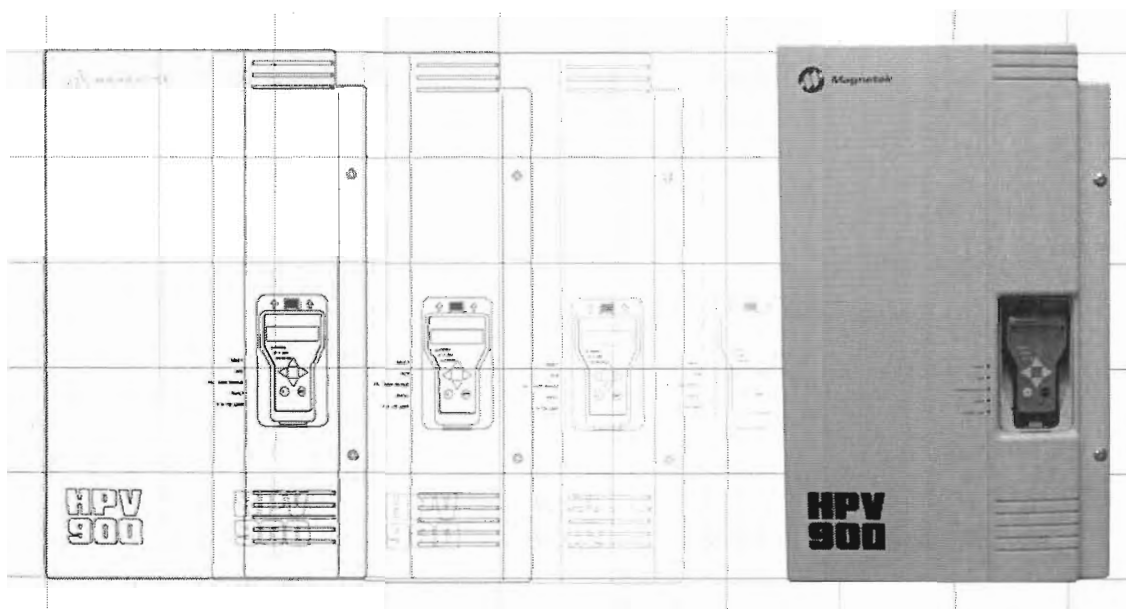




MAGNETEK
ELEVATOR

HPV 900 AC/PM Elevator Drive

Parts Replacement Guide (Fuses and Cables)



TM6004 rev 0

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Remember when servicing the HPV 900: Hazardous voltages may exist in the drive circuits even with drive circuit breaker in off position.

IMPORTANT: *Use extreme caution: Do not touch any circuit board, the drive, or motor electrical connections without making sure that the unit is properly grounded and that no high voltage is present.*

NEVER attempt maintenance unless:

- *the incoming three phase power (460 or 230VAC) and control power (115VAC) is disconnected and locked out.*
- *also, ensure the DC Bus charge light is out.*
- *even with the light out, we recommend that you use a voltmeter between (+3) and (-) to verify that no voltage is present.*

CAUTION: *Before continuing, ensure the DC Bus Charge LED is not illuminated.*

IMPORTANT: *Take ESD precautions, devices within the drive are sensitive to static damage.*

If after 5 minutes the DC bus charge light remains ON or voltage remains between terminals (+3) and (-):

- *First, check that the incoming three phase power is disconnected*
- *Once the incoming three phase power is disconnected, it will be necessary to discharge the DC bus with a "bleeder" resistor.*

Discharging DC bus with "Bleeder" Resistor

- *Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.*
- *The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.*
- *Once the DC bus charge light is out, verify with a voltmeter that no voltage exists between the (+3) and (-) terminals.*

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Introduction

This parts replacement guide is intended to provide general guidelines for the installation of replacement parts in the HPV 900 AC Elevator Drive. All replacement work should be done by qualified personnel familiar with the construction, operation, and hazards involved with the equipment. It is also assumed that the qualified personnel will follow appropriate and proper troubleshooting techniques.

The following should be considered:

1. Replacement work must be performed by qualified personnel familiar with the construction, operation, and hazards involved with the equipment.
2. Replacement work should be performed with the equipment out of operation and disconnected from all sources of power. Make sure the DC Bus charge light is not lit.
3. Care should be taken when servicing electrostatic sensitive components.
4. Accumulations of dust and dirt on all parts, including on semiconductor heat sinks, should be removed. Care must be taken to avoid damaging any delicate components and to avoid displacing dust, dirt, or debris in a way that permits it to enter or settle into parts of the control equipment..
5. The instructions detailed in this guide should be followed carefully. Torque per specifications in this guide using the appropriate tools.
6. Any replacement parts used should be in accordance with the recommendations of Magnetek. Care should be taken to avoid the use of parts which are no longer compatible with other changes in the equipment. Also, replacement parts should be inspected for deterioration due to "shelf life" and for signs of rework or wear which may involve factors critical to safety.

Replacement Part Kits

<i>part number</i>	<i>description</i>	<i>cubes</i>	<i>detailed description</i>	<i>replacement procedure</i>
<i>* particular models</i>				
<i>fuses</i>				
HPV9-FUS0506	FRU, Fuse,250V,3A	all	Power supply / fan fuse for all cubes	Page 10
HPV9-DCBFUSE-B	FRU, Fuse,660V,160A	B	DC bus fuse and hardware	Page 16
HPV9-DCBFUSE-BPC	FRU, Fuse,660V,250A	B+, C	DC bus fuse and hardware	Page 16
HPV9-DCPFUSE	FRU, Fuse,600V,6A	all	DC bus sense / power supply fuse	Page 16
<i>cables</i>				
HPV9-THERM-A	FRU,HPV900, THERMISTOR ASSEMBLE, cube-A	A	Thermistor assemble and hardware for cube-A	Page 23
HPV9-THERM-B	FRU,HPV900, THERMISTOR ASSEMBLE, cube-B	B, B+	Thermistor assemble and hardware for cube-B and B+	Page 29
HPV9-THERM-C	FRU,HPV900, THERMISTOR ASSEMBLE, cube-C	C	Thermistor assemble and hardware for cube-C	Page 29
HPV9-CBCABLE-A	FRU,HPV900,Cable Cntl-Pwr Intfc, cube-A	A	Ribbon cable connecting Power Interface PCB to the Control PCB	Page 34
HPV9-CBCABLE-B	FRU,HPV900,Cable Cntl-Pwr Intfc, cube-B	B	Ribbon cable connecting Power Interface PCB to the Control PCB	Page 34
HPV9-CBCABLE-C	FRU,HPV900,Cable Cntl-Pwr Intfc, cube-C	C	Ribbon cable connecting Power Interface PCB to the Control PCB	Page 34
HPV9-OPCABLE-AB	FRU,HPV900,Cable Cntl-Op Port, cube-AB	A, B, B+	Ribbon cable connecting Control PCB to the Operator Port (DB-9)	Page 38
HPV9-OPCABLE-C	FRU,HPV900,Cable Cntl-Op Port, cube-C	C	Ribbon cable connecting Control PCB to the Operator Port (DB-9)	Page 38
HPV9-CURRCABLE-B	FRU,HPV900,Cable Current Feedback, cube-B	B	Ribbon cable connecting Power Interface PCB to the Power PCB	Page 42
HPV9-CURRCABLE-C	FRU,HPV900,Cable Current Feedback, cube-C	C	Ribbon cable connecting Power Interface PCB to the Current Sense PCB	Page 42
HPV9-FDBKCABLE-A	FRU,HPV900,Cable Feedback Signal, cube-A	A	Ribbon cable connecting Power Interface PCB to the Power PCB	Page 48

part number	description	cubes	detailed description	replacement procedure
HPV9-GATEB	FRU,HPV900, Gate wires, Cube B	B	A set of eight gate cables that connect between the power interface PCB and the IGBTs for B-cubes	Page 50
HPV9-GATEC	FRU,HPV900, Gate wires, Cube C	C	A set of eight gate cables that connect between the power interface PCB and the IGBTs for C-cubes	Page 50
HPV9-GSCABLE-A	FRU,HPV900, Cable Gate Signal, cube-A	A	Ribbon cable connecting Power Interface PCB to the Power PCB	Page 48
HPV9-BUSLED-BPC	FRU,HPV900, DC BUS LED ASSEMBLE, cube-B+,C	B+, C	Includes DC bus charge LED and cable	Page 57

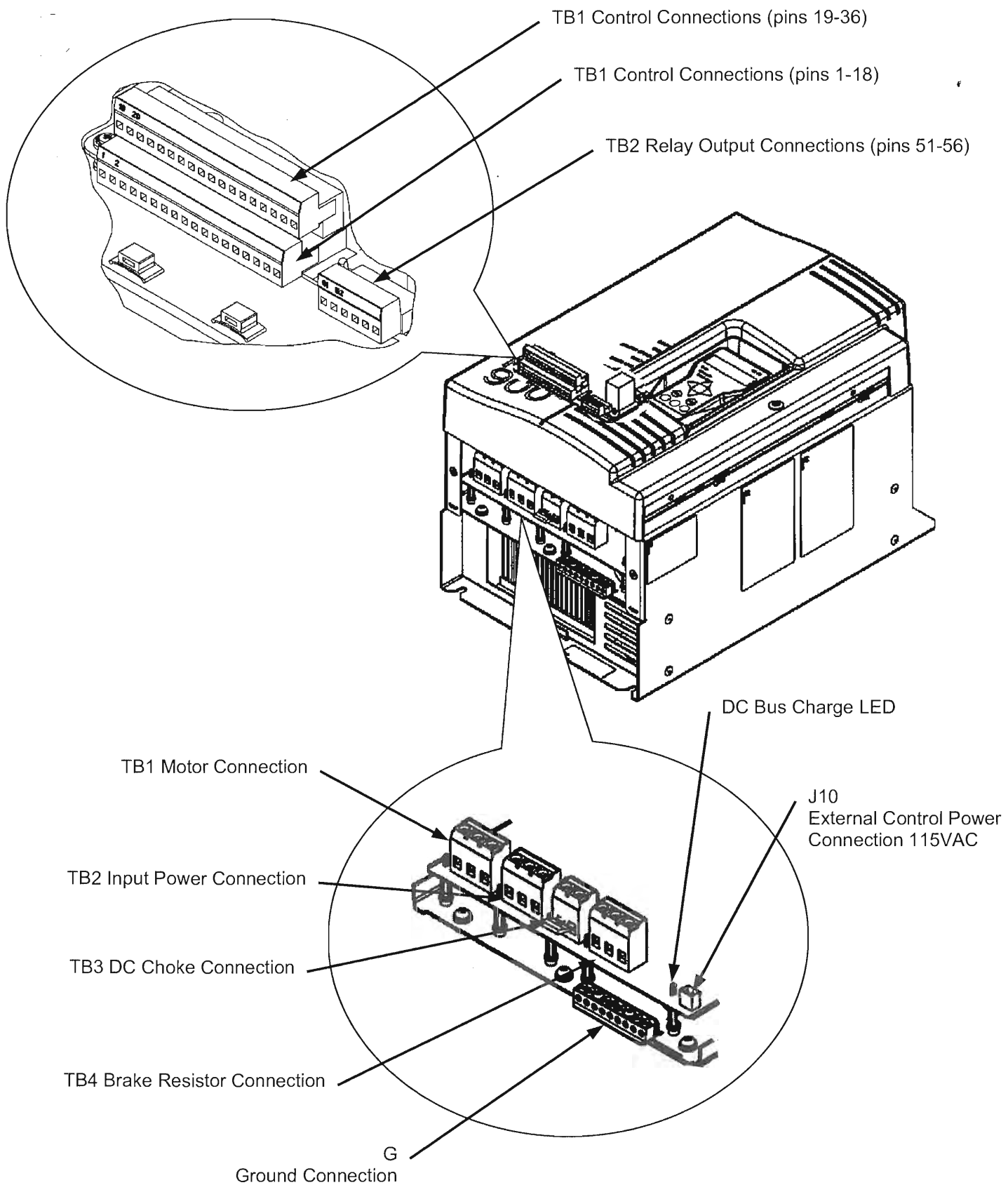
Note:

A-cubes 4008, 4016, 4021, 2025

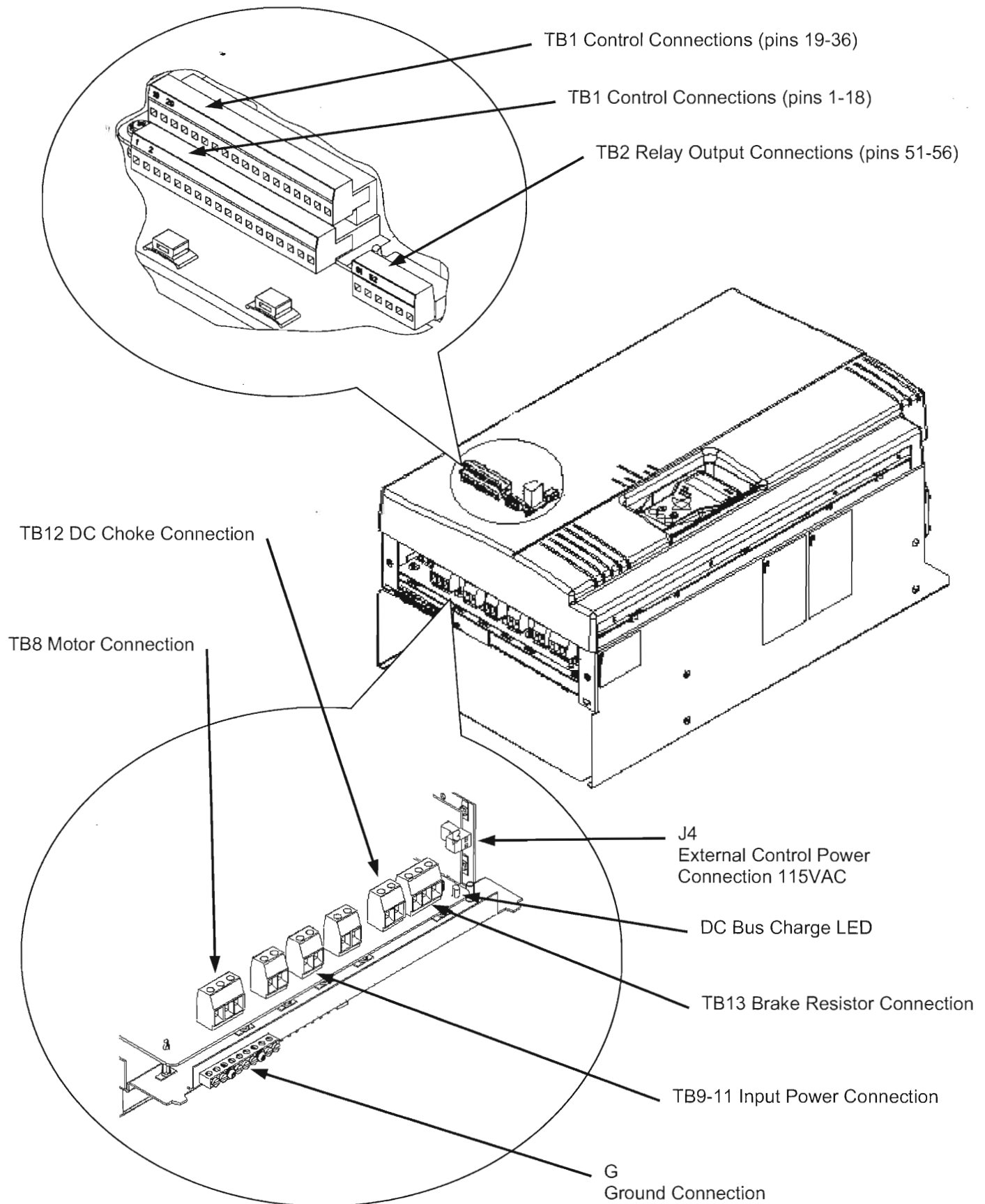
B-cubes 4027, 4034, 4041, 4052, 2027, 2041, 2052

B+ cubes 2075, 2088

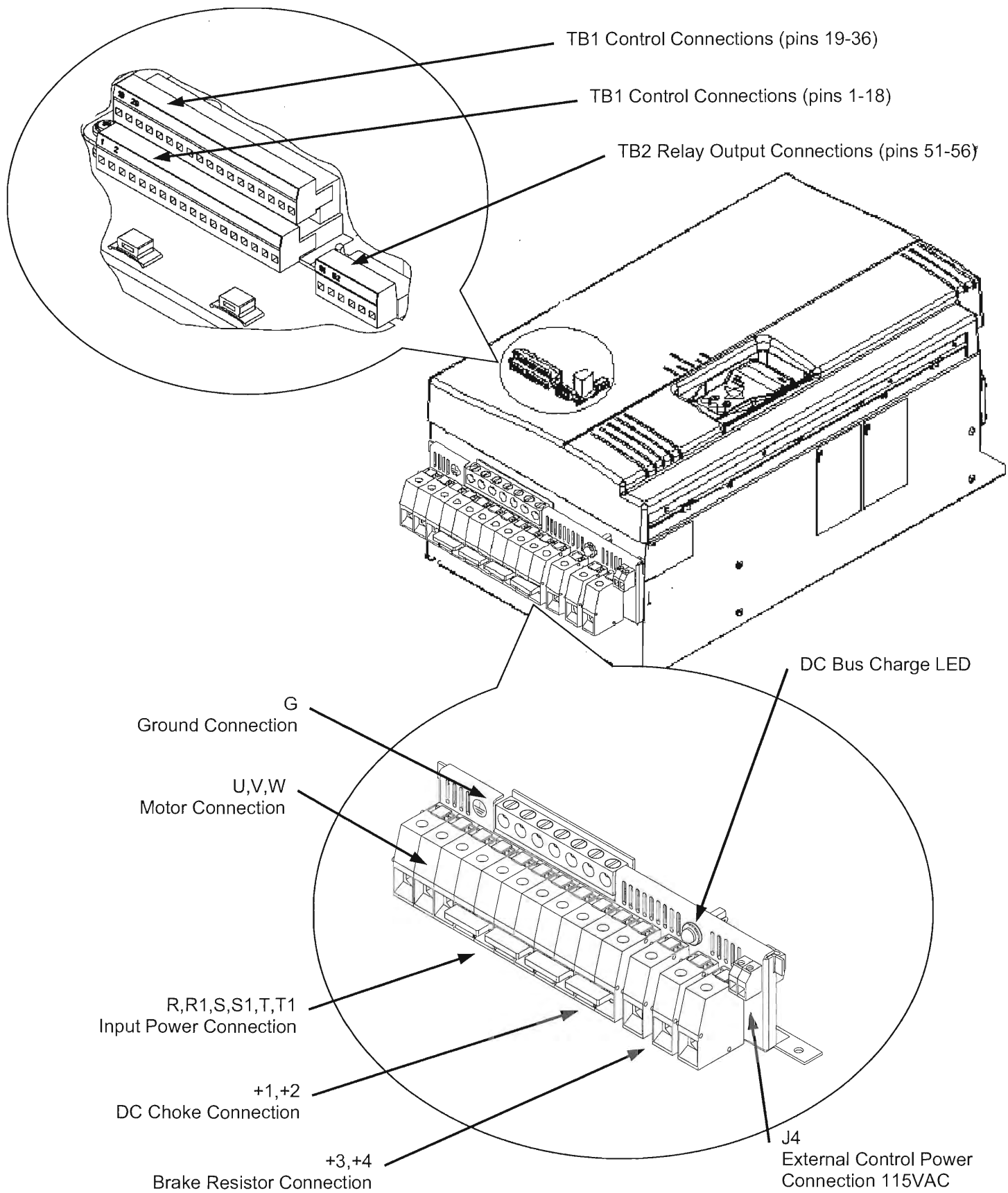
C cubes 4065, 4077, 4096, 2068, 2080, 2104



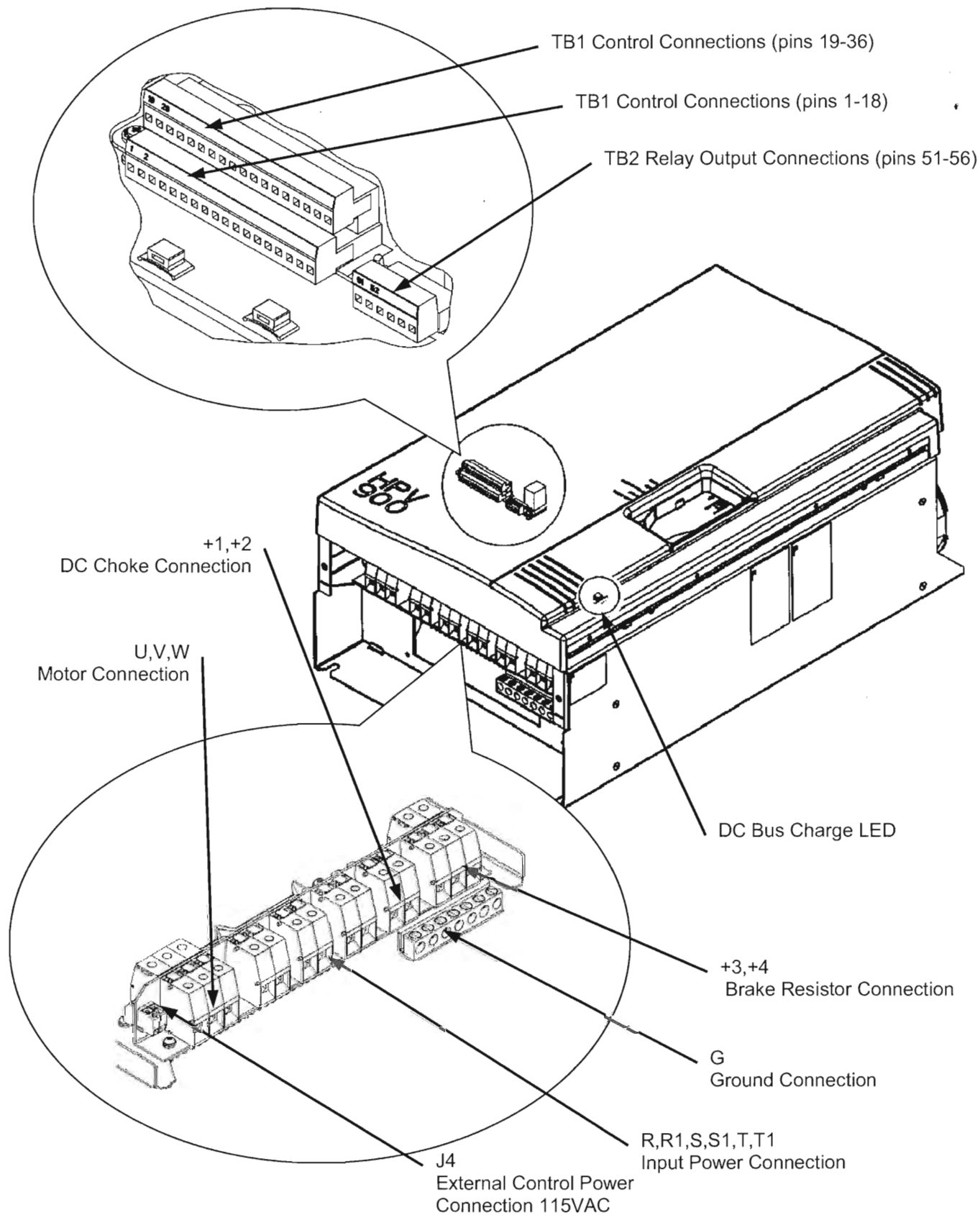
Terminal Connections (A-cube)



Terminal Connections (B-cube)



Terminal Connections (B+ cube)



Terminal Connections (C-cube)

HPV9- FUS0506 Replacement

Remember when servicing the HPV 900:
Hazardous voltages may exist in the drive circuits even with drive circuit breaker in off position.

IMPORTANT: Use extreme caution: Do not touch any circuit board, the drive, or motor electrical connections without making sure that the unit is properly grounded and that no high voltage is present.

NEVER attempt maintenance unless:

- the incoming three phase power (460 or 230VAC) and control power (115VAC) is disconnected and locked out.
- also, ensure the DC Bus charge light is out.
- even with the light out, we recommend that you use a voltmeter between (+3) and (-) to verify that no voltage is present.

CAUTION: Before continuing, ensure the DC Bus Charge LED is not illuminated.

IMPORTANT: Take ESD precautions, devices within the drive are sensitive to static damage.

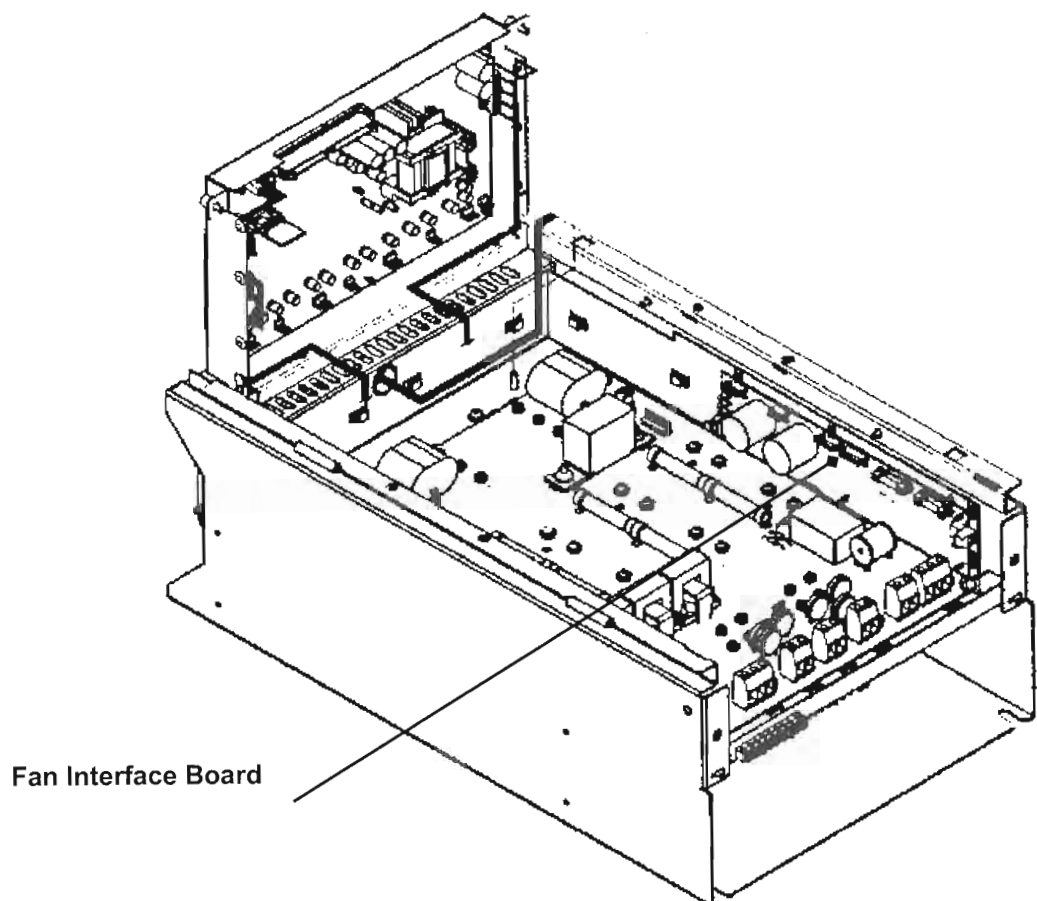
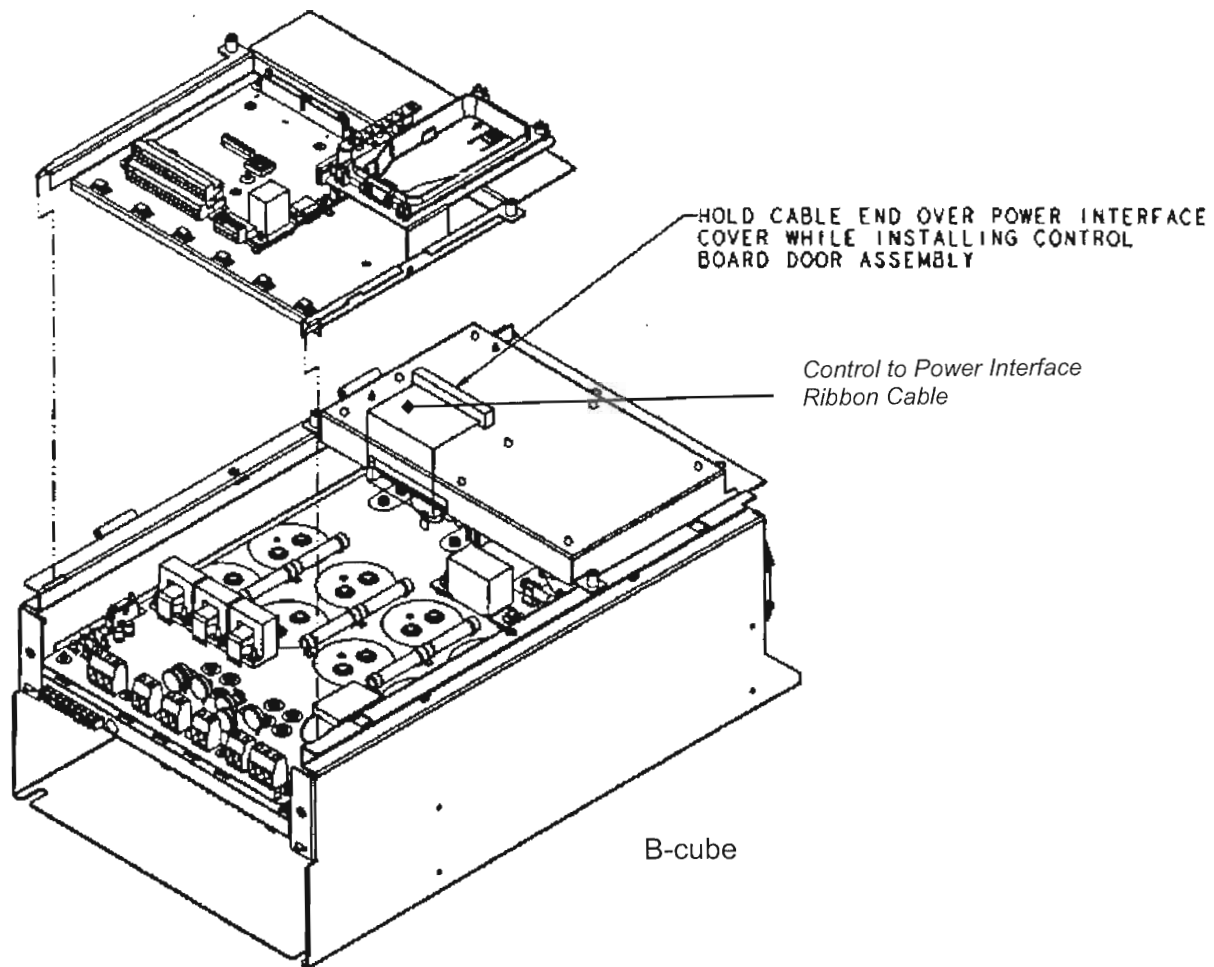
If after 5 minutes the DC bus charge light remains ON or voltage remains between terminals (+3) and (-):

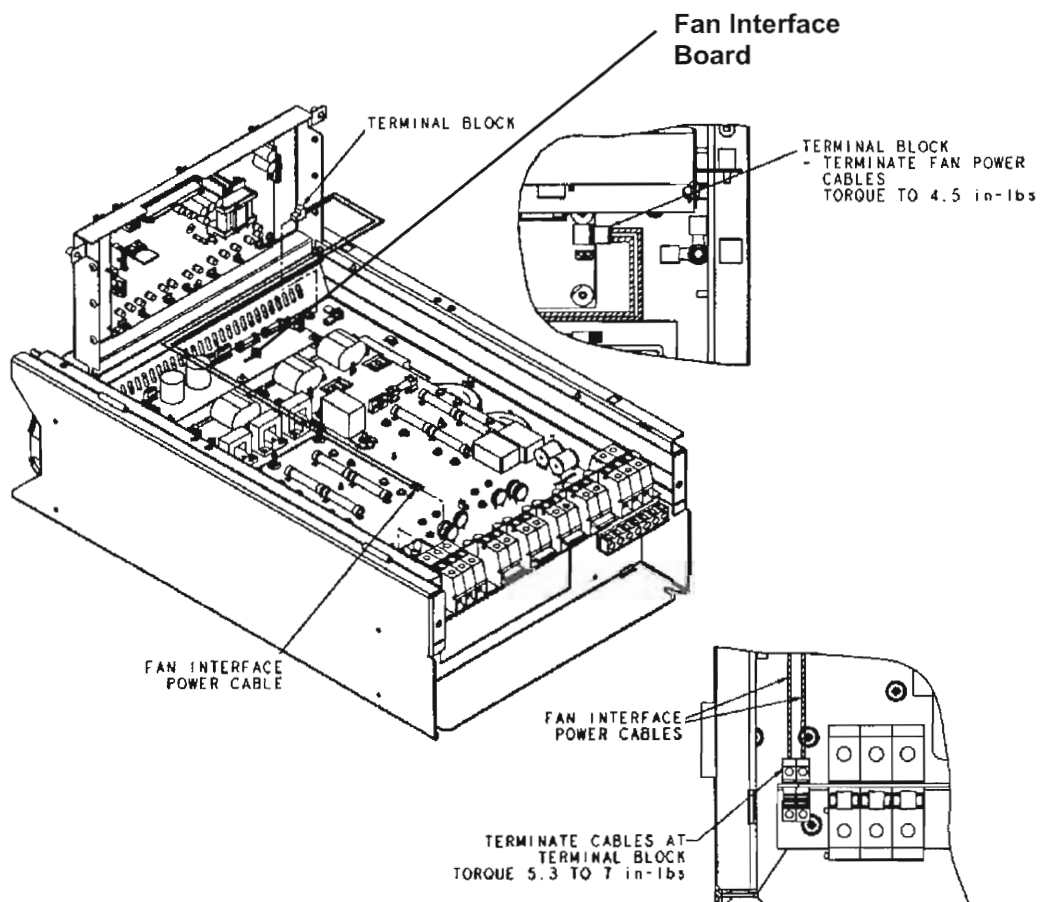
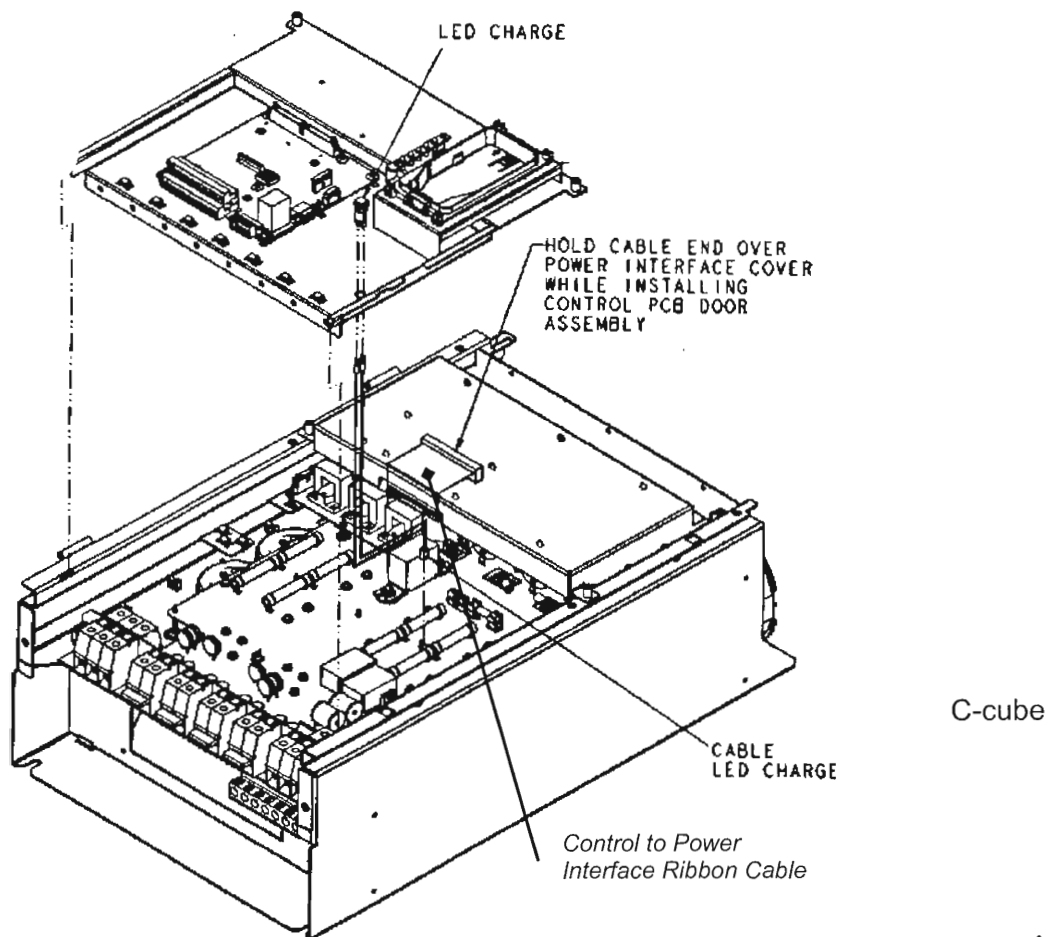
- First, check that the incoming three phase power is disconnected
- Once the incoming three phase power is disconnected, it will be necessary to discharge the DC bus with a "bleeder" resistor.

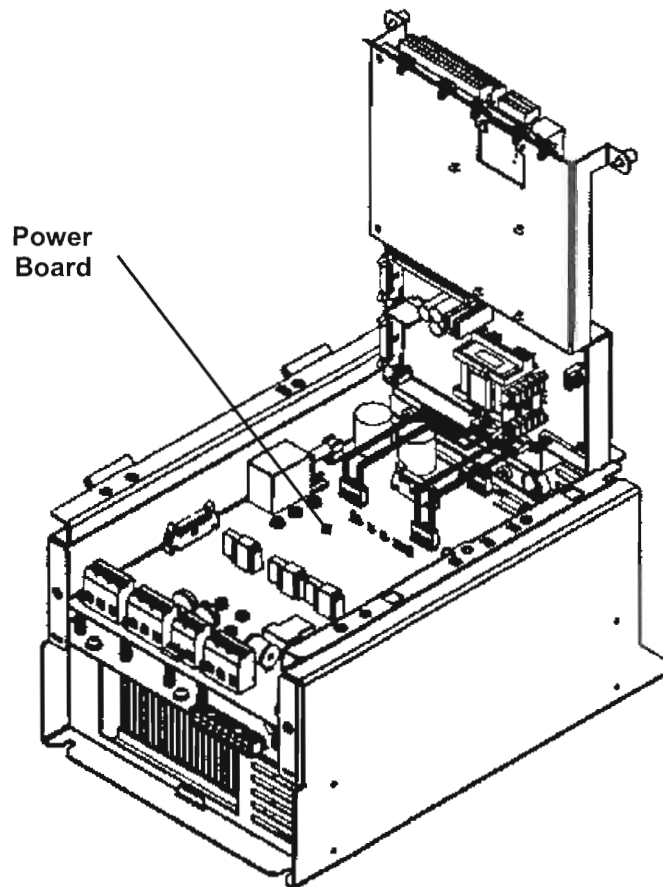
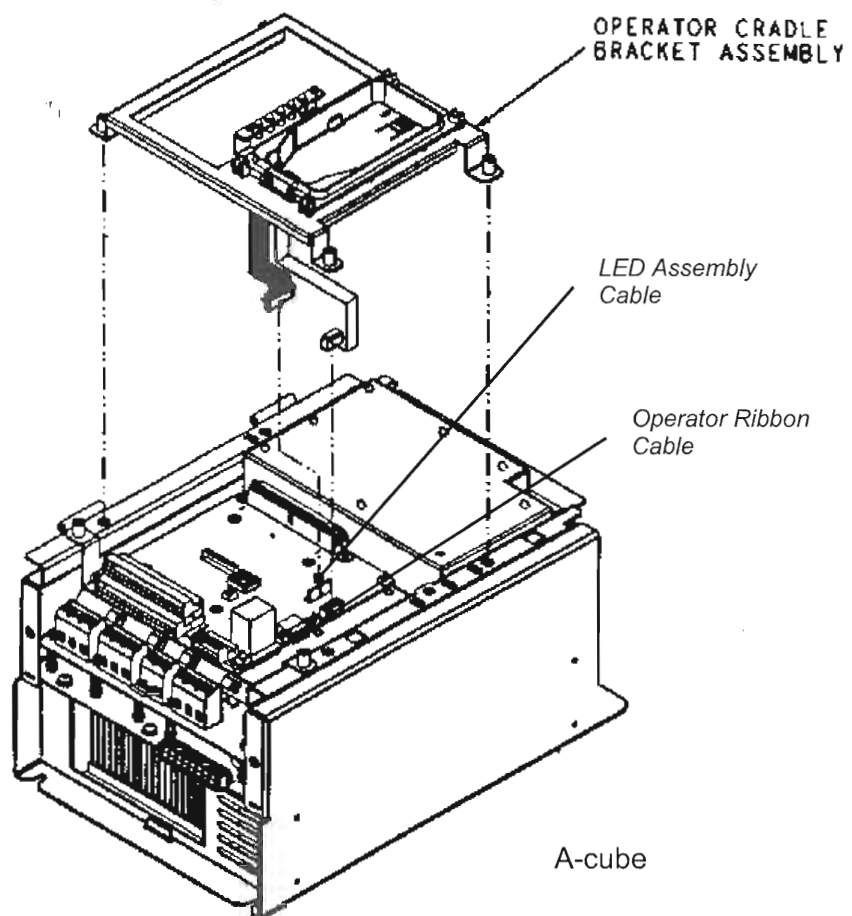
Discharging DC bus with "Bleeder" Resistor

- Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.
- The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.
- Once the DC bus charge light is out, verify with a voltmeter that no voltage exists between the (+3) and (-) terminals.

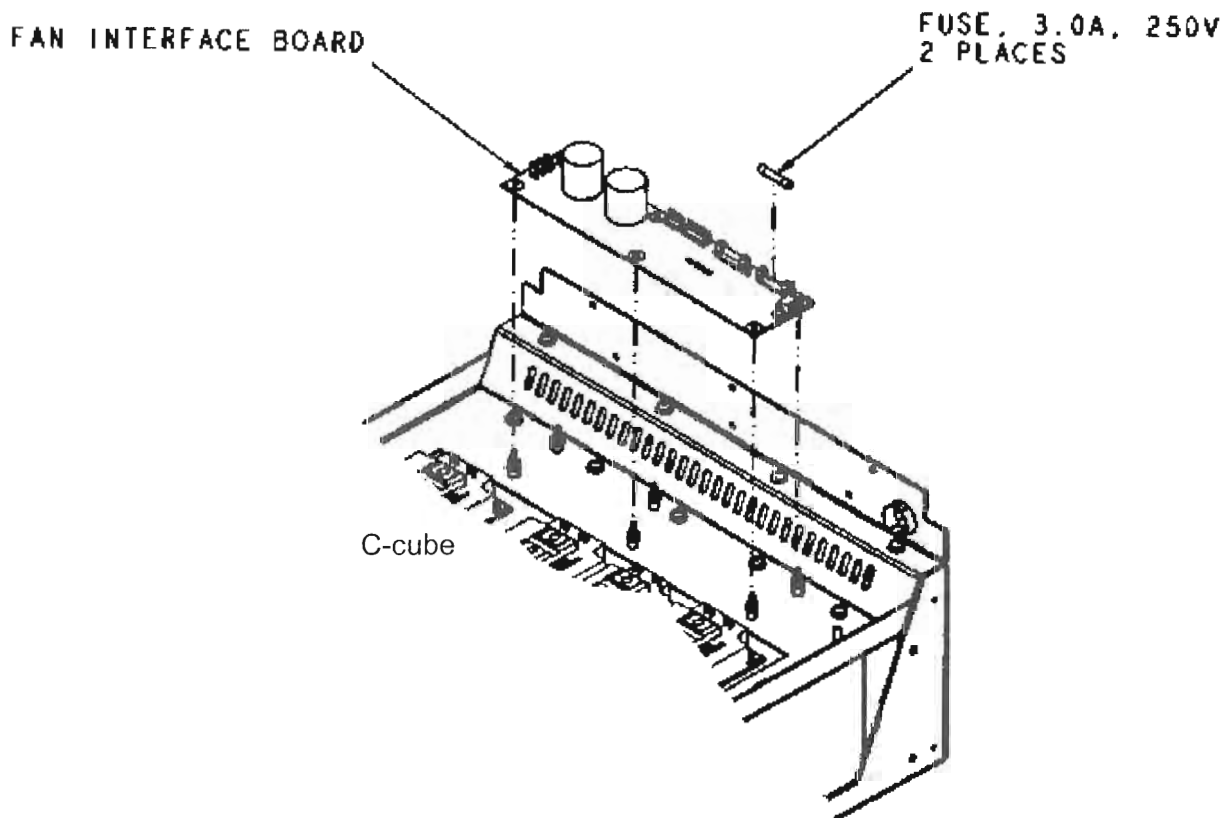
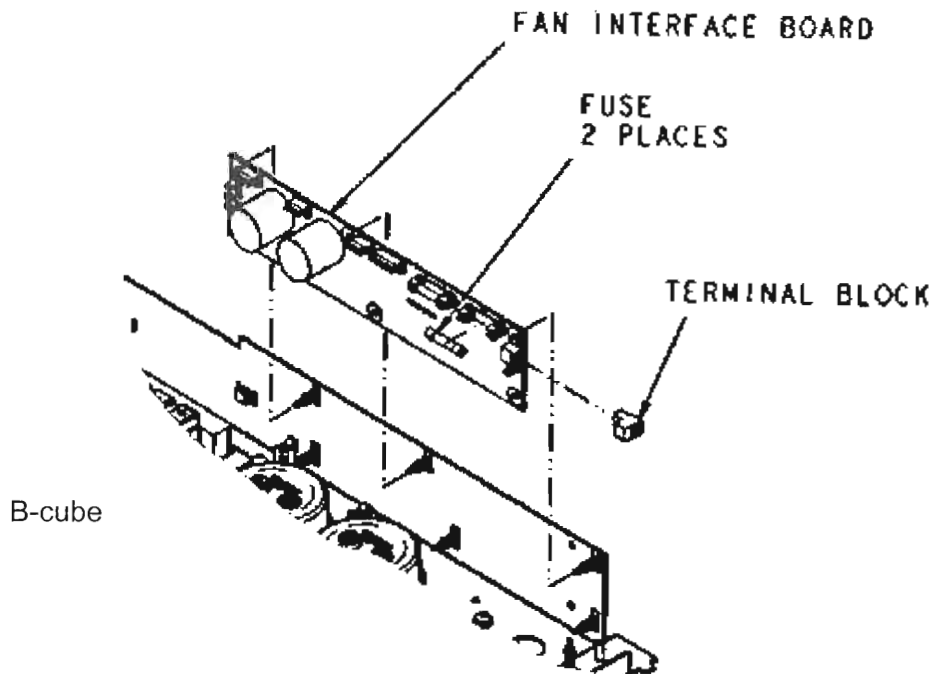
- ◆ Open the drive's cover. The shipping screws may need to be loosened.
- ◆ With drive's cover open, disassemble drive to gain access to the Fan Interface Board (B, B+, and C cubes)
- ◆ With drive's cover open, disassemble drive to gain access to the Power Board (A cube)

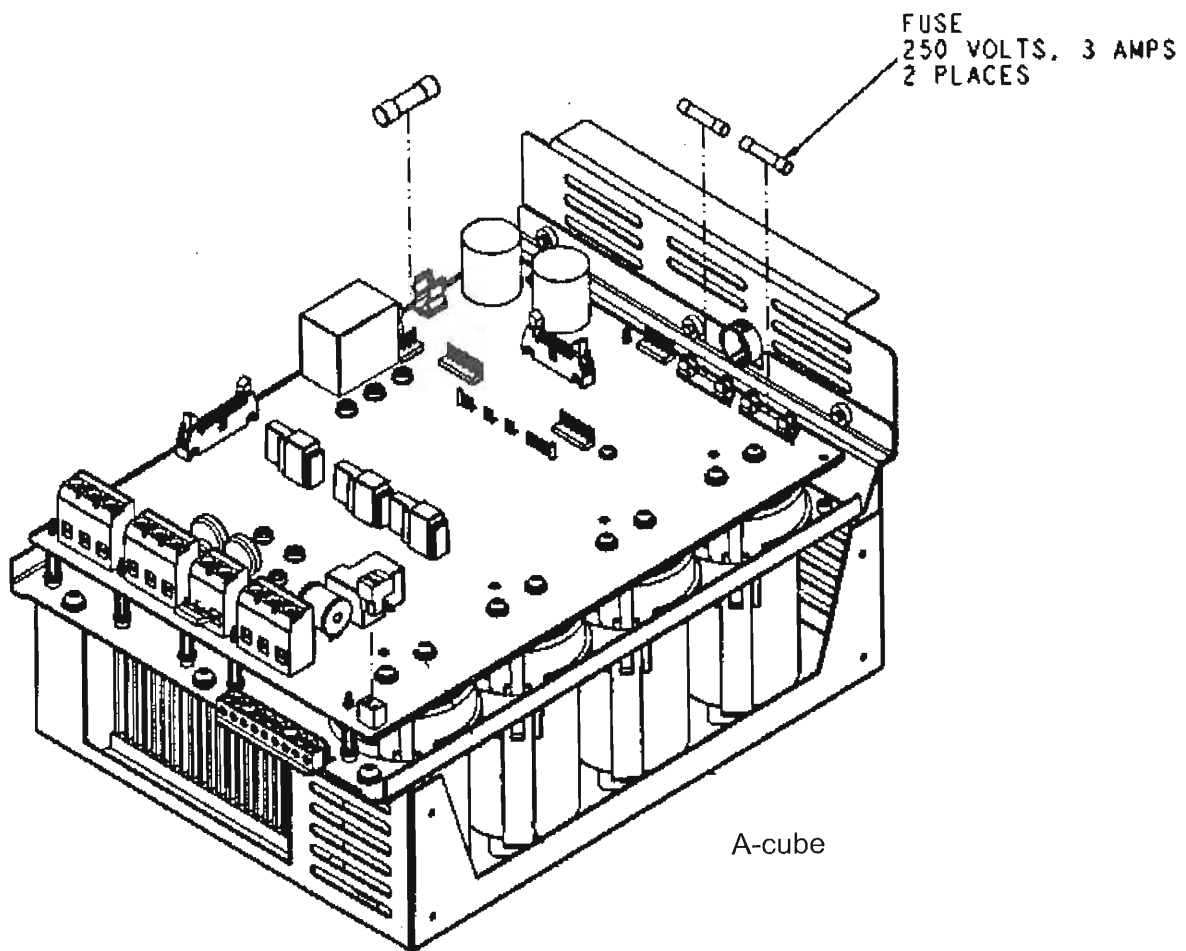






- ◆ Remove fuse and install new fuse.
- ◆ Finally, re-assemble drive





HPV9-DCBFUSE-B / HPV9-DCBFUSE-BPC HPV9-DCPFUSE Replacement

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NEVER attempt maintenance unless:

- the incoming three phase power (460 or 230VAC) and control power (115VAC) is disconnected and locked out.
- also, ensure the DC Bus charge light is out.
- even with the light out, we recommend that you use a voltmeter between (+3) and (-) to verify that no voltage is present.

CAUTION: Before continuing, ensure the DC Bus Charge LED is not illuminated.

IMPORTANT: Take ESD precautions, devices within the drive are sensitive to static damage.

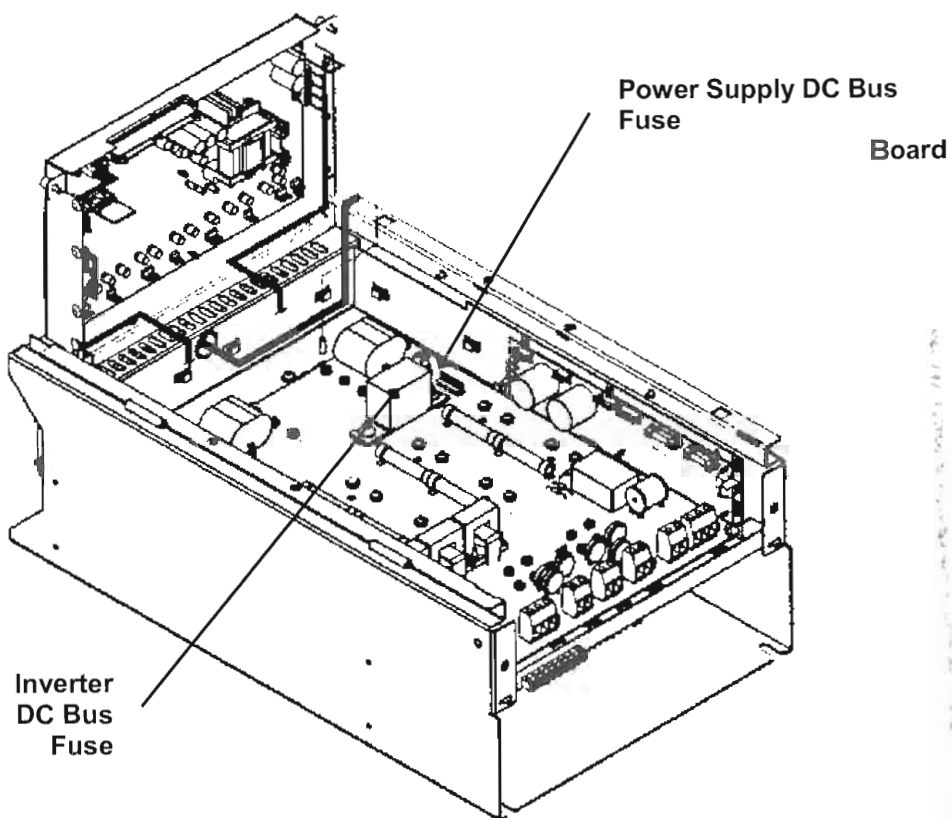
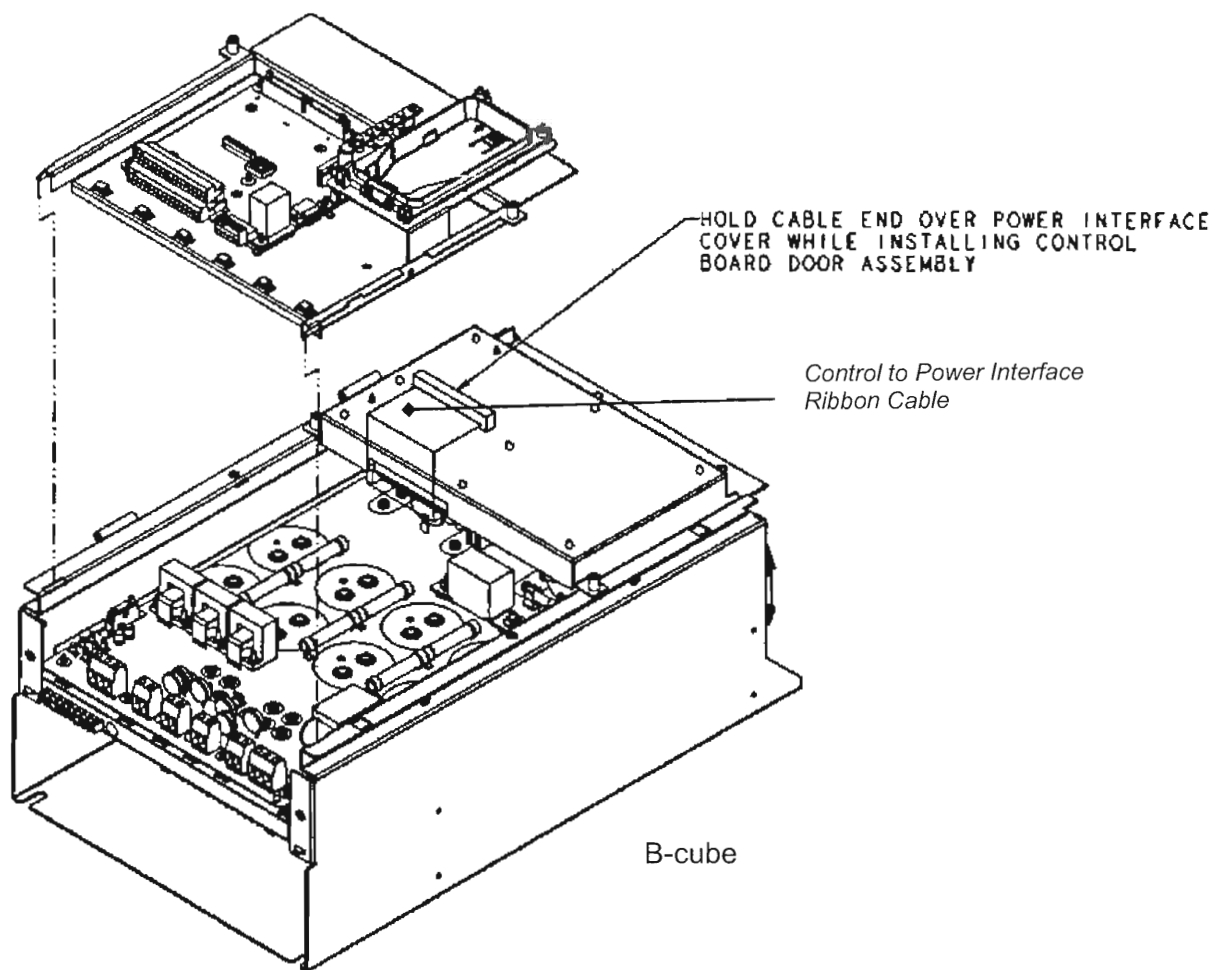
If after 5 minutes the DC bus charge light remains ON or voltage remains between terminals (+3) and (-):

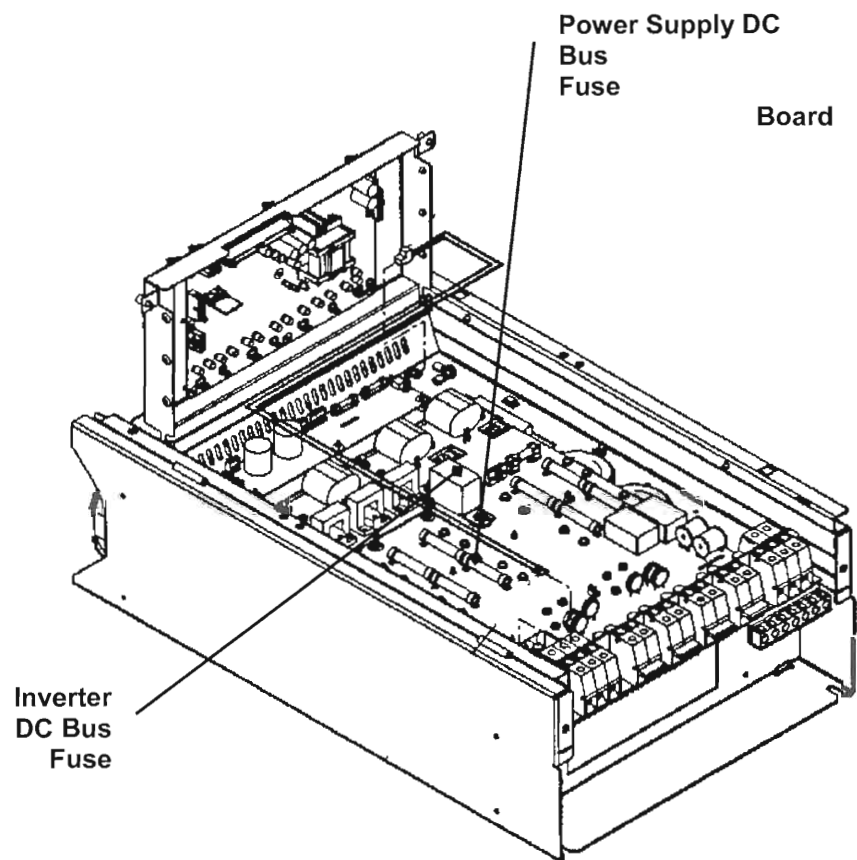
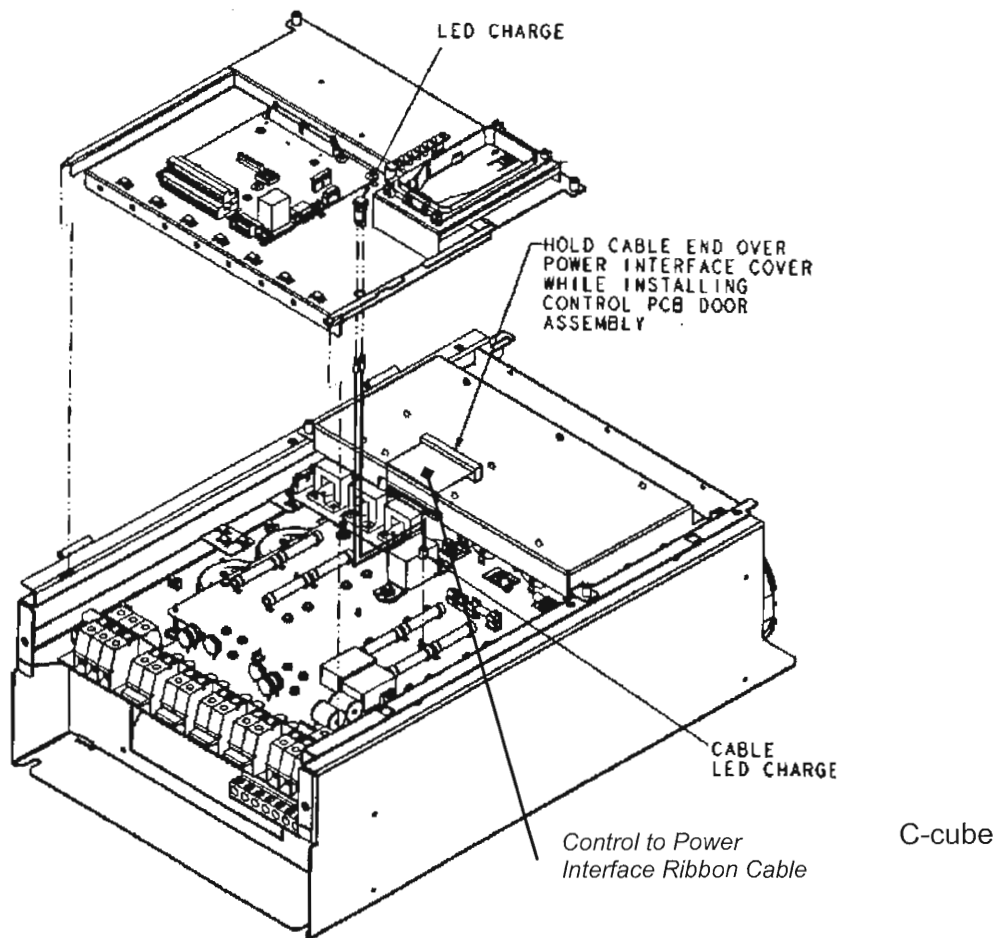
- First, check that the incoming three phase power is disconnected
- Once the incoming three phase power is disconnected, it will be necessary to discharge the DC bus with a "bleeder" resistor.

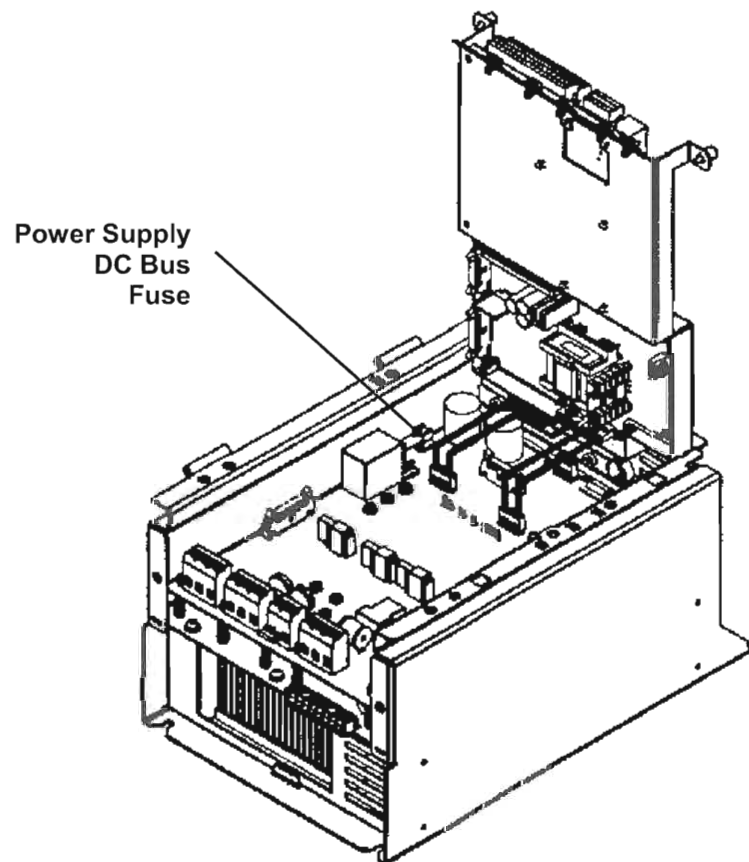
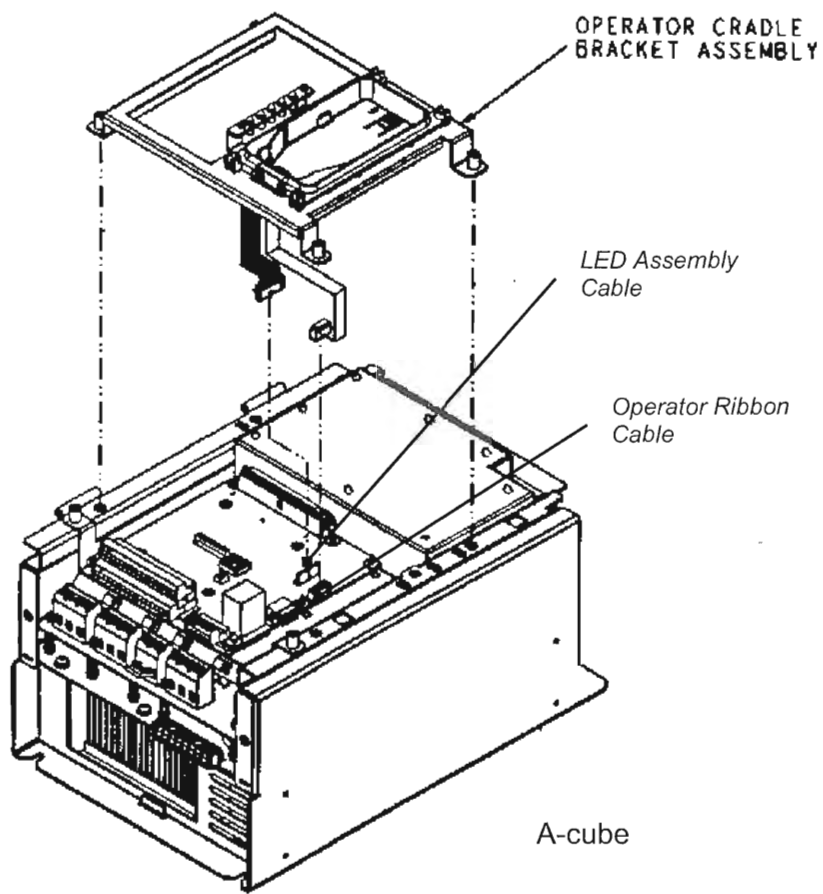
Discharging DC bus with "Bleeder" Resistor

- Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.
- The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.
- Once the DC bus charge light is out, verify with a voltmeter that no voltage exists between the (+3) and (-) terminals.

- ◆ Open the drive's cover. The shipping screws may need to be loosened.
- ◆ With drive's cover open, disassemble drive to gain access to the DC Bus Fuses.
- ◆ Remove the necessary DC Bus Fuse







B-cube

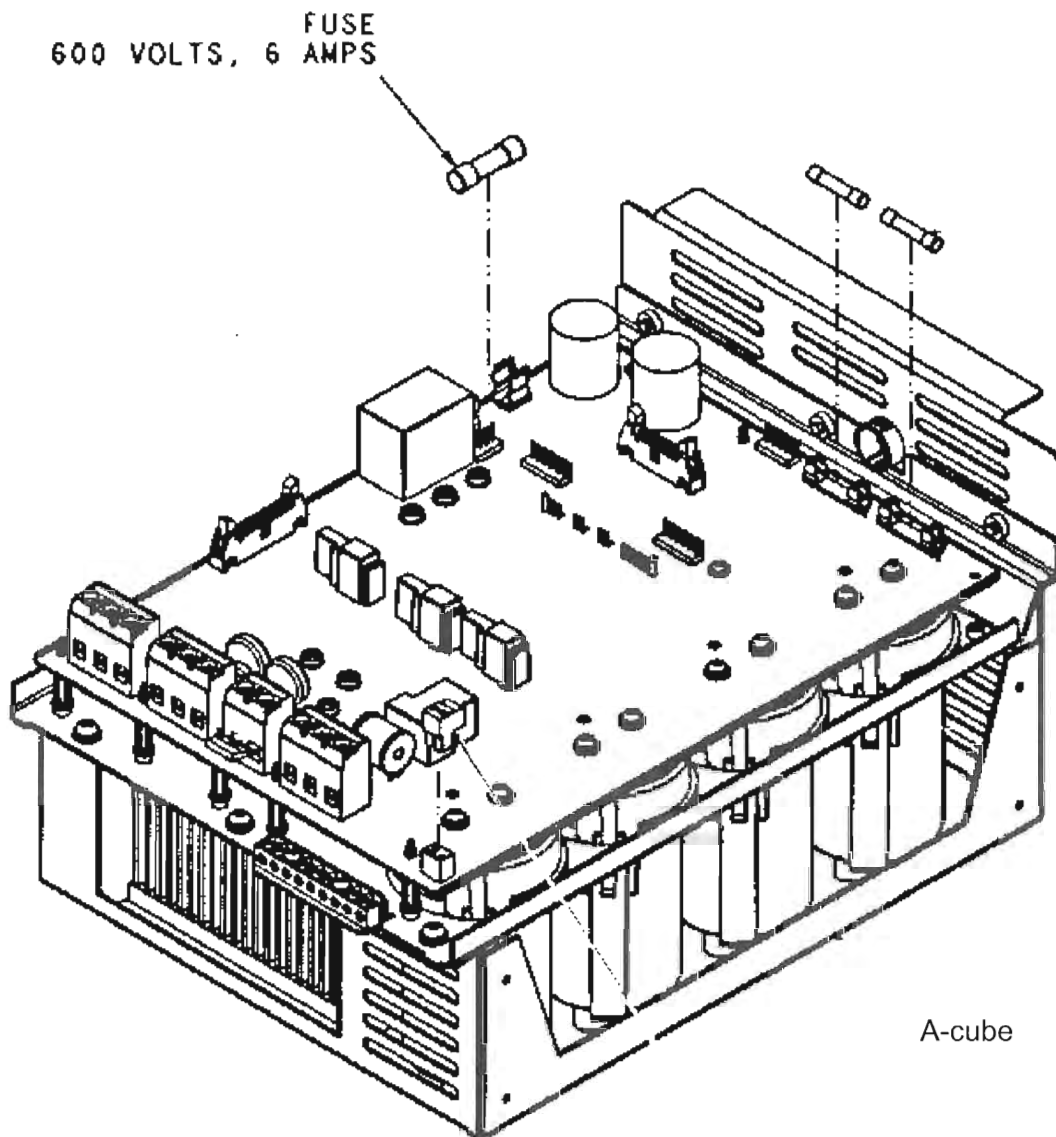
- ◆ Use HPV9-DCB-B kit for the Inverter DC Bus Fuse (torque: 17in-lbs)
- ◆ Use HPV9-DCPFUSE kit for the Power Supply DC Bus Fuse

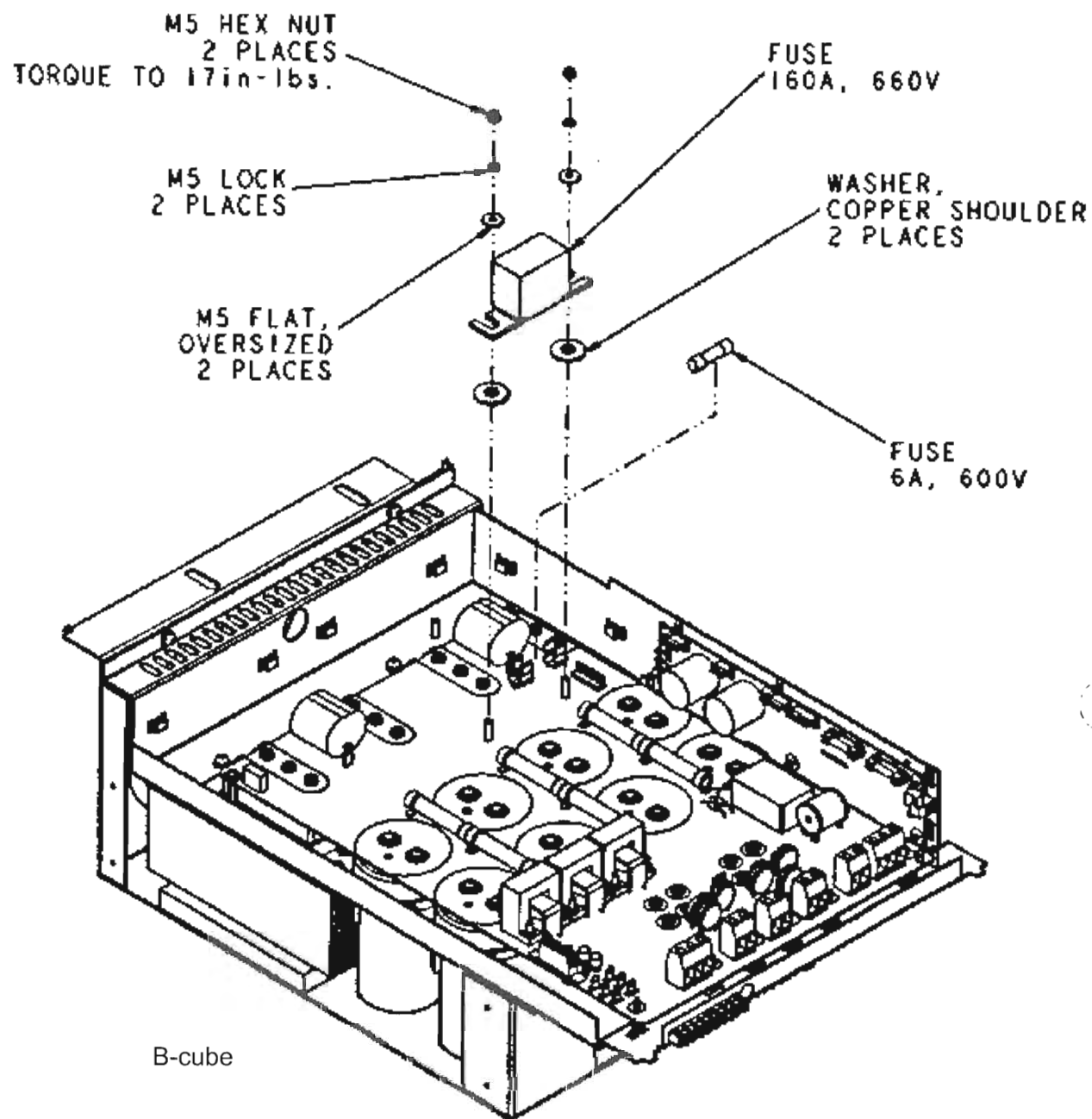
B+cube and C-cube

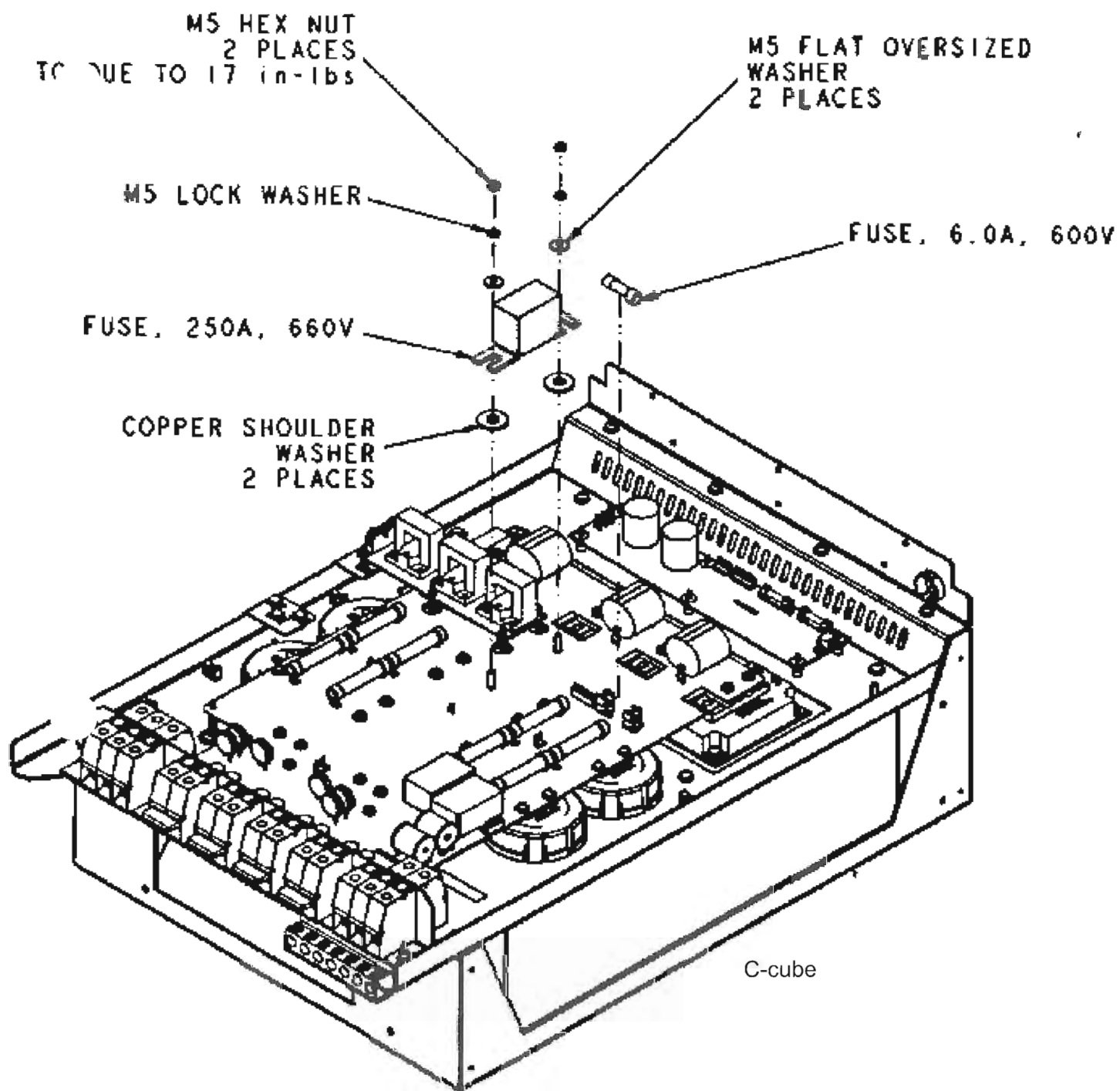
- ◆ Use HPV9-DCB-BPC kit for the Inverter DC Bus Fuse (torque: 17in-lbs)
- ◆ Use HPV9-DCPFUSE kit for the Power Supply DC Bus Fuse

A-cube

- ◆ Use HPV9-DCPFUSE kit for the Power Supply DC Bus Fuse
- ◆ Install new fuse and re-assemble drive







HPV9-THERM-A Replacement

Remember when servicing the HPV 900:
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NEVER attempt maintenance unless:

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- also, ensure the DC Bus charge light is out.
- even with the light out, we recommend that you use a voltmeter between (+3) and (-) to verify that no voltage is present.

CAUTION: Before continuing, ensure the DC Bus Charge LED is not illuminated.

IMPORTANT: Take ESD precautions, devices within the drive are sensitive to static damage.

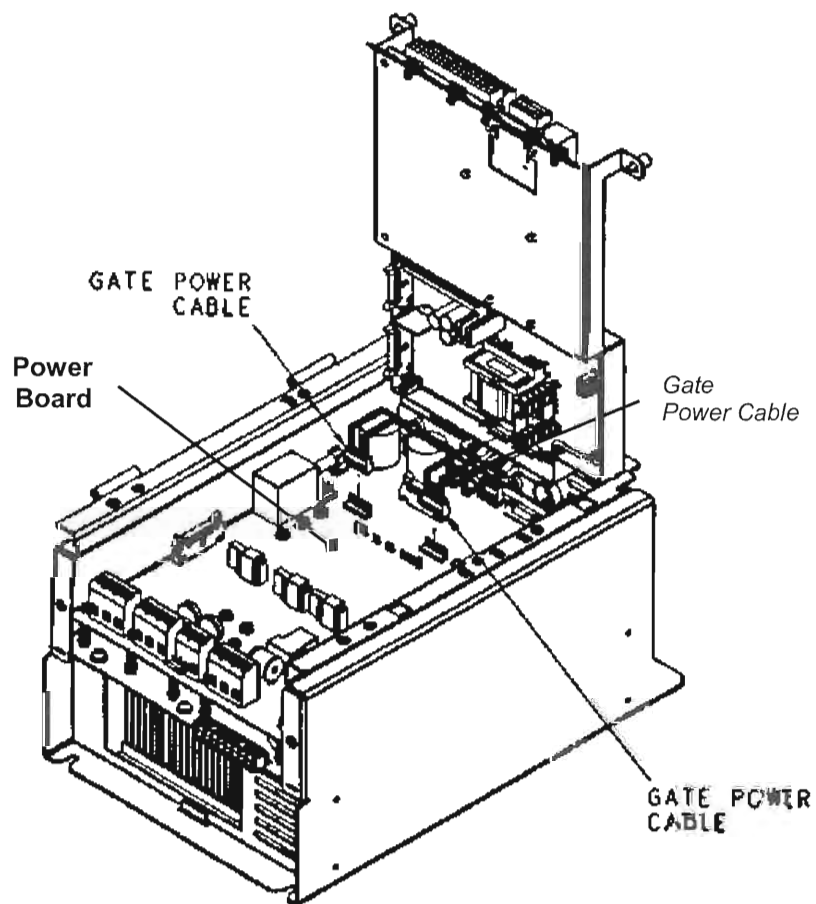
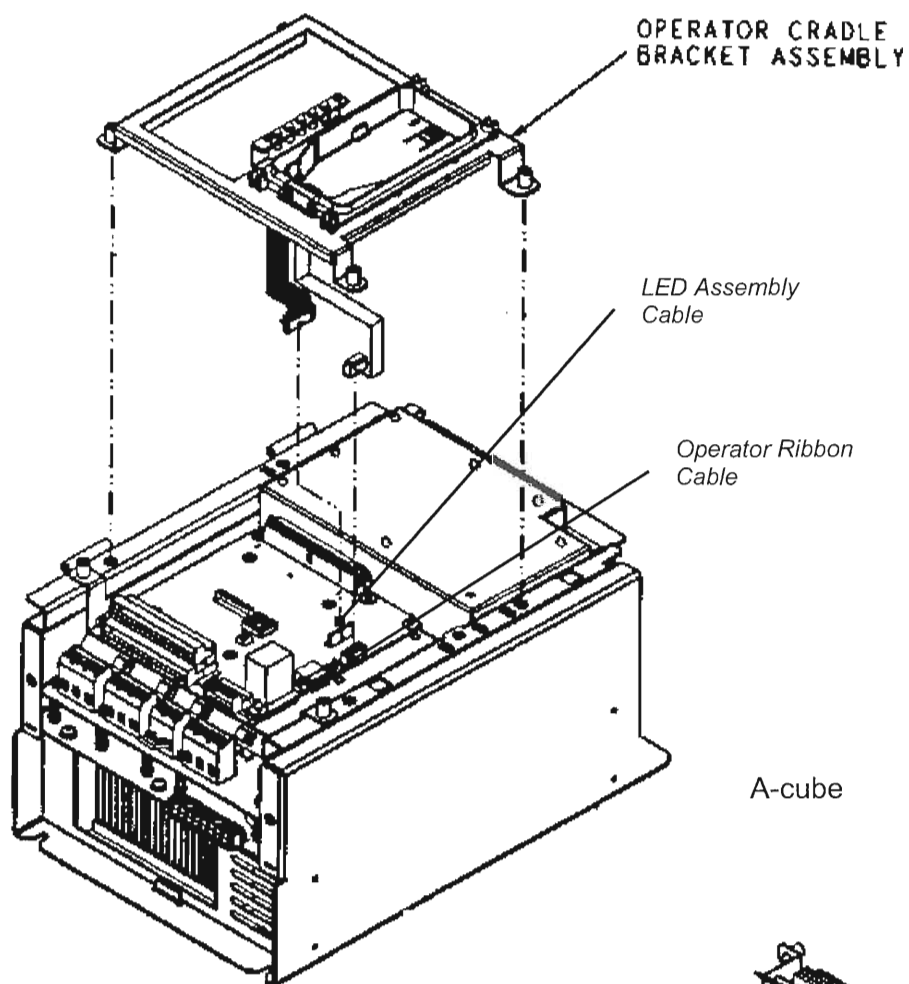
If after 5 minutes the DC bus charge light remains ON or voltage remains between terminals (+3) and (-):

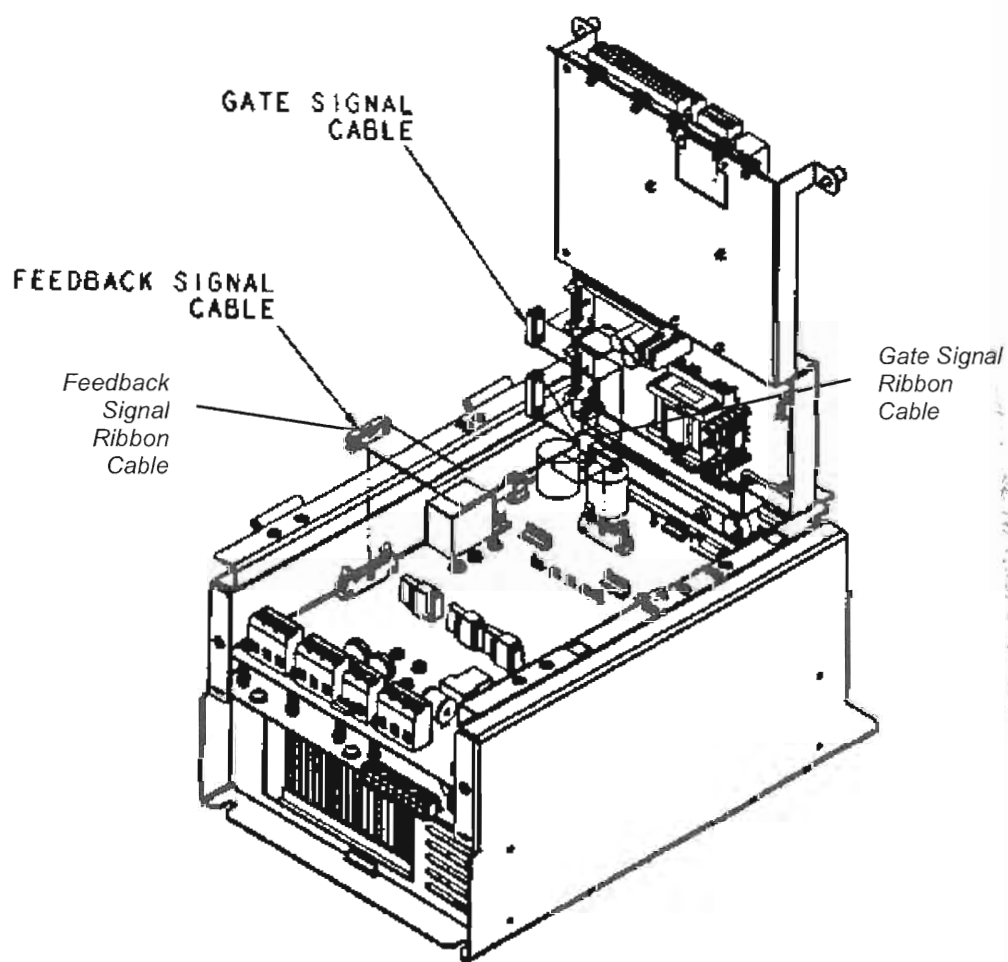
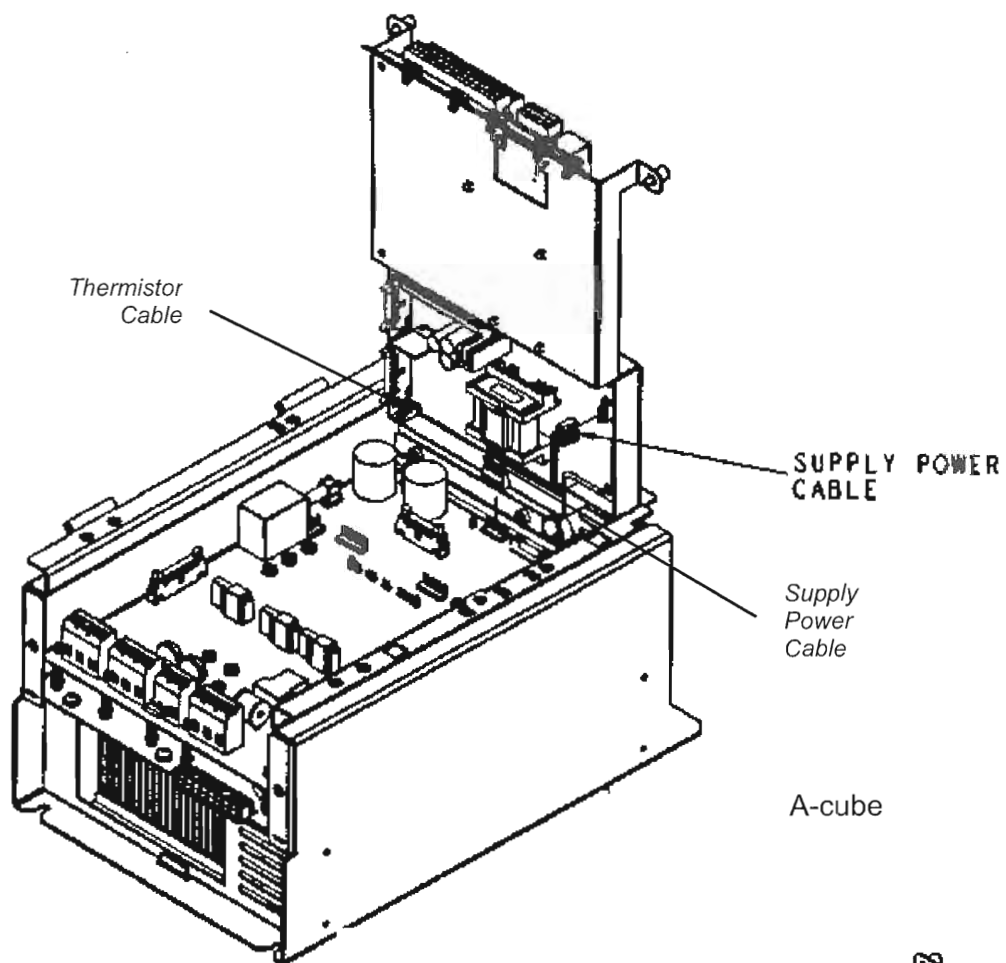
- First, check that the incoming three phase power is disconnected
- Once the incoming three phase power is disconnected, it will be necessary to discharge the DC bus with a "bleeder" resistor.

Discharging DC bus with "Bleeder" Resistor

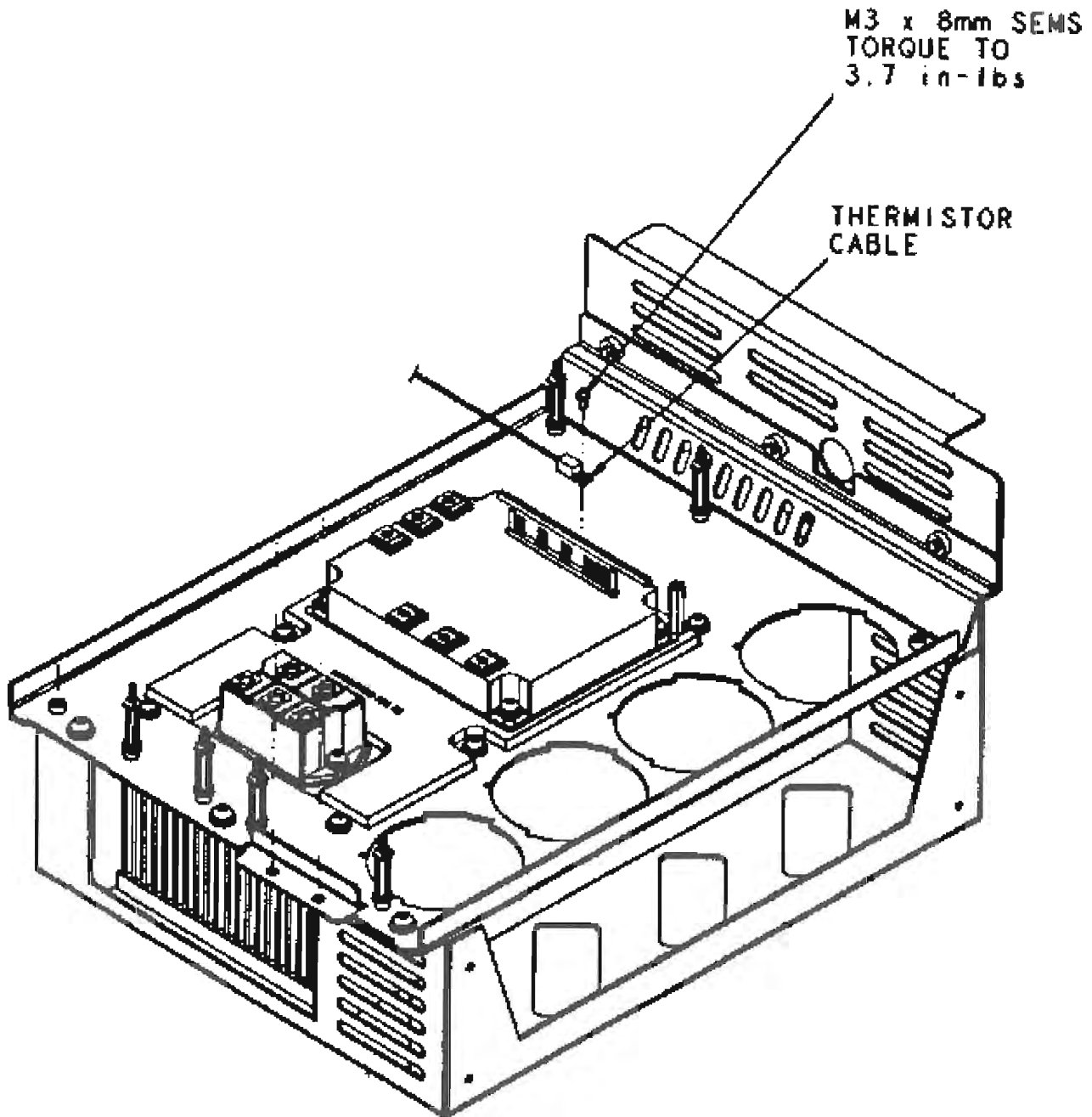
- Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.
- The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.
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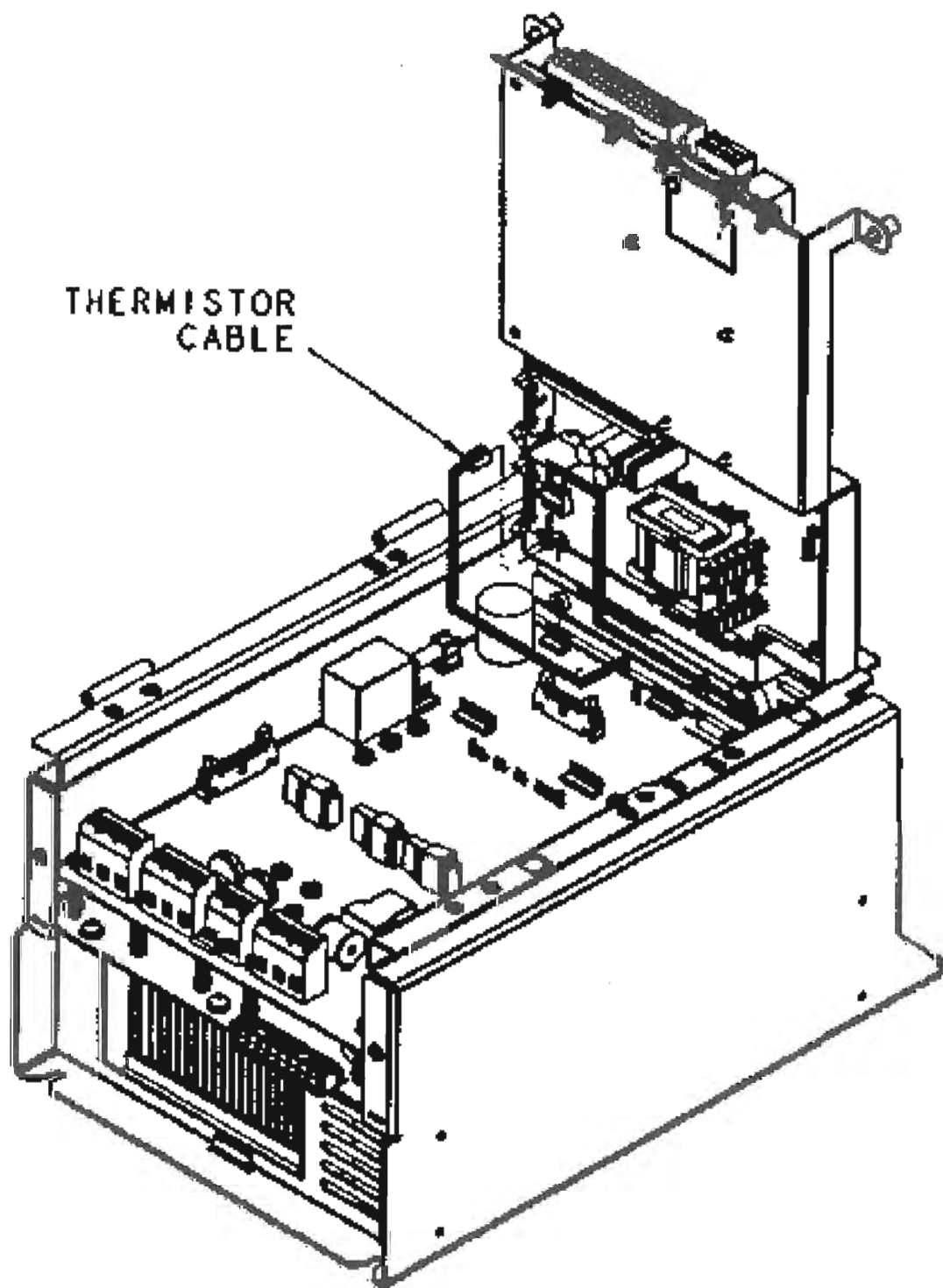
- ◆ Open the drive's cover. The shipping screws may need to be loosened.
- ◆ With drive's cover open, disassemble drive to gain access to the Power Board.
- ◆ Identify and disconnect the Gate Power Cable, Supply Power Cable, Feedback Signal Ribbon Cable, and Gate Signal Ribbon Cable.



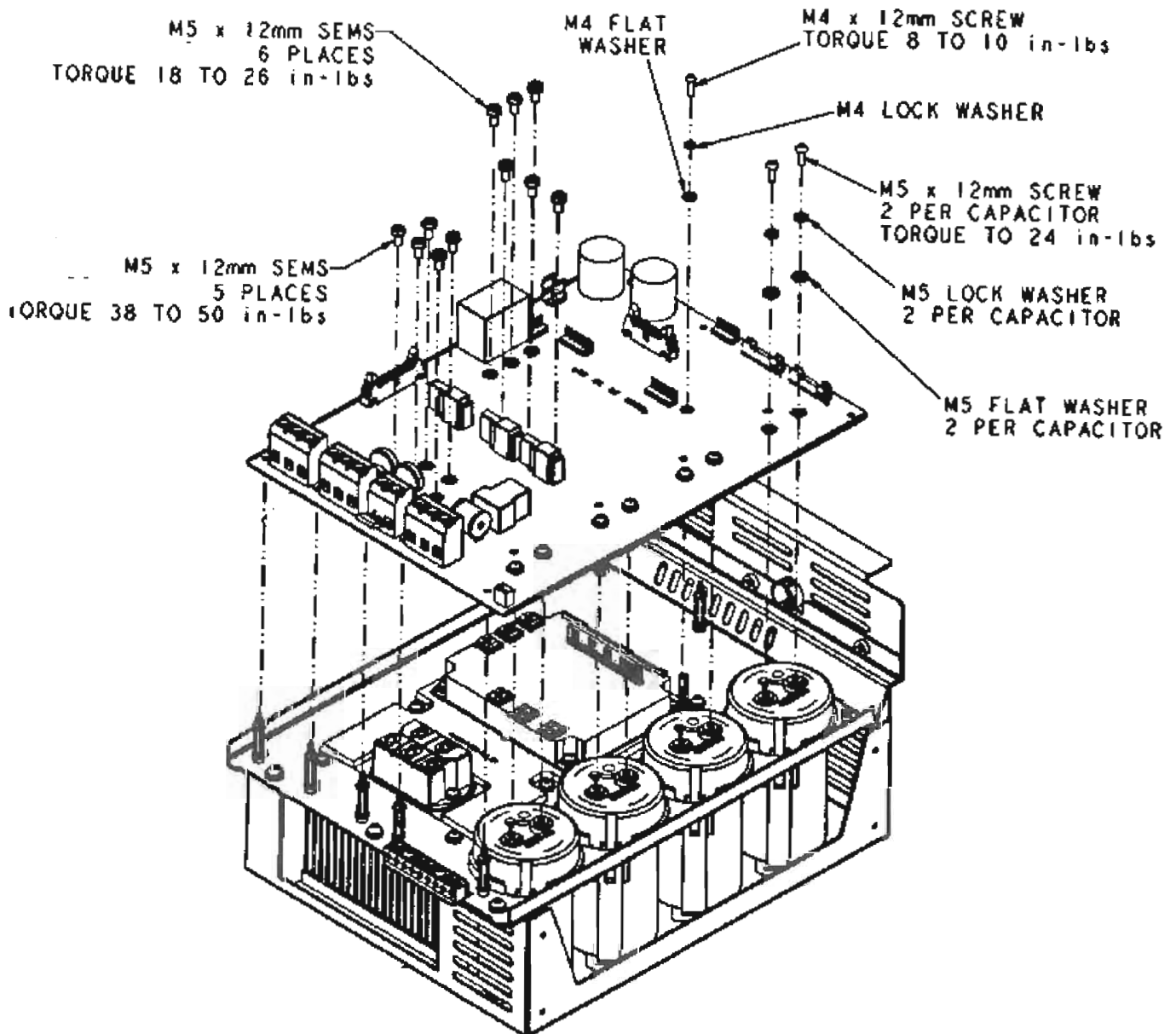


- ◆ Remove Thermistor Assembly
- ◆ Install thermistor to heatsink. Apply a thin layer of Thermal Grease to the bottom of both thermistors before securing them in place (torque: 3.7 in-lbs)





- ◆ Re-install new Power Board. Press Power Board down into standoffs until it snaps securely into place.
IMPORTANT: Insure that no capacitors were removed, since capacitor orientation/polarity is critical (Improper capacitor polarity will cause explosion and fire)
- ◆ Install Power board hardware: IGBTs (18 to 26 in-lbs); Capacitors (24 in-lbs); Diode Bridges (38 to 50 in-lbs); and mounting hardware (8 to 10 in-lbs)
- ◆ Attach thermistor cable to Power Interface Board. Ensure the cable connectors latch securely (snap into mating connector) during insertion.
- ◆ Re-install Gate Power Cable, Supply Power Cable, Feedback Signal Ribbon Cable, and Gate Signal Ribbon Cable. Ensure the cable connectors latch securely (snap into mating connector) during insertion.
- ◆ Finally, re-assemble drive.



HPV9-THERMB / HPV9-THERMC Replacement

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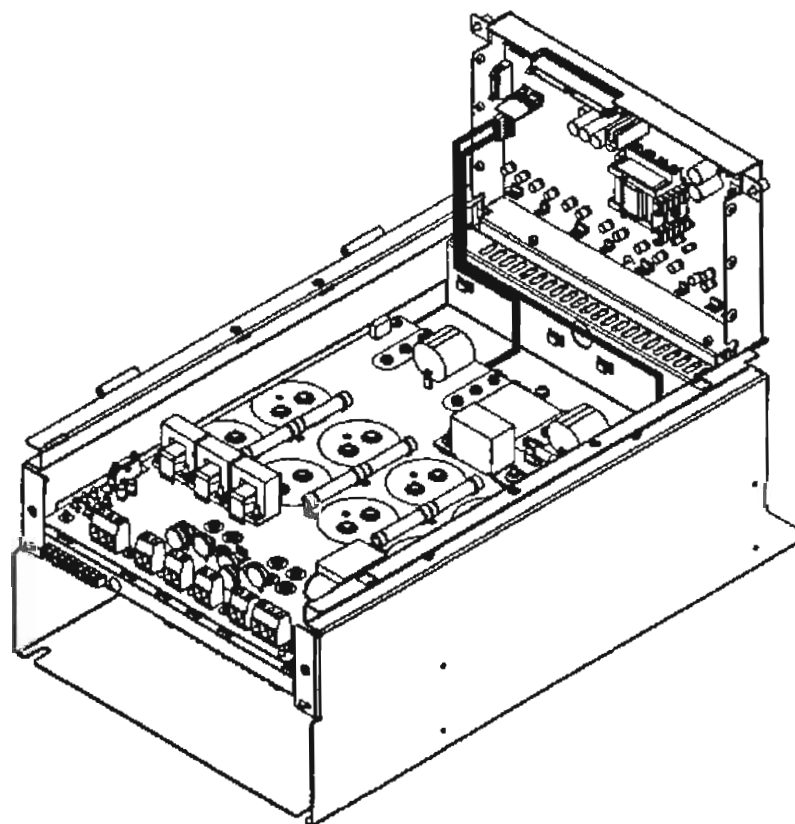
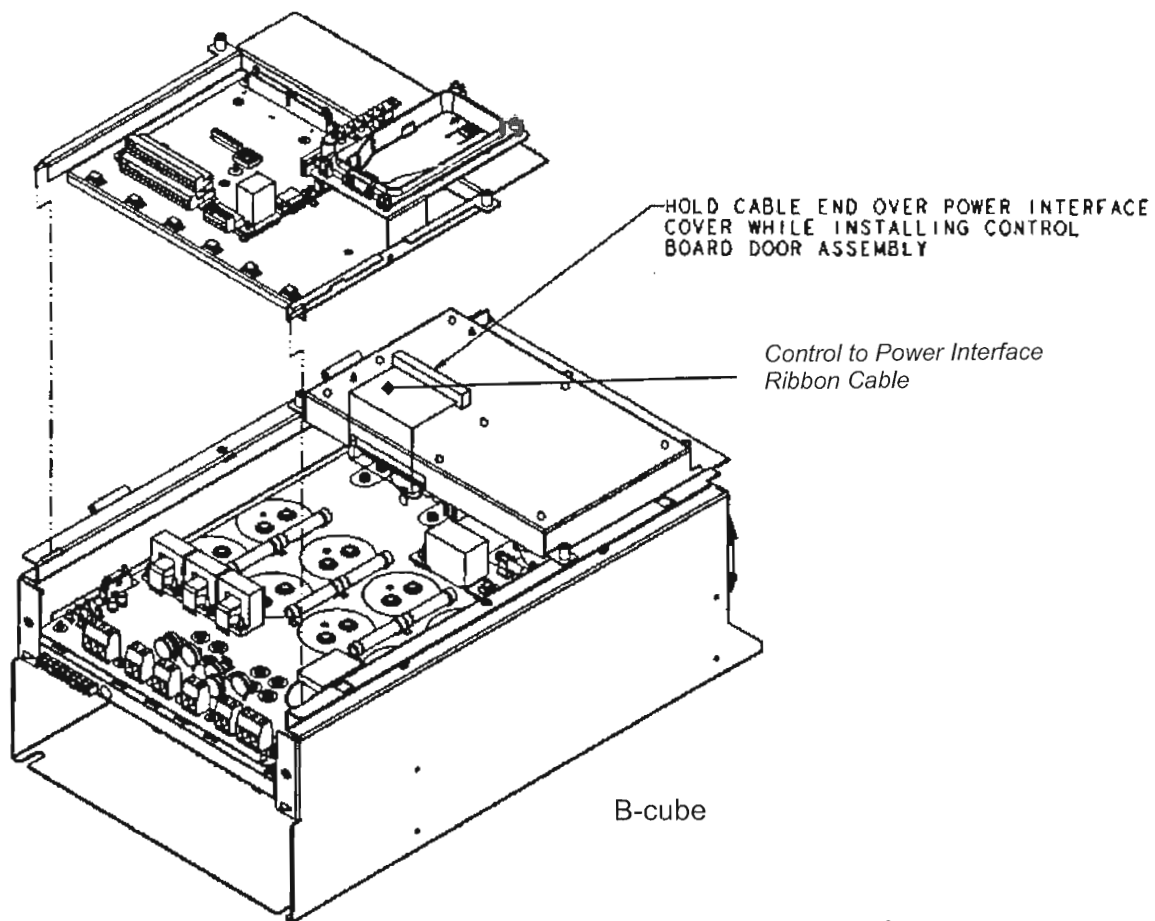
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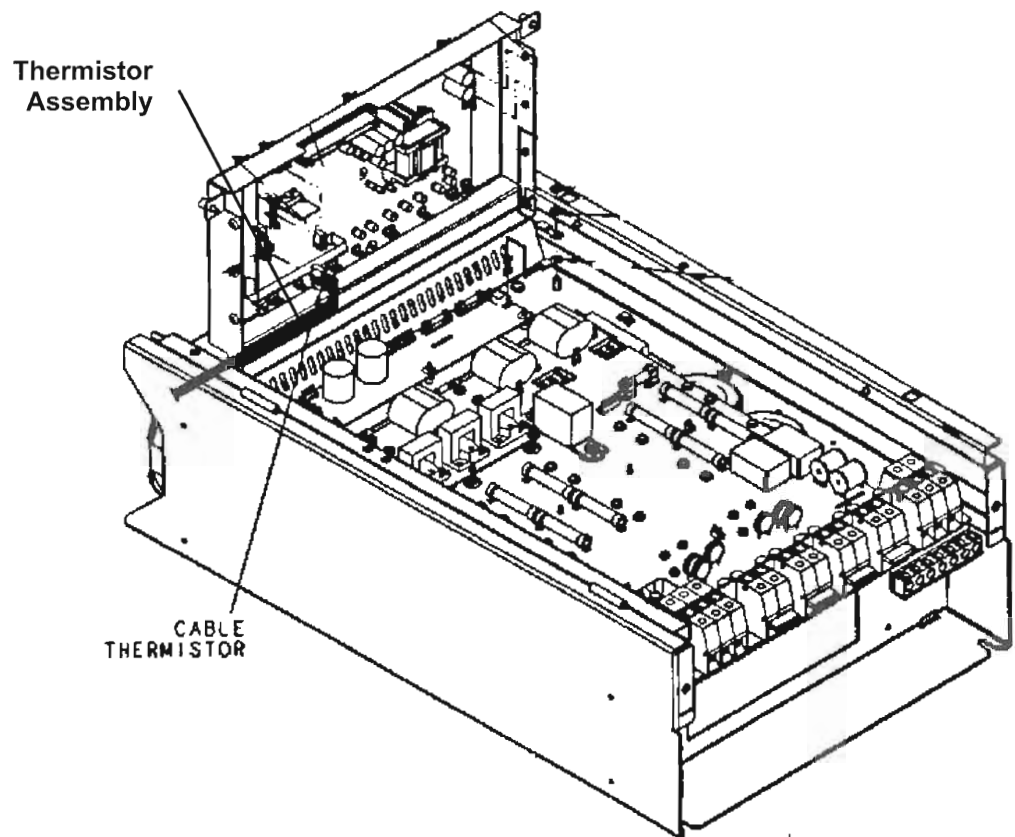
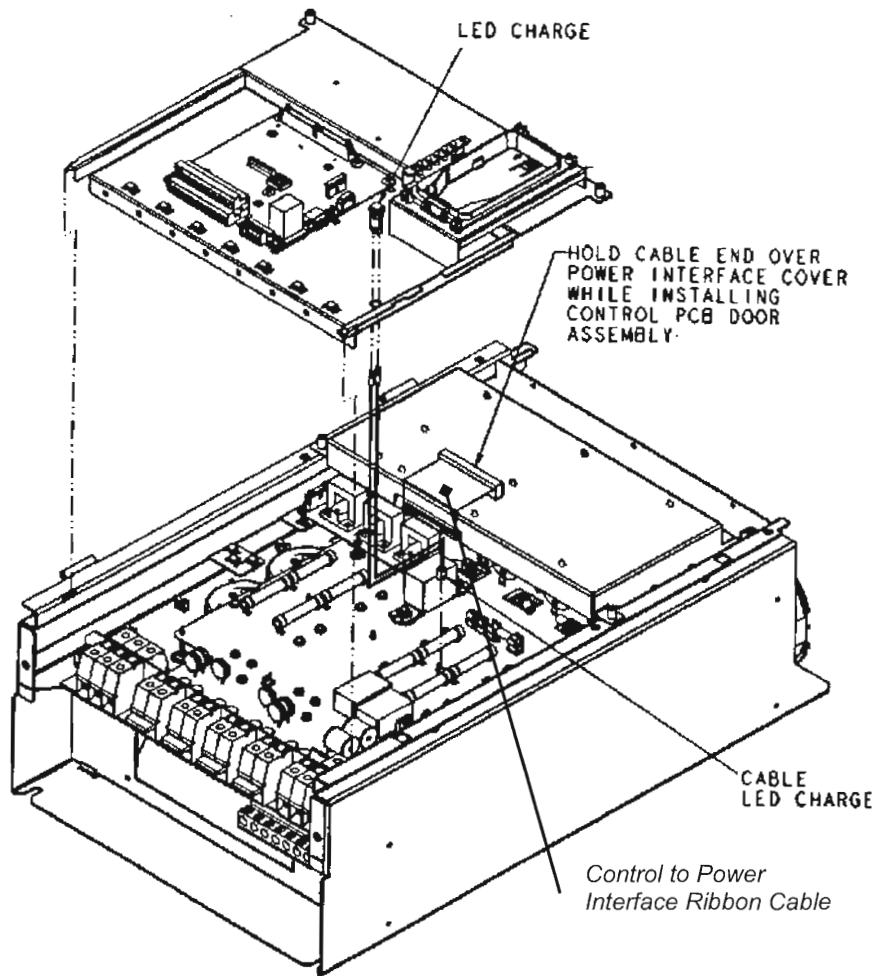
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Discharging DC bus with "Bleeder" Resistor

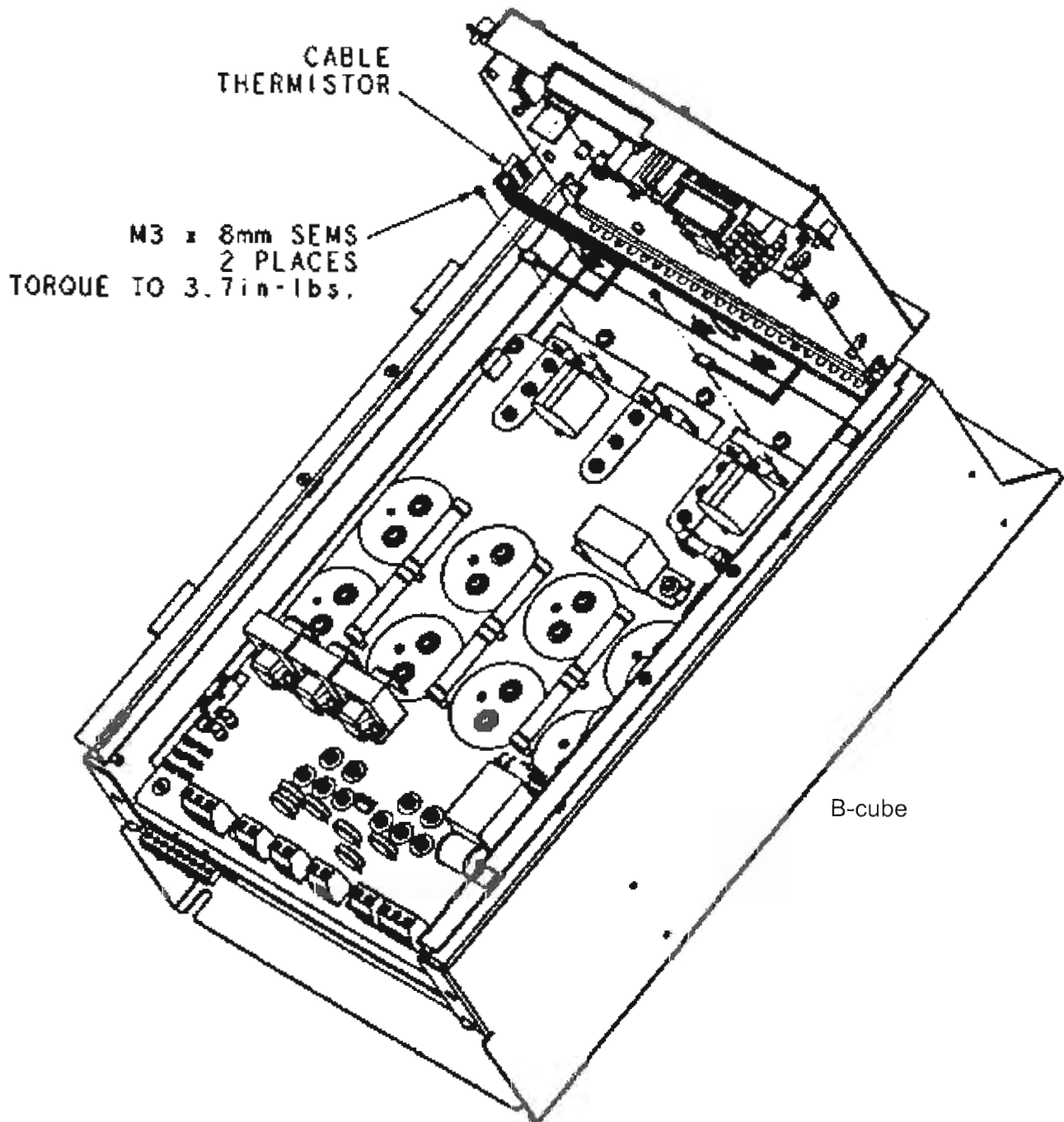
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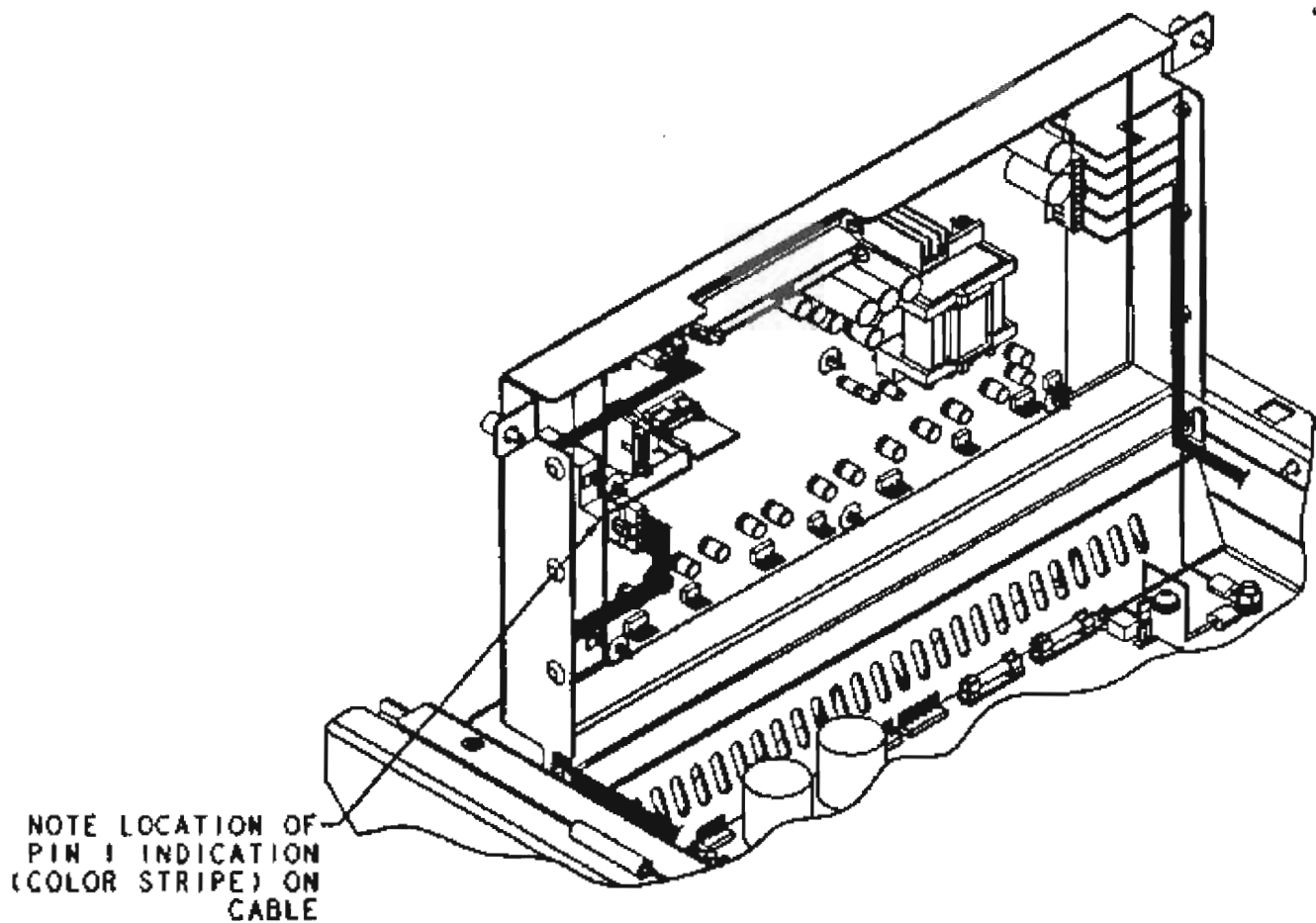
- ◆ Open the drive's cover. The shipping screws may need to be loosened.
- ◆ With drive's cover open, disassemble drive to gain access to the Thermistor Assembly.



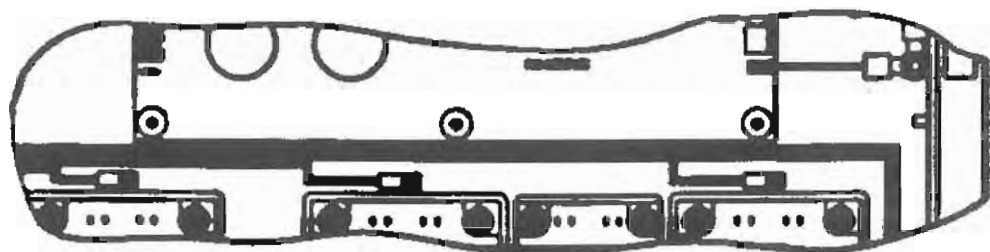


- ◆ Remove Thermistor Assembly
- ◆ Install thermistors to heatsink. Apply a thin layer of Thermal Grease to the bottom of both thermistors before securing them in place (torque: 3.7 in-lbs)
- ◆ Attach thermistor cable to Power Interface Board. Ensure the cable connectors latch securely (snap into mating connector) during insertion.
- ◆ Finally, re-assemble drive





C-cube



THERMISTOR DETAIL

M3 x 8mm SEMS
3 PLACES
TORQUE TO 3.7 in-lbs

HPV9-CBCABLE-A / HPV9-CBCABLE-B HPV9-CBCABLE-C Replacement

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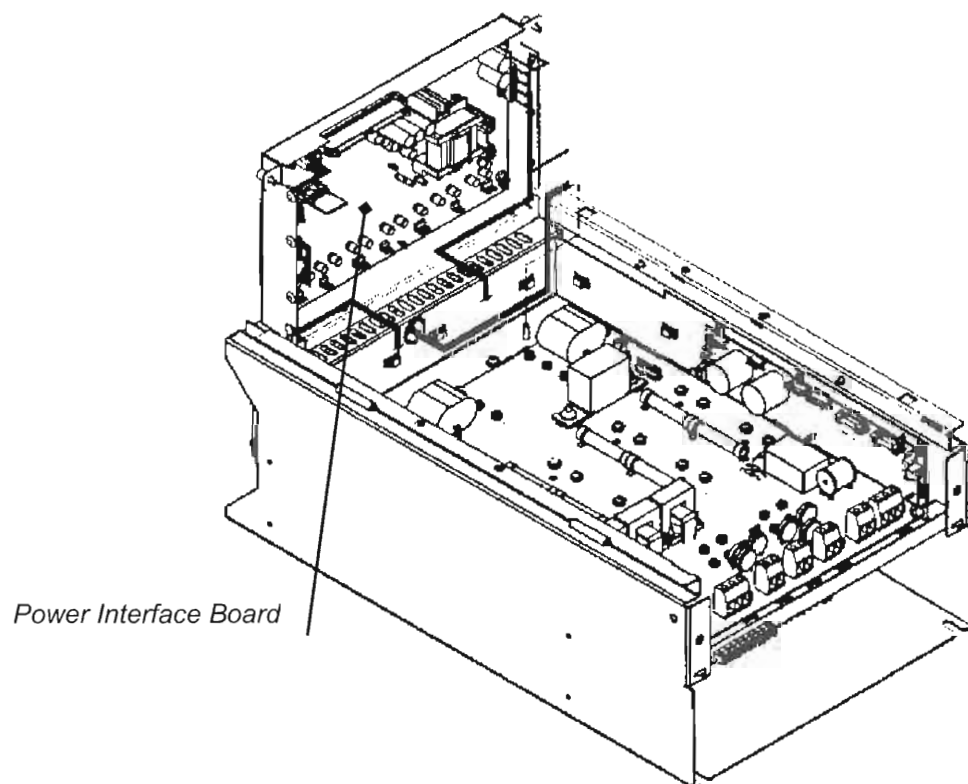
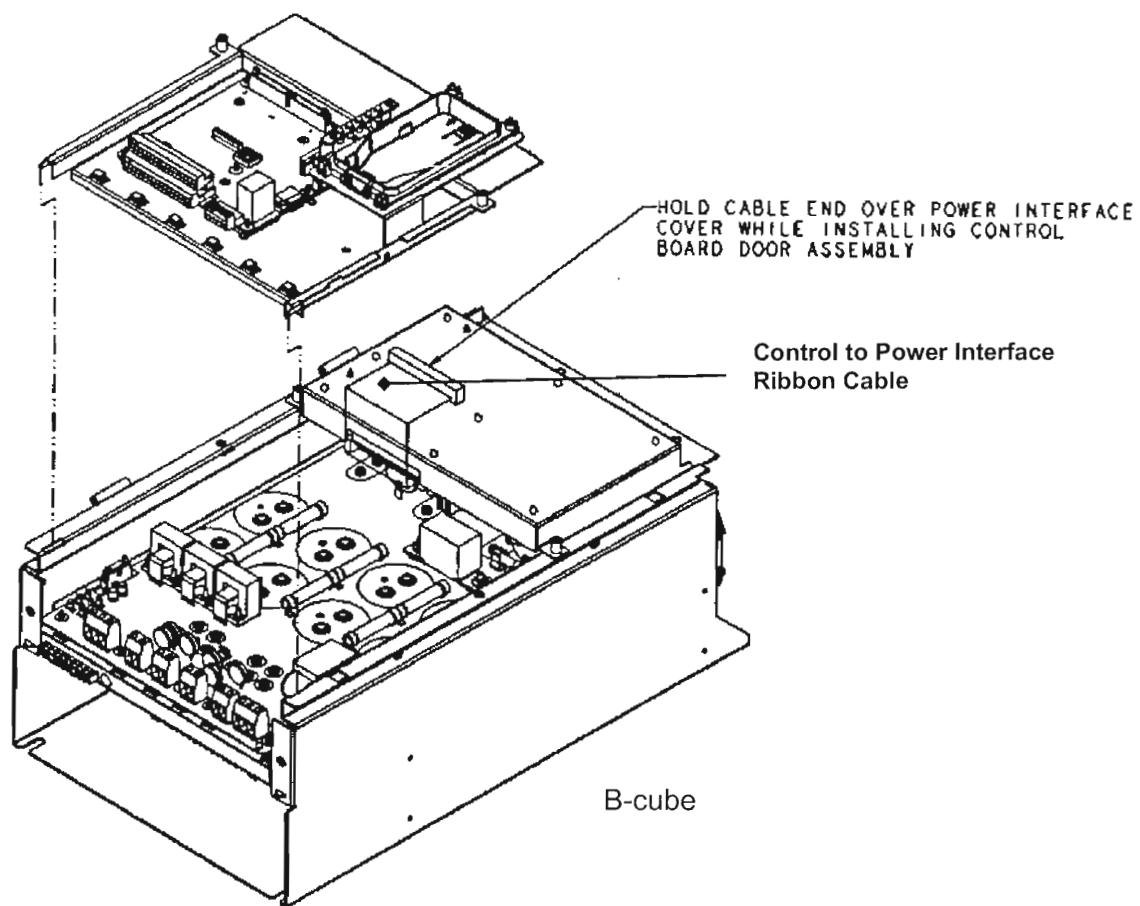
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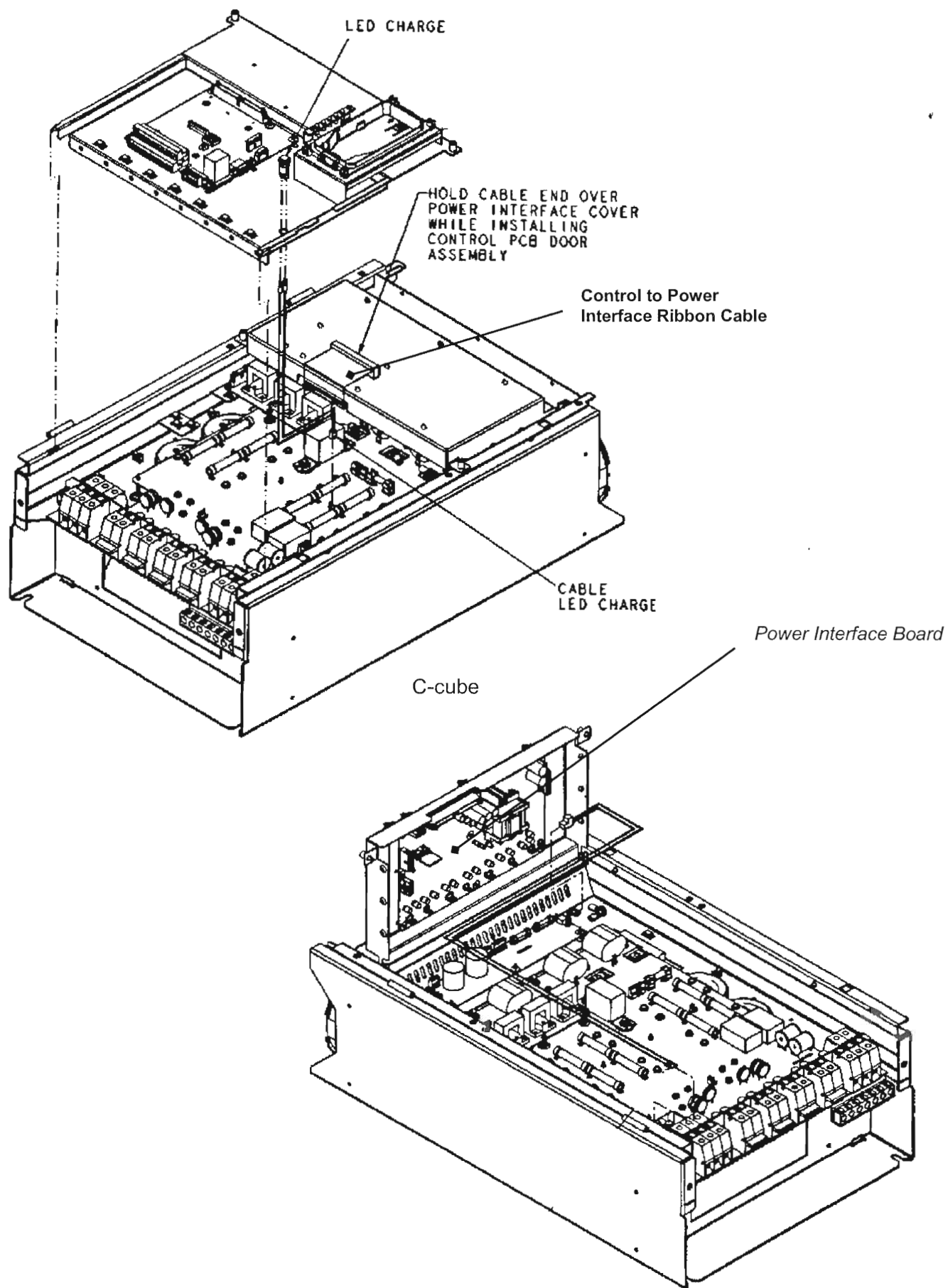
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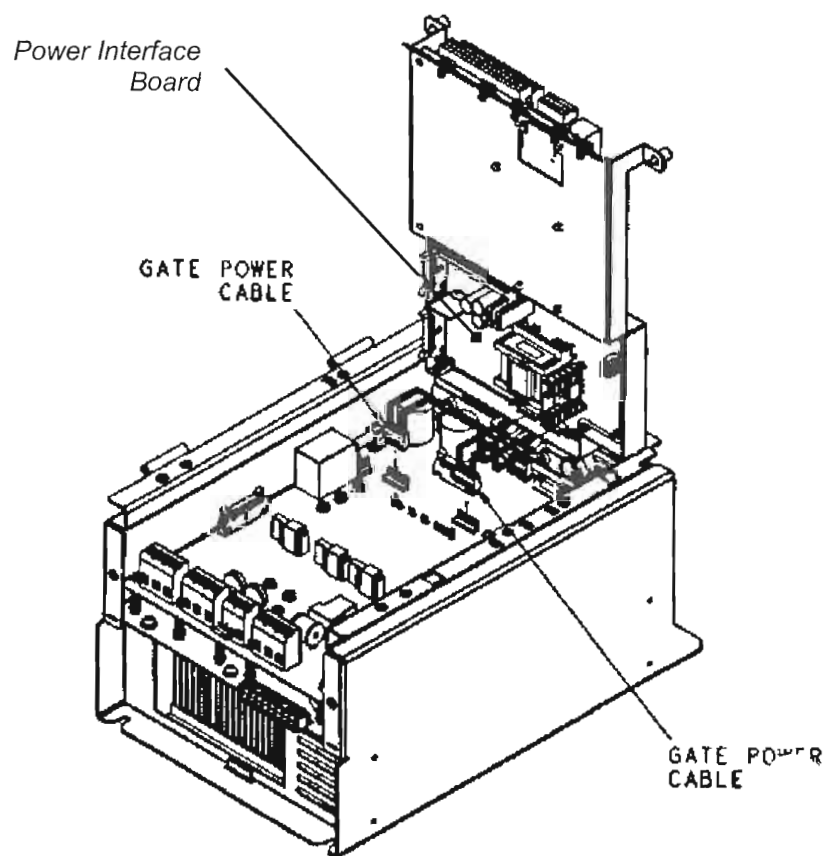
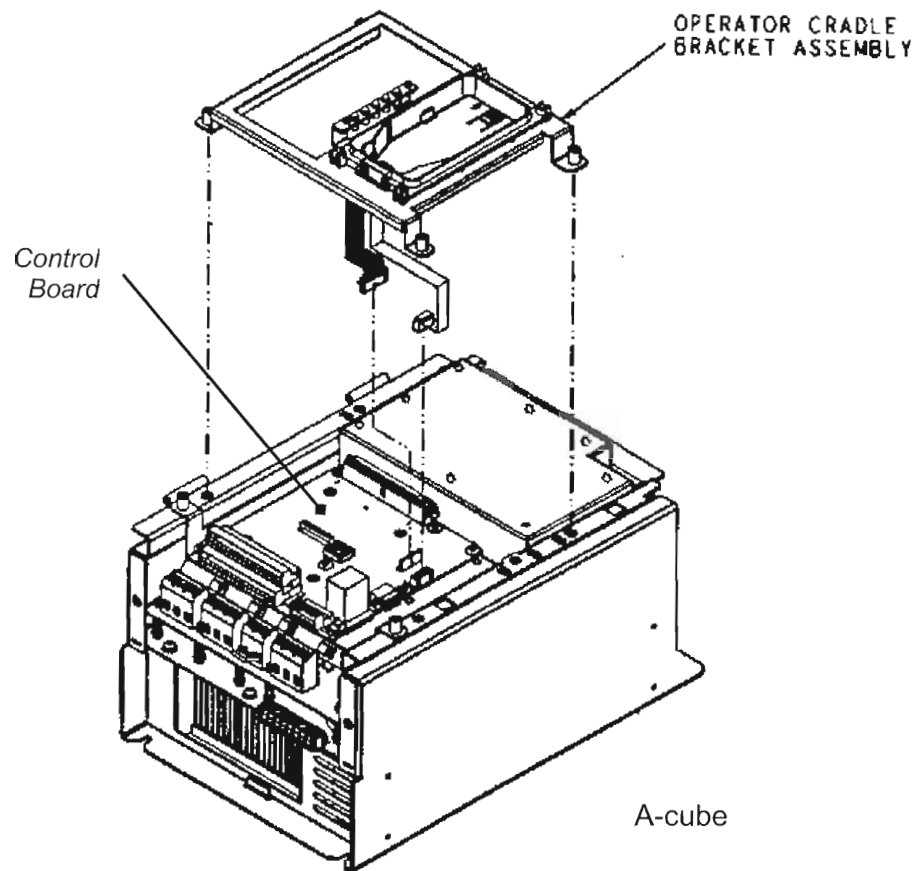
Discharging DC bus with "Bleeder" Resistor

- Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.
- The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.
- Once the DC bus charge light is out, verify with a voltmeter that no voltage exists between the (+3) and (-) terminals.

- ◆ Open the drive's cover. The shipping screws may need to be loosened.
- ◆ With drive's cover open, identify and disconnect Control to Power Interface Ribbon Cable.
- ◆ Install new Control to Power Interface Ribbon Cable. Ensure that the locking tabs are securely in position by pushing down simultaneously on the cable connector and squeezing both locking tabs.
- ◆ Finally, re-assemble drive.







HPV9-OPCABLE-AB / HPV9-OPCABLE-C Replacement

Remember when servicing the HPV 900:
Hazardous voltages may exist in the drive circuits even with drive circuit breaker in off position.

IMPORTANT: Use extreme caution: Do not touch any circuit board, the drive, or motor electrical connections without making sure that the unit is properly grounded and that no high voltage is present.

NEVER attempt maintenance unless:

- the incoming three phase power (460 or 230VAC) and control power (115VAC) is disconnected and locked out.
- also, ensure the DC Bus charge light is out.
- even with the light out, we recommend that you use a voltmeter between (+3) and (-) to verify that no voltage is present.

CAUTION: Before continuing, ensure the DC Bus Charge LED is not illuminated.

IMPORTANT: Take ESD precautions, devices within the drive are sensitive to static damage.

If after 5 minutes the DC bus charge light remains ON or voltage remains between terminals (+3) and (-):

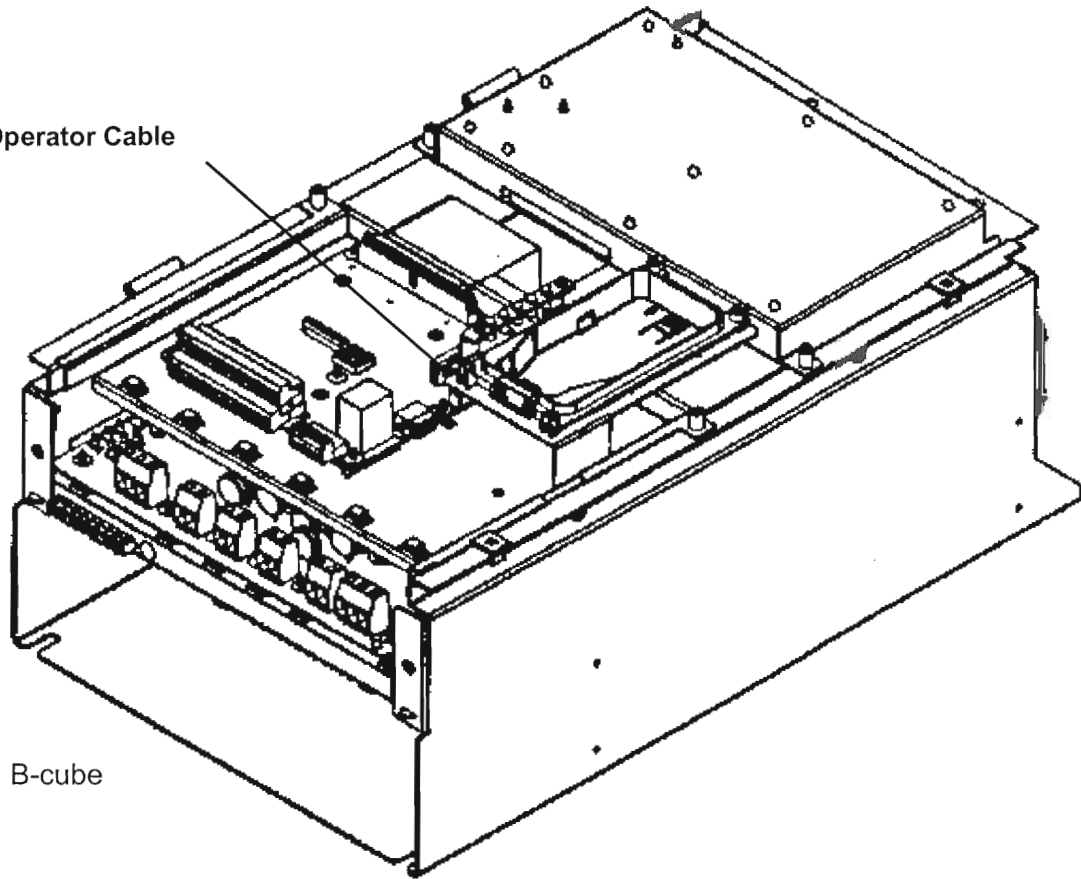
- First, check that the incoming three phase power is disconnected
- Once the incoming three phase power is disconnected, it will be necessary to discharge the DC bus with a "bleeder" resistor.

Discharging DC bus with "Bleeder" Resistor

- Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.
- The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.
- Once the DC bus charge light is out, verify with a voltmeter that no voltage exists between the (+3) and (-) terminals.

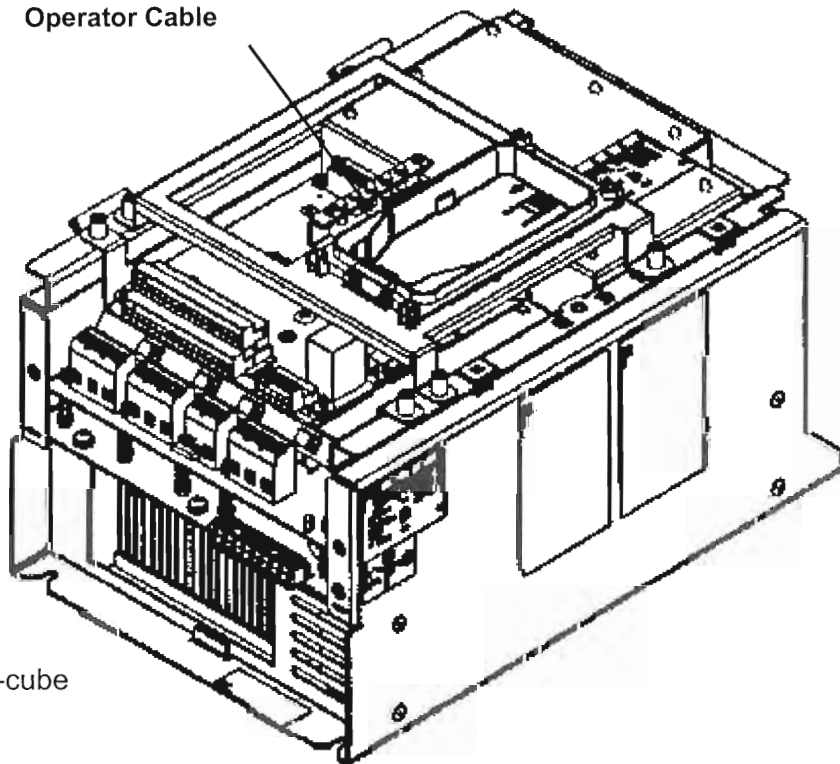
- ◆ Open the drive's cover. The shipping screws may need to be loosened.
- ◆ With drive's cover open, identify and remove the operator cable.

Operator Cable

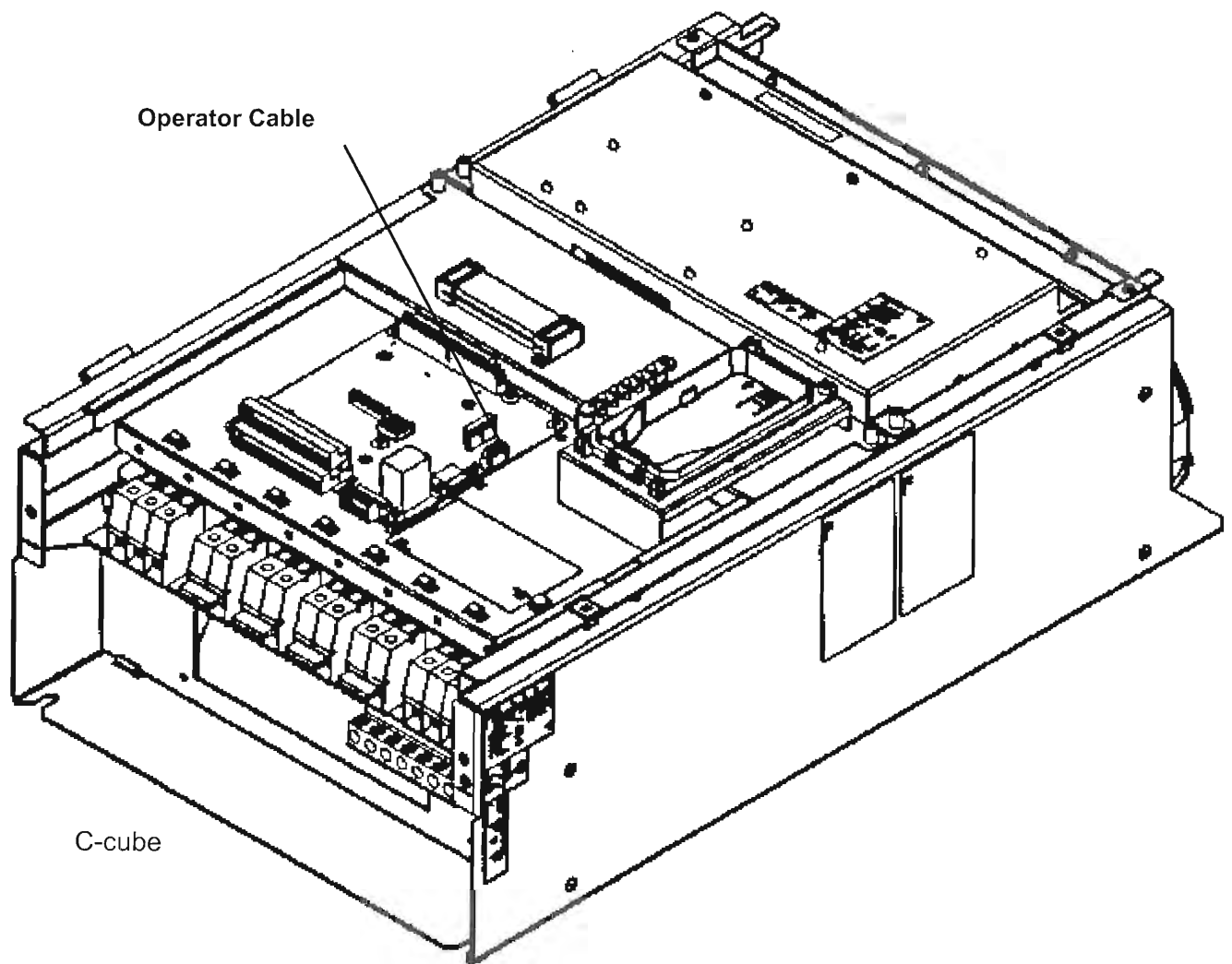


B-cube

Operator Cable



A-cube

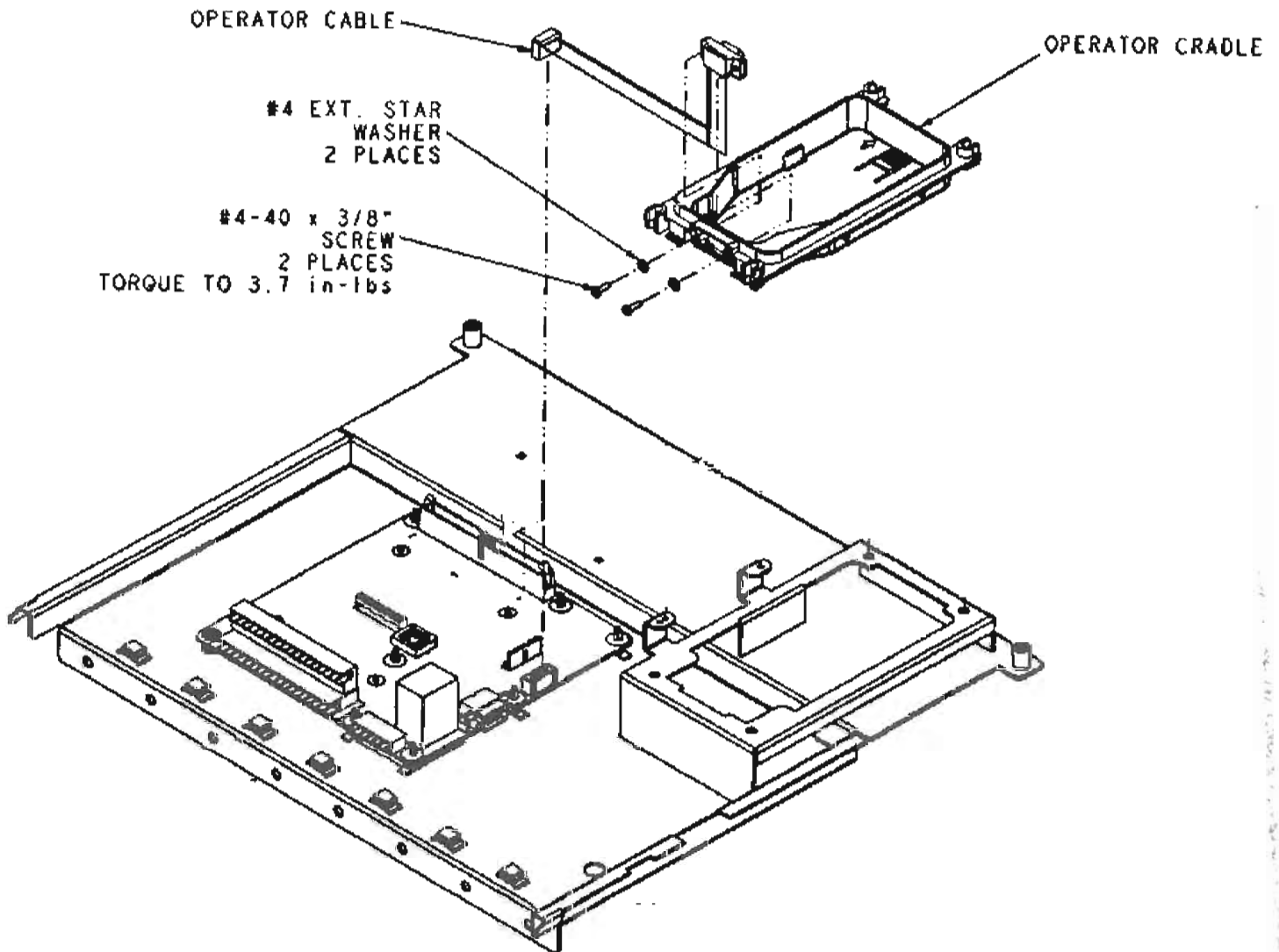


B-cube, B+cube and A-cube

- ◆ Use HPV9-OPCABLE-AB kit
- ◆ Install new Operator Cable
(torque: 3.7 in-lbs)

C-cube

- ◆ Use HPV9- OPCABLE-C kit
- ◆ Install new Operator Cable
(torque: 3.7 in-lbs)



HPV9-CURRCABLE-B / HPV9-CURRCABLE-C Replacement

Remember when servicing the HPV 900:
Hazardous voltages may exist in the drive circuits
even with drive circuit breaker in off position.

IMPORTANT: Use extreme caution: Do not touch any circuit board, the drive, or motor electrical connections without making sure that the unit is properly grounded and that no high voltage is present.

NEVER attempt maintenance unless:

- the incoming three phase power (460 or 230VAC) and control power (115VAC) is disconnected and locked out.
- also, ensure the DC Bus charge light is out.
- even with the light out, we recommend that you use a voltmeter between (+3) and (-) to verify that no voltage is present.

CAUTION: Before continuing, ensure the DC Bus Charge LED is not illuminated.

IMPORTANT: Take ESD precautions, devices within the drive are sensitive to static damage.

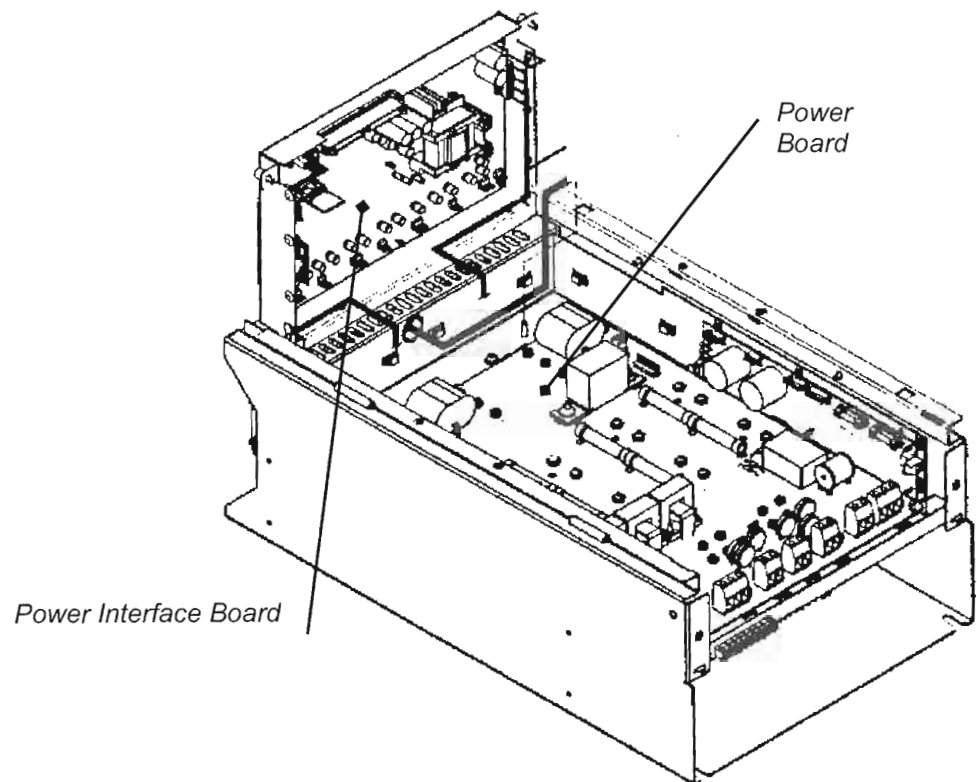
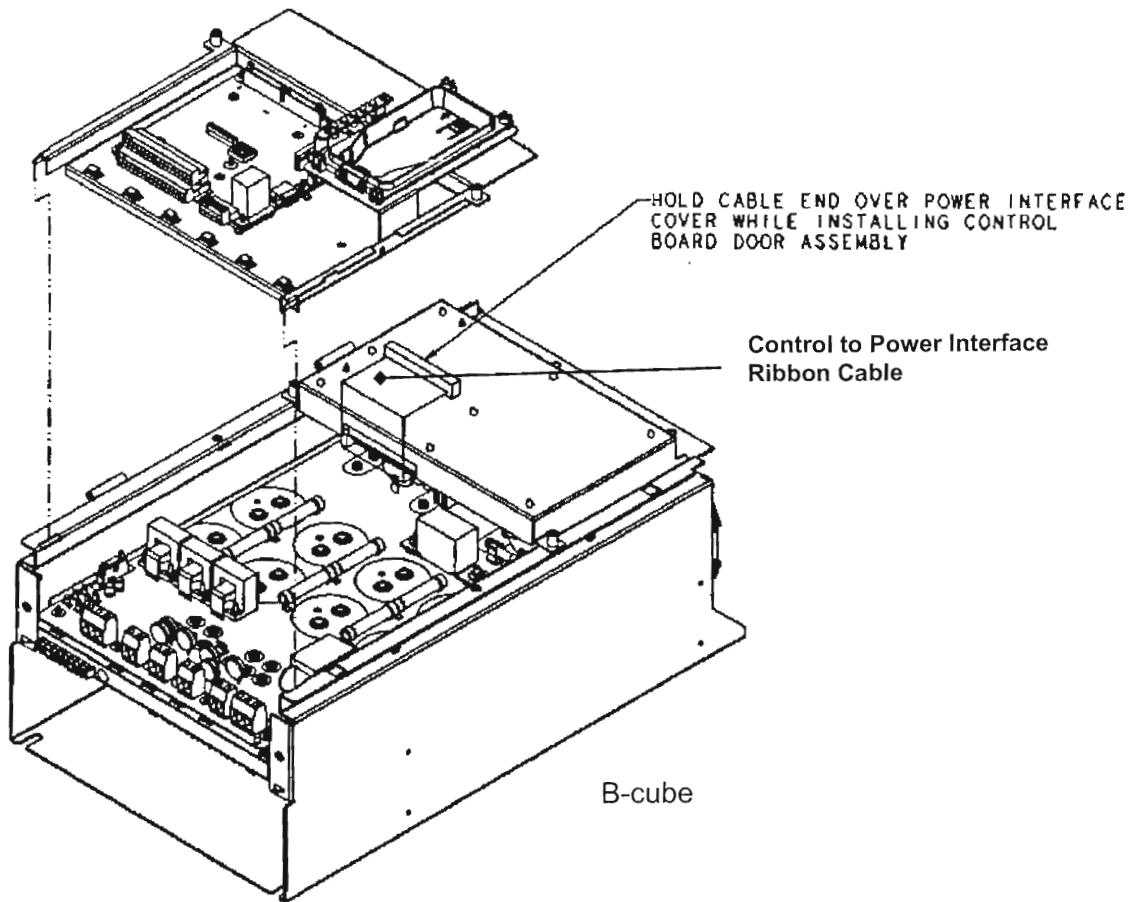
If after 5 minutes the DC bus charge light remains ON or voltage remains between terminals (+3) and (-):

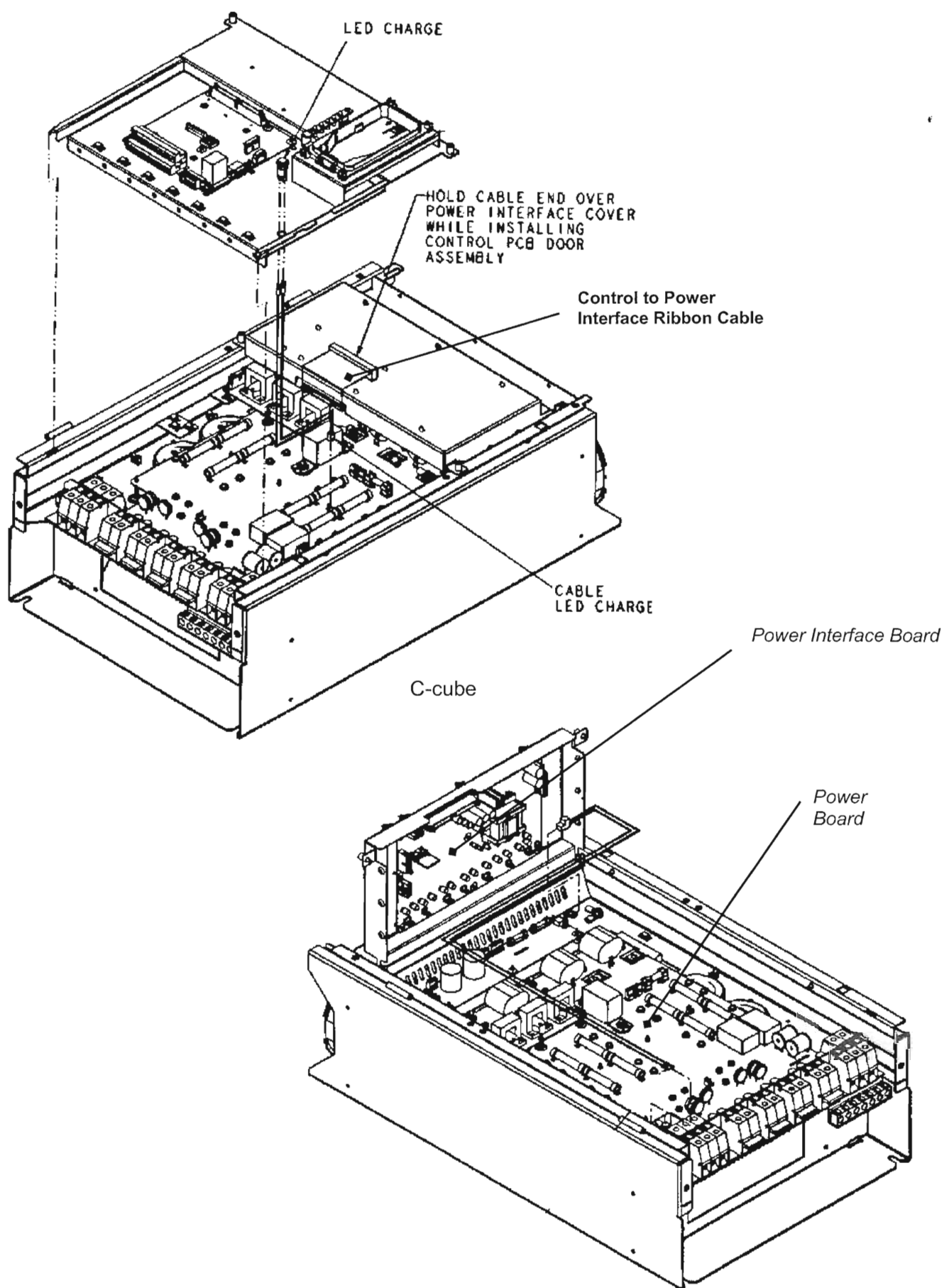
- First, check that the incoming three phase power is disconnected
- Once the incoming three phase power is disconnected, it will be necessary to discharge the DC bus with a "bleeder" resistor.

Discharging DC bus with "Bleeder" Resistor

- Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.
- The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.
- Once the DC bus charge light is out, verify with a voltmeter that no voltage exists between the (+3) and (-) terminals.

- ◆ Open the drive's cover. The shipping screws may need to be loosened.
- ◆ With drive's cover open, disassemble drive to gain access to the Power Interface Board and Power Board.

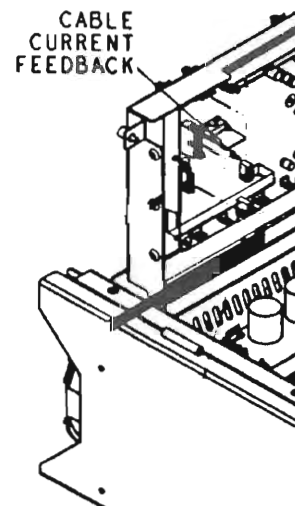
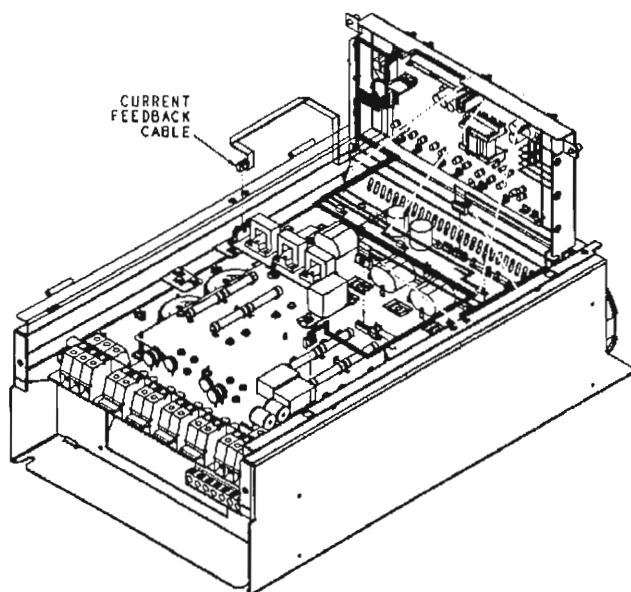


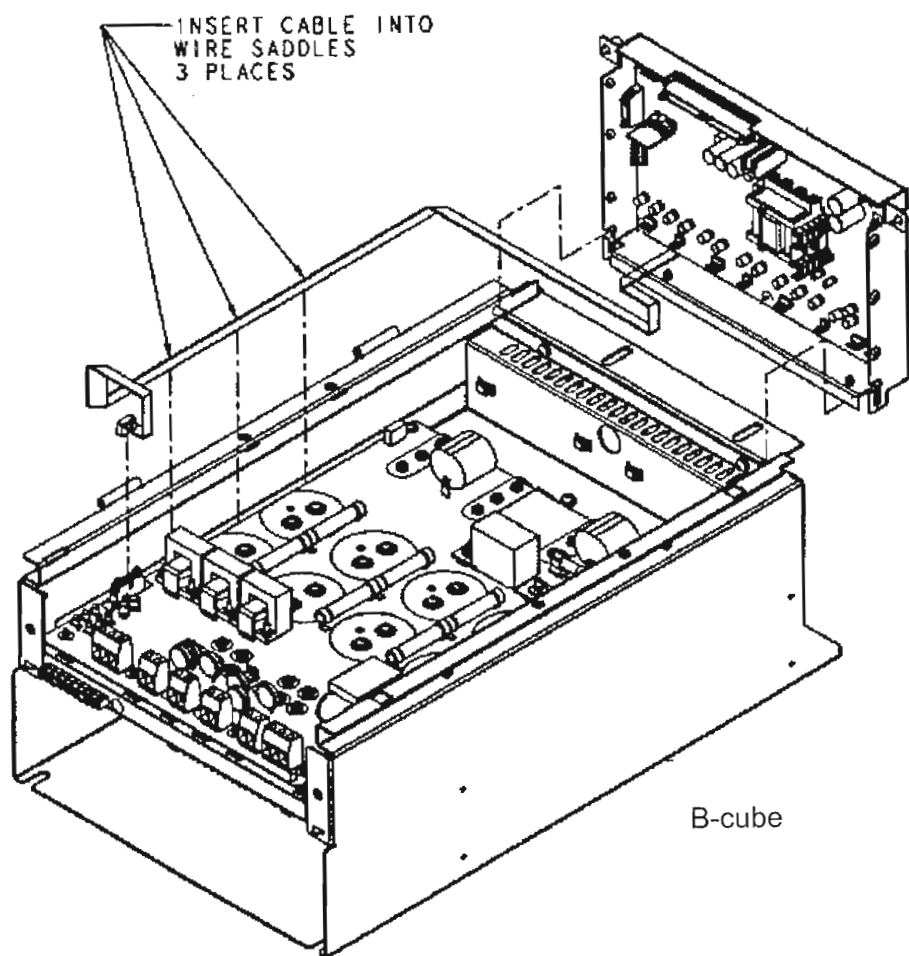


- ◆ Identify and disconnect the Current Feedback Ribbon Cable. Press in on each connector's locking tab.
- ◆ Use HPV9-CURRCABLE-B kit for models: 4027, 4034, 4041, 4052, 2027, 2041, 2052, 2075, 2088
- ◆ Use HPV9-CURRCABLE-C kit for models: 4065, 4077, 4096, 2068, 2080, 2104
- ◆ Re-install the Current Feedback Ribbon Cable. Ensure the cable connectors latch securely (snap into mating connector) during insertion.

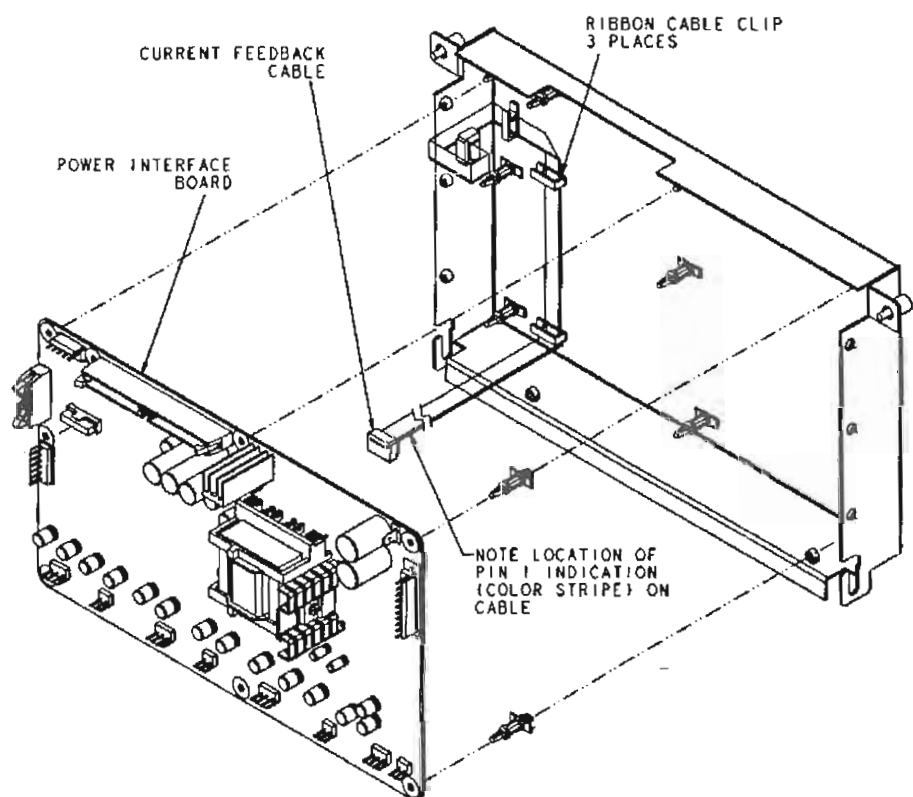
CAUTION: Ensure that the Current Feedback Ribbon Cable is inserted into the Power Interface Board and Power Board. This is very important to the proper operation of the drive.

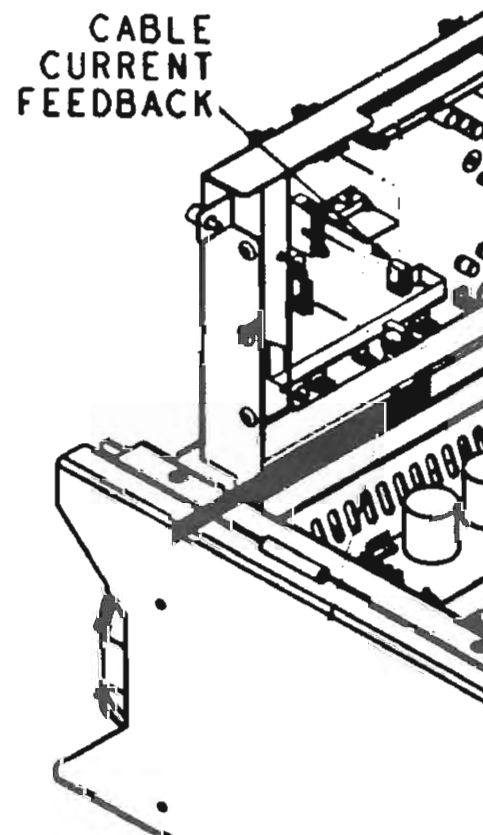
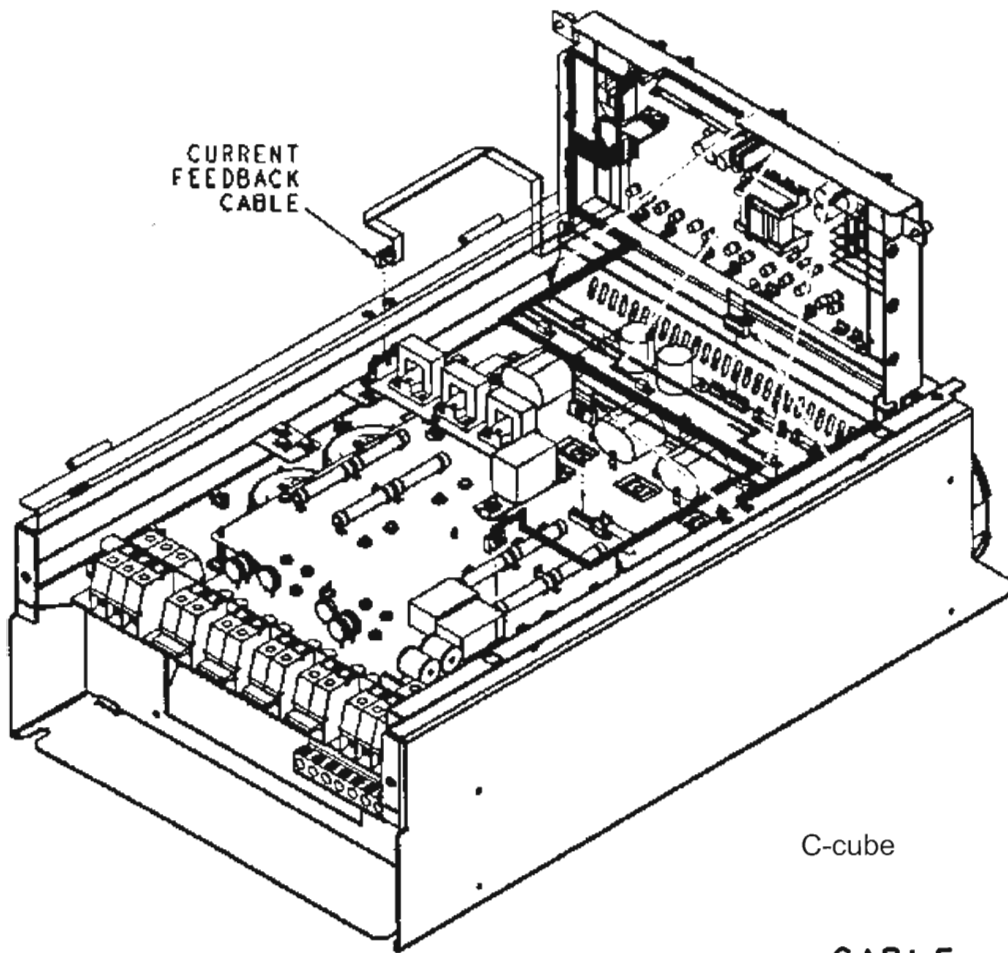
- ◆ Finally, re-assemble drive.





B-cube





HPV9-GSCABLE-A / HPV9-FDBKCABLE-A Replacement

Remember when servicing the HPV 900:
Hazardous voltages may exist in the drive circuits even with drive circuit breaker in off position.

IMPORTANT: Use extreme caution: Do not touch any circuit board, the drive, or motor electrical connections without making sure that the unit is properly grounded and that no high voltage is present.

NEVER attempt maintenance unless:

- the incoming three phase power (460 or 230VAC) and control power (115VAC) is disconnected and locked out.
- also, ensure the DC Bus charge light is out.
- even with the light out, we recommend that you use a voltmeter between (+3) and (-) to verify that no voltage is present.

CAUTION: Before continuing, ensure the DC Bus Charge LED is not illuminated.

IMPORTANT: Take ESD precautions, devices within the drive are sensitive to static damage.

If after 5 minutes the DC bus charge light remains ON or voltage remains between terminals (+3) and (-):

- First, check that the incoming three phase power is disconnected
- Once the incoming three phase power is disconnected, it will be necessary to discharge the DC bus with a "bleeder" resistor.

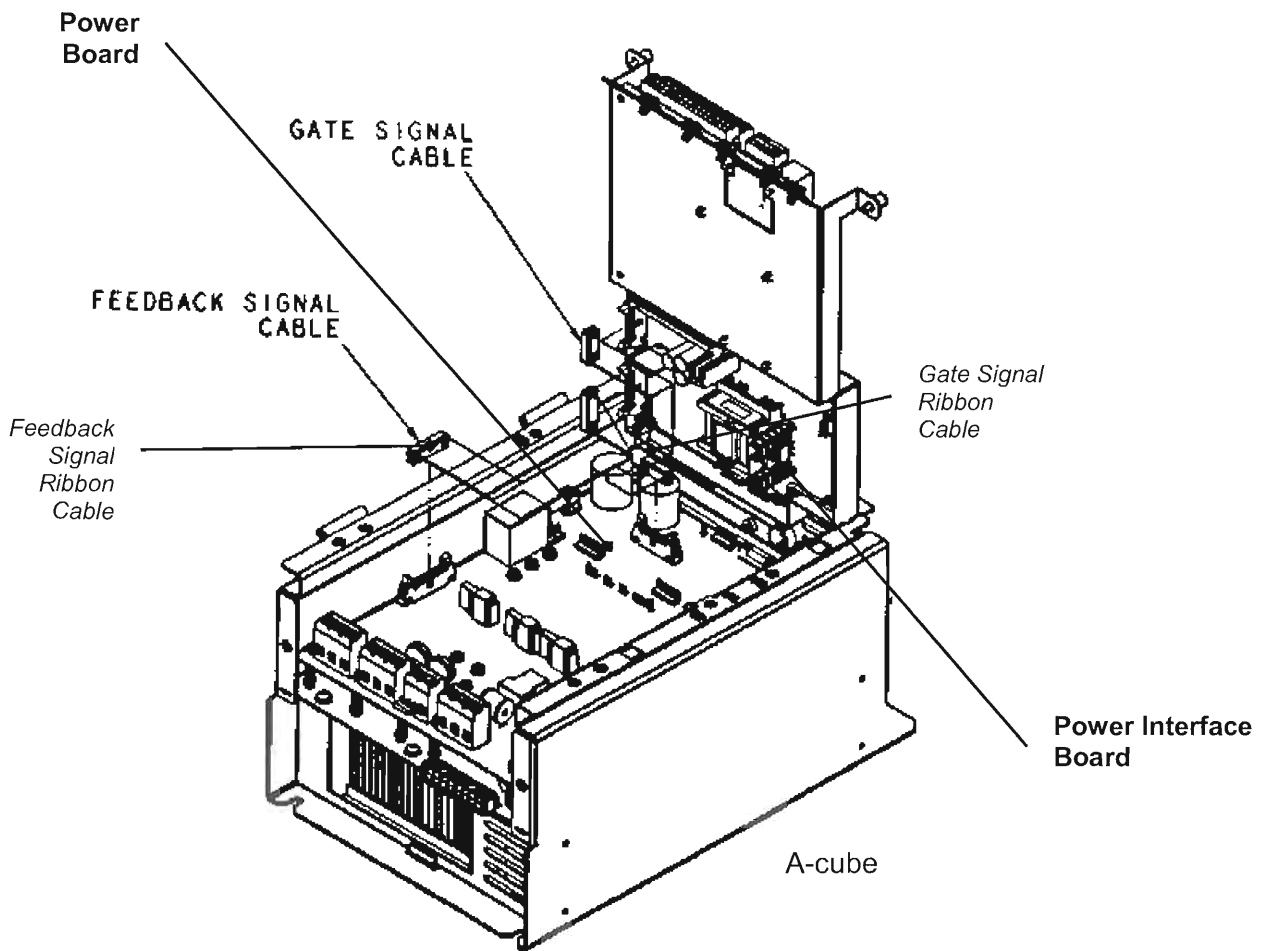
Discharging DC bus with "Bleeder" Resistor

- Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.
- The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.
- Once the DC bus charge light is out, verify with a voltmeter that no voltage exists between the (+3) and (-) terminals.

- ◆ Open the drive's cover. The shipping screws may need to be loosened.
- ◆ With drive's cover open, disassemble drive to gain access to the Power Board and the Power Interface Board.

- ◆ Identify and disconnect the Feedback Signal Ribbon Cable and/or Gate Signal Ribbon Cable. Press in on each connector's locking tab.
- ◆ Re-install the Feedback Signal Ribbon Cable and/or Gate Signal Ribbon Cable.. Ensure the cable connectors latch securely (snap into mating connector) during insertion.

CAUTION: Ensure that the Feedback Signal Ribbon Cable, and Gate Signal Ribbon Cable are inserted into the Power Interface Board. This is very important to the proper operation of the drive.



HPV9-GATEB / HPV9-GATEC Replacement

Remember when servicing the HPV 900:
Hazardous voltages may exist in the drive circuits even with drive circuit breaker in off position.

IMPORTANT: Use extreme caution: Do not touch any circuit board, the drive, or motor electrical connections without making sure that the unit is properly grounded and that no high voltage is present.

NEVER attempt maintenance unless:

- the incoming three phase power (460 or 230VAC) and control power (115VAC) is disconnected and locked out.
- also, ensure the DC Bus charge light is out.
- even with the light out, we recommend that you use a voltmeter between (+3) and (-) to verify that no voltage is present.

CAUTION: Before continuing, ensure the DC Bus Charge LED is not illuminated.

IMPORTANT: Take ESD precautions, devices within the drive are sensitive to static damage.

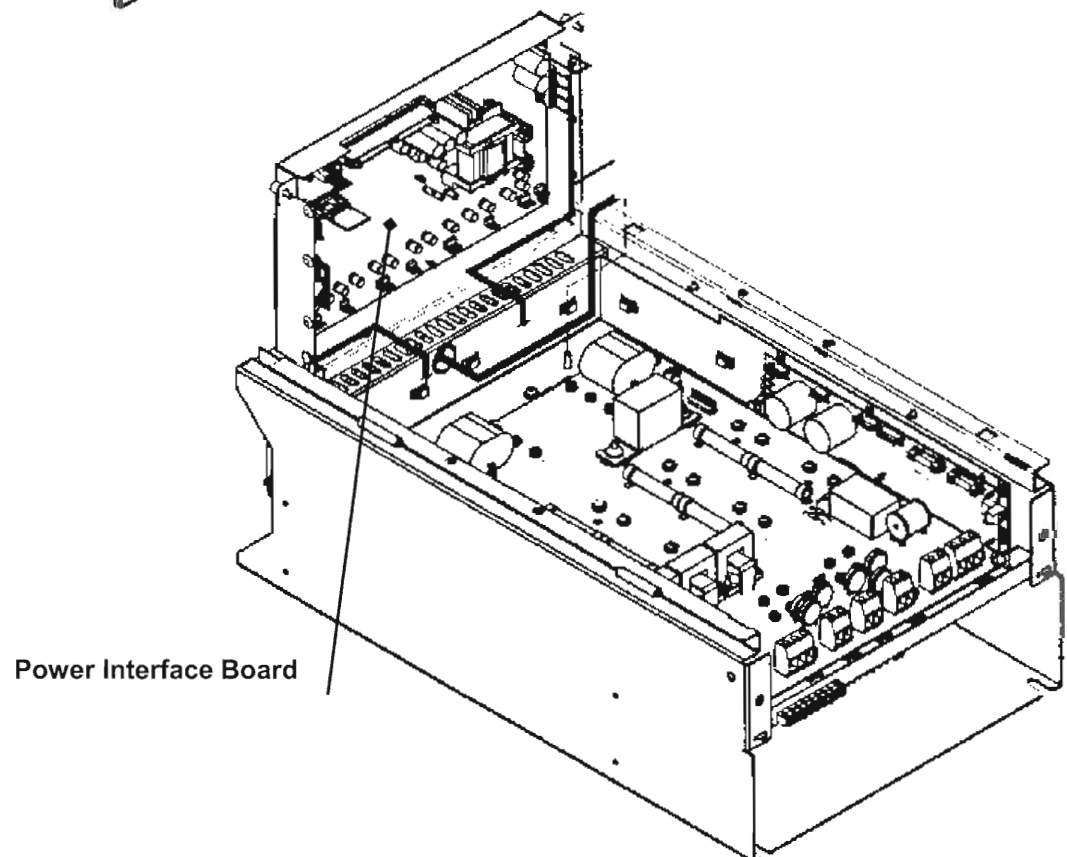
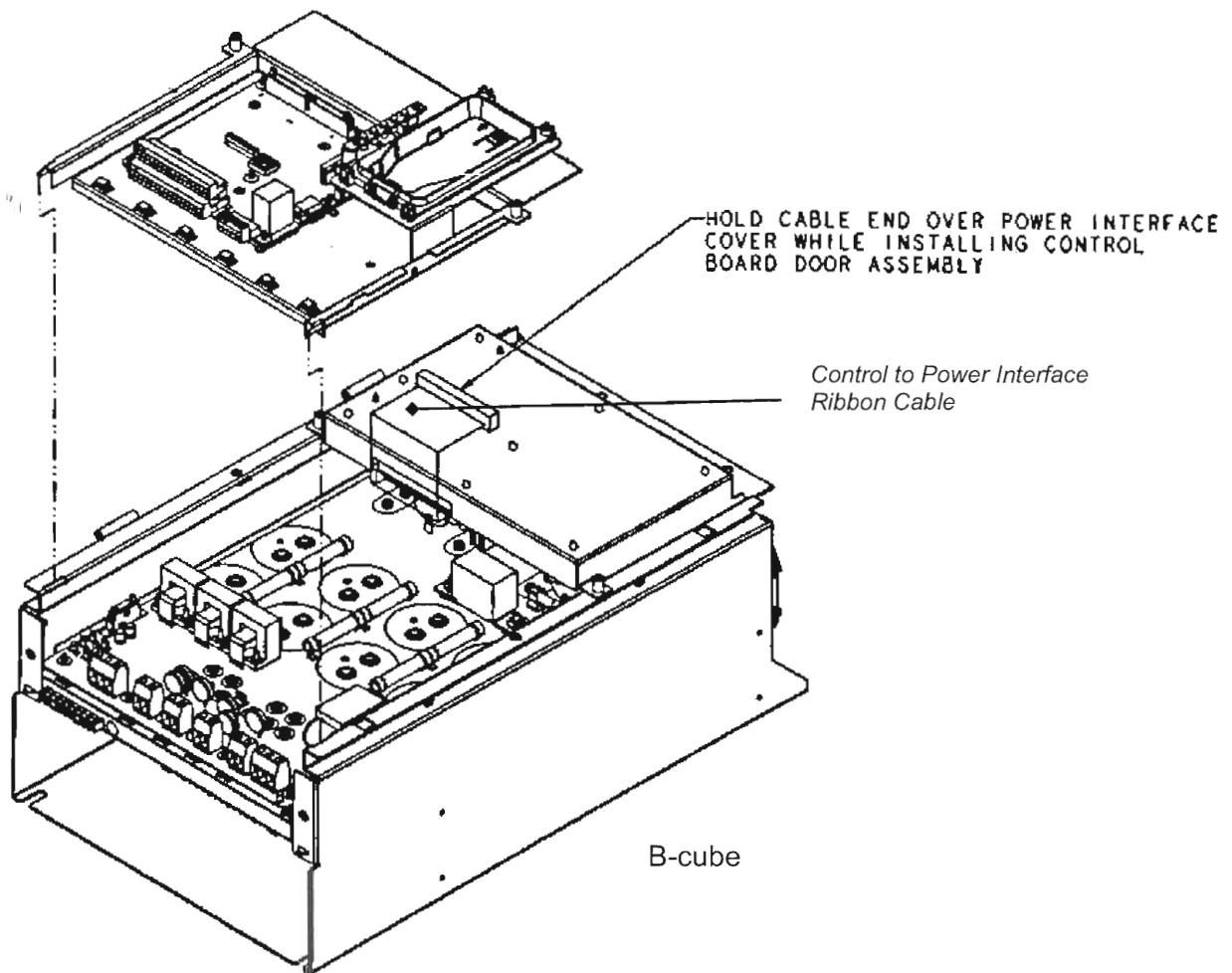
If after 5 minutes the DC bus charge light remains ON or voltage remains between terminals (+3) and (-):

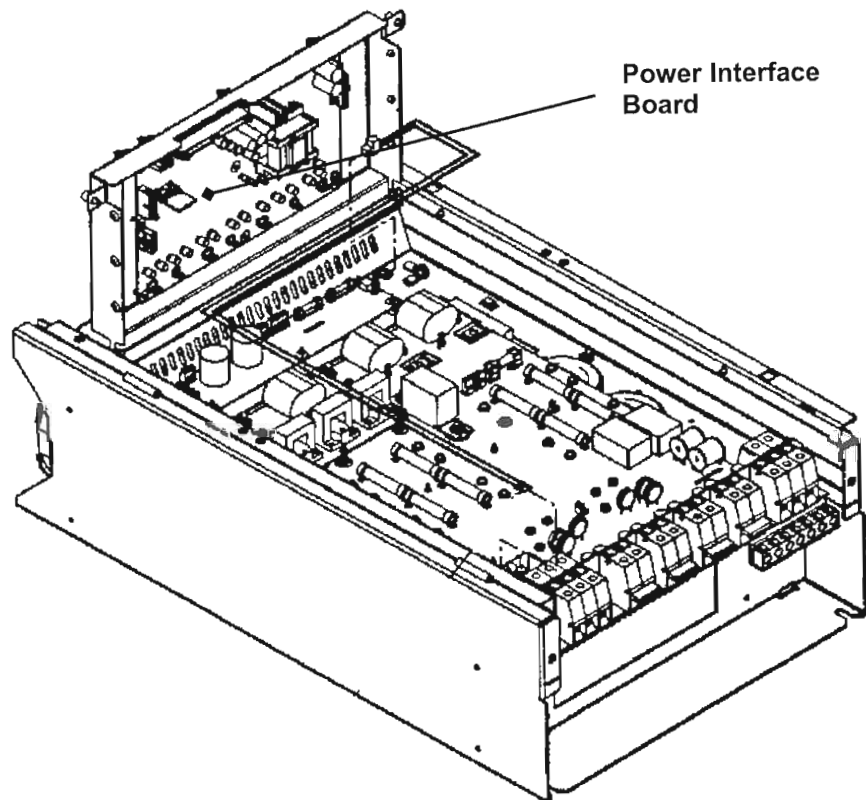
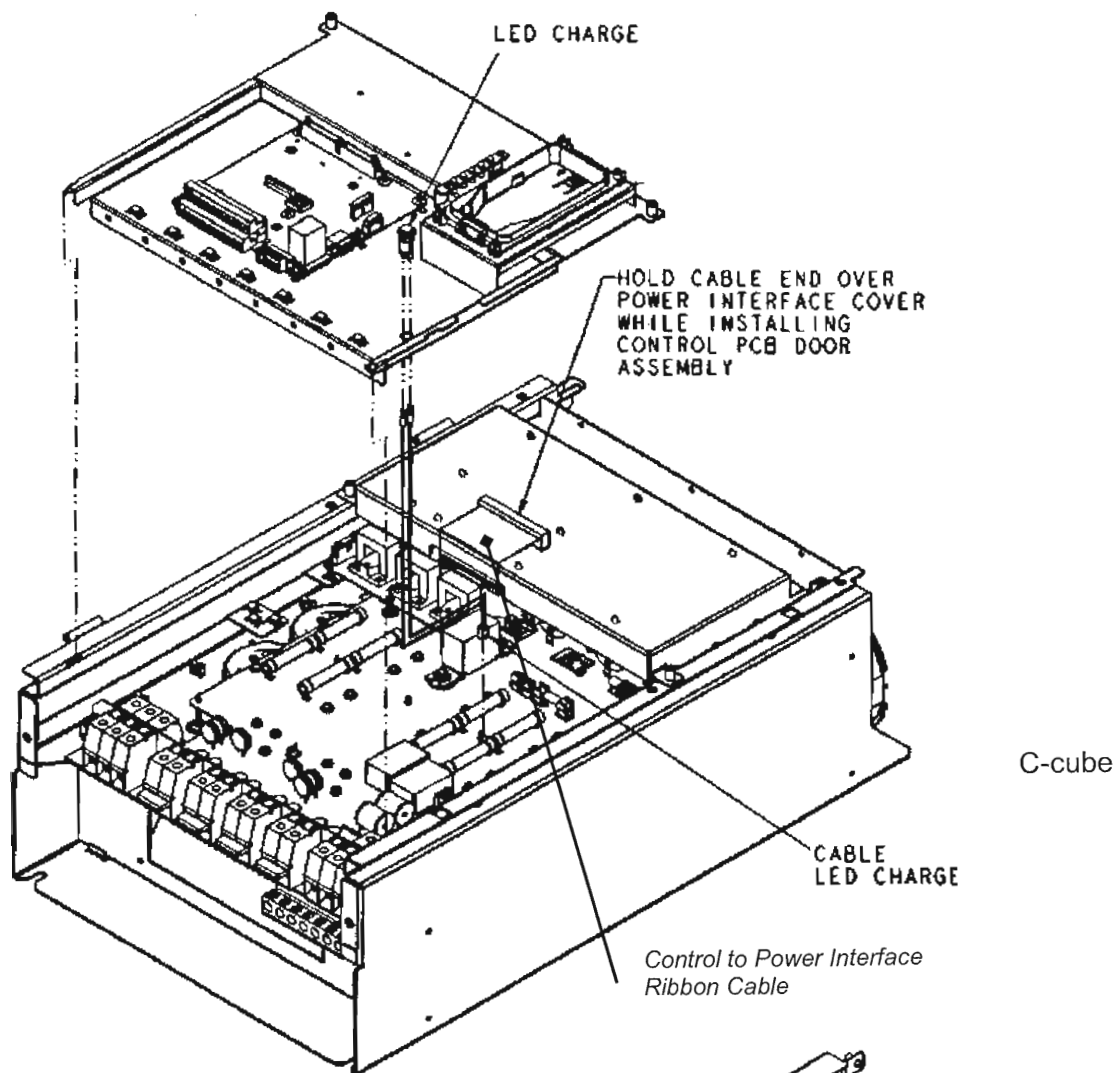
- First, check that the incoming three phase power is disconnected
- Once the incoming three phase power is disconnected, it will be necessary to discharge the DC bus with a "bleeder" resistor.

Discharging DC bus with "Bleeder" Resistor

- Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.
- The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.
- Once the DC bus charge light is out, verify with a voltmeter that no voltage exists between the (+3) and (-) terminals.

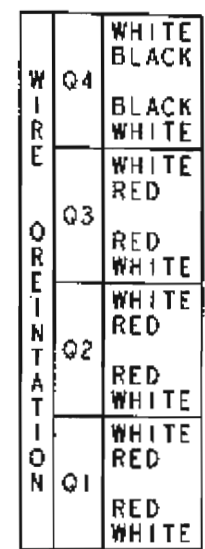
- ◆ Open the drive's cover. The shipping screws may need to be loosened.
- ◆ With drive's cover open, disassemble drive to gain access to the Power Interface Board.





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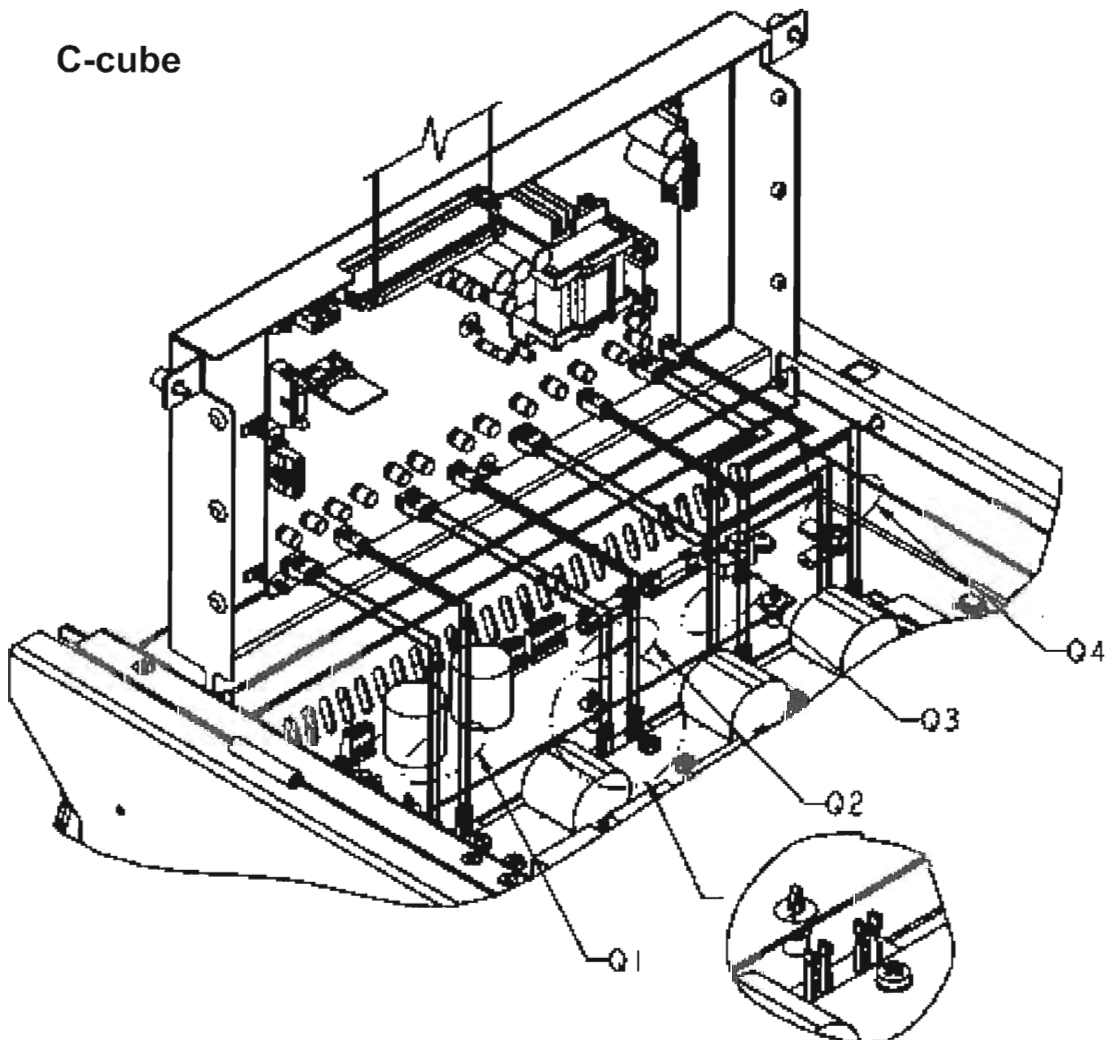
B-cube



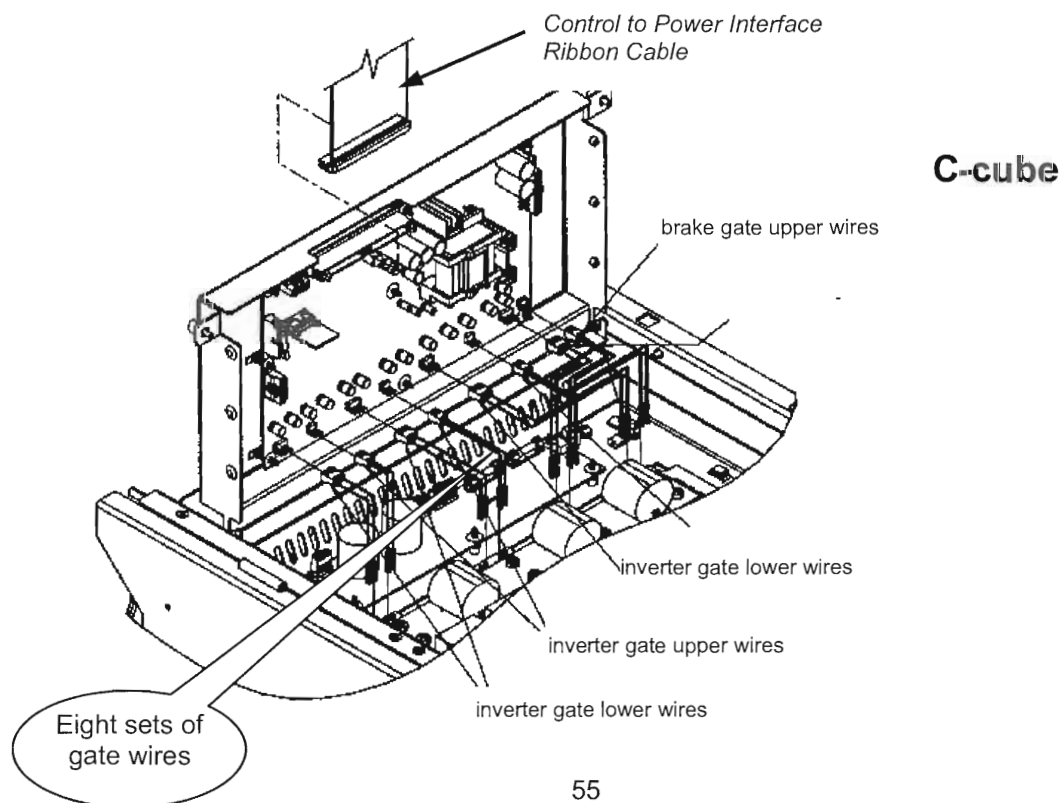
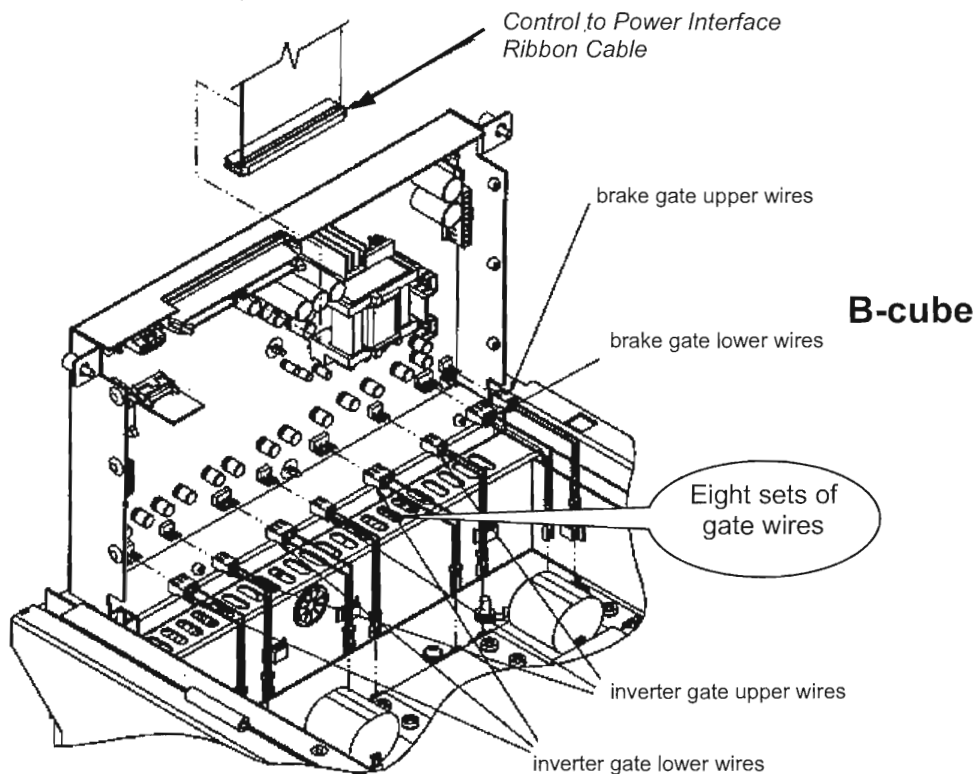
- ◆ Note the orientation of the gate wires shown below.
- ◆ CAUTION: The orientation of the gate wires shown below only applies to C-cube.
(Models: 4065, 4077, 4096, 2068, 2080, 2104)

WIRE ORIENTATION											
Q1			Q2			Q3			Q4		
W	R	R	W	W	R	W	B	B	W	W	R
H	E	E	H	H	E	H	L	L	H	E	E
I	D	D	I	I	D	I	A	A	I	D	D
T			T			T	C	C	T		
E		E	E		E	E	K	K	E		E

C-cube



- ◆ Remove the eight gate wires by pressing in on the locking tab on the bottom of each connector. Also note the orientation of the gate wires as this will be important when installing the new wires.



- ◆ Use HPV9-GATEB kit for models: 4027, 4034, 4041, 4052, 2027, 2041, 2052, 2075, 2088
- ◆ Use HPV9-GATEC kit for models: 4065, 4077, 4096, 2068, 2080, 2104
- ◆ Insert the new eight gate wires into the Power Interface Board with the proper orientation and the proper location.

CAUTION: Note the orientation of the gate wires shown on the following pages.
This is very important to the proper operation of the drive.

- ◆ Finally, re-assemble drive.

HPV9-BUSLED-BPC Replacement

Remember when servicing the HPV 900:
Hazardous voltages may exist in the drive circuits
even with drive circuit breaker in off position.

IMPORTANT: Use extreme caution: Do not touch any circuit board, the drive, or motor electrical connections without making sure that the unit is properly grounded and that no high voltage is present.

NEVER attempt maintenance unless:

- the incoming three phase power (460 or 230VAC) and control power (115VAC) is disconnected and locked out.
- also, ensure the DC Bus charge light is out.
- even with the light out, we recommend that you use a voltmeter between (+3) and (-) to verify that no voltage is present.

CAUTION: Before continuing, ensure the DC Bus Charge LED is not illuminated.

IMPORTANT: Take ESD precautions, devices within the drive are sensitive to static damage.

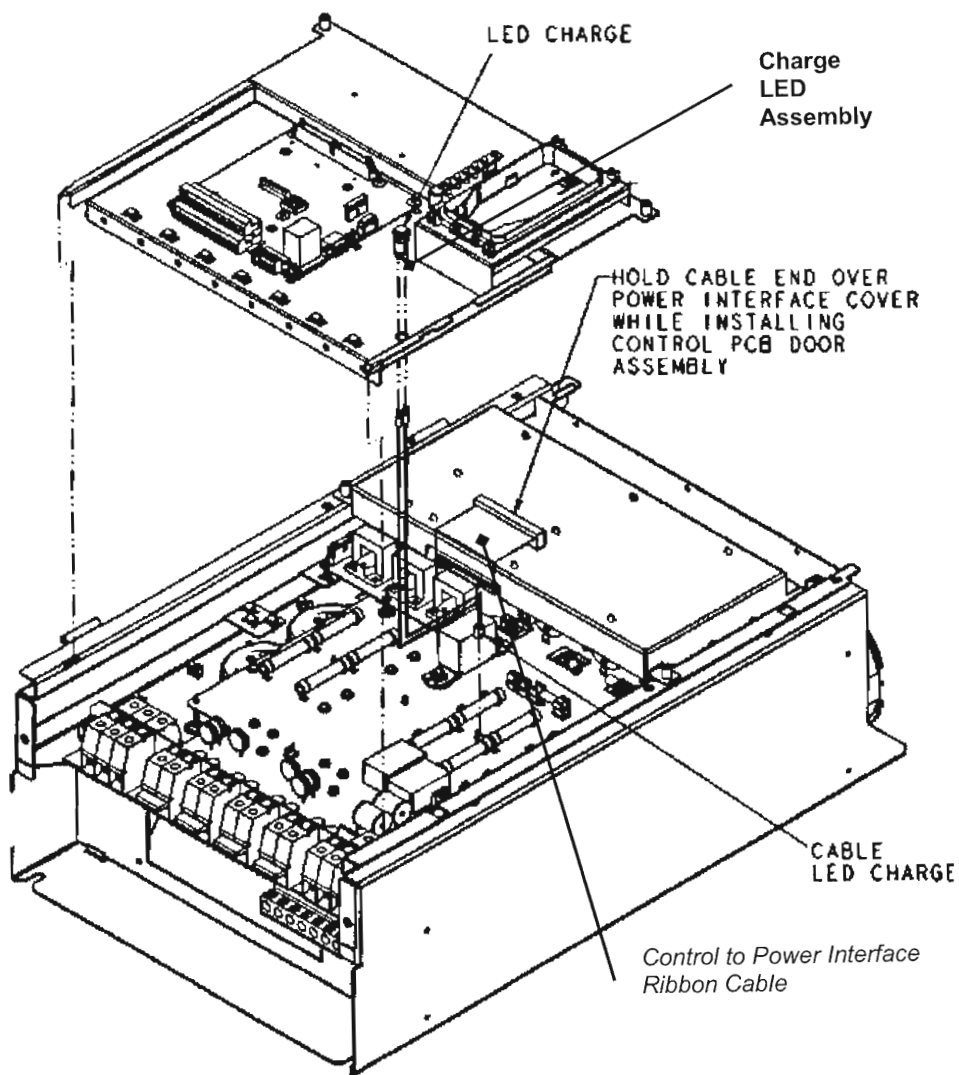
If after 5 minutes the DC bus charge light remains ON or voltage remains between terminals (+3) and (-):

- First, check that the incoming three phase power is disconnected
- Once the incoming three phase power is disconnected, it will be necessary to discharge the DC bus with a "bleeder" resistor.

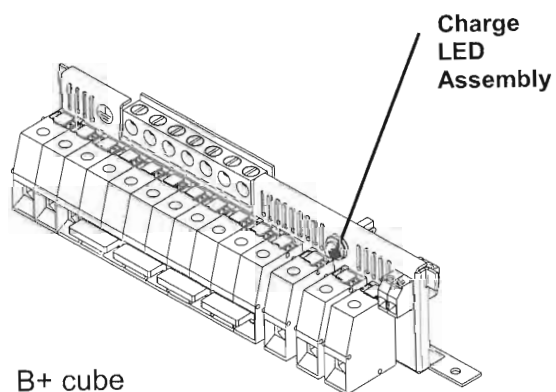
Discharging DC bus with "Bleeder" Resistor

- Using a 250ohm/100 watt "bleeder" resistor, connect the resistor leads to the (+3) and (-) terminals located on the brake resistor terminal.
- The resistor leads should be connected for 20 seconds or until the DC bus charge light extinguishes.
- Once the DC bus charge light is out, verify with a voltmeter that no voltage exists between the (+3) and (-) terminals.

- ◆ With drive's cover open, identify and remove the LED assembly. Install new LED assembly.
- ◆ Identify and disconnect and remove LED Charge Assembly. Reconnect new LED Charge Assembly.



C-cube





HPV 900

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<http://www.elevatordrives.com>



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ELEVATOR

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