FREQUENTLY ASKED QUESTIONS

DentalEZ

- CHAIRS
- UNITS
- LIGHTS

CustomAir

- COMPRESSORS
- VACUUM PUMPS

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In General

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Why is the chair beeping? - FAQ #7
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aXcs or E-3000

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How is a single pump wired to a remote lighted switch?

— NOTICE —

All wiring between the main control box and equipment should be **Class B, low-voltage**. *In most cases, a conduit is* ***not*** *required when using this type of wiring.*

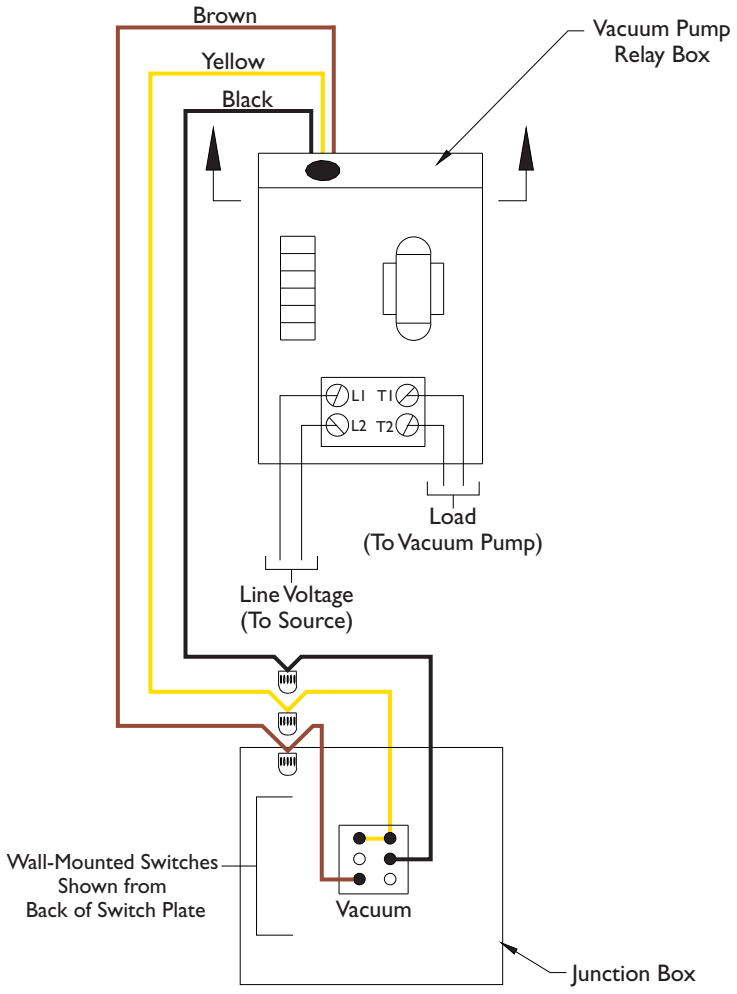
— WARNING —

Before proceeding with any electrical installation, comply with and maintain all applicable local electrical code(s) and regulations.

IMPORTANT NOTE:

If not using a DentalEZ Master Control Panel Kit, proceed as follows:

1. Position the master switch in the desired location.
2. Run the appropriate wires to their respective euipment location. *(See wiring chart below.)*
3. Connect wires according to the wiring diagram on the right.



LEGEND
Brown = Light
Yellow = Return
Black = Power

WIRING CHART

Model No.	No. of Wires	Wire Under 150 ft.	Wire Over 150 ft.
CV-101	3	18 AWG	16 AWG
CV-102	3	18 AWG	16 AWG

How are soft limits reset?
(New Electronics, 3-Function)

1. **Disconnect** power to the chair. Then remove the pump cover.
2. Flip dip switch #4 to the **ON** position *(away from the board)*.
3. **Reconnect** power to the chair.

UP LIMITS

a. Using the manual buttons, raise the base until the chair starts beeping.
b. Lower the base until the chair stops beeping. Then lower the base a little more so that it is not too close to the safety limit switch.
c. Raise the back until the chair starts beeping.
d. Lower the back until the chair stops beeping. Then lower the back a little more so that it is not too close to the safety limit switch.
e. Raise the toe of the seat until the chair starts beeping.
f. Lower the toe of the seat until the chair stops beeping. Then lower the seat a little more so that it is not too close to the safety limit switch.
g. Press and release auto button #1, but **do not hold**. *(A short beep will sound when the button is pressed, another beep will sound when the button is released.)*

DOWN LIMITS

a. Put your foot on the base plate of the chair under the base. Then lower the base until the base cover touches your foot and the chair starts beeping.
b. Raise the base until the chair stops beeping. Then raise the base a little more.
c. Lower the back all the way down. *(It **will not beep**.)* Then raise the back slightly.
d. Lower the toe of the seat until the chair starts beeping. Then raise the toe of the seat until the chair stops beeping. Then raise the toe a little more.
e. Press and release auto button #2, but **do not hold**. *(A short beep will sound when the button is pressed, another beep will sound when the button is released.)*

4. **Disconnect** power to the chair.
5. Flip dip switch #4 to the **OFF** position.
6. **Reconnect** power to the chair and replace the pump cover.
7. Using the manual buttons, set the chair to a desired position. Then press and hold an auto button for appoximately 5 seconds. *(A short beep will sound when the button is pressed, another beep will sound when the button is released.)* Repeat this step to set a total of 8 auto positions *(4 A-green LED and 4 B-yellow LED)*.

How are soft limits reset?
(Old Electronics, 2-Function)

1. **Disconnect** power to the chair. Then remove the pump cover.
2. Remove the white wire on JP5 on the control board.
3. Install a jumper on the two pins on JP5.
4. **Reconnect** power to the chair.

UP LIMITS

a. Raise the base until the chair starts beeping.

b. Lower the base until the chair stops beeping. Then lower the base a little more so that it is not too close to the safety limit switch.

c. Raise the back until the chair starts beeping.

d. Lower the back until the chair stops beeping. Then lower the back a little more so that it is not too close to the safety limit switch.

e. Press and release auto button #1, but **do not hold**. *(A short beep will sound when the button is pressed, another beep will sound when the button is released.)*

DOWN LIMITS

a. Put your foot on the base plate of the chair under the base. Then lower the base until the base cover touches your foot and the chair starts beeping.

b. Raise the base until the chair stops beeping. Then raise the base a little more.

c. Lower the back all the way down. *(It **will not beep**.)* Then raise the back slightly.

d. Press and release auto button #2, but **do not hold**. *(A short beep will sound when the button is pressed, another beep will sound when the button is released.)*

5. **Disconnect** power to the chair.
6. Remove the jumper on JP5 and reinstall the white wire.
7. **Reconnect** power to the chair and replace the pump cover.
8. Using the manual buttons, set the chair to a desired position. Then press and hold an auto button for appoximately 7 seconds. *(A short beep will sound when the button is pressed, another beep will sound when the button is released.)* Repeat this step to set a total of 3 auto positions.

How are soft limits reset?
(New Electronics, 2-Function)

1. **Disconnect** power to the chair. Then remove the pump cover.
2. Flip dip switch #4 to the **ON** position *(away from the board)*.
3. **Reconnect** power to the chair.

UP LIMITS

a. Using the manual buttons, raise the base until the chair starts beeping.

b. Lower the base until the chair stops beeping. Then lower the base a little more so that it is not too close to the safety limit switch.

c. Raise the back until the chair starts beeping.

d. Lower the back until the chair stops beeping. Then lower the back a little more so that it is not too close to the safety limit switch.

e. Press and release auto button #1, but **do not hold**. *(A short beep will sound when the button is pressed, another beep will sound when the button is released.)*

DOWN LIMITS

a. Put your foot on the base plate of the chair under the base. Then lower the base until the base cover touches your foot and the chair starts beeping.

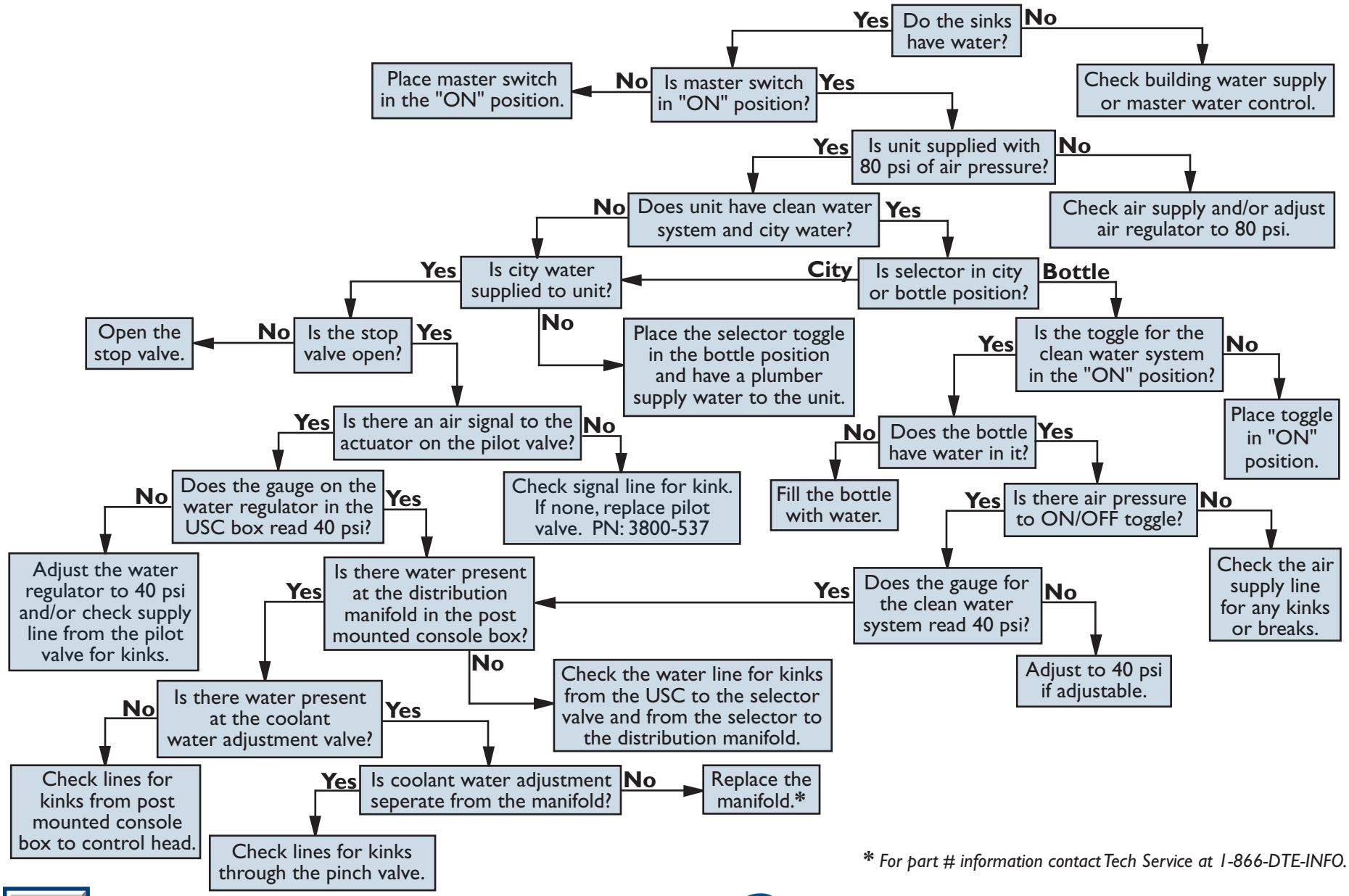
b. Raise the base until the chair stops beeping. Then raise the base a little more.

c. Lower the back all the way down. *(It **will not beep**.)* Then raise the back slightly.

d. Press and release auto button #2, but **do not hold**. *(A short beep will sound when the button is pressed, another beep will sound when the button is released.)*

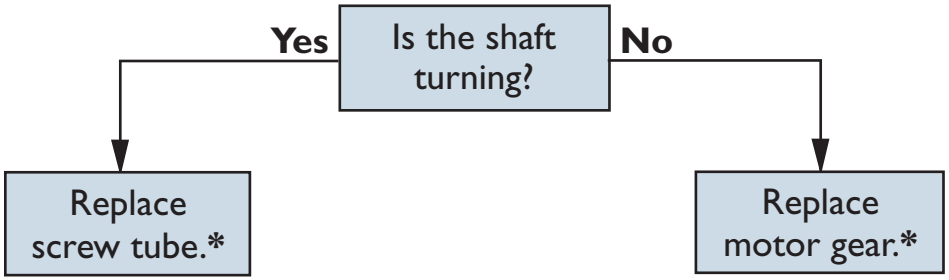
5. **Disconnect** power to the chair.
6. Flip dip switch #4 to the **OFF** position.
7. **Reconnect** power to the chair and replace the pump cover.
8. Using the manual buttons, set the chair to a desired position. Then press and hold an auto button for appoximately 5 seconds. *(A short beep will sound when the button is pressed, another beep will sound when the button is released.)* Repeat this step to set a total of 3 auto positions.

Why does the unit have no water?



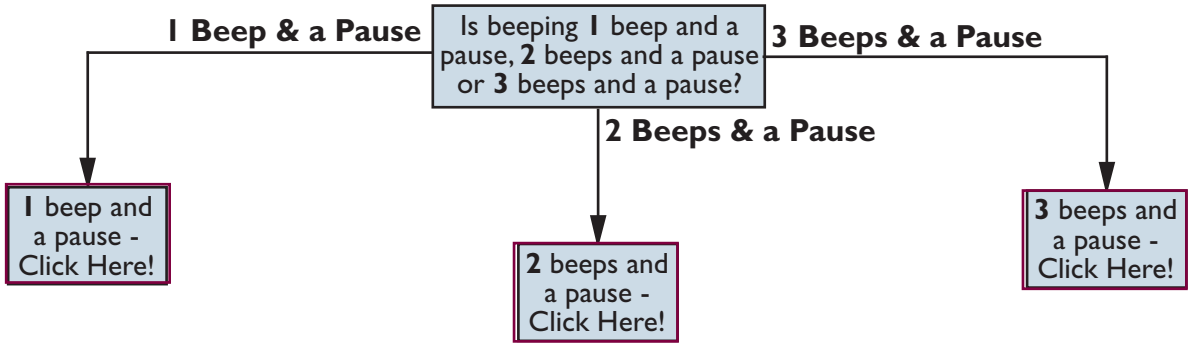
* *For part # information contact Tech Service at 1-866-DTE-INFO.*

Why does the motor run but there is no movement? (old J-Chair)



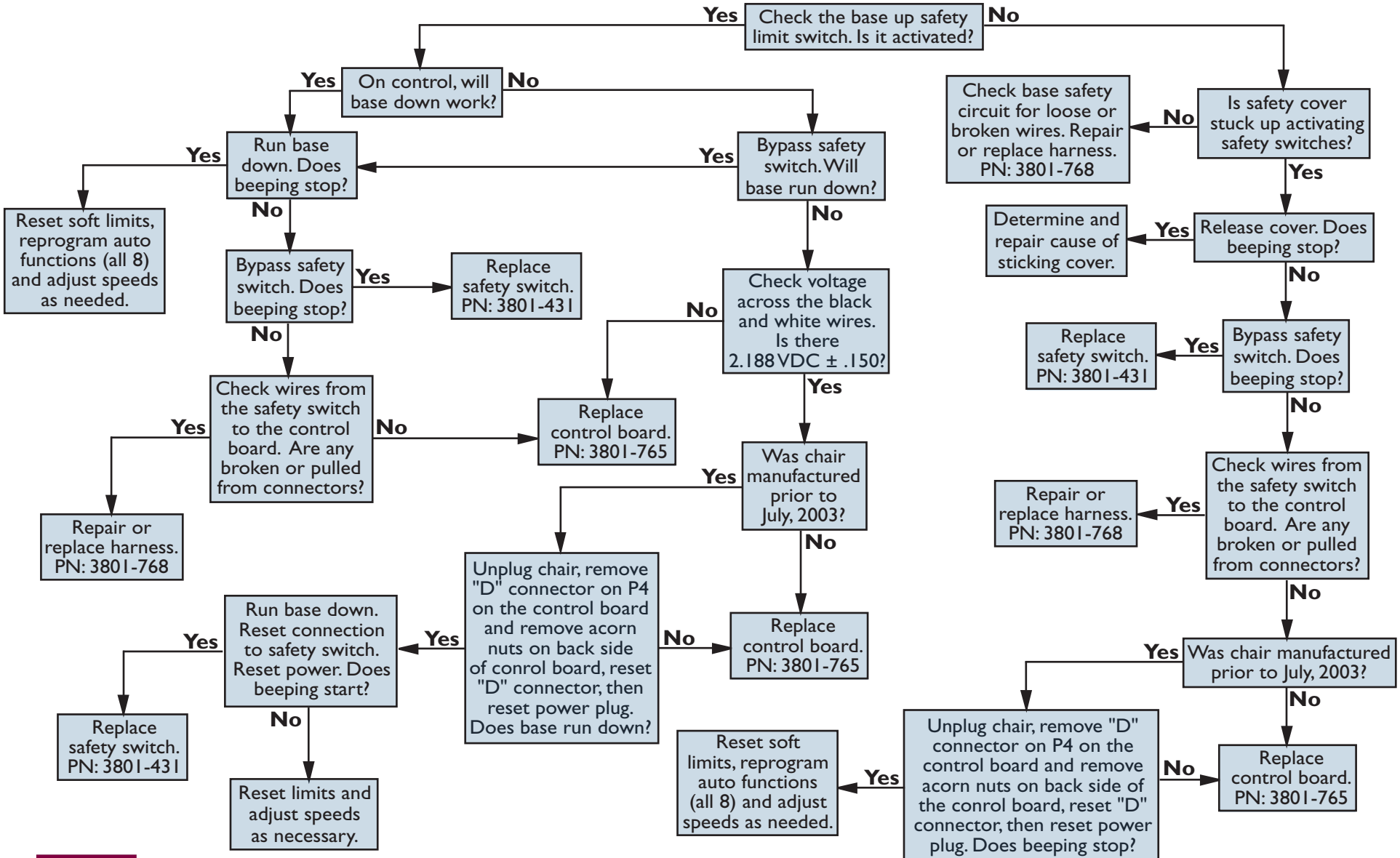
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Why is the chair beeping?



Why is the chair beeping?

(1 beep and a pause)



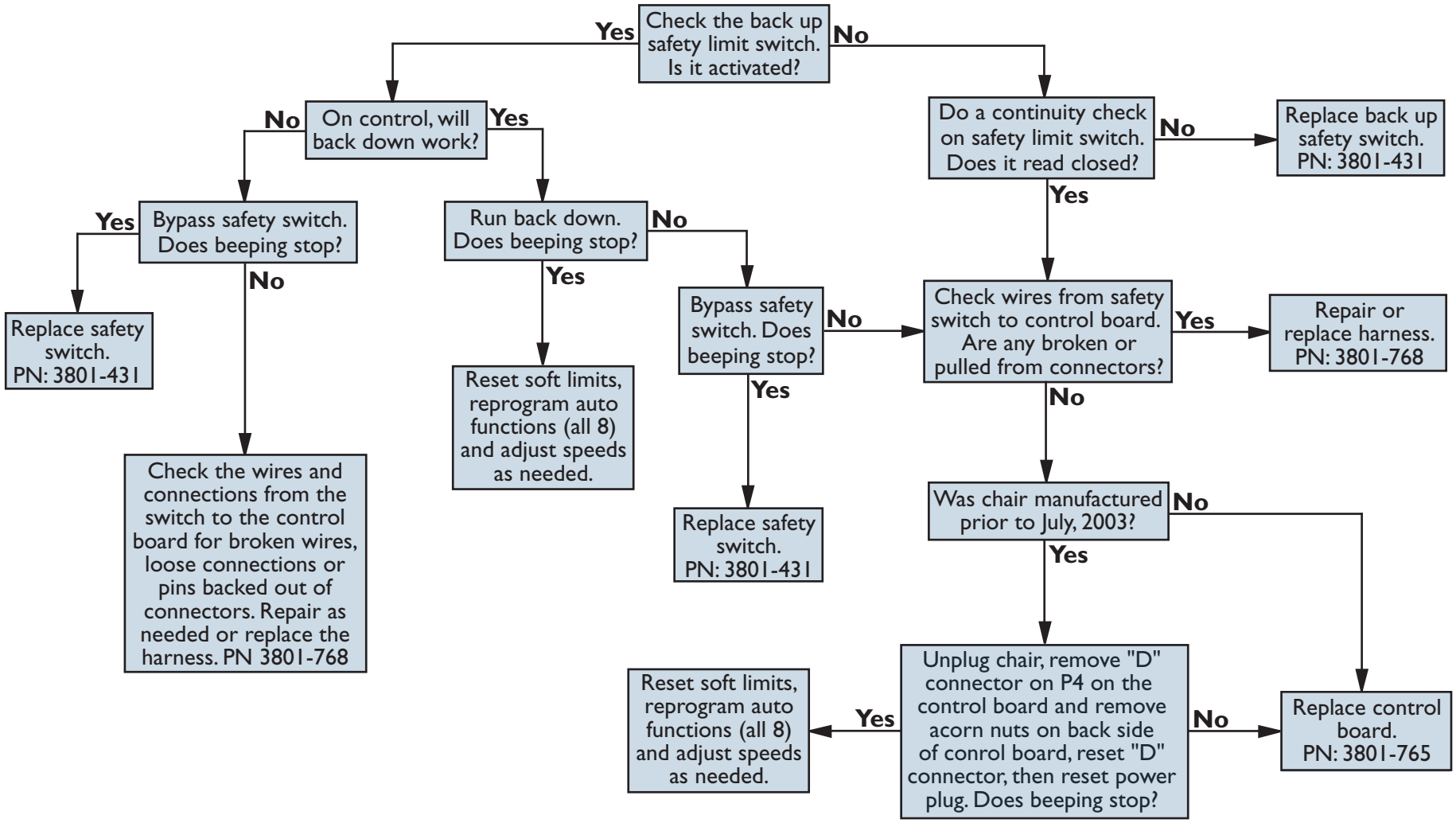
Chairs

DentalEZ

FAQ #7A

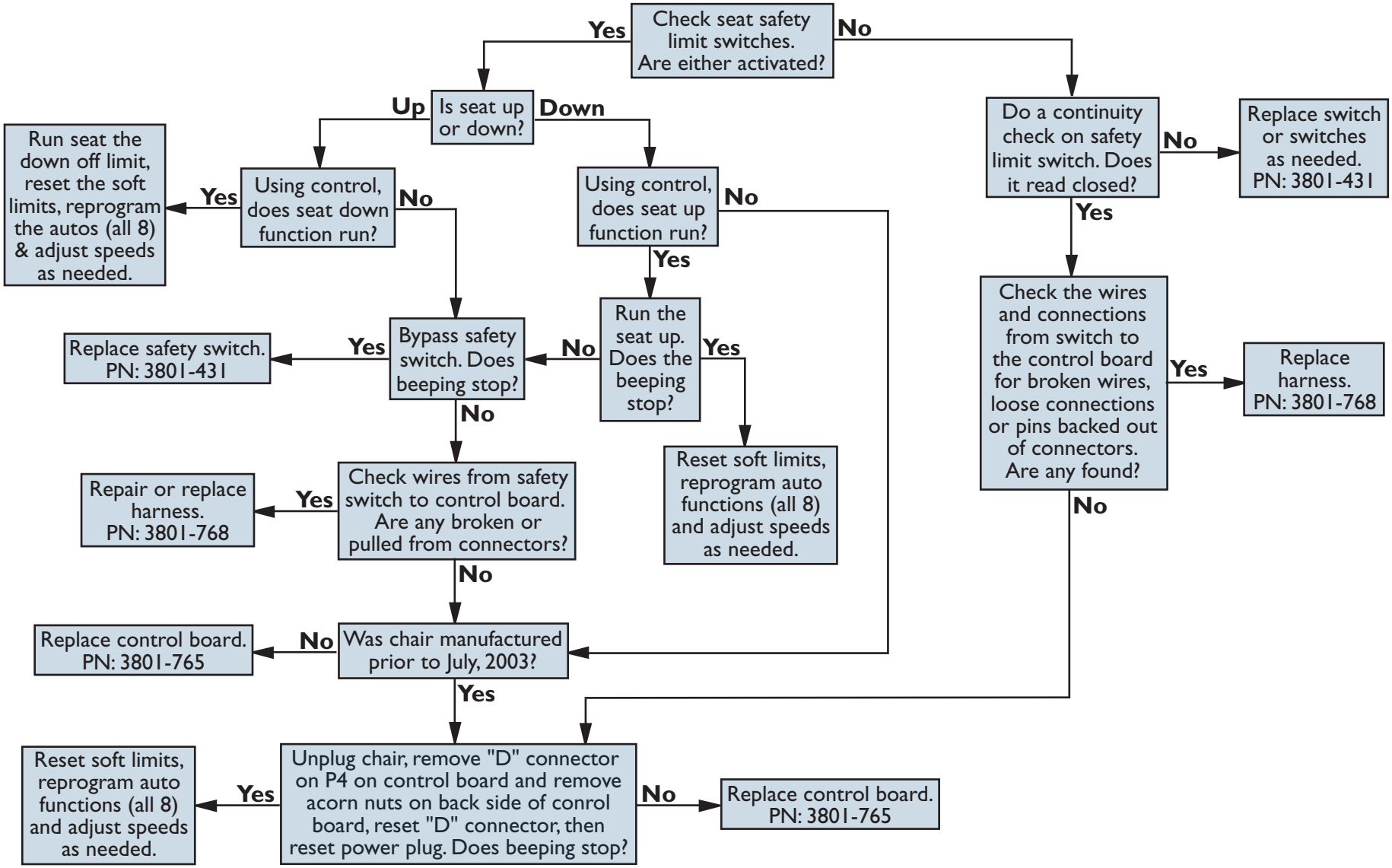
Why is the chair beeping?

(2 beeps and a pause)

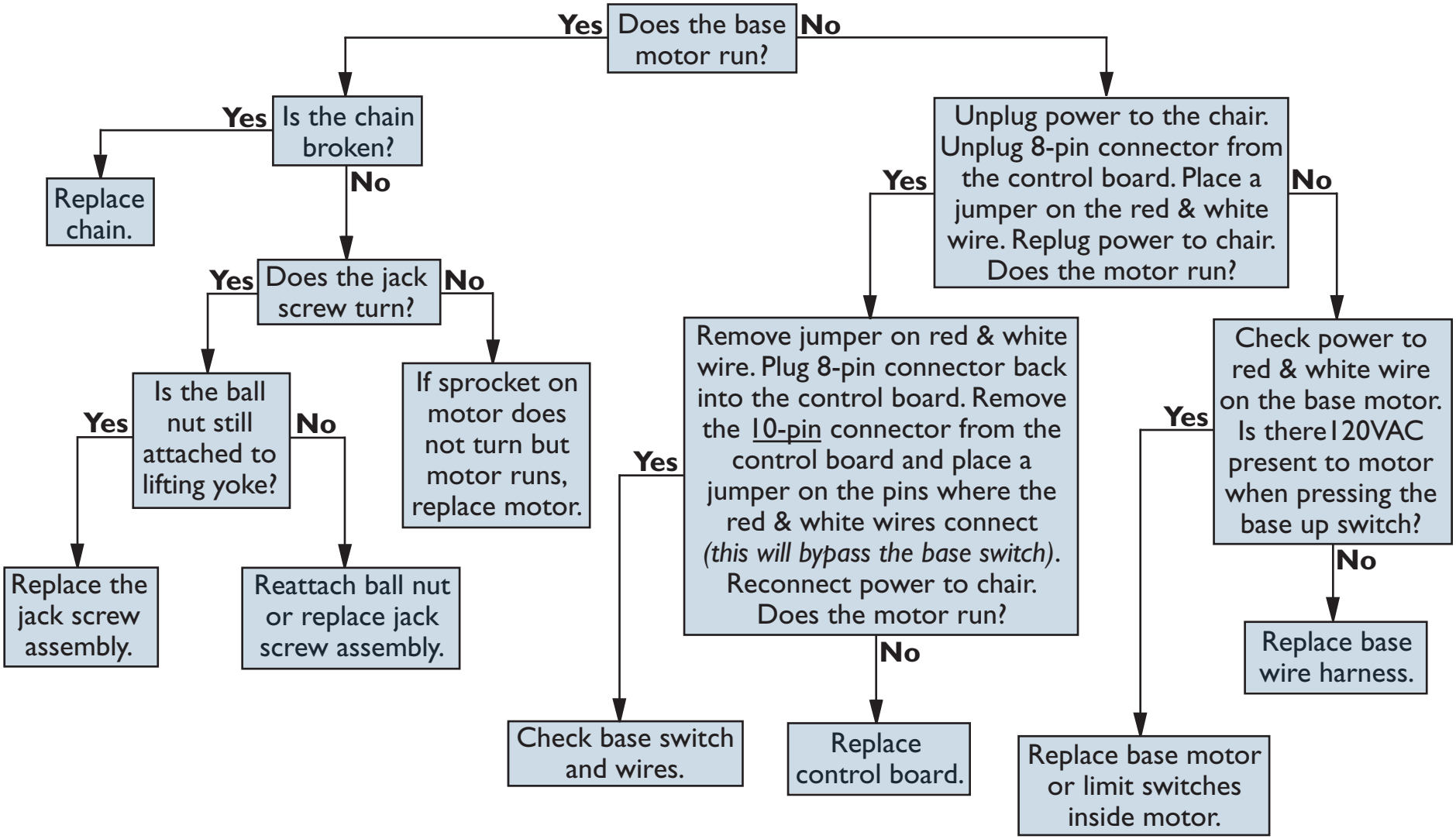


Why is the chair beeping?

(3 beeps and a pause)



Why is there no base function?
(E-2000/old Advantage)



How are dual pumps wired to a remote lighted switch?

— NOTICE —

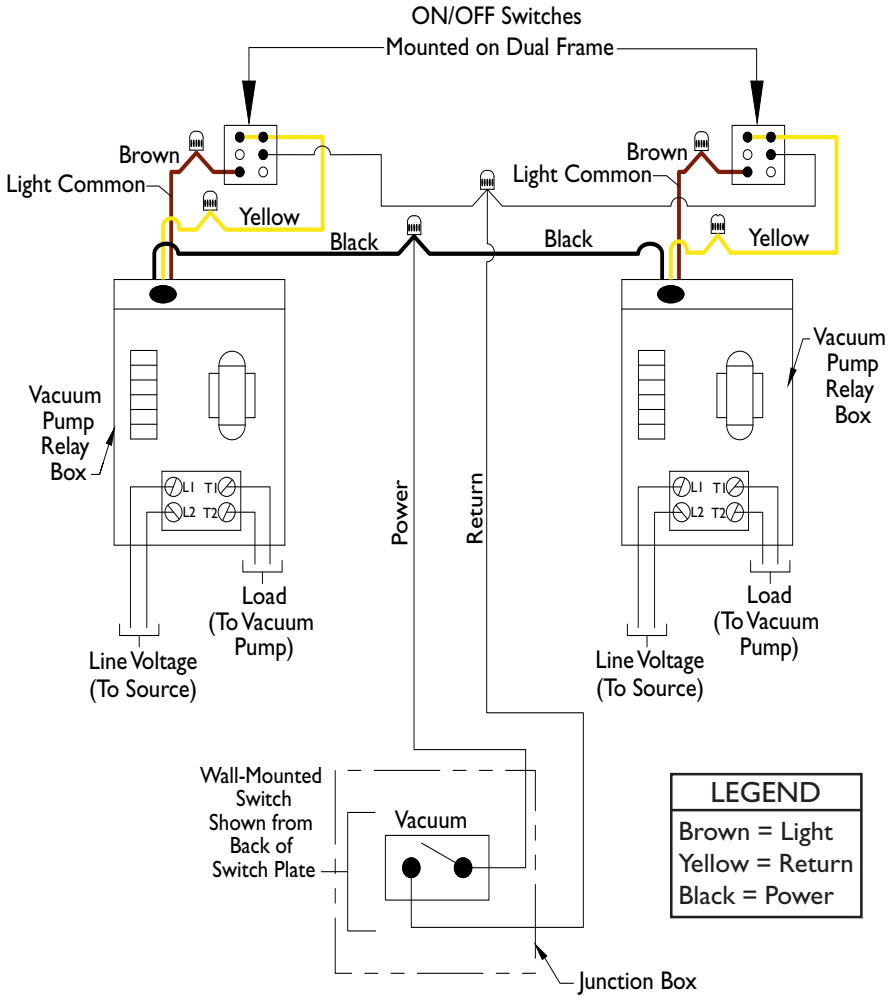
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IMPORTANT NOTE: *If not using a DentalEZ Master Control Panel Kit, proceed as follows:*

1. Position the master switch in the desired location.
2. Run the appropriate wires to their respective euipment location. *(See wiring chart below.)*
3. Connect wires according to the wiring diagram on the right.



WIRING CHART

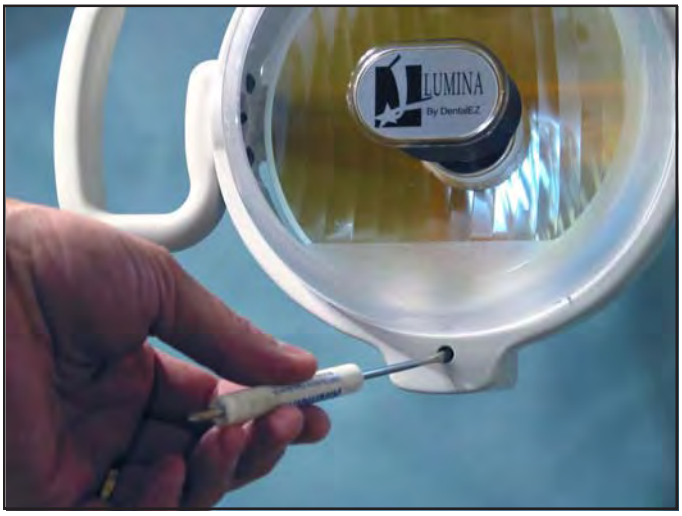
Model No.	No. of Wires	Wire Under 150 ft.	Wire Over 150 ft.
MC-201	6	18 AWG	16 AWG
MC-202	6	18 AWG	16 AWG

How is sensor adjustment made?
(Lumina® Light)

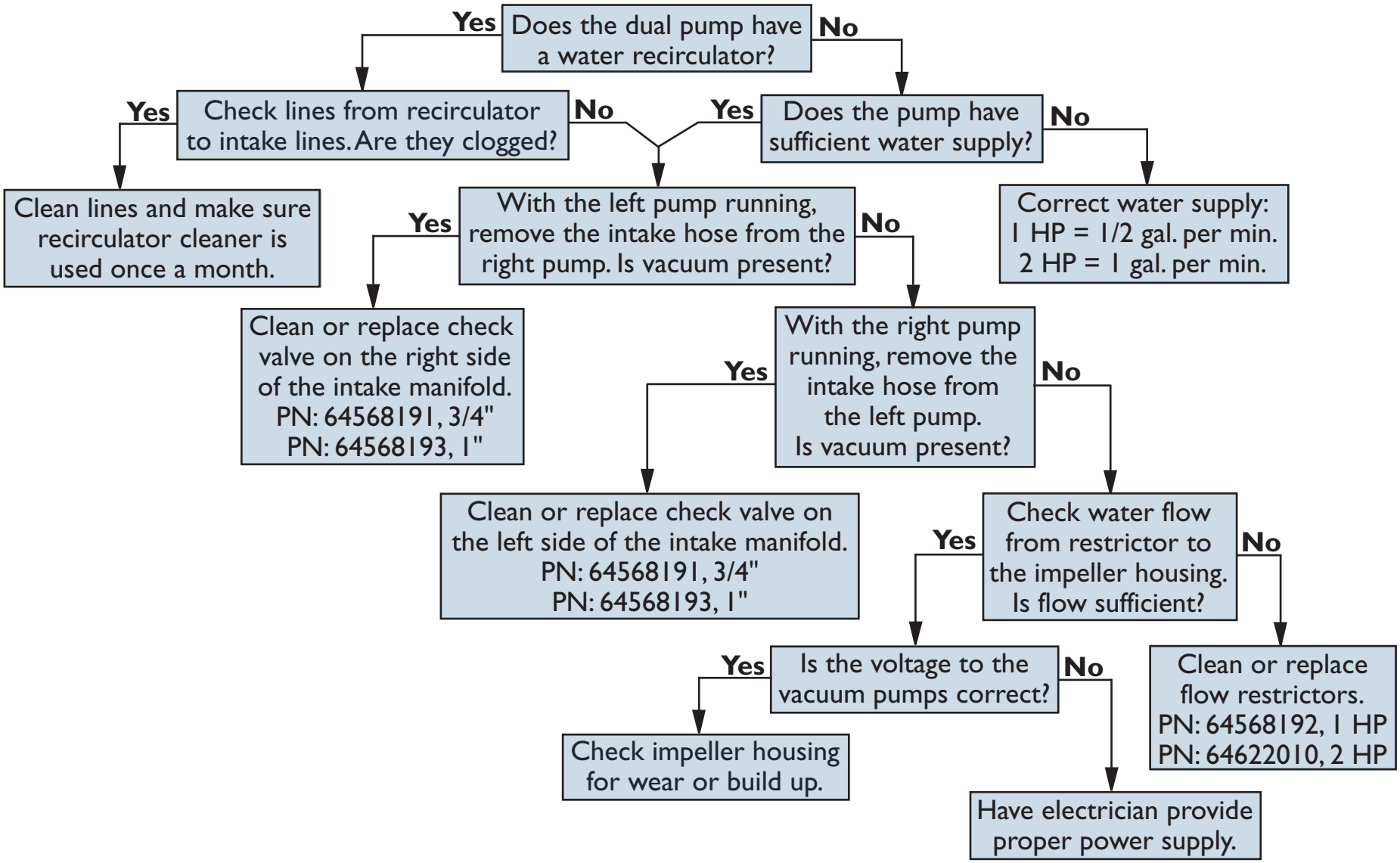
The Lumina Light sensor is factory pre-set at 2-6 inches. This distance may be adjusted up to 18 inches. If adjustment is necessary, do the following:

1. Locate the sensor adjustment screw hole on the front of the light frame under the light shield.
2. Using a small flat-head screwdriver, slowly and carefully turn the adjustment screw clockwise to lengthen the sensor distance *(hand can be further from sensor)*, or counterclockwise to shorten the sensor distance *(hand has to be closer to sensor.)*.

NOTE: *A small amount of adjusting does a lot.*



Why is one pump weak?



INSTRUCTIONS

APPLICATION AND CONNECTION DATA FOR BUCK-BOOST TRANSFORMERS

DESCRIPTION

Buck-Boost transformers are insulated units rated 120/240 volts high voltage and 12/24 and 16/32 volts low voltage. When connected as autotransformers in single-phase or three-phase circuits, they can be used to change voltage on loads greatly in excess of the rating shown on the nameplate.

Because autotransformers may transmit line disturbances directly to the load, their use in some areas may be prohibited by local codes.

NOTE: BE SURE THAT AUTOTRANSFORMERS ARE PERMISSIBLE IN YOUR LOCALE.

APPLICATION

Efficient operation of electrical equipment requires that line voltage be at or near the nameplate rating of the equipment. In order to match available line voltage (whether it be too high or low) with equipment voltage, buck-boost transformers provide the most convenient and least expensive method.

Do not use buck-boost transformers to solve a fluctuating voltage problem. They should be used to compensate for high or low voltage conditions only when the available line voltage is reasonably constant.

5-STEP SELECTION

Buck-boost applications are quick and easy to solve when you follow these easy steps.

FOR BOOSTING UP AVAILABLE VOLTAGES:

1. Select the table having the same output voltage as the voltage required for the equipment you want to operate. Example: 230 volt, single phase air conditioner — Table 1.
2. Select the available line voltage column located in that table. Example: 208 volts single phase available (Column 2 — Table 1).
3. Select the proper kVA required by your equipment then read down the available line voltage column until you find it. If your kVA is not listed, go on to the next higher kVA. Example: Air conditioner needs 2.4 kVA volts at 230 volts.
4. Select the transformer number. Read directly left across the model number column. Example: T107 will provide the proper voltage correction.
5. Cross-reference the transformer number (T---) to the descriptions in table A. Example: T107 from the above application is 250 VA 120/240 primary and 12/24 secondary.
6. Select the correct connection diagram for your customer. Read down to the bottom of the available line voltage column you've been working with and the wiring diagram is referenced. Example: Connection diagram "A".

FOR BUCKING DOWN AVAILABLE VOLTAGES:

Since buck-boost transformers can be used in reverse, so can the quick-selection tables. Simply use the "available line voltage" column for your desired output voltage and select the proper table by your available line voltage (titled "Output" in the tables).

Table A

kVA	Transformer Number		
	Primary Volts 120/240		Primary Volts 240/480
	Secondary Volts		
	12/24	16/32	24/48
.050	T102	T122	T202
.075	T103	T123	T203
.100	T104	T124	T204
.150	T105	T125	T205
.250	T107	T127	T207
.500	T108	T128	T208
.750	T109	T129	T209
1	T110	T130	T210
1.5	T111	T131	T211
2	T112	T132	T212
5	T037	T040	

SELECTION TABLES

Table 1 – 230 Volts Output, 60 Hertz, Single Phase

Transformer Number	Available Line Voltage							
	203	208	216	219	242	245	253	261
	Load kVA*							
T102 T122 T202 T103 T123	— .360 — .540	.480 — .720 —	— .720 — 1.1	.960 — 1.5 —	1.0 — 1.6 —	— .770 — 1.2	.530 — .800 —	— .410 — .620
T203 T104 T124 T204 T105	— .720 — —	— .960 — 1.5	— 1.5 — —	2.0 — 2.9	2.1 — 3.1	— 1.6 — —	1.1 — 1.6 —	— .820 — —
T125 T205 T107 T127 T207	1.1 — 1.8 —	— 2.4 — —	2.2 — 3.6 —	— 4.8 — —	— 5.1 — —	2.3 — 3.9 —	— 2.7 — —	1.3 — 2.1 —
T108 T128 T208 T109 T129	— 3.6 — 5.4	4.8 — 7.2 —	— 7.2 — 10.8	9.6 — 14.4 —	10.1 — 15.2 —	— 7.7 — 11.5	5.3 — 7.9 —	— 4.1 — 6.2
T209 T110 T130 T210 T111	— 7.2 — —	9.6 — 14.4 —	— 14.4 — —	19.2 — 28.8 —	20.2 — 30.3 —	— 15.4 — —	10.6 — 15.9 —	— 8.2 — —
T131 T211 T112 T132 T212	10.8 — 14.4 —	— 19.1 — —	21.6 — 28.8 —	— 38.4 — —	— 40.4 — —	23.0 — 30.7 —	— 21.1 — —	12.3 — 16.4 —
T113 T133 T213 T037 T040	— 21.6 — 36.0	28.7 — 47.8 —	— 43.2 — 72.0	57.5 — 95.9 —	60.5 — 100.9 —	— 46.0 — 77.0	31.7 — 52.7 —	— 24.5 — 40.8
Connection ‡ Diagram	A	A	B	B	B	B	A	A

Table 2 – 240 Volts Output, 60 Hertz, Single Phase

Transformer Number	Available Line Voltage							
	208# 212	216	225	229	252	256	264	272
	Load kVA*							
T102 T122 T202 T103 T123	— .380 — .570	.500 — .750 —	— .750 — 1.2	1.0 — 1.5 —	1.1 — 1.6 —	— .800 — 1.2	.550 — .825 —	— .430 — .640
T203 T104 T124 T204 T105	— .750 — —	— 1.0 — 1.5	— 1.5 — —	2.0 — 3.0	2.1 — 3.2	— 1.6 — —	1.1 — 1.7	— .850 — —
T125 T205 T107 T127 T207	1.2 — 1.9 —	— 2.5 — —	2.3 — 3.8 —	— 5.0 — —	— 5.3 — —	2.4 — 4.0 —	— 2.8 — —	1.3 — 2.2 —
T108 T128 T208 T109 T129	— 3.8 — 5.7	5.0 — 7.5 —	— 7.5 — 11.3	10.0 — 15.0 —	10.5 — 15.8 —	8.0 — 12.0 —	5.5 — 8.3 —	— 4.3 — 6.4
T209 T110 T130 T210 T111	— 7.5 — —	10.0 — 15.0 —	— 15.0 — —	20.0 — 30.0 —	21.0 — 31.5 —	— 16.0 — —	11.0 — 16.5 —	— 8.5 — —
T131 T211 T112 T132 T212	11.3 — 15.0 —	— 20.0 — —	22.5 — 30.0 —	— 40.0 — —	— 42.6 — —	24.0 — 32.0 —	— 22.0 — —	12.8 — 17.0 —
T113 T133 T213 T037 T040	— 22.5 — 37.5	30.0 — 50.0 —	45.0 — 75.0 —	60.0 — 100.0 —	63.0 — 105.0 —	— 48.0 — 80.0	33.0 — 55.0 —	— 25.5 — 42.5
Connection ‡ Diagram	A	A	B	B	B	B	A	A

Table 3 – 115 Volts Output, 60 Hertz, Single Phase

Transformer Number	Available Line Voltage							
	91	95	101	105	127	130	138	146
	Load kVA*							
T102 T122 T103 T123	— .180 — .270	.240 — .360 —	— .360 — .540	.480 — .720 —	.539 — .800 —	— .410 — .610	.290 — .440 —	— .230 — .350
T104 T124 T105 T125	— .360 — .540	.480 — .720 —	— .720 — 1.1	.960 — 1.5 —	1.1 — 1.6 —	— .820 — 1.3	.580 — .870 —	— .460 — .690
T107 T127 T108 T128	— .900 — 1.8	1.2 — 2.4 —	— 1.8 — 3.6	2.4 — 4.8 —	2.7 — 5.3 —	— 2.1 — 4.1	1.5 — 2.9 —	— 1.2 — 2.3
T109 T129 T110 T130	— 2.7 — 3.6	3.6 — 4.8 —	— 5.4 — 7.2	7.2 — 9.6 —	8.0 — 10.6 —	— 6.1 — 8.2	4.4 — 5.8 —	— 3.5 — 4.6
T111 T131 T112 T132	— 5.4 — 7.2	7.2 — 9.6 —	— 10.8 — 14.4	14.4 — 19.2 —	15.9 — 21.2 —	— 12.2 — 16.3	8.6 — 11.5 —	— 6.9 — 9.2
T113 T133 T037	— 10.8 —	14.4 — 24.0	— 21.6 —	28.8 — 48.0	31.8 — 53.0	— 24.4 —	17.3 — 28.8	— 13.7 —
T040	18.0	—	36.0	—	—	41.0	—	22.9
Connection ‡ Diagram	C	C	D	D	D	D	C	C

Table 4 – 120 Volts Output, 60 Hertz, Single Phase

Transformer Number	Available Line Voltage							
	95	100	106	109	132	136	144	152
	Load kVA*							
T102 T122 T103 T123	— .190 — .290	.250 — .380 —	— .360 — .570	.500 — .750 —	.550 — .830 —	— .430 — .640	.300 — .450 —	— .240 — .360
T104 T124 T105 T125	— .380 — .570	.500 — .750 —	— .750 — 1.2	1.0 — 1.5 —	1.1 — 1.7 —	— .850 — 1.3	.600 — .900 —	— .480 — .720
T107 T127 T108 T128	— .940 — 1.9	1.3 — 2.5 —	— 1.9 — 3.8	2.5 — 5.0 —	2.8 — 5.5 —	— 2.2 — 4.3	1.5 — 3.0 —	— 1.2 — 2.4
T109 T129 T110 T130	— 2.9 — 3.8	3.8 — 5.0 —	— 5.7 — 7.5	7.5 — 10.0 —	8.3 — 11.0 —	— 6.4 — 8.5	4.5 — 6.0 —	— 3.8 — 4.8
T111 T131 T112 T132	— 5.7 — 7.5	7.5 — 10.0 —	— 11.3 — 15.0	15.0 — 20.0 —	16.5 — 22.0 —	— 12.8 — 17.0	9.0 — 12.0 —	— 7.2 — 9.5
T113 T133 T037	— 11.3 —	15.0 — 25.0	— 22.5 —	30.0 — 50.0	33.0 — 55.0	— 25.5 —	18.0 — 30.0	— 14.3 —
T040	18.8	—	38.0	—	—	43.0	—	23.8
Connection ‡ Diagram	C	C	D	D	D	D	C	C

* Load kVA is the maximum load at voltages shown when transformers are connected as autotransformers, according to the diagram referenced and shown on back page.

When 208 is the available line voltage, use the 212 voltage column. This will result in output voltage of 236 volts, which should be sufficient for most applications.

‡ Warning — 3 phase autotransformers should never be used to obtain 4 wire output with 3 wire input.

Table 5 – 230 Volts 3 Wire Output, 60 Hertz Single Phase

Quantity Required Per Bank	Transformer Number	Available Line Voltage			
		181Y/105	192Y/111	203Y/117	208Y/120
		Load kVA*			
3	T102	—	.830	—	1.7
3	T122	.620	—	1.3	—
3	T202	—	—	—	—
3	T103	—	1.2	—	2.5
3	T123	.930	—	1.9	—
3	T203	—	—	—	—
3	T104	—	1.7	—	3.4
3	T124	1.2	—	2.5	—
3	T204	—	—	—	—
3	T105	—	2.5	—	5.0
3	T125	1.9	—	3.7	—
3	T205	—	—	—	—
3	T107	—	4.2	—	8.3
3	T127	3.1	—	6.2	—
3	T207	—	—	—	—
3	T108	—	8.3	—	16.6
3	T128	6.2	—	12.5	—
3	T208	—	—	—	—
3	T109	—	12.5	—	25.0
3	T129	9.3	—	18.7	—
3	T209	—	—	—	—
3	T110	—	16.6	—	33.2
3	T130	12.5	—	25.0	—
3	T210	—	—	—	—
3	T111	—	25.0	—	50.0
3	T131	18.7	—	37.0	—
3	T211	—	—	—	—
3	T112	—	33.0	—	66.0
3	T132	25.0	—	50.0	—
3	T212	—	—	—	—
3	T113	—	50.0	—	100.0
3	T133	37.5	—	75.0	—
3	T213	—	—	—	—
3	T037	—	83.0	—	167.0
3	T040	62.0	—	125.0	—
	Connection ‡ Diagram	F	F	G	G

Table 6 – 240 Volts 3 Wire Output, 60 Hertz Three Phase

Quantity Required Per Bank	Transformer Number	Available Line Voltage			
		189Y/109	200Y/115	208Y/120# 212Y/122	218Y/126
		Load kVA*			
3	T102	—	.870	—	1.7
3	T122	.650	—	1.3	—
3	T202	—	—	—	—
3	T103	—	1.3	—	2.6
3	T123	.970	—	2.0	—
3	T203	—	—	—	—
3	T104	—	1.7	—	3.5
3	T124	1.3	—	2.6	—
3	T204	—	—	—	—
3	T105	—	2.6	—	5.2
3	T125	2.0	—	3.9	—
3	T205	—	—	—	—
3	T107	—	4.3	—	8.7
3	T127	3.2	—	6.5	—
3	T207	—	—	—	—
3	T108	—	8.7	—	17.3
3	T128	6.5	—	13.0	—
3	T208	—	—	—	—
3	T109	—	13.0	—	26.0
3	T129	9.7	—	19.5	—
3	T209	—	—	—	—
3	T110	—	17.3	—	34.6
3	T130	13.0	—	26.0	—
3	T210	—	—	—	—
3	T111	—	26.0	—	52.0
3	T131	19.5	—	39.0	—
3	T211	—	—	—	—
3	T112	—	35.0	—	70.0
3	T132	26.0	—	52.0	—
3	T212	—	—	—	—
3	T113	—	52.0	—	104.0
3	T133	39.0	—	78.0	—
3	T213	—	—	—	—
3	T037	—	87.0	—	173.0
3	T040	65.0	—	130.0	—
	Connection ‡ Diagram	F	F	G	G

Table 7 – 460 Volts, 3 Wire Output, 60 Hertz Three Phase

Quantity Required Per Bank	Transformer Number	Available Line Voltage — 3 or 4 Wire			
		406	416	432	438
		Three Phase Load kVA*			
3	T102	—	.166	—	3.32
3	T122	1.25	—	2.49	—
3	T202	—	—	—	—
3	T103	—	2.48	—	4.96
3	T123	1.87	—	3.73	—
3	T203	—	—	—	—
3	T104	—	3.31	—	6.62
3	T124	2.49	—	4.97	—
3	T204	—	—	—	—
3	T105	—	4.97	—	9.94
3	T125	3.73	—	7.46	—
3	T205	—	—	—	—
3	T107	—	8.28	—	16.6
3	T127	6.22	—	12.4	—
3	T207	—	—	—	—
3	T108	—	16.6	—	33.2
3	T128	12.5	—	24.9	—
3	T208	—	—	—	—
3	T109	—	24.8	—	59.6
3	T129	18.7	—	37.3	—
3	T209	—	—	—	—
3	T110	—	33.1	—	66.2
3	T130	24.9	—	49.7	—
3	T210	—	—	—	—
3	T111	—	49.7	—	99.4
3	T131	37.3	—	74.6	—
3	T211	—	—	—	—
3	T112	—	66.3	—	133.0
3	T132	49.7	—	99.5	—
3	T212	—	—	—	—
3	T113	—	99.3	—	198.6
3	T133	74.6	—	149.0	—
3	T213	—	—	—	—
3	T037	—	166.0	—	322.0
3	T040	125.0	—	249.0	—
	Connection ‡ Diagram	H	H	I	I

Table 8 – 460 Volts, 3 Wire Output, 60 Hertz Three Phase

Quantity Required Per Bank	Transformer Number	Available Line Voltage — 3 or 4 Wire		
		424	436	450
		Three Phase Load kVA*		
3	T102	—	.174	—
3	T122	1.3	—	2.6
3	T202	—	—	—
3	T103	—	2.6	—
3	T123	1.95	—	3.9
3	T203	—	—	—
3	T104	—	3.5	—
3	T124	2.6	—	5.2
3	T204	—	—	—
3	T105	—	5.2	—
3	T125	3.9	—	7.8
3	T205	—	—	—
3	T107	—	8.7	—
3	T127	6.3	—	13.0
3	T207	—	—	—
3	T108	—	17.4	—
3	T128	13.0	—	26.0
3	T208	—	—	—
3	T109	—	26.0	—
3	T129	19.5	—	39.0
3	T209	—	—	—
3	T110	—	35.0	—
3	T130	26.0	—	52.0
3	T210	—	—	—
3	T111	—	52.0	—
3	T131	39.0	—	78.0
3	T211	—	—	—
3	T112	—	69.0	—
3	T132	52.0	—	104.0
3	T212	—	—	—
3	T113	—	104.0	—
3	T133	78.0	—	156.0
3	T213	—	—	—
3	T037	—	174.0	—
3	T040	130.0	—	260.0
	Connection ‡ Diagram	H	H	I

Table 9 – 480 Volts, 3 Wire Output, 60 Hertz Three Phase

Quantity Required Per Bank	Transformer Number	Available Line Voltage	
		600	575
		Three Phase Load kVA*	
2	T008	4.3	—
2	T088	—	4.1
2	T009	6.5	—
2	T089	—	6.2
2	T010	8.6	—
2	T090	—	8.3
2	T011	13.0	—
2	T091	—	12.4
2	T012	17.2	—
2	T092	—	16.5
2	T013	25.8	—
2	T093	—	24.8
	Connection ‡ Diagram	J	K

Table 10 – 480 Volts Output, 60 Hertz Single Phase

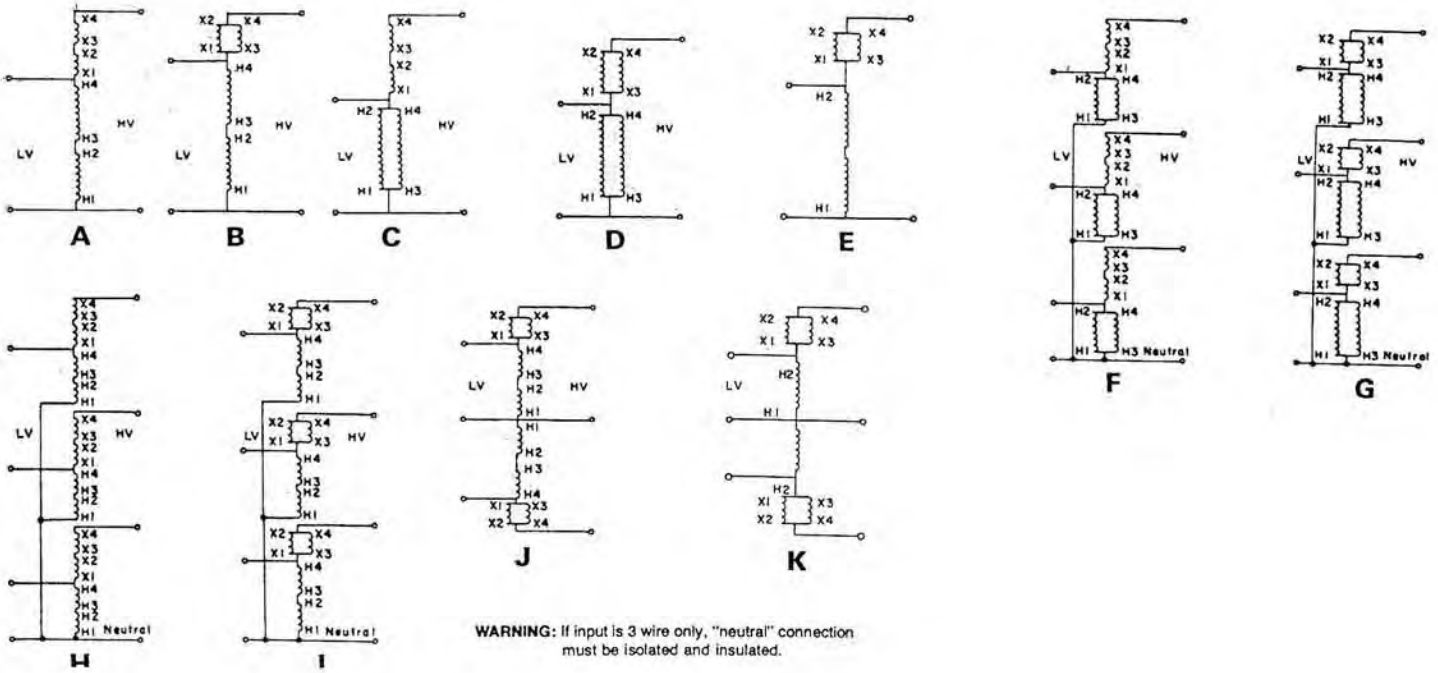
Transformer Number	Available Line Voltage	
	600	575
	Three Phase Load kVA*	
T008	2.5	—
T088	—	2.4
T009	3.7	—
T089	—	3.6
T010	5.0	—
T090	—	4.8
T011	7.5	—
T091	—	7.2
T012	10.0	—
T092	—	9.6
T013	15.0	—
T093	—	14.3
Connection ‡ Diagram	B	E

When 208Y/120 volts is the available line voltage, the 212Y/122 column may be used to obtain 236 volts which should be satisfactory for most applications.

* The load kVA in tables 7, 8, 9 and 10 is the maximum load at voltages shown when transformers are connected as autotransformers according to the diagram referenced and shown on back page.

‡ Warning — 3 phase autotransformers should never be used to obtain 4 wire output with 3 wire input.

CONNECTION DIAGRAMS

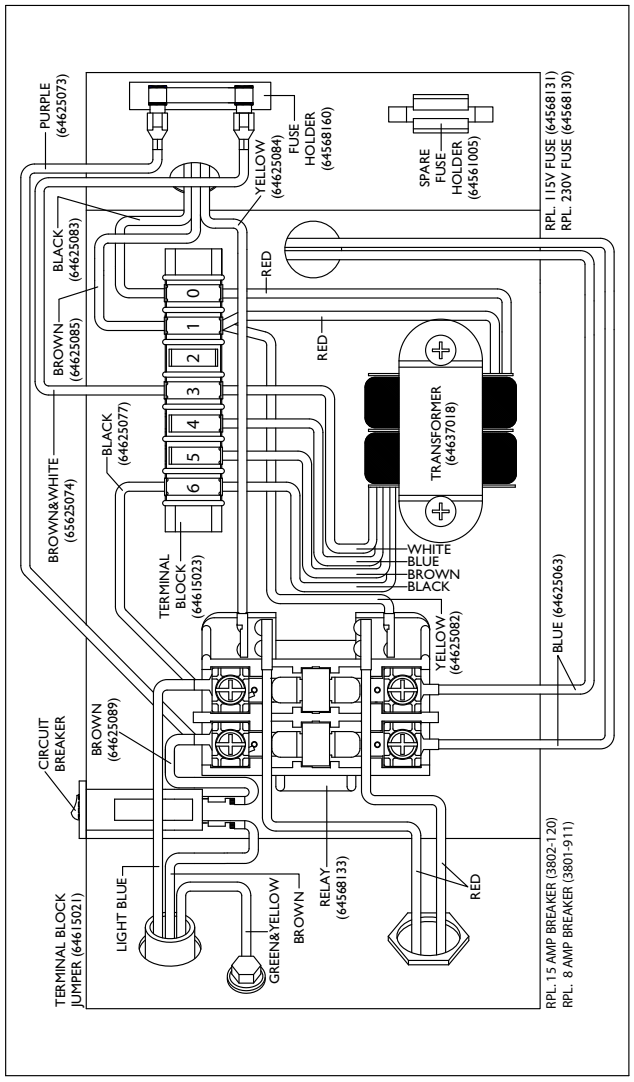


WARNING: If input is 3 wire only, "neutral" connection must be isolated and insulated.

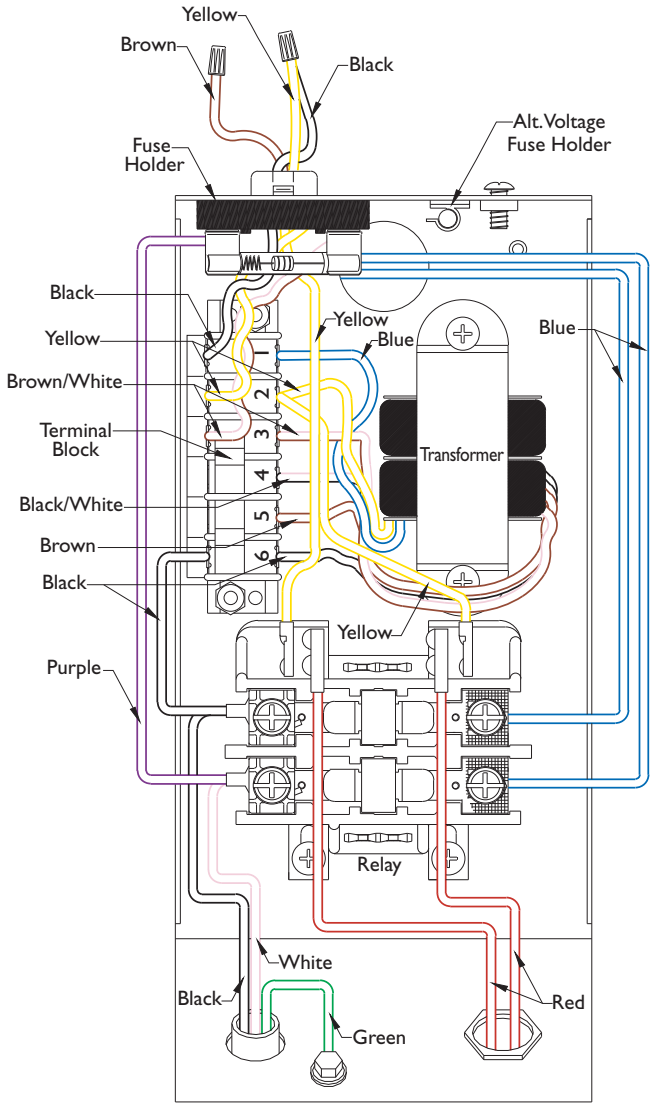
How is a new transformer wired in an old relay box?

(V Series)

New Transformer



Old Relay Box

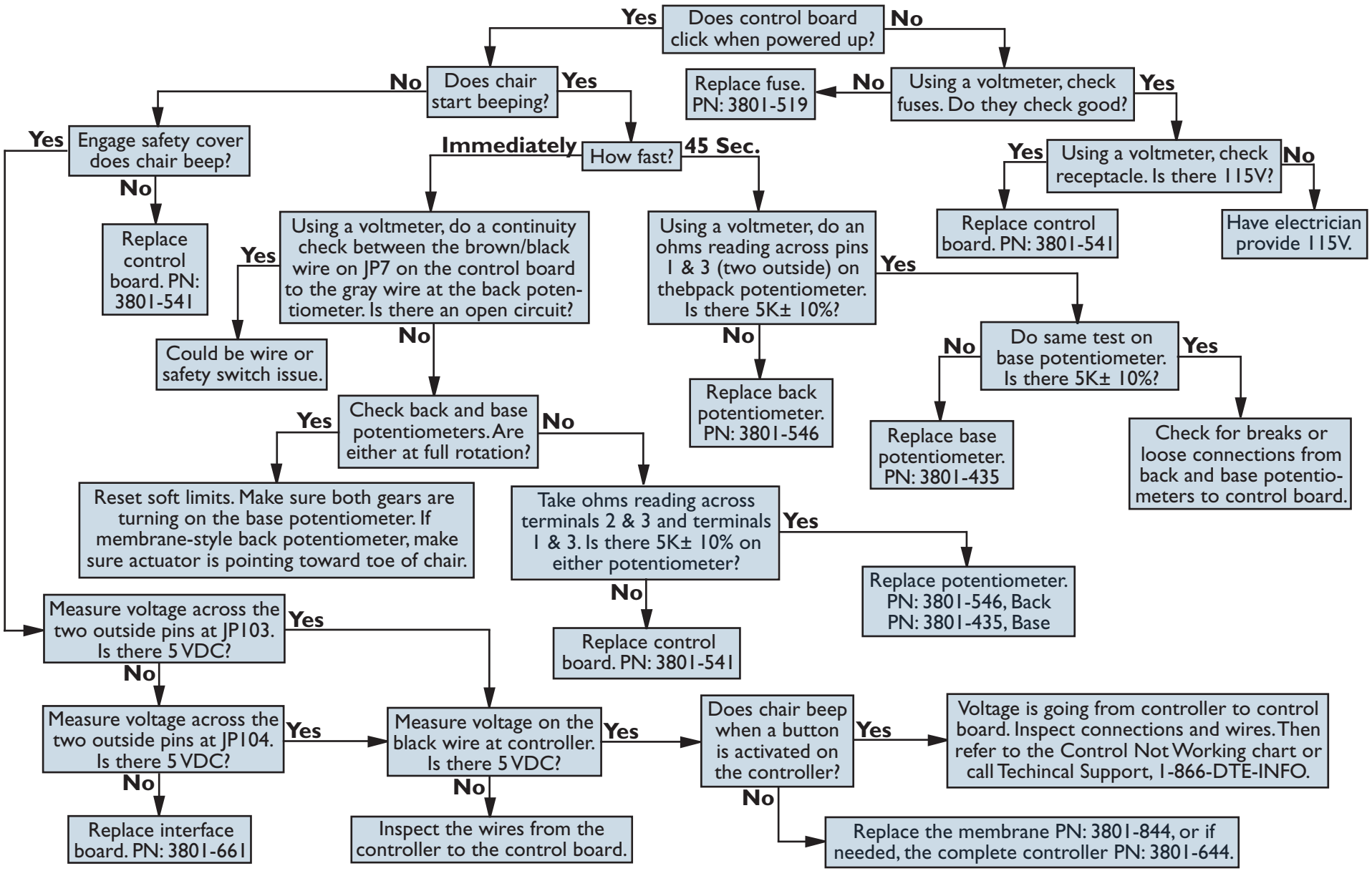


CustomAir

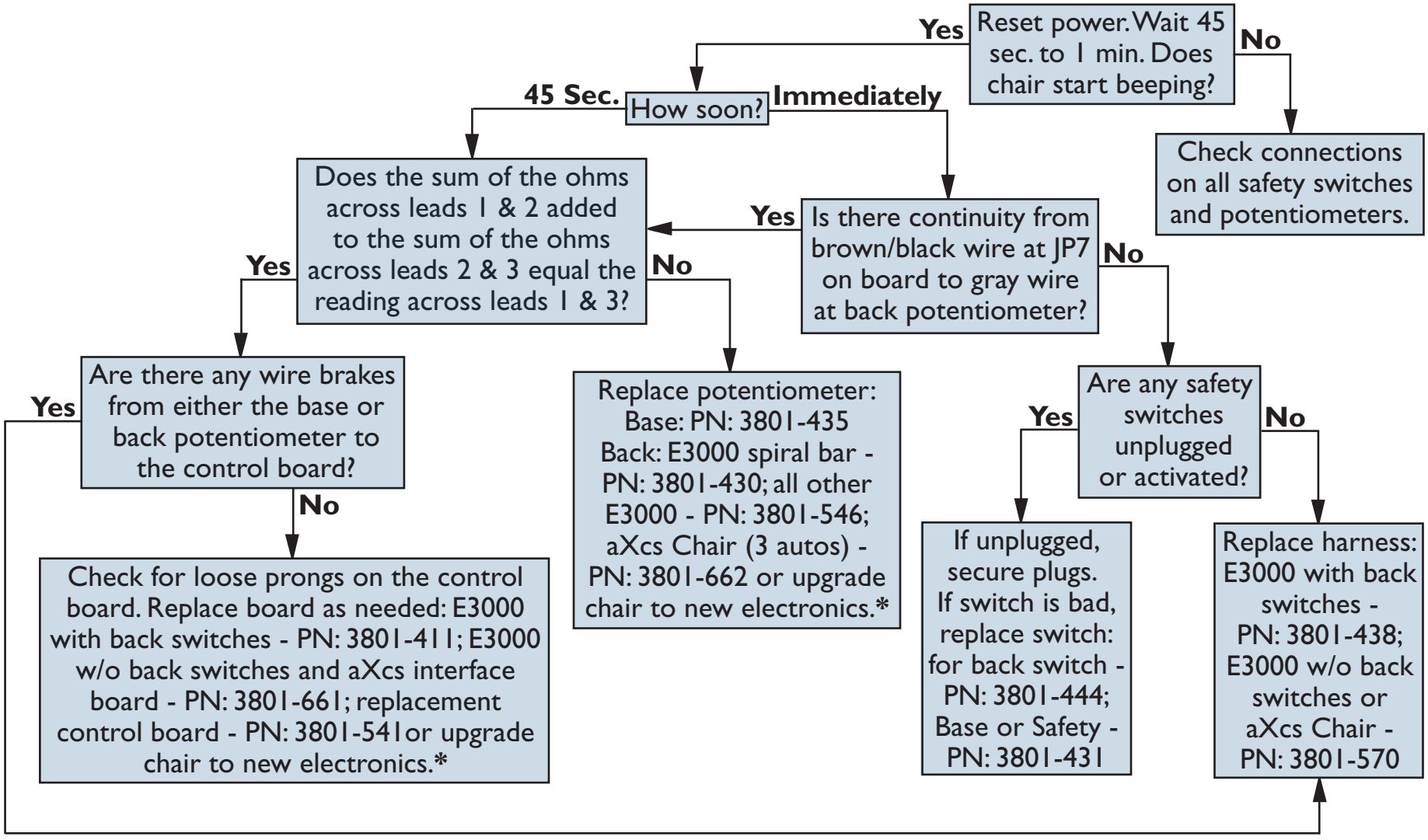
Vacuum Pumps

FAQ #13

Why is the chair not working? (3 auto buttons)

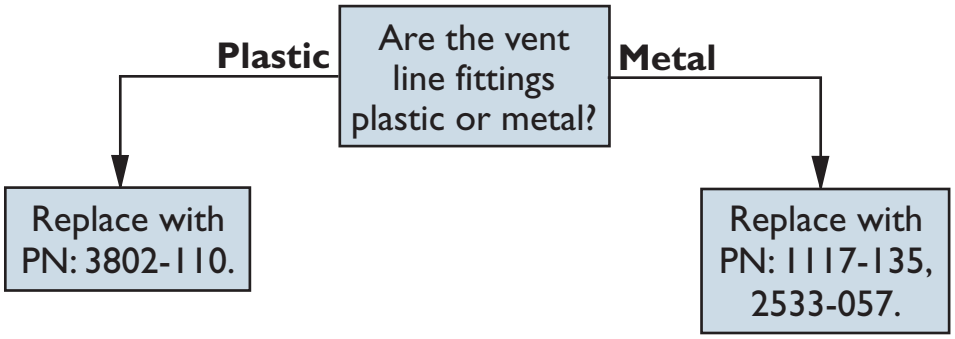


Why is the chair beeping? (old electronics)

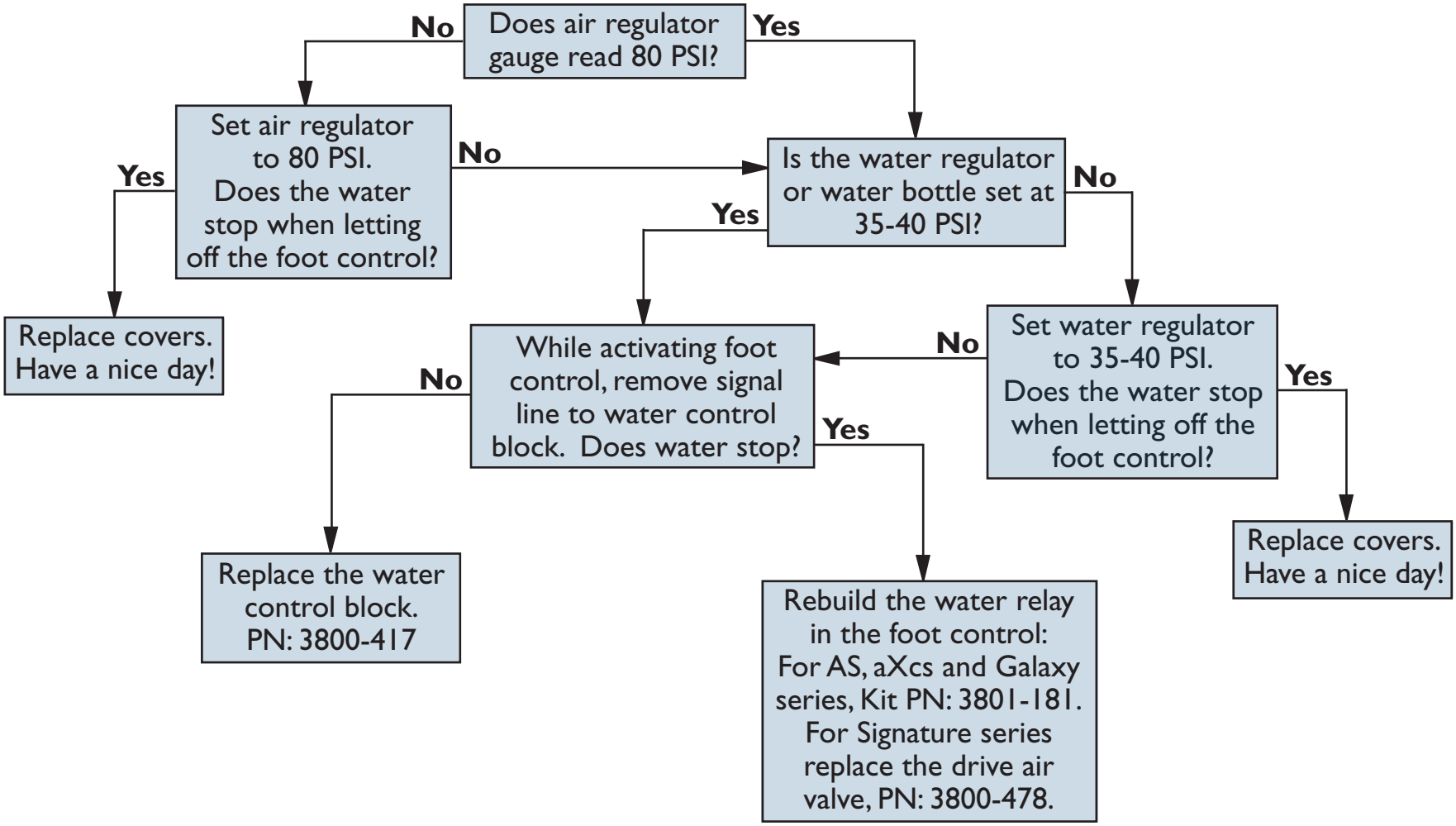


** Contact Tech Service at 1-866-DTE-INFO.*

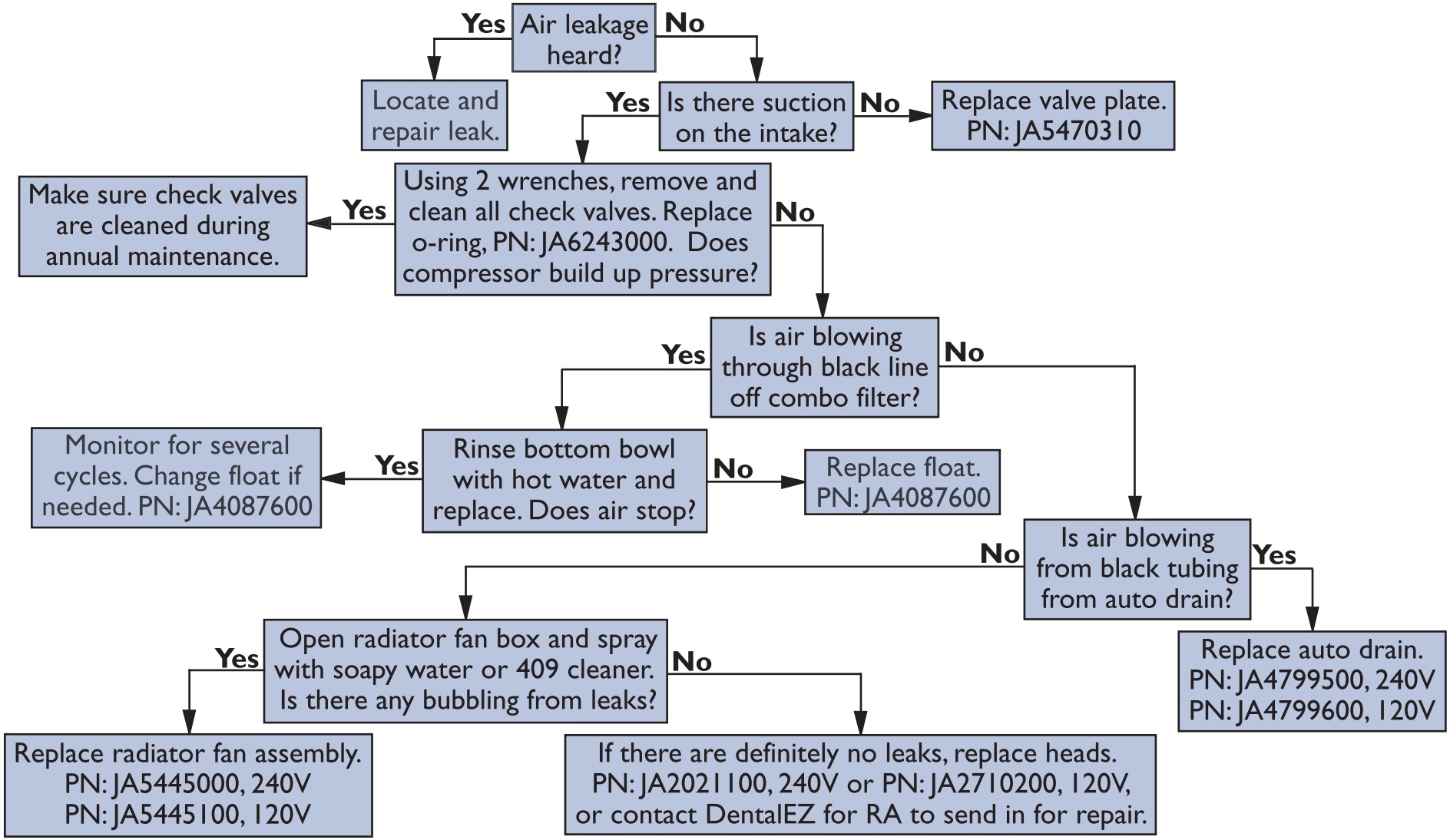
Why are the hydraulic chair vent lines leaking oil?



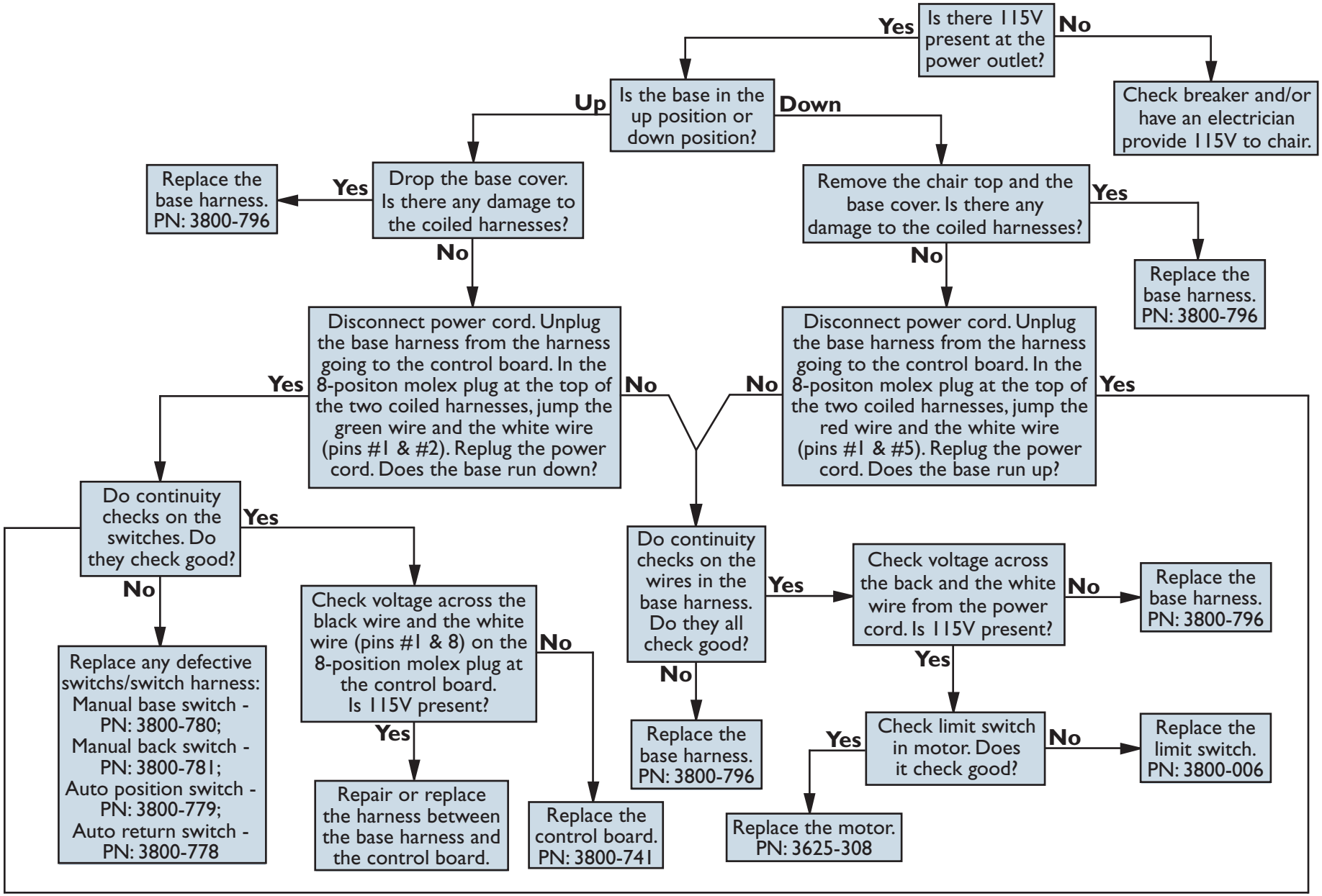
Why does water contiune to run or drip?



Why doesn't lubricated compressor build pressure?



Why won't the chair work? (E-2000/old Advantage)



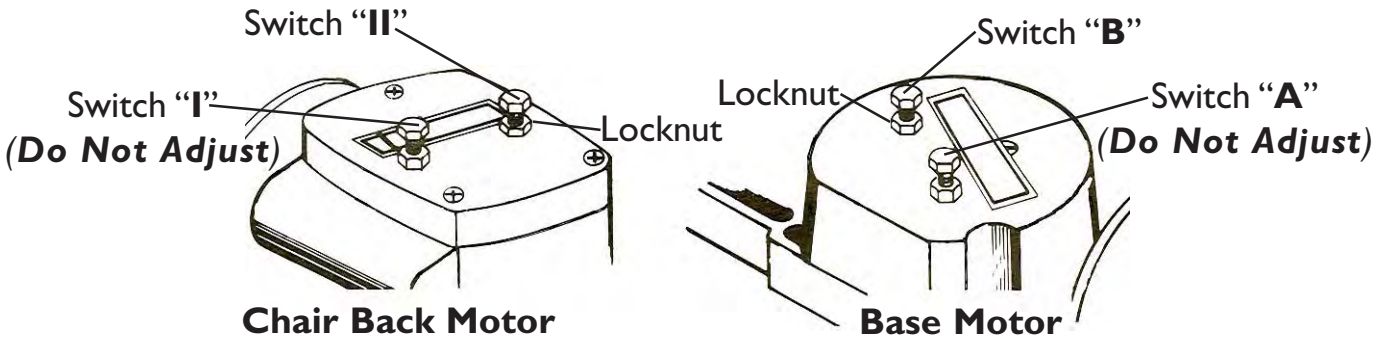
How are limit adjustments made?
(Old Advantage or E-2000)

CHAIR BACK MOTOR ADJUSTMENT

1. Raise the chair to its full UP position with the back and toe tilted.
2. Remove the six screws that secure the motor cover and remove the cover.
3. Using one 7/16" open-end wrench, loosen the locknut on the adjusting screw for switch "**II**" and use another 7/16" open-end wrench to turn the adjusting screw counterclockwise to lower the back or clockwise to raise the back.

CAUTION: *The total back adjustment is approximately 30° from parallel. Over adjustment can cause damage to the micro switch.* ***DO NOT ADJUST SWITCH "I".***

4. After reaching desired adjustment, tighten the locknut and install the motor cover using the screws removed. Then check for proper operation.



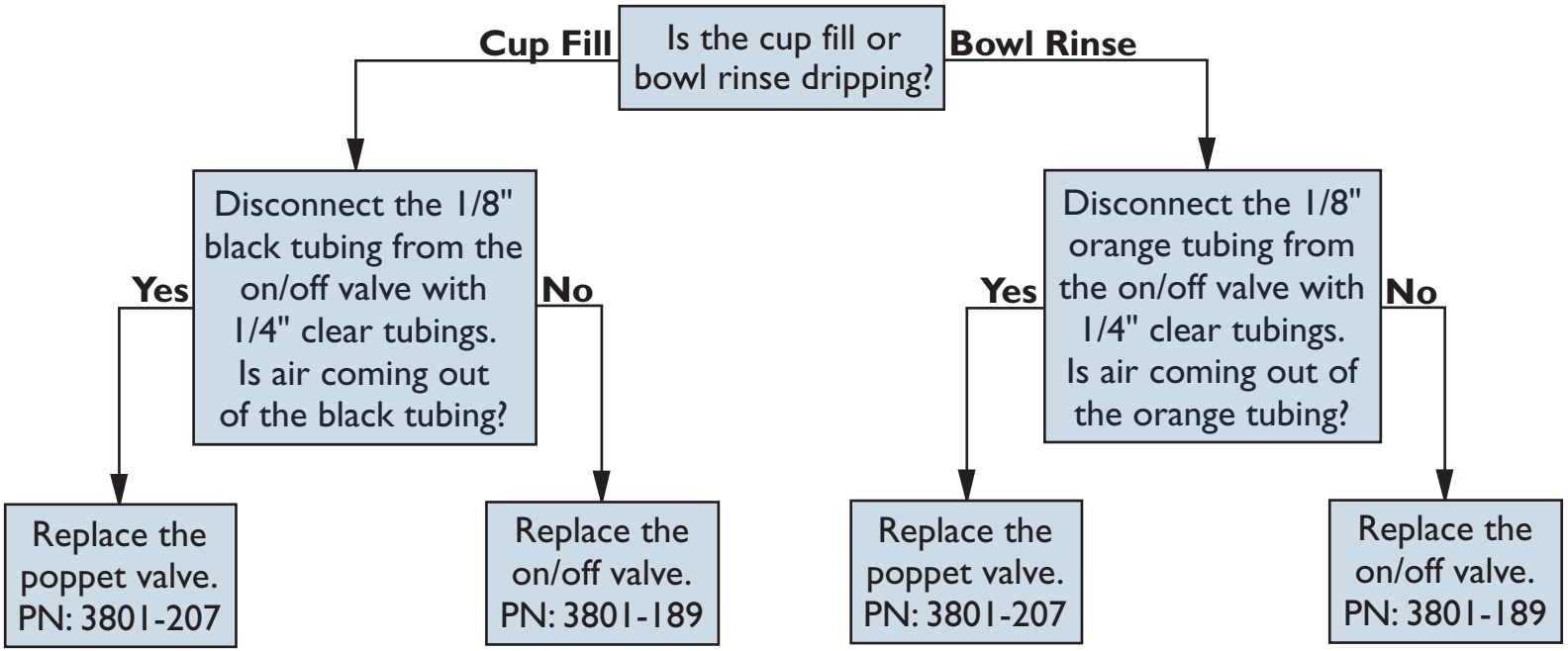
BASE MOTOR ADJUSTMENT

1. Remove the screws that attach the bellows to the hangers and lower the bellows.
2. Using one 7/16" open-end wrench, loosen the locknut on switch "**B**" and use another 7/16" open-end wrench to turn switch "**B**" counterclockwise to lower.

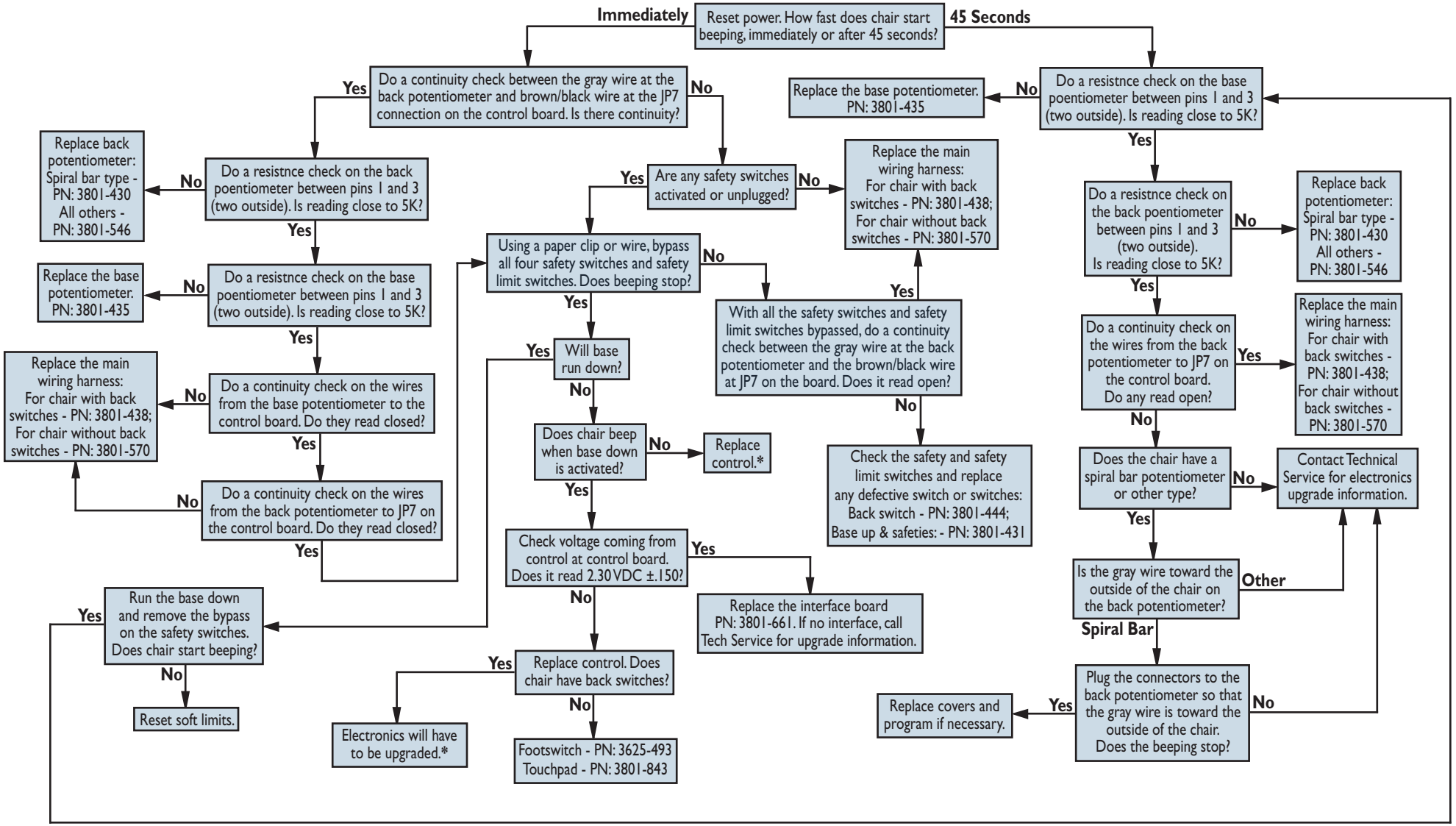
CAUTION: *There is a 2-3/4" total base height adjustment for the base motor. Over adjustment can cause damage to the micro switch.* ***DO NOT ADJUST SWITCH "A".***

3. After reaching desired adjustment, tighten the locknut and install the bellows using the screws removed. Then check for proper operation.

Why does the cuspidor cup fill or bowl rinse drip constantly?

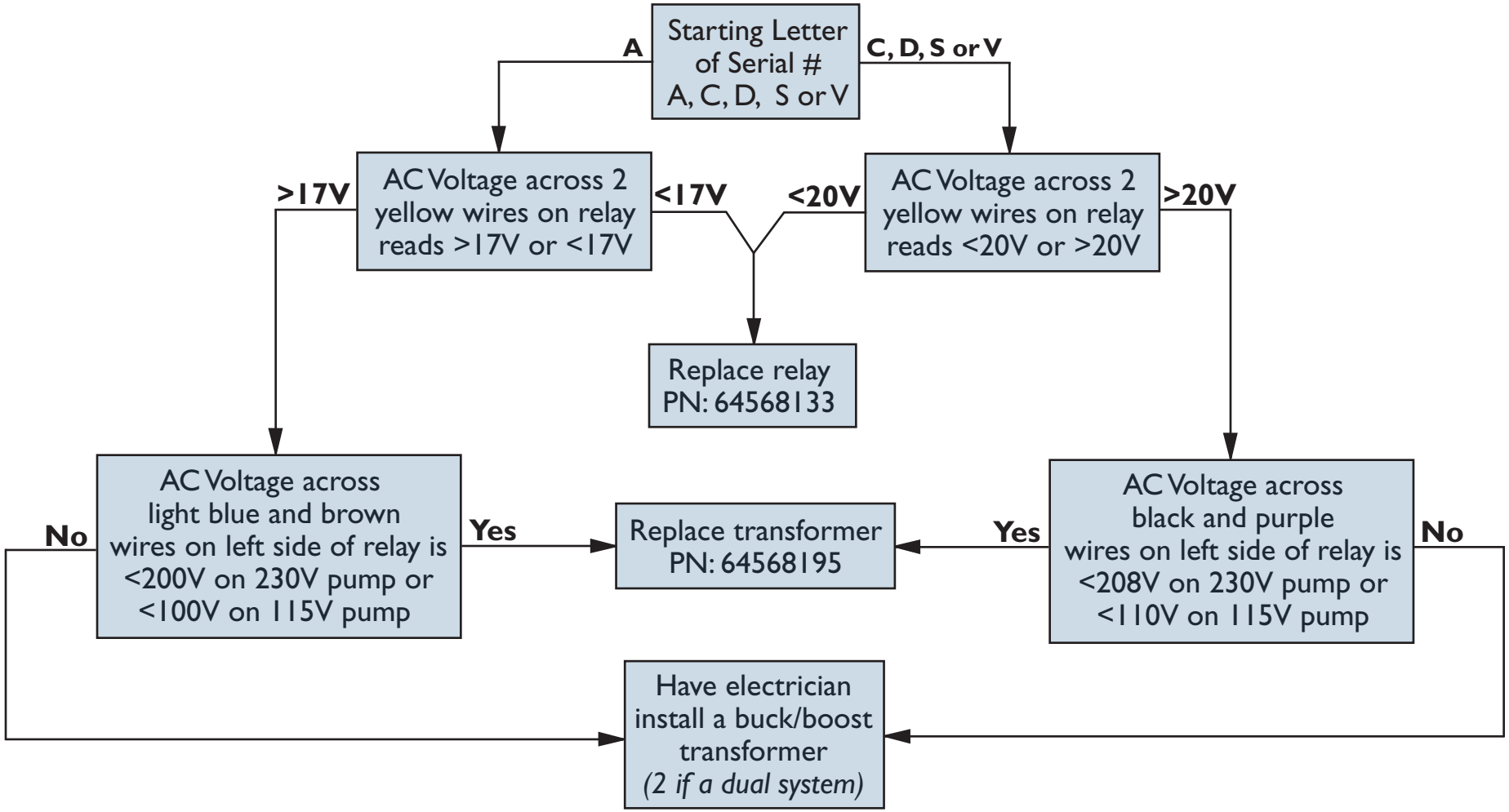


Why won't the base go down and the chair is beeping? (E3000)

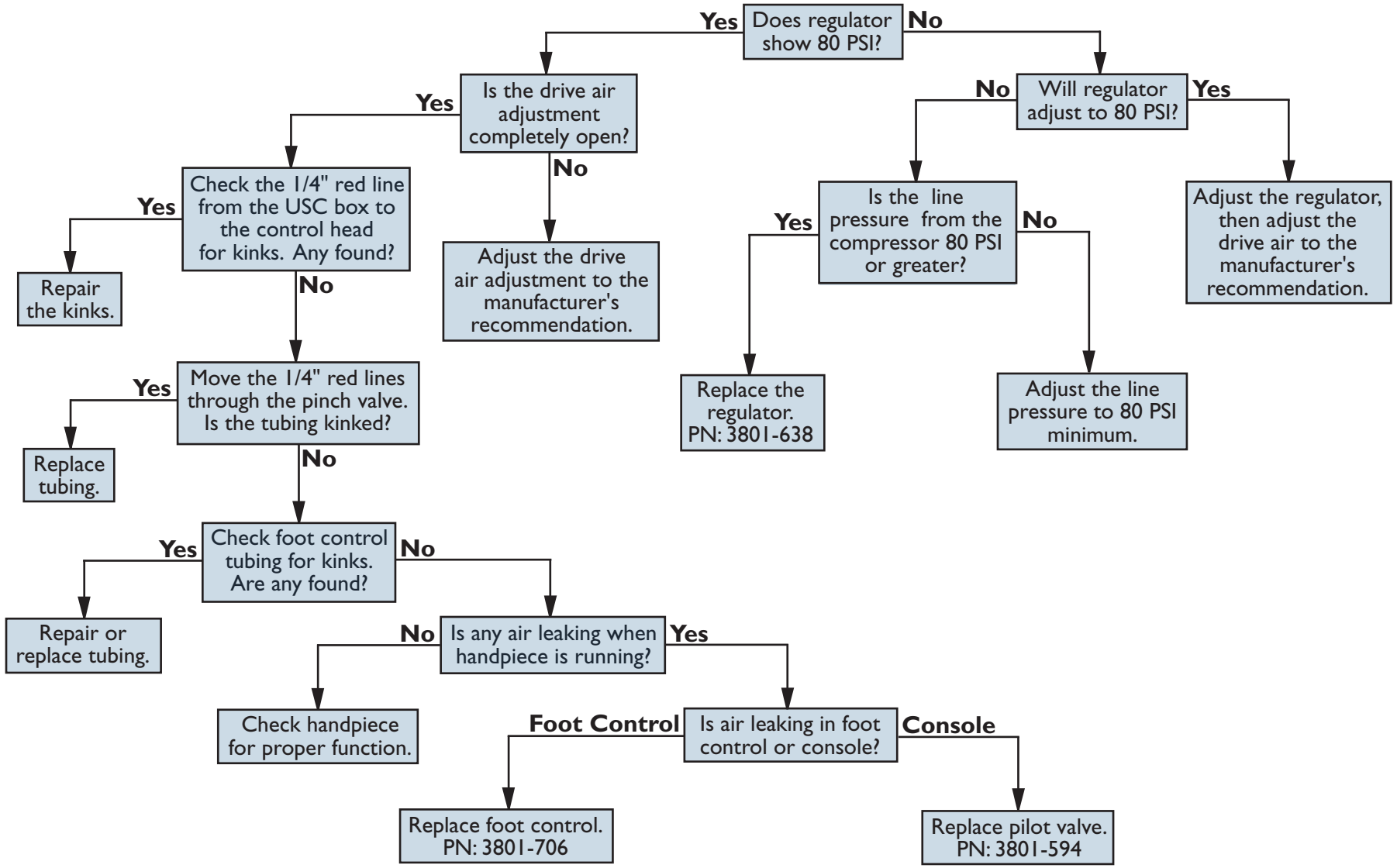


* *For part # information contact Tech Service at 1-866-DTE-INFO.*

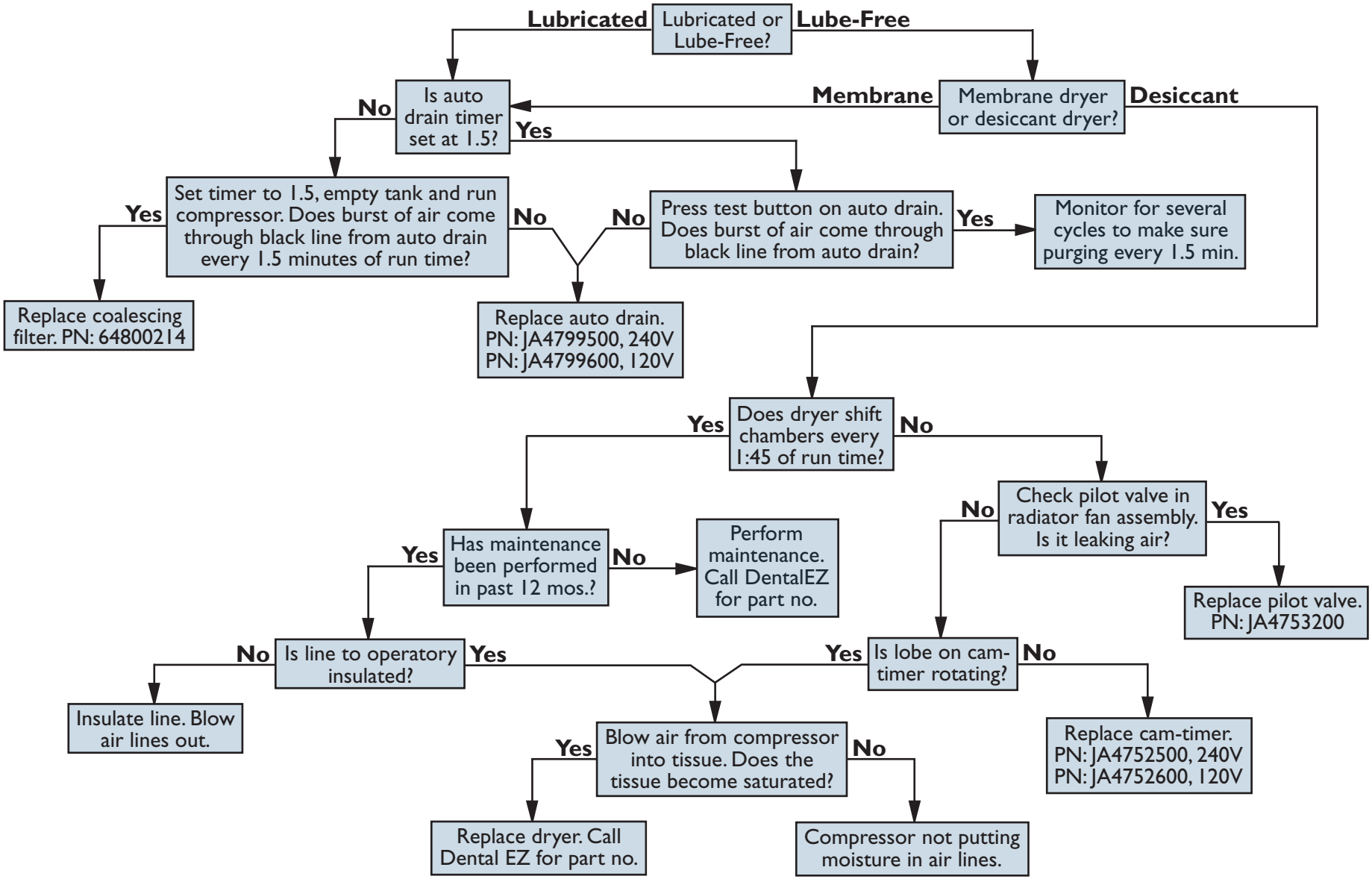
Why won't the vacuum relay engage and the pump doesn't turn on?



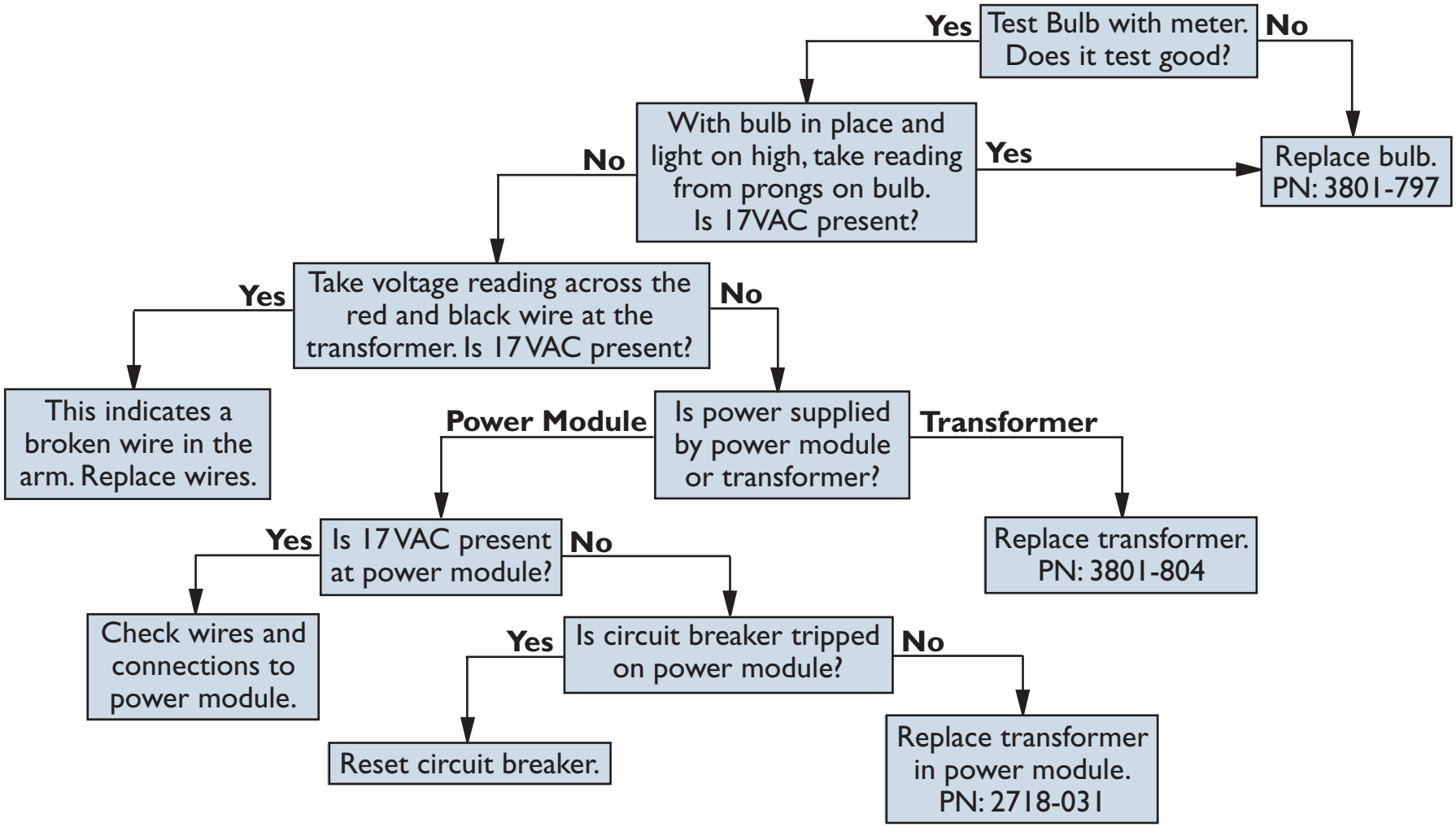
Why is the drive air only 20 PSI?



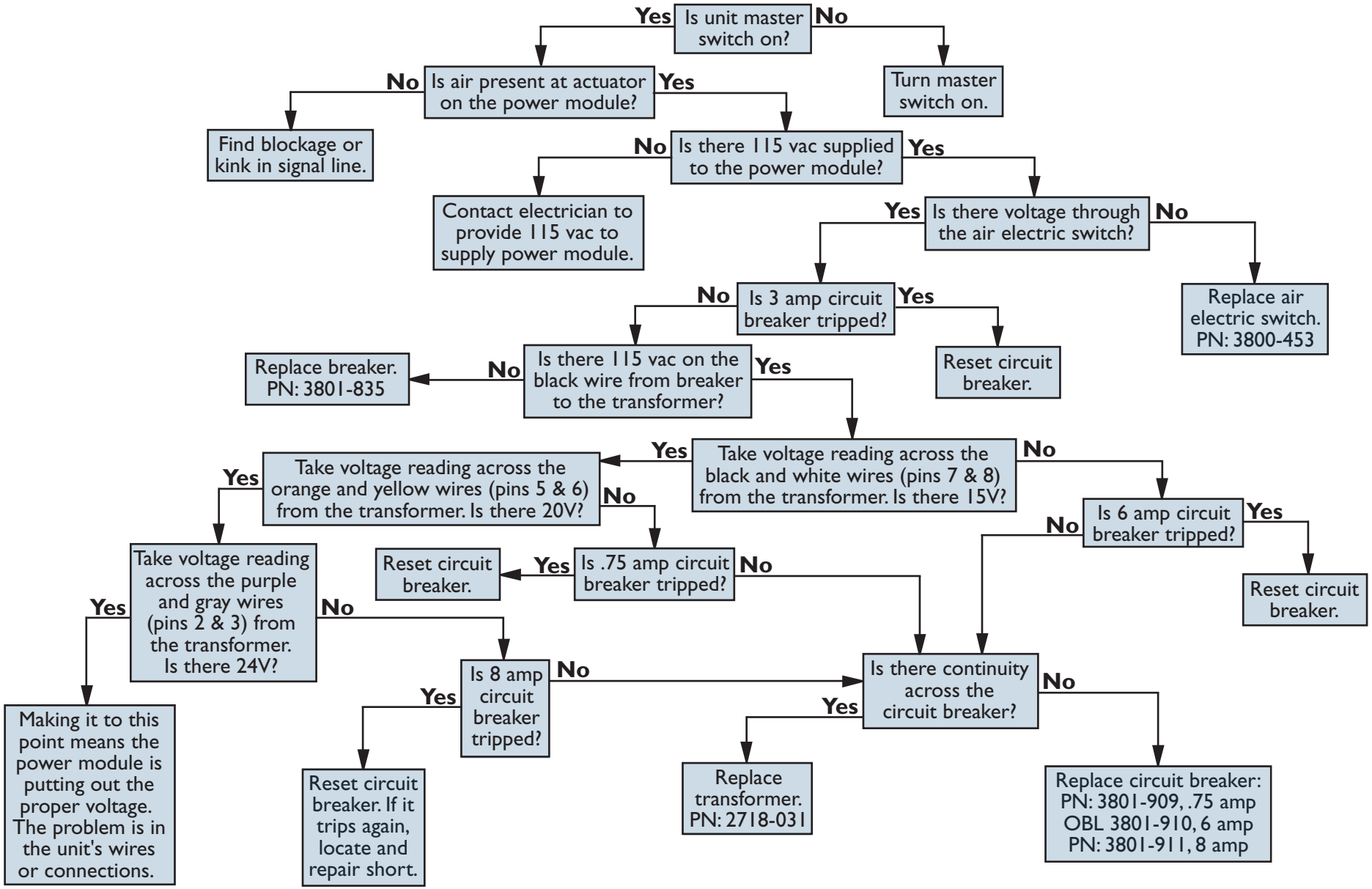
Why is there moisture in air from compressor?



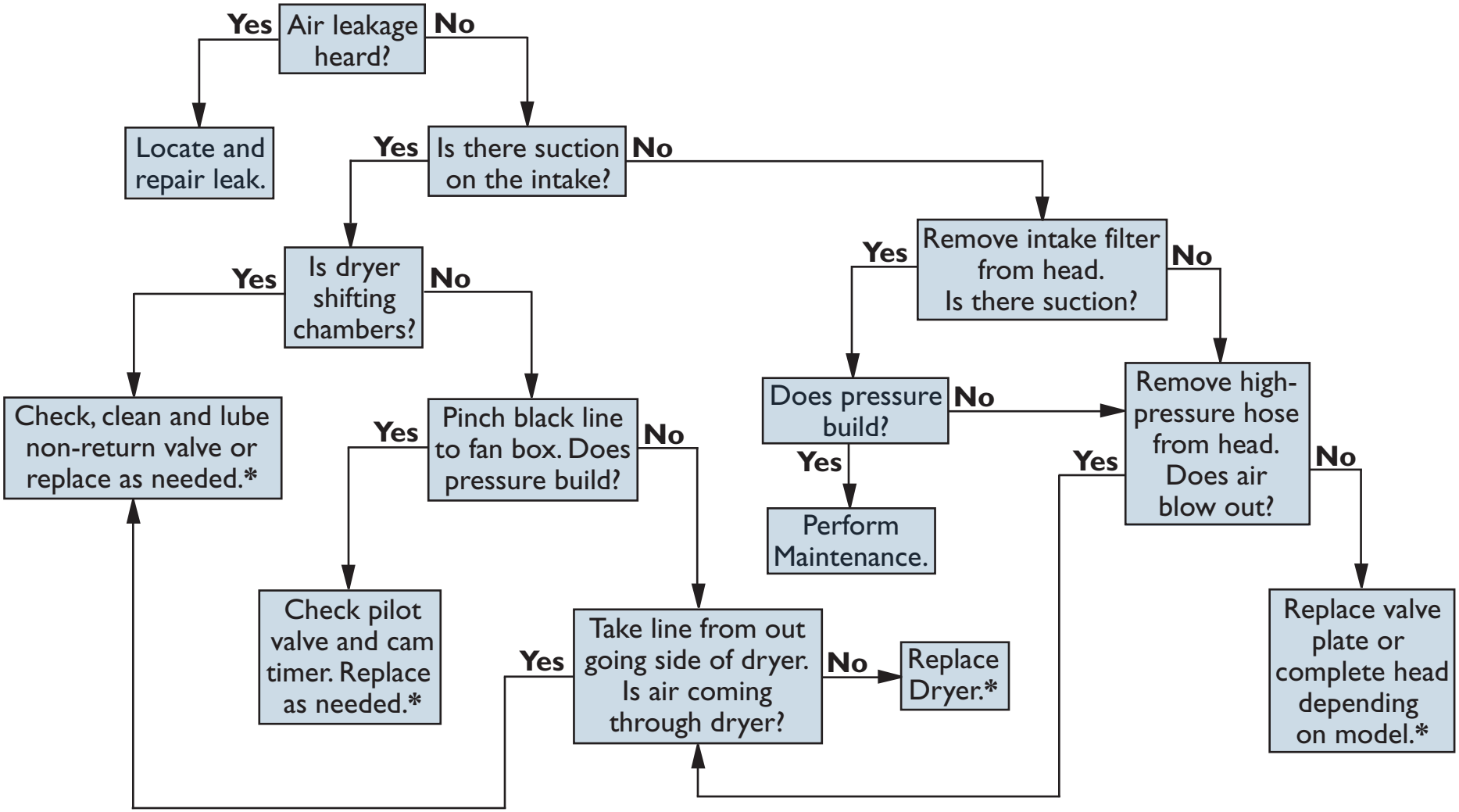
Why is the bulb not lighting? (17VAC at Socket)



Why is there no output from the power module?

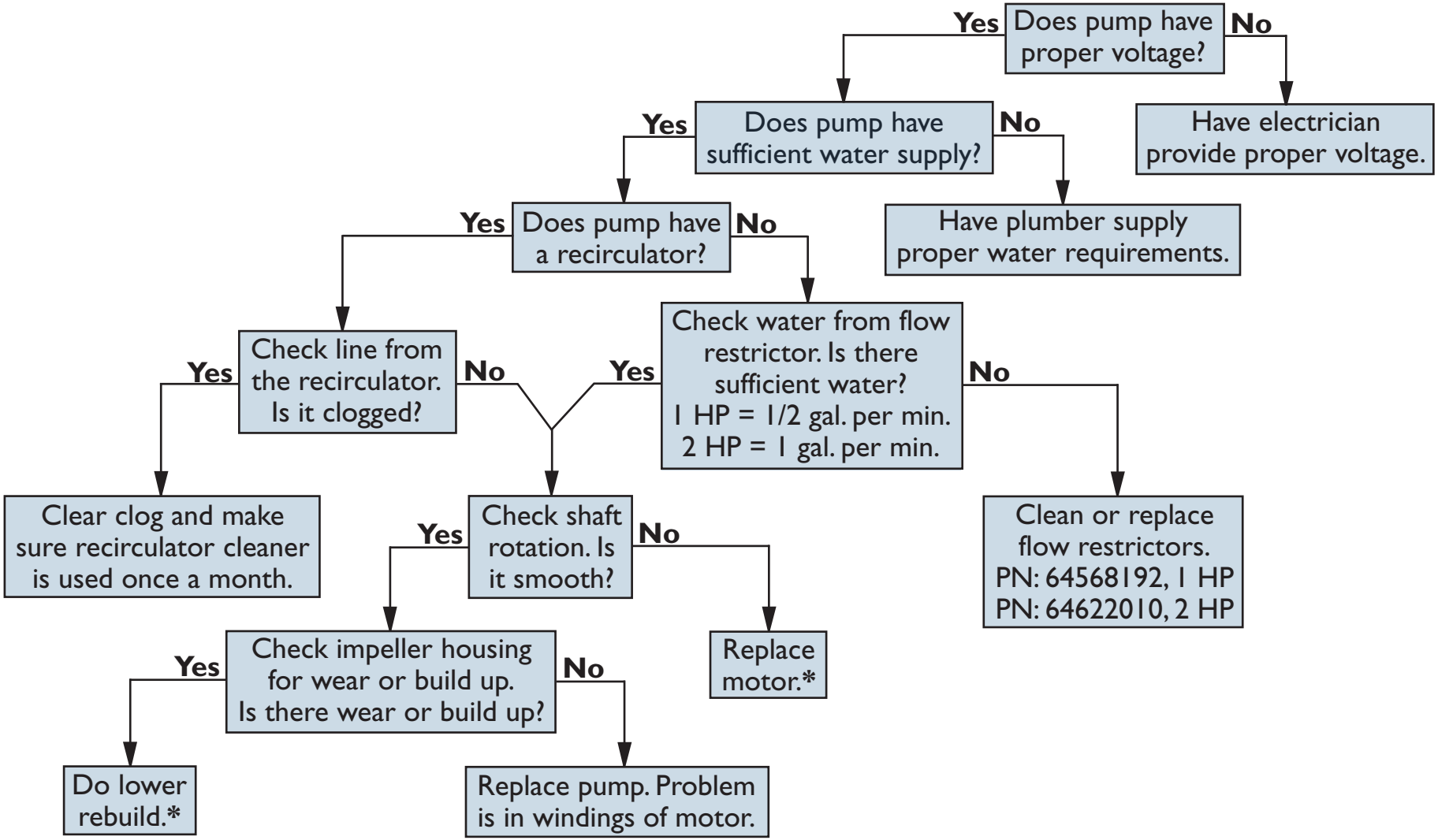


Why doesn't lube-free compressor build pressure?



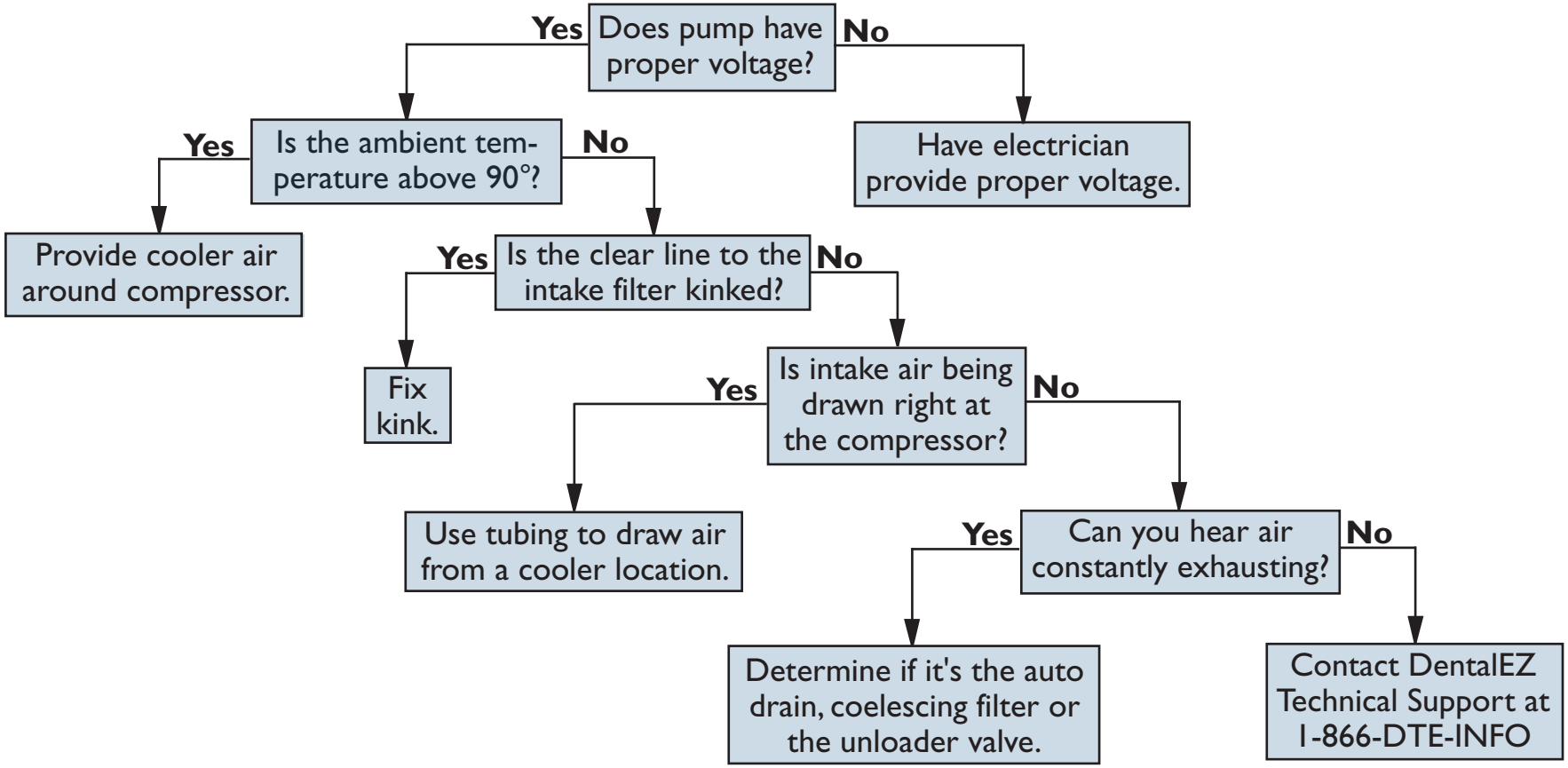
* *For part # information contact Tech Service at 1-866-DTE-INFO.*

Why does the vacuum pump shut down, cool then restart?

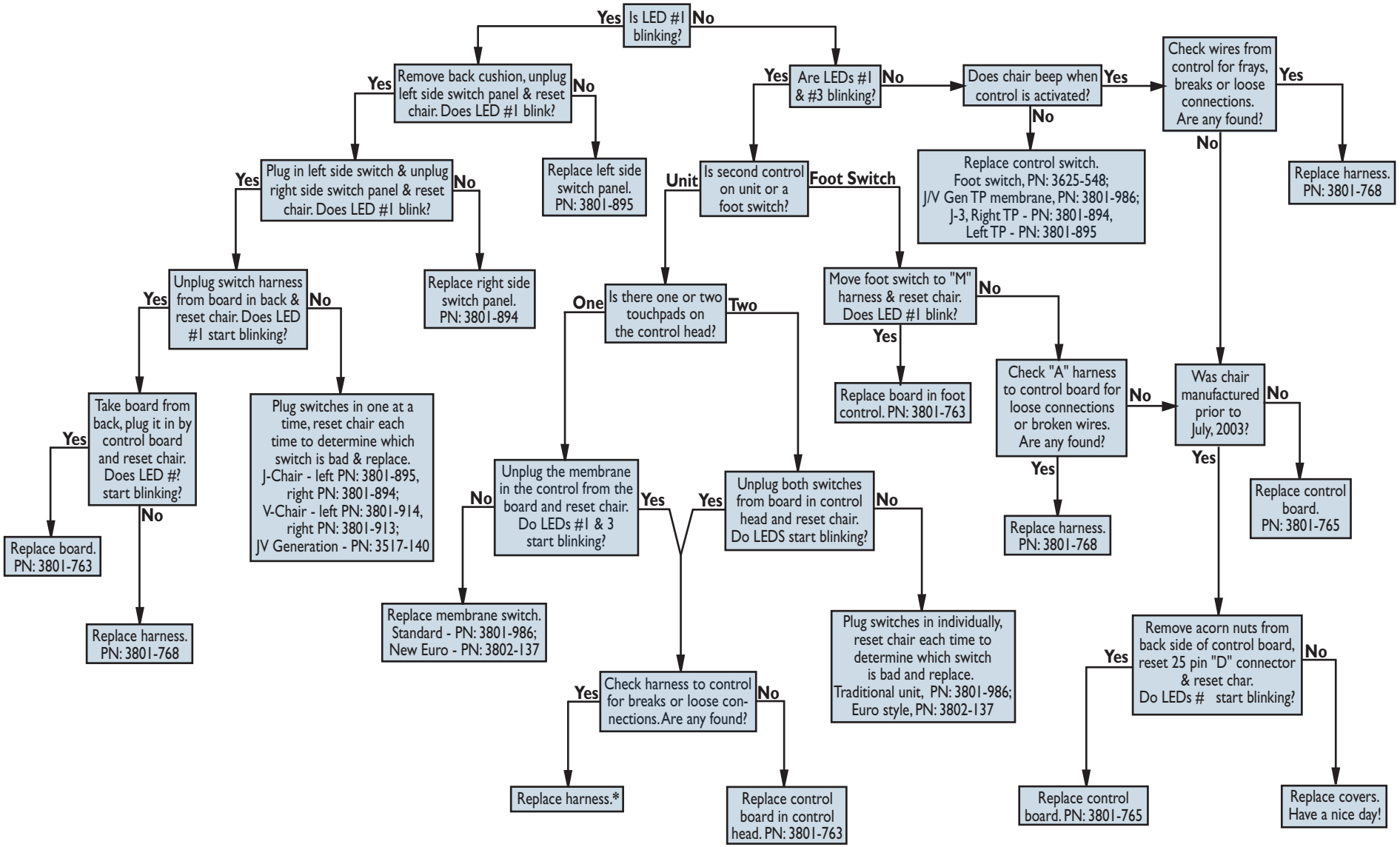


* *For part # information contact Tech Service at 1-866-DTE-INFO.*

Why is the compressor using oil? (700 Series)

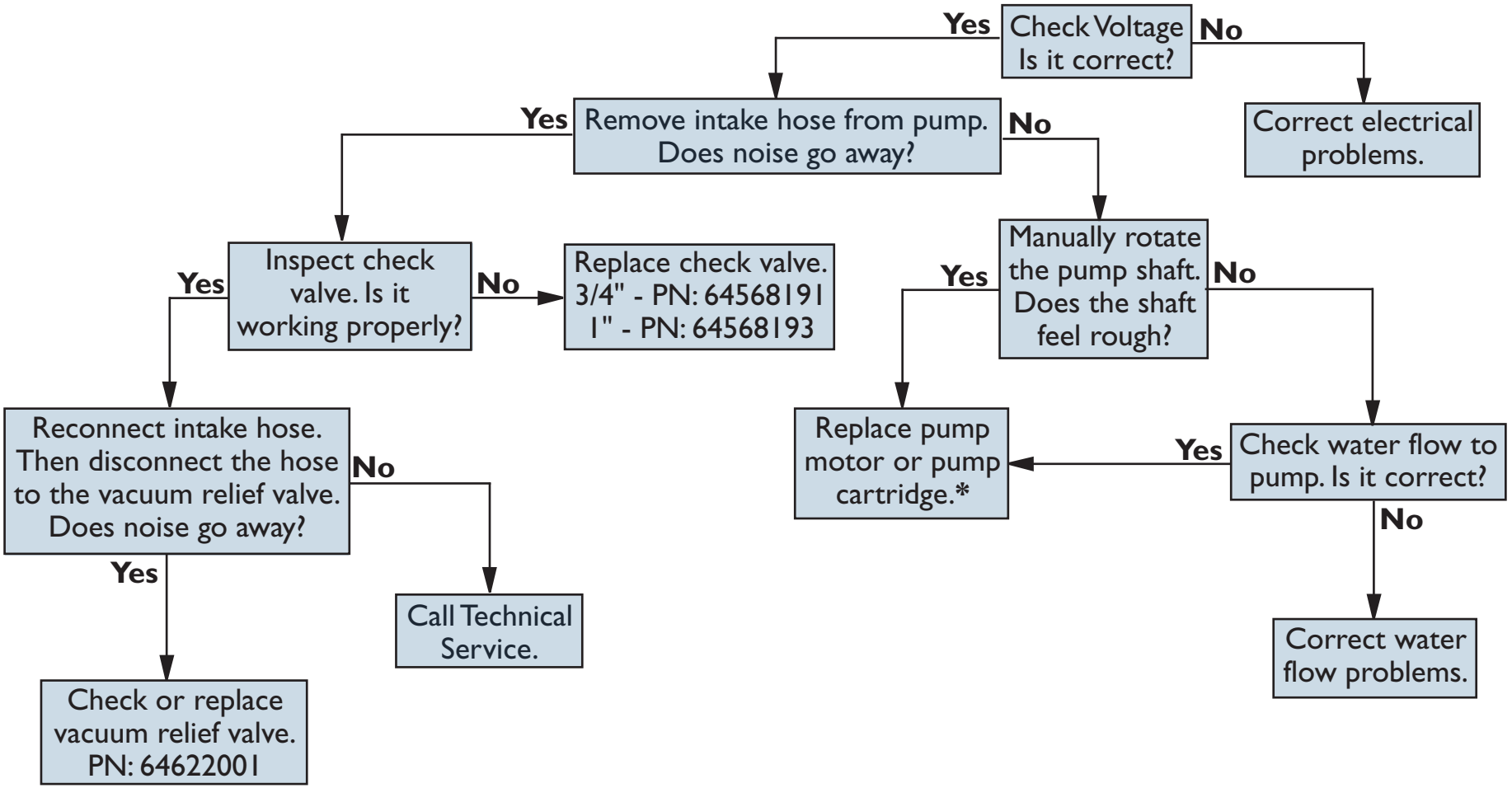


Why is only one control working? (3-Function, w/2 Controls)



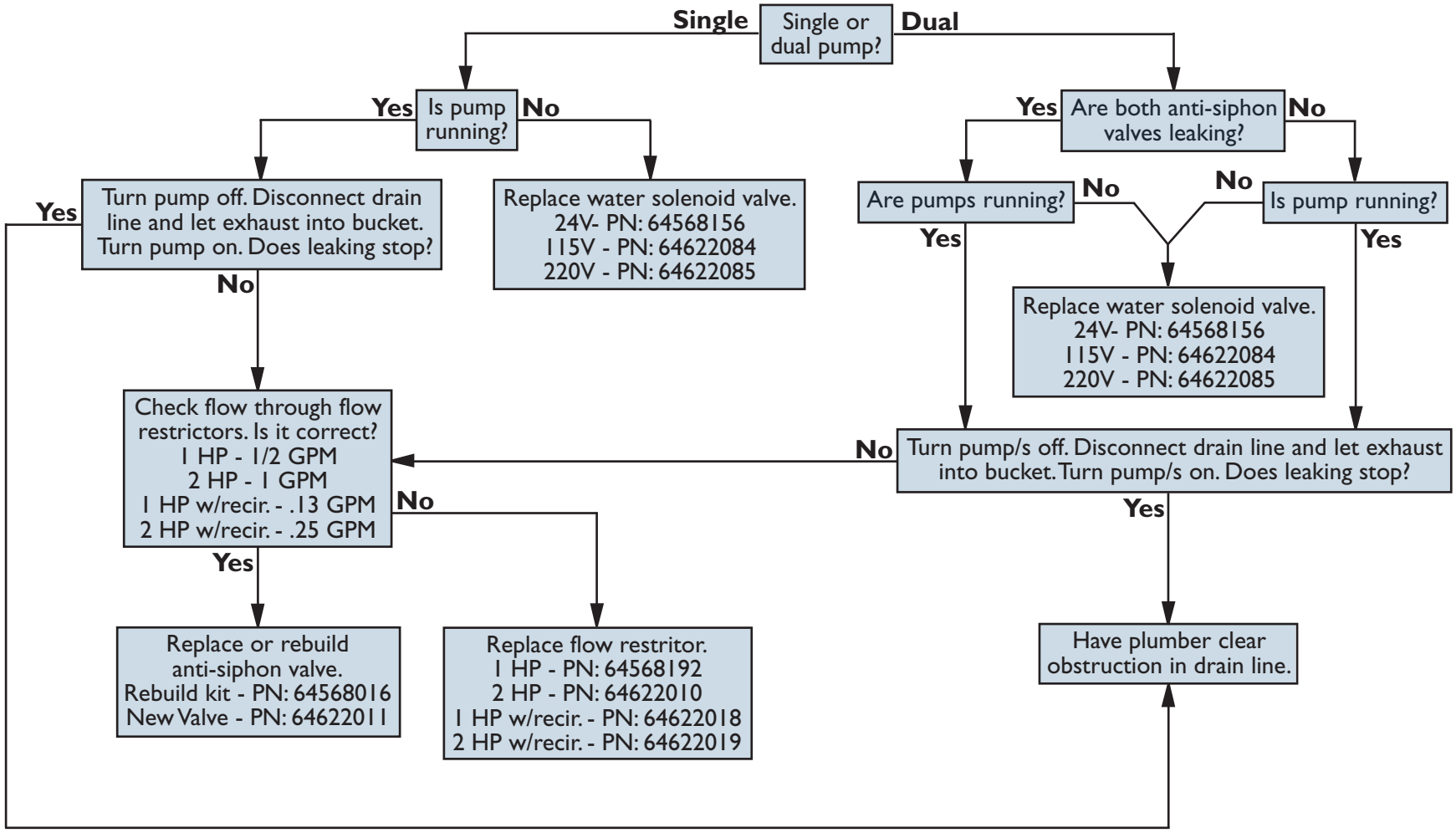
* *For part # information contact Tech Service at 1-866-DTE-INFO.*

Why does pump make squealing/whistling sound?

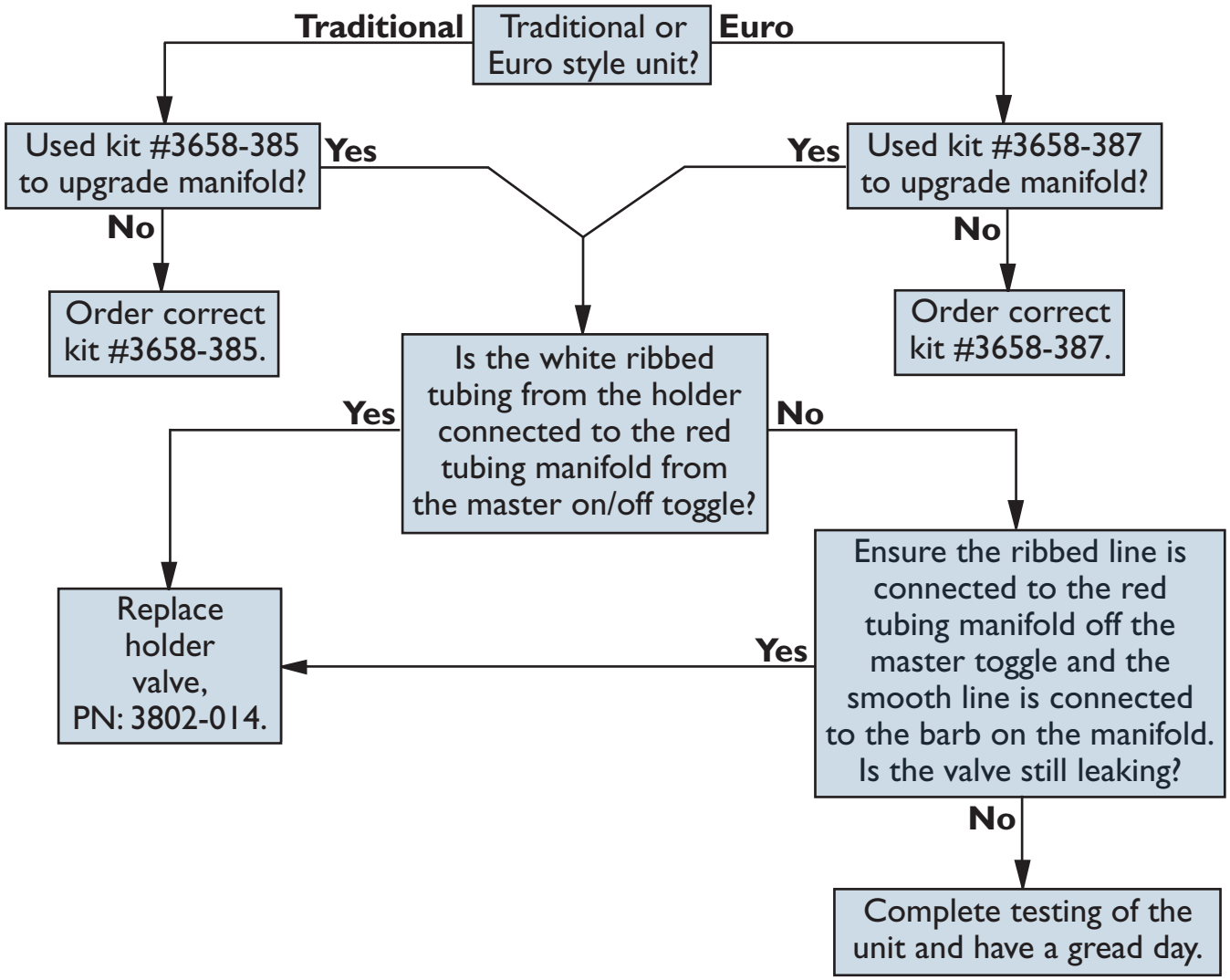


* *Contact Tech Service at 1-866-DTE-INFO.*

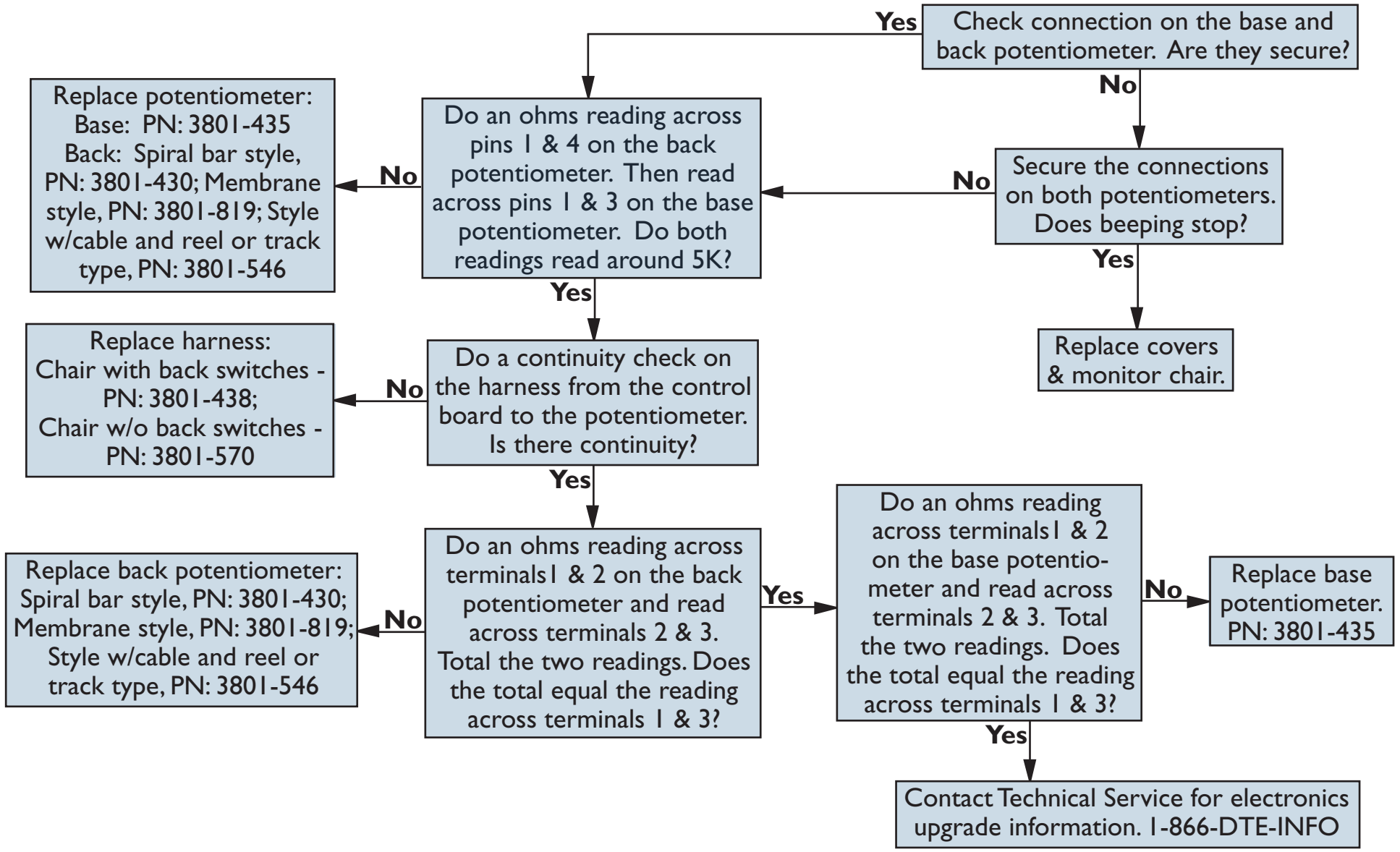
Why does water leak from the anti-siphon valve?



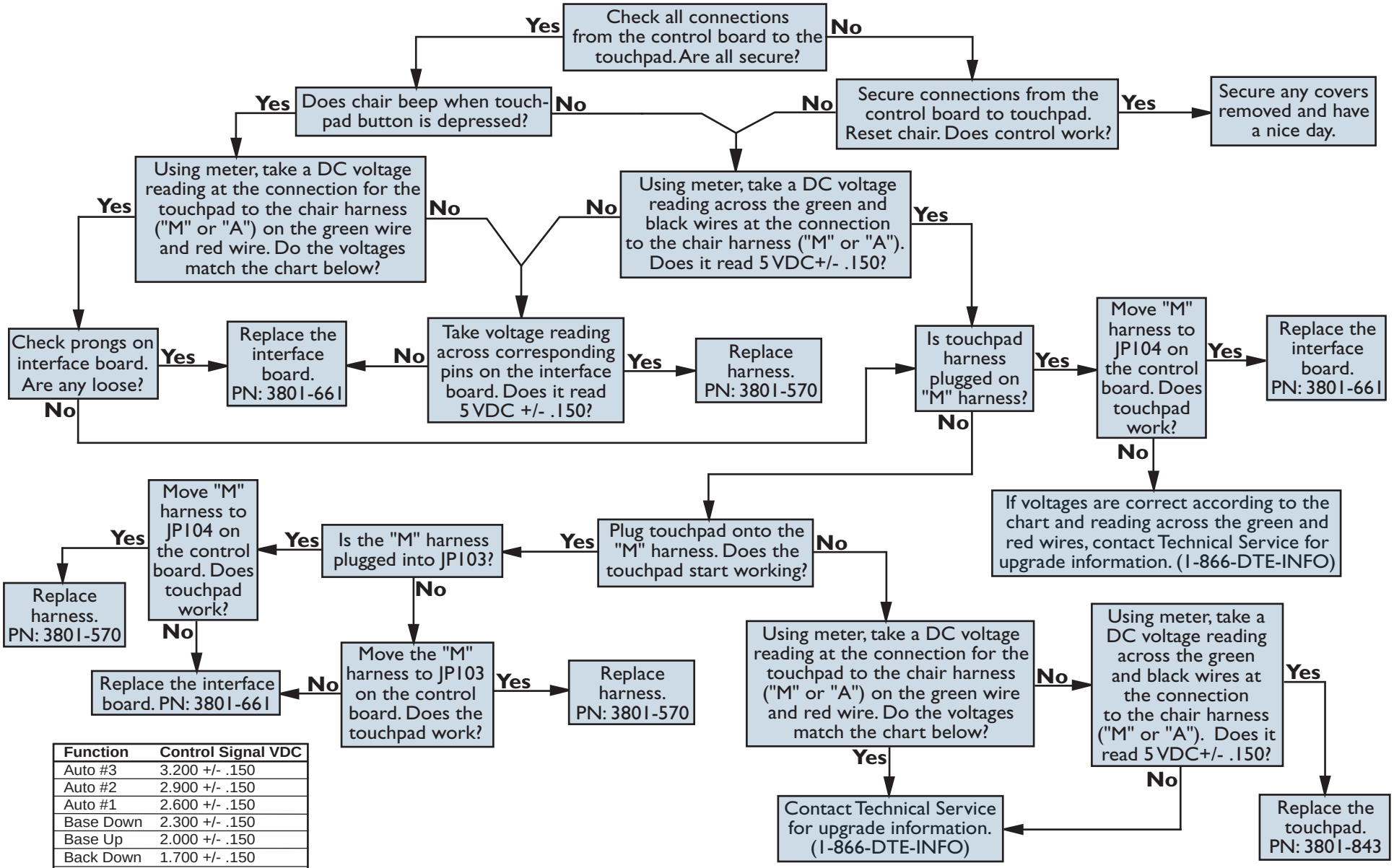
Why is air blowing out of holder after manifold upgrade?



Why does the chair beep after 45 seconds? (E-3000)

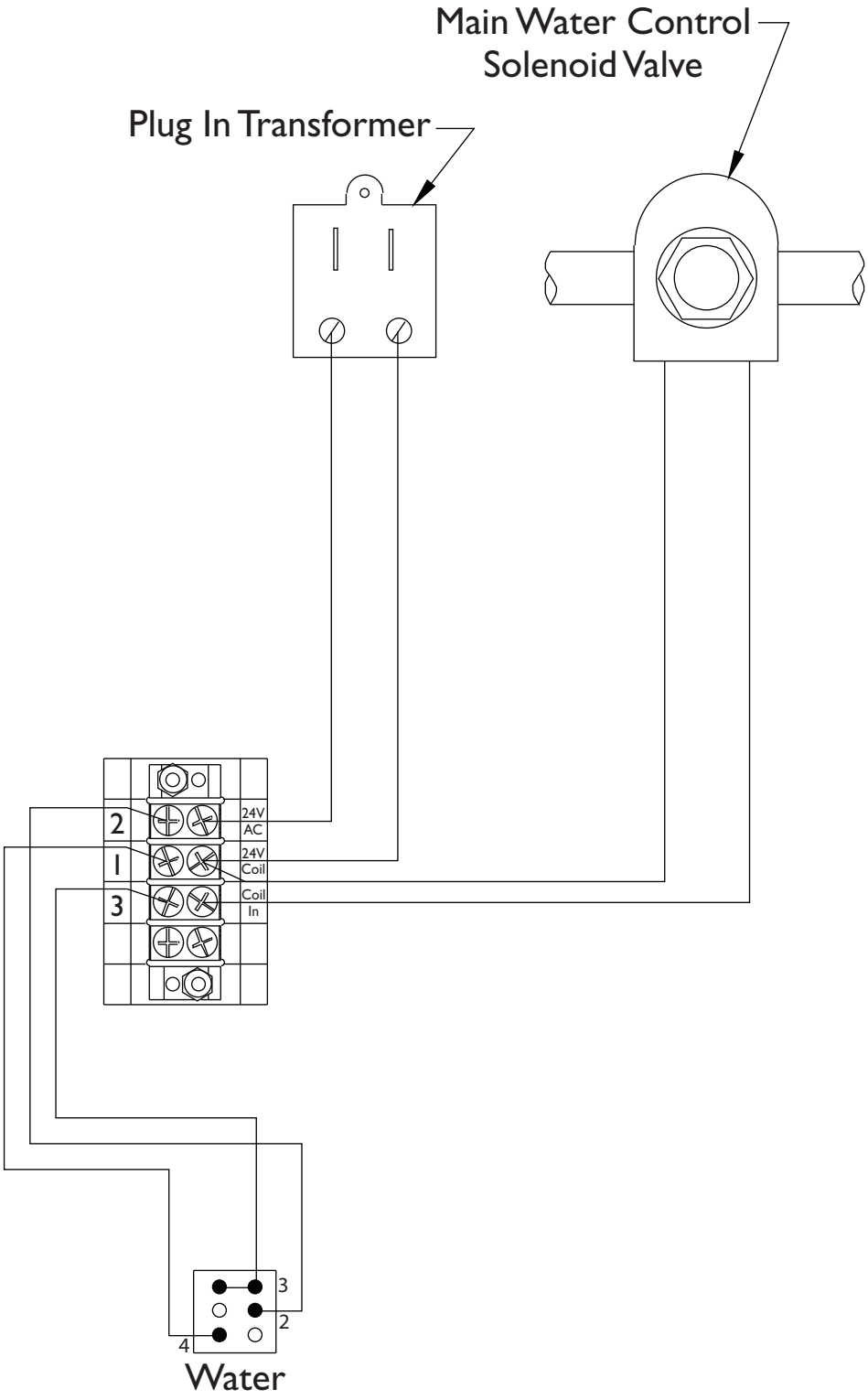


Why is the touchpad not working? (E-3000)

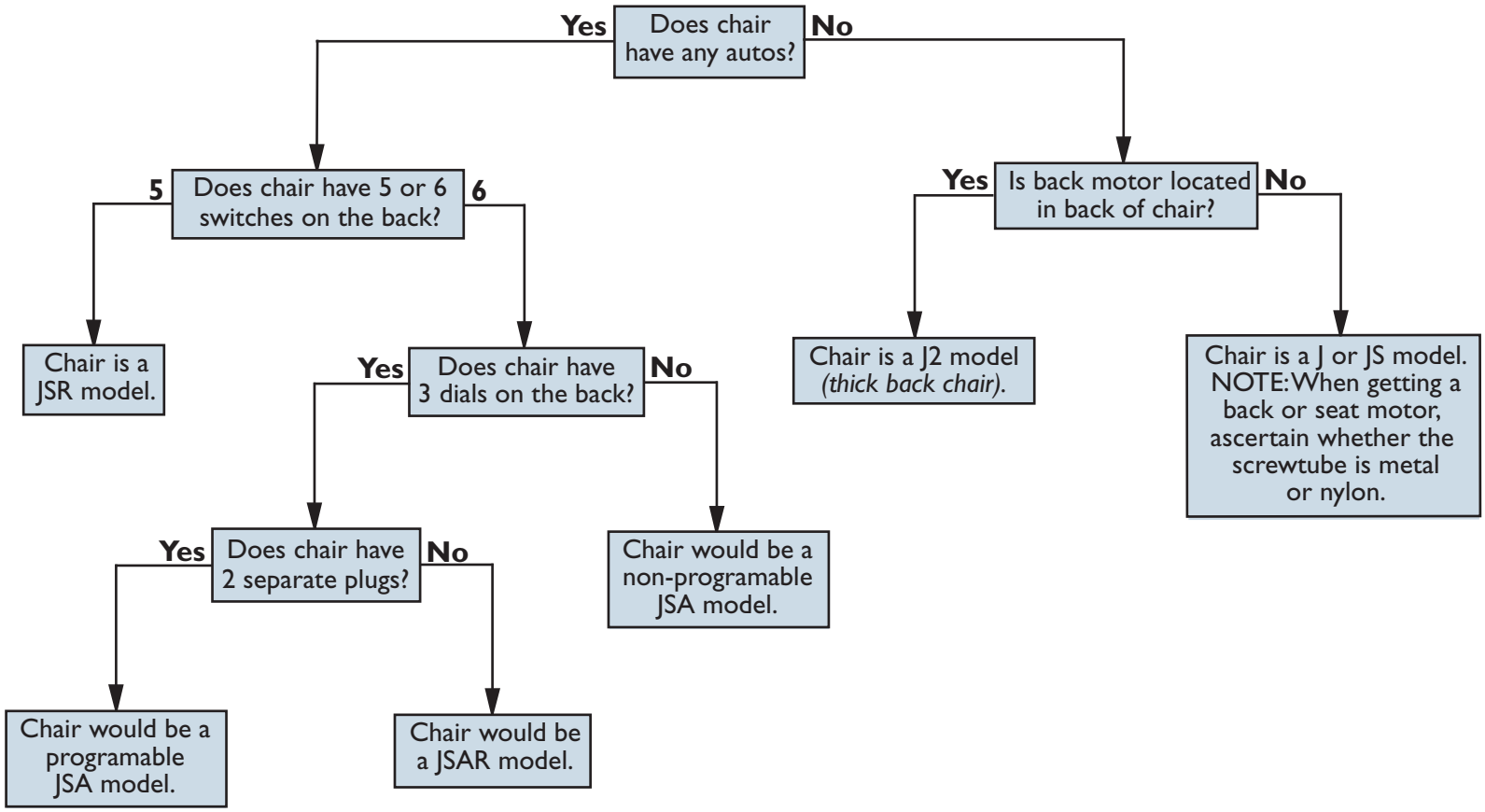


Function	Control Signal VDC
Auto #3	3.200 +/- .150
Auto #2	2.900 +/- .150
Auto #1	2.600 +/- .150
Base Down	2.300 +/- .150
Base Up	2.000 +/- .150
Back Down	1.700 +/- .150
Back Up	1.400 +/- .150
Any Two	1.100 +/- .150
Idle	0.800 +/- .150

How is a master water control solenoid valve wired to a plug in transformer?

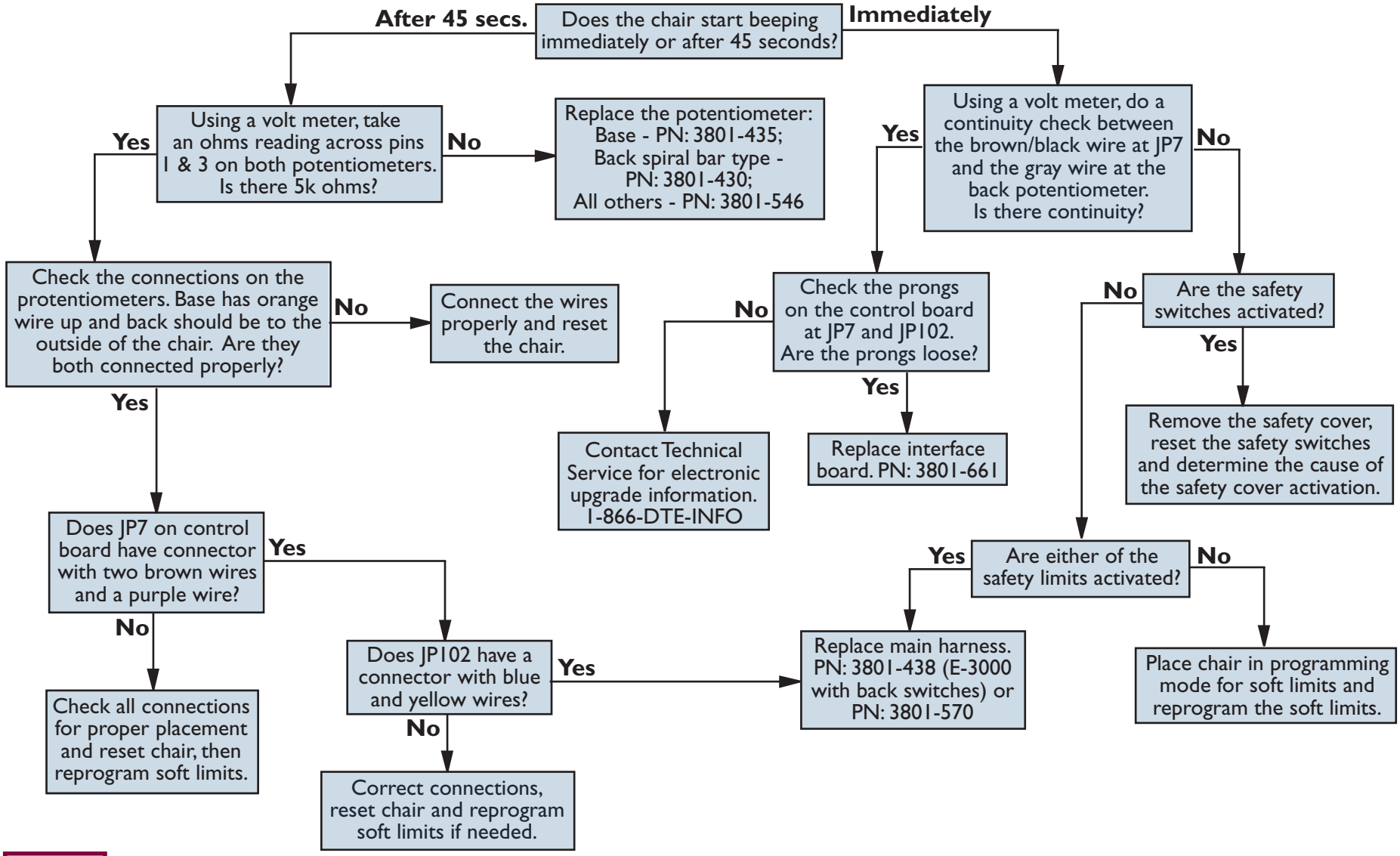


How is an old J-Chair model determined?

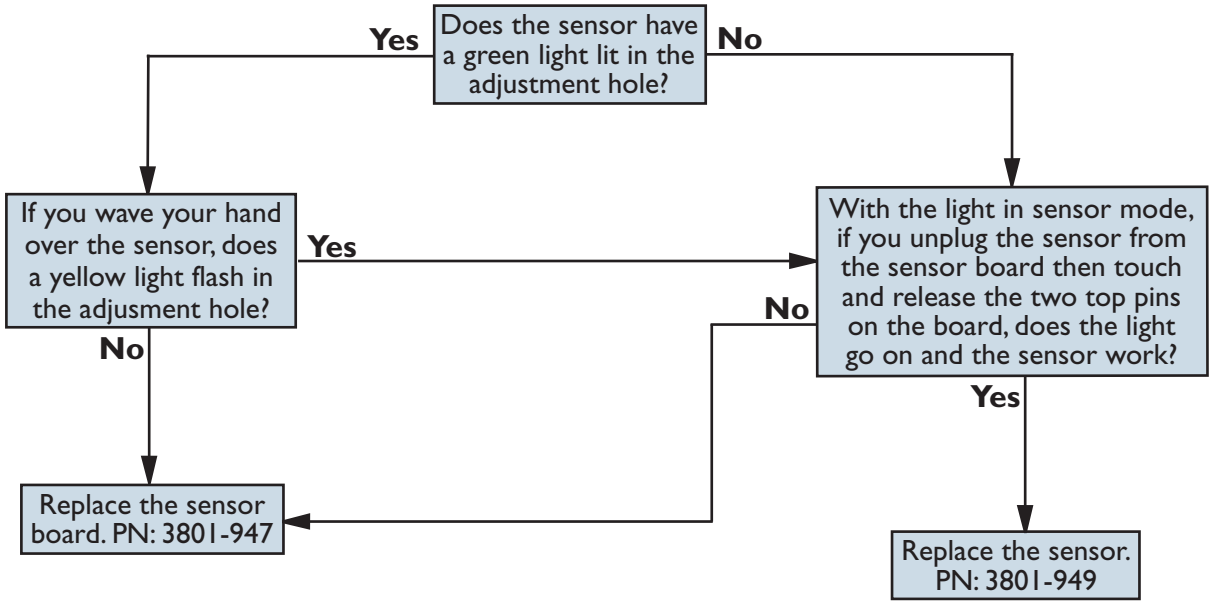


NOTE: If the chair has a split back (upper back moves up and down), the models would be V Series (V1, VS, VSR, VSA or VSAR).

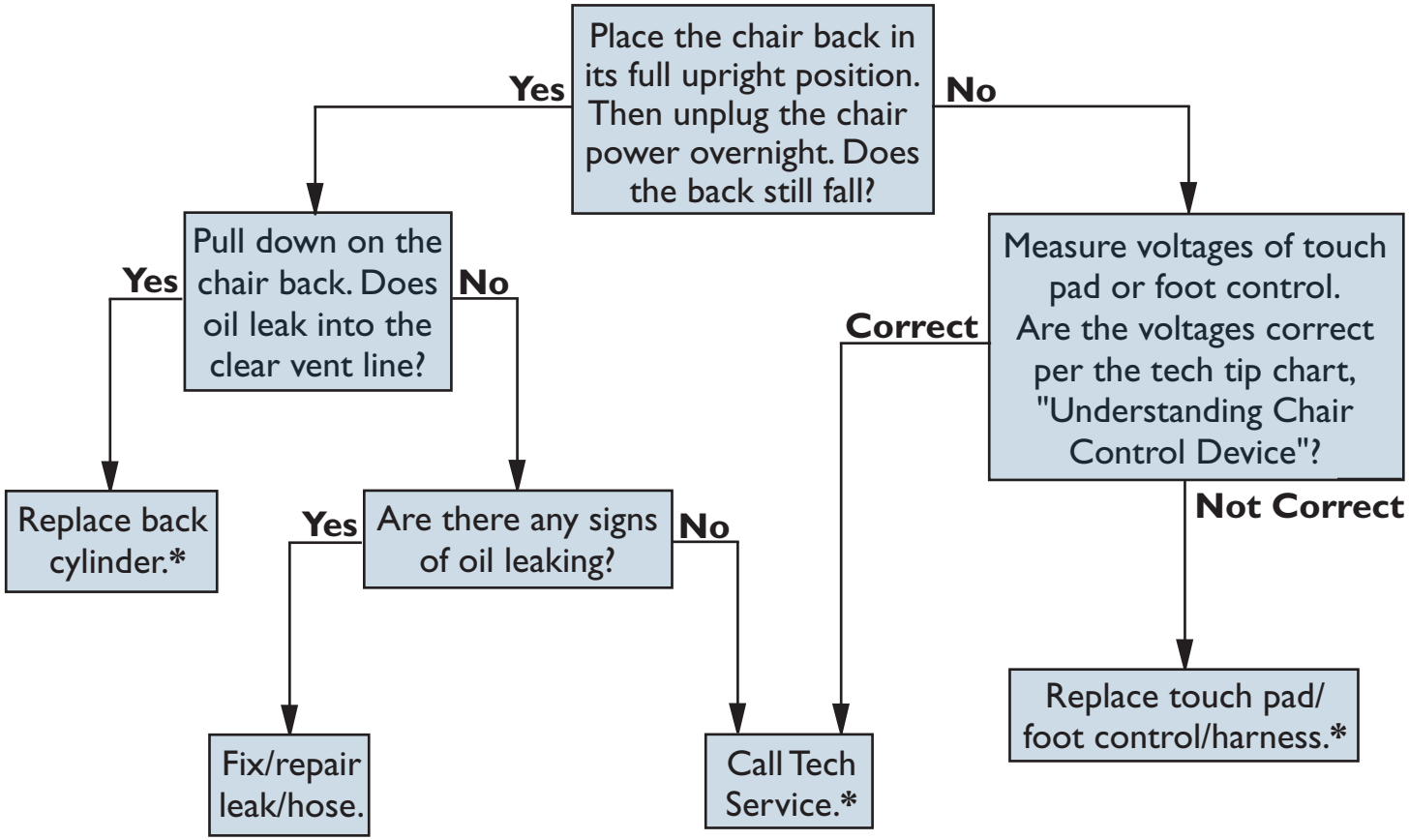
Why does the chair beep after installing a new potentiometer? (E-3000/aXcs)



Why won't the sensor work?
(Lumina® Light)

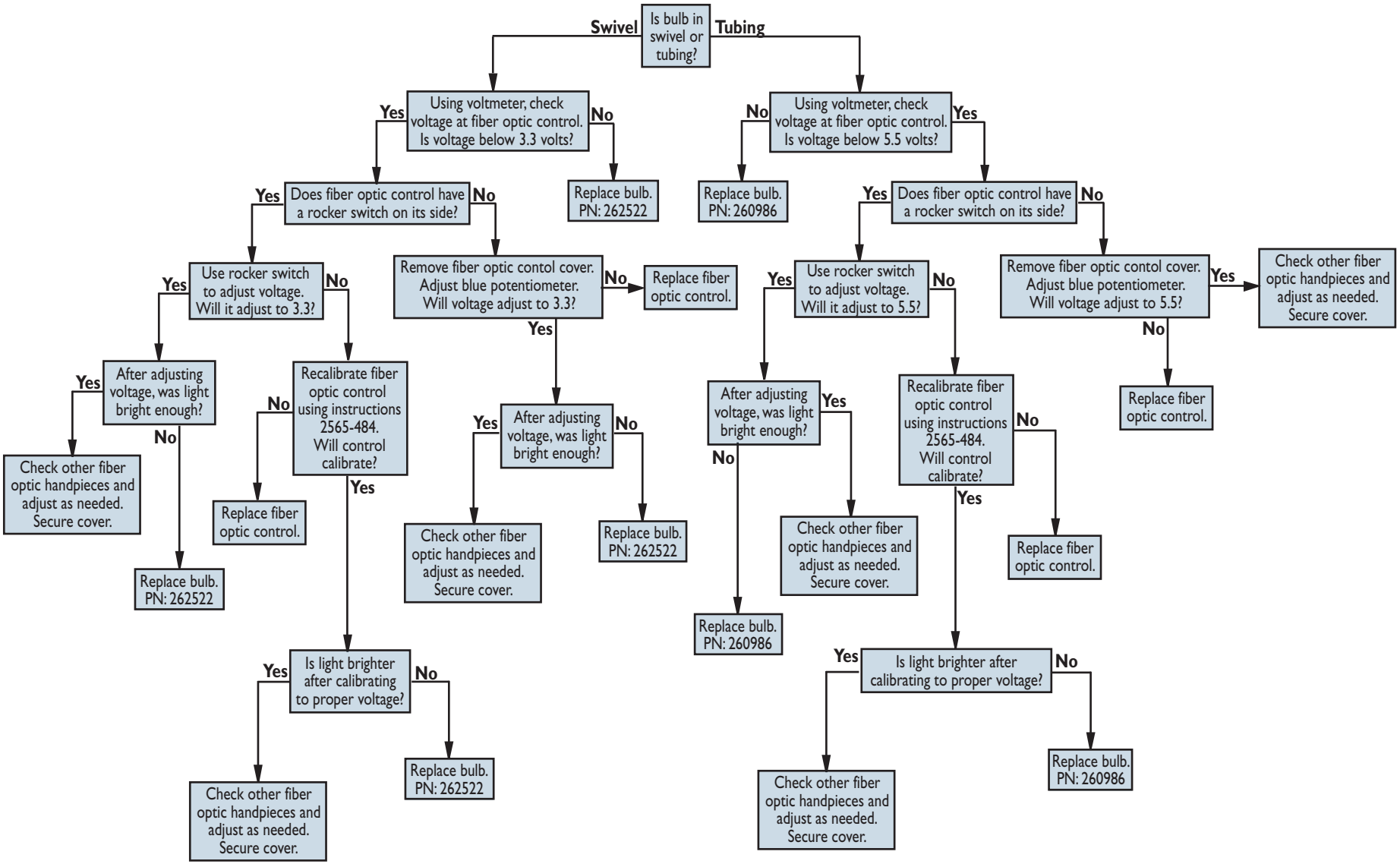


Why does the hydraulic chair back fall overnight?

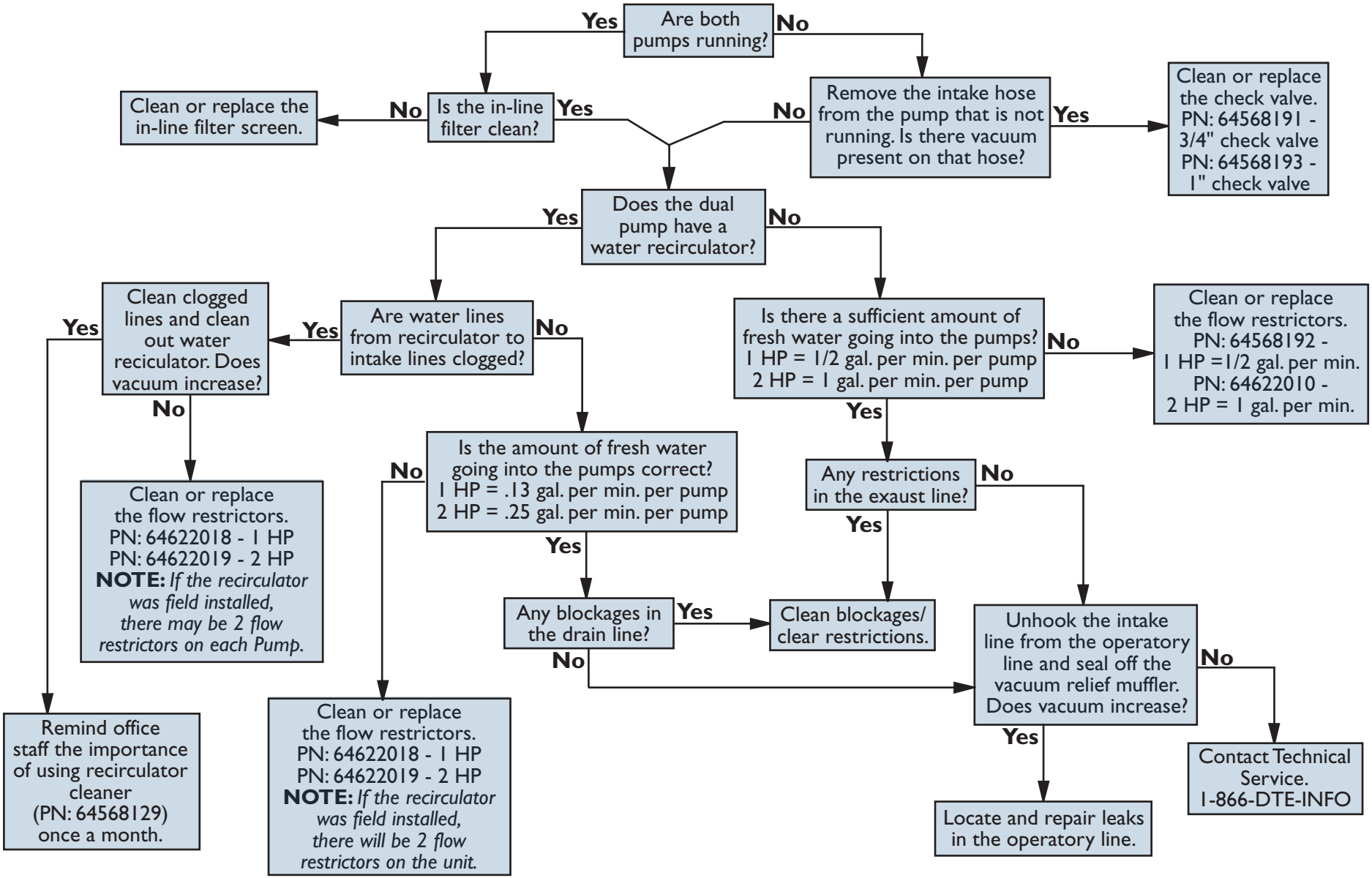


**Call Tech Service for information & correct PNs. (1-866-DTE-INFO)*

Why isn't the fiber optic bright enough?



Why is vacuum from dual pump weak?



How is a light pivot adjustment made?

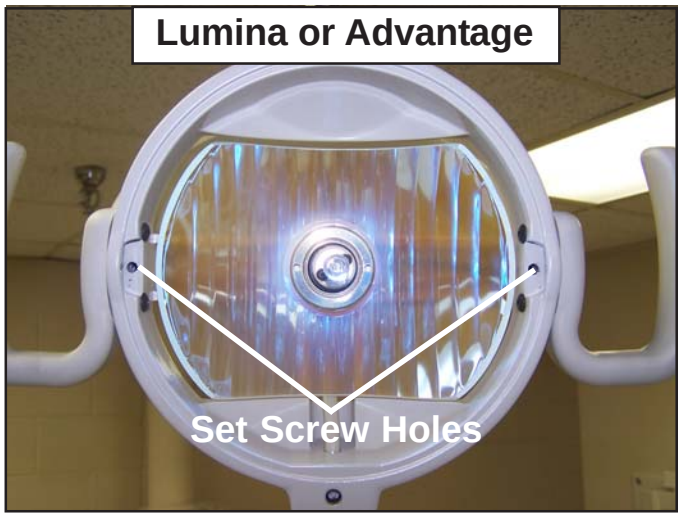
Light Pivot Adjustment (Lumina®, Advantage by DentalEZ™ and Simplicity by DentalEZ™)

To adjust the pivot of the Lumina or Advantage light do the following:

Tool required:

- 5/64 Allen Wrench.

1. Squeeze on both sides of the splash shield on the face of the light and remove the shield.
2. Locate the two set screw holes on each side of the light.
3. Using a 5/64 Allen wrench, adjust only one side at a time.

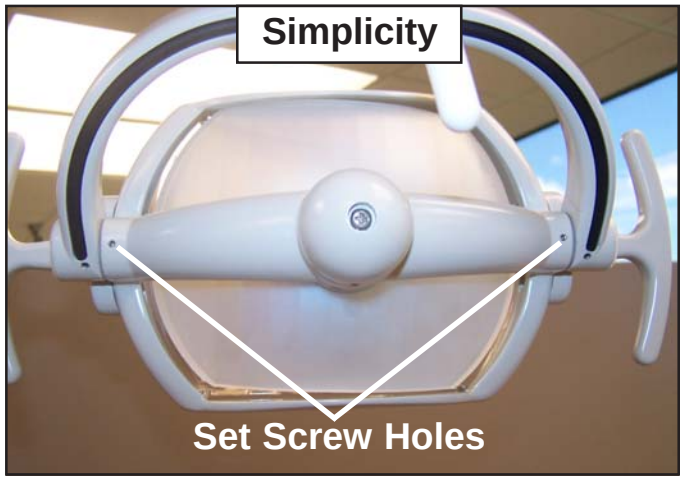


To adjust the pivot of the Simplicity light do the following:

Tool required:

- 1.5 mm Allen Wrench

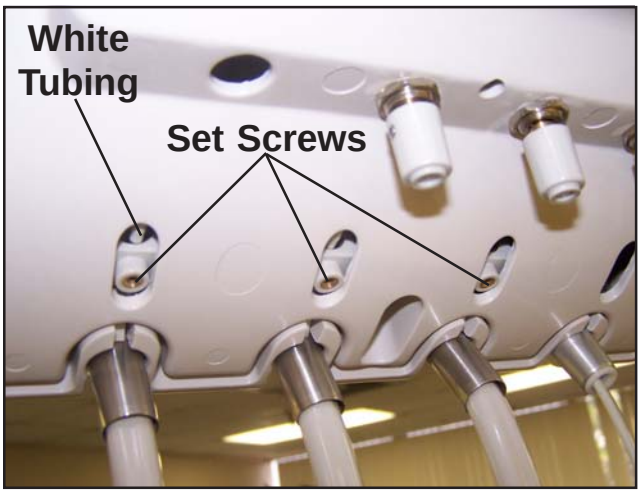
1. Locate the two set screws on the outer yoke of the light.
2. Using a 1.5 mm Allen wrench adjust only one side at a time.



How is a handpiece actuator valve adjustment made? (Galaxy® Traditional Head)

Tools required:

- 1/16" Allen Wrench
- Small Needle-nose Pliers



Perform the following steps for each actuator valve that needs adjusting:

1. Flip the master switch to the **OFF** position.
2. Determine which handpiece(s) need adjusting, then remove the appropriate handpiece(s) from the holder(s).
3. Using a 1/16" Allen wrench, loosen, but don't remove, the appropriate set screw inside the brass inserts located on the bottom of the unit head.
4. Using small needle-nose pliers, gasp the white tubing for the appropriate handpiece and move the acutator valve forward toward the face of the unit for better activation of the plunger. *(Adjusting the actuator valve too far forward will prevent the handpiece from sitting correctly in the holder.)*
5. Tighten the set screw to hold the actuator in place.
6. Flip the master switch to the **ON** position.
7. Place the handpiece back into the holder and press the foot control. *(The handpiece should not run while it is in the holder.)*
8. Remove the handpiece from the holder and press the foot control. *(The handpiece should run when it is out of the holder.)*