

**To Protect Your Warranty, Use Only ENERPAC Hydraulic Oil.**

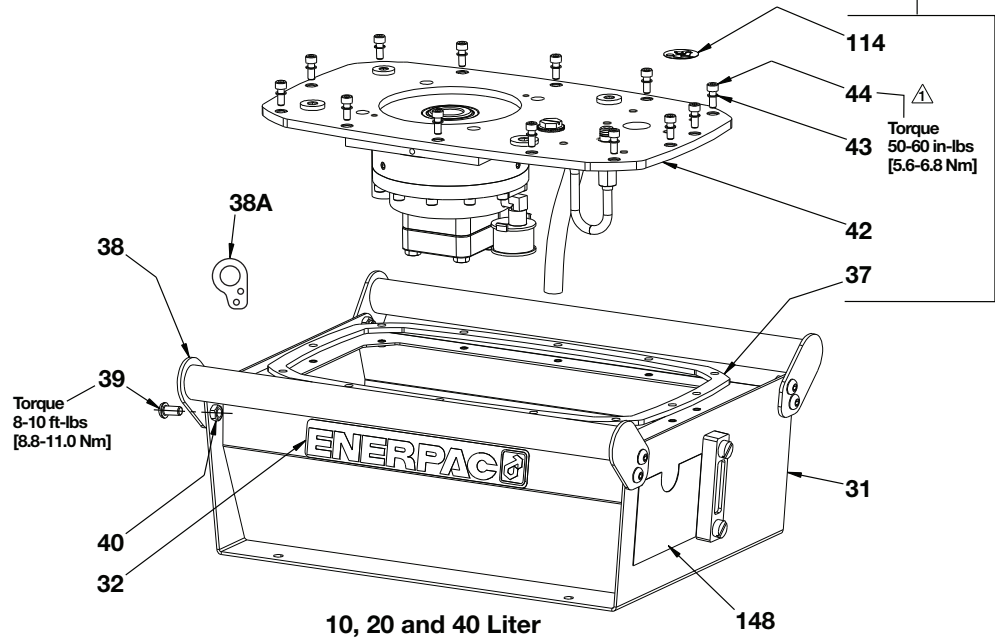
Enerpac recommends that all kit components be installed to insure optimum performance of the repaired product.

**Index:**

|                 |      |
|-----------------|------|
| English.....    | 1-14 |
| Français.....   | N/A  |
| Deutsch.....    | N/A  |
| Italiano.....   | N/A  |
| Español.....    | N/A  |
| Nederlands..... | N/A  |
| Portuguese..... | N/A  |
| Finnish.....    | N/A  |
| Norwegian.....  | N/A  |
| Swedish.....    | N/A  |
| 中文.....         | N/A  |
| 日本語.....        | N/A  |

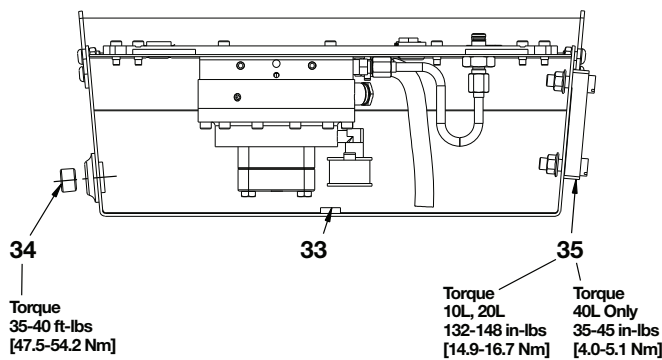
**Notes:**  
⚠ Apply Loctite 243 to threads.

**All Models**



See page 3 for parts list

**10, 20 and 40 Liter**



**4 and 8 Liter**

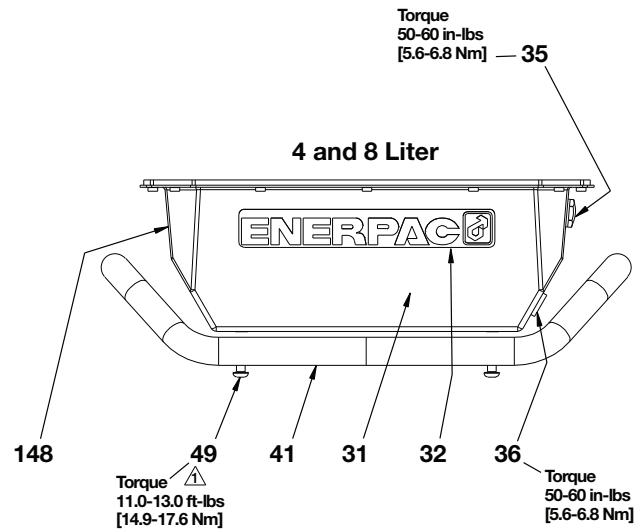
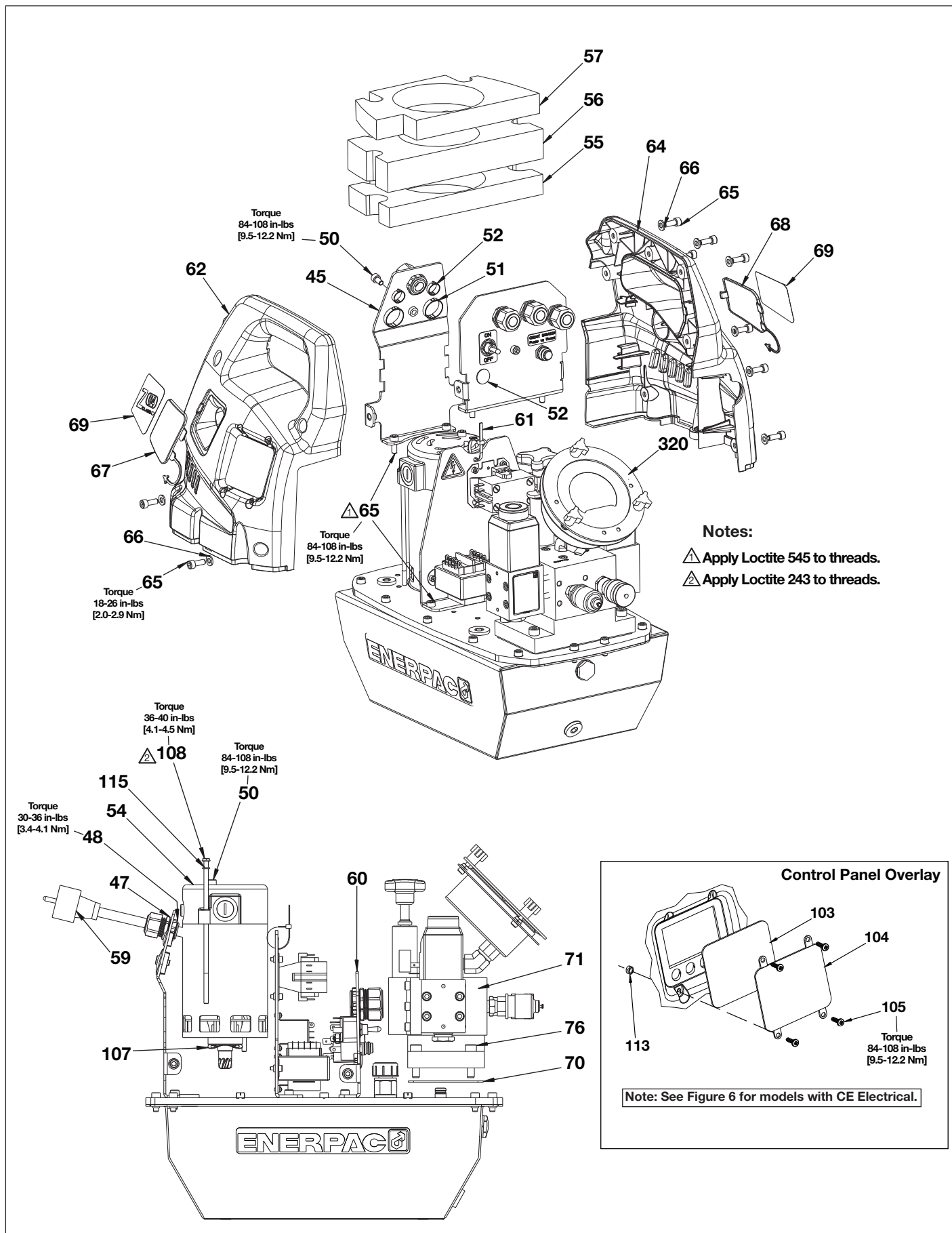


Figure 1, Reservoir Assembly



### Repair Parts List for Figures 1 and 2

| Item | Part Number    | Qty. | Description              | Item | Part Number    | Qty. | Description              |
|------|----------------|------|--------------------------|------|----------------|------|--------------------------|
| 31   | ▲ DC9379025SR  | 1    | Reservoir, 4L            | 54   | (See Figure 7) | 1    | Motor, 230V              |
|      | ▲ DC8136025SR  | 1    | Reservoir, 8L            | 55   | DC9401298      | 1    | Baffle, Lower ZU4        |
|      | ◆ DC9970025SR  | 1    | Reservoir, 10L           | 56   | DC9400298      | 1    | Baffle, Middle ZU4       |
|      | ◆ DC9971025SR  | 1    | Reservoir, 20L           | 57   | DC9402298      | 1    | Baffle, Upper ZU4        |
|      | ◆ DC9972025SR  | 1    | Reservoir, 40L           | 59   | DC8286960      | 1    | Power Cord, 115V 15A     |
| 32   | ★ DC9596026    | 2    | Reservoir Decal          |      | DC8287960      | 1    | Power Cord, 230V         |
| 33   | C187018        | 1    | Magnet                   |      | DC8288960      | 1    | Power Cord, CE 230V      |
| 34   | A1010245       | 1    | Flush Plug, 1/2          | 60   | (See Figure 4) | 1    | Bracket Assy, 115V       |
| 35   | DC85900SR      | 1    | Sight Glass, 4L & 8L     |      |                | 1    | Bracket Assy, 230V       |
|      | DC2621223      | 1    | 3" Sight Glass, 10L      | 61   | DC9876647      | 1    | Cable Tie, Black         |
|      | DC2622223      | 1    | 5" Sight Glass, 20L      | 62   | DC9640424      | 1    | Enclosure, Left ZU4      |
|      | DC9969223      | 1    | 7" Sight Glass, 40L      | 64   | DC9641424      | 1    | Enclosure, Right ZU4     |
| 36   | DC8249006      | 1    | Plug, Magnetic SAE #8    | 65   | CBE619028-1A   | 15   | SHCS, M6 X 16            |
| 37   | ★ DC9551920    | 1    | Reservoir Gasket, Z      | 66   | CAE1060108-1A  | 9    | Flat Washer, M6          |
| 38   | DC9542920      | 2    | Reservoir Handle, Z      | 67   | DC9414424      | 1    | Brush Cover, Left        |
| 38A  | DC9895101      | 4    | Lift Plate, 10, 20 & 40L | 68   | DC9413424      | 1    | Brush Cover, Right       |
| 39   | CBE819028-1E   | 8    | BHCS, M8 X 16 mm         | 69   | ★ DC9598026    | 1    | Cover Decals, LH & RH    |
| 40   | CBE1080120-2A  | 8    | Lock Nut, M8             | 70   | ★ DC9356037    | 1    | Gasket, Valve            |
| 41   | DC9590920      | 1    | Skid Plate               | 71   | (See Below)    | 1    | Control Valve Assy.      |
| 42   | (See Figure 3) | -    | Basic Assembly           | 76   | CBE825028-1A   | 4    | SHCS                     |
| 43   | ★ S3037        | 13   | Gasket                   | 103  | DC8241037      | 1    | Gasket, Overlay          |
| 44   | CBE619028-1A   | 13   | SHCS, M6 X 16 mm         | 104  | DC8240026      | 1    | Overlay                  |
| 45   | DC9405111      | 1    | Back Bracket ZU4         | 105  | CBE415028-1A   | 4    | SHCS, M4                 |
| 47   | B1223503       | 1    | O-Ring                   | 107  | DC9661066      | 1    | Wavey Washer             |
| 48   | DC9538021      | 1    | Locking Nut, 20 mm       | 108  | DC9653028      | 2    | Bolt, #10-32x6.5         |
| 49   | CBE817028-1E   | 4    | BHCS, M8 X 12 mm         | 113  | CBE1040120-1D  | 4    | Nut, M4                  |
| 50   | CBE615028-1A   | 1    | SHCS, M6 X 10 mm         | 114  | DC9920026      | 1    | Decal, Read Instructions |
| 51   | DC9435009      | A/R  | Dome Plug, 1"            | 115  | B1080066       | 2    | Star Washer              |
| 52   | DC9436009      | A/R  | Dome Plug, 16 mm         | 148  | DC8260026      | 1    | Decal, Prod. Spec.       |
| 54   | (See Figure 7) | 1    | Motor, 115V              | 320  | DC7078900      | 1    | Kit, Overlay, 10000 PSI  |

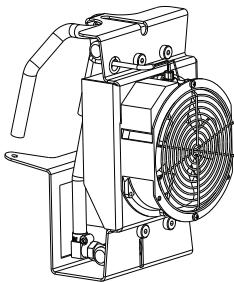
★ Items included in and available only as part of Repair Kit ZU4K.

A/R - As Required.

▲ Includes items 32, 35, 36 and 37.

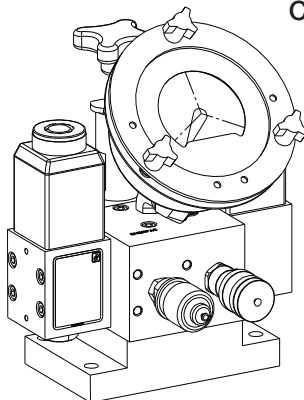
◆ Includes items 32, 33, 34, 35 and 37.

#### Heat Exchanger (Optional Accessory)



See Repair Parts Sheet L2752

#### Control Valve & Manifold Assemblies (item 71)



| Valve Model     | Part Number |
|-----------------|-------------|
| VE42Q 115 Volt  | DC7714950   |
| VE42Q 230 Volt  | DC7715950   |
| VE42QM 115 Volt | DC7716950   |
| VE42QM 230 Volt | DC7717950   |

See Repair Parts Sheet L2617

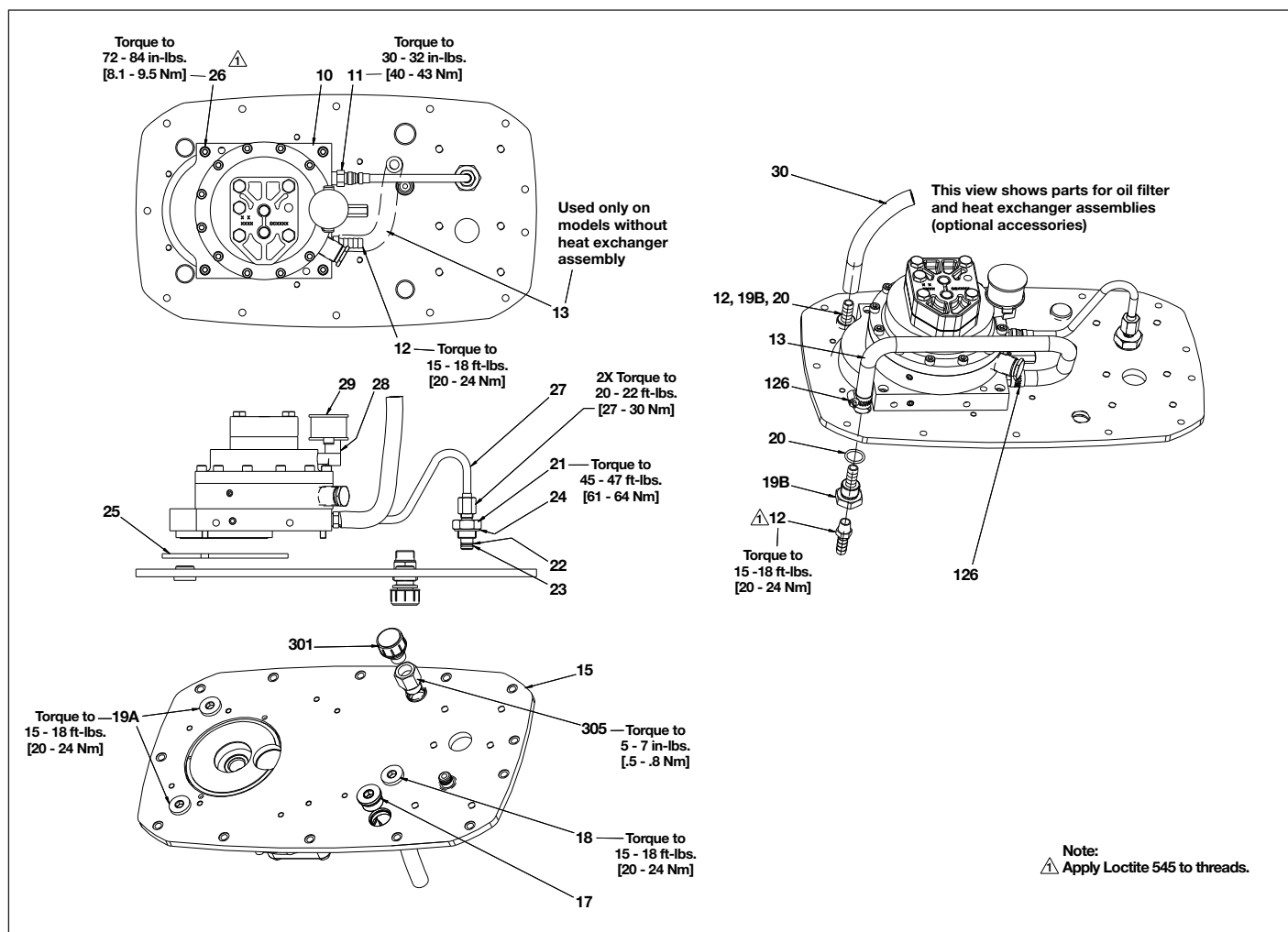


Figure 3, Basic Assembly

| Repair Parts List for Figure 3     |              |      |                          |      |              |      |                           |
|------------------------------------|--------------|------|--------------------------|------|--------------|------|---------------------------|
| Item                               | Part Number  | Qty. | Description              | Item | Part Number  | Qty. | Description               |
| 10                                 | Pump Element | 1    | see RPS L2596 for MPE    | 24   | ★ DC9271167  | 1    | Copper Gasket             |
| 11                                 | F100094-246  | 1    | Fitting 5-4 FTX-S        | 25   | ★ DC9551920  | 1    | Pump Gasket               |
| 12                                 | F100097-16   | 1    | Fitting, Standard Pump   | 26   | CBE621028-1A | 4    | SHCS, M6 X 20             |
| 13                                 | DC9416646    | 1    | Hose, Heat Exc. Pump 23" | 27   | DC9447920    | 1    | Tube, ASM Steel           |
|                                    | DC9335646    | 1    | Hose, Bypass 8"          | 28   | DC9600268    | 1    | Intake Tube, 1.6" 4L & 8L |
| 15                                 | DC9407101    | 1    | Cover Plate, Universal   |      | DC9601268    | 1    | Intake Tube, 2" 10L       |
| 17                                 | B1007006     | 1    | Plug SAE #10             |      | DC9524268    | 1    | Intake Tube, 3" 20L       |
| 18                                 | B1006006     | 1    | Plug, Socket             |      | DC9603268    | 1    | Intake Tube, 6.5" 40L     |
| 19A                                | B1006006     | 2    | Plug, SAE #8 Std. Pump   | 29   | DC9178118    | 1    | Intake Filter             |
| 19B                                | DC9273097    | 2    | Fitting, Heat Exc. Pump  | 30   | DC9418646    | 1    | Return Hose, Heat Exc.    |
| 20                                 | ★ B1908503   | 2    | O-Ring, Heat Exc. Pump   | 126  | DC9639299    | 2    | Clamp, Heat Exc. Pump     |
| 21                                 | DC9173690    | 1    | Connector Fitting        | 301  | DC8250006    | 1    | Breather Assy             |
| 22                                 | ★ BSS0368D   | 1    | Back-up                  | 305  | F100096-38   | 1    | Adapter                   |
| 23                                 | ★ B1012803   | 1    | O-Ring                   |      |              |      |                           |
| ★ Items included in Seal Kit ZU4K. |              |      |                          |      |              |      |                           |

See Figure 9 for electrical diagram

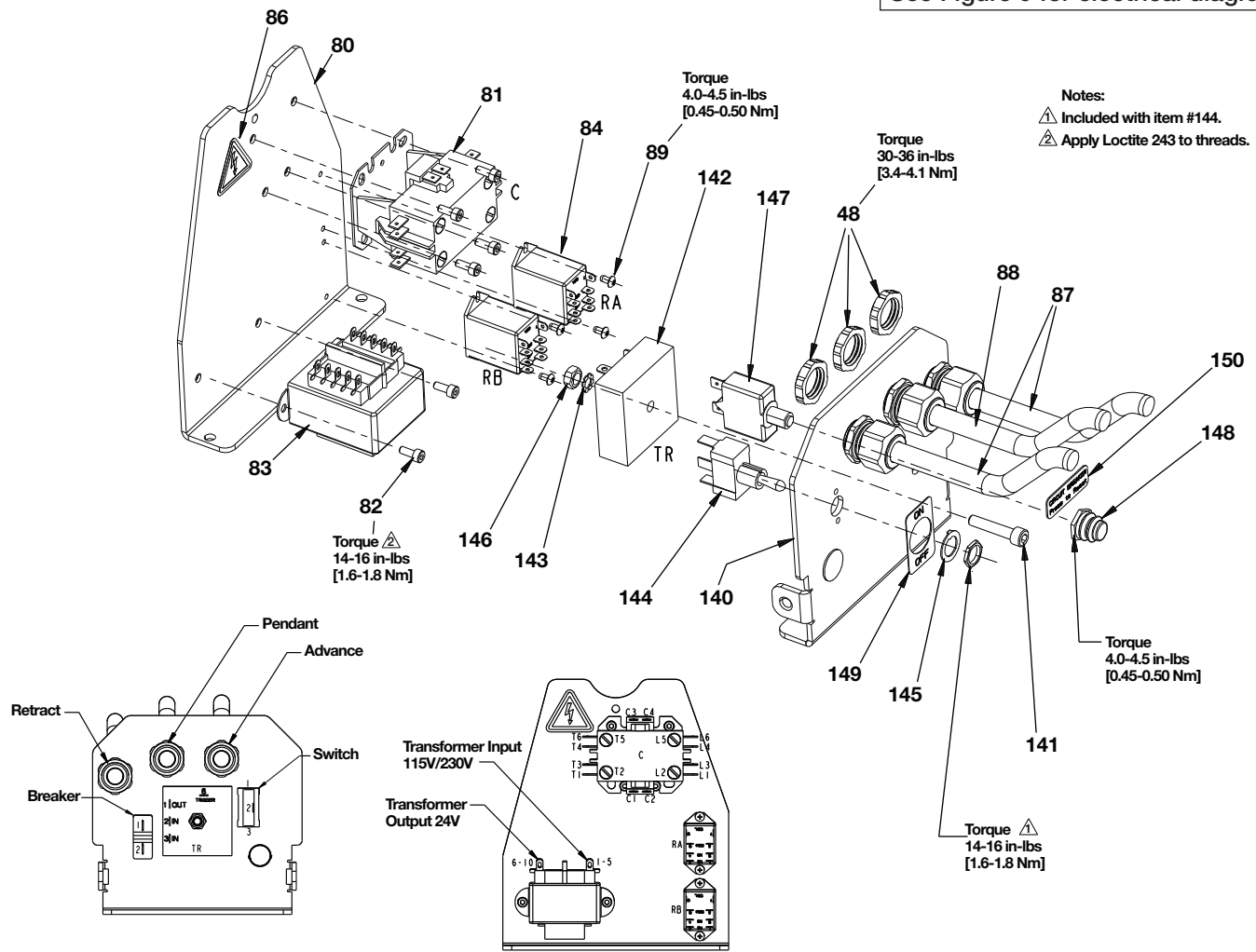


Figure 4, Front and Mid Bracket Assemblies

Repair Parts List for Figure 4

| Item | Part Number   | Qty. | Description               | Item                       | Part Number   | Qty. | Description                        |
|------|---------------|------|---------------------------|----------------------------|---------------|------|------------------------------------|
| 48   | DC9538021     | 3    | Locking Nut, 20mm         | 145                        | DC8230108     | 1    | Ring, Locking                      |
| 80   | DC8354111     | 1    | Bracket, Middle, PT/BTW   | 146                        | CBE1060120-1D | 1    | Nut, 6mm                           |
| 81   | DC8193398     | 1    | Contactor                 | 147                        | DC8309380     | 1    | Circuit Breaker, 12A (230V)        |
| 82   | CBE415028-1A  | 6    | Screw, SHCS M4 x 10       |                            | DC8308380     | 1    | Circuit Breaker, 25A (115V)        |
| 83   | DC8279480     | 1    | Transformer               | 148                        | DC8200380     | 1    | Cap, Circuit Breaker               |
| 84   | DC8280980     | 2    | Relay                     | 149                        | DC8292026     | 1    | Decal, On-Off                      |
| 86   | DC9922026     | 1    | Decal, High Voltage       | 150                        | DC8237026     | 1    | Decal, CB Reset                    |
| 87   | DC8289960     | 2    | Cable, Solenoid           | 260                        | ▲ DC8317960   | 1    | Wire, Contactor to timer           |
| 88   | - - -         | 1    | Pendant Assy (See Fig. 5) | 261                        | ▲ DC8316960   | 2    | Power Cable, Solenoid              |
| 89   | DA3639028     | 4    | Self Tapping Screw        | 262                        | ▲ DC8315960   | 1    | Relay Bridge                       |
| 140  | DC8353111     | 1    | Bracket, Front, PT/BTW    | 263                        | ▲ DC8314960   | 2    | Wire, Transformer Output           |
| 141  | CBE625028-1A  | 1    | Screw, M6 x 1 x 30 Zinc   | 264                        | ▲ DC8313960   | 2    | Wire, Contactor to Transformer     |
| 142  | DC8281784     | 1    | Timer, 15 Sec. BTW        | 265                        | ▲ DC8312960   | 1    | Wire, Overload to Contactor        |
| 143  | CCE1060108-6A | 1    | Starwasher, 6mm           | 266                        | ▲ DC8318960   | 1    | Wire, Contactor to relay and timer |
| 144  | DC8307372     | 1    | Switch, Motor             | ▲ Items 260-266 not shown. |               |      |                                    |

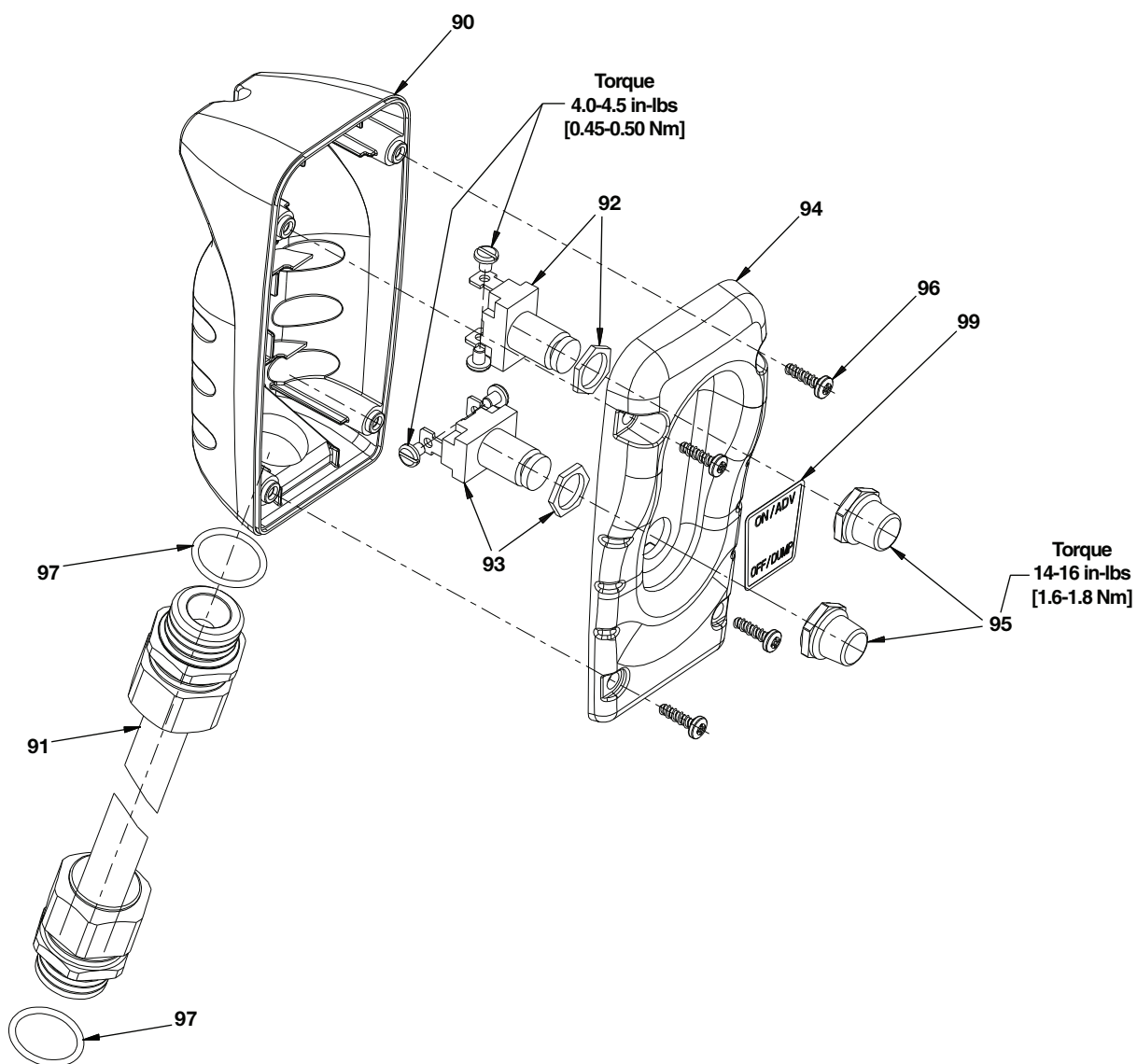


Figure 5, Pendant Assembly

### Repair Parts List for Figure 5

| Item | Part Number | Qty. | Description        | Item | Part Number | Qty. | Description            |
|------|-------------|------|--------------------|------|-------------|------|------------------------|
| 90   | DC9425424   | 1    | Enclosure, Lower   | 95   | DC8284379   | 2    | Switch Cover           |
| 91   | DC8285960   | 1    | Pendant Wire, BTW  | 96   | DC9428008   | 4    | Screw, Hi-Low #8 x 1/2 |
| 92   | DC8282379   | 1    | Pendant Button, NO | 97   | B1223503    | 2    | O-Ring                 |
| 93   | DC8283379   | 1    | Pendant Button, NC | 99   | DC8127026   | 1    | Decal, Pendant         |
| 94   | DC8122424   | 1    | Enclosure, Upper   |      |             |      |                        |

Note: Pendant Kit ZCP-2M includes all items shown above.

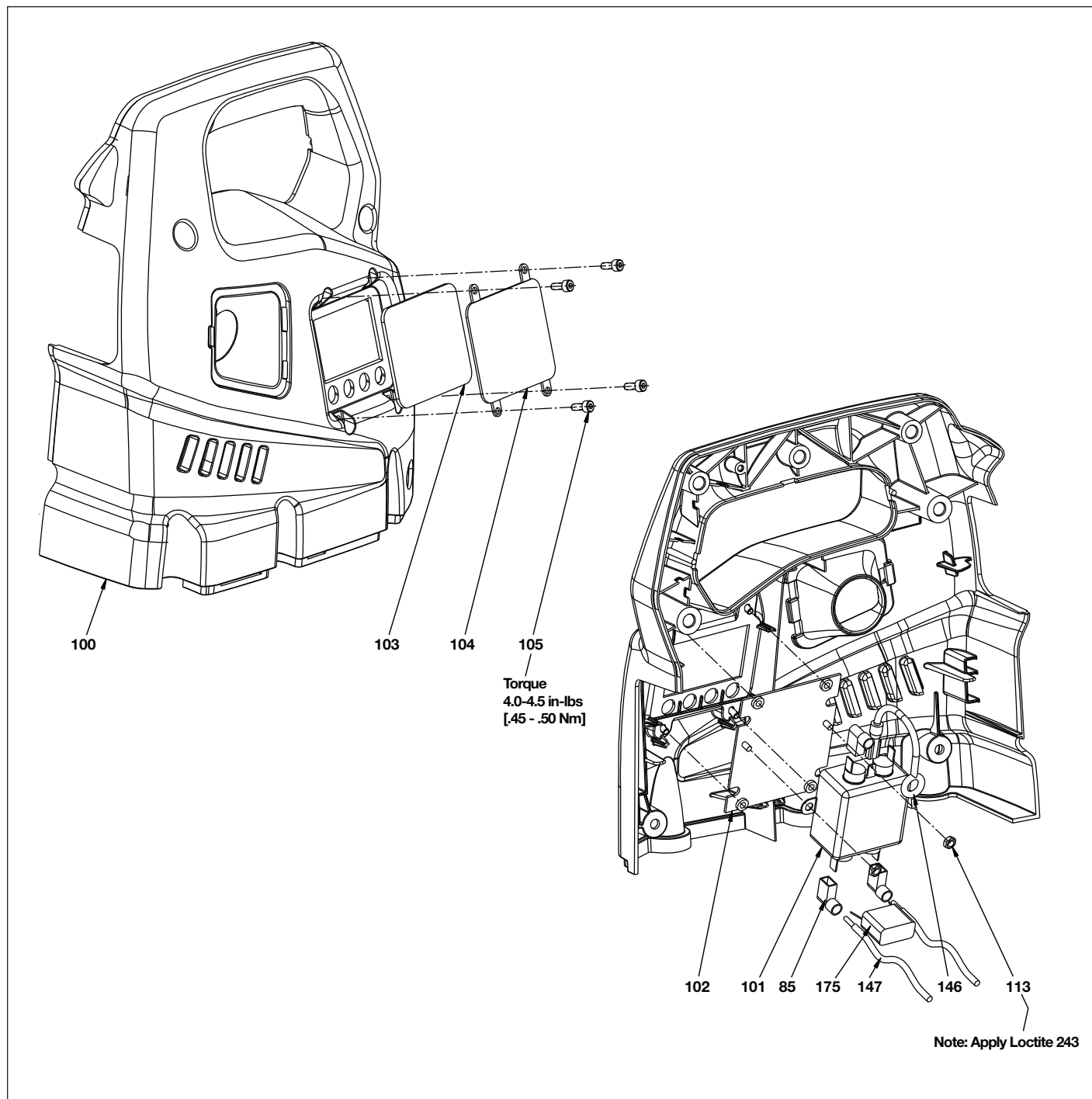
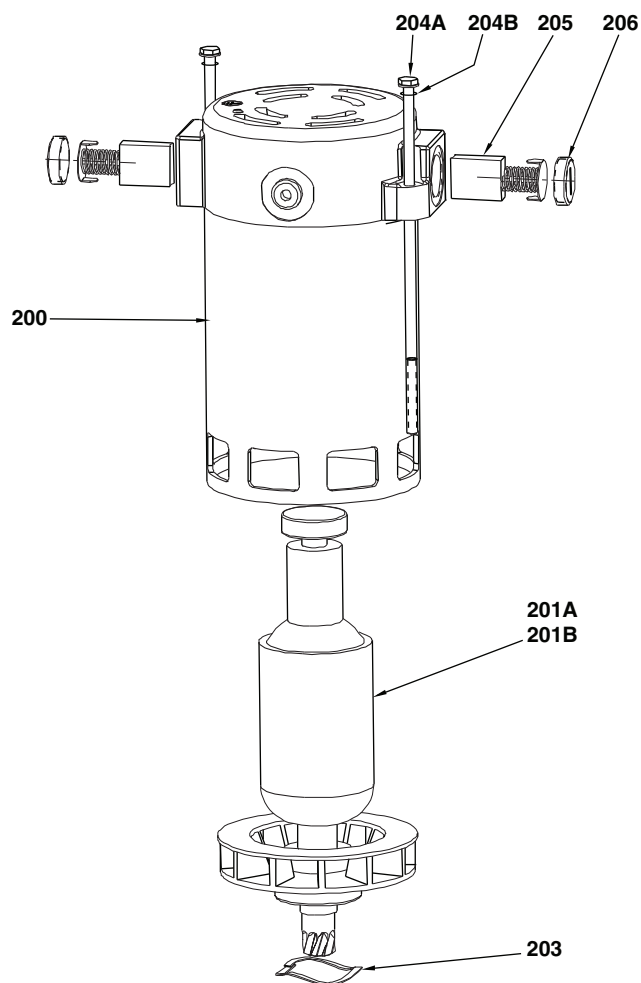


Figure 6, Shroud Assembly with R/F Filter (CE Models Only)

| Repair Parts List for Figure 6 |             |      |                      |      |               |      |                         |
|--------------------------------|-------------|------|----------------------|------|---------------|------|-------------------------|
| Item                           | Part Number | Qty. | Description          | Item | Part Number   | Qty. | Description             |
| 85                             | E1001352    | 4    | Flag Connector, 1/4" | 105  | CBE415028-1A  | 4    | SHCS, M4                |
| 100                            | DC9640424   | 1    | Enclosure, Left ZU4  | 113  | CBE1040120-1D | 2    | Nut, M4                 |
| 101                            | DC9580380   | 1    | RF In-line filter    | 146  | DC9583960     | 1    | Ground Earth Wire       |
| 102                            | DC8290111   | 1    | CE Bracket           | 147  | DC9893960     | 3    | RF Filter Wire          |
| 103                            | DC8241037   | 1    | Gasket, Overlay      | 175  | DC9579382     | 1    | Capacitor, 1 Microfarad |
| 104                            | DC8240026   | 1    | Overlay              |      |               |      |                         |



**Figure 7, Motor Assembly, Universal**

| Repair Parts List for Figure 7                                                                                                                                                       |               |      |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------|--------------------------------|
| Item                                                                                                                                                                                 | Part Number   | Qty. | Description                    |
| 85                                                                                                                                                                                   | E1001181      | 2    | Terminal, Flag (not shown)     |
| 200                                                                                                                                                                                  | Not Available | -    | Housing (order complete motor) |
| 201A                                                                                                                                                                                 | DC8246736     | 1    | Armature, 115V, ZU4            |
| 201B                                                                                                                                                                                 | DC8247736     | 1    | Armature, 230V, ZU4            |
| 203                                                                                                                                                                                  | DC9661066     | 1    | Spring Washer                  |
| 204A                                                                                                                                                                                 | DC9653028     | 2    | Bolt, #10-32 X 6.5"            |
| 204B                                                                                                                                                                                 | B1080066      | 2    | Star Washer                    |
| 205                                                                                                                                                                                  | DC9656259     | 2    | Brush, ZU4                     |
| 206                                                                                                                                                                                  | DC9655020     | 2    | Brush Cap, ZU4                 |
| <ul style="list-style-type: none"> <li>• DC8244259SR - Complete 115 V motor - Includes above parts.</li> <li>• DC8245259SR - Complete 230 V motor - Includes above parts.</li> </ul> |               |      |                                |

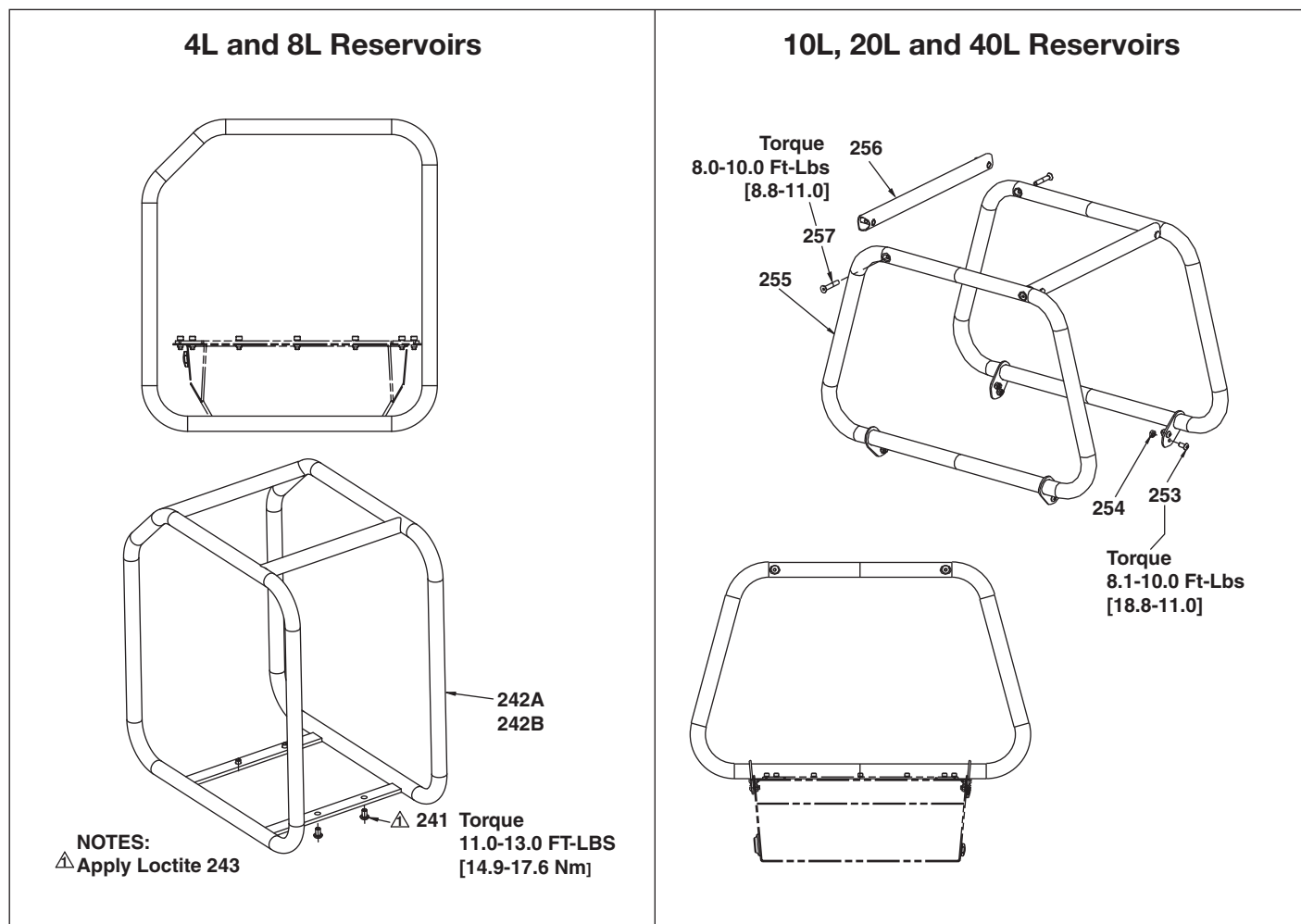


Figure 8, Roll Bar Assembly (optional accessory)

| Repair Parts List for Figure 8                                    |              |      |                               |                                                          |               |      |                      |
|-------------------------------------------------------------------|--------------|------|-------------------------------|----------------------------------------------------------|---------------|------|----------------------|
| Item                                                              | Part Number  | Qty. | Description                   | Item                                                     | Part Number   | Qty. | Description          |
| 241                                                               | CBE817028-1E | 4    | BHCS M8 x12                   | 254                                                      | CBE1080120-2A | 8    | M8 Lock Nut          |
| 242A                                                              | ▲ DC8040920  | 1    | Roll Cage, 4L & 8L, w/o HX    |                                                          | DC9460268     | 2    | Roll Bar Spacer, 10L |
| 242B                                                              | ◆ DC8323920  | 1    | Roll Cage, 4L & 8L, with HX   | 256                                                      | DC9461268     | 2    | Roll Bar Spacer, 20L |
| 253                                                               | CBE819028-1E | 8    | M8-1 x 16 mm BHCS             |                                                          | DC9462268     | 2    | Roll Bar Spacer, 40L |
| 255                                                               | DC9618920    | 2    | Roll Bar Side, 10L, 20L & 40L | 257                                                      | CBE837028-1B  | 4    | M8 x 60 HSCH Screw   |
| ▲ Models without heat exchanger.<br>◆ Models with heat exchanger. |              |      |                               | <b>Note:</b> See table below for complete roll bar kits. |               |      |                      |

| Roll Bar Kits |                                |
|---------------|--------------------------------|
| Part Number   | Fits Reservoir Size            |
| ZRC-04        | 4L & 8L without heat exchanger |
| ZRC-04H       | 4L & 8L with heat exchanger    |
| ZRB-10        | 10L                            |
| ZRB-20        | 20L                            |
| ZRB-40        | 40L                            |

115 Volts or 230 Volts 50 or 60 Hz., AC  
Line Voltage In

Power Cord  
DC8286960 for 115V, DC8287960 for 230V,  
DC8288960 for CE 230V

# FUNCTIONAL CHART:

| DESCRIPTION                                          | a2  | b 1      | b2                       | RA  | RB  | TR  | C   | M1 & M2 | S1  | S2  |
|------------------------------------------------------|-----|----------|--------------------------|-----|-----|-----|-----|---------|-----|-----|
|                                                      | OFF | released | released                 | OFF | OFF | OFF | OFF | STOP    | OFF | ON  |
|                                                      | ON  | released | released                 | ON  | OFF | OFF | OFF | STOP    | OFF | OFF |
| C, M1 & M2<br>will be off<br>after the<br>time delay | ON  | released | pressed<br>&<br>released | ON  | ON  | ON  | ON  | RUN     | ON  | OFF |
|                                                      | ON  | pressed  | released                 | OFF | OFF | OFF | OFF | STOP    | OFF | ON  |

Dual Primary Transformer  
25 VA. Class 2  
DC8279480

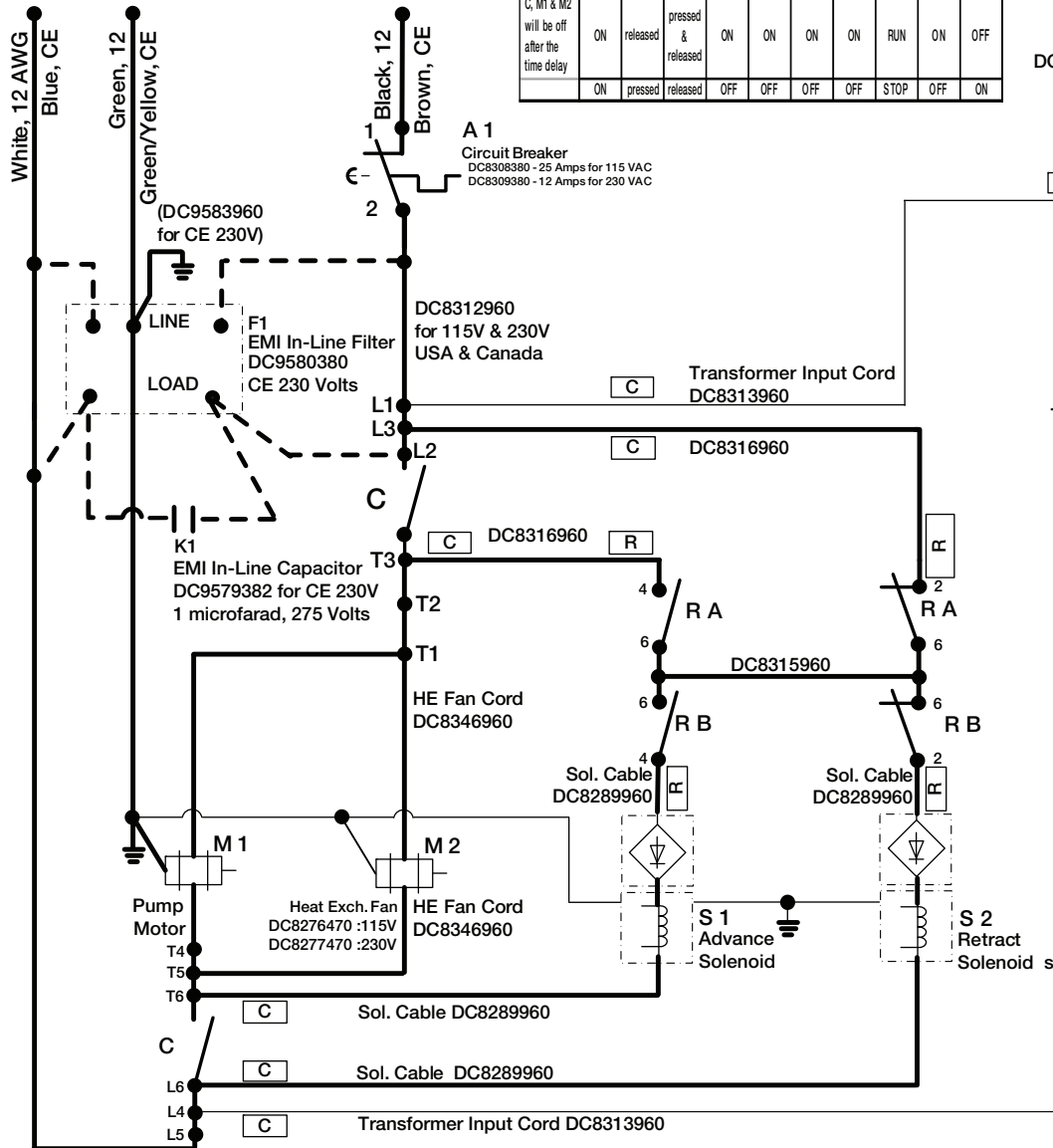
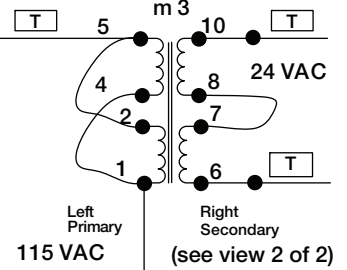
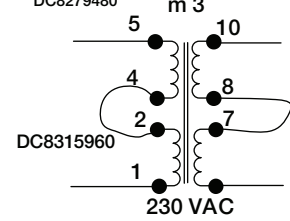


Figure 9, Electrical Diagram, ZU4 Classic Bolting Pump (View 1 of 2)



| Troubleshooting Guide                                  |                                          |                                                                                                                                             |                                                                                                                                                          |
|--------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symptoms:                                              | Probable Causes:                         | Check and/or inspect:                                                                                                                       | Corrective Action:                                                                                                                                       |
| 1. Pump does not start when ON/ADV button is pressed.  | a. Power cord unplugged.                 | a. Is the power cord plugged-in?                                                                                                            | a. No: Plug-in the power cord.                                                                                                                           |
|                                                        | b. Pump on/off switch in "OFF" position. | b. Is the switch in the "OFF" position?                                                                                                     | b. Yes: Move the switch to the "ON" position.                                                                                                            |
|                                                        | c. No power or line voltage too low.     | c. Does the power outlet provide the required voltage and current? Check description, check line voltage, check line fuses/circuit breaker. | c. No: Replace blown fuses and/or change over to an outlet with the appropriate voltage and current rating.                                              |
|                                                        | d. Power cord damaged.                   | d. Are there any visible damages (kinks, loose wire, missing insulation, etc.) on the power cord?                                           | d. Yes: Replace the power cord.                                                                                                                          |
|                                                        | e. Pendant cord damaged.                 | e. Are there any visible damages (kinks, loose wire, missing insulation, etc.) on the pendant cord?                                         | e. Yes: Replace the pendant cord.                                                                                                                        |
|                                                        | f. Pump circuit breaker (A1) tripped.    | f. Is the pump circuit breaker button extended?                                                                                             | f. Yes: Push the pump circuit breaker button to reset.                                                                                                   |
|                                                        | g. Motor brushes need replacement.       | g. Are the brushes worn down (.25" or less), damaged or burnt-out?                                                                          | g. Yes: Replace the brushes.                                                                                                                             |
|                                                        | h. Transformer (m1) defective. ♦         | h. Is 24 VAC present at the transformer secondary terminals?                                                                                | h. No: Replace the transformer (m1).                                                                                                                     |
|                                                        | i. Main relay (RA) defective. ♦          | i. Is the relay (RA) energized when the on/off switch (a2) is depressed?                                                                    | i. No: Replace the relay (RA).                                                                                                                           |
|                                                        | j. Timer module (TR) defective. ♦        | j. Does the timer Module "TR" contact close when the ON/ADV button (b2) is depressed?                                                       | j. No: Replace the timer module (TR).                                                                                                                    |
|                                                        | k. Contactor (C) defective. ♦            | k. Do the contactor "C" contacts close when the ON/ADV button (b2) is depressed?                                                            | k. No: Replace the contactor (C).                                                                                                                        |
|                                                        | l. Pump element mechanically blocked. ♦  | l. Does the motor (M1) try to start but not rotate when the motor is switched-on?                                                           | l. Yes: Remove and inspect the pump element. Repair or replace if necessary. Refer to Enerpac Repair Parts Sheet L2596 for additional information.       |
|                                                        | a. Power cord damaged.                   | a. Is there any visual damage (kinks, loose wire, missing insulation, etc.) on the power cord?                                              | a. Yes: Replace the power cord.                                                                                                                          |
|                                                        | b. Line voltage too low.                 | b. Does the power outlet provide the required voltage and current? Check description, check line voltage, check line fuses/circuit breaker. | b. No: Replace blown fuses and/or change over to an outlet with the appropriate voltage and current rating.                                              |
|                                                        | c. Pump circuit breaker (A1) tripped.    | c. Is the pump circuit breaker button extended?                                                                                             | c. Yes: Push the pump circuit breaker button to reset.                                                                                                   |
|                                                        | d. Automatic shut-off has occurred.      | d. Does the pump motor shut off approximately 15-20 seconds after the ON/ADV button is released?                                            | d. Yes: Normal operation. Timer module (T1) automatically shuts-off pump if the ON/ADV button is not depressed again within approximately 15-20 seconds. |
| 2. Pump stops running during idle or normal operation. |                                          |                                                                                                                                             |                                                                                                                                                          |

♦ It is recommended that these troubleshooting steps be performed by an Enerpac Authorized Service Center. To find your nearest Enerpac Authorized Service Center, please visit us at [www.enerpac.com](http://www.enerpac.com). Contact information for Enerpac worldwide locations can be found on the back page of this document.

**Important:** all repair procedures should be performed only by a trained and qualified repair technician.

## Troubleshooting Guide (Continued)

| Symptoms:                                                                 | Corrective Action:                                       | Check and/or inspect:                                                                           | Corrective Action:                                                                                                                                |
|---------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Wrench does not advance when ON/ADV button is depressed and held down. | a. User adjustable relief valve set too low.             | a. Is pressure set high enough for the bolting application?                                     | a. No: Raise relief valve pressure. Refer to Enerpac Instruction Sheet L2726 for adjustment procedure.                                            |
|                                                                           | b. Torque greater than wrench capacity at full pressure. | b. Is torque wrench sized too small?                                                            | b. Yes: Use torque wrench with larger capacity.                                                                                                   |
|                                                                           | c. Advance flow line restricted or blocked.              | c. Is a restriction in flow suspected?                                                          | c. Yes: Check couplers for full engagement.                                                                                                       |
|                                                                           | d. Advance solenoid coil (S1) defective. ♦               | d. Is line voltage present at terminals of advance solenoid coil (S1)?                          | d. Yes: Replace advance solenoid coil (S1).                                                                                                       |
|                                                                           | e. Solenoid switching relay (RB) defective. ♦            | e. Does the relay (RB) close when the ON/ADV button (b2) is depressed?                          | e. No: Replace the relay (RB).                                                                                                                    |
|                                                                           | f. Control valve out of adjustment or damaged. ♦         | f. Is the control valve operating properly?                                                     | f. No: Repair or replace control valve. Refer to Enerpac Repair Parts Sheet L2617 for additional information.                                     |
|                                                                           | g. Pump element worn or damaged. ♦                       | g. Does the pump appear to be operating properly?                                               | g. No: Remove and inspect the pump element. Repair or replace if necessary. Refer to Enerpac Repair Parts Sheet L2596 for additional information. |
|                                                                           | a. Return flow line restricted or blocked.               | a. Is a restriction in flow suspected?                                                          | a. Yes: Check couplers for full engagement.                                                                                                       |
|                                                                           | b. Retract solenoid coil (S2) defective. ♦               | b. Is line voltage present at terminals of retract solenoid coil (S2)?                          | b. Yes: Replace retract solenoid coil (S2).                                                                                                       |
| 4. Wrench will not retract when ON/ADV button is released.                | c. Solenoid switching relay (RB) defective. ♦            | c. Does the relay (RB) open when the ON/ADV button (b2) is released?                            | c. No: Replace the relay (RB).                                                                                                                    |
|                                                                           | d. Control valve out of adjustment or damaged. ♦         | d. Is the control valve operating properly?                                                     | d. No: Repair or replace control valve. Refer to Enerpac Repair Parts Sheet L2617 for additional information.                                     |
|                                                                           | e. Pump element worn or damaged. ♦                       | e. Does the pump appear to be operating properly?                                               | e. No: Remove and inspect the pump element. Repair or replace if necessary. Refer to Enerpac Repair Parts Sheet L2596 for additional information. |
|                                                                           | a. Timer module (TR) defective.                          | a. Does the pump continue running for more than 20 seconds after the ON/ADV button is released? | a. Yes: Replace Timer Module (TR).                                                                                                                |
| 5. Pump does not automatically shut-off after ON/ADV button is released.  |                                                          |                                                                                                 |                                                                                                                                                   |

♦ It is recommended that these troubleshooting steps be performed by an Enerpac Authorized Service Center. To find your nearest Enerpac Authorized Service Center, please visit us at [www.enerpac.com](http://www.enerpac.com). Contact information for Enerpac worldwide locations can be found on the back page of this document.

**Important:** all repair procedures should be performed only by a trained and qualified repair technician.

| Troubleshooting Guide (Continued)                                  |                                                                                  |                                                            |                                                                                                                                                   |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Symptoms:                                                          | Corrective Action:                                                               | Check and/or inspect:                                      | Corrective Action:                                                                                                                                |
| 6. Pump fails to build pressure or builds less than full pressure. | a. Low oil level.                                                                | a. Check oil level in sight glass. Is oil level low?       | a. Yes: Add oil as required. Refer to Enerpac Instruction Sheet L2726 for instructions.                                                           |
|                                                                    | b. Relief valve set too low. ♦                                                   | b. Is the relief valve set too low for the application?    | b. Yes: Raise the relief valve setting. Refer to Enerpac instruction sheet L2726 for adjustment procedure.                                        |
|                                                                    | c. External system leak                                                          | c. Is an external leak visible?                            | c. Yes: Repair leak(s) as required.                                                                                                               |
|                                                                    | d. Torque wrench malfunctioning                                                  | d. Does the torque wrench appear to be operating properly? | d. No: Repair torque wrench in accordance with manufacturer's instructions.                                                                       |
|                                                                    | e. Control valve out of adjustment or damaged. ♦                                 | e. Is the control valve operating properly?                | e. No: Repair or replace control valve. Refer to Enerpac Repair Parts Sheet L2617.                                                                |
|                                                                    | f. Pump element worn or damaged. ♦                                               | f. Does the pump appear to be operating properly?          | f. No: Remove and inspect the pump element. Repair or replace if necessary. Refer to Enerpac Repair Parts Sheet L2596 for additional information. |
| 7. Pump runs hot.                                                  | a. Advance or retract flow restricted.                                           | a. Is a restriction in flow suspected?                     | a. Yes: Check couplers for full engagement.                                                                                                       |
|                                                                    | b. High ambient temperature                                                      | b. Is the pump running hot?                                | b. Yes: Install a heat exchanger.                                                                                                                 |
|                                                                    | c. Heat exchanger airflow restricted (models equipped with heat exchanger only)  | c. Is heat exchanger airflow obstructed?                   | c. Yes: Remove any dirt from heat exchanger vents. Be sure that airflow is not obstructed by objects or walls.                                    |
|                                                                    | d. Heat exchanger fan not operational (models equipped with heat exchanger only) | d. Does the fan turn-on when the pump motor is on?         | d. No: Check heat exchanger fan motor and wiring. Repair or replace components as required.                                                       |

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**Important:** all repair procedures should be performed only by a trained and qualified repair technician.

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