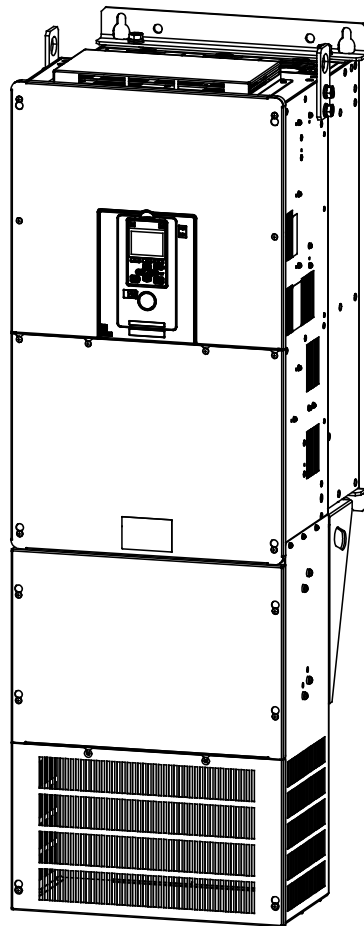


YASKAWA AC Drive Option

UL Type 1 Kit Installation Manual

Model UUX001700 & UUX001701

To properly use the product, read this manual thoroughly and retain for easy reference, inspection, and maintenance. Ensure the end user receives this manual.



This Page Intentionally Blank

Table of Contents

1. Receiving	5
Applicable Documentation	5
Glossary	5
2. General Safety	5
Supplemental Safety Information	5
Section Safety	5
3. Overview	6
Compatible Products	6
Installation Environment	6
4. Receiving	6
Option Package Contents	7
Required Tools	9
5. Installation Procedure	10
Drive Exterior and Mounting Dimensions	10
Exterior and Mounting Dimensions with Kit Installed	10
Kit Installation Procedure	12
Models 4371, 4414, 5192 to 5289	12
Models 4477 to 4720 and 5382 to 5472	22
Revision History	34

1 Receiving

◆ Applicable Documentation

Document	Description
Yaskawa AC Drive Option UL Type 1 Kit Installation Manual	Read this manual before you install this option to the drive. This manual gives information about how to install the option and change the enclosure type of the drive from IP20/UL Open Type to IP20/UL Type 1.
Yaskawa AC Drive Manuals	Refer to the manual packaged with the drive for basic information about the drive. Refer to the Technical Manual for more information about programming and parameter settings. You can download the Technical Manual from the Yaskawa website shown on the back cover of this manual.

◆ Glossary

Terminology Used in this Document	Description
Drive	YASKAWA AC Drive GA800
Kit Option	YASKAWA AC Drive Option UL Type 1 Kit

2 General Safety

◆ Supplemental Safety Information

- ⚠ DANGER** This signal word identifies a hazard that will cause serious injury or death if you do not prevent it.
- ⚠ WARNING** This signal word identifies a hazard that can cause death or serious injuries if you do not prevent it.
- ⚠ CAUTION** Identifies a hazardous situation, which, if not avoided, can cause minor or moderate injury.
- NOTICE** This signal word identifies a property damage message that is not related to personal injury.

◆ Section Safety

General Precautions
<ul style="list-style-type: none"> • Some figures in the instructions include options and drives without covers or safety shields to more clearly show the inside of the drive. Replace covers and shields before operation. Use options and drives only as specified by the instructions. • The figures in this manual are examples only. All figures do not apply to all products included in this manual. • Yaskawa can change the products, specifications, and content of the instructions without notice to make the product and/or the instructions better. • If you damage or lose these instructions, contact a Yaskawa representative or the nearest Yaskawa sales office on the rear cover of the manual, and tell them the document number on the front cover to order new copies.

⚠ DANGER *Electrical Shock Hazard. Do not examine, connect, or disconnect wiring on an energized drive. Before servicing, disconnect all power to the equipment and wait for the time specified on the warning label at a minimum. The internal capacitor stays charged after the drive is de-energized. The charge indicator LED extinguishes when the DC bus voltage decreases below 50 Vdc. When all indicators are OFF, remove the covers before measuring for dangerous voltages to make sure that the drive is safe. If you do work on the drive when it is energized, it will cause serious injury or death from electrical shock.*

⚠ CAUTION *Burn Hazard. Do not touch a hot drive heatsink. De-energize the drive, wait for a minimum of 15 minutes, then make sure that the heatsink is cool before you replace the cooling fans. If you touch a hot drive heatsink, it can burn you.*

⚠ WARNING *Electrical Shock Hazard. Only let approved personnel install, wire, maintain, examine, replace parts, and repair the drive. If personnel are not approved, it can cause serious injury or death.*

⚠ WARNING *Sudden Movement Hazard. Tighten the screws to the specified tightening torque. Incorrect tightening torques can cause damage to equipment and cause serious injury or death from falling equipment.*

NOTICE *Damage to Equipment. When you touch the drive and circuit boards, make sure that you observe correct electrostatic discharge (ESD) procedures. If you do not follow procedures, it can cause ESD damage to the drive circuitry.*

3 Overview

This option will change an open-chassis type (IP20) drive to an enclosed wall-mounted type (UL Type 1) drive.

This option will let you install the drive outside the enclosure panel as an enclosed wall-mounted type drive.

The option has a bracket that will prevent damage to the wiring and a top protective cover that will not let unwanted material get in the drive. You can use this option when the installation environment of the drive meets the specifications shown in *Installation Environment on page 6*.

◆ Compatible Products

Table 3.1 GA800 Compatible Models

Drive Model	Kit Model
4371, 4414, 5192, 5242, 5289	UUX001700
4477, 4568, 4605, 4720, 5382, 5412, 5472	UUX001701

◆ Installation Environment

Environment	Conditions
Area of Use	Indoors
Power supply	Overvoltage Category III
Ambient temperature setting	IP20/UL Open Type: -10°C to +50 °C (14 °F to 122 °F) IP20/UL Type 1: -10 °C to +40 °C (14 °F to 104 °F) <ul style="list-style-type: none"> • Drive reliability is better in environments where the temperature does not increase or decrease quickly. • When you install the drive in an enclosure, use a cooling fan or air conditioner to keep the internal air temperature in the permitted range. • Do not let the drive freeze. • You can use IP20/UL Open Type drives at a maximum of 60 °C (140 °F) when you derate the output current. • You can use IP20/UL Type 1 drives at a maximum of 50 °C (122 °F) when you derate the output current.
Humidity	95%RH or less Do not let condensation form on the drive.
Storage Temperature	-20°C to +70°C (-4°F to +158°F) (short-term temperature during transportation)
Surrounding Area	Pollution degree 2 or less Install the drive in an area without: <ul style="list-style-type: none"> • Oil mist, corrosive or flammable gas, or dust • Metal powder, oil, water, or other unwanted materials • Radioactive or flammable materials. • Harmful gas or fluids • Salt • Direct sunlight Keep wood and other flammable materials away from the drive.
Altitude	1000 m (3281 ft) Maximum Note: Derate the output current by 1% for each 100 m (328 ft) to install the drive in altitudes between 1000 m to 4000 m (3281 ft to 13123 ft). It is not necessary to derate the rated voltage in these conditions: <ul style="list-style-type: none"> • Installing the drive at 2000 m (6562 ft) or lower • Installing the drive between 2000 m to 4000 m (6562 ft to 13123 ft) and grounding the neutral point on the power supply. Contact Yaskawa or your nearest sales representative if you will not ground the neutral point.
Vibration	Contact technical support for assistance.
Installation Orientation	Install the drive vertically for sufficient airflow to cool the drive.

NOTICE Do not let unwanted objects, for example metal shavings or wire clippings, fall into the drive during drive installation. Put a temporary cover over the drive during installation. Remove the temporary cover before start-up. Unwanted objects inside of the drive can cause damage to the drive.

4 Receiving

1. Examine the products for damage.

If there is damage to the products, contact the shipping company immediately. The Yaskawa warranty does not include damage from shipping.

- Verify the product model number to make sure that you received the correct model.
If you have problems with the products, contact the distributor where you purchased the products or the Yaskawa sales office immediately.

◆ Option Package Contents

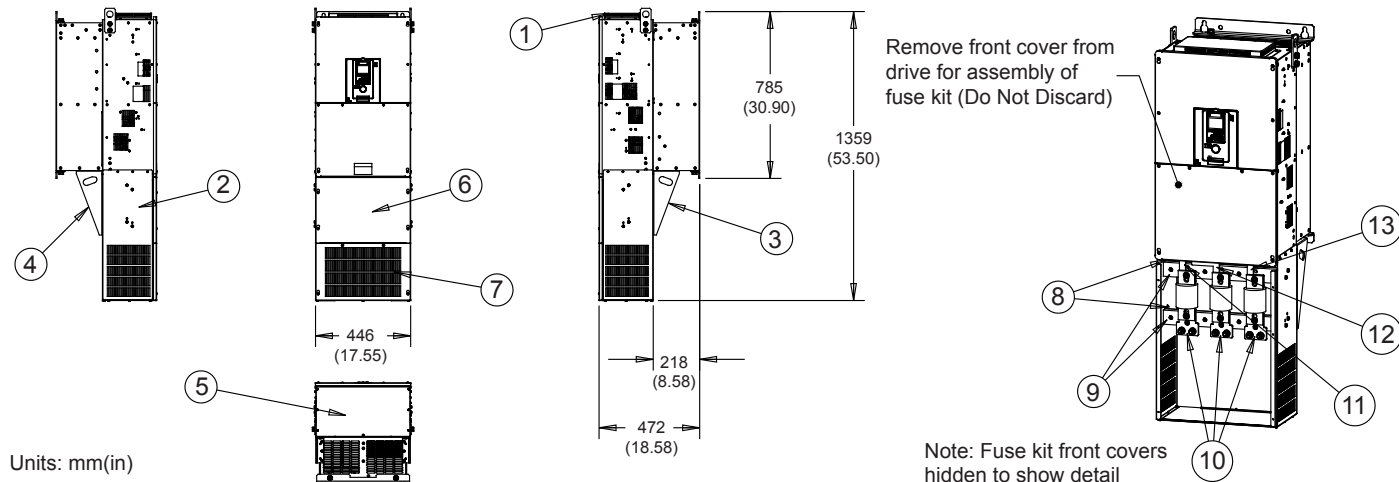


Figure 4.1 Kit UUX001700 Contents for Models 4371, 4414, and 5192 to 5289

Component #	Component Description	Part #	Quantity
1	Top Cover	USP04784-1	1
2	Bottom Housing	USP04780-1	1
3	Right Support Bracket	USP04782-A	1
4	Left Support Bracket	USP04783-A	1
5	Bottom Cover	USP04781-1	1
6	Upper Front Cover	USP04778-1	1
7	Lower Front Cover	USP04779-1	1
8	Fuse Support Bracket	USP04785-1	2
9	Fuse Support Insulator	UIS01074-1	2
10	Customer Busbar	UBR02195-1	3
11	Left Busbar	UBR02189-1	1
12	Center Busbar	UBR02190-1	1
13	Right Busbar	UBR02191-1	1

Kit Part #	Drive Model	Hardware Description	Quantity	Bag ID Label	Usage
UUX001700	4371 4414 5192 5242 5289	M4 × 10 Pan Head Screw	23	A	Covers and Housing
		M5 × 14 Pan Head Screw	6	B	Support Brackets
		M4 × 10 Truss Head Screw	8	C	Front Covers
		M6 × 14 Pan Head Screw	8	D	Fuse Support Bracket
		M6 × 30 Pan Head Screw	8	E	Fuse Support Insulator
		M12 × 32 Bolt	6	F	Customer Bus Bars and Internal Bus Bars
		M12 Nut	6		
		M12 Flat Washer	6		
		M12 Lock Washer	6		

4 Receiving

Kit Part #	Drive Model	Hardware Description	Quantity	Bag ID Label	Usage
		M8 × 35 Screw	6		
		M8 × 25 Screw	3		
		M8 Fender Washer	6		

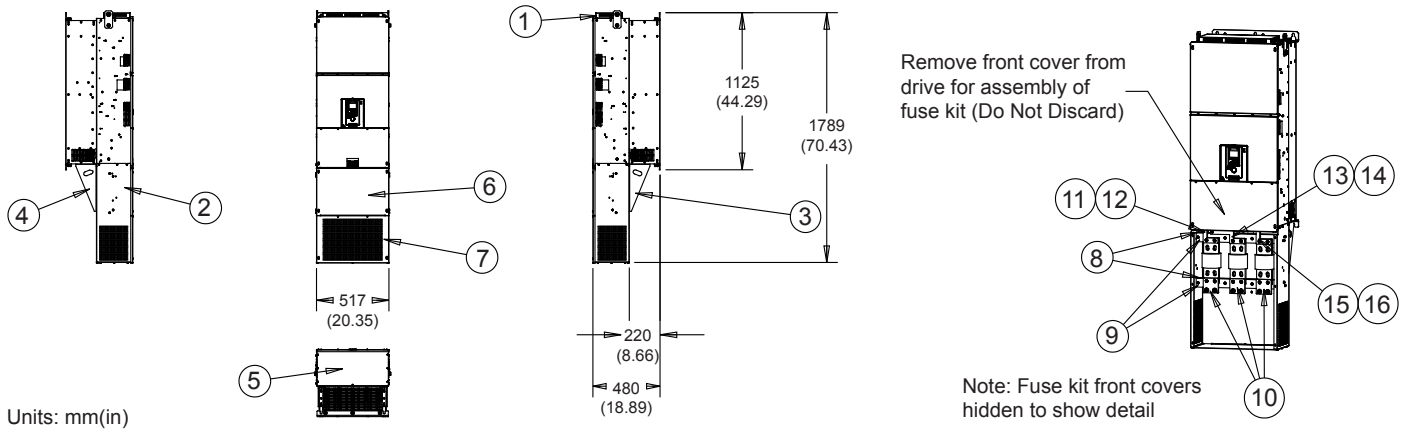


Figure 4.2 Kit UUX001701 Contents for Drive Models 4477 to 4720 and 5382 to 5472

Component #	Component Description	Part #	Quantity
1	Top Cover	USP04777-1	1
2	Bottom Housing	USP04151-1	1
3	Right Support Bracket	USP04154-A	1
4	Left Support Bracket	USP04153-A	1
5	Bottom Cover	USP04152-1	1
6	Upper Front Cover	USP04767-1	1
7	Lower Front Cover	USP04150-1	1
8	Fuse Support Bracket	USP04766-1	2
9	Fuse Support Insulator	UIS01071-1	2
10	Customer Busbar	UBR02184-1	3
11	Left Back Busbar	UBR02178-1	1
12	Left Front Busbar	UBR02179-1	1
13	Center Back Busbar	UBR02180-1	1
14	Center Front Busbar	UBR02181-1	1
15	Right Back Busbar	UBR02182-1	1
16	Right Front Busbar	UBR02183-1	1

Kit Part #	Drive Model	Hardware Description	Quantity	Bag ID Label	Usage
UUX001701	4477 4568 4605 4720 5382 5412 5472	M4 × 10 Pan Head Screw	11	A	Top and Bottom Covers
		M4 × 16 Pan Head Screw	4	B	Bus Bars
		M5 × 14 Pan Head Screw	18	C	Support Brackets
		M4 × 10 Truss Head Screw	8	D	Front Covers
		M6 × 14 Pan Head Screw	8	E	Fuse Support Bracket
		M6 × 30 Pan Head Screw	8	F	Fuse Support Bracket
		M12 × 38 Bolt	6	G	Customer Bus Bars
		M12 Nut	6		
		M12 Lock Washer	6		

Kit Part #	Drive Model	Hardware Description	Quantity	Bag ID Label	Usage
		M12 Flat Washer	6		
	4477 4568 5382 5412	M8 × 30 Screw M8 × 40 Screw M8 Fender Washer	6 6 6	H1	Internal Bus Bars
	4605 4720	M8 × 45 Screw	12	H2	Internal Bus Bars
	4477 4568 5382 5412	M8 × 40 Screw	6	H3	Internal Bus Bars
	5472	M8 × 35 Screw	6	H4	Internal Bus Bars

◆ Required Tools

Use these tools to install the attachment:

- Phillips screwdriver #2
- Straight-edge screwdriver
- Hammer
- File
- Torque Wrench or Driver

5 Installation Procedure

CAUTION Crush Hazard. Tighten terminal cover screws and hold the case safely when you move the drive. If the drive or covers fall, it can cause moderate injury.

◆ Drive Exterior and Mounting Dimensions

■ Exterior and Mounting Dimensions with Kit Installed

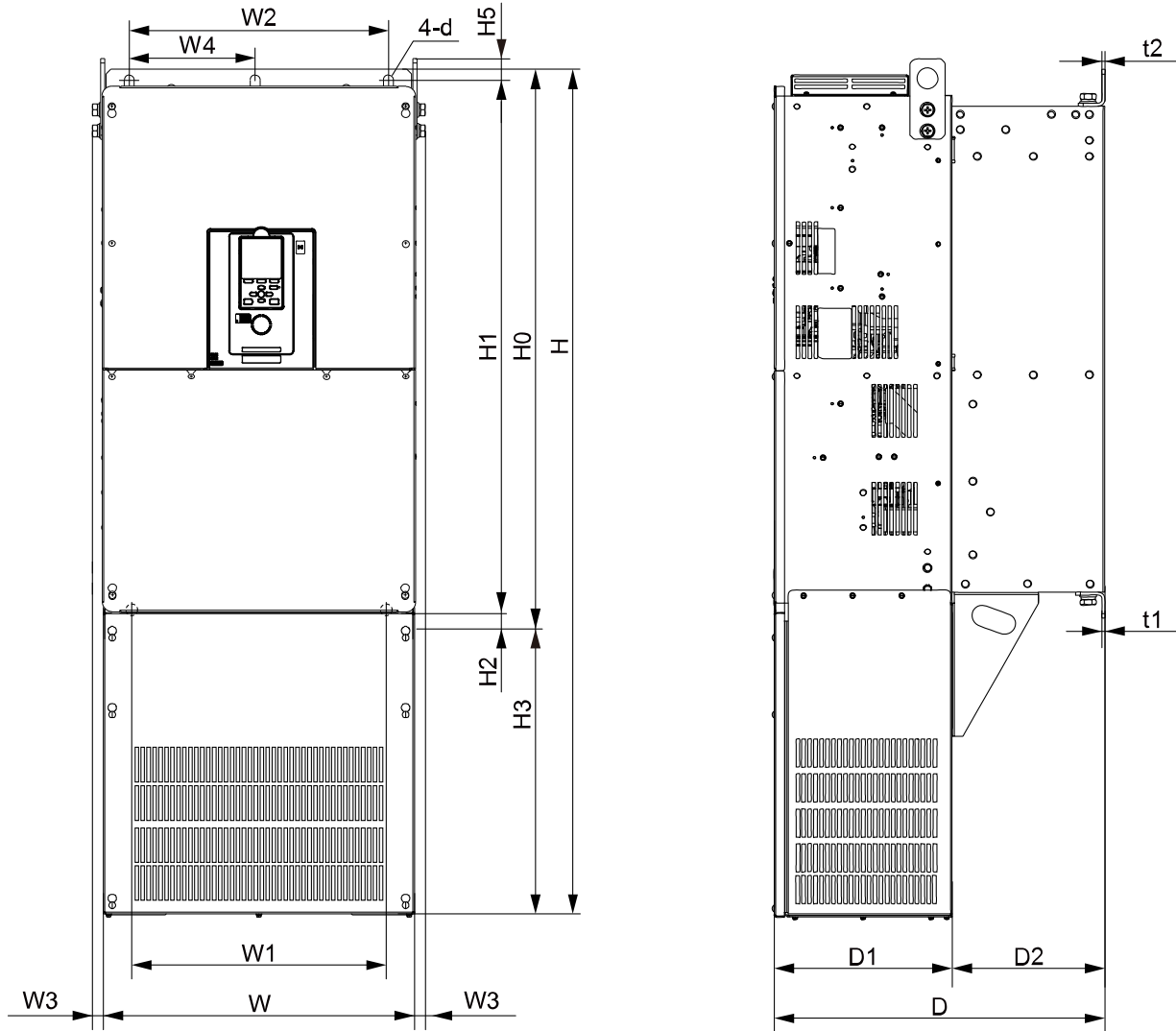


Figure 5.1 Exterior and Mounting Dimensions

Drive Model	Dimensions mm (in)																Est. Weight kg (lb)	
	W	H	D	D1	D2	W1	W2	W3 (max.)	W4	H0	H1	H2	H3	H5	t1	t2		d
4371 4414 5192 5242 5289	444 (17.48)	1045 (41.14)	472 (18.58)	254 (10.00)	218 (8.58)	370 (14.57)	370 (14.57)	18 (0.71)	-	800 (31.50)	757 (29.80)	28 (1.10)	245 (9.65)	30 (1.18)	4.5 (0.18)	4.5 (0.18)	M12	130 (286.60)
4477 4568 4605 4720 5382 5412 5472	510 (20.08)	1789 (70.43)	480 (18.90)	260 (10.23)	220 (8.66)	450 (17.72)	450 (17.72)	20 (0.79)	225 (8.86)	1136 (44.70)	1093 (43.03)	43 (1.71)	664 (26.14)	35 (1.37)	4.5 (0.18)	4.5 (0.18)	M12	207 (455)

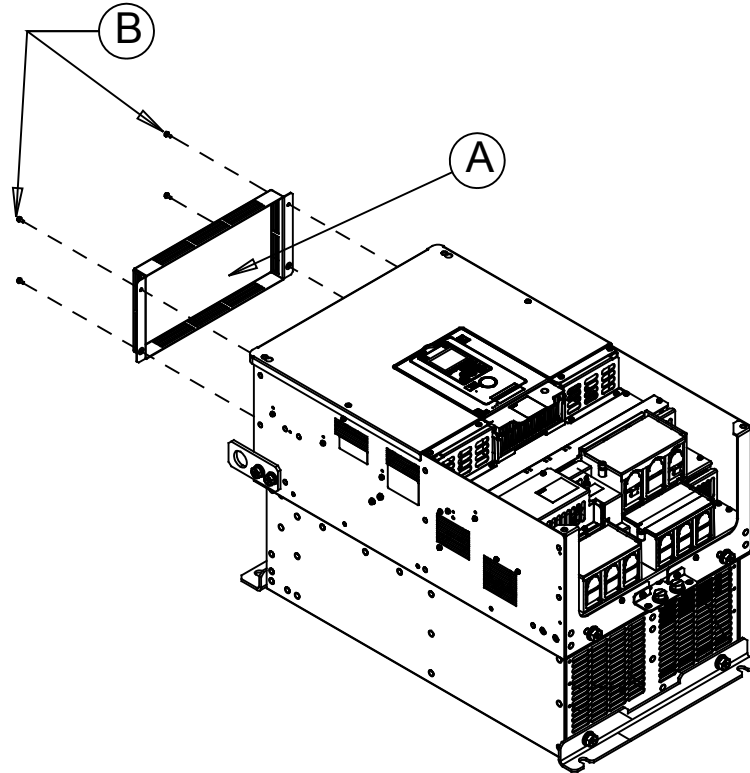
◆ Kit Installation Procedure

Table 5.1 Kit Installation Procedure

Drive Model	Kit Model	Ref.
4371, 4414 5192, 5242, 5289	UUX001700	12
4477, 4568, 4605, 4720 5382, 5412, 5472	UUX001701	22

■ Models 4371, 4414, 5192 to 5289

1. Use four M4 × 10 screws to attach the top protective cover.
Tighten the screws to a tightening torque of 1.5 to 2 N·m (13 to 18 in·lb).

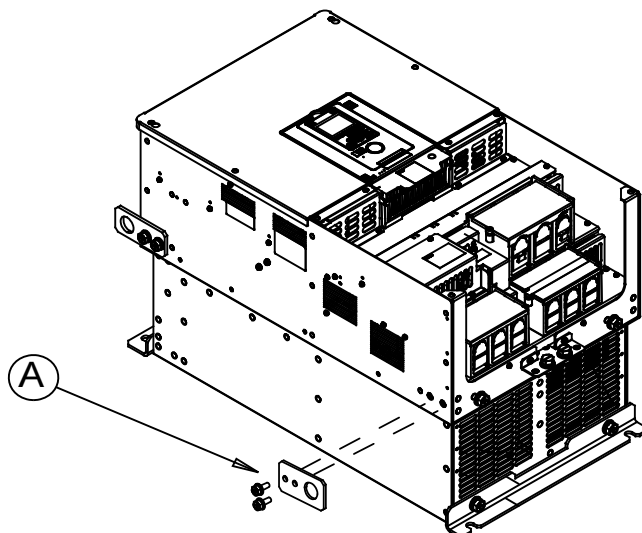


A - Top Protective Cover

B - Screws (M4 × 10 pan head screw)

Figure 5.2 Attach the Top Protective Cover

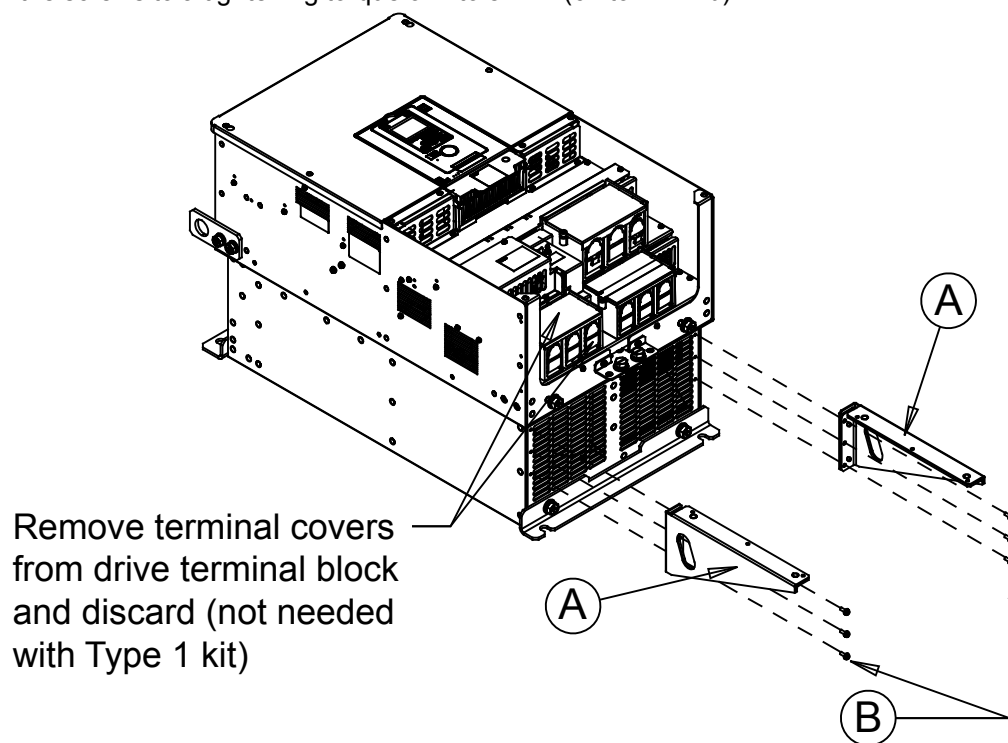
- Remove the lower hanging bracket from each side of the drive.



A - Hanging Bracket

Figure 5.3 Hanging Bracket

- Use six M5 × 14 pan head screws to attach the support brackets. Tighten the screws to a tightening torque of 7 to 8 N·m (62 to 71 in·lb).



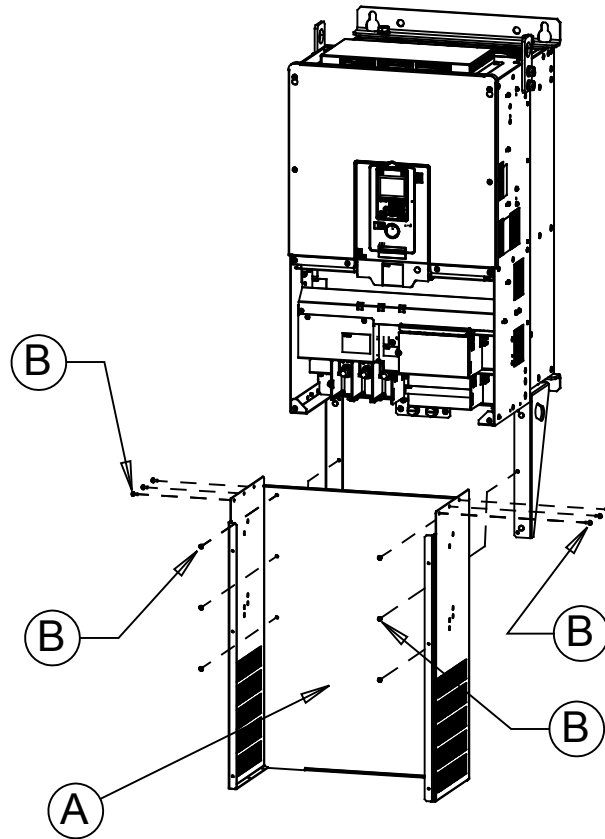
Remove terminal covers from drive terminal block and discard (not needed with Type 1 kit)

A - Support bracket

B - Screw (M5 × 14 pan head screw)

Figure 5.4 Attach the Support Brackets to the Drive

4. Use twelve M4 × 10 pan head screws to attach the bottom housing to the support brackets. Tighten the screws to a tightening torque of 1.5 to 2 N·m (13 to 18 in·lb).

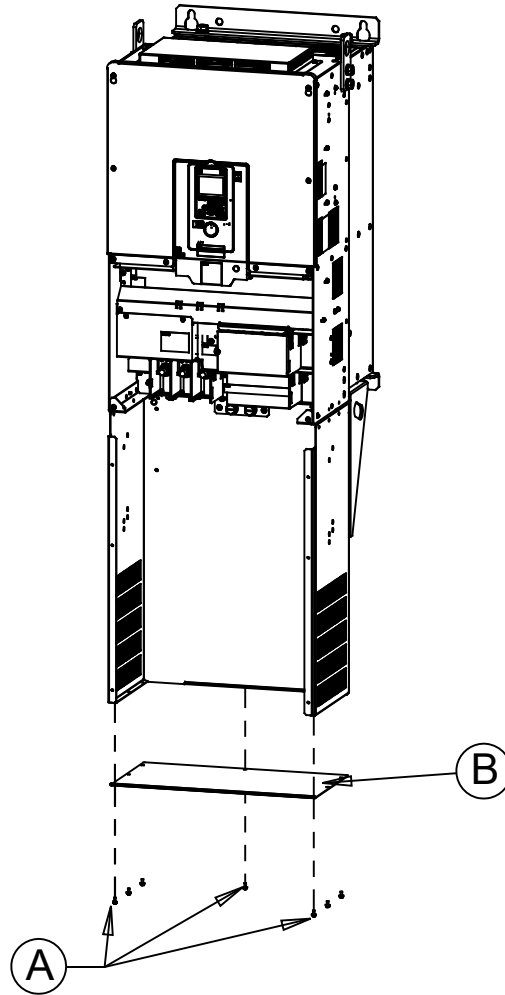


A - Bottom Housing

B - Screw (M4 × 10 pan head screw)

Figure 5.5 Attach the Bottom Housing to the Support Brackets

5. Use seven M4 × 10 pan head screws to attach the bottom cover to the bottom housing.
Cut the knockout holes in the bottom cover as required.
Tighten the screws to a tightening torque of 1.5 to 2 N·m (13 to 18 in·lb).

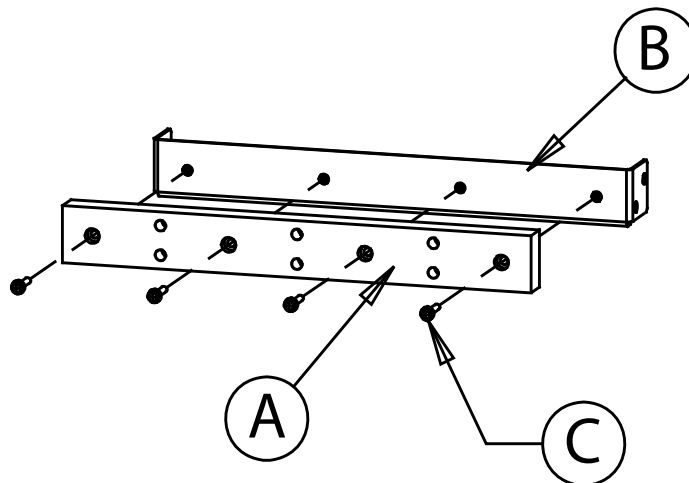


A - Screw (M4 × 10 pan head screw)

B - Bottom Cover

Figure 5.6 Attach the Bottom Cover

6. Use six M6 × 30 pan head screws to assemble the fuse brackets.
Tighten the screws to a tightening torque of 8 to 9 N·m (71 to 80 in·lb).
Repeat this process twice.

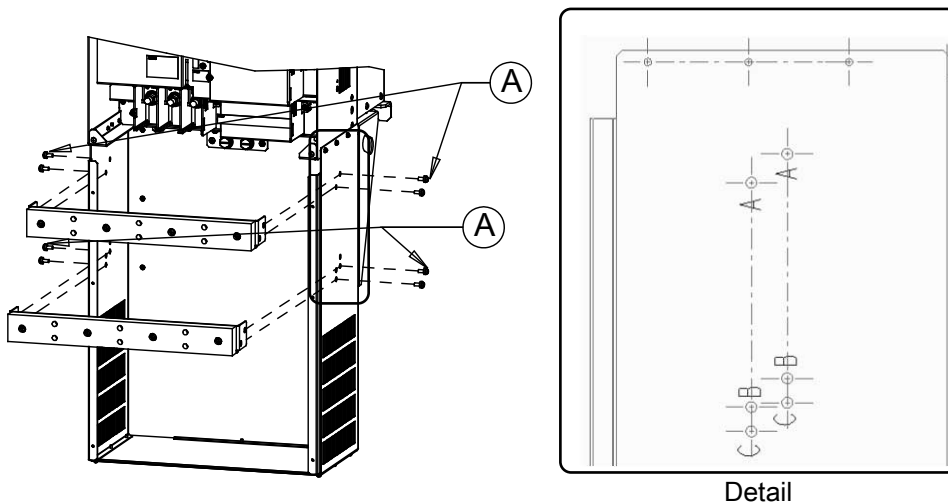


A - Fuse Support Insulator
B - Fuse Support Bracket

C - Screw (M6 × 30 pan head screw)

Figure 5.7 Assemble the Fuse Support Bracket

7. Install drive output wiring.
8. Use four M6 × 14 pan head screws to loosely attach the fuse bracket to the bottom housing.
Repeat this process twice.



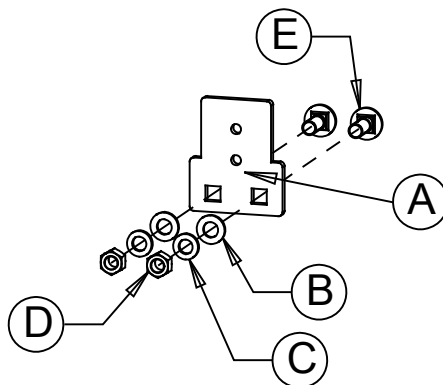
A - Screw (M6 × 14 pan head screw)

Figure 5.8 Attach the Fuse Support Brackets

Upper Support Bracket	
Drive Model	Use Holes Marked
4371, 4414, 5192 to 5289	A

Lower Support Bracket	
Drive Model	Use Holes Marked
4371, 5192 to 5289 4414 (with fuse FWH-800A)	B
4414 (with fuse FWH-1000A)	C

9. Use two M12 × 32 bolts to assemble the customer busbars.
Do not fully tighten the hardware.
Repeat this process three times.



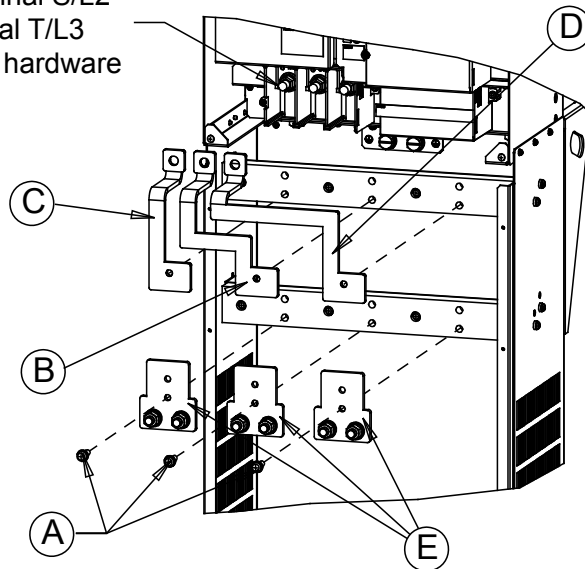
A - Customer Busbar
B - M12 Flat Washer
C - M12 Lock Washer

D - M12 Nut
E - Bolt (M12 × 32)

Figure 5.9 Assemble the Customer Busbar

10. Use three M8 × 25 screws to attach the customer busbars to the fuse support insulators.
Attach the remaining busbars as shown.
Tighten the screws to a tightening torque of 9 to 11 N·m (80 to 97 in·lb).
Tighten the drive terminals (R/L1, S/L2, and T/L3) to 35 N·m (310 in·lb).
Terminal nuts are M12.

Attach left busbar to Terminal R/L1
 Attach center busbar to Terminal S/L2
 Attach right busbar to Terminal T/L3
 Using existing terminal block hardware



A - Screw (M8 × 25)
B - Center Busbar
C - Left Busbar

D - Right Busbar
E - Customer Busbar

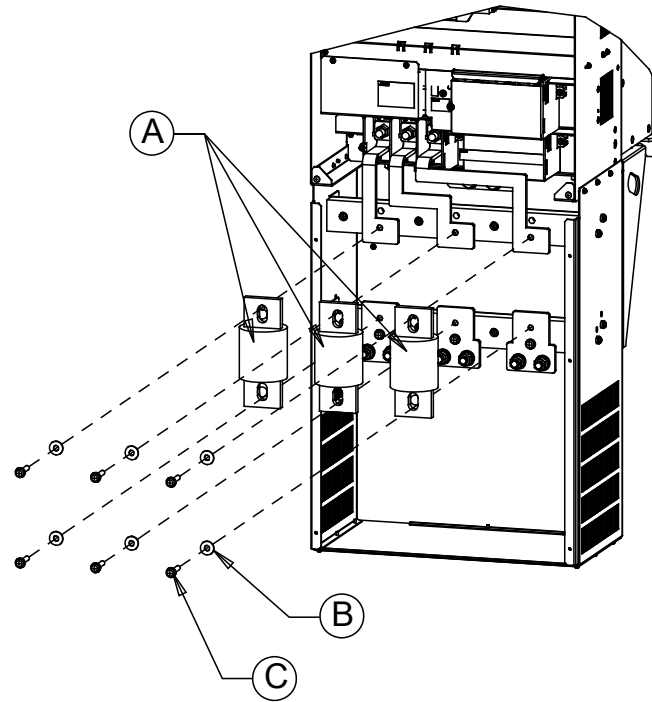
Figure 5.10 Attach the Busbar

11. Use [Table 5.2](#) to select the correct fuses for your installation. Fuses are not provided in the kit.

Table 5.2 Semiconductor Fuse Selection

Drive Model	Semiconductor Fuse Manufacturer: EATON/Bussmann or Mersen	Yaskawa Part Number
4371	FWH-800A	UFU000047
4414	FWH-800A or FWH-1000A	UFU000047 or UFU000048
5192	A070UD32LI350	UFU000801
5242 5289	A070UD32LI400	UFU000802

12. Use six M8 × 35 screws to attach the fuses to the customer busbars.
Tighten the screws to a tightening torque of 9 to 11 N·m (80 to 97 in·lb).



A - Fuses x 3
B - Fender Washer (M8)

C - Screw (M8 × 35)

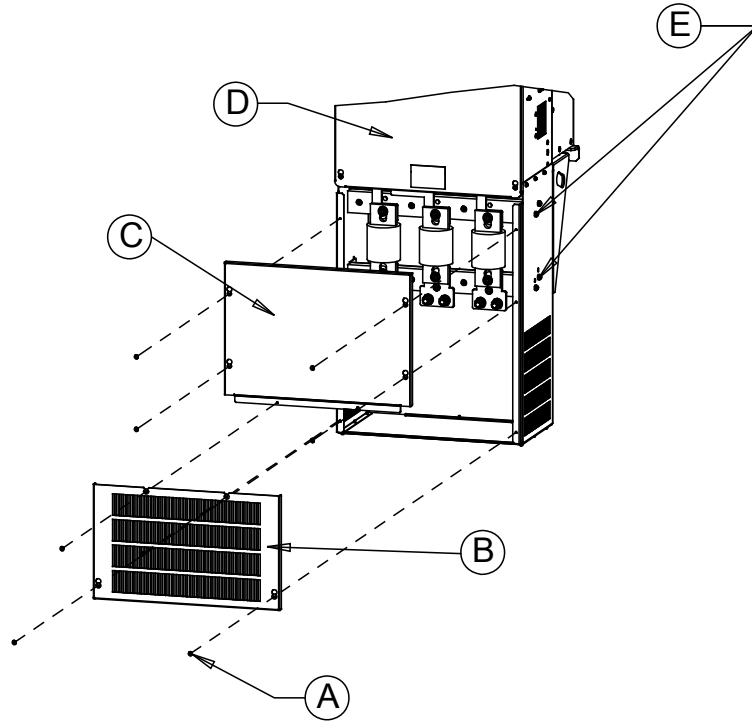
Figure 5.11 Attach the Customer Busbar

13. Use eight M4 × 10 truss head screws to attach the upper and lower front covers to the bottom housing.

Tighten the fuse support bracket screws.

Tighten the screws to a tightening torque of 1.5 to 2 N·m (13 to 18 in·lb).

Tighten the M4 screws to a tightening torque of 1.5 to 2 N·m (13 to 18 in·lb).



- A - Screw (M4 × 10 Truss Head Screw)
- B - Lower Front Cover
- C - Upper Front Cover

- D - Drive Terminal Cover
- E - Screws (M6 × 14 Pan Head Screw)

Figure 5.12 Reattach the Front Cover

14. The kit installation is complete and the drive is now fitted with a UL Type 1 enclosure.

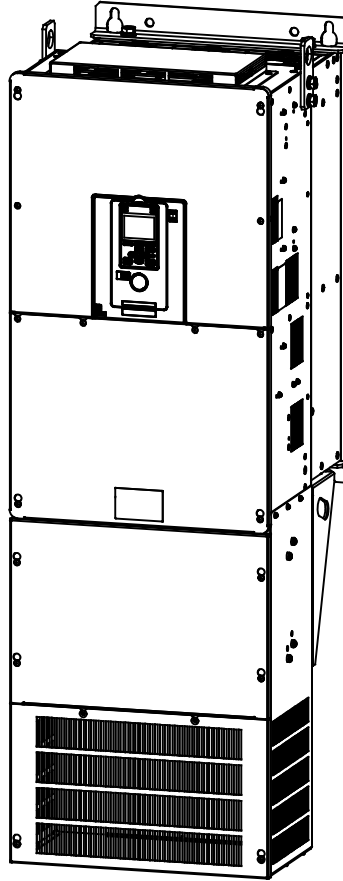
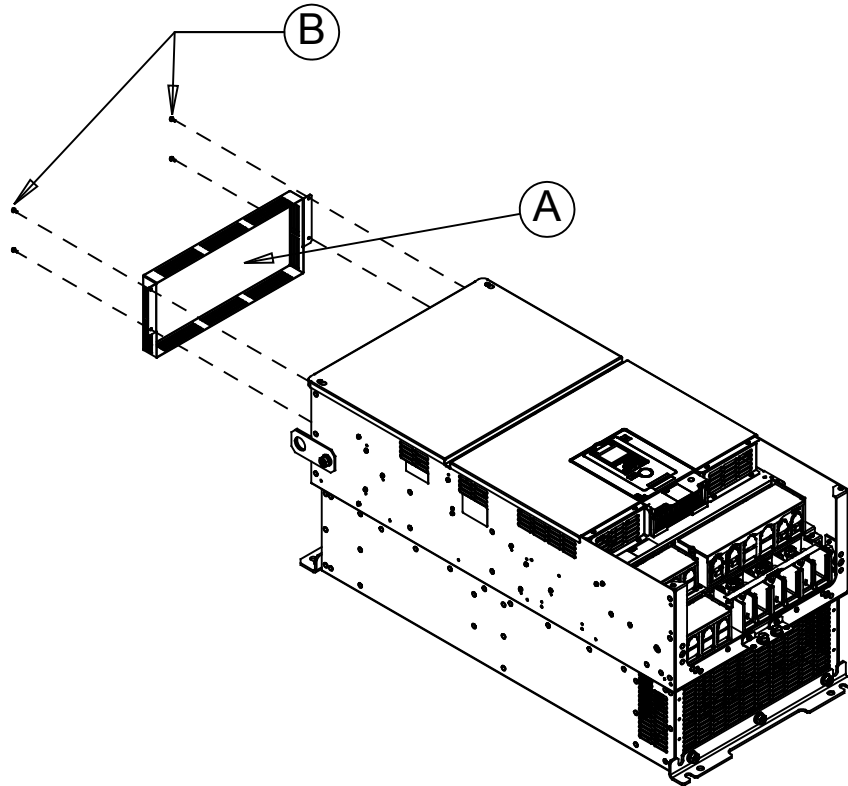


Figure 5.13 Completed View

■ **Models 4477 to 4720 and 5382 to 5472**

1. Use four M4 × 10 pan head screws to attach the top protective cover.
Tighten the screws to a tightening torque of 1.5 to 2 N·m (13 to 18 in·lb).

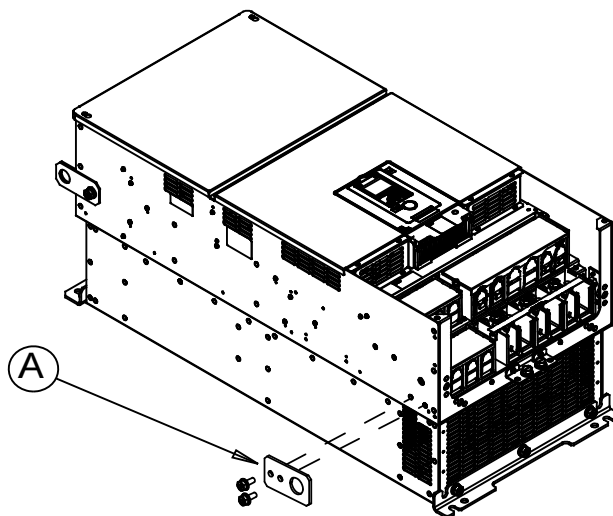


A - Top Protective Cover

B - Screws (M4 × 10 pan head screw)

Figure 5.14 Attach the Top Protective Cover

2. Remove the lower hanging bracket from each side of the drive.



A - Hanging Bracket

Figure 5.15 Hanging Bracket

- Use six M5 × 14 pan head screws to attach the support brackets.
Tighten the screws to a tightening torque of 7 to 8 N·m (62 to 71 in·lb).

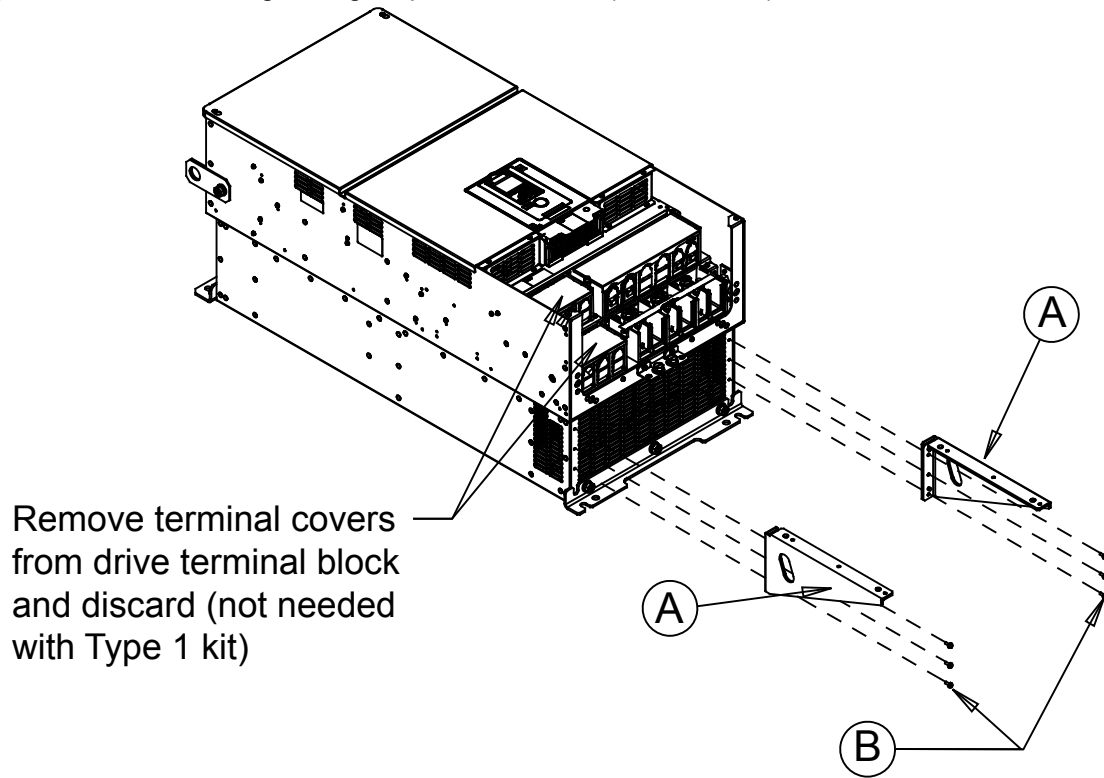
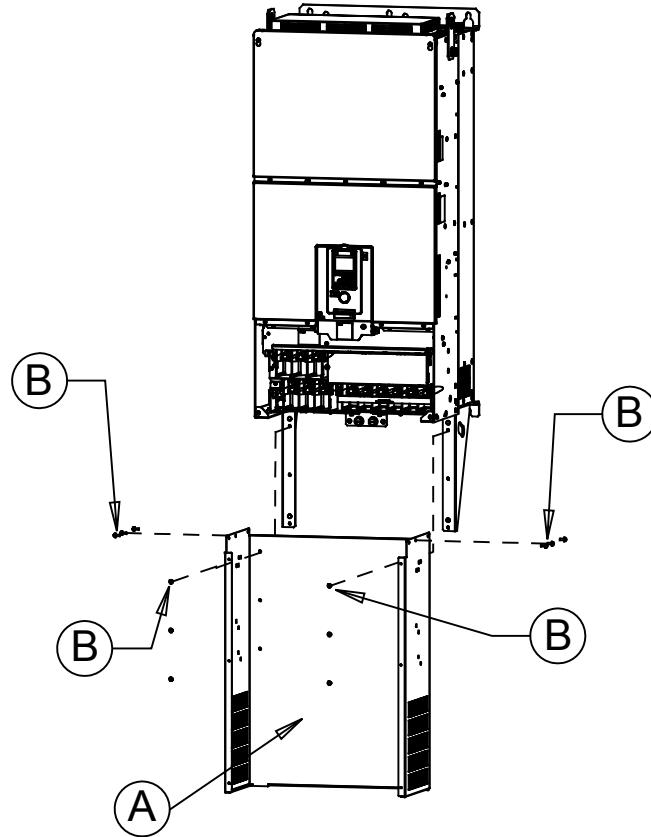


Figure 5.16 Attach the Support Brackets to the Drive

4. Use twelve M5 × 14 pan head screws to attach the bottom housing to the support brackets. Tighten the screws to a tightening torque of 7 to 8 N·m (62 to 71 in·lb).

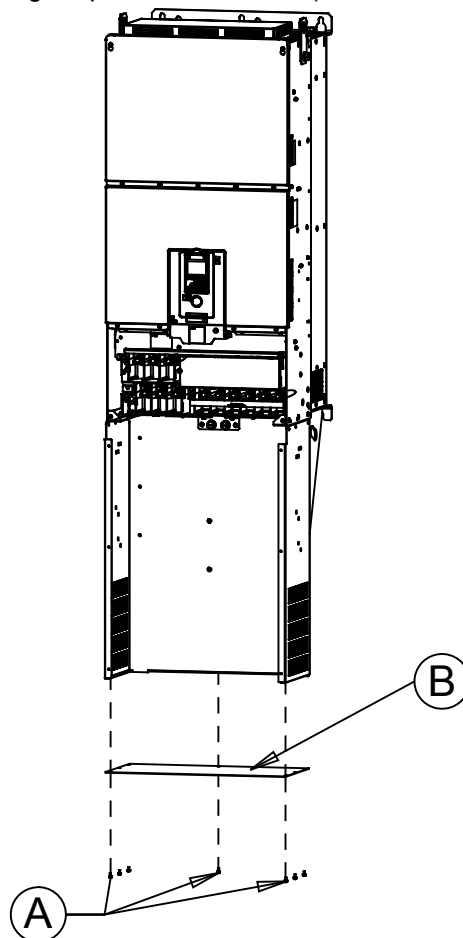


A - Bottom Housing

B - Screw (M5 × 14 pan head screw)

Figure 5.17 Attach the Bottom Housing to the Support Brackets

5. Use seven M4 × 10 pan head screws to attach the bottom cover to the bottom housing.
Cut the knockout holes in the bottom cover as required.
Tighten the screws to a tightening torque of 1.5 to 2 N·m (13 to 18 in·lb).



A - Screw (M4 × 10 pan head screw)

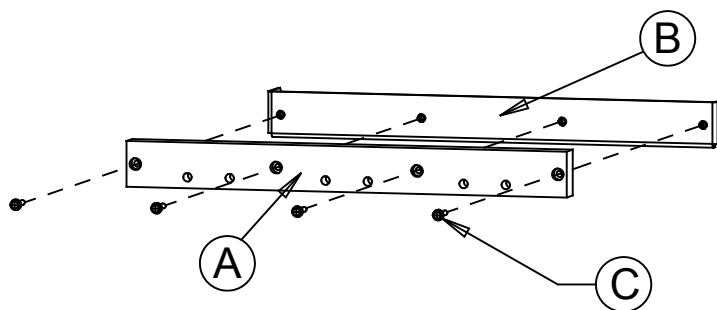
B - Bottom Cover

Figure 5.18 Attach the Bottom Cover

6. Use four M6 × 30 pan head screws to assemble the fuse brackets.
Tighten the screws to a tightening torque of 8 to 9 N·m (71 to 80 in·lb).
Repeat this process twice.

Note:

Please pay close attention to the orientation of Part A and Part B in [Figure 5.19](#).



A - Fuse Support Insulator

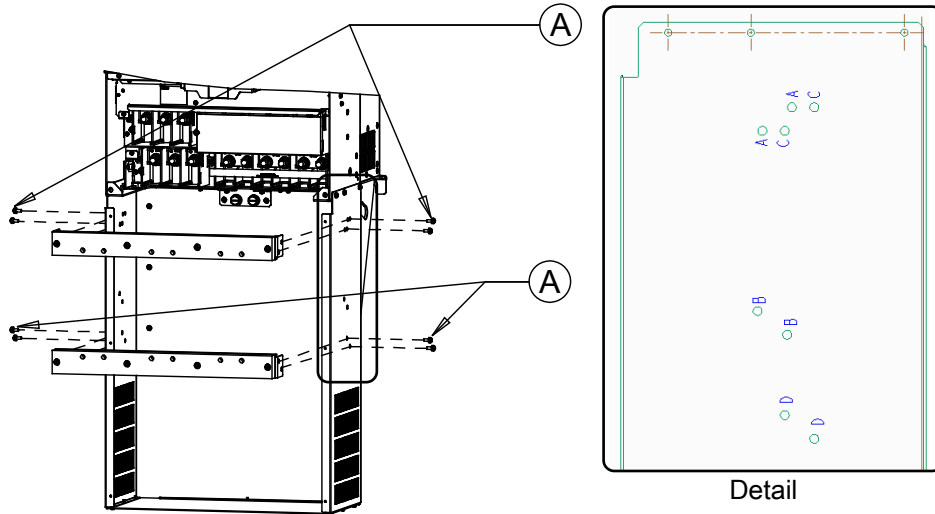
B - Fuse Support Bracket

C - Screw (M6 × 30 pan head screw)

Figure 5.19 Assemble the Fuse Support Bracket

7. Install drive output wiring.

8. Use four M6 × 14 pan head screws to loosely attach the fuse bracket to the bottom housing. Repeat this process twice.

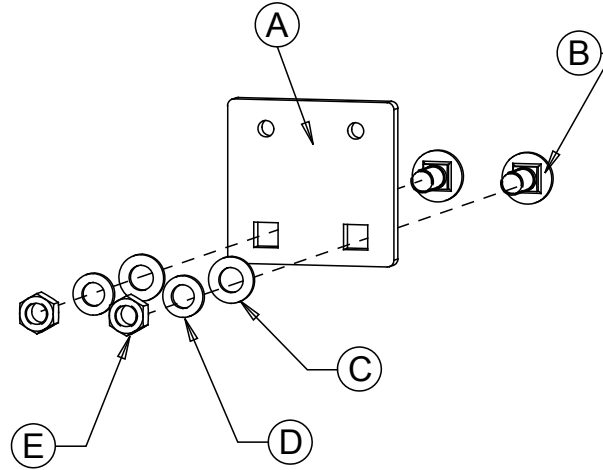


A - Screw (M6 × 14 pan head screw)

Figure 5.20 Attach the Fuse Support Brackets

Upper Support Bracket	
Drive Model	Use Holes Marked
4477, 4568, 5382 to 5472	A
4605, 4720 (with fuse FWH-1200A)	
4605, 4720 (with fuse FWH-1400A)	C
Lower Support Bracket	
Drive Model	Use Holes Marked
4477, 4568, 5382 to 5472	B
4605, 4720 (with fuse FWH-1200A)	
4605, 4720 (with fuse FWH-1400A)	D

9. Use two M12 × 38 bolts, M12 flat washers, M12 lock washers, and M12 nuts to assembly the customer busbars.
Do not fully tighten the hardware.
Repeat this process three times.



A - Customer Busbar
B - Bolt (M12 × 38)
C - Flat Washer (M12)

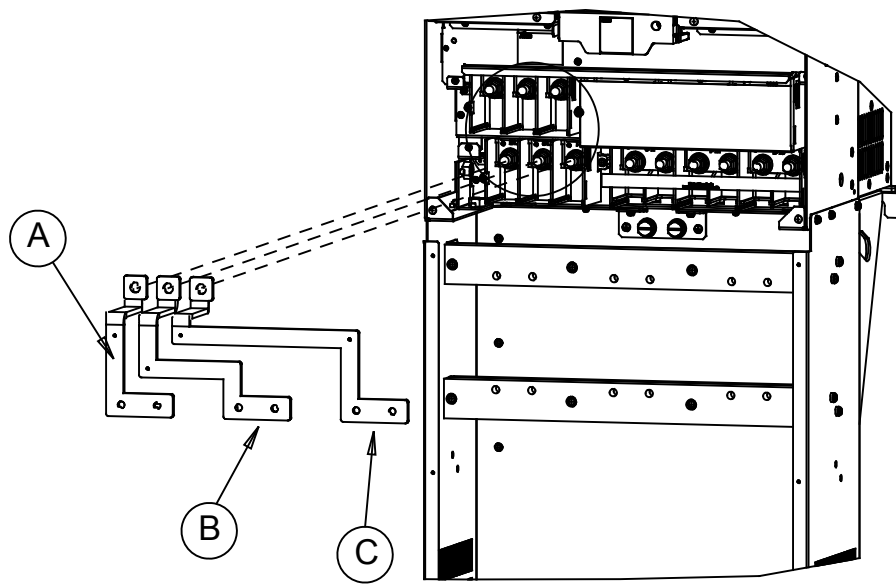
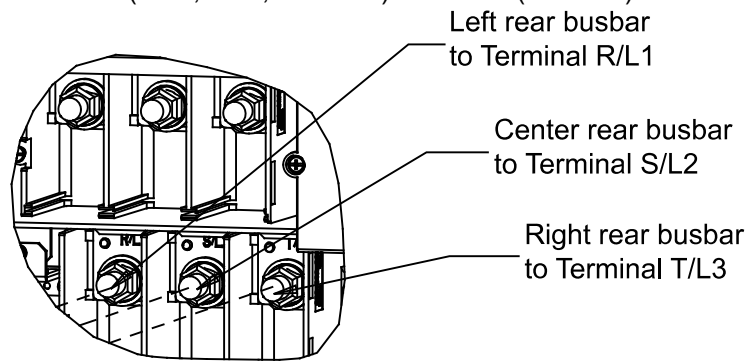
D - Lock Washer (M12)
E - Nut (M12)

Figure 5.21 Assemble the Customer Busbar

10. Use the existing terminal hardware to attach the rear busbars to the drive terminal block.

Attach the remaining busbars as shown.

Tighten the drive terminals (R/L1, S/L2, and T/L3) to 35 N·m (310 in·lb)



A - Left Rear Busbar
B - Center Rear Busbar

C - Right Rear Busbar

Figure 5.22 Attach the Rear Busbars

11. Use the existing terminal hardware to attach the front busbars to the drive terminal block.

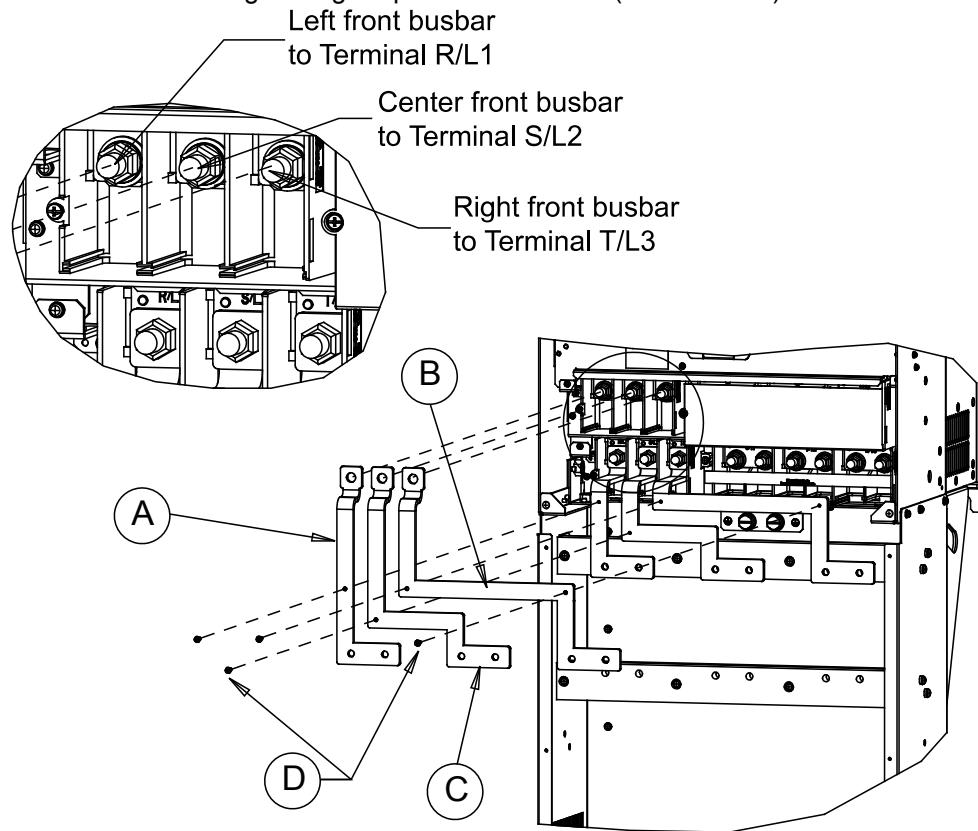
Attach the remaining busbars as shown.

Use four M4 × 16 screws to attach the front busbars to the rear busbars.

Tighten the drive terminals (R/L1, S/L2, and T/L3) to 35 N·m (310 in·lb).

Terminal nuts are M12.

Tighten the M4 screws to a tightening torque of 1.5 to 2 N·m (13 to 18 in·lb).



A - Left Front Busbar
B - Center Front Busbar

C - Right Front Busbar
D - Screws (M4 × 16)

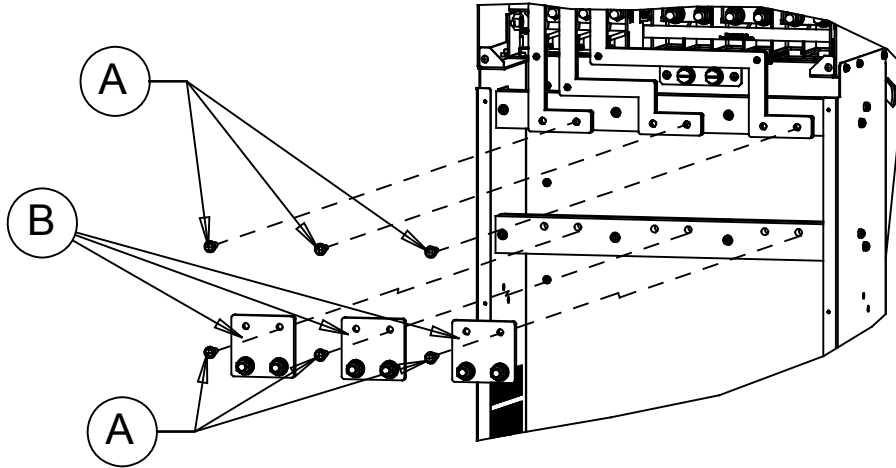
Figure 5.23 Attach the Front Busbars

12. Use [Table 5.3](#) to select the correct fuses for your installation.

Table 5.3 Semiconductor Fuse Selection

Drive Model	Semiconductor Fuse Manufacturer: EATON/Bussmann	Yaskawa Part Number	Steps
4477, 4568	FWH-1000A or FWH-1200A	UFU000048 or UFU000049	13, 14
4605, 4720	FWH-1200A FWH-1400A	UFU000049 or UFU000050	15, 16
5382, 5412	FWP-600A	UFU000254	13, 14
5472	FWP-700A	05P00017-0214	13, 14

13. Use six M8 × 30 screws to attach the previously installed busbars to the upper fuse support insulator. Use the supplied screws to attach the customer busbars to the lower fuse support insulator. Tighten the screws to a tightening torque of 9 to 11 N·m (80 to 97 in·lb).

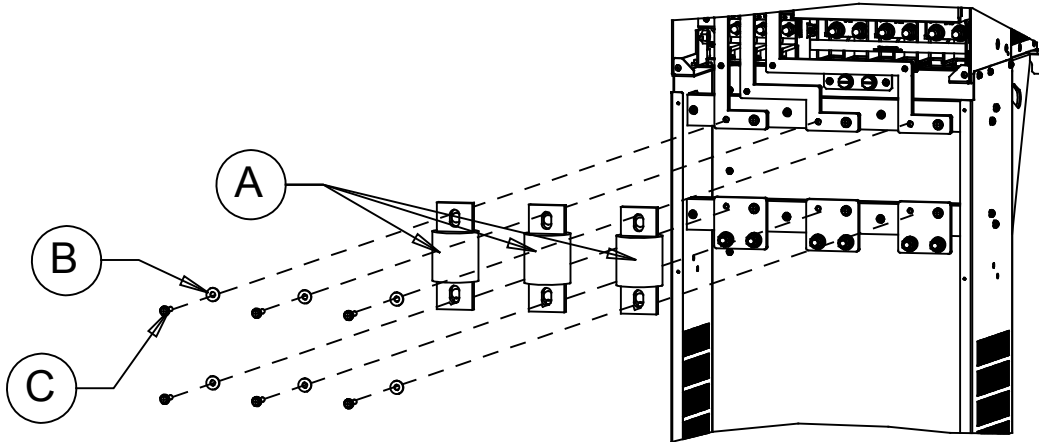


A - Screws (M8 × 30)

B - Customer Busbar

Figure 5.24 Attach the Customer Busbar

14. Use Table 5.4 to select the correct screws for your installation. Tighten the screws to a tightening torque of 9 to 11 N·m (80 to 97 in·lb).



A - Fuses x 3

B - Flat Washer (M8)

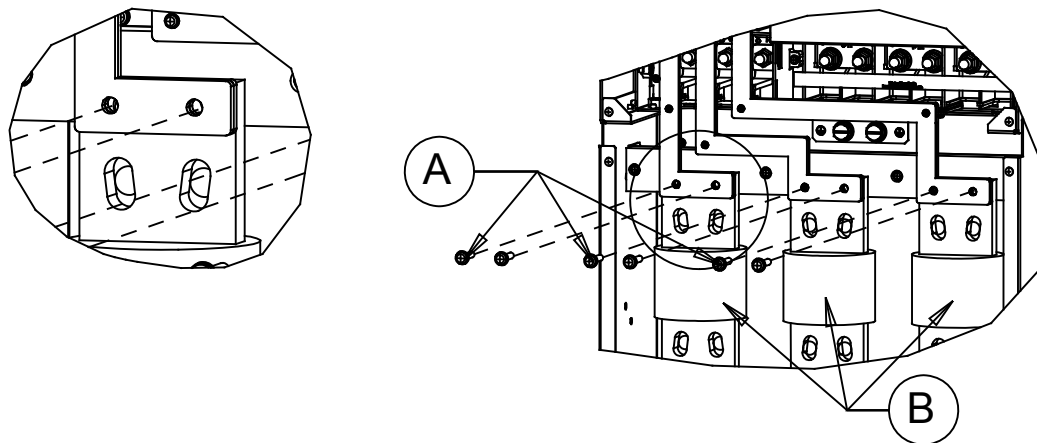
C - Screw (M8 × 40)

Figure 5.25 Attach the Customer Busbar

Table 5.4 Correct Screw Selection

Drive Model	Screw	Bag ID
4477, 4568, 5382, 5412	M8 x 40	H3
5472	M8 x 35	H4

15. Use six M8 × 45 screws to attach the FWH-1400A fuses from UFU000050 to the busbars. Put the fuses behind the busbars and in front of the upper fuse support insulator. Fuses must be between upper fuse support and busbars. Use the supplied screws to attach the busbars and fuses to the upper fuse support insulator. Tighten the screws to a tightening torque of 9 to 11 N·m (80 to 97 in·lb).

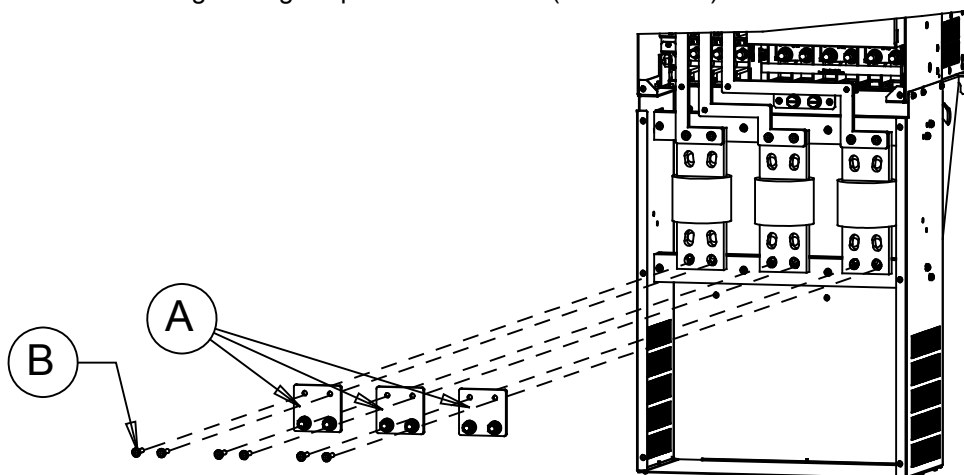


A - Screws (M8 × 45)

B - FWH-1400A Fuses x 3

Figure 5.26 Attach Fuses to the Busbar

16. Use six M8 × 45 screws to attach the customer busbars to the fuses.
Tighten the screws to a tightening torque of 9 to 11 N·m (80 to 97 in·lb).



A - Fuses x 3

B - Screw (M8 × 45)

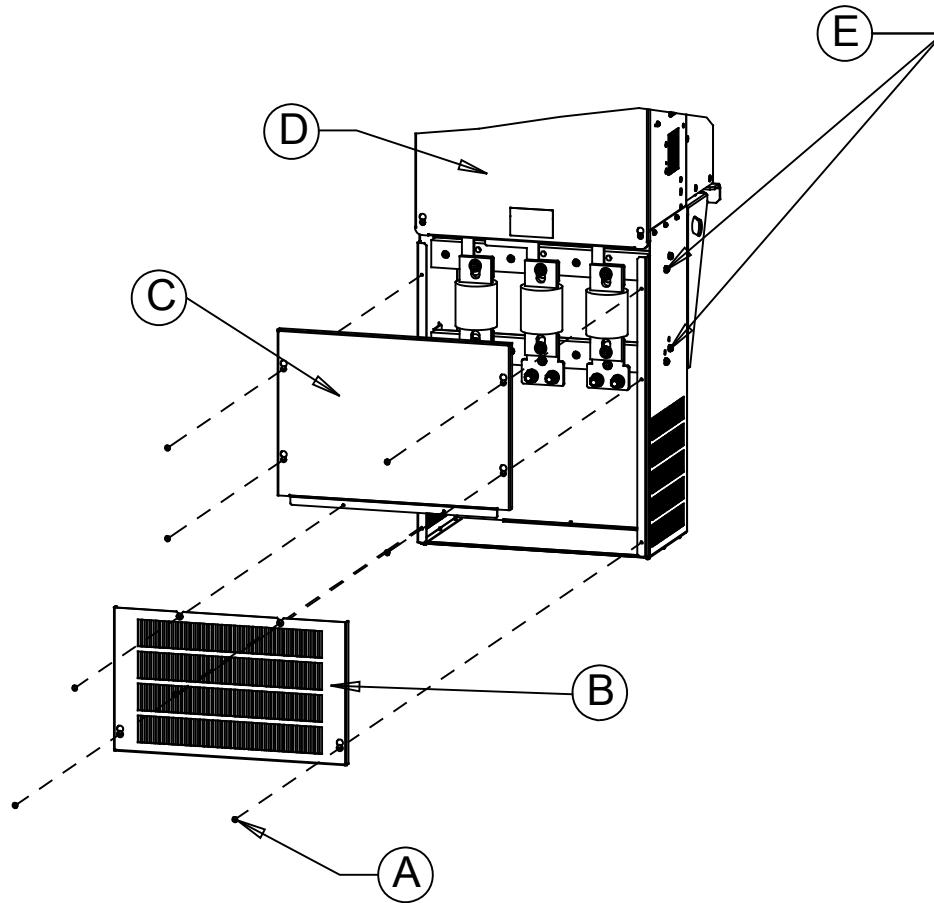
Figure 5.27 Attach Customer Busbar to the Fuses

17. Use eight M4 × 10 truss head screws to attach the upper and lower front covers to the bottom housing.

Tighten the fuse support bracket screws.

Tighten the M4 × 10 screws to a tightening torque of 1.5 to 2 N·m (13 to 18 in·lb).

Tighten the M6 × 14 screws to a tightening torque of 7 to 8 N·m (62 to 71 in·lb).



- A - Screw (M4 × 10 Truss Head Screw)
- B - Lower Front Cover
- C - Upper Front Cover

- D - Drive Terminal Cover
- E - Screw (M6 × 14 Pan Head Screw)

Figure 5.28 Attach the Front Covers

18. The kit installation is complete and the drive is now fitted with a UL Type 1 enclosure.

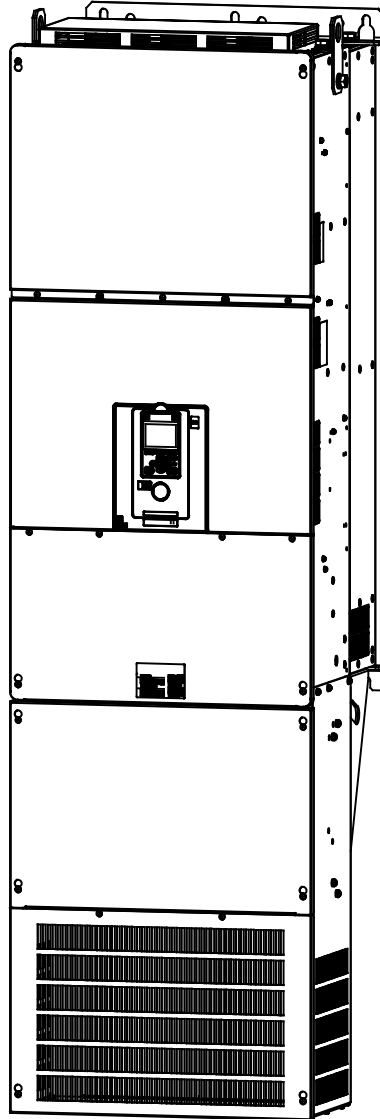


Figure 5.29 Completed View

Revision History

Date of Publication	Revision Number	Section	Revised Content
April 2020	<2>	All	Addition: Applicability to models 5192 to 5472.
June 2019	<1>	5	Addition: Semiconductor fuse part numbers.
January 2019	-	-	First Edition



YASKAWA AC Drive Option UL Type 1 Kit Installation Manual

DRIVE CENTER (INVERTER PLANT)

2-13-1, Nishimiyaichi, Yukuhashi, Fukuoka, 824-8511, Japan
Phone: +81-930-25-2548 Fax: +81-930-25-3431
www.yaskawa.co.jp

YASKAWA ELECTRIC CORPORATION

New Pier Takeshiba South Tower, 1-16-1, Kaigan, Minatoku, Tokyo, 105-6891, Japan
Phone: +81-3-5402-4502 Fax: +81-3-5402-4580
www.yaskawa.co.jp

YASKAWA AMERICA, INC.

2121, Norman Drive South, Waukegan, IL 60085, U.S.A.
Phone: +1-800-YASKAWA (927-5292) or +1-847-887-7000 Fax: +1-847-887-7310
www.yaskawa.com

YASKAWA ELÉTRICO DO BRASIL LTDA.

777, Avenida Piraporinha, Diadema, São Paulo, 09950-000, Brasil
Phone: +55-11-3585-1100 Fax: +55-11-3585-1187
www.yaskawa.com.br

YASKAWA EUROPE GmbH

Hauptstraße 185, 65760 Eschborn, Germany
Phone: +49-6196-569-300 Fax: +49-6196-569-398
E-mail: info@yaskawa.eu.com
www.yaskawa.eu.com

YASKAWA ELECTRIC KOREA CORPORATION

35F, Three IFC, 10 Gukjegeumyung-ro, Yeongdeungpo-gu, Seoul, 07326, Korea
Phone: +82-2-784-7844 Fax: +82-2-784-8495
www.yaskawa.co.kr

YASKAWA ASIA PACIFIC PTE. LTD

30A, Kallang Place, #06-01, 339213, Singapore
Phone: +65-6282-3003 Fax: +65-6289-3003
www.yaskawa.com.sg

YASKAWA ELECTRIC (THAILAND) CO., LTD.

59, 1F-5F, Flourish Building, Soi Ratchadapisek 18, Ratchadapisek Road, Huaykwang, Bangkok, 10310, Thailand
Phone: +66-2-017-0099 Fax: +66-2-017-0799
www.yaskawa.co.th

YASKAWA ELECTRIC (CHINA) CO., LTD.

22F, Link Square 1, No.222, Hubin Road, Shanghai, 200021, China
Phone: +86-21-5385-2200 Fax: +86-21-5385-3299
www.yaskawa.com.cn

YASKAWA ELECTRIC (CHINA) CO., LTD. BEIJING OFFICE

Room 1011, Tower W3 Oriental Plaza, No. 1, East Chang An Avenue,
Dong Cheng District, Beijing, 100738, China
Phone: +86-10-8518-4086 Fax: +86-10-8518-4082

YASKAWA ELECTRIC TAIWAN CORPORATION

12F, No. 207, Section 3, Beishin Road, Shindian District, New Taipei City 23143, Taiwan
Phone: +886-2-8913-1333 Fax: +886-2-8913-1513 or +886-2-8913-1519
www.yaskawa.com.tw

YASKAWA INDIA PRIVATE LIMITED

#17/A, Electronics City, Hosur Road, Bengaluru, 560 100 (Karnataka), India
Phone: +91-80-4244-1900 Fax: +91-80-4244-1901
www.yaskawaindia.in

YASKAWA

YASKAWA America, Inc.

In the event that the end user of this product is to be the military and said product is to be employed in any weapons systems or the manufacture thereof, the export will fall under the relevant regulations as stipulated in the Foreign Exchange and Foreign Trade Regulations. Therefore, be sure to follow all procedures and submit all relevant documentation according to any and all rules, regulations and laws that may apply.

Specifications are subject to change without notice for ongoing product modifications and improvements.

© 2019 YASKAWA America, Inc.



TOEPAIGA8003

MANUAL NO. TOEPAIGA8003C <2>-
Published in U.S.A. April 2020
28-4-20