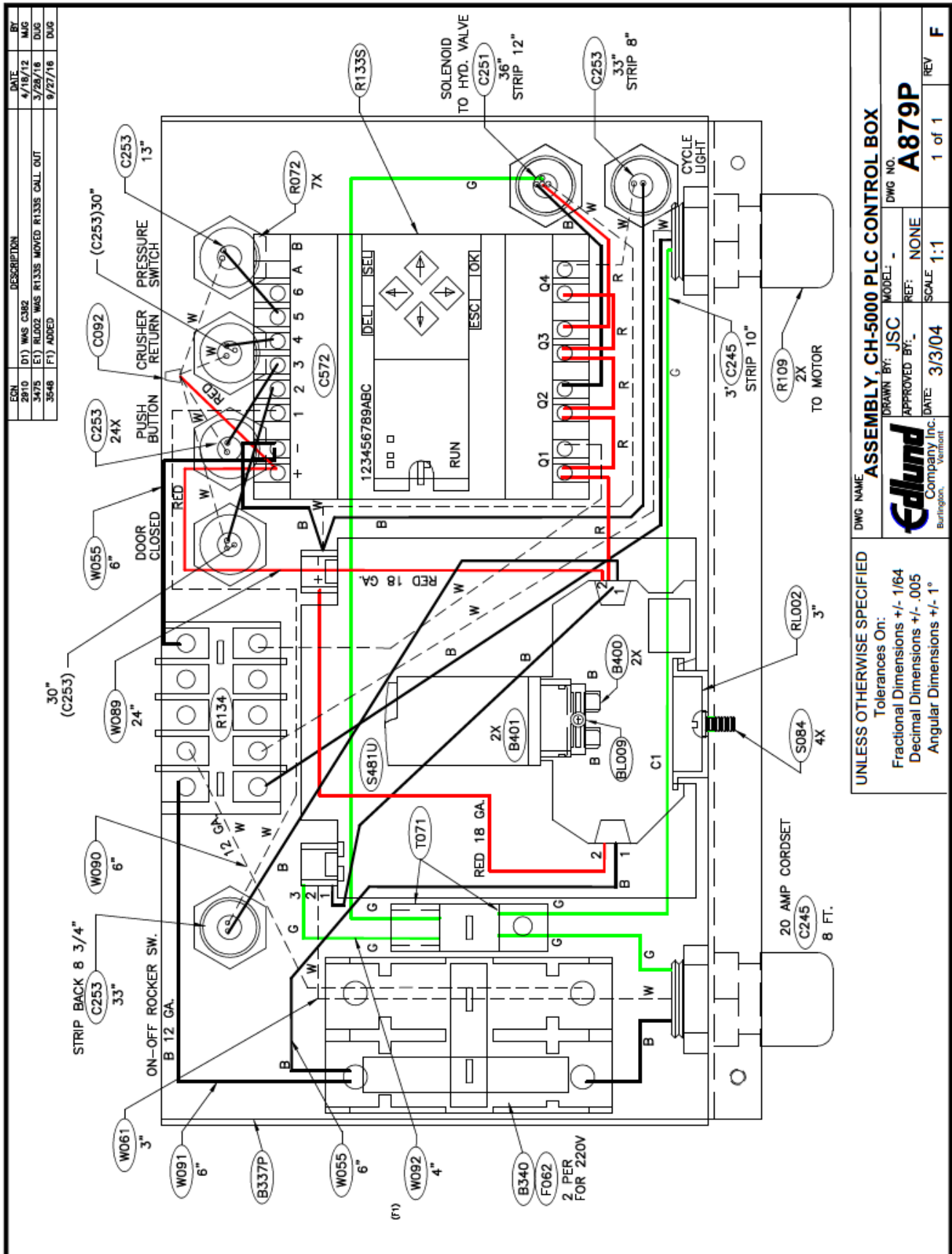
A061F	ASSEMBLY, 1/4" HYDRAULIC HOSE FRONT
A061R	ASSEMBLY, 1/4" HYDRAULIC HOSE REAR
A066	ADAPTOR, 1/4" NPT X 3/8" JIC MALE
A065	ADAPTOR, 1/4" NPT X 90 DEGREE 3/8" JIC MALE
A871	ASSEMBLY, SHC BASE
A872	WELDMENT, SHC BOX
A874	WELDMENT, SHC DOOR
A879P	ASSEMBLY, CH-5000 PLC CONTROL BOX
A876	WELDMENT, SHC COVER
A877	WELDMENT, SHC CRUSHER PLATE
A878	WELDMENT, SHC REAR COVER
B400	BASE, CIRCUIT BREAKER
B227	BUTTON, SWITCH PUSH (2 NO CONT)
B338	BOARD, CIRCUIT
B234	BUSHING, ST RED, 3/8 TO 1/4 NPT
B401	BREAKER, 2 AMP CIRCUIT
C091	#203/266 LEAD CONNECTOR, S-11
C147A	CYLINDER, 2X7 HYDRAULIC MONARCH
C245	CORD, 12/3 SJ
C251	CORD, 18/4 SJ
C253	CORD, 18/2 SVT
C350W	COVER, CH-5000 CONTROL BOX
C382	CONTROLLER, SMALL PLC 24VDC
E023	ELBOW, 3/8 NPT ST. STREET
F045	625 MECH FOOT, BLACK
F062	FUSE, 20 AMP
G052	GUARD, SHC SWITCH
G053	GROMMETING, FLEXIBLE
G056	GUARD, CH-5000 CYCLE SWITCH
H079	LAMP FUSE HOLDER
H084	HOLDER, CH-5000 DOUBLE FUSE
L131	LIGHT, 24VDC
L098	LABEL, CH-5000 INSTRUCTIONS
N016	5/16-18 S/S HEX NUT
N020	10-32 S/S HEX NUT
N022	8-32 S/S HEX NUT
N032	1/4-20 NYLOCK NUT

ITEM NO. DESCRIPTION

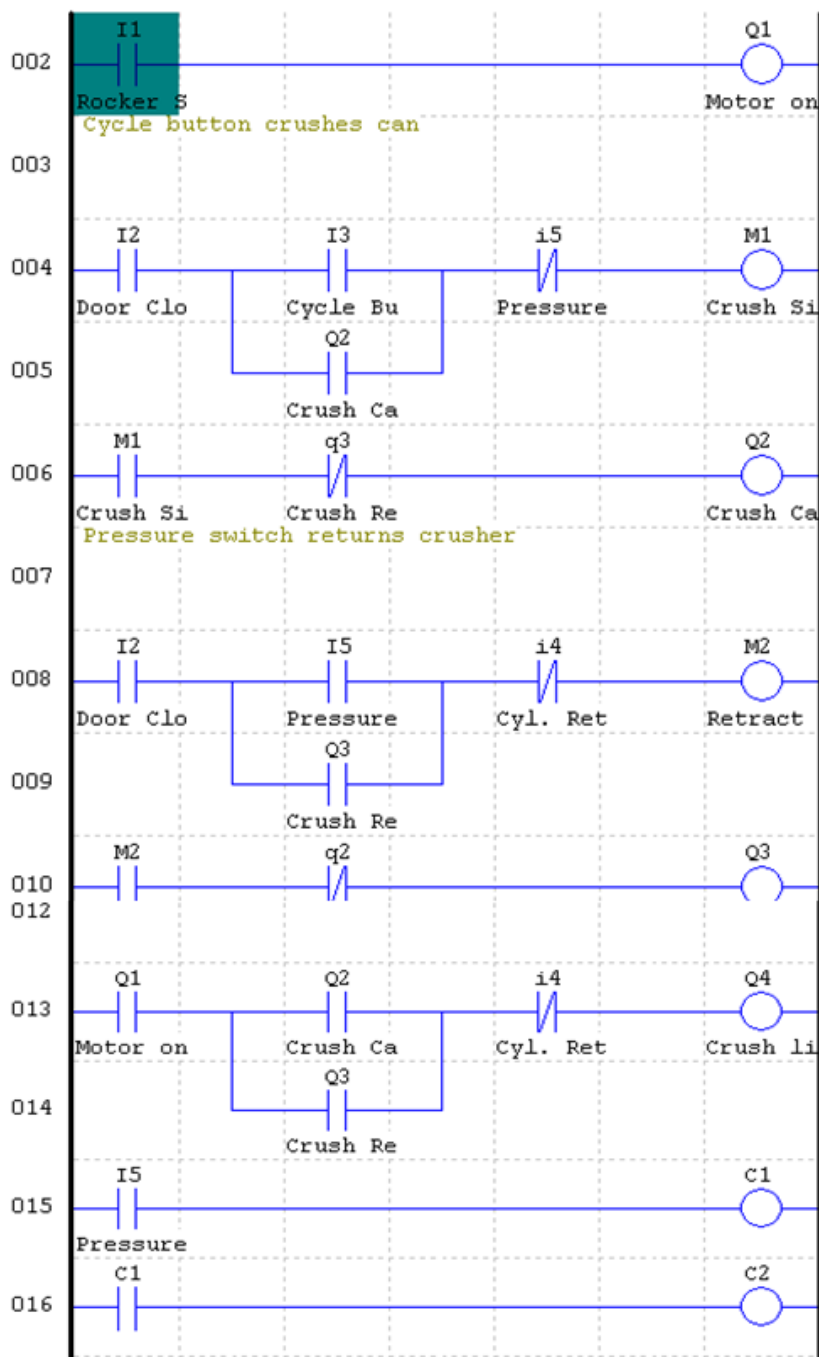
N061	NUT, WIRE LG. (3 #12 WIRES)
PA34	PLUG, 115V 20 AMP
P314	PLUG, 220V 15 AMP
R072	STRAIN RELIEF, FLEX WATERTIGHT
R109	RELIEF, STRAIN HEYCO #3216
R133	RAIL, DIN MOUNTING
R136	RUBBER, 1/4X1 FOAM
S039	1/4-20 X 3/4 S/S HEX HD SCREW
S045	10-32 X 1/2 S/S HEX HD SCREW
S046	10-32X1/4 HEX HD SCREW
S049	10-32 X 3/8 S/S HEX HD SCREW
S058	5/16-18 X 3/4 S/S HEX HD SCREW
S066	10-32X5/8 PAN HD SCREW
S067	#10-32 X 1/2 S/S RHM SCREW
S084	SCREW, 8-32 X 5/16 SS RHM
S250	SWITCH, HYDRAULIC PRESSURE
S254	SWITCH, ROLLER AROMAT #AZ37269
S334	SCREW, S/S #8-32 X 7/8 RHM
S358	5/16-18 X 1-1/4 S/S HEX HH SCREW
S403	SWITCH, ROCKER
S481U	SUPPLY, POWER 24VDC 50W
T054	TERMINAL, 1/4" INSULATED
T067	TERMINAL, SPADE #10 STUD 18 GA.
T071	TERMINAL, GROUND LUG
U003	UNIT, SM. HYDRAULIC M405 24VDC SOL.
W015	1/4" S/S FLAT WASHER
W016	5/16" S/S FLAT WASHER
W020	1/4" LOCK WASHER, S/S
W021	#10 S/S LOCK WASHER
W023	#8 S/S LOCK WASHER
W027	5/16" S/S LOCK WASHER
W052	WINDOW, SS
W055	WIRE, BLACK 18 AWG STRANDED
W089	WIRE, RED 18 AWG STRANDED
W091	WIRE, BLACK 12 AWG
W090	WIRE, WHITE 12 AWG







CH-5000 PLC PROGRAM, LADDER DIAGRAM



I1 ROCKER SWITCH ON
 I2 DOOR CLOSED ON
 I3 CYCLE BUTTON ON
 I4 CYL. RETRACT SW. ON
 I5 PRESSURE SWITCH ON
 I6 NOT USED

Q1 PUMP MOTOR ON
 Q2 CRUSHER CYL. EXTEND ON
 Q3 CRUSHER CYL. RETRACT ON
 Q4 CRUSHER LIGHT ON