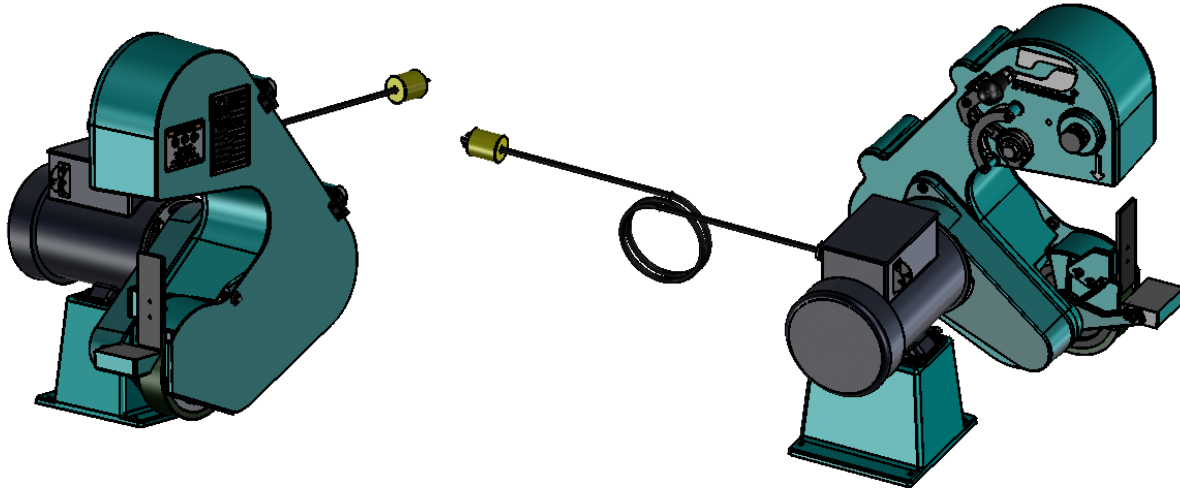


3 Wheel Belt Grinder

Tool Manual - Safety, Operation and Maintenance


SAVE THIS DOCUMENT, EDUCATE ALL PERSONNEL



Model Number	Motor hp	FLA	Voltage	Phase	Frequency	SFPM (SM/Min)	Sound Level	Weight Pound	Height Inch	Width Inch	Length Inch
67900	1.5	12.1	115	1	60	8000	85 dB(A)	110	27	21	20
67901	1.5	6	230	1	60	8000	85 dB(A)	110	27	21	20
67902	1.5	4.6	230	3	60	8000	85 dB(A)	110	27	21	20
67903	1.5	2.3	460	3	60	8000	85 dB(A)	110	27	21	20
67904	3	7.6	230	3	60	8000	85 dB(A)	120	27	21	20
67905	3	3.8	460	3	60	8000	85 dB(A)	120	27	21	20
67906	1.5	15.2	115	1	60	4000	72 dB(A)	110	27	21	20
67907	1.5	7.6	230	1	60	4000	72 dB(A)	110	27	21	20
67908	1.5	4.8	230	3	60	4000	72 dB(A)	110	27	21	20
67909	1.5	2.4	460	3	60	4000	72 dB(A)	110	27	21	20
67910	3	8.6	230	3	60	4000	72 dB(A)	120	27	21	20
67911	3	4.3	460	3	60	4000	72 dB(A)	120	27	21	20
67912	1.5	20	115	1	60	800-8000	85 dB(A)	110	27	21	20
67913	1.5	10	230	1	60	800-8000	85 dB(A)	110	27	21	20

SAFETY LEGEND


 **⚠ WARNING**
Read and understand tool manual before work starts to reduce risk of injury to operator, visitors and tool.

⚠ WARNING
Practice safety requirements. Work alert. have proper attire and do not operate tools under the influence of alcohol or drugs 

 **⚠ WARNING**
Eye protection must be worn at all times, eye protection to conform to ANSI Z87.1

⚠ WARNING
Ear protection to be worn when exposure to sound, exceeds the limits of applicable Federal, State or Local statues, ordinances and/or regulations 

 **⚠ WARNING**
Respiratory protection to be used when exposed to contaminants that exceed the applicable threshold limit values required by law

⚠ WARNING
Electric shock hazard. Avoid bodily contact with grounded objects, bodies of water. Do not damage cord set. 

IMPORTANT SAFETY INSTRUCTIONS

When operating this equipment, basic precautions should always be strictly followed including the instructions listed below:

Carefully Read and save all instructions before operating or servicing any Dynabrade® Abrasive Power Tool. Products offered by Dynabrade are not to be modified, converted or otherwise altered from the original design without expressed written consent from Dynabrade, Inc.

Warning: When using electric tools, basic safety precautions should always be followed to reduce the risk of a fire, electric shock, and personal injury, including the following:

1. **Keep work area clean.** Cluttered areas and benches invite accidents.
2. **Consider work area environment.** Do not expose tools to rain. Keep work area well lit. Do not use power tools in damp or wet locations. Do not use tools in the presence of flammable liquids or gases.
3. **Guard against electric shock.** Be certain machine is adequately grounded before operating.
4. **Keep children away.** Do not let visitors contact tool. All visitors should be kept away from work area.
5. **Do not force tool.** It will do a better and safer job at its intended rate.
6. **Use the right tool.** Do not force a small tool or attachment to do the job of a heavy duty tool. Do not use tool for purposes not intended.
7. **Dress properly.** Do not wear loose fitting clothing or jewelry. Clothes can be caught in moving parts. Wear protective hair covering to contain long hair.
8. **Use safety glasses.** Also use face-shield or dust mask if operation area is dusty.
9. **Do not abuse cord.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
10. **Do not overreach.** Keep proper footing and balance at all times.
11. **Maintain tools with care.** Keep tools clean for better use and safer performance. Follow instructions for changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.
12. **Do not leave tool running.** Disconnect tools when not in use, before servicing, when changing belts, contact arms, etc.
13. **Remove keys and wrenches.** Form a habit of checking to see that all keys and adjusting wrenches are removed from tool before turning it on.
14. **Avoid accidental starting.** Be sure switch is off when plugging in.
15. **Out-door use extension cords.** When tool is used outdoors, use only extension cord suitable for outdoor use. They should be marked with the suffix W-A (for UL) or W (for CSA in Canada).
16. **Stay alert.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
17. **Check damaged parts.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, breakage of moving parts, binding of moving parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced. Do not use tool if switch does not turn tool on or off.
18. **Avoid gaseous areas.** Do not operate electric tools in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks can ignite fumes.
19. **Do not alter or misuse tool.** This tool is precision built. Any alteration or modification not specified is misuse and may result in a dangerous condition. Only these accessories and attachments that are found in this instruction manual are acceptable for use with this tool. The use of any other accessory or attachment might present a risk to the operator.
20. **Replacement parts.** When servicing, use only identical replacement parts. When ordering replacement parts, please specify model and serial numbers of your machine.
21. **Do not operate tool without guards.** Always replace guards after changing contact arm or abrasive belt.
22. **Do not mix grind material.** There is a potential combustion hazard if ferrous and non-ferrous grinding dust is mixed. Clean inside machine between materials.
23. **Use hearing protection.** Permanent hearing loss can result from high process noise levels.
24. **Use correct width abrasive belt.** Using abrasive belt that is narrower than the contact wheel can cause snagging of the workpiece.
25. **Mount tool securely.** Always fasten tool to bench or other support structure to prevent tipping.

Voltage Warning:

Before connecting the tool to a power source (receptacle, outlet, etc.), be sure the voltage supplied is the same as what is specified on the nameplate of the tool. A power source with greater than that specified for tool can result in **serious injury** to the user as well as damage to the tool. Using a power source with voltage less than the nameplate rating is harmful to the tool's motor. If in doubt, **do not plug in the tool.**

Polarized Plugs:

To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

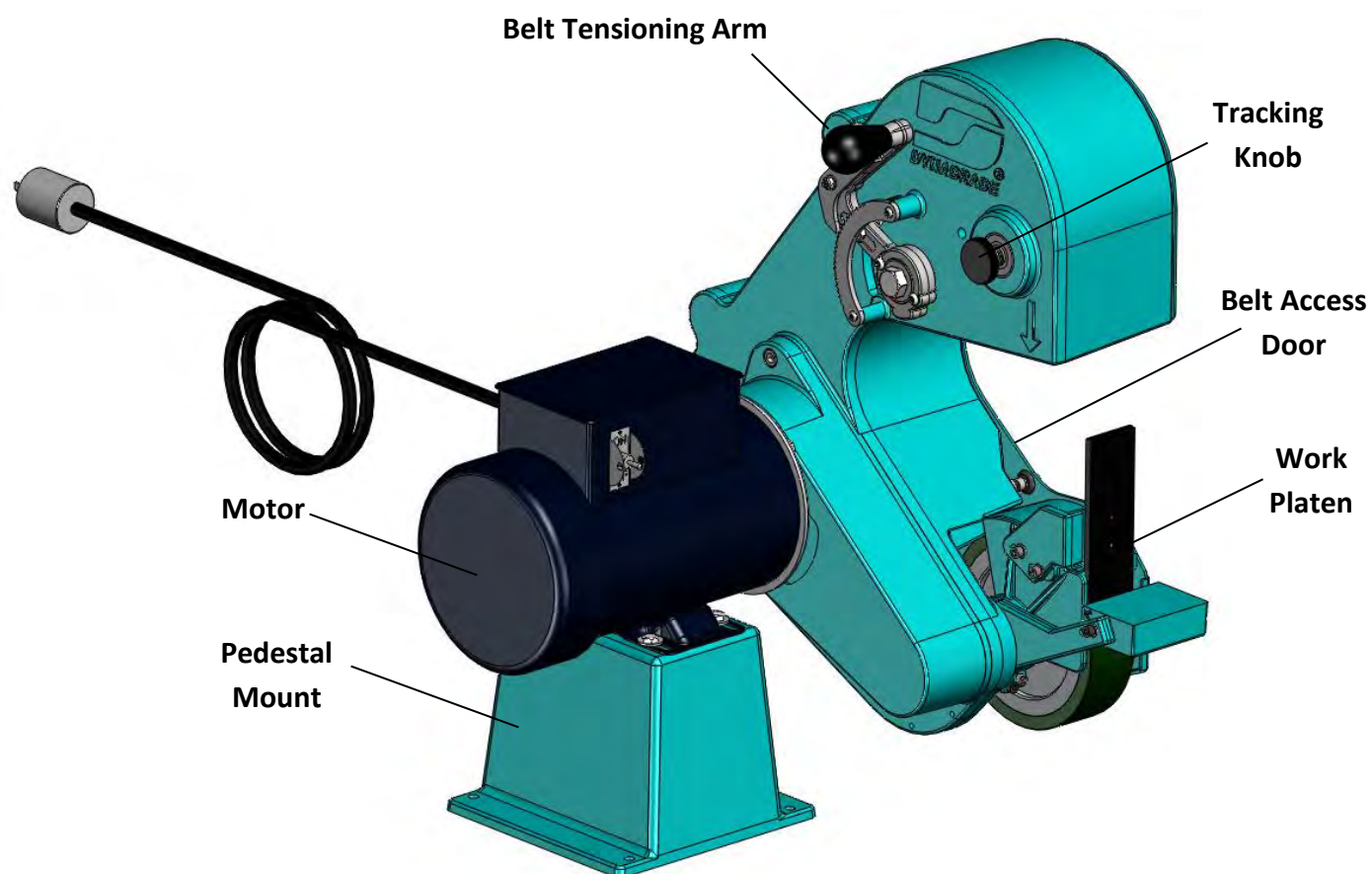
Warning: Keep extension away from the immediate working area.

Versatile Three-Wheel Belt Grinding Machine

Setup

The 67900 Series Three-Wheel Belt Grinding Machine will be pallet shipped to its destination. The following details will describe the steps required for initial setup. Read manual and inform anyone that will be in the area about proper operation and safety.

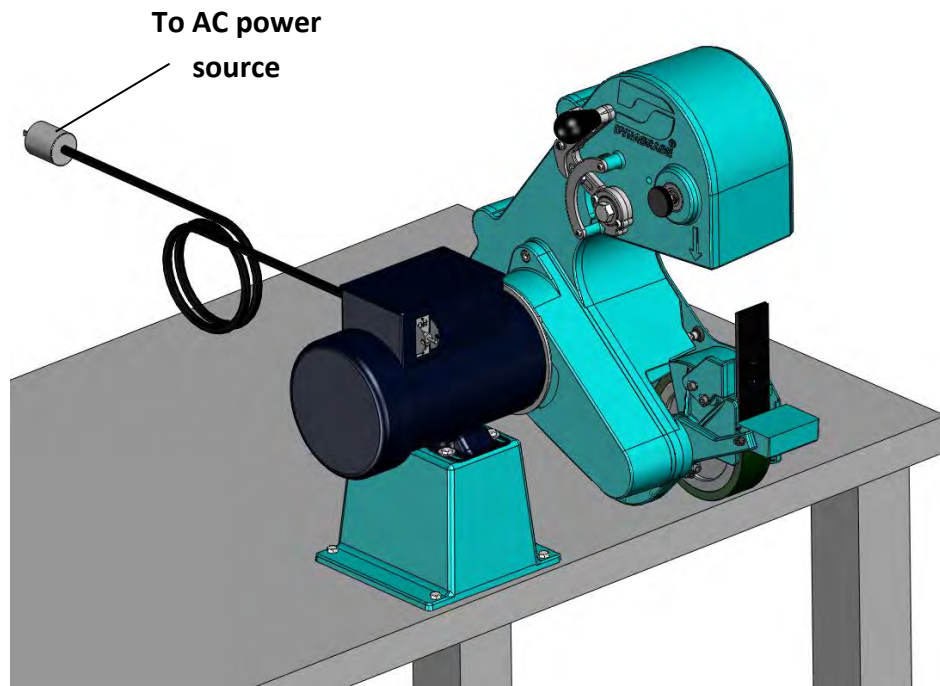
- After receiving machine verify contents of crate and what is stated on the packing slip.
- Make sure product was not damaged in anyway while being delivered.
- Verify AC power is consistent with the model ordered
- Do not modify plug. Please consult an electrician and/or Dynabrade, Inc. prior to changing voltages.
- Verify guards are in place and are adjusted properly



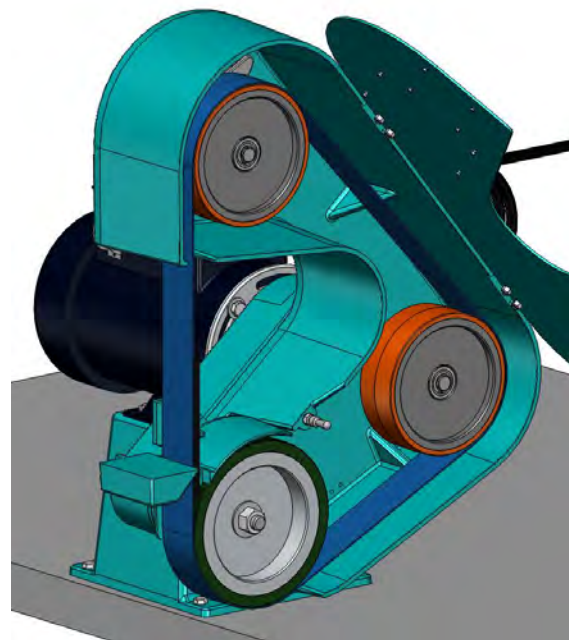
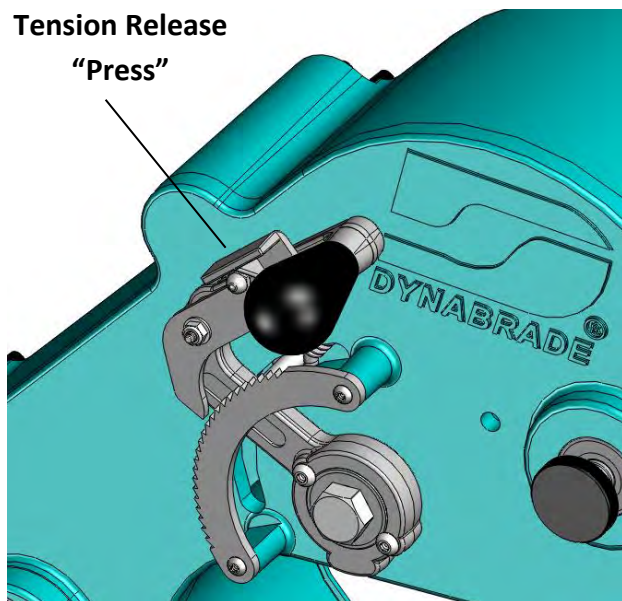
Versatile Three-Wheel Belt Grinding Machine

Setup

After assembly each machine is fully tested prior to leaving the factory. Follow the initial steps prior to full use. 1. With machine or pedestal securely bolted to appropriate surface connect the AC power to its source.



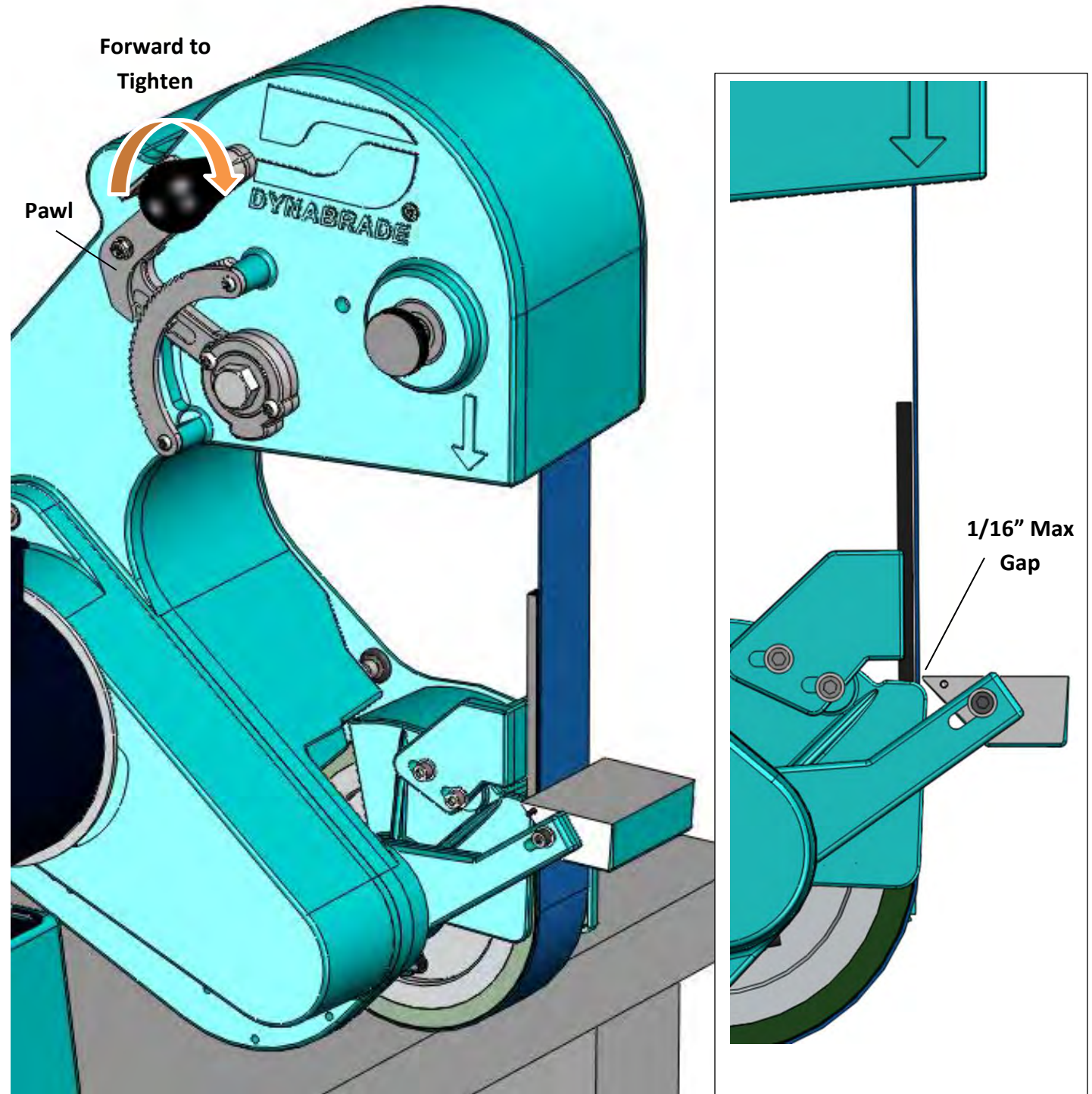
With Power off, install desired abrasive belt on machine. Begin by releasing tension on assembly to allow for clearance and belt to slip on to three wheel assembly as shown.



Versatile Three-Wheel Belt Grinding Machine



Setup

Verify that abrasive belt is tensioned properly. To do this pull the tension handle towards operator. The pawl will lock into the ratchet as you continue to pull the arm forward. To release the belt tension slightly pull forward on the tensioning arm and hold the finger release down. Move the tensioning arm down slightly to reduce belt tension or all the way down to release belt tension. Continue by adjusting the work rest and work rest arm to the desired position. Be sure the gap between the work rest and belt is never greater than 1/16 inch.



Power Source

Next you will need to provide a power source for your machine. Refer to the table below, as the model number will be used to determine the voltage rating for your specific machine. Do not attempt to wire the machine for any other voltage other than that stated for your model.

Model	Voltage	Phase	Plug Provided	Part Number
67800, 67806, 67812.	115 volt	1 Phase	 5-20P	98398
67801, 67807, 67813.	230 volt	1 Phase	 NEMA L6-30P	98601
67802, 67804, 67808, 67810.	230 volt	3 Phase	Wiring to be provided by customer.	
67803, 67805, 67809, 67811.	460 volt	3 Phase		

Versatile Three-Wheel Belt Grinding Machine

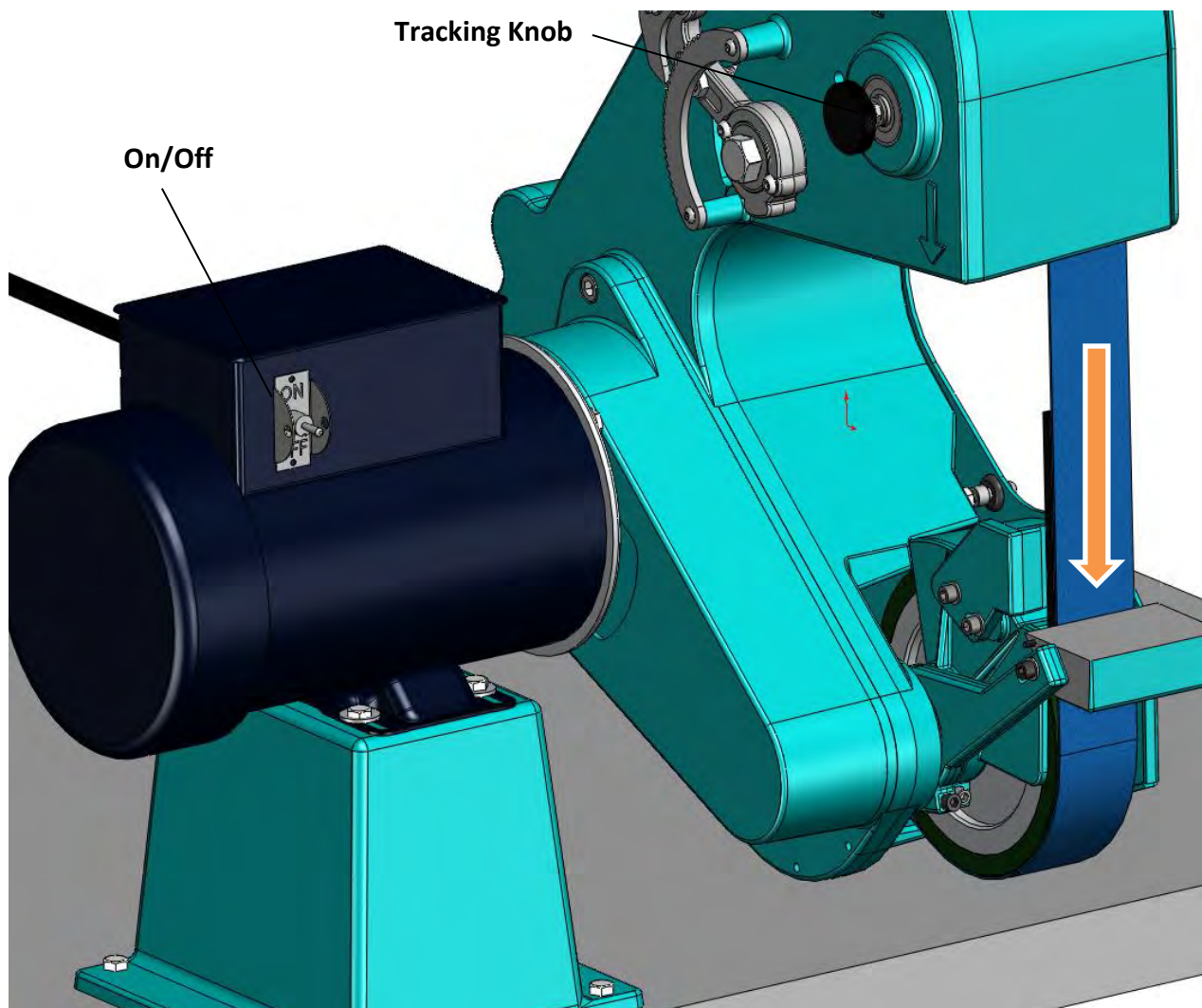
Operation

Engage the motor by placing the ON/OFF switch to ON. The belt should rotate smoothly in a CCW direction about the machine wheel belt path (down towards the floor). If either of these conditions are not met turn the machine OFF immediately.

- a. If abrasive belt is running in the opposite direction, up from the ground instead of down towards it, the motor is running in the wrong direction. To solve this first disconnect the machine from its AC power source.
 - i. To reverse the direction for models with a three phase motor switch any two legs of the input power lines.
- b. In the event that the belt does not remain centered on the contact wheel while machine is running, use the tracking knob to adjust the tracking of the belt. Turning the knob CW and CCW will in turn move the belt left and right respectively.

Note: If the belt is tensioned far beyond a normal amount the tracking system may not be able to bring the belt to a safe and centered operating position. Slightly reduce the tension to resume normal tracking adjustment.

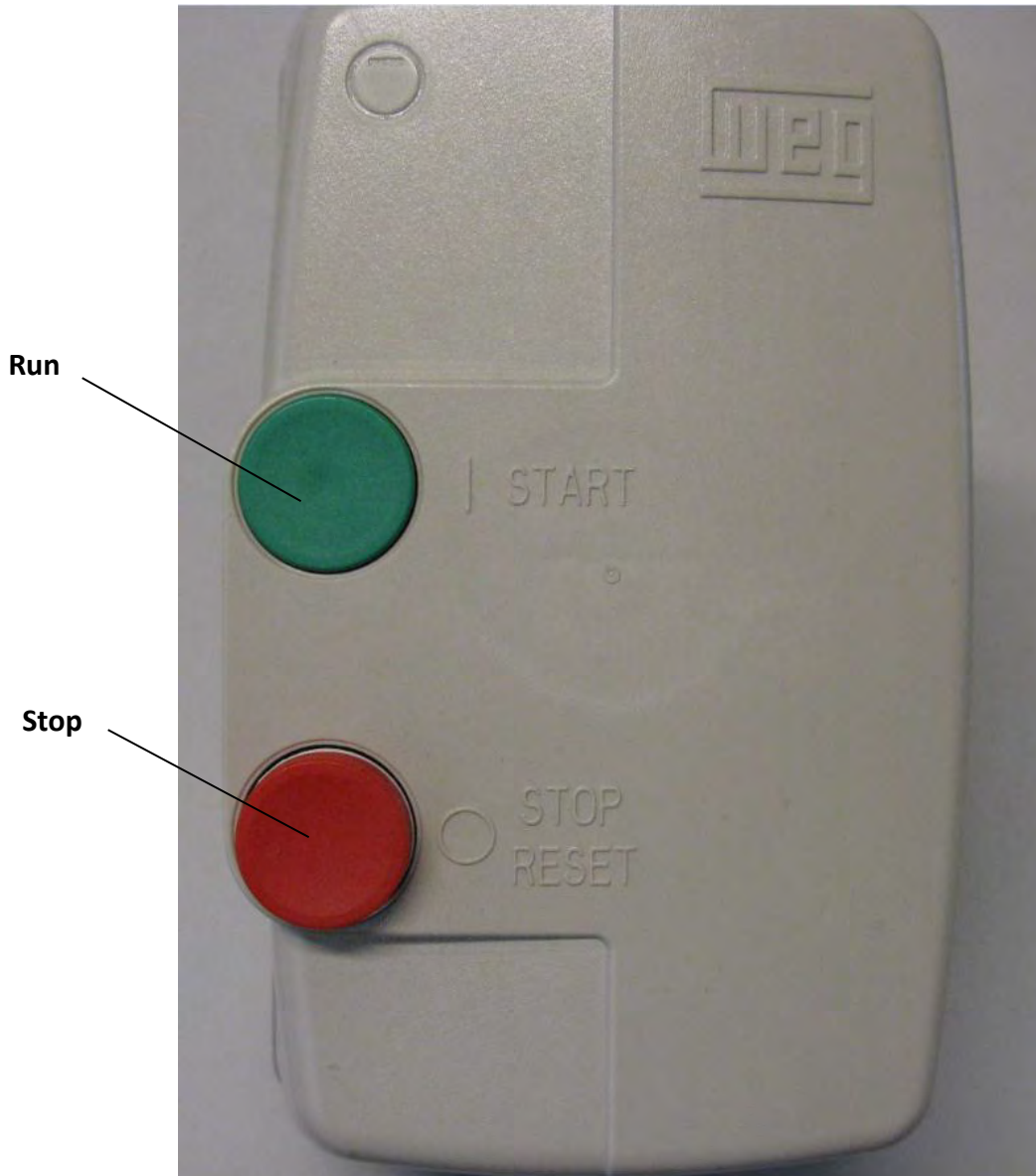
Utilize tracking knob to fine tune your belt location to platen before beginning to grind work piece.



Magnetic Starter

Operation

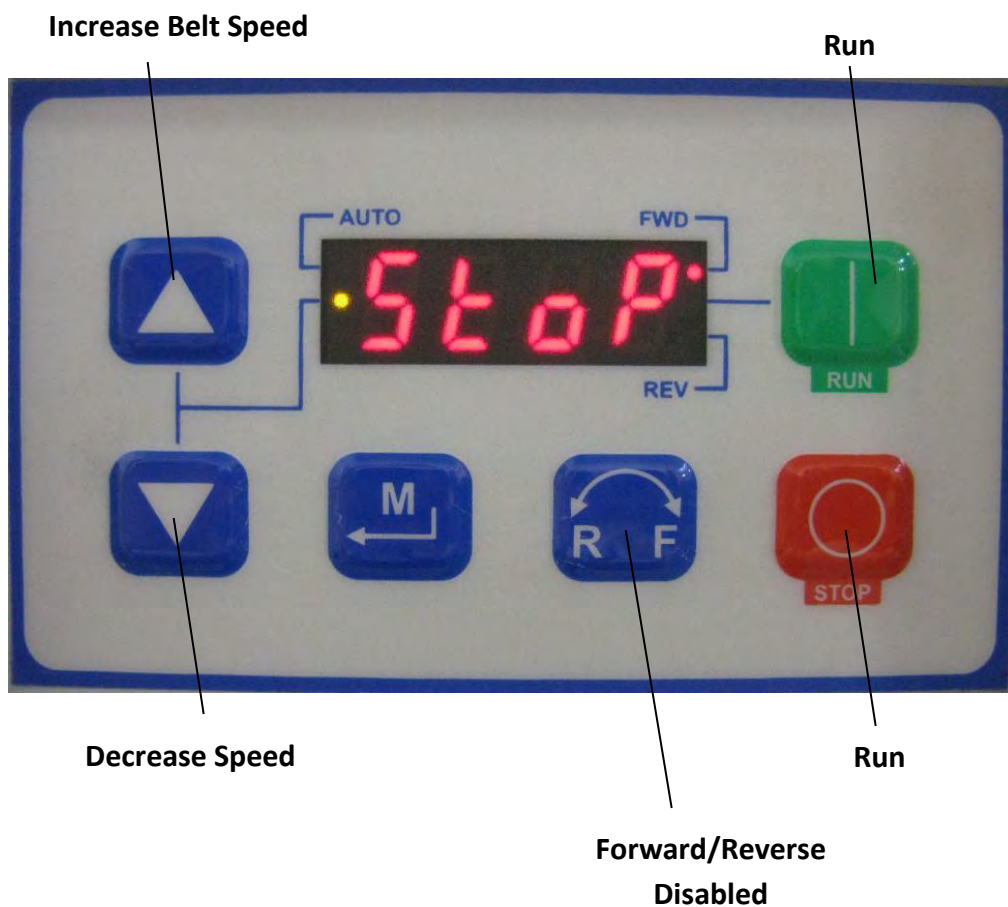
If your machine comes equipped with a magnetic starter, See below control guide for tool operation.



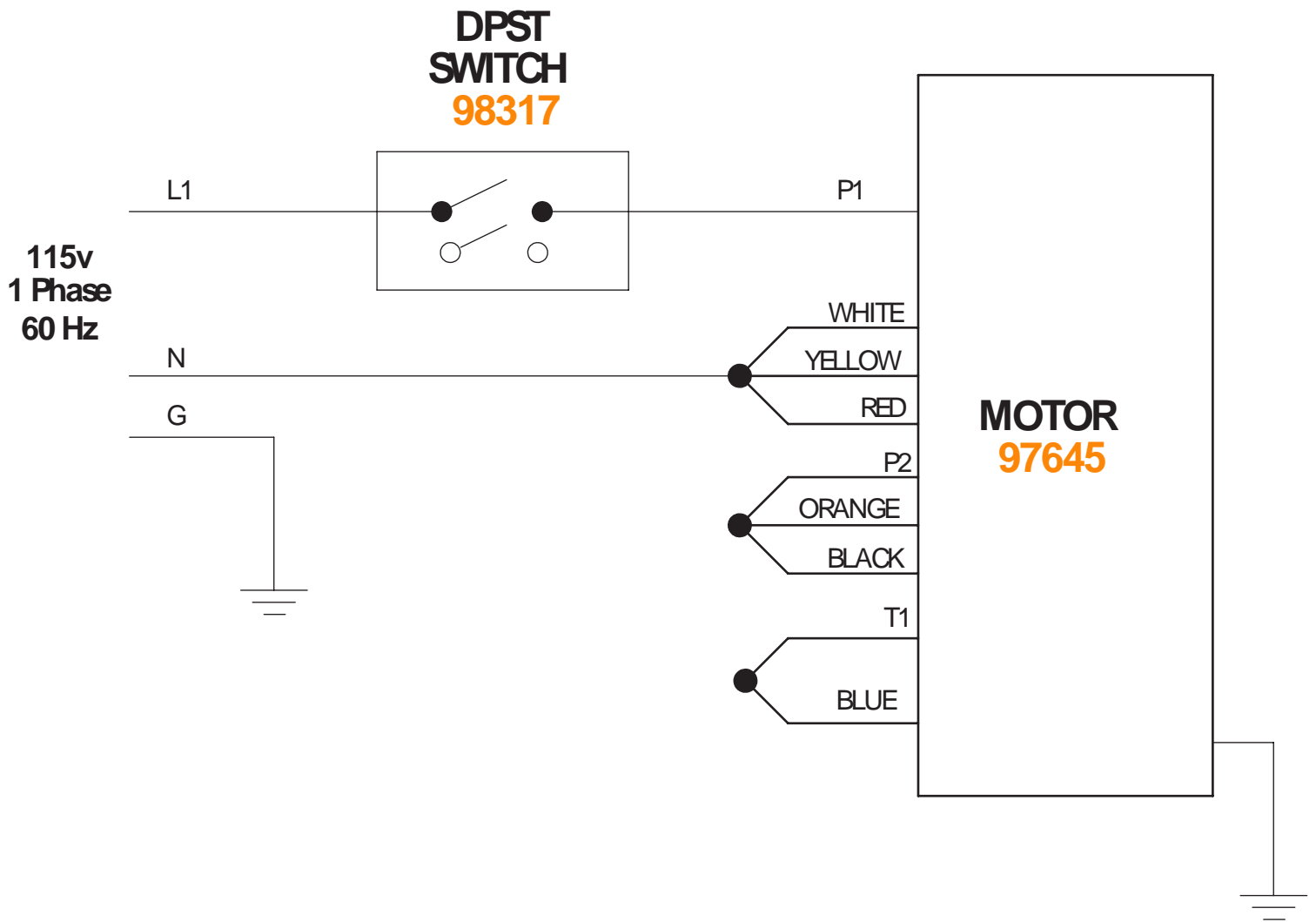
Variable Speed Control

Operation

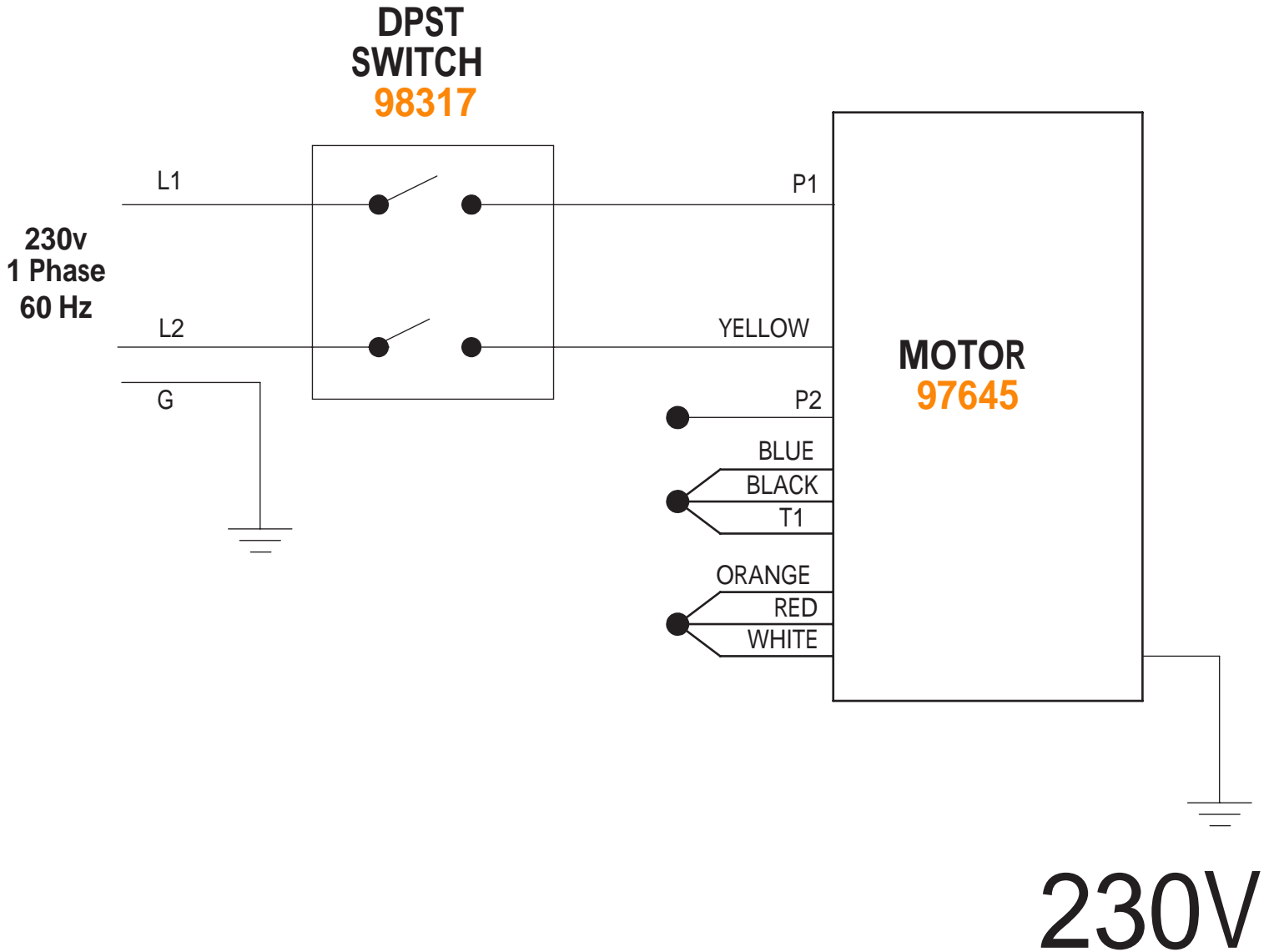
If your machine come equipped with a variable speed control, See below guide for tool operation. Be aware that you can **Increase** or **decrease** belt speed before start up or during run mode.



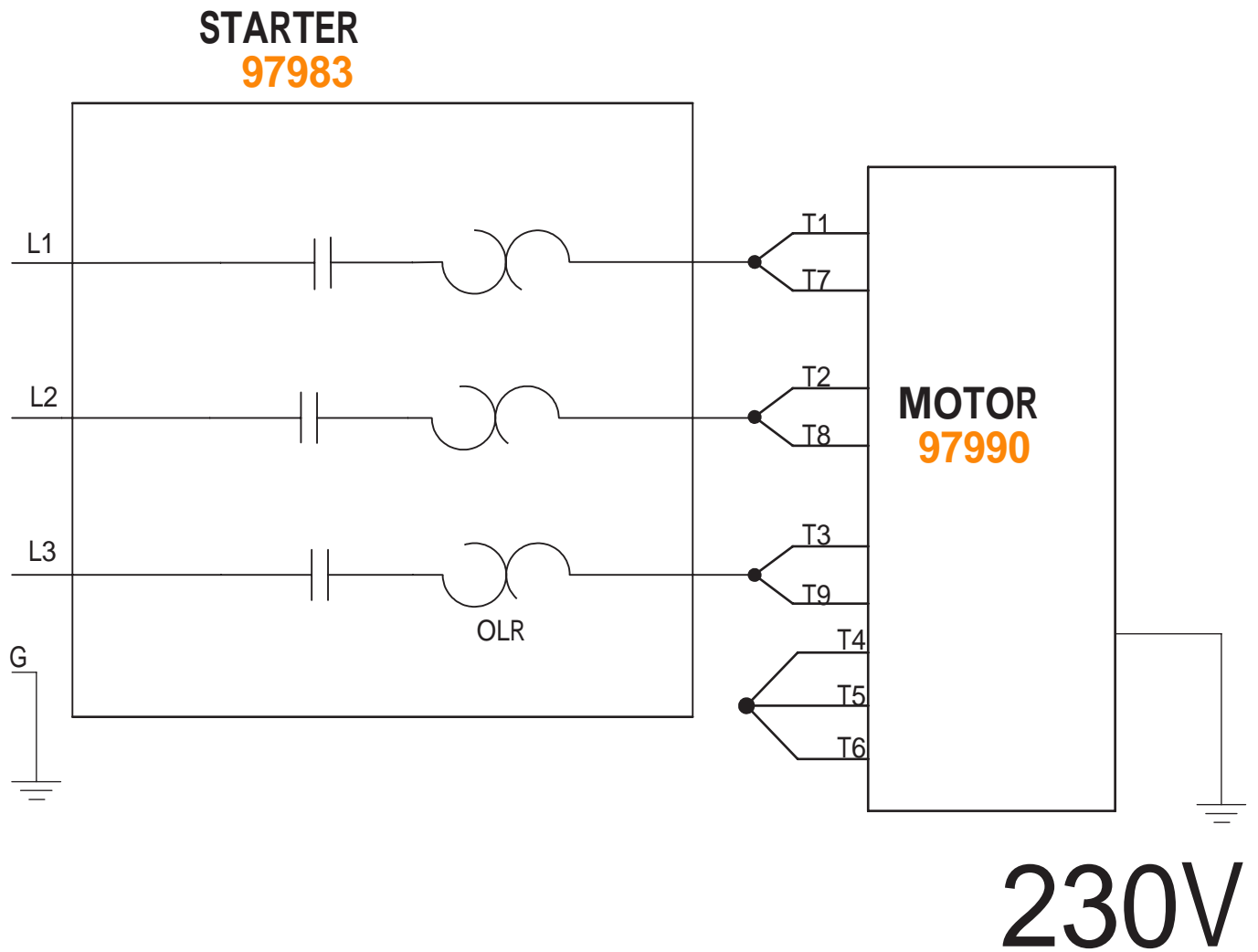
67900



67901

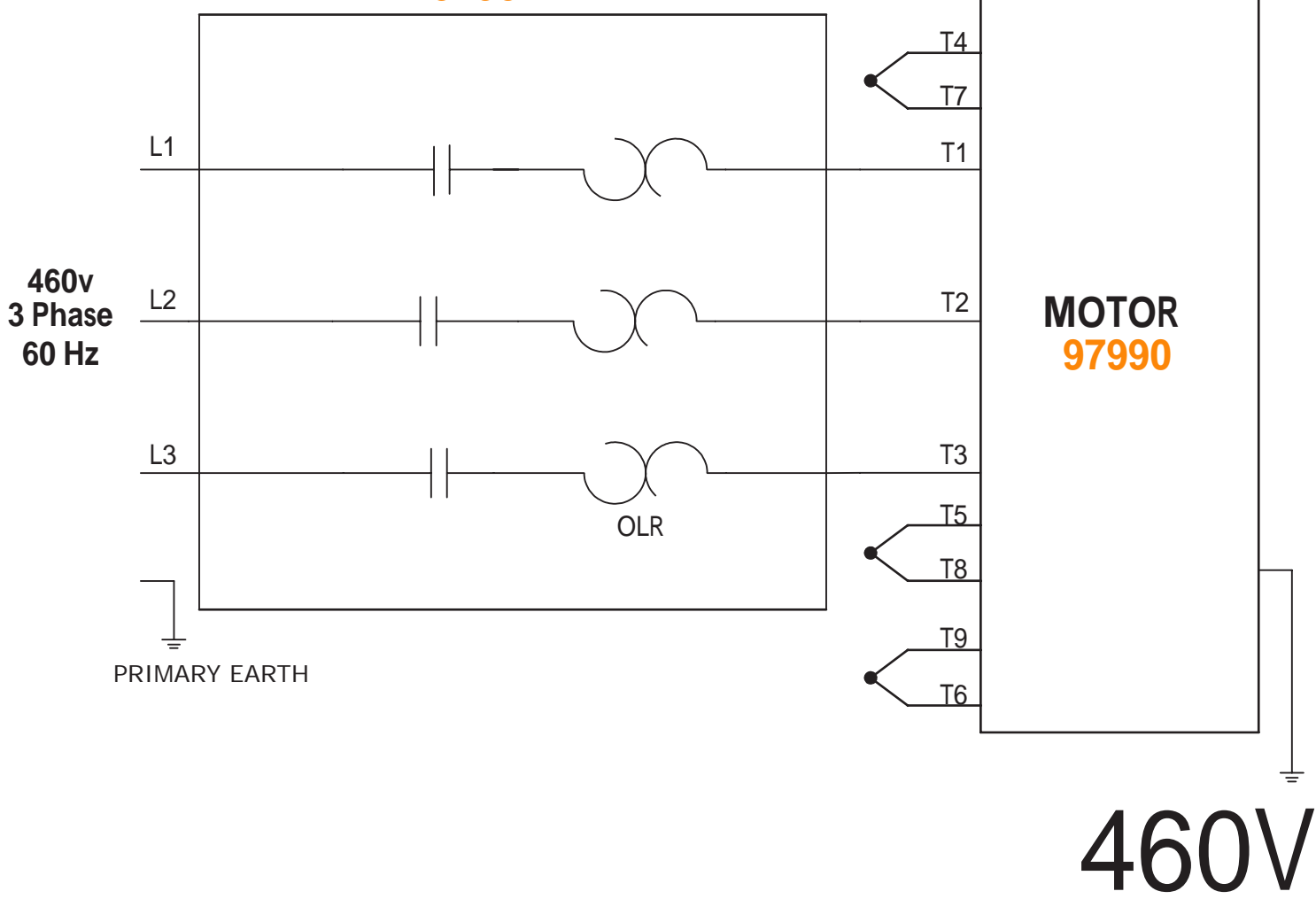


67902



67903

STARTER
97984

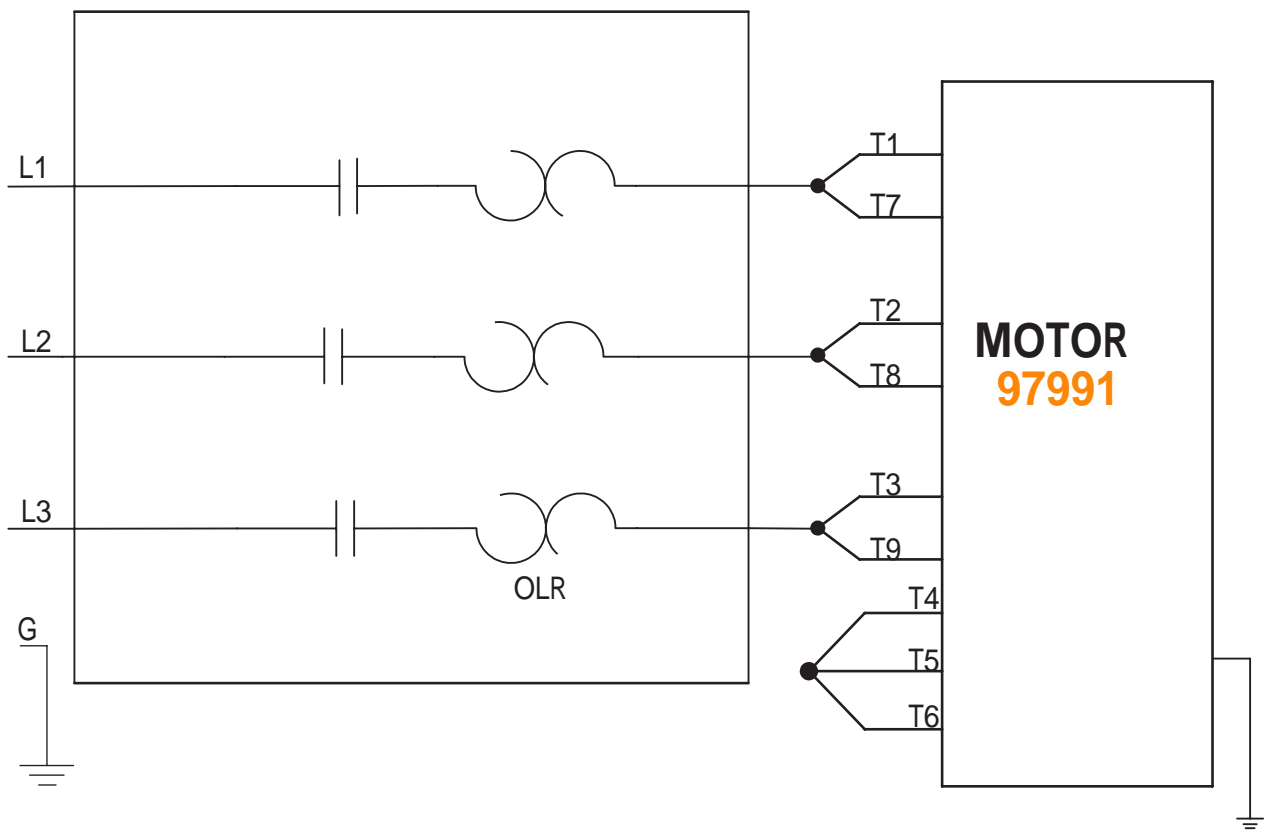


460V

67904

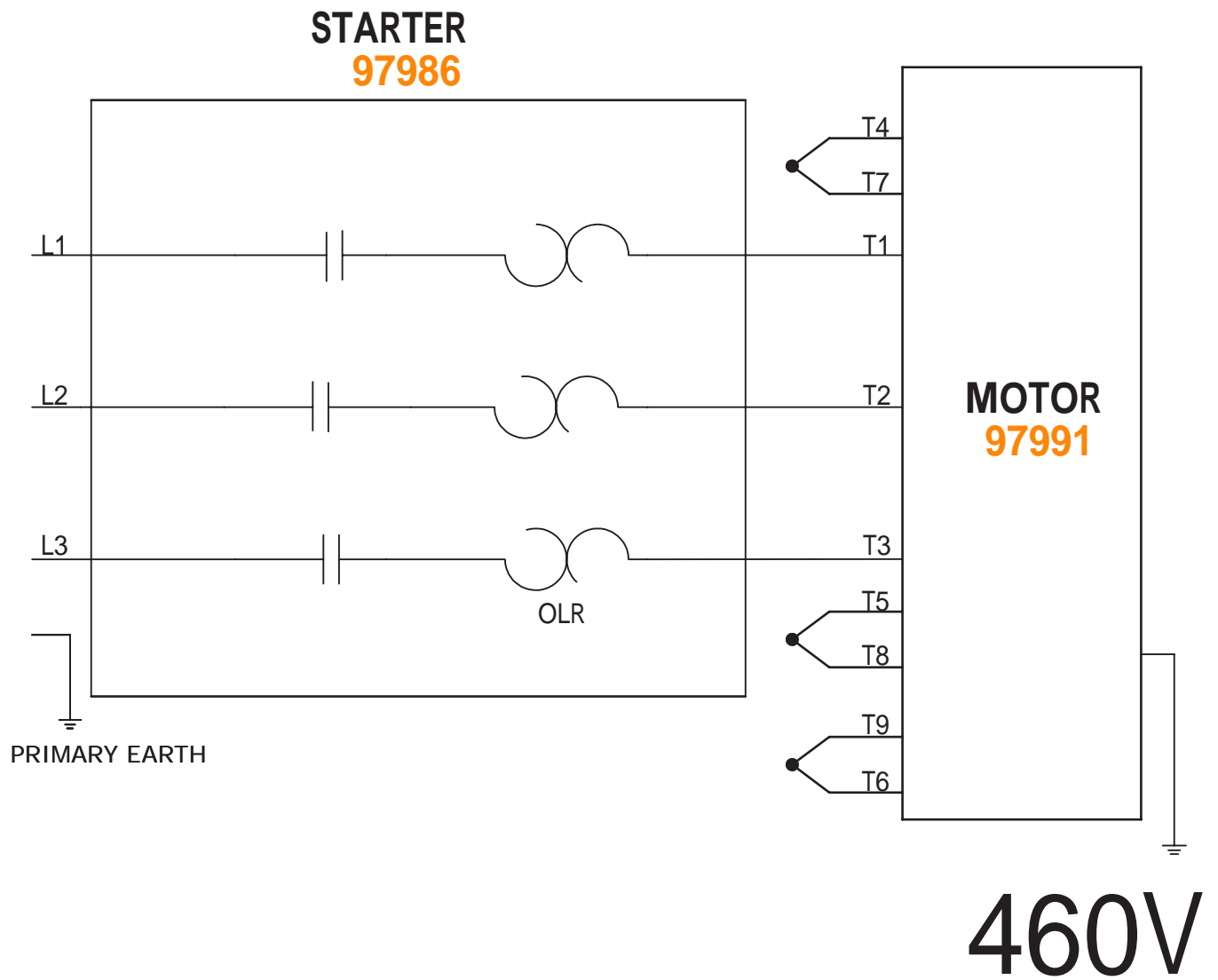
STARTER
97985

230v
3 Phase
60 Hz

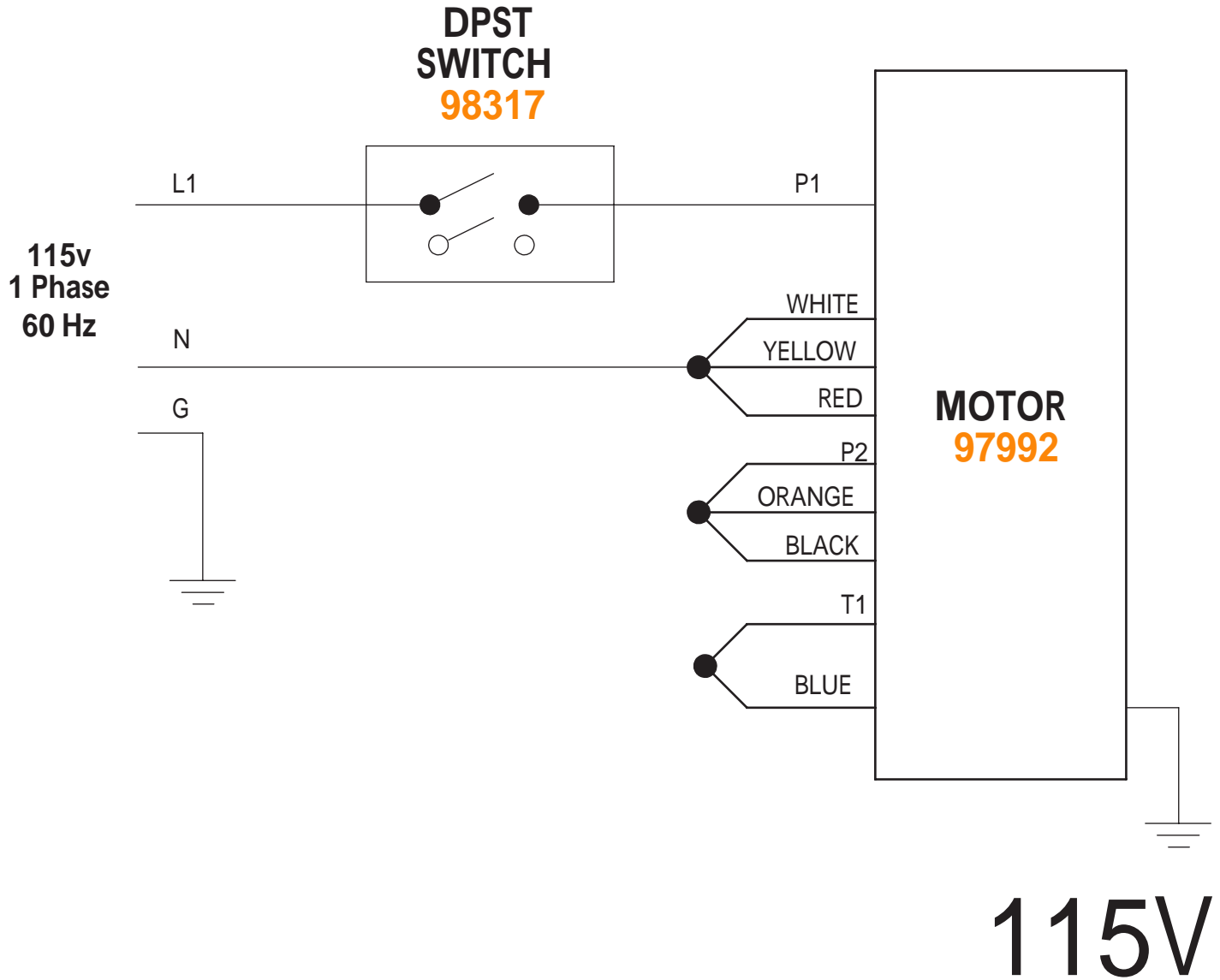


230V

67905

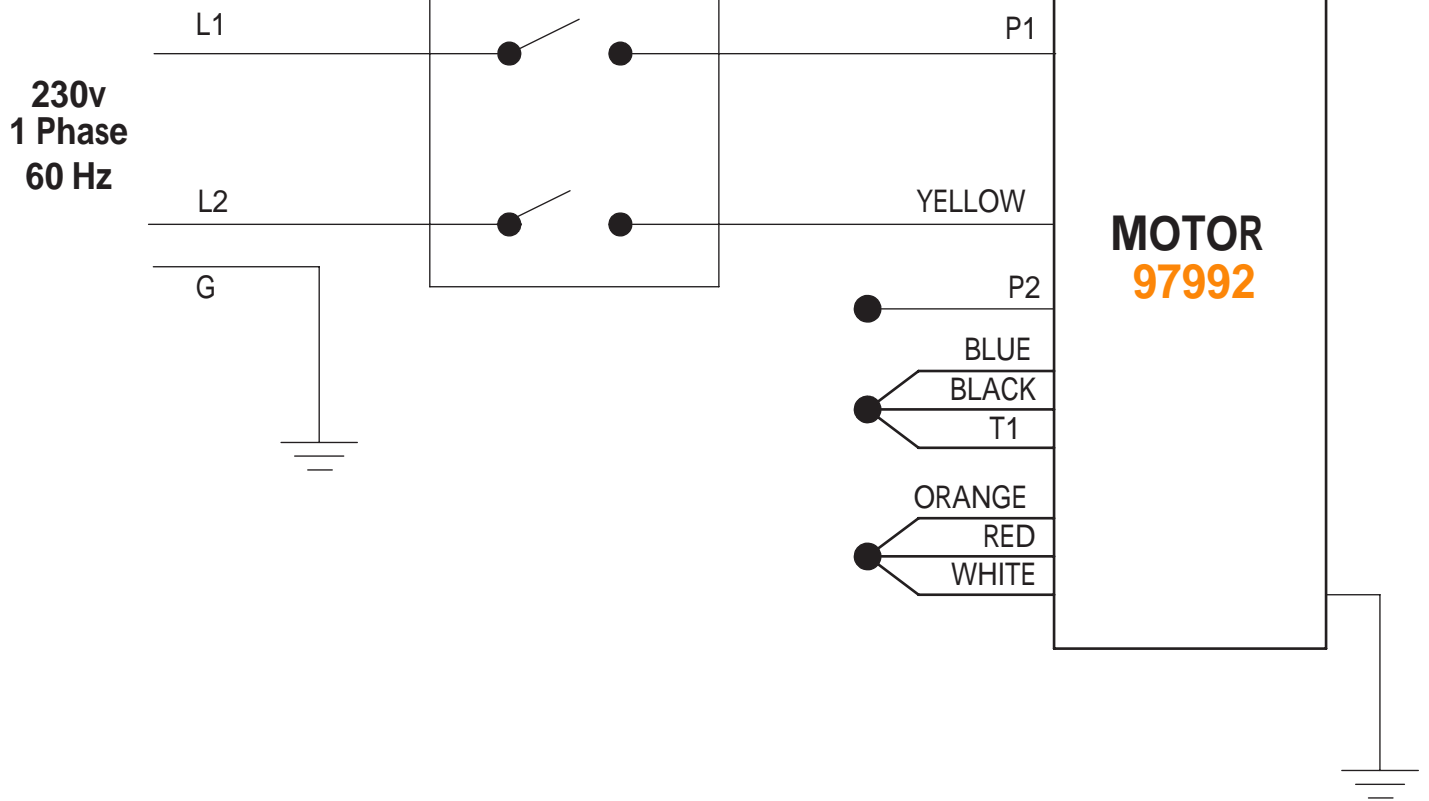


67906



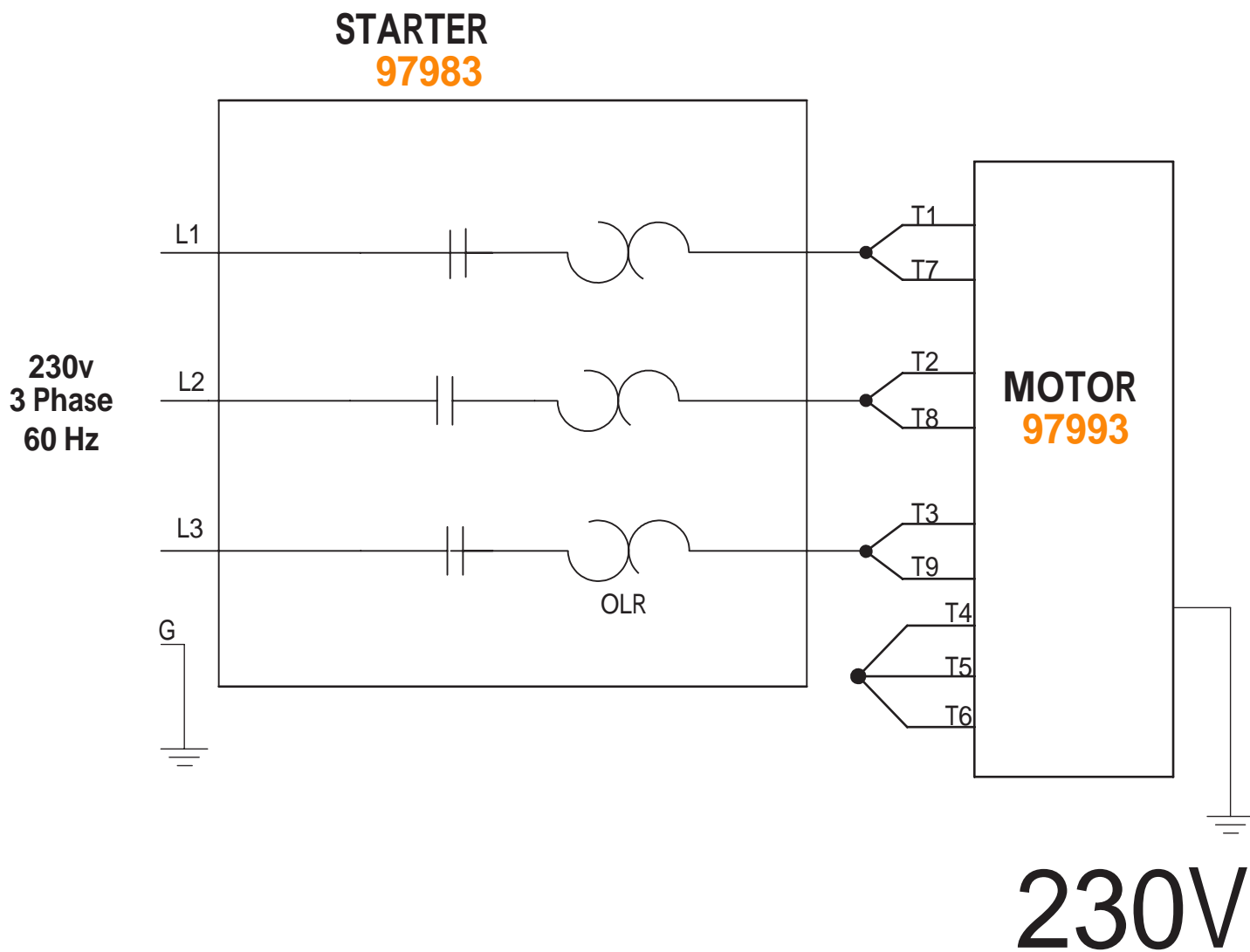
67907

**DPST
SWITCH
98317**



230V

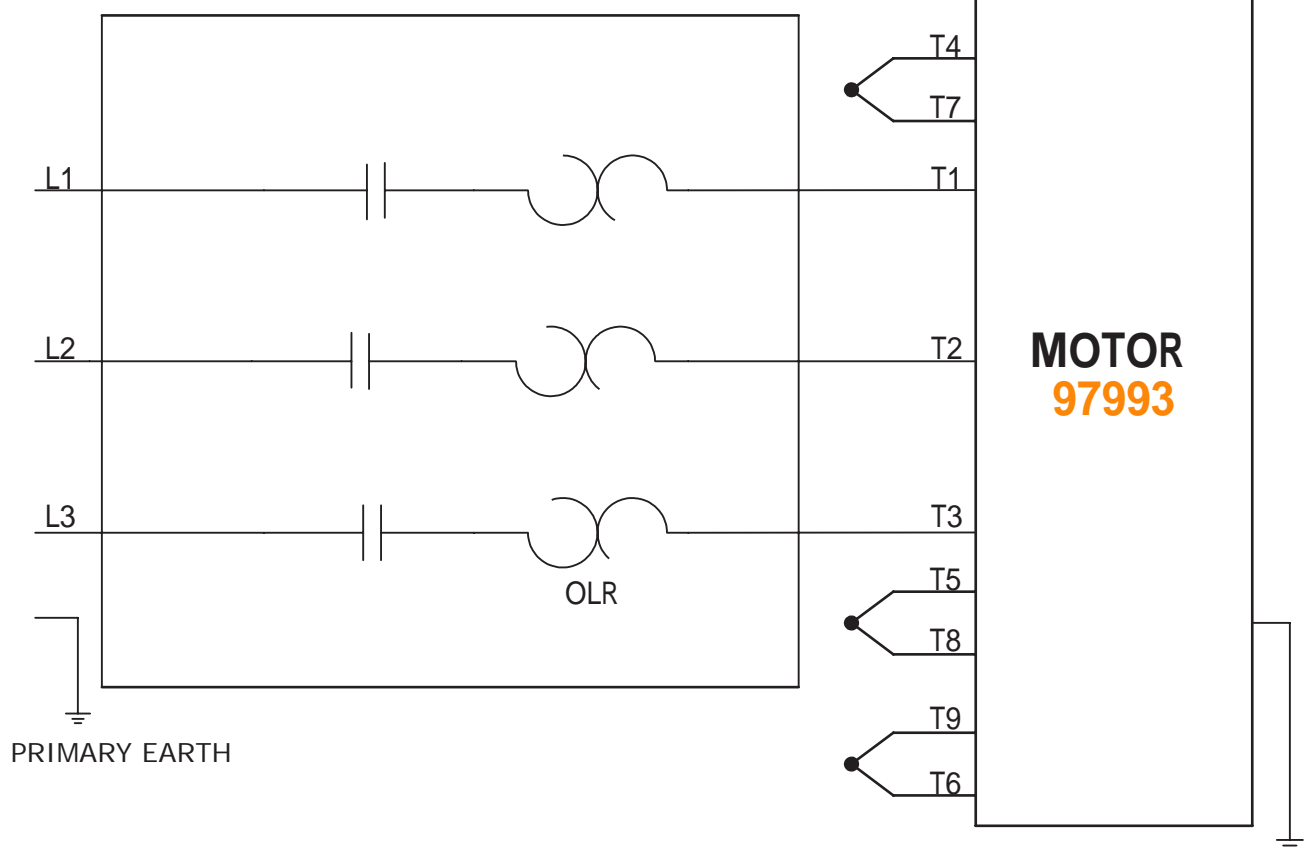
67908



67909

STARTER
97984

460v
3 Phase
60 Hz



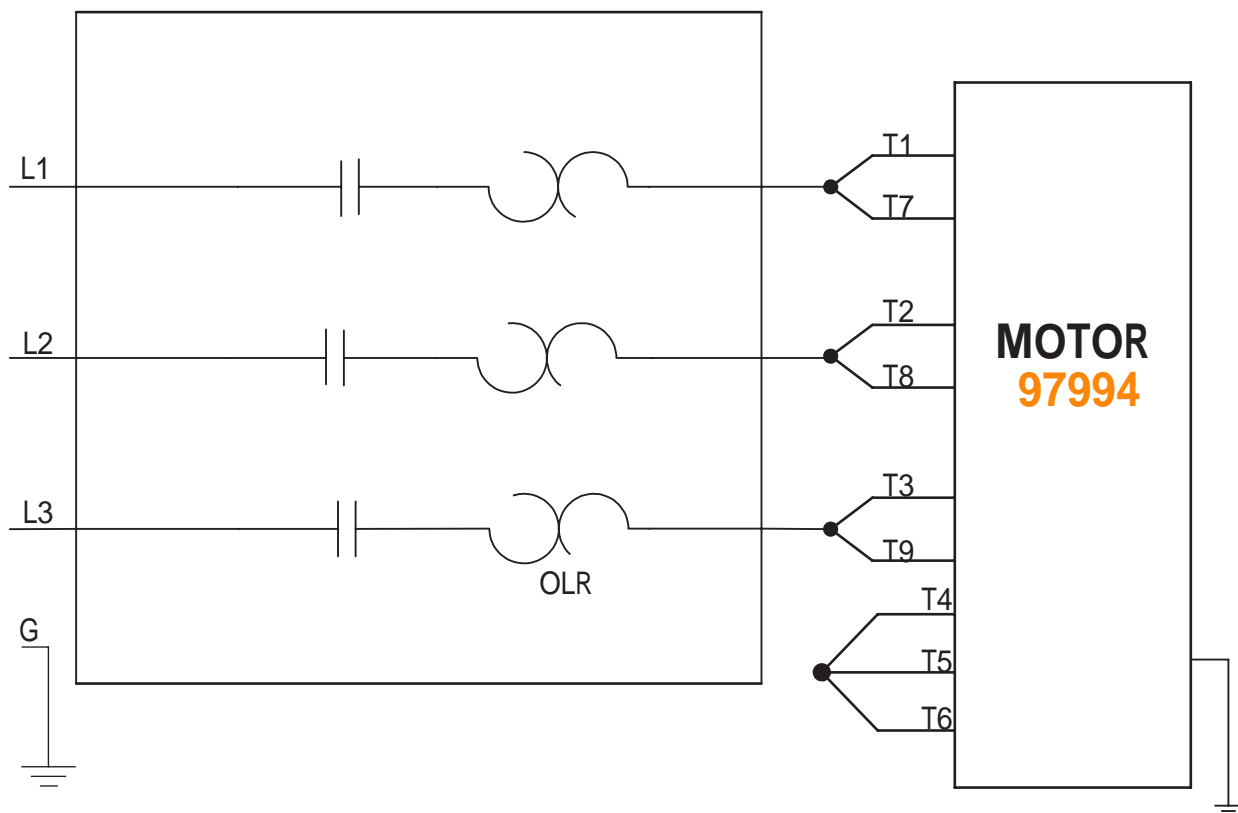
MOTOR
97993

460V

67910

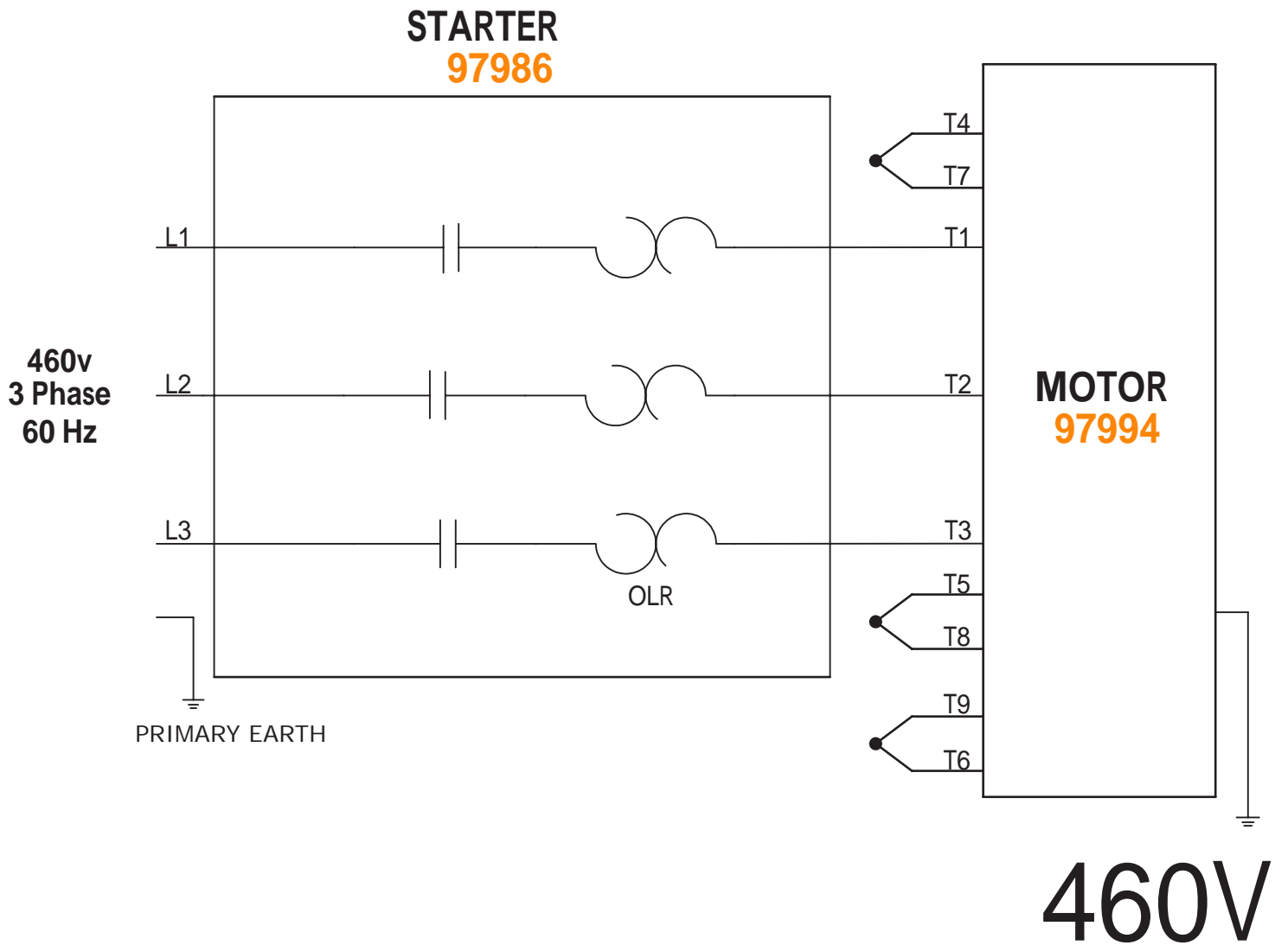
STARTER
97985

230v
3 Phase
60 Hz

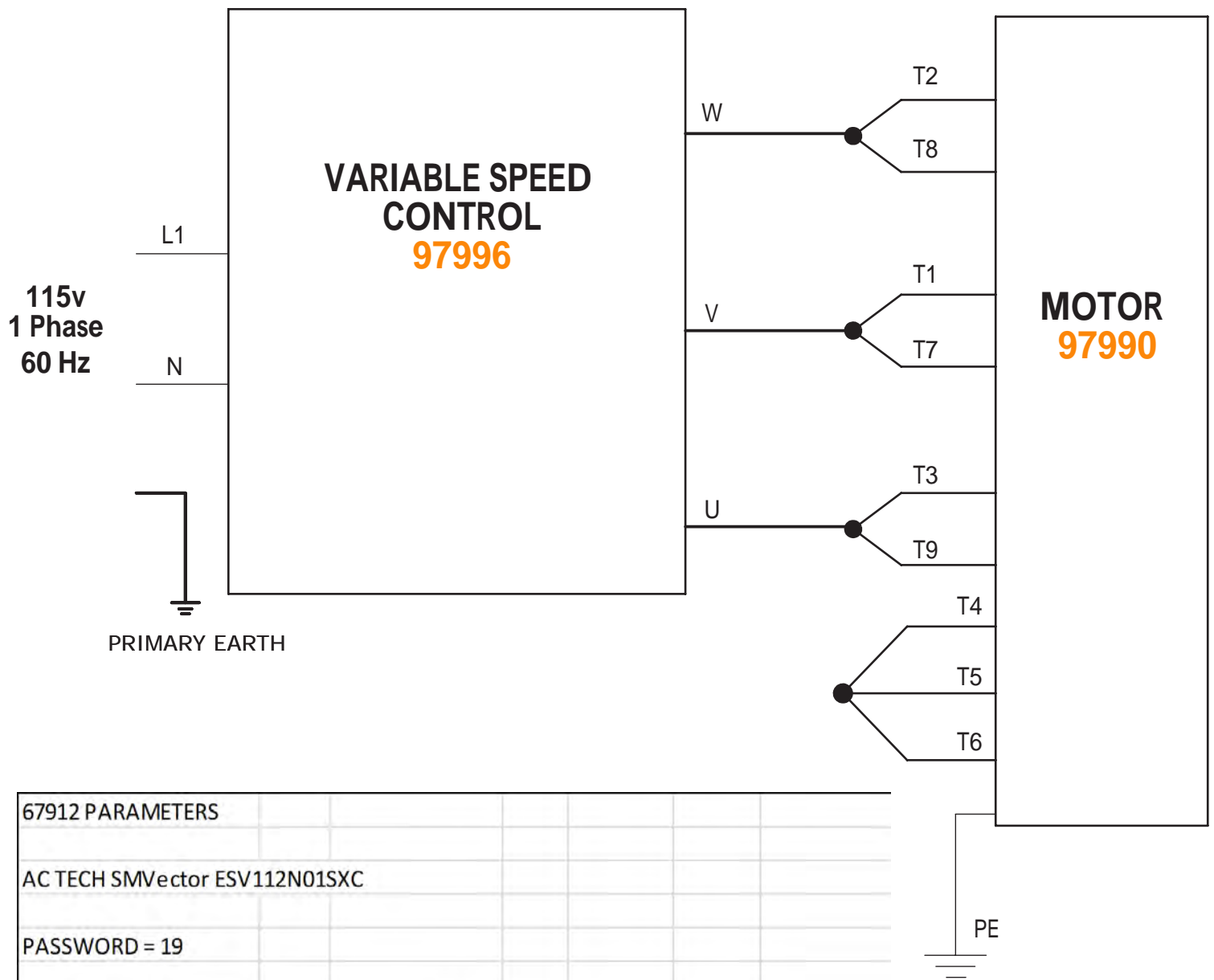


230V

67911

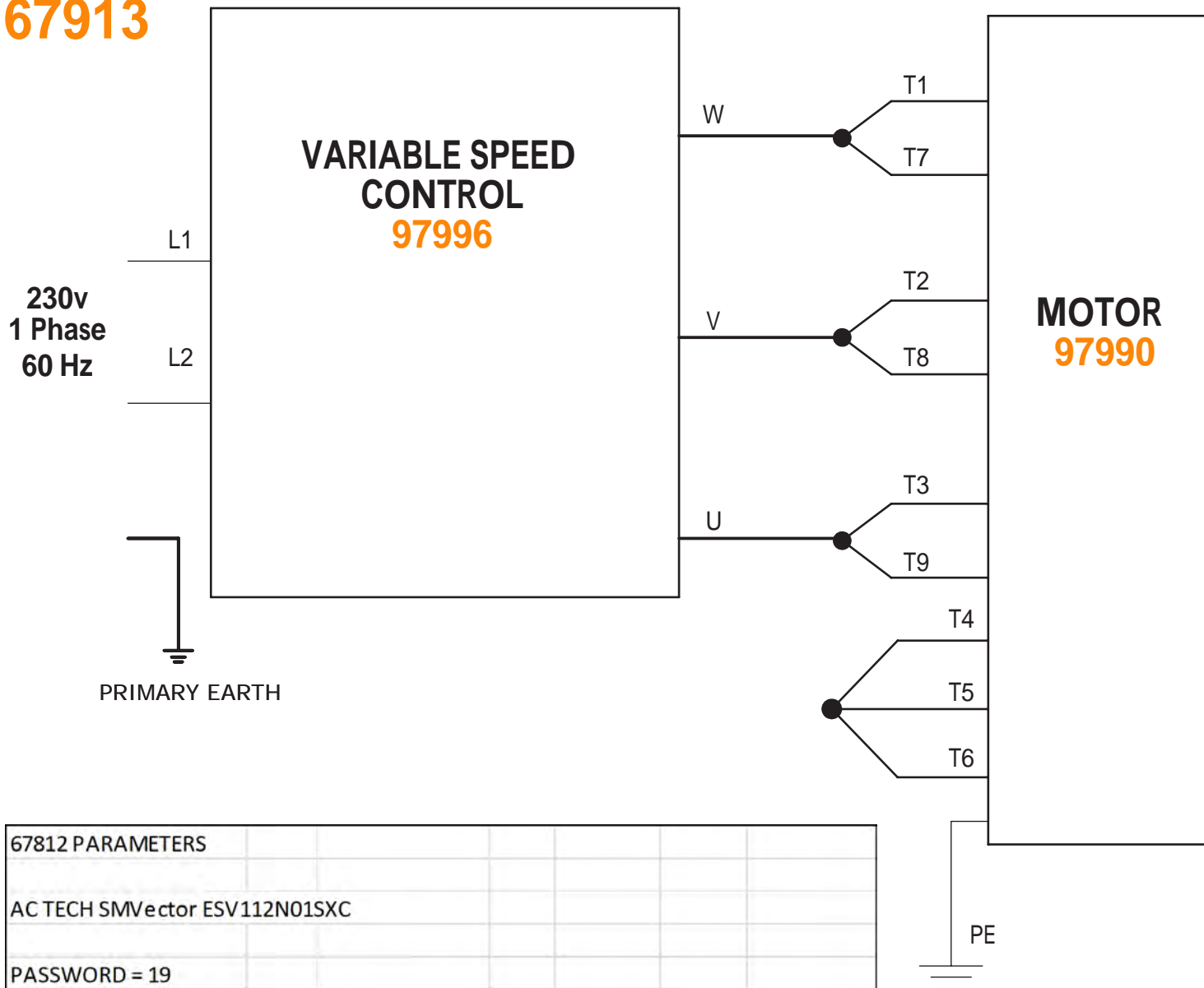


67912

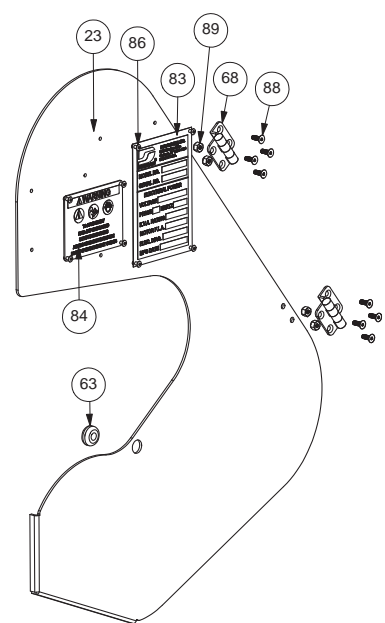
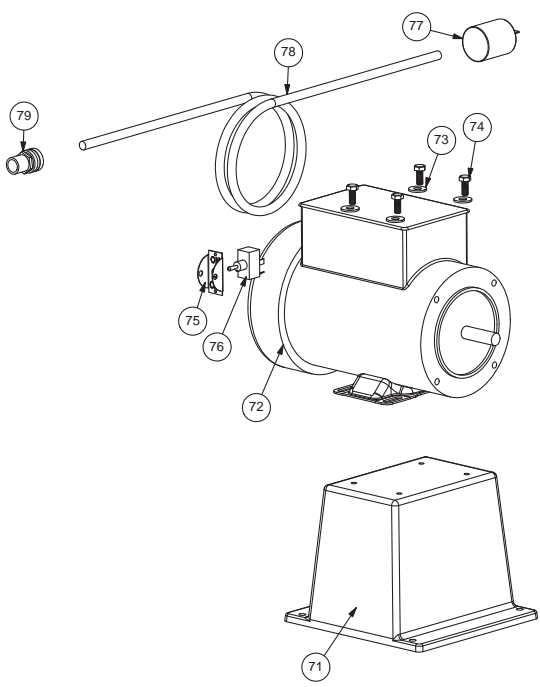
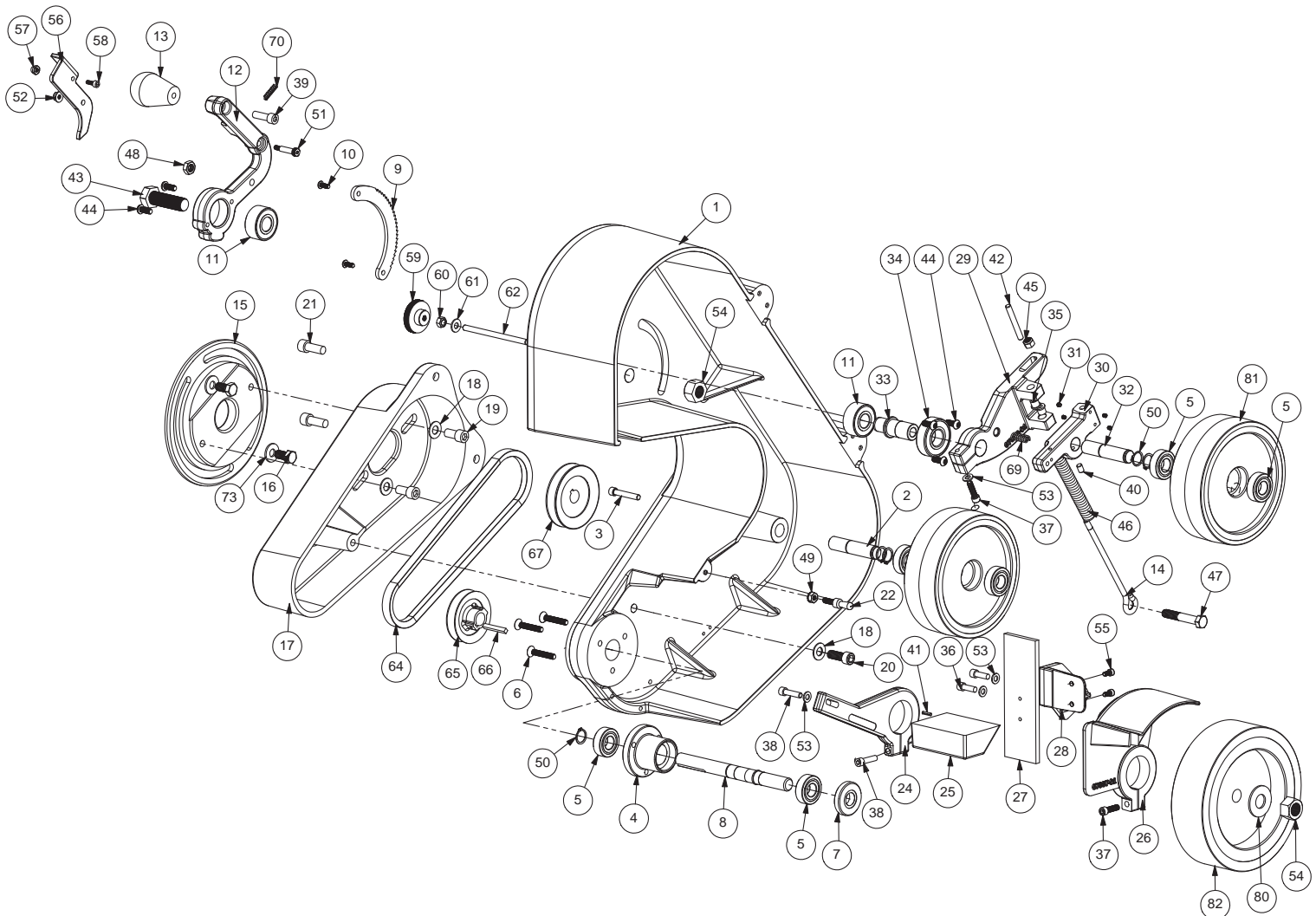


67912 PARAMETERS		
AC TECH SMVector ESV112N01SXC		
PASSWORD = 19		
PARAMETER NUMBER	VALUE	
102	6.1	PARAMETERS CHANGED FROM THE DEFAULT VALUE - ALL OTHERS REMAIN AT THE DEFAULT VALUE
103	60.1	
104	10	
105	15	
108	76	
166	0	
168	1.8	
178	133.3	
194	19	
300	4	
303	4.6	
305	3450	
306	0.78	
399	1	

67913



67812 PARAMETERS		
AC TECH SMVector ESV112N01SXC		
PASSWORD = 19		
PARAMETER NUMBER	VALUE	
102	6.1	PARAMETERS CHANGED FROM THE DEFAULT VALUE - ALL OTHERS REMAIN AT THE DEFAULT VALUE
103	60.1	
104	10	
105	15	
108	76	
166	0	
168	1.8	
178	133.3	
194	19	
300	4	
303	4.6	
305	3450	
306	0.78	
399	1	



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	67920	MAIN FRAME	1
2	67931	IDLER WHEEL SHAFT	1
3	95328	1/4-20 x 1 1/2" SHCS	1
4	67944	CONTACT WHEEL BEARING HOUSING	1
5	97522	BEARING 5/8 x 1 3/8 x 0.4331in	6
6	97084	1-4 20 x 1 1-2 FHCS	3
7	67935	DRIVE SHAFT SPACER	1
8	67934	DRIVE SHAFT	1
9	67926	RATCHET	1
10	97673	10-32 x 1/2" BHSCS	2
11	96423	BEARING 5203-2RS	2
12	67924	TENSIONING HANDLE	1
13	64545	KNOB: REID DK-907	1
14	67927	EYE BOLT	1
15	67922	MOUNTING PLATE	1
16	97469	3-8 16 X 3-4 HHCS	2
17	67921	V-BELT GUARD	1
18	97309	3-8 x 406 x 813 WASHER	3
19	97031	3/8-16 x 3/4" SHCS	2
20	95476	3/8-16 x 1in SHCS	1
21	95559	3/8-24 x 1" SHCS	2
22	67943	DOOR STUD	1
23	67942	DOOR	1
24	67940	WORK REST ARM	1
25	67941	WORK REST	1
26	67937	PLATEN GUARD	1
27	67939	PLATEN	1
28	67938	PLATEN ARM	1
29	67928	TENSIONING ARM	1
30	67929	TRACKING ARM	1
31	95000	8-32x3/16 Cup Pnt Set Screw	4
32	67930	IDLER WHEEL SHAFT	2
33	67933	BEARING SHAFT	1
34	97501	BEARING	1
35	11519	1/4"ID x 3/8"OD x 3/8" FLANGE BEARING	2
36	95150	1/4 - 20 x 3/4" SHCS	2
37	95567	1/4-20 x 7/8 SHCS	2
38	95156	1-4 -20 X 1 IN SHCS	2
39	97043	5/16 - 18 x 1" SHCS ZINC	1
40	95202	1/4 - 20 x 3/8" SET SCREW	1
41	95216	1/8" x 3/4" ROLL PIN	1
42	97458	Dowel Pin 1/4" Diameter, 2" Length	1
43	97515	5/8-18 x 2 HEX BOLT	1
44	97454	1/4-20 X 5/8 BHCS	5
45	97467	1/4-20 NYLOCK NUT	1
46	97529	DIE SPRING 5/8 HOLE, .344 ROD X 4IN	1
47	97481	3/8-16 X 2-1/4 HEX BOLT (PART THREADED)	1
48	97484	3/8-16 HEX NUT	1
49	97459	1-4 20 STAR LOCK NUT	1
50	97519	EXTERNAL RETAINING RIN 5/8 SHAFT	5
51	97455	1/4 X 7/8 SHOULDER BOLT	1
52	97451	10-24 FLANGE LOCK NUT	1
53	97468	1/4" x 1/2" CADMIUM PLATED WASHER	4
54	97517	5/8-18 NUT	2
55	95018	10-32 x 3/8 SHCS	2
56	67925	PAWL	1
57	97452	10-32 ACORN NUT	1
58	97584	10-32 x 1/2" SHCS, ZINC	1
59	97563	KNURLED KNOB	1
60	95186	1/4-20 HEX NUT	1
61	95935	1/4" WASHER	1
62	97132	THREADED STUD 1/4"-20 THREAD, 4" LENGTH	1
63	97594	Push-in Flexible Rubber Grommet	1
64	97612	V-Belt 4Lx25", 4L250	1
65	97614	V-Belt Pulley, 2.5 In OD, 5/8 In Bore	1
66	97460	CHAMFER KEY	1
67	97613	V-Belt Pulley, 3 In OD, 5/8 In Bore	1
68	97639	Surface-Mount Hinge with Holes -1549A61	2
69	95149	SPRING	1
70	97131	0.24 x .026 x .875 Prec. Comp. Spring	1
71	67923	RISER BLOCK	1
72	—	See Motor Chart (Top Right)	1
73	95183	5/16 WASHER	6
74	68021	5/16-18 x 3/4" HEX BOLT	4
75	98370	SWITCH GUARD	1
76	98371	TOGGLE SWITCH	1
77	98398	5-20 NEMA PLUG	1
78	98399	10 FT CORD	1
79	98701	.187-.312 ALUM. STRAIN RELIEF	1
80	97656	Steel Flat Washer 5/8" Screw, 1-1/2 OD	1
81	67948	IDLER WHEEL 6" X 2"	2
82	67949	CONTACT WHEEL 7" X 2"	1
83	65059	DESCRIPTIVE PLATE, ELECTRICAL DATA	1
84	64930	WARNING LABEL, EYE PROTECTION	1
85	67960	WARNING LABEL	1
86	97306	1/8" ALUMINUM BLIND POP RIVET	8
87	98616	CRIMP ON WIRE CONNECT	5
88	97759	8-32 x 1/2" FHCS	8
89	97968	8-32 NYLON-INSERT HEX LOCKNUT 8-32	4

Model	Motor	V-Belt Qty.	Pulley	Bracket	Starter
67900	97645	1	97613, 97614		
67901					
67902	97990	2	97757, 97758	67967	97983
67903					97984
67904	97991	1	97613, 97614	67967	97985
67905					97986
67906	97992	2	97757, 97758	67967	97983
67907					97984
67908	97993	1	97613, 97614	67967	97985
67909					97986
67910	97994	2	97613, 97614	67967	97986
67911					97996
67912	97990	1	97613, 97614		
67913					