



VARIABLE SPEED DRIVE

RENEWAL PARTS

Supersedes: 160.00-RP4 (805)

Form 160.00-RP4 (406)



00616VIP

292 HP – 50 Hz, 400VAC (P/N 371-03700-XXX)
351 HP – 60 Hz, 460VAC (P/N 371-02767-XXX)
419 HP – 50 Hz, 400VAC (P/N 371-03789-XXX)
424 HP – 60 Hz, 575VAC (P/N 371-04881-XXX)
503 HP – 60 Hz, 460VAC (P/N 371-03789-XXX)
608 HP – 60 Hz, 575VAC (P/N 371-04563-XXX)

IMPORTANT!

READ BEFORE PROCEEDING!

GENERAL SAFETY GUIDELINES

This equipment is a relatively complicated apparatus. During installation, operation, maintenance or service, individuals may be exposed to certain components or conditions including, but not limited to: refrigerants, oils, materials under pressure, rotating components, and both high and low voltage. Each of these items has the potential, if misused or handled improperly, to cause bodily injury or death. It is the obligation and responsibility of operating/service personnel to identify and recognize these inherent hazards, protect themselves, and proceed safely in completing their tasks. Failure to comply with any of these requirements could result in serious damage to the equipment and the property in

which it is situated, as well as severe personal injury or death to themselves and people at the site.

This document is intended for use by owner-authorized operating/service personnel. It is expected that this individual possesses independent training that will enable them to perform their assigned tasks properly and safely. It is essential that, prior to performing any task on this equipment, this individual shall have read and understood this document and any referenced materials. This individual shall also be familiar with and comply with all applicable governmental standards and regulations pertaining to the task in question.

SAFETY SYMBOLS

The following symbols are used in this document to alert the reader to areas of potential hazard:



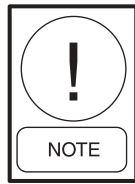
DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



CAUTION identifies a hazard which could lead to damage to the machine, damage to other equipment and/or environmental pollution. Usually an instruction will be given, together with a brief explanation.



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



NOTE is used to highlight additional information which may be helpful to you.



External wiring, unless specified as an optional connection in the manufacturer's product line, is NOT to be connected inside the micro panel cabinet. Devices such as relays, switches, transducers and controls may NOT be installed inside the panel. NO external wiring is allowed to be run through the micro panel. All wiring must be in accordance with YORK's published specifications and must be performed ONLY by qualified YORK personnel. YORK will not be responsible for damages/problems resulting from improper connections to the controls or application of improper control signals. Failure to follow this will void the manufacturer's warranty and cause serious damage to property or injury to persons.

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Although many of these parts are similar to the parts used in previous Variable Speed Drive (VSD) designs, these parts are only compatible with drives of the following base part numbers (371-02767-XXX, 371-03700-XXX, 371-03787-XXX, 371-04881-XXX, & 371 04563-XXX). For example, if the VSD logic board 031-02077-000 were used in place of the 031-01433-000 logic board, as used on the previous VSD designs, major damage to other components will occur.

VSD PARTS LIST 292 Hp & 351 Hp			
ITEM	DESCRIPTION	FIG.	PART NUMBER
1	AC Line Inductor	2	025-35176-000
2	Bus Isolator Board	4	031-01624-000
3	Bus Plate Kit	4	371-03710-001
62	Bus Snubber Capacitor	4	025-35972-000
4	Circuit Breaker (used before 6/06)	2	224-30987-000
4	Circuit Breaker (used after 6/06)	2	224-35428-000
5	Control Transformer, 120 VAC 60 Hz, 3 KVA	1	025-31499-000
5	Control Transformer, 120 VAC 50 Hz, 3 KVA	1	025-32983-000
6	Coolant Manifold Plastic	6	371-02767-371
6	Coolant Manifold Copper without Harmonic Filter	6A	023-20842-000
6	Coolant Manifold Copper with Harmonic Filter	6A	023-20822-000
7	Coolant Pump	6	026-33890-000
8	Coolant Reservoir 3" PVC with Fill Plug	6	371-02767-361
9	2 Pole Fuse Holder (2 per unit)	1	025-35172-000
10	3 Pole Fuse Holder	1	025-35915-000
11	5 AMP Cartridge Fuse (YT Style Chillers 60 Hz)	1	025-27922-000
11	6 AMP Cartridge Fuse (YT Style Chillers 50 Hz)	1	025-27970-000
11	7 AMP Cartridge Fuse (YK Style Chillers 50/60 Hz)	1	025-25515-000
12	10 AMP Cartridge Fuse	1	025-27971-000
13	15 AMP Cartridge Fuse	1	025-25584-000
14	20 AMP Cartridge Fuse	1	025-28967-000
15	Input Rectifiers (1 SCR, 2 SCR, 3 SCR) one each Kit	4	371-03709-001
17	Internal Cabinet Fan	3	025-32557-000
18	Internal Cooling Coil	3	026-37566-000
19	Output Current Transformer	3	531-01672-001
20	Power Module Chill Plate Kit	4	371-05143-001
21	Relay, Control Fan / Pump	4	024-30441-000
64	Resistor Trap Assembly	3	371-02768-355
22	SCR Trigger Board 60 Hz	4	031-02060-001
22	SCR Trigger Board 50 Hz	4	031-02060-002
23	Shell and Tube Heat Exchanger	6	026-37572-000
*	Shell and Tube Heat Exchanger Head Gaskets (set of two)	-	371-03716-001
63	Silicon Pad (1 each) ¹	3 & 4	028-15299-000
66	Snubber Capacitor	3	025-35188-000
65	Snubber Module as applied to the SCR/Diode module ⁴	4	331-02556-001
16	Snubber Resistor	3	025-35953-000
24	Transformer, 24 VAC, Class 2	4	025-27911-000
*	Temperature Sensor Supplied on chill plate with the SCR/Diode modules (As Separate Item)	-	571-01484-212
60	Voltage Transient Board	3	031-02453-000
61	Voltage Transient Board Fuses	3	025-38523-000
25	VSD DC Balancing Resistor ¹	4	025-35157-000
26	VSD Logic Board ⁵ (USE ON PART # 371-02767-XXX, & 371-03700-XXX ONLY)	5	031-02077-000
27	VSD Power Module Kit	4	371-03708-001
*	VSD Power Unit Complete Kit (IGBT, Capacitors, Heatsink, ect.)	-	371-02769-401

OPTIONAL HARMONIC FILTER PARTS LIST 292 Hp & 351 Hp			
ITEM	DESCRIPTION	FIG.	PART NUMBER
2	Bus Isolator Board	4	031-01624-000
3	Bus Plate Kit	4	371-03710-001
62	Bus Snubber Capacitor	4	025-35972-000
30	Electronic Current Sensor, 200 AMP	4	025-32582-000
31	Filter DC Balancing Resistor	4	025-35955-000
32	Filter Inductor	2	025-35177-000
34	Filter Input Fuse	2	025-32581-000
35	Filter Logic Board ⁵ (USE ON PART # 371-02767-XXX, & 371-03700-XXX ONLY)	5	031-01632-031
33	Filter Main Contactor with compression lugs ²	1	024-30984-000
33	Filter Main Contactor use with ring tong lugs ²	1	024-35434-000
36	Filter Power Module Kit	4	371-03707-001
*	Filter Power Unit Complete Kit (IGBT, Capacitors, Heatsink, ect.)	-	371-02768-401
37	Filter Pre-Charge Contactor	1	024-30983-000
38	Filter Pre-Charge Resistor	1	025-32502-000
39	Filter Trap Assembly	3	371-03711-001
64	Filter Trap Resistor Kit (Trap Resistors only)	3	371-02768-355
40	Input Current Transformer	1	531-01672-001
41	Line Isolator Board	4	031-02022-000
20	Power Module Chill Plate Kit	4	071-02769-309
42	16 Conductor Ribbon Cable - VSD Logic to Filter Logic Jumper	5	031-01658-000
63	Silicon Pad (1 each) ¹	4	028-15299-000
HARMONIC FILTER UPGRADE KITS (To Retrofit Filter to a Non-Filter Unit):			
*	Filter Upgrade (60 Hz) 351 Hp		371-03717-001
*	Filter Upgrade (50 Hz) 292 Hp		371-03717-002

* Items are **NOT** Shown

Important Changes

1. On the 292, 351, 419, and 503 Hp drives built before 5/05, the bleeder resistors have a value of 2K ohms, and required the application of thermal grease. The 292 and 351 Hp drives now use a 2.4 K ohm resistor, and require the application of a silicon pad. If one of the 2K ohm resistors were to fail, then both resistors will need to be replaced. The bleeder resistors for the harmonic filter will also use a thermal pad, but the resistor value does not change.
2. The harmonic filter main contactor changed styles in 6/06. The old style was a contactor that used compression fittings. The old style is still available as a repair part, but new production will switch to a style of contactor that will accept ring tong lugs. This will improve the installation of a retrofit harmonic filter.
3. The trap assembly on the 424 and 608 Hp drives has a different design than on the other drives. The 3 resistors at the top of the trap assembly are mounted on a silicon pad. The other drives still need to use thermal grease in the mounting process.
4. Snubber modules were added to all styles of drives covered by this parts book. The snubber module protects the input SCR from voltage transients that may occur on the incoming supply voltage. The snubber modules may be applied on existing drives, but warranty would not apply.
5. The drive logic and the filter logic replacement boards are not shipped with new software. The software must be removed from the old board and installed in the new board. This also includes the U40 chip on the drive logic board, and the U26 chip on the filter logic board. If there is concern that the old board had a power supply problem, then new software may need to be ordered.

VSD PARTS LIST 424 HP 575 VAC			
ITEM	DESCRIPTION	FIG.	PART NUMBER
1	AC Line Inductor	2	025-40388-000
2	Bus Isolator Board	4	031-01624-000
3	Bus Plate Kit	4	371-03710-001
62	Bus Snubber Capacitor	4	025-35972-000
4	Circuit Breaker	2	224-35428-000
5	Control Transformer, 120 VAC 60 Hz, 3 KVA	1	025-40381-000
6	Coolant Manifold Copper without Harmonic Filter	6A	023-20842-000
6	Coolant Manifold Copper with Harmonic Filter	6A	023-20822-000
7	Coolant Pump	6	026-33890-000
8	Coolant Reservoir 3" PVC with Fill Plug	6	371-02767-361
9	2 Pole Fuse Holder (2) per unit	1	025-38196-000
10	3 Pole Fuse Holder	1	025-34185-000
11	4 AMP Cartridge Fuse (YT Style Chillers 60 Hz)	1	025-35911-000
11	5 AMP Cartridge Fuse (YK Style Chillers 60 Hz)	1	025-35901-000
12	10 AMP Cartridge Fuse	1	025-35905-000
13	12 AMP Cartridge Fuse	1	025-35906-000
14	20 AMP Cartridge Fuse	1	025-35908-000
15	Input Rectifiers (1 SCR, 2 SCR, 3 SCR) one each Kit	4	371-05156-001
17	Internal Cabinet Fan	3	025-32557-000
18	Internal Cooling Coil	3	026-37566-000
19	Output Current Transformer	3	531-01672-001
20	Power Module Chill Plate Kit	4	371-05143-001
21	Relay, Control Fan / Pump	4	024-30441-000
22	SCR Trigger Board 60 Hz	4	031-02060-003
23	Shell and Tube Heat Exchanger	6	026-37572-000
*	Shell and Tube Heat Exchanger Head Gaskets (set of two)	-	371-03716-001
63	Silicon Pad (1 each)	3 & 4	028-15299-000
66	Snubber Capacitor	3	025-39806-000
65	Snubber Module as applied to the SCR/Diode module	4	371-02556-002
16	Snubber Resistor	3	025-35953-000
24	Transformer, 24 VAC, Class ²	4	025-27911-000
*	Temperature Sensor Supplied on chillplate with the SCR/Diode modules (As Separate Item)	-	571-01484-212
60	Voltage Transient Board	3	031-02453-001
61	Voltage Transient Board Fuses	3	025-38523-000
25	VSD DC Balancing Resistor	4	025-40408-000
26	VSD Logic Board ⁵ (USE ON PART # 371-04881-XXX ONLY)	5	031-02077-001
27	VSD Power Module Kit	4	371-05157-001
*	VSD Power Unit Complete Kit (IGBT, Capacitors, Heatsink, ect.)	-	371-02769-403

* Items are **NOT** Shown

OPTIONAL HARMONIC FILTER PARTS LIST 424 HP 575 VAC			
ITEM	DESCRIPTION	FIG.	PART NUMBER
2	Bus Isolator Board	4	031-01624-000
3	Bus Plate Kit	4	371-03710-001
62	Bus Snubber Capacitor	4	025-40526-000
30	Electronic Current Sensor, 200 AMP	4	025-32582-000
31	Filter DC Balancing Resistor	4	025-40408-000
32	Filter Inductor	2	025-40374-000
34	Filter Input Fuse	2	025-40404-000
35	Filter Logic Board ⁵ (USE ON PART # 371-04881-XXX ONLY)	5	031-01632-101
33	Filter Main Contactor use with ring tong lugs	1	024-35434-000
36	Filter Power Module Kit	4	371-05158-001
*	Filter Power Unit Complete Kit (IGBT, Capacitors, Heatsink, ect.)	-	371-02768-403
37	Filter Pre-Charge Contactor	1	024-30983-000
38	Filter Pre-Charge Resistor	1	025-40425-000
39	Filter Trap Assembly ³	3	371-04881-349
40	Input Current Transformer	1	531-01672-001
41	Line Isolator Board	4	031-02022-001
20	Power Module Chill Plate Kit	4	071-02769-309
42	16 Conductor Ribbon Cable - VSD Logic to Filter Logic Jumper	5	031-01658-000
63	Silicon Pad (1 each)	3 & 4	028-15299-000
HARMONIC FILTER UPGRADE KITS (To Retrofit Filter to a Non-Filter Unit):			
*	Filter Upgrade (60 Hz) 424 Hp (575VAC)		371-03717-003

* Items are **NOT** Shown

Important Changes

1. On the 292, 351, 419, and 503 Hp drives built before 5/05, the bleeder resistors have a value of 2K ohms, and required the application of thermal grease. The 292 and 351 Hp drives now use a 2.4 K ohm resistor, and require the application of a silicon pad. If one of the 2K ohm resistors were to fail, then both resistors will need to be replaced. The bleeder resistors for the harmonic filter will also use a thermal pad, but the resistor value does not change.
2. The harmonic filter main contactor changed styles in 6/06. The old style was a contactor that used compression fittings. The old style is still available as a repair part, but new production will switch to a style of contactor that will accept ring tong lugs. This will improve the installation of a retrofit harmonic filter.
3. The trap assembly on the 424 and 608 Hp drives has a different design than on the other drives. The 3 resistors at the top of the trap assembly are mounted on a silicon pad. The other drives still need to use thermal grease in the mounting process.
4. Snubber modules were added to all styles of drives covered by this parts book. The snubber module protects the input SCR from voltage transients that may occur on the incoming supply voltage. The snubber modules may be applied on existing drives, but warranty would not apply.
5. The drive logic and the filter logic replacement boards are not shipped with new software. The software must be removed from the old board and installed in the new board. This also includes the U40 chip on the drive logic board, and the U26 chip on the filter logic board. If there is concern that the old board had a power supply problem, then new software may need to be ordered.

VSD PARTS LIST 419 HP & 503 Hp			
ITEM	DESCRIPTION	FIG.	PART NUMBER
1	AC Line Inductor	7	025-38134-000
2	Bus Isolator Board	8	031-01624-000
3	Bus Plate Kit	10	371-04163-001
62	Bus Snubber Capacitor	10	025-35972-000
4	Circuit Breaker, 600 Amp, 100 KA rating	7	224-34025-000
5	Control Transformer, 120 VAC 60 Hz, 3 KVA	7	025-31499-000
5	Control Transformer, 120 VAC 50 Hz, 3 KVA	7	025-32983-000
6	Coolant Manifold Copper with or without Harmonic Filter	6B	023-21710-000
7	Coolant Pump	6B	026-33890-000
8	Coolant Reservoir 3" PVC with Fill Plug	6B	371-03789-361
9	2 Pole Fuse Holder (2) per unit	1	025-38196-000
10	3 Pole Fuse Holder	1	025-34185-000
11	5 AMP Cartridge Fuse (YT Style Chillers 60 Hz)	1	025-35901-000
11	6 AMP Cartridge Fuse (YT Style Chillers 50 Hz)	1	025-35902-000
11	7 AMP Cartridge Fuse (YK Style Chillers 50/60 Hz)	1	025-35903-000
12	10 AMP Cartridge Fuse	1	025-35905-000
13	15 AMP Cartridge Fuse	1	025-35907-000
14	20 AMP Cartridge Fuse	1	025-35908-000
15	Input Rectifiers (1 SCR, 2 SCR, 3 SCR) one each Kit	10	371-04162-001
17	Internal Cabinet Fan	3	025-32577-000
18	Internal Cooling Coil	3	026-37990-000
19	Output Current Transformer	8	025-21173-003
20	Power Module Chill Plate Kit	10	071-03787-309
21	Relay, Control Fan / Pump	9	024-30441-000
22	SCR Trigger Board 60 Hz	9	031-02060-001
22	SCR Trigger Board 50 Hz	9	031-02060-002
23	Shell and Tube Heat Exchanger	6B	026-37572-000
*	Shell and Tube Heat Exchanger Head Gaskets (set of two)	-	371-03716-001
63	Silicon Pad (1 each) ¹	9 & 10	028-15299-000
66	Snubber Capacitor	9	025-35188-000
65	Snubber Module as applied to the SCR/Diode module ⁴	10	331-02556-001
16	Snubber Resistor	9	025-35953-000
24	Transformer, 24 VAC, Class 2	9	025-27911-000
*	Temperature Sensor Supplied on chill plate with the SCR/Diode modules (As Separate Item)	-	571-01484-212
25	VSD DC Balancing Resistor ¹	10	025-35157-000
26	VSD Logic Board ⁵ (USE ON PART # 371-03789-XXX ONLY)	5	031-02077-000
27	VSD Power Module Kit	10	371-04164-001
60	Voltage Transient Board	8	031-02453-000
61	Voltage Transient Board Fuses	8	025-38523-000
*	VSD Power Unit Complete Kit (IGBT, Capacitors, Heatsink, ect.)	-	371-03787-401

* Items are **NOT** Shown

OPTIONAL HARMONIC FILTER PARTS LIST 419 HP & 503 Hp			
ITEM	DESCRIPTION	FIG.	PART NUMBER
2	Bus Isolator Board	9	031-01624-000
3	Bus Plate Kit	11	371-03710-001
62	Bus Snubber Capacitor	11	025-35972-000
30	Electronic Current Sensor, 300 AMP	8	025-30994-000
31	Filter DC Balancing Resistor	11	025-35955-000
32	Filter Inductor	8	025-38135-000
34	Filter Input Fuse,	8	025-30992-000
35	Filter Logic Board ⁵ (USE ON PART # 371-03789-XXX ONLY)	5	031-01632-042
33	Filter Main Contactor with compression lugs ²	7	024-34028-000
33	Filter Main Contactor use with ring tong lugs ²	7	024-35433-000
36	Filter Power Module Kit	11	371-04165-001
*	Filter Power Unit Complete Kit (IGBT, Capacitors, Heatsink, ect.)	-	371-03788-401
37	Filter Pre-Charge Contactor	7	024-30985-000
38	Filter Pre-Charge Resistor	7	025-38197-000
39	Filter Trap Assembly	8	371-03788-349
64	Filter Trap Resistor Kit (Trap Resistors only)	8	371-02768-355
40	Input Current Transformer	7	531-01660-001
41	Line Isolator Board	9	031-02022-000
20	Power Module Chill Plate	11	071-02769-309
63	Silicon Pad (1 each) ¹	11	028-15299-000
42	16 Conductor Ribbon Cable - VSD Logic to Filter Logic Jumper	5	031-01658-000
HARMONIC FILTER UPGRADE KITS (To Retrofit Filter to a Non-Filter Unit):			
*	Filter Upgrade (60 Hz) 503 Hp		371-04167-001
*	Filter Upgrade (50 Hz) 419 Hp		371-04167-002

* Items are **NOT** Shown

Important Changes

1. On the 292, 351, 419, and 503 Hp drives built before 5/05, the bleeder resistors have a value of 2K ohms, and required the application of thermal grease. The 292 and 351 Hp drives now use a 2.4 K ohm resistor, and require the application of a silicon pad. If one of the 2K ohm resistors were to fail, then both resistors will need to be replaced. The bleeder resistors for the harmonic filter will also use a thermal pad, but the resistor value does not change.
2. The harmonic filter main contactor changed styles in 6/06. The old style was a contactor that used compression fittings. The old style is still available as a repair part, but new production will switch to a style of contactor that will accept ring tong lugs. This will improve the installation of a retrofit harmonic filter.
3. The trap assembly on the 424 and 608 Hp drives has a different design than on the other drives. The 3 resistors at the top of the trap assembly are mounted on a silicon pad. The other drives still need to use thermal grease in the mounting process.
4. Snubber modules were added to all styles of drives covered by this parts book. The snubber module protects the input SCR from voltage transients that may occur on the incoming supply voltage. The snubber modules may be applied on existing drives, but warranty would not apply.
5. The drive logic and the filter logic replacement boards are not shipped with new software. The software must be removed from the old board and installed in the new board. This also includes the U40 chip on the drive logic board, and the U26 chip on the filter logic board. If there is concern that the old board had a power supply problem, then new software may need to be ordered.

VSD PARTS LIST 608 HP 575 VAC			
ITEM	DESCRIPTION	FIG.	PART NUMBER
1	AC Line Inductor	7	025-40384-000
2	Bus Isolator Board	8	031-01624-000
3	Bus Plate Kit	10	371-04163-001
62	Bus Snubber Capcitor	10	025-35972-000
4	Circuit Breaker, 600 Amp, 100 KA rating	7	224-34025-000
5	Control Transformer, 120 VAC 60 Hz, 3 KVA	7	025-40381-000
6	Coolant Manifold Copper with or without Harmonic Filter	6B	023-21710-000
7	Coolant Pump	6B	026-33890-000
8	Coolant Reservoir 3" PVC with Fill Plug	6B	371-03789-361
9	2 Pole Fuse Holder (2) per unit	1	025-38196-000
10	3 Pole Fuse Holder	1	025-34185-000
11	4 AMP Cartridge Fuse (YT Style Chillers 60 Hz)	1	025-35911-000
11	5 AMP Cartridge Fuse (YK Style Chillers 60 Hz)	1	025-35901-000
12	10 AMP Cartridge Fuse	1	025-35905-000
13	12 AMP Cartridge Fuse	1	025-35906-000
14	20 AMP Cartridge Fuse	1	025-35908-000
15	Input Rectifiers (1 SCR, 2 SCR, 3 SCR) one each Kit	10	371-05156-001
17	Internal Cabinet Fan	3	025-32577-000
18	Internal Cooling Coil	3	026-37990-000
19	Output Current Transformer	8	025-21173-003
20	Power Module Chill Plate Kit	10	071-03787-309
21	Relay, Control Fan / Pump	9	024-30441-000
22	SCR Trigger Board 60 Hz	9	031-02060-003
23	Shell and Tube Heat Exchanger	6B	026-37572-000
*	Shell and Tube Heat Exchanger Head Gaskets (set of two)	-	371-03716-001
63	Silicon Pad (1 each)	9 & 10	028-15299-000
66	Snubber Capacitor	9	025-39806-000
65	Snubber Module as applied to the SCR/Diode module	10	331-02556-002
16	Snubber Resistor	9	025-35953-000
24	Transformer, 24 VAC, Class 2	9	025-27911-000
*	Temperature Sensor Supplied on chill plate with the SCR/Diode modules (As Separate Item)	-	571-01484-212
25	VSD DC Balancing Resistor	10	025-40408-000
26	VSD Logic Board ⁵ (USE ON PART # 371-04563-XXX ONLY)	5	031-02077-001
27	VSD Power Module Kit	10	371-05159-001
60	Voltage Transient Board	8	031-02453-001

* Items are **NOT** Shown

OPTIONAL HARMONIC FILTER PARTS LIST 608 HP 575 VAC			
ITEM	DESCRIPTION	FIG.	PART NUMBER
2	Bus Isolator Board	9	031-01624-000
3	Bus Plate Kit	11	371-03710-001
62	Bus Snubber Capacitor	11	025-40526-000
30	Electronic Current Sensor, 300 AMP	8	025-30994-000
31	Filter DC Balancing Resistor	11	025-40408-000
32	Filter Inductor	8	025-40375-000
34	Filter Input Fuse,	8	025-40405-000
35	Filter Logic Board ⁵ (USE ON PART # 371-04563-XXX ONLY)	5	031-01632-102
33	Filter Main Contactor use with ring tong lugs	7	024-35433-000
36	Filter Power Module Kit	11	371-05160-001
*	Filter Power Unit Complete Kit (IGBT, Capacitors, Heatsink, ect.)	-	371-03788-403
37	Filter Pre-Charge Contactor	7	024-30985-000
38	Filter Pre-Charge Resistor	7	025-40424-000
39	Filter Trap Assembly ³	8	371-04563-349
40	Input Current Transformer	7	531-01660-001
41	Line Isolator Board	9	031-02022-001
20	Power Module Chill Plate	11	071-02769-309
63	Silicon Pad (1 each)	8 & 11	028-15299-000
42	16 Conductor Ribbon Cable - VSD Logic to Filter Logic Jumper	5	031-01658-000
HARMONIC FILTER UPGRADE KITS (To Retrofit Filter to a Non-Filter Unit):			
*	Filter Upgrade (60 Hz) 608 Hp (575VAC)		371-04167-003

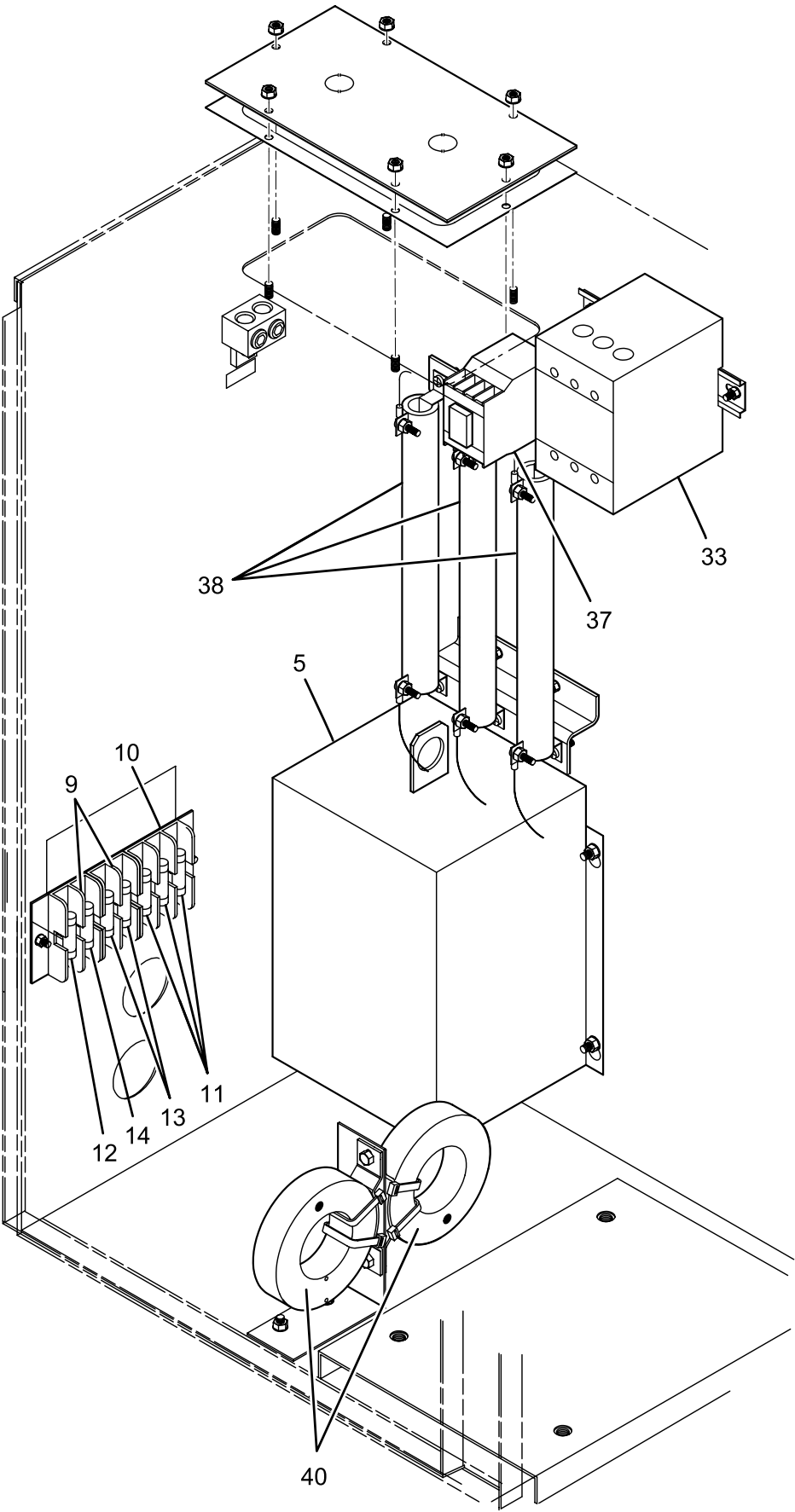
* Items are **NOT** Shown

Important Changes

1. On the 292, 351, 419, and 503 Hp drives built before 5/05, the bleeder resistors have a value of 2K ohms, and required the application of thermal grease. The 292 and 351 Hp drives now use a 2.4 K ohm resistor, and require the application of a silicon pad. If one of the 2K ohm resistors were to fail, then both resistors will need to be replaced. The bleeder resistors for the harmonic filter will also use a thermal pad, but the resistor value does not change.
2. The harmonic filter main contactor changed styles in 6/06. The old style was a contactor that used compression fittings. The old style is still available as a repair part, but new production will switch to a style of contactor that will accept ring tong lugs. This will improve the installation of a retrofit harmonic filter.
3. The trap assembly on the 424 and 608 Hp drives has a different design than on the other drives. The 3 resistors at the top of the trap assembly are mounted on a silicon pad. The other drives still need to use thermal grease in the mounting process.
4. Snubber modules were added to all styles of drives covered by this parts book. The snubber module protects the input SCR from voltage transients that may occur on the incoming supply voltage. The snubber modules may be applied on existing drives, but warranty would not apply.
5. The drive logic and the filter logic replacement boards are not shipped with new software. The software must be removed from the old board and installed in the new board. This also includes the U40 chip on the drive logic board, and the U26 chip on the filter logic board. If there is concern that the old board had a power supply problem, then new software may need to be ordered.

MISCELLANEOUS		
ITEM	DESCRIPTION	PART NUMBER
Not Shown	Pre-Mixed Coolant (Inhibitor) 1 gallon container	013-02987-000
Not Shown	Snubber for Motor Terminal Box – Remote Retrofits - 400-460 VAC	375-22732-000
Not Shown	Snubber for Motor Terminal Box – Remote Retrofits - 575 VAC	375-22732-001
Not Shown	50/60 Hz Inverter for 50 Hz VSD Units	371-02202-101
Not Shown	Vane Pot with Couplings	371-02012-001
Not Shown	Bracket for Vane Pot Mtg. to Compressor	064-48851-000
Not Shown	Ferrite Beads	025-32843-000
Not Shown	Motor Adapter Plate (4" Deep) - 405S Frame Motors	025-28400-001
Not Shown	Motor Adapter Plate (4" Deep) - 404R, 405R, 444S, 445S, 447S, 449S, 503S, 504S, 505S, 507S, 509S, 588S & 5011S Frame Motors	025-28400-002
Not Shown	Motor Adapter Plate (4" Deep) - 445R, 447R Frame Motors	025-28400-003
Not Shown	Motor Adapter Plate (5 3/4" Deep) - 405T Frame Motors	025-28400-004
Not Shown	Motor Adapter Plate (7 3/4" Deep) - 405T, 445T, 447T Frame Motors	025-28400-005
MICRO-COMPUTER CONTROL CENTER PARTS for VSD APPLICATION (one line display)		
Not Shown	Adaptive Capacity Control Board	031-01579-000
Not Shown	Membrane Keypad for Control Panel	024-26943-000
Not Shown	ACC Installation Kit – Mounting rails, ribbon cables, hardware. Does NOT include ACC Board. (YT)	375-22734-000
Not Shown	ACC Installation Kit – Mounting rails, ribbon cables, hardware. Does NOT include ACC Board. (YK)	375-22733-000
Not Shown	Replacement Ribbon Cable – Micro Board to ACC (Quant. = 1)	031-01322-000
Not Shown	Condenser Transducer for R-11, R-123	025-29148-009
OPTIVIEW CONTROL CENTER PARTS for VSD APPLICATION		
Not Shown	Adaptive Capacity Control Board	031-01782-000
Not Shown	ACC Installation Kit – (YT) includes mounting hardware, cables, and ACC Board.	371-02725-001
Not Shown	ACC Installation Kit – (YK) includes mounting hardware, cables, and ACC Board.	371-02724-001
Not Shown	Replacement Shielded Cable – Micro Board to ACC (Quant. = 1)	571-02264-411
HARNESSES		
Not Shown	Vane Pot Wiring from Vane Pot to ACC Board	375-22735-402
Not Shown	VSD Cabinet to Control Center Wiring Kit - 10 Feet	375-22736-000
Not Shown	VSD Cabinet to Control Center Wiring Kit - 50 Feet	375-22737-000
PIPING		
28	Clear PVC Tubing, 3/4" I.D.	6, 6A, 6B
29	Clear PVC Tubing, 1/2" I.D.	6, 6A
62	Clear PVC Tubing, 1" I.D.	6B
Not Shown	Rubber Hose, Black, 150# DWP, 1 1/2" ID	028-15001-000
Not Shown	Rubber Hose, Red, 300# DWP, 1 1/2" ID	028-15028-000
Not Shown	Hose Clamp for 150# DWP, 1 1/2" ID hose	021-30656-000
Not Shown	Hose Clamp for 300# DWP, 1 1/2" ID hose	023-40048-000

VYPER DRIVE SOFTWARE 292, 351, 419, & 503 Hp			
ITEM	DESCRIPTION	FIG.	PART NUMBER
51	U33 Battery Backed RAM for the VSD Logic Board and ACC board	5	031-01620-000
52	U34 VSD Logic Board EPROM (60Hz)	5	031-01617-006
52	U34 VSD Logic Board EPROM (50Hz)	5	031-01617-007
53	U40 VSD Logic Board Serial PROM	5	031-01619-003
54	U45 VSD Logic Board EPROM (60 Hz)	5	031-01618-001
54	U45 VSD Logic Board EPROM (50 Hz)	5	031-01618-002
55	U26 Harmonic Filter Logic Board Serial PROM	5	031-01680-003
56	U42 Harmonic Filter Logic Board EPROM (60Hz)	5	031-01633-006
56	U42 Harmonic Filter Logic Board EPROM (50Hz)	5	031-01633-007
57	U78 Harmonic Filter Logic Board Serial PROM	5	031-02091-001
VYPER DRIVE SOFTWARE 424 & 608 Hp			
51	U33 Battery Backed RAM for the VSD Logic Board and ACC board	5	031-01620-000
52	U34 VSD Logic Board EPROM (60Hz)	5	031-01617-009
53	U40 VSD Logic Board Serial PROM	5	031-01619-003
54	U45 VSD Logic Board EPROM (60 Hz)	5	031-01618-001
55	U26 Harmonic Filter Logic Board Serial PROM	5	031-01680-003
56	U42 Harmonic Filter Logic Board EPROM (60Hz)	5	031-01633-008
57	U78 Harmonic Filter Logic Board Serial PROM	5	031-02091-001
SOFTWARE FOR THE MICRO-COMPUTER CONTROL CENTER WITH VSD			
Not Shown	U17 Micro Board EPROM (VSD 60 Hz) YT chiller		031-01676-003
Not Shown	U17 Micro Board EPROM (VSD 50 Hz) YT chiller		031-01676-002
Not Shown	U17 Micro Board EPROM (VSD 60 Hz) YK chiller		031-01675-003
Not Shown	U17 Micro Board EPROM (VSD 50 Hz) YK chiller		031-01675-002
Not Shown	U22 Adaptive Capacity Control Board EPROM		031-01674-002
Not Shown	U21 Battery Backed RAM for the ACC Board		031-01620-000
SOFTWARE FOR THE OPTIVIEW CONTROL CENTER WITH VSD			
Not Shown	U46 Micro Board Flash Card (YK 50 / 60 Hz) (031-01730-XXX Board only)		031-01797-001
Not Shown	U46 Micro Board Flash Card (YK 50 / 60 Hz) (031-01730-XXX Board only) (P Compressor only)		031-02073-001
Not Shown	U46 Micro Board Flash Card (YT 50 / 60 Hz) (031-01730-XXX Board only)		031-02004-001
Not Shown	Program Card (YK) (031-02430-XXX Board only)		031-02474-001
Not Shown	Program Card (YT) (031-02430-XXX Board only)		031-02469-001
Not Shown	U16 Adaptive Capacity Control Board EPROM		031-01674-002
Not Shown	U15 Battery Backed RAM for the ACC Board		031-01620-000



LD07014

FIG. 1 – LEFT SIDE OF CABINET (DETAILED) 292/351/424 HP

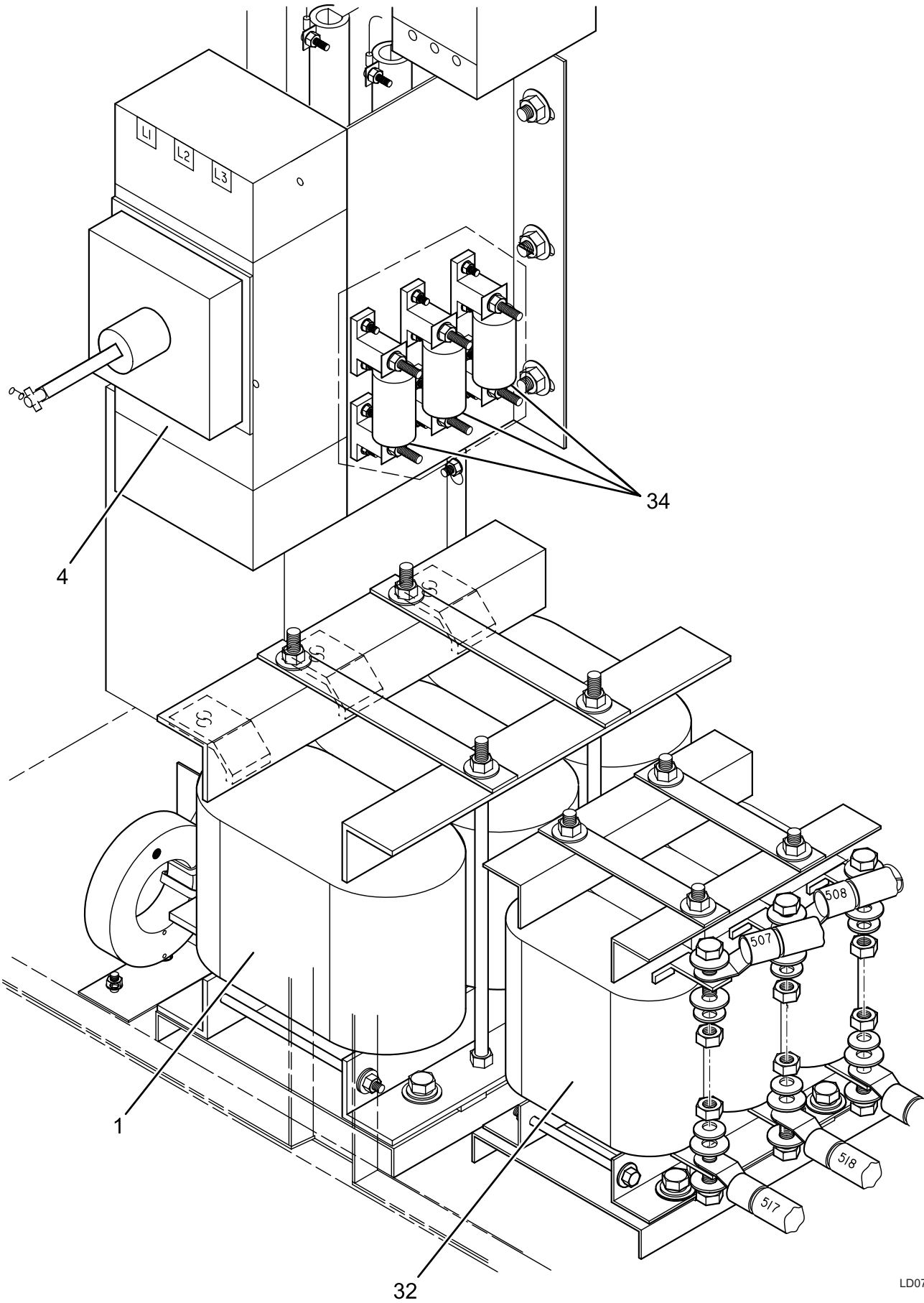
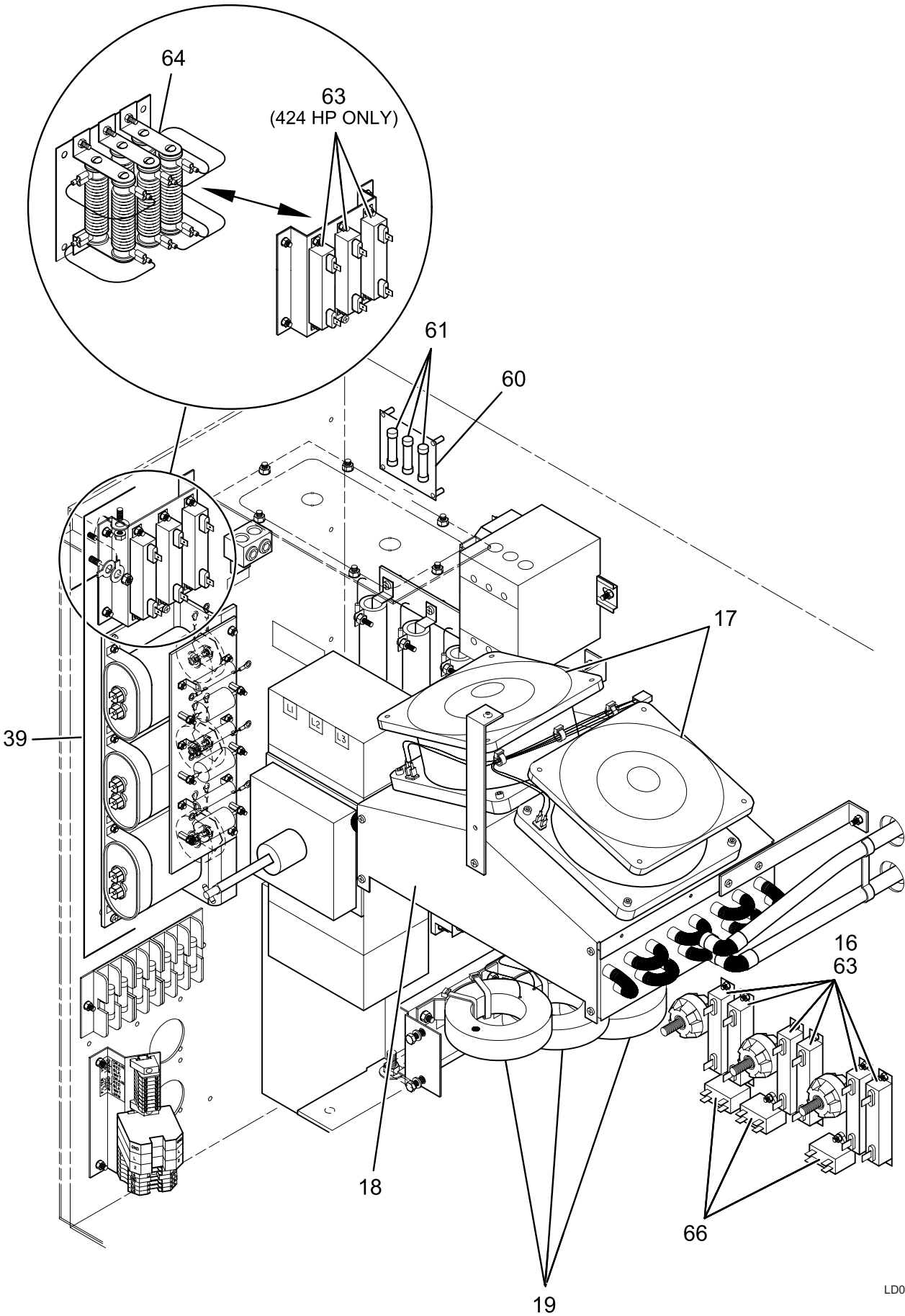


FIG. 2 – LEFT SIDE OF CABINET 292/351/424 HP



LD09128a

FIG. 3 – LEFT CENTER OF CABINET 292/351/424 HP

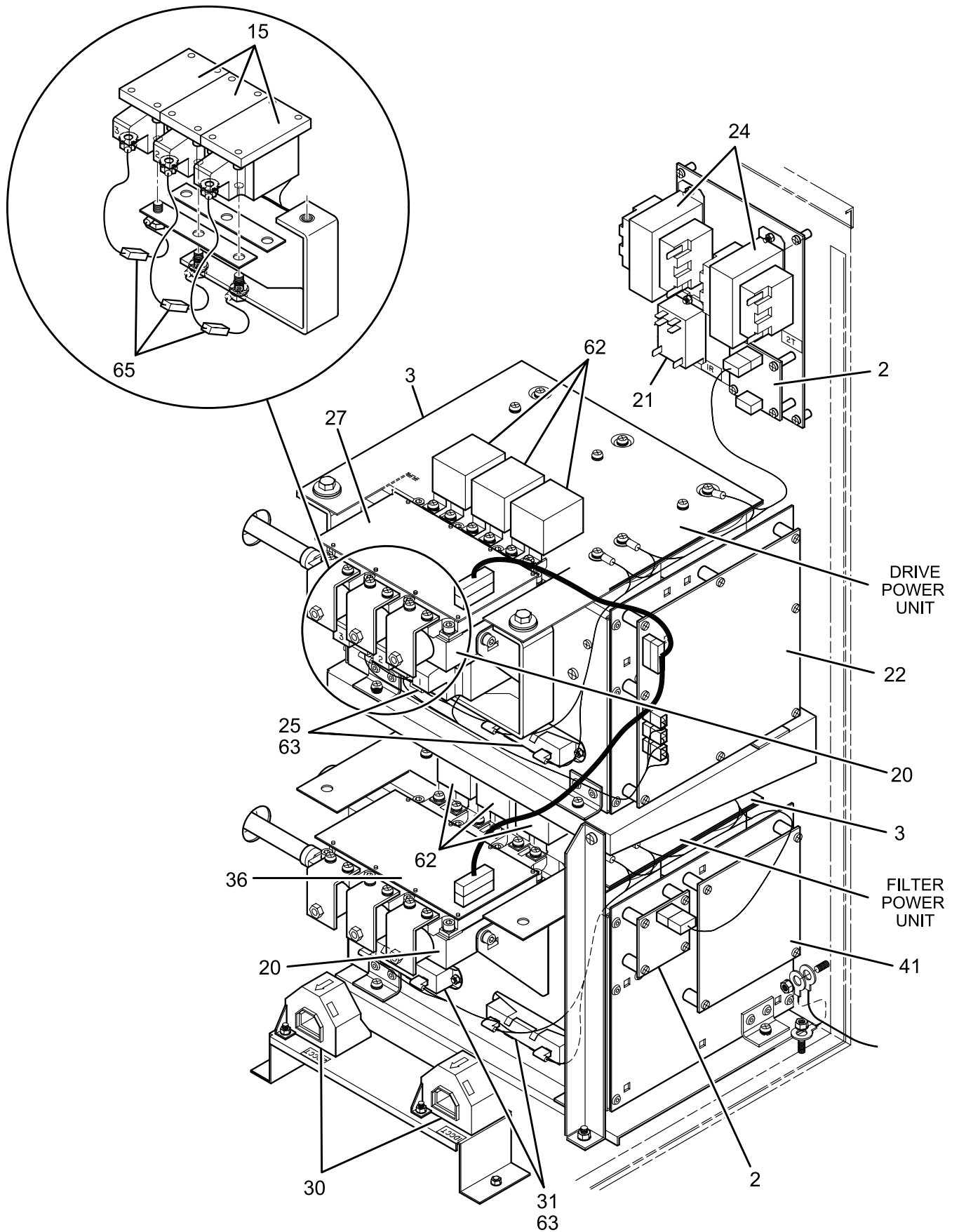
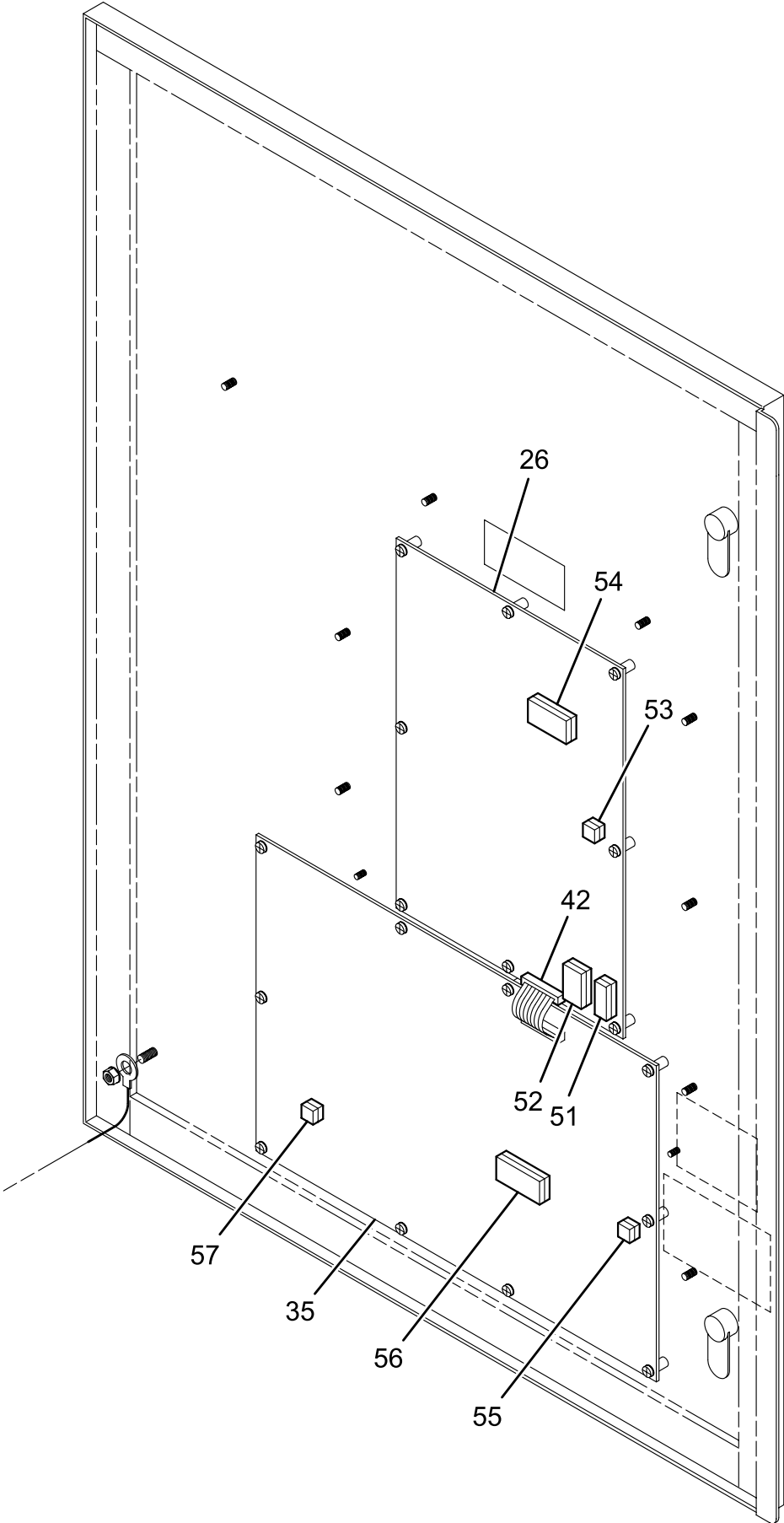


FIG. 4 – RIGHT SIDE OF CABINET 292/351/424 HP



LD07018

FIG. 5 – INSIDE RIGHT DOOR ALL HORSE POWERS

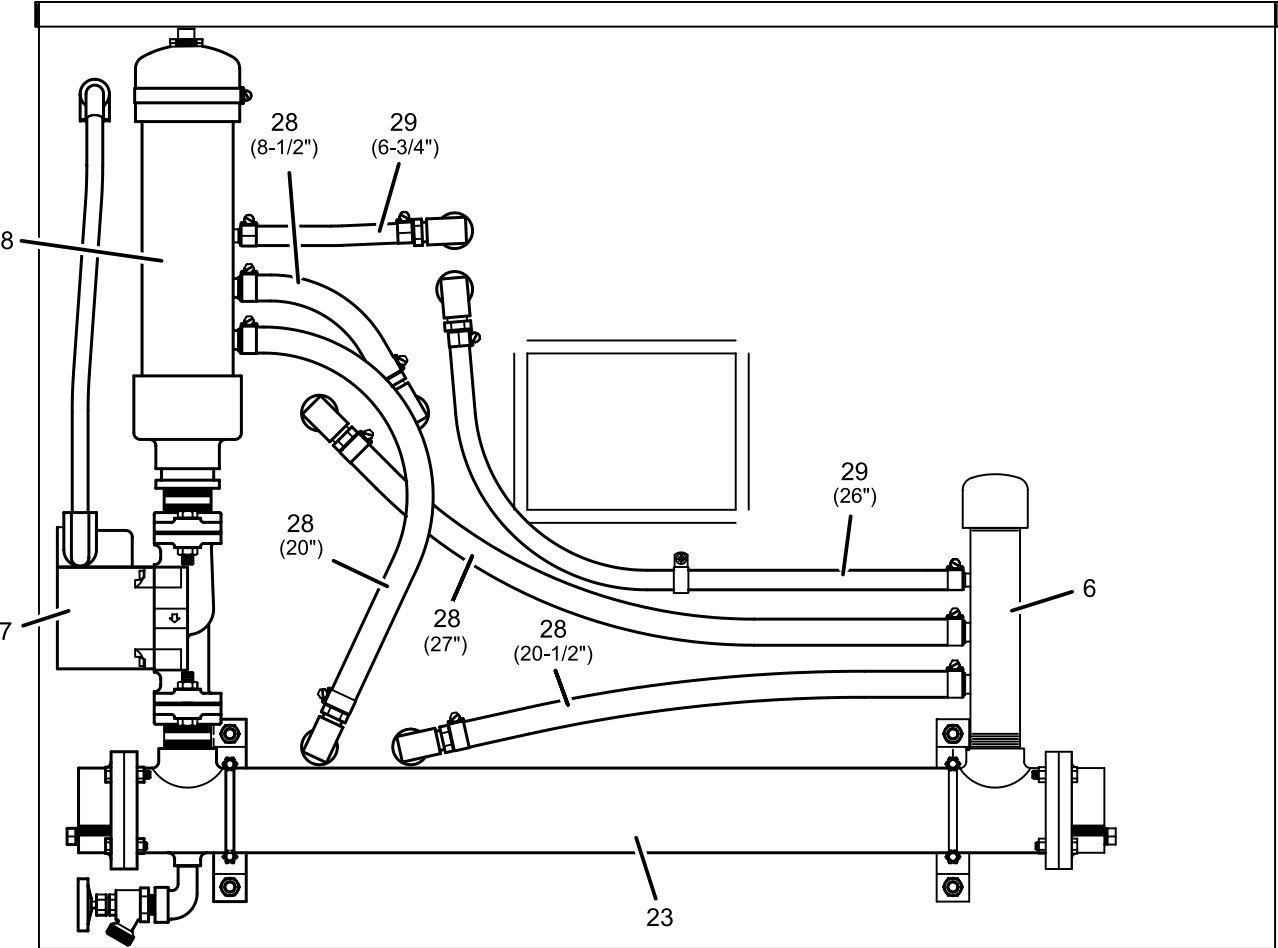
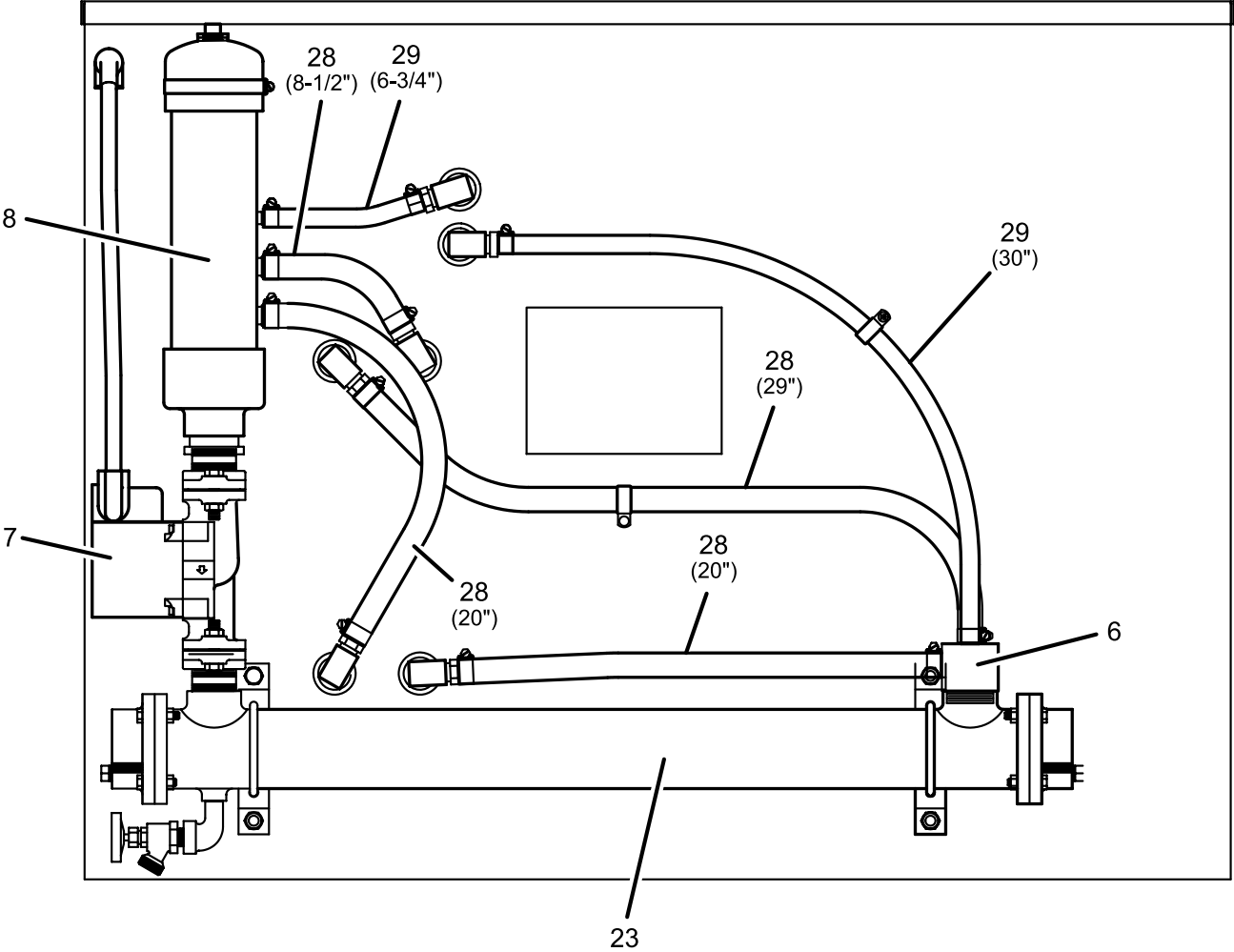


FIG. 6 – BACK OF CABINET 292/351/424 HP



LD09065

FIG. 6A – COOLING SYSTEM 292/351/424 HP

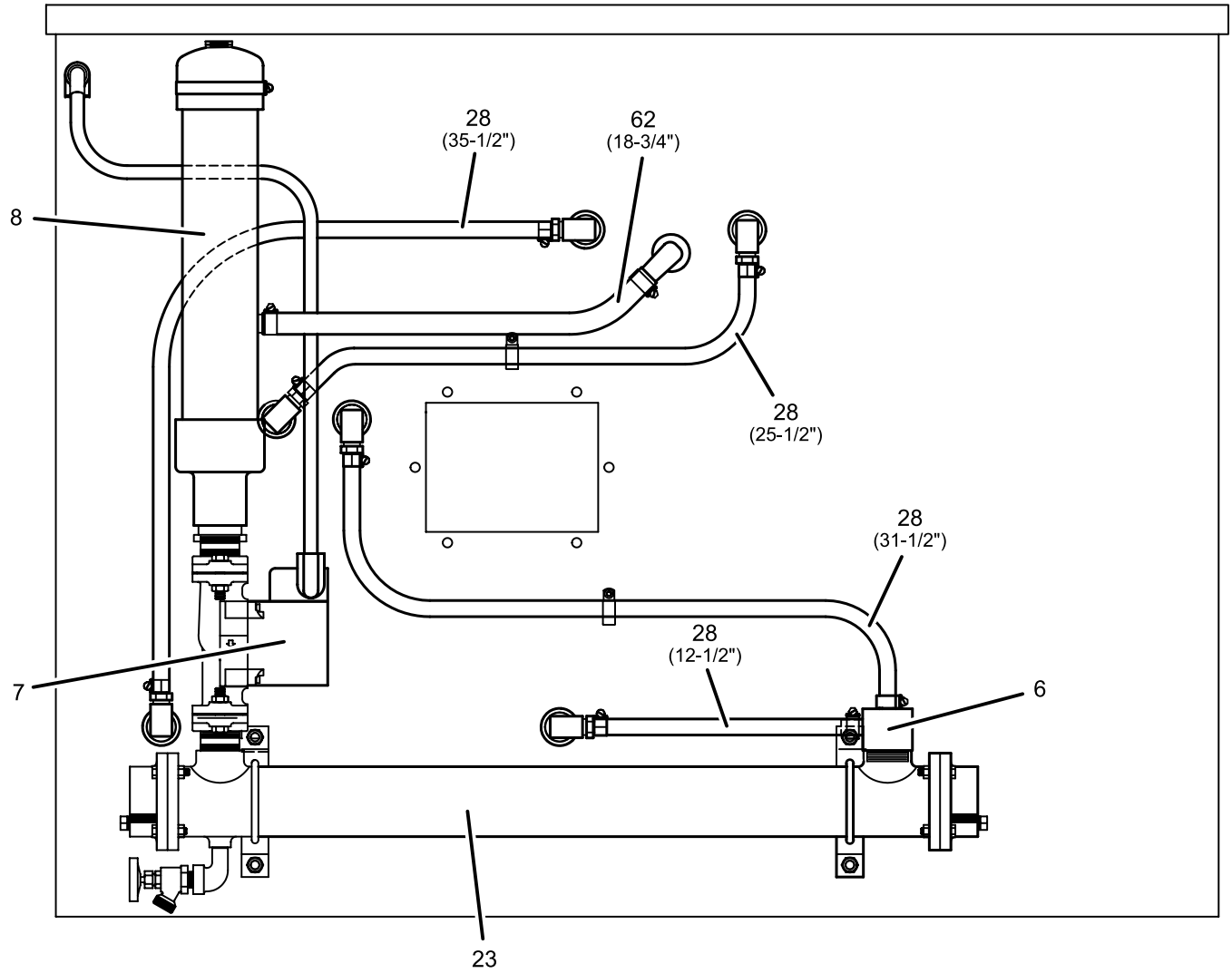


FIG. 6B – COOLING SYSTEM 419/503/608 HP

JOHNSON CONTROLS

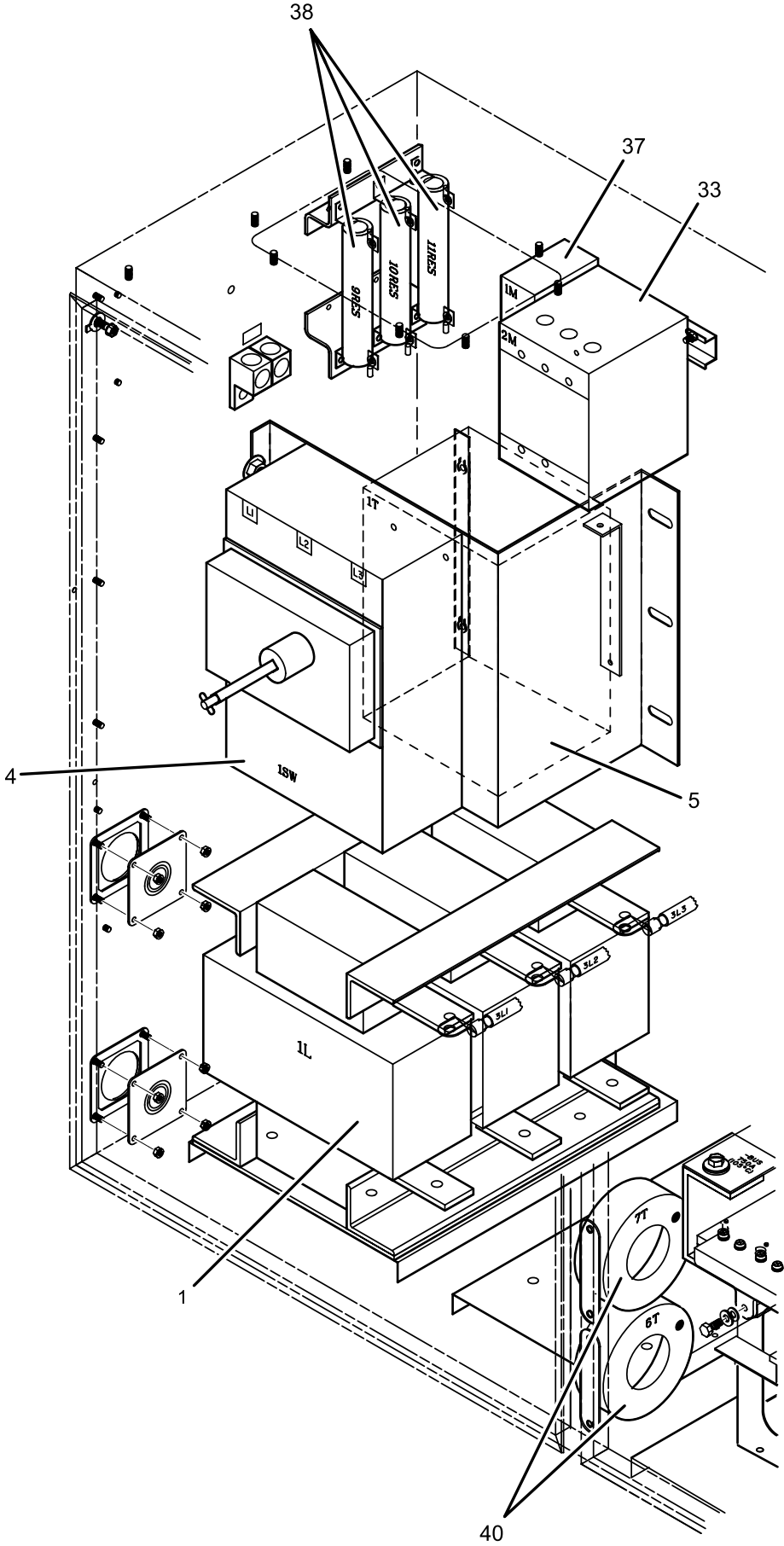
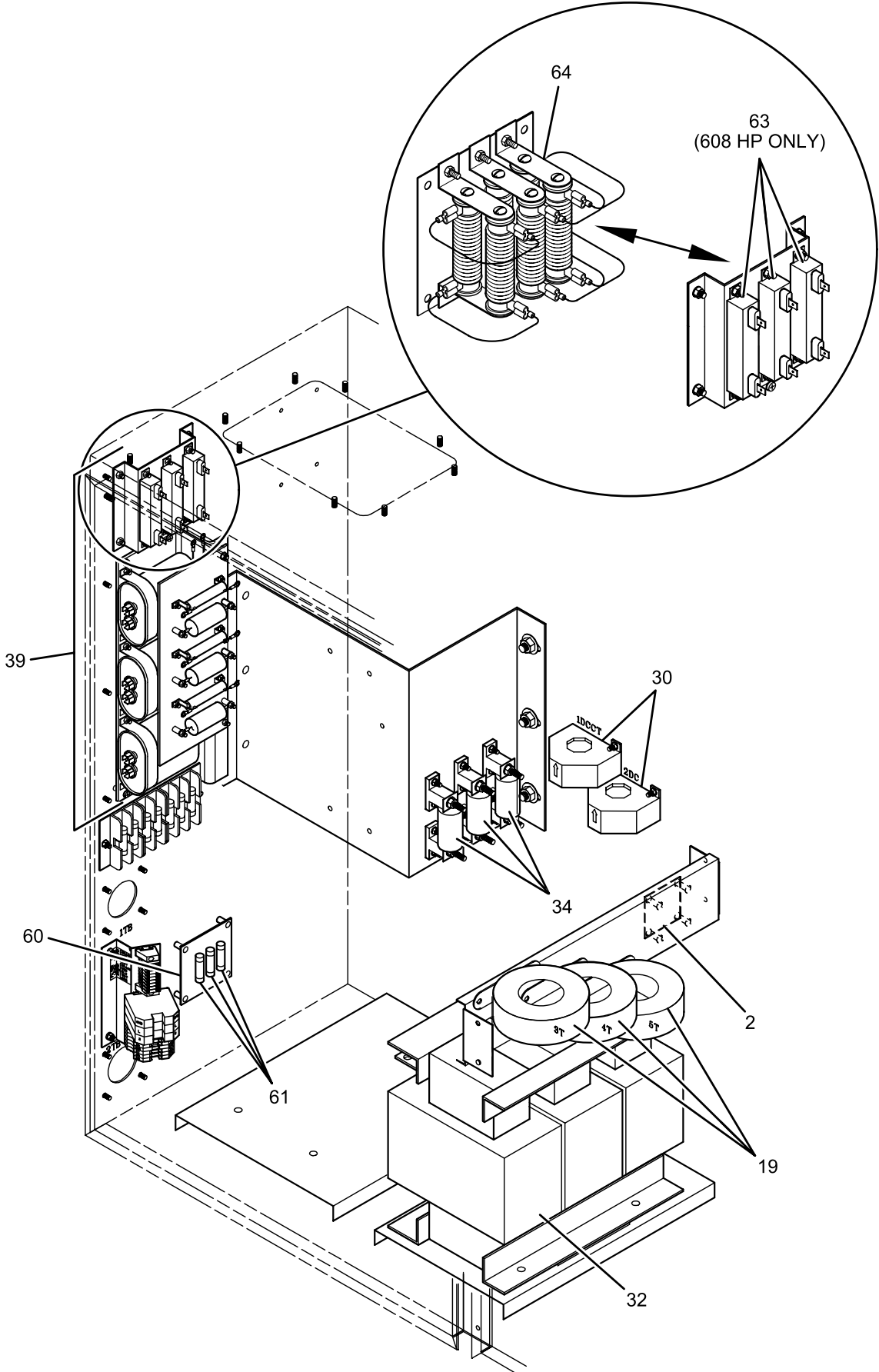
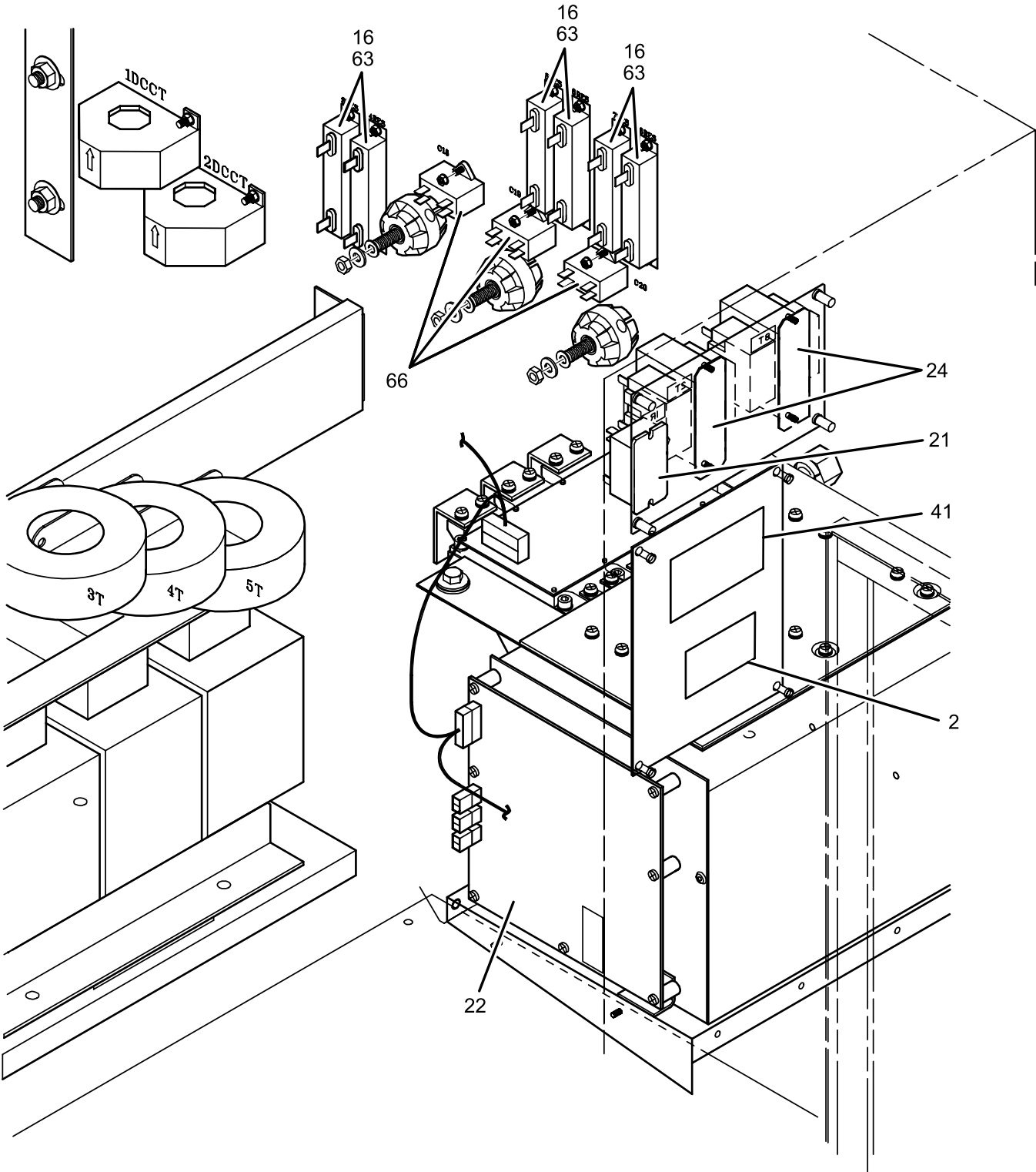


FIG. 7 – LEFT SIDE OF CABINET 419/503/608 HP



LD09063a

FIG. 8 – LEFT SIDE OF CABINET (DETAILED) 419/503/608 HP



LD09062a

FIG. 9 – UPPER RIGHT SIDE OF CABINET 419/503/608 HP

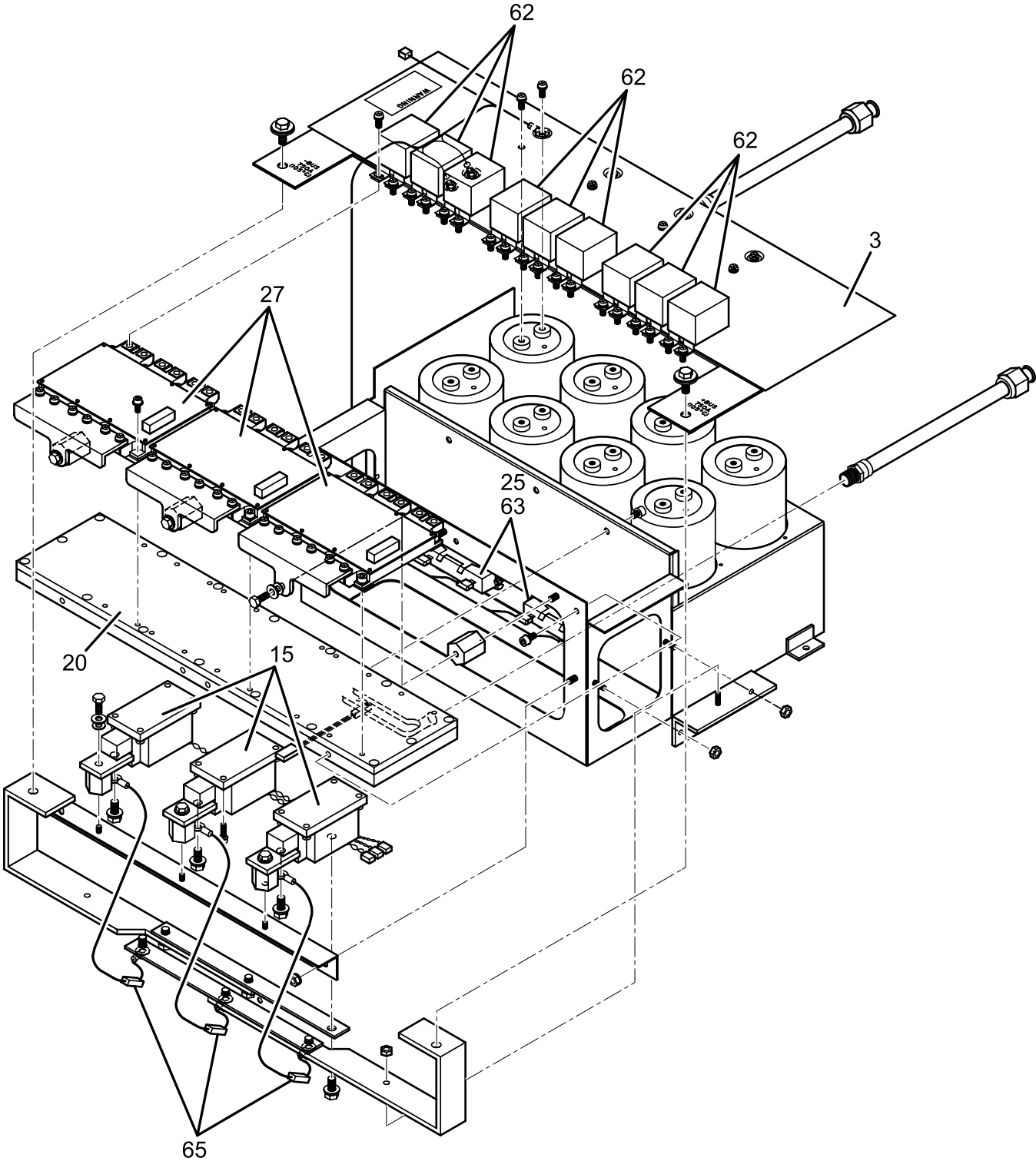
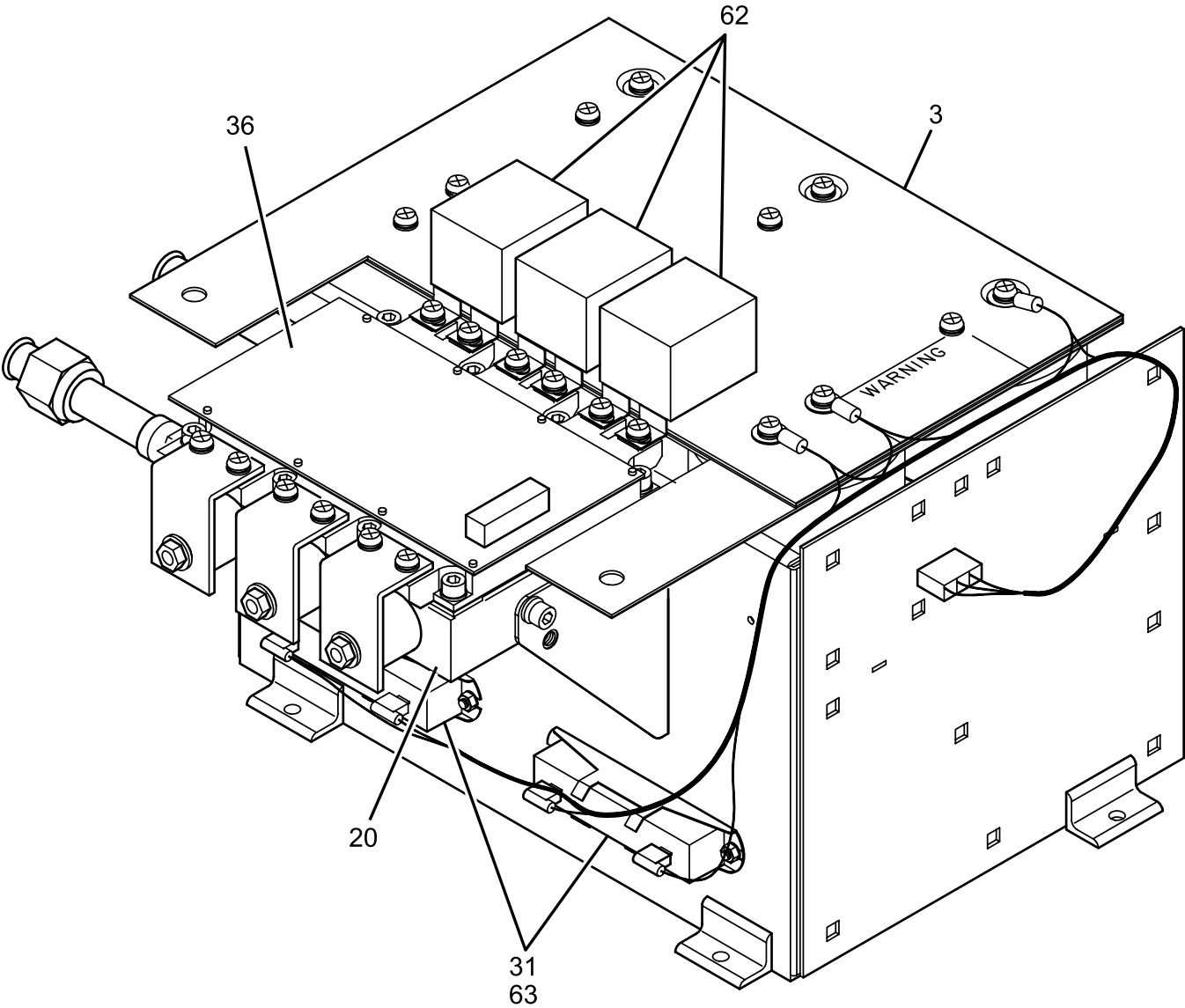


FIG. 10 – OPTI SPEED POWER UNIT DETAIL 419/503/608 HP



LD09060

FIG. 11 – OPTI SPEED HARMONIC FILTER POWER UNIT DETAIL 419/503/608 HP

NOTES



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