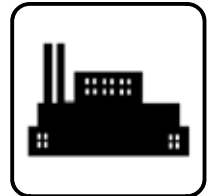


Service Parts

Automatic Transfer Switches



Models:

KCT/KCP/KBT/KBP
KDT/KMT

Power Switching Device:
Open- and Programmed-Transition
30 to 4000 Amperes

Electrical Controls:
MPAC 1000

KOHLER[®]
POWER SYSTEMS

9001
KOHLER
POWER SYSTEMS
NATIONALLY REGISTERED

TP-6158 4/04c

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Introduction

Model Designation Code

Copy the model designation into the spaces in Figure 2 and use the accompanying chart to interpret the model designation.

Numbering System Significance

This manual uses the following numbering systems:

Model Designation. Defines the transfer switch characteristics and ratings as explained in the chart in Figure 2.

Module Number. A unique number representing a parts group needed to assemble a transfer switch function.

Part Number. The part number identifies an individual assembly, subassembly, component, or accessory kit.

This manual lists service parts for Model KCT/KCP/KBT/KBP/KDT/KMT automatic transfer switches with MPAC 1000™ electrical controls.

Information in this publication represents data available at the time of print. Kohler Co. reserves the right to change this publication and the products represented without notice and without any obligation or liability whatsoever.

Illustrations (or exploded-view drawings) accompany most groups in this manual. The illustrations do not depict all details and may not show all parts. Do not use the illustrations for assembly or disassembly instructions.

The following sections provide instructions to help identify the transfer switch and locate service parts within this manual.

Nameplate

A nameplate attached to the controller cover on the inside of the enclosure door includes a model designation, a serial number, ratings, and other information about the transfer switch. See Figure 1.

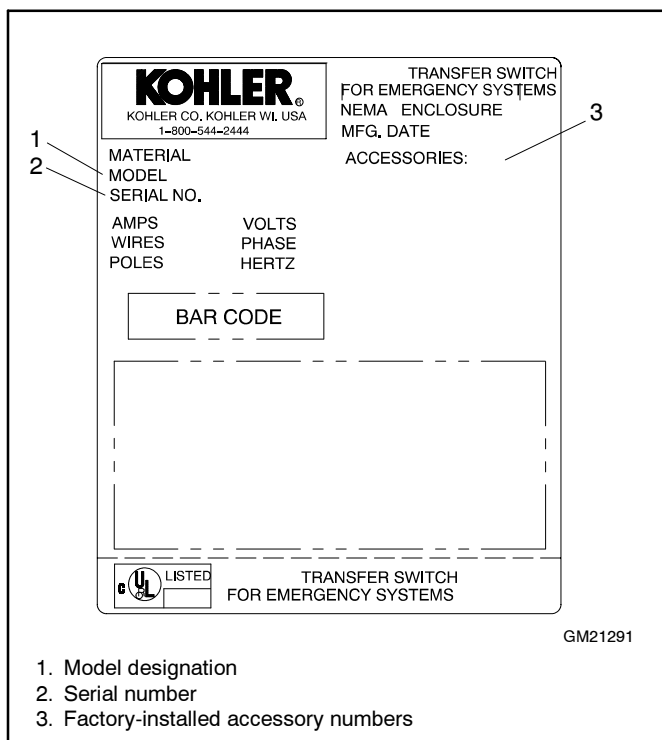


Figure 1 Typical Transfer Switch Nameplate

Finding Part Numbers

Parts are listed by major assembly groups or accessory part numbers. Use the following sections to locate and identify transfer switch service parts.

Enclosure, Door, Logic, and Neutral Assembly Service Parts

1. **Find the section for the assembly group that contains the part.** Use the Table of Contents at the beginning of this manual to find the major assembly groups, if necessary.
2. **Locate the part in the illustration** and note the item number or find the part description in the parts list table.
3. **Find the corresponding item number in the parts list table** to determine the part number and quantity used. Find the quantity used at the intersection of the item number row and the module part number column. A blank space at the intersection means the module does not use that part number.

Some part numbers vary according to transfer switch characteristics or ratings. When there are multiple possibilities for parts, use the following steps to determine the module number.

1. **Locate the transfer switch model designation** on the nameplate and record the codes in the boxes on the bottom of the page.
2. **Look for the Module Number Key.** The first columns list the designation codes. The last column lists the module number.
3. Match the codes from the model designation to the line with the matching elements and read across to the last column **to find the module number.**
4. Locate the parts list table and select **the part number that corresponds to your module number.**

Contactors Assembly Service Parts

This manual lists the part numbers of common contactor service items. Servicable items without part numbers in the parts lists are available by contacting your supplier of Kohler Co. parts.

1. **Locate the transfer switch model designation, serial number, and contactor serial number** on the nameplates and record the numbers in the boxes on the bottom of the page.
2. **Locate the part in the illustration** and note the item number or find the part description in the parts list table.
3. **Convey the information to your supplier** of Kohler Co. parts.

Accessories

Accessory parts lists are arranged alphabetically by the accessory description.

Determine the accessory number from the transfer switch nameplate.

Leads

Fabricate replacement leads using the same type of wire as the old leads. Add terminals and lead markers at each end of the new lead.

Hardware References

Many common hardware items do not appear in parts manuals or will appear as common hardware entries. A common hardware entry lists the size of the hardware. For example, an item that appears as "Hardware, 3/8-16" in the text means that the piece is 3/8-16 size. Obtain common hardware locally or, if contacting the factory, use the Common Hardware List in the appendix to identify the common hardware part number and specifications. See Common Hardware Application Guidelines in the appendix for mating hardware instructions.

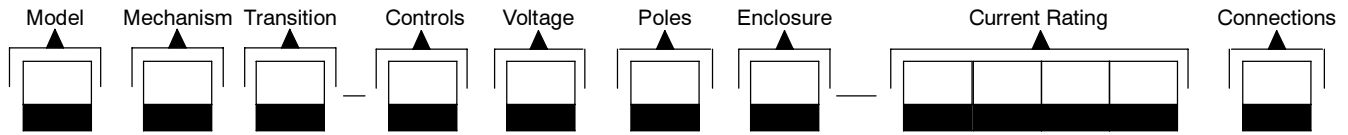
Some hardware items require a specific size or some other characteristic. In that case, use the part number listed in the text.

When replacing hardware, do not substitute inferior grade hardware. Replacement hardware grade should be equal to or better than the grade of the manufacturer's original hardware. Use the Common Hardware List in the appendix to identify the common hardware hardness.

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Transfer Switch Model Designation Key

Record the transfer switch model designation in the boxes below. The transfer switch model designation defines characteristics and ratings as indicated in the accompanying chart.



Kohler Model Designation Key

This chart translates the Kohler transfer switch model designation system. The sample model designation shown is for a Model K automatic transfer switch that uses an open-transition contactor with MPAC 1000™ electrical controls rated at 220 volts, 2 poles, 3 wires, and solid neutral in a NEMA type 3R enclosure with a current rating of 400 amperes. Not all possible combinations are available.

SAMPLE MODEL DESIGNATION

KCT-ADNC-0400 S

Model

K: Model K automatic transfer switch

Mechanism

C: Automatic D: Series-Rated, Automatic M: Series-Rated, Non-Automatic
N: Non-automatic B: Bypass isolation

Transition

T: Open-Transition
P: Programmed-Transition

Electrical Controls

A: MPAC 1000™ (Microprocessor ATS Controls)

Voltage/Frequency

C: 208 Volts/60 Hz	G: 380 Volts/50 Hz	K: 440 Volts/60 Hz
D: 220 Volts/50 Hz	H: 400 Volts/50 Hz	M: 480 Volts/60 Hz
F: 240 Volts/60 Hz	J: 416 Volts/50 Hz	N: 600 Volts/60 Hz

Number of Poles/Wires

N: 2-pole, 3-wire, solid neutral	W: 4-pole, 4-wire, overlapping neutral
T: 3-pole, 4-wire, solid neutral	Z: 3-pole, 4-wire, integral solid neutral
V: 4-pole, 4-wire, switched neutral	

Enclosure

A: NEMA type 1*	C: NEMA type 3R†	F: NEMA 4X†
B: NEMA type 12†	D: NEMA 4†	G: Open unit

* Standard on 30-4000 A models

† Available to order on 30-800 A models. For larger units, consult factory for availability.

Current Rating: Numbers indicate the current rating of the switch in amperes:

0030	0225	0800	2000
0070	0260	1000	2600
0104	0400	1200	3000
0150	0600	1600	4000

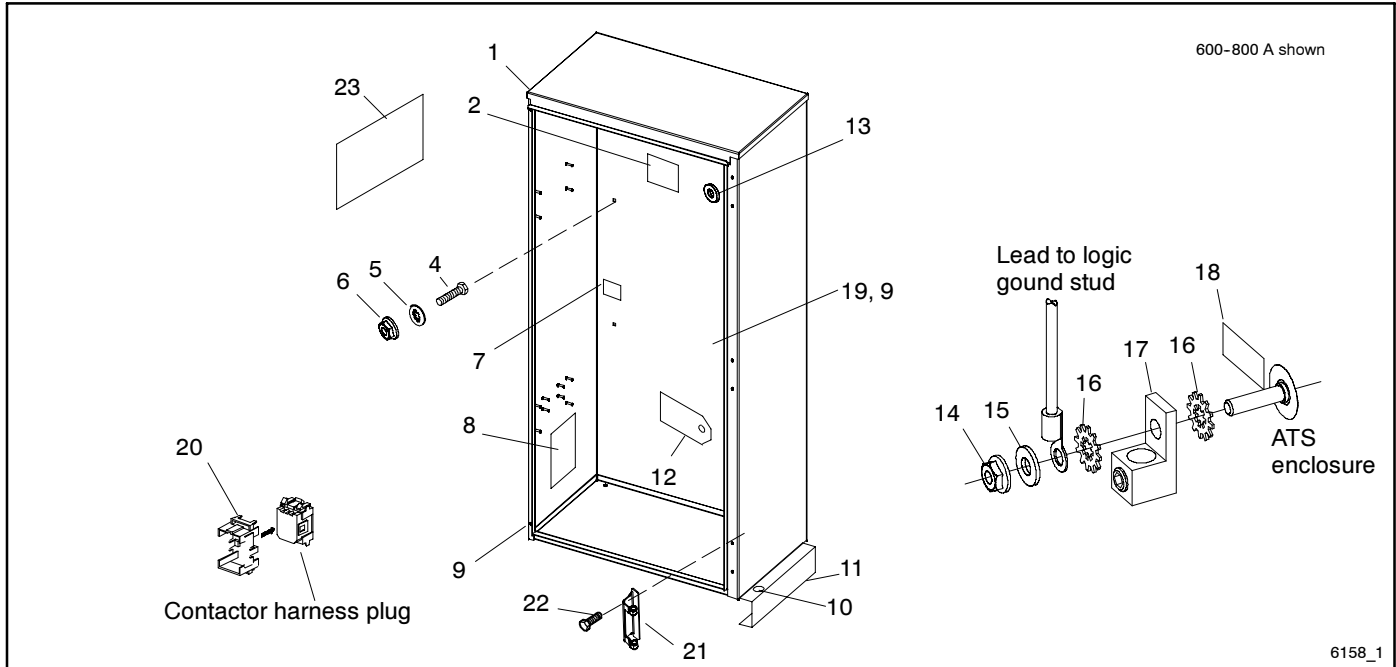
Power Connections

S: Standard
F: Front bus (available on 1600 and 2000 A models only)

Figure 2 Transfer Switch Model Designation

Enclosures, 30-800 Amp

NEMA 1 and 3R



6158_1

Item	Part Number	Description	Quantity					
			Module					
			GM21066-KA1	GM21066-KA2	GM33092-KA1	GM21067-KA1	GM29500-KA1	GM29499-KA1
1	GM20159	Enclosure, ATS small (30-150 amp)	1	1			1	
1	GM20160	Enclosure, ATS medium (225-400 amp)						1
2	294414	Decal, notice cover transfer switch	1	1	1	1	1	1
4	295023	Bolt, 1/4-20 x 3 in.				4		
4	295008	Bolt, 1/4-20 x 1 in.			4			4
5	295009	Retainer			4	4		4
5	X-25-40	Washer, plain, .281 ID x .625 in. OD			4	4		4
6	X-6210-2	Nut, flange spirallock, 1/4-20	4	4	4	4		4
7	GM22492	Decal, engine start terminals	1	1	1			
7	GM22493	Decal, engine start terminals				1		
7	362113	Decal, engine start terminals					1	1
8	297556	Decal, torque	1	1	1	1	1	1
9	320828	Insert, threaded, 1/4-20 in.	2	2	2	2	2	2
12	See logic section	Tag, hang (before reconnecting plug)	1	1		1		
13	GM20990	Gasket	4	4	4	4	4	4
14	X-6210-2	Nut, flange spirallock, 1/4-20	1	1	1	1		
15	X-25-40	Washer, plain, .281 ID x .625 in. OD	1	1	1	1		
16	X-22-12	Washer, lock, .262 ID x .743 in. OD	2	2	2	2	2	2
17	X-6207-3	Lug, terminal, aluminum	1	1	1	1	1	1
18	344295	Decal, equipment ground	1	1	1	1	1	1
20	321330	Boot, connector					1	1
21	GM20572-1	Hinge, ATS enclosure	2	2	3	3	2	3
22	X-50-1	Screw, slotted pan head machine	4	4	6	6	4	6
23	GM22555	Decal, manual operating handle		1				
24	GM24703	Label, blank (not shown)			1	1		

Enclosures, 30-800 Amp

NEMA 1 and 3R

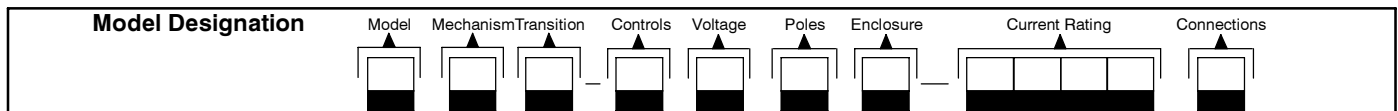
Item	Part Number	Description	Quantity		
			Module Number		
			GM21068-KA1	GM29494-KA1	GM28762-KA1
1	GM20161	Enclosure, ATS large (600-800 amp)	1		
1	GM28761	Enclosure, ATS		1	1
2	294414	Decal, notice cover transfer switch	1	1	1
4	X-6224-2	Bolt, 3/8-16 x 1.5 in.	4		
4	295008	Bolt, 1/4-20 x 1 in.		4	
4	X-6224-16	Bolt, carriage			4
5	295025	Retainer	4		
5	295009	Retainer		4	4
6	X-6210-9	Nut, flange spirallock, 3/8-16	4		
6	X-6210-2	Nut, flange spirallock, 1/4-20 (contactor to mounting panel)			4
7	362113	Decal, engine start terminals		1	
8	297556	Decal, torque	1	1	1
9	320828	Insert, threaded, 1/4-20 in.	2	2	2
10	320831	Insert, threaded, 3/8-16 in.	4	4	4
11	GM21120	Channel, base	2	2	2
12	See logic section	Tag, hang (before reconnecting plug)	1		
14	X-6210-2	Nut, flange spirallock, 1/4-20	1		1
15	X-25-40	Washer, plain, .281 ID x .625 in. OD	1		1
16	X-22-12	Washer, lock, .262 ID x .743 in. OD	2	2	2
17	X-6207-3	Lug, terminal, aluminum	1	1	1
18	344295	Decal, equipment ground	1	1	1
19	GM21117	Panel, contactor mounting (not shown)		1	
19	GM29495	Panel, contactor mounting (not shown)		1	
20	321330	Boot, connector		1	
21	GM20572-1	Hinge, ATS enclosure	3	3	3
22	X-50-1	Screw, slotted pan head machine	6	6	6
23	GM24703	Label, blank (not shown)	1	1	1

Enclosures, 30-800 Amp, NEMA 1 and 3R

Module Number Key

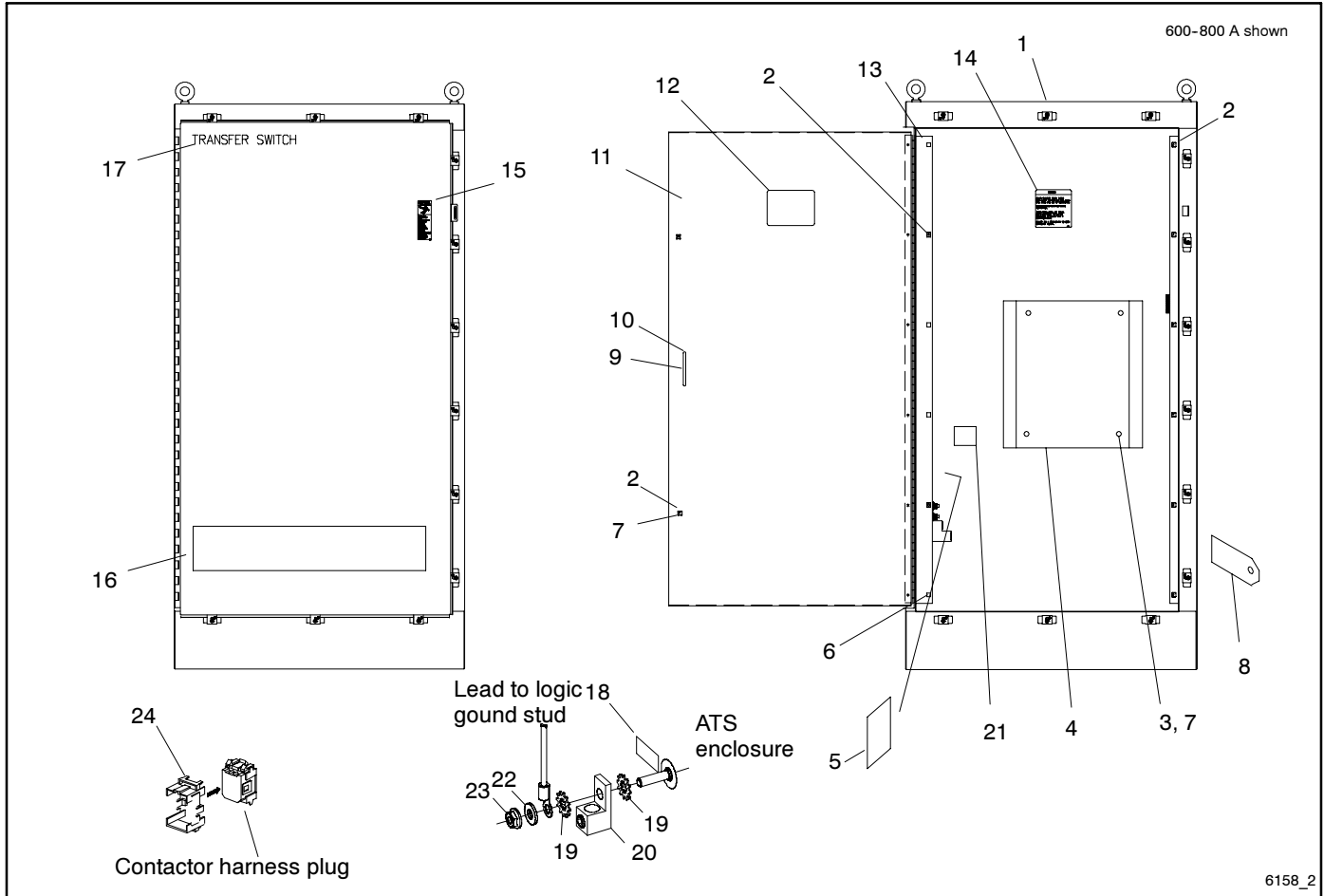
Model Designation Code								
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Module Number
K	C	T	A	all	N, T, V, W, Z	A, C	30-200	GM21066-KA1
K	C	T	A	all	N, T, V, W, Z	A, C	225, 260, 400	GM21067-KA1
K	C, N	T	A	N	N, T, V, W, Z	A, C	230	GM21067-KA1
K	C, N	T	A	C, D, F, G, H, J, K, M	N, T, V, W, Z	A, C	230	GM33092-KA1
K	C, N	T, P	A	all	N, T, V, W, Z	A, C	600-1000	GM21068-KA1
K	C	P	A	all	V, W, Z	A, C	150-400	GM21068-KA1
K	C	P	A	all	N, T	A, C	150-400	GM28762-KA1
K	D, M	T	A	all	N, T, V	A, C	40-225	GM29500-KA1
K	D, M	T	A	all	N, T, V	A, C	260-400	GM29499-KA1
K	D, M	T	A	all	N, T, V	A, C	600	GM29494-KA1
K	N	T	A	all	N, T, V, W, Z	A	30-200	GM21066-KA2

Please refer to instructions on page 2 for an explanation of how to use this table.



Enclosures, 30-800 Amp, continued

NEMA 12, 4, 4X



Enclosures, 30-800 Amp, continued

NEMA 12, 4, 4X

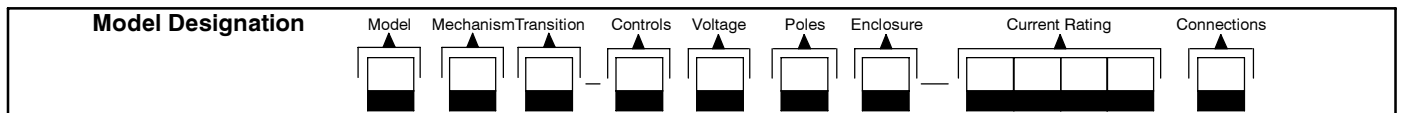
Item	Part Number	Description	Quantity								
			Module								
			GM22396-KA1	GM22396-KA2	GM22396-KA3	GM29692-KA1	GM29692-KA2	GM29692-KA3	GM33093-KA1	GM33093-KA2	GM33093-KA3
1	GM21058	Enclosure (30-150 A, NEMA 12)	1					1			
1	GM21059	Enclosure (30-150 A, NEMA 4)		1		1					
1	GM21060	Enclosure (30-150 A, NEMA 4X)			1		1				
1	GM21063	Enclosure (230 A, NEMA 4)							1		
1	GM21063	Enclosure (230 A, NEMA 4X)								1	
1	GM21061	Enclosure (230 A, NEMA 12)								1	
2	X-6204-1	Retainer, nut	8	8	8	8	8	8	8	8	
3	295023	Bolt, 1/4-20 x 3 in.									
4	GM33091	Panel, ATS mounting							1	1	
5	297556	Decal, torque	1	1	1	1	1	1	1	1	
6	X-791-2	Screw, slotted hex washer head	8	8	8	8	8	8	8	8	
7	295009	Retainer	2	2	2	2	2	2	2	2	
8	See logic section	Tag, hang (before reconnect. plug)	1	1	1	1	1	1	1	1	
9	GM14177	Handle	1	1	1	1	1	1	1	1	
10	X-50-6	Screw, slotted pan head machine	2	2	2	2	2	2	2	2	
11	GM22392	Door	1	1	1	1	1				
11	GM22393	Door							1	1	
12	297721	Decal, warning, more than one live circuit	1	1	1	1	1	1	1	1	
13	GM22390	Rail, mounting	2	2	2	2	2				
13	GM22391	Rail, mounting							2	2	
14	294414	Decal, notice cover transfer switch	1	1	1	1	1	1	1	1	
15	362176	Decal, danger	1	1	1	1	1	1	1	1	
16	X-6246-13	Decal, Kohler Power Systems	1	1	1	1	1	1	1	1	
17	GM21373	Decal, Transfer Switch	1	1	1	1	1				
17	273476	Decal, Transfer Switch							1	1	
18	344295	Decal, equipment ground	1	1	1	1	1	1	1	1	
19	X-22-12	Washer, lock, .262 ID x .743 in. OD	2	2	2	2	2	2	2	2	
20	X-6207-3	Lug, terminal, aluminum	1	1	1	1	1	1	1	1	
21	GM22492	Decal, engine start terminals	1	1	1				1	1	
21	GM22493	Decal, engine start terminals									
21	362113	Decal, engine start terminals				1	1	1			
22	X-25-40	Washer, plain, .281 ID x .625 in. OD	1	1	1	1	1	1			
23	X-6210-2	Nut, flange spirallock, 1/4-20	1	1	1	1	1	1			
24	321330	Boot, connector				1	1	1			
25	GM24703	Label, blank (not shown)	1	1	1				1	1	

Enclosures, 30-800 Amp, NEMA 12, 4, 4X

Module Number Key

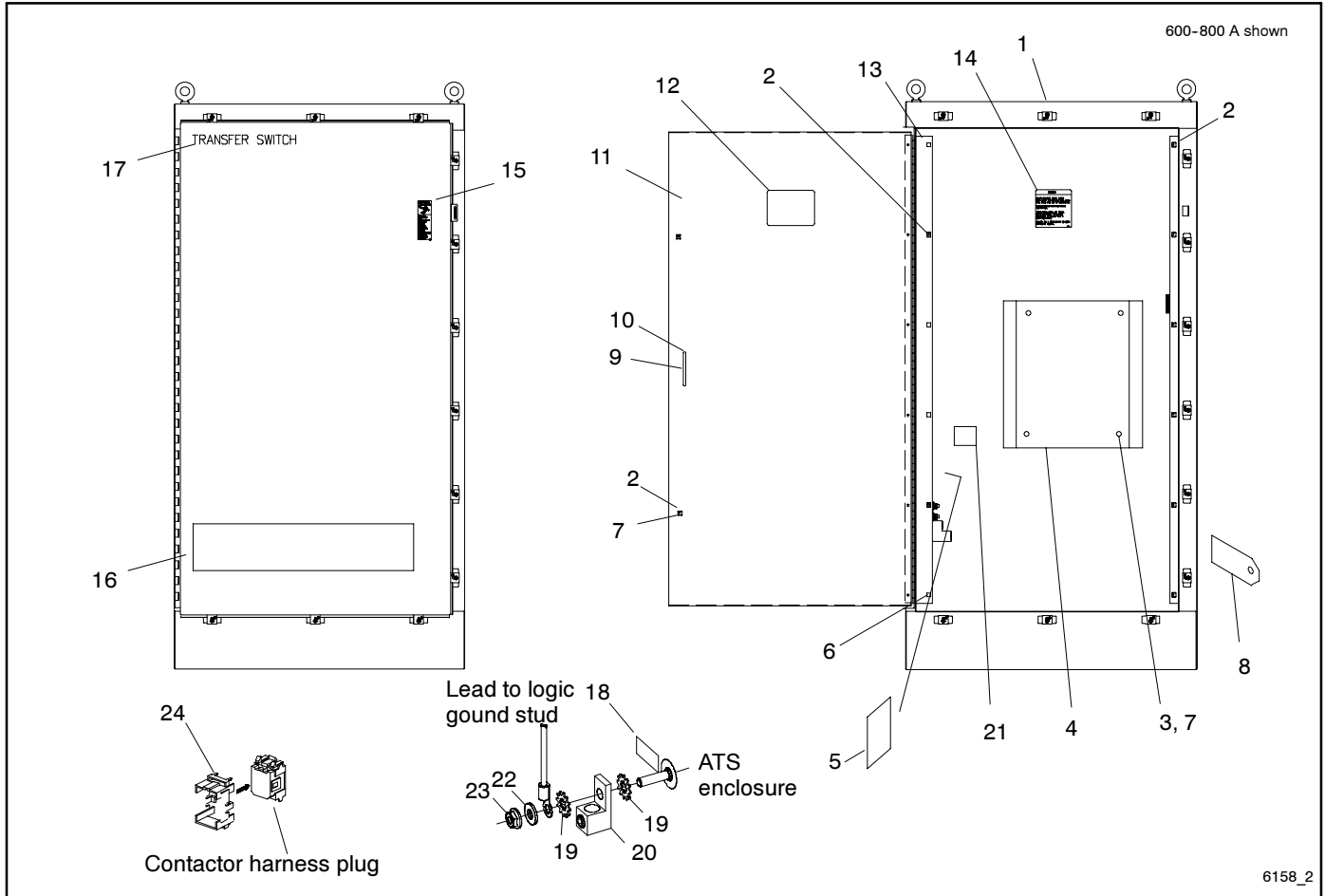
Model Designation Code								
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Module Number
K	C	T	A	all	N, T, V, W, Z	B	30-200	GM22396-KA1
K	C	T	A	all	N, T, V, W, Z	D	30-200	GM22396-KA2
K	C	T	A	all	N, T, V, W, Z	F	30-200	GM22396-KA3
K	C	T	A	N	N, T, V, W, Z	B	230	GM22397-KA1
K	C	T	A	N	N, T, V, W, Z	D	230	GM22397-KA2
K	C	T	A	N	N, T, V, W, Z	F	230	GM22397-KA3
K	D, M	T	A	all	N, T, V	D	40-225	GM29692-KA1
K	D, M	T	A	all	N, T, V	F	40-225	GM29692-KA2
K	D, M	T	A	all	N, T, V	B	40-225	GM29692-KA3
K	C	T	A	C, D, F, G, H, J, K, M	N, T, V, W, Z	D	230	GM33093-KA1
K	C	T	A	C, D, F, G, H, J, K, M	N, T, V, W, Z	F	230	GM33093-KA2
K	C	T	A	C, D, F, G, H, J, K, M	N, T, V, W, Z	B	230	GM33093-KA3

Please refer to instructions on page 2 for an explanation of how to use this table.



Enclosures, 30-800 Amp, continued

NEMA 12, 4, 4X, continued



Enclosures, 30-800 Amp, continued

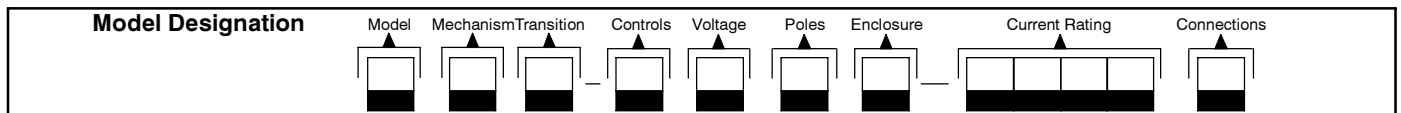
NEMA 12, 4, 4X, continued

Item	Part Number	Description	Quantity										
			Module										
			GM22397-KA1	GM22397-KA2	GM22397-KA3	GM22706-KA1	GM22706-KA2	GM29693-KA1	GM29693-KA2	GM29693-KA3	GM29694-KA1	GM29694-KA2	GM29694-KA3
1	GM21062	Enclosure (225-400 A, NEMA 4X)			1				1				
1	GM21063	Enclosure (225-400 A, NEMA 4)		1				1					
1	GM21061	Enclosure (NEMA 12)	1	1						1			
1	GM22720	Enclosure (NEMA 12)				1							
1	GM22721	Enclosure (NEMA 4)					1						
1	GM28833	Enclosure (NEMA 4)									1		
1	GM28834	Enclosure (NEMA 4X)										1	
1	GM28835	Enclosure (NEMA 12)											1
2	X-6204-1	Retainer, nut	8	8	8	8	8	8	8	8	8	8	8
3	295023	Bolt, 1/4-20 x 3 in.	4	4	4								
3	295080	Bolt, 1/4-20 x 1 in.						4	4	4			
4	GM22399	Panel, ATS mounting	1	1	1			1	1	1			
4	GM29495	Plate, contactor mounting									1	1	1
5	297556	Decal, torque	1	1	1	1	1	1	1	1	1	1	1
6	X-791-2	Screw, slotted hex washer head	8	8	8	8	8	8	8	8	8	8	8
7	295009	Retainer	6	6	6	2	2	2	2	2	2	2	2
8	See logic section	Tag, hang (before reconnect. plug)	1	1	1	1	1	1	1	1	1	1	1
9	GM14177	Handle	1	1	1	1	1	1	1	1	1	1	1
10	X-50-6	Screw, slotted pan head machine	2	2	2	2	2	2	2	2	2	2	2
11	GM22393	Door	1	1	1			1	1	1	1	1	1
11	GM22733	Door				1	1						
12	297721	Decal, warning, more than one live circuit	1	1	1	1	1	1	1	1	1	1	1
13	GM22391	Rail, mounting	2	2	2			2	2	2	2	2	2
13	GM22734	Rail, mounting				2	2						
14	294414	Decal, notice cover transfer switch	1	1	1	1	1	1	1	1	1	1	1
15	362176	Decal, danger	1	1	1	1	1	1	1	1	1	1	1
16	X-6246-13	Decal, Kohler Power Systems	1	1	1			1	1	1	1	1	1
16	X-6246-14	Decal, Kohler Power Systems				1	1						
17	273746	Decal, transfer switch, Kohler	1	1	1	1	1	1	1	1	1	1	1
18	344295	Decal, equipment ground	1	1	1	1	1	1	1	1	1	1	1
19	X-22-12	Washer, lock, .262 ID x .743 in. OD	2	2	2	2	2	2	2	2	2	2	2
20	X-6207-3	Lug, terminal, aluminum	1	1	1	1	1	1	1	1	1	1	1
21	GM22493	Decal, engine start terminals	1	1	1								
21	362113	Decal, engine start terminals						1	1	1	1	1	1
22	X-25-40	Washer, plain, .281 ID x .625 in. OD	1	1	1	1	1	1	1	1	1	1	1
23	X-6210-2	Nut, flange spirallock, 1/4-20	1	1	1	1	1	1	1	1	1	1	1
24	321330	Boot, connector						1	1	1	1	1	1
25	GM24703	Label, blank (not shown)	1	1	1	1	1	1	1	1	1	1	1

Enclosures, 30-800 Amp, NEMA 12, 4, 4X
Module Number Key

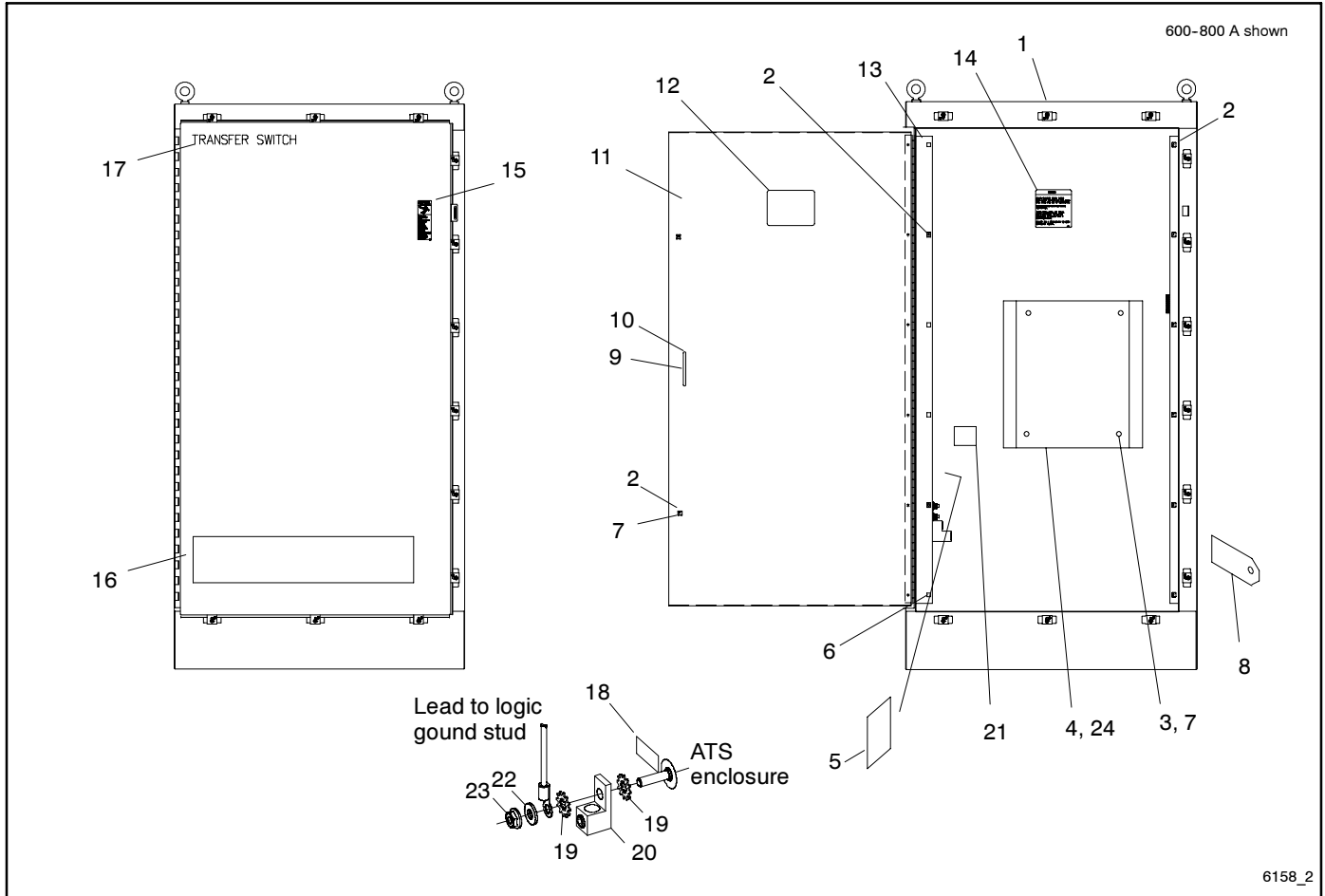
Model Designation Code								
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Module Number
K	C	T	A	all	N, T, V, W, Z	B	225, 260, 400	GM22397-KA1
K	C	T	A	all	N, T, V, W, Z	D	225, 260, 400	GM22397-KA2
K	C	T	A	all	N, T, V, W, Z	F	225, 260, 400	GM22397-KA3
K	C	T, P	A	all	N, T, V, W, Z	B	600-1000	GM22706-KA1
K	C	T, P	A	all	N, T, V, W, Z	D	600-1000	GM22706-KA2
K	C	P	A	all	V, W, Z	B	150-400	GM22706-KA1
K	C	P	A	all	V, W, Z	D	150-400	GM22706-KA2
K	D, M	T	A	all	N, T, V	D	260-400	GM29693-KA1
K	D, M	T	A	all	N, T, V	F	260-400	GM29693-KA2
K	D, M	T	A	all	N, T, V	B	260-400	GM29693-KA3
K	D, M	T	A	all	N, T, V	D	600	GM29694-KA1
K	D, M	T	A	all	N, T, V	F	600	GM29694-KA2
K	D, M	T	A	all	N, T, V	B	600	GM29694-KA3

Please refer to instructions on page 2 for an explanation of how to use this table.



Enclosures, 30-800 Amp, continued

NEMA 12, 4, 4X, continued



Enclosures, 30-800 Amp, continued

NEMA 12, 4, 4X, continued

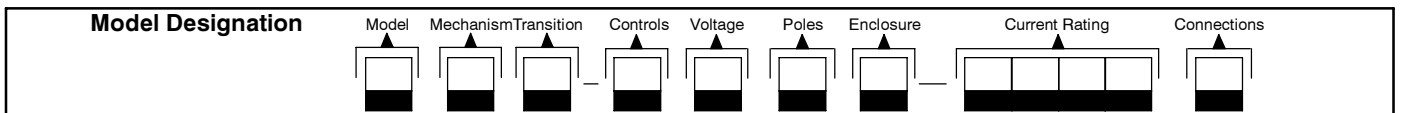
Item	Part Number	Description	Quantity			
			Module Number			
			GM22706-KA3	GM28836-KA1	GM28836-KA2	GM28836-KA3
1	GM22721	Enclosure (NEMA 4X)	1			
1	GM33862	Enclosure (NEMA 12)		1		
1	GM33860	Enclosure (NEMA 4)			1	
1	GM33861	Enclosure (NEMA 4X)				1
2	X-6204-1	Retainer, nut	8	8	8	8
5	297556	Decal, torque	1	1	1	1
6	X-791-2	Screw, slotted hex washer head	8	8	8	8
7	295009	Retainer	2	2	2	2
8	See logic section	Tag, hang (before reconnect. plug)	1			
9	GM14177	Handle	1	1	1	1
10	X-50-6	Screw, slotted pan head machine	2	2	2	2
11	GM22733	Door	1			
11	GM33114	Door		1	1	1
12	297721	Decal, warning	1	1	1	1
13	GM22734	Rail, mounting	2			
13	GM33116	Rail, mounting		2	2	2
14	294414	Decal, notice cover transfer switch	1	1	1	1
15	362176	Decal, danger	1	1	1	1
16	X-6246-14	Decal, Kohler Power Systems	1			
16	X-6246-13	Decal, Kohler Power Systems		1	1	1
17	273746	Decal, transfer switch, Kohler	1	1	1	1
18	344295	Decal, equipment ground	1	1	1	1
19	X-22-12	Washer, lock, .262 ID x .743 in. OD	2	2	2	2
20	X-6207-3	Lug, terminal, aluminum	1	1	1	1
22	X-25-40	Washer, plain, .281 ID x .625 in. OD	1	1	1	1
23	X-6210-2	Nut, flange spirallock, 1/4-20	1	1	1	1
25	GM24703	Label, blank (not shown)	1	1	1	1

Enclosures, 30-800 Amp, NEMA 12, 4, 4X

Module Number Key

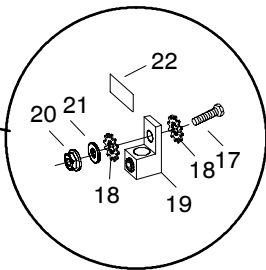
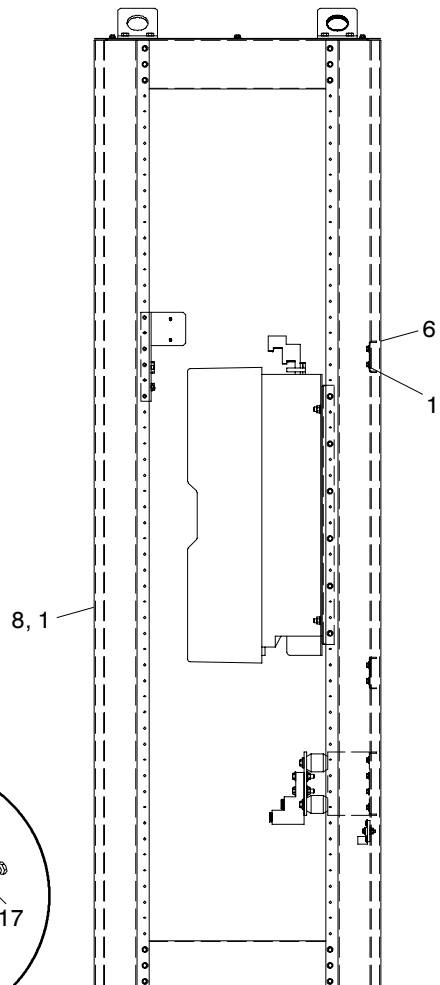
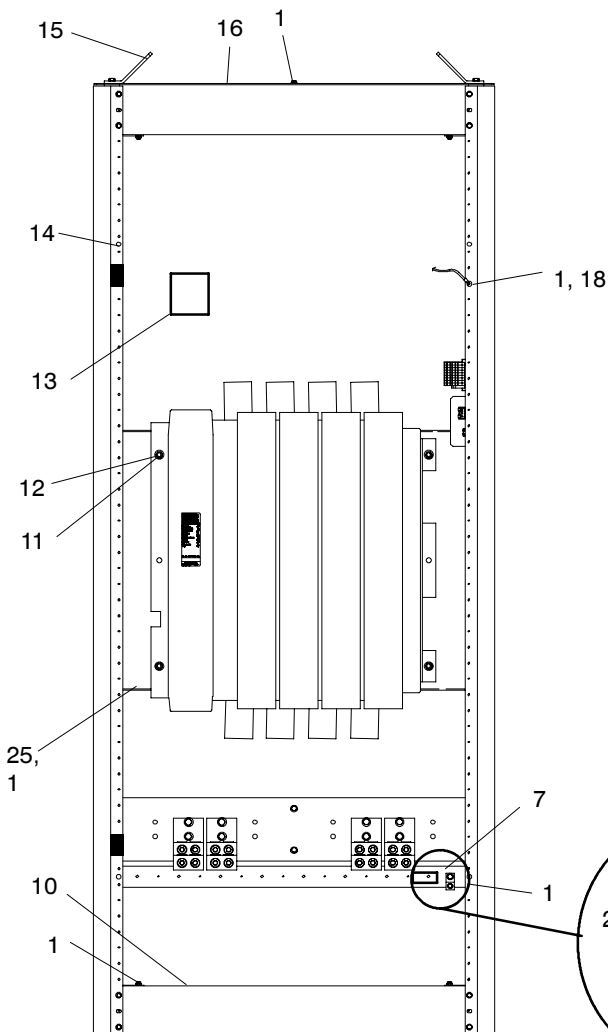
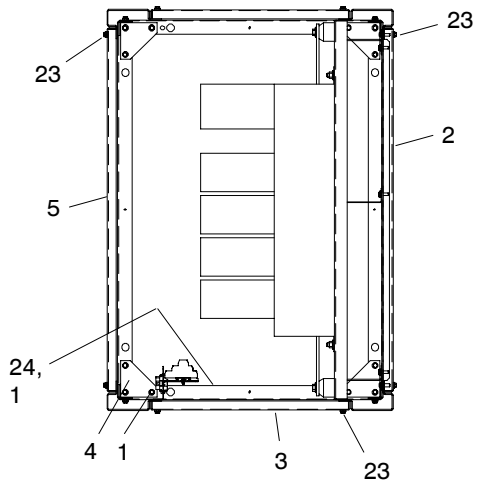
Model Designation Code									
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections	Module Number
K	C	T	A	all	N, T, V, W, Z	B	30-200	S	GM22396-KA1
K	C	T	A	all	N, T, V, W, Z	D	30-200	S	GM22396-KA2
K	C	T	A	all	N, T, V, W, Z	F	30-200	S	GM22396-KA3
K	D, M	T	A	all	N, T, V	D	40-225	S	GM29692-KA1
K	D, M	T	A	all	N, T, V	F	40-225	S	GM29692-KA2
K	D, M	T	A	all	N, T, V	B	40-225	S	GM29692-KA3
K	C	T	A	all	N, T, V, W, Z	B	225-400	S	GM22397-KA1
K	C	T	A	all	N, T, V, W, Z	D	225-400	S	GM22397-KA2
K	C	T	A	all	N, T, V, W, Z	F	225-400	S	GM22397-KA3
K	C	T, P	A	all	N, T, V, W, Z	B	600-1000	S	GM22706-KA1
K	C	T, P	A	all	N, T, V, W, Z	D	600-1000	S	GM22706-KA2
K	C	T, P	A	all	N, T, V, W, Z	F	600-1000	S	GM22706-KA3
K	C	P	A	all	V, W, Z	B	150-400	S	GM22706-KA1
K	C	P	A	all	V, W, Z	D	150-400	S	GM22706-KA2
K	C	P	A	all	V, W, Z	F	150-400	S	GM22706-KA3
K	C	P	A	all	N, T	B	150-400	S	GM28836-KA1
K	C	P	A	all	N, T	D	150-400	S	GM28836-KA2
K	C	P	A	all	N, T	F	150-400	S	GM28836-KA3
K	D, M	T	A	all	N, T, V	D	260-400	S	GM29693-KA1
K	D, M	T	A	all	N, T, V	F	260-400	S	GM29693-KA2
K	D, M	T	A	all	N, T, V	B	260-400	S	GM29693-KA3
K	D, M	T	A	all	N, T, V	D	600	S	GM29694-KA1
K	D, M	T	A	all	N, T, V	F	600	S	GM29694-KA2
K	D, M	T	A	all	N, T, V	B	600	S	GM29694-KA3

Please refer to instructions on page 2 for an explanation of how to use this table.



Enclosures, 1000-1200 Amp & 1600 Amp Front-Mounted NEMA 1

1000 A Shown



6158_3

Enclosures, 1000-1200 A & 1600 Amp Front-Mounted

NEMA 1

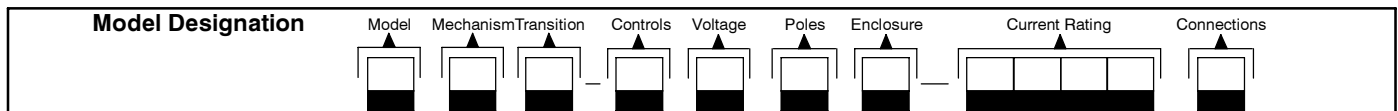
Item	Part Number	Description	Quantity	
			GM21072-KA1	GM21298-KA1
1	X-67-114	Screw, hex washer, thread-forming	152	152
2	GM14052	Panel, back	3	3
3	GM14050	Panel, side	2	2
4	GM12568	Bracket, corner	8	8
5	GM20949	Panel, front	2	2
6	GM14049	Channel, back closure	2	2
7	GM14057	Bus, ground	1	1
8	GM12561	Channel, corner	4	4
10	GM14044	Channel, top and bottom	4	4
11	X-6210-9	Nut, flange spirallock, 3/8-16	4	4
12	X-25-37	Washer, plain, .406 ID x .812 in. OD	4	4
13	294414	Decal, notice cover transfer switch	1	1
14	320828	Insert, threaded, 1/4-20 in.	2	2
15	GM12595	Bracket, lifting	4	4
16	GM14039	Panel, top	1	1
17	X-465-8	Bolt hex cap	1	
17	X-6238-4	Bolt, hex cap		1
18	X-22-12	Washer, lock, .262 ID x .743 in. OD	6	5
19	X-6207-5	Lug, terminal, aluminum		1
19	X-6207-7	Lug, terminal, aluminum	1	
20	X-6210-2	Nut, flange spirallock, 1/4-20	1	
20	X-83-7	Nut, hex, 3/8-16, zinc		1
21	X-25-118	Washer, plain, .406 ID x 1 in. OD		2
21	X-6086-6	Washer, spring, .39 ID x .81 in. OD		1
22	344295	Decal, equipment ground	1	1
23	X-67-148	Screw, hex washer, thread-forming	44	44
24	GM14046	Channel, top and bottom	4	4
25	GM20951	Panel, contactor mounting	1	
25	GM21319	Panel, contactor mounting		1
26	GM24703	Label, blank (not shown)	1	1

Enclosures, 1000-1200 A & 1600 Amp Front-Mounted

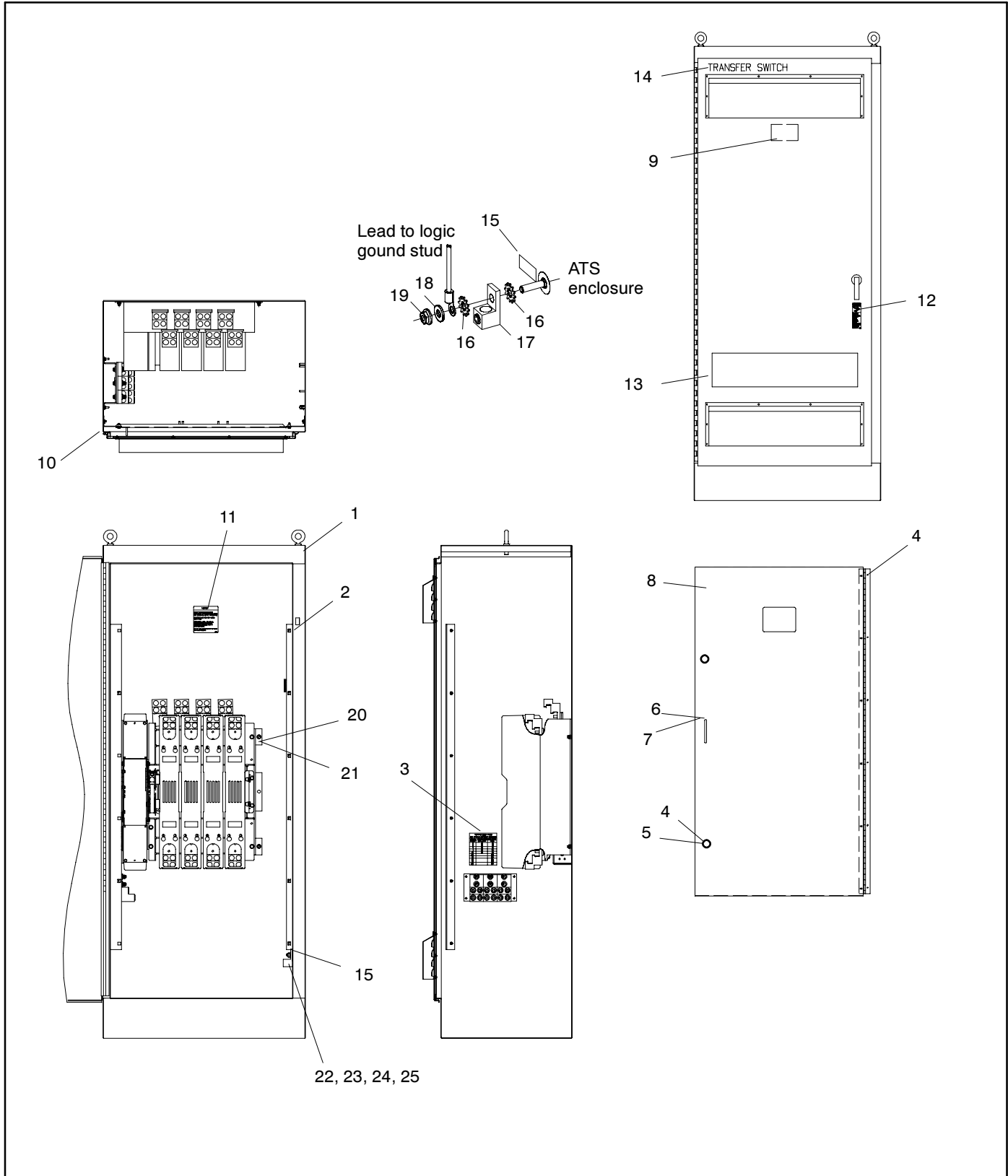
Module Number Key

Model Designation Code									Module Number
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections	
K	C	T, P	A	all	N, T, V, W, Z	A	1200	S	GM21072-KA1
K	C	T, P	A	all	N, T, V, W, Z	C	1200	S	GM28660-KA1
K	C	T, P	A	all	N, T, V, W, Z	A	1600-2000	F	GM21298-KA1

Please refer to instructions on page 2 for an explanation of how to use this table.



Enclosures, 1200 Amp & 1600-2000 Front-Mounted NEMA 3R



Enclosures, 1200 Amp & 1600-2000 Front-Mounted

NEMA 3R

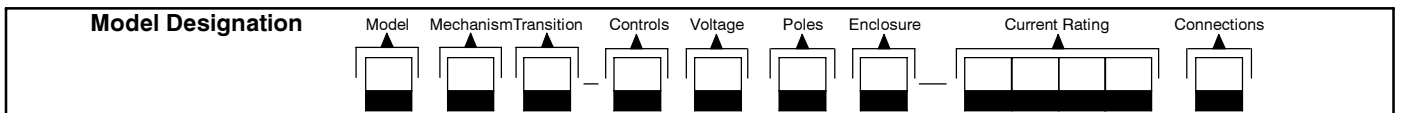
Item	Part Number	Description	Quantity	
			GM28660-KA1	GM29786-KA1
1	GM28657	Enclosure (NEMA 3R)	1	
2	GM29797	Enclosure (NEMA 3R)		1
2	X-6204-1	Retainer, nut	8	8
3	297556	Decal, torque	1	1
4	X-791-2	Screw, slotted hex washer head	8	8
5	295009	Retainer	2	2
6	GM14177	Handle	1	1
7	X-50-6	Screw, slotted pan head machine	2	2
8	GM22733	Door	1	
8	GM31240	Door		1
9	297721	Decal, warning	1	1
10	GM22734	Rail, mounting	2	
10	GM31242	Rail, mounting		2
11	294414	Decal, notice cover transfer switch	1	1
12	362176	Decal, danger	1	1
13	X-6246-14	Decal, Kohler Power Systems	1	1
14	273746	Decal, transfer switch, Kohler	1	1
15	344295	Decal, equipment ground	1	2
16	X-22-12	Washer, lock, .262 ID x .743 in. OD	2	2
17	X-6207-3	Lug, terminal, aluminum	1	1
18	X-25-40	Washer, plain, .281 ID x .625 in. OD	1	1
19	X-6210-2	Nut, flange spirallock, 1/4-20	1	1
20	X-25-37	Washer	4	6
21	X-6210-9	Nut, flange spirallock, 3/8-16	4	6
22	X-6207-5	Lug, terminal, aluminum		1
23	X-25-118	Washer, plain, .406 ID x 1 in.		1
24	X-6086-6	Washer, spring, .39 ID x .81 in. OD		1
25	X-83-7	Nut, jhex, 3/8-16, zinc		1

Enclosures, 1000-1200 A & 1600 Amp Front-Mounted

Module Number Key

Model Designation Code									Module Number
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections	
K	C	T, P	A	all	N, T, V, W, Z	A	1200	S	GM21072-KA1
K	C	T, P	A	all	N, T, V, W, Z	C	1200	S	GM28660-KA1
K	C	T, P	A	all	N, T, V, W, Z	A	1600-2000	F	GM21298-KA1
K	C	T, P	A	all	N, T, V, W, Z	C	1600-2000	F	GM29786-KA1

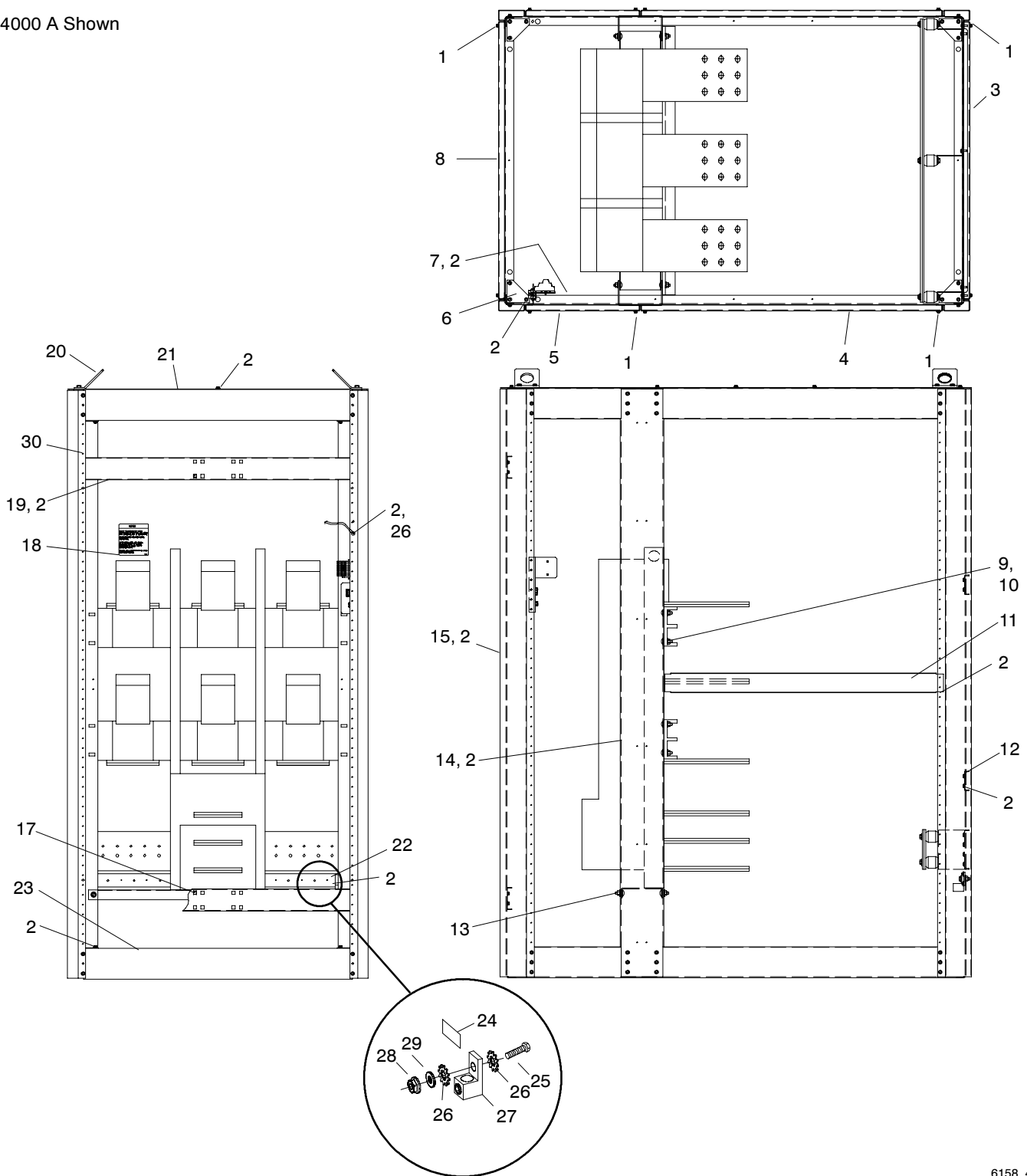
Please refer to instructions on page 2 for an explanation of how to use this table.



Enclosures, 1600-4000 Amp

NEMA 1

4000 A Shown



6158_4

Enclosures, 1600-4000 Amp

NEMA 1

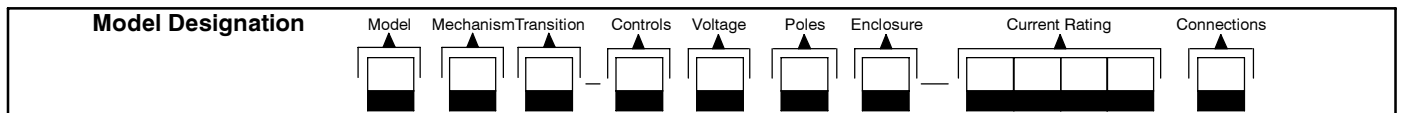
Item	Part Number	Description	Quantity		
			Module Number		
			GM21073-KA1	GM21074-KA1	GM21075-KA1
1	X-67-148	Screw, hex washer, thread-forming	68	68	68
2	X-67-114	Screw, hex washer, thread-forming	176	165	184
3	GM14052	Panel, back	3	3	
3	GM12581	Panel, back			3
4	GM12574	Panel, side, back	4		
4	GM14050	Panel, side		2	
4	GM12575	Panel, side, back			4
5	GM12573	Panel, side, front	2	2	
5	GM21017	Panel, side			2
6	GM12568	Bracket, corner	8	8	8
7	GM21014	Channel, top and bottom, side	4		
7	GM14045	Channel, top and bottom		4	
7	GM21021	Channel, top and bottom, side			4
8	GM20949	Panel, front	2	2	
8	GM20996	Panel, front			2
9	X-6224-3	Bolt, 3/8-16 x .75 in.			8
10	X-6210-9	Nut, flange spirallock, 3/8-16			8
11	GM21016	Channel, back closure	2		
11	GM21023	Channel, back closure			2
12	GM14049	Channel, back closure	2	2	
12	GM12578	Channel, back closure			2
13	GM21022	Channel, spreader			1
14	GM20952	Channel, contactor mounting	2	2	
14	GM21018	Channel, contactor mtg.			2
15	GM12561	Channel, corner	4	4	4
17	X-6204-1	Retainer, nut			2
18	294414	Decal, notice cover transfer switch	1	1	1
19	GM21034	Channel, door closure			2
20	GM12595	Bracket, lifting	4	4	4
21	GM14041	Panel, top	1		
21	GM14040	Panel, top		1	
21	GM14042	Panel, top			1
22	GM14057	Bus, ground	1	1	
22	GM21024	Bus, ground			1
23	GM14044	Channel, top and bottom	4	4	
23	GM12567	Channel, top and bottom, front/back			4
24	344295	Decal, equipment ground	1	1	1
25	X-6238-4	Bolt, hex cap	1	1	1
26	X-22-12	Washer, lock, .262 ID x .743 in. OD	5	5	5
27	X-6207-5	Lug, terminal, aluminum	1	1	1
28	X-83-7	Nut, hex, 3/8-16, zinc	1	1	
29	X-25-118	Washer, plain, .406 ID x 1 in. OD	2	2	2
29	X-6086-6	Washer, spring, .39 ID x .81 in. OD	1	1	1
30	320828	Insert, threaded, 1/4-20 in.	2	2	2
31	GM24703	Label, blank (not shown)	1	1	1

Enclosures, 1600-4000 Amp

Module Number Key

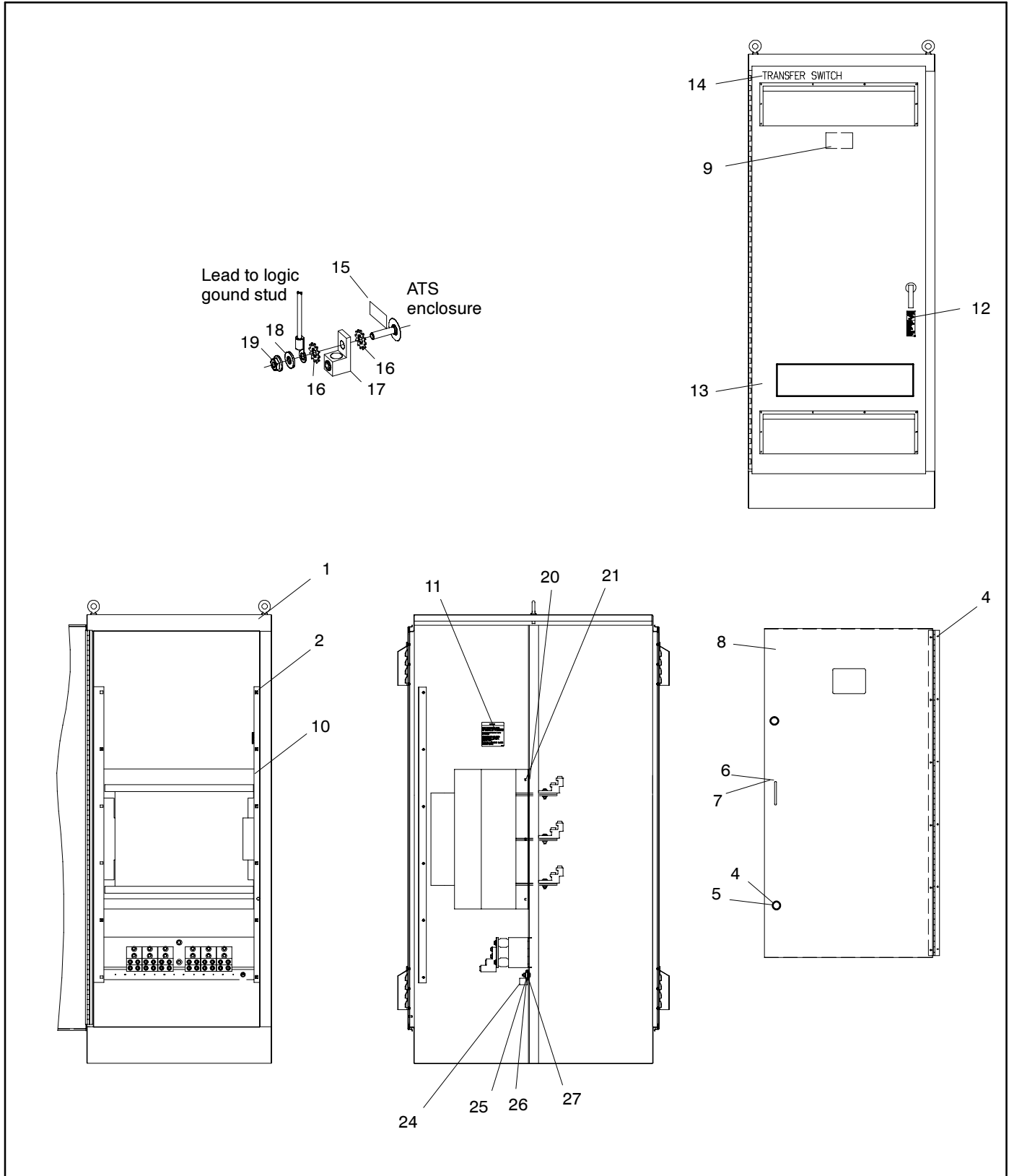
Model Designation Code							Current Rating	Connections	Module Number
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure			
K	C	T, P	A	all	N, T, V, W, Z	A	1600-2000	S	GM21073-KA1
K	C	T, P	A	all	N, T, V, W, Z	C	1600-2000	S	GM28661-KA1
K	C	T, P	A	all	N, T, V, W, Z	A	2600-3000	S	GM21074-KA1
K	C	T, P	A	all	N, T, V, W, Z	C	2600-3000	S	GM28662-KA1
K	C	T, P	A	all	N, T, V, W, Z	A	4000	S	GM21075-KA1

Please refer to instructions on page 2 for an explanation of how to use this table.



Enclosures, 1600-3000 Amp

NEMA 3R



Enclosures, 1600-3000 Amp

NEMA 3R

Item	Part Number	Description	Quantity	
			Module Number	
			GM28661-KA1	GM28662-KA1
1	GM28658	Enclosure (NEMA 3R)	1	
1	GM28659	Enclosure (NEMA 3R)		1
2	X-6204-1	Retainer, nut	8	8
3	297556	Decal, torque (not shown)	1	1
4	X-791-2	Screw, slotted hex washer head	8	8
5	295009	Retainer	2	2
6	GM14177	Handle	1	1
7	X-50-6	Screw, slotted pan head machine	2	2
8	GM22733	Door	1	1
9	297721	Decal, warning	1	1
10	GM22734	Rail, mounting	2	2
11	294414	Decal, notice cover transfer switch	1	1
12	362176	Decal, danger	1	1
13	X-6246-14	Decal, Kohler Power Systems	1	1
14	273746	Decal, transfer switch, Kohler	1	1
15	344295	Decal, equipment ground	1	1
16	X-22-12	Washer, lock, .262 ID x .743 in. OD	6	6
17	X-6207-3	Lug, terminal, aluminum	1	1
18	X-25-40	Washer, plain, .281 ID x .625 in. OD	1	1
19	X-6210-2	Nut, flange spirallock, 1/4-20	1	1
20	X-25-37	Washer	6	6
21	X-6210-9	Nut, flange spirallock, 3/8-16	6	6
22	GM14057	Bus, ground	1	1
23	X-67-144	Screw, hex washer, thread-forming	4	4
24	X-6207-5	Lug, terminal, aluminum	1	1
25	X-83-7	Nut, hex, 3/8-16	1	1
26	X-25-118	Washer, plain, .406 ID x 1 in. OD	2	2
27	X-6086-6	Washer, spring, .39 ID x .81 OD	1	1

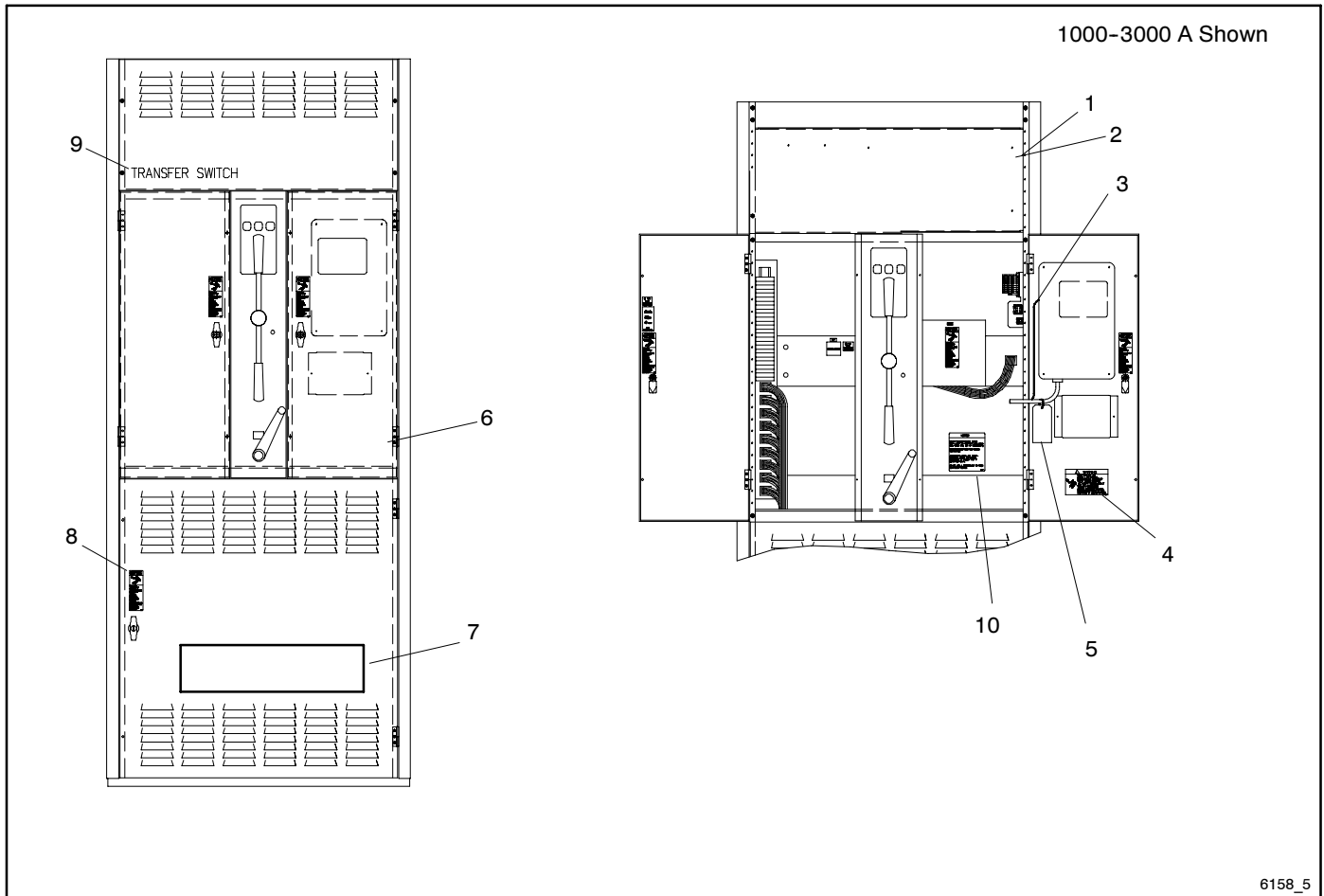
Enclosures, 1600-4000 Amp

Module Number Key

Model Designation Code									
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections	Module Number
K	C	T, P	A	all	N, T, V, W, Z	A	1600-2000	S	GM21073-KA1
K	C	T, P	A	all	N, T, V, W, Z	C	1600-2000	S	GM28661-KA1
K	C	T, P	A	all	N, T, V, W, Z	A	2600-3000	S	GM21074-KA1
K	C	T, P	A	all	N, T, V, W, Z	C	2600-3000	S	GM28662-KA1
K	C	T, P	A	all	N, T, V, W, Z	A	4000	S	GM21075-KA1

Please refer to instructions on page 2 for an explanation of how to use this table.

Enclosures, Bypass Isolation



6158_5

Enclosures, Bypass Isolation

Item	Part Number	Description	Quantity
			Module Number GM22373-KA1
1	GM21365	Pan, mounting	1
2	X-67-114	Screw, hex washer, thread-forming	6
3	GM23503	Harness, bypass	1
4	297721	Decal, warning	1
5	See logic section	Tag, hang (before reconnecting plug)	1
6	GM21045	Door, left bypass switch	1
6	GM21046	Door, right bypass switch	1
7	X-6246-14	Decal, Kohler Power Systems	1
8	362176	Decal, danger	2
9	273746	Decal, transfer switch, Kohler	1
10	294414	Decal, notice cover transfer switch	1
11	GM24703	Label, blank	1

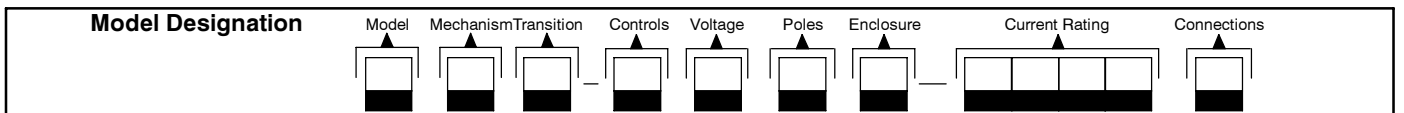
Item	Part Number	Description	Quantity			
			Module Number			
			GM22536-KA1	GM22537-KA1	GM22538-KA1	GM22540-KA1
3	GM23503	Harness, bypass	1	1	1	1
4	297721	Decal, warning	1	1	1	1
5	See logic section	Tag, hang (before reconnect. plug)	1	1	1	1
6	GM21051	Door, bypass switch	1			
6	GM21050	Door, bypass switch		1		
6	GM21054	Door, bypass switch			1	
6	GM21053	Door, bypass switch				1
8	362176	Decal, danger	1	1	2	2
10	294414	Decal, notice cover transfer switch	1	1	1	1
11	GM24703	Label, blank (not shown)	1	1	1	1

Enclosures, Bypass Isolation

Module Number Key

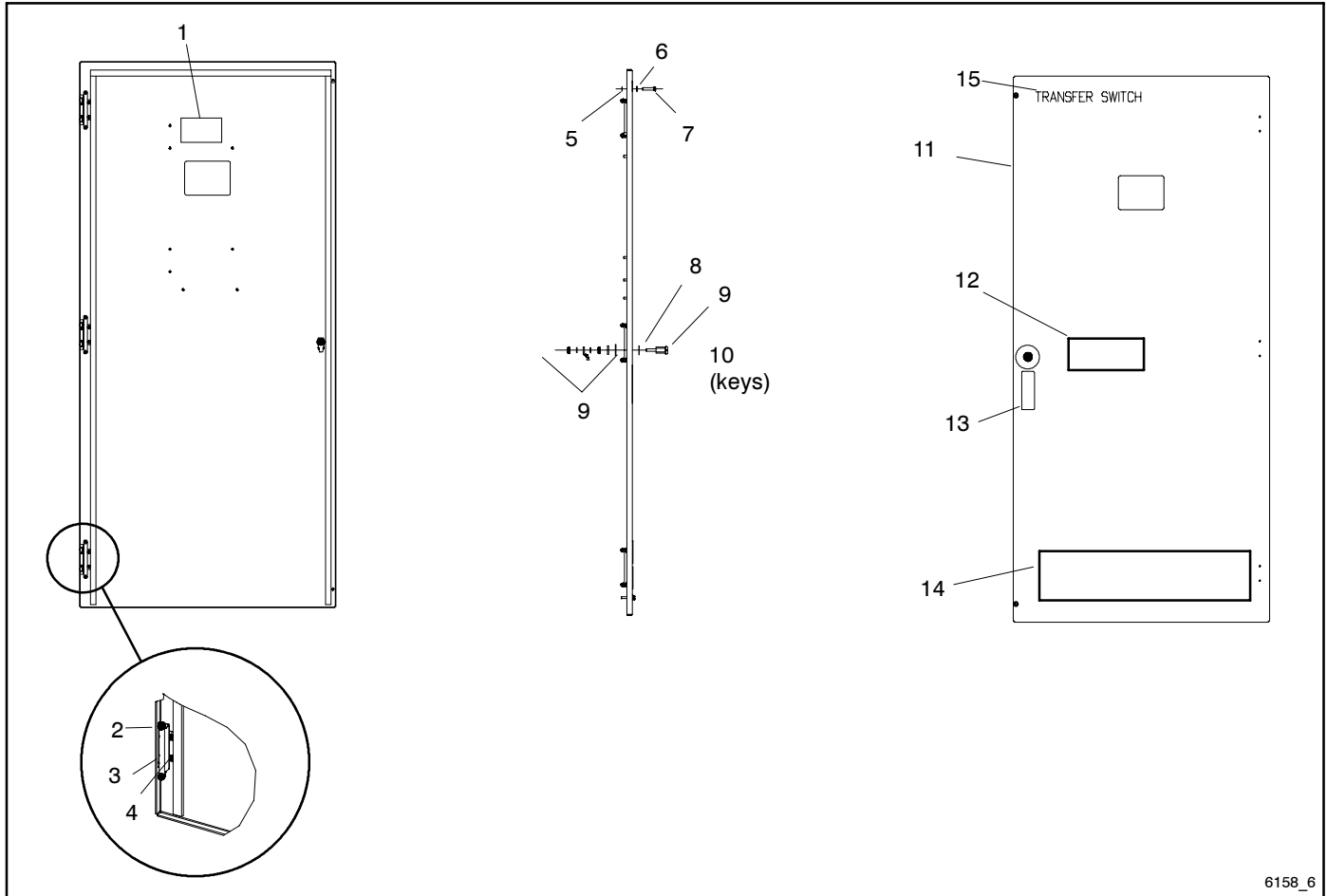
Model Designation Code									Module Number
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections	
K	B	P	A	all	N, T, V, W, Z	A	150-400	S	GM22536-KA1
K	B	T	A	all	N, T, V, W, Z	A	150-400	S	GM22537-KA1
K	B	T, P	A	all	N, T, V, W, Z	A	600-800	S	GM22538-KA1
K	B	T, P	A	all	N, T, V, W, Z	A	1000-3000	S	GM22373-KA1
K	B	T, P	A	all	N, T, V, W, Z	A	4000	S	GM22540-KA1

Please refer to instructions on page 2 for an explanation of how to use this table.



Door

NEMA 1 and 3R



6158_6

Item	Part Number	Description	Quantity	
			GM21076-KA1	GM21077-KA1
1	297721	Decal, warning	1	1
2	295098	Screw, flat countersunk, head machine	16	32
3	GM20572	Hinge, ATS enclosure	4	
3	297600	Hinge, split	4	4
3	297601	Hinge, split, left		4
5	295009	Retainer	2	2
7	X-791-3	Screw, slotted hex washer head, machine	2	
7	X-791-2	Screw, slotted hex washer head, machine		2
9	GM20885	Latch, compression, T-handle, locking	1	1
11	GM12602	Door, enclosure, left		1
11	GM14047	Door, enclosure, right		1
11	GM20950	Door, enclosure	1	
13	362176	Decal, danger	1	1
14	X-6246-14	Decal, Kohler Power Systems	1	1
15	273746	Decal	1	1

Door

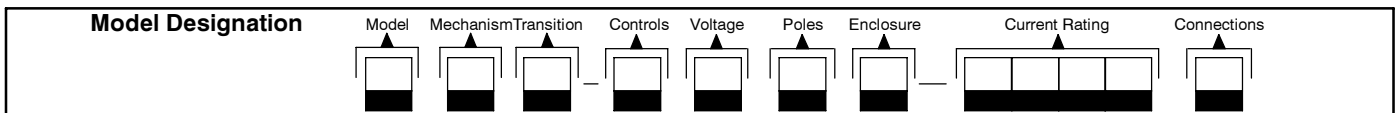
NEMA 1 and 3R

Item	Part Number	Description	Quantity						
			Module						
			GM21069-KA1	GM21069-KA2	GM21292-KA1	GM21292-KA2	GM21293-KA1	GM21293-KA2	GM28764-KA1
1	297721	Decal, warning	1	1	1	1	1	1	1
2	X-50-1	Screw, slotted pan head machine	4	4	3	3	6	6	6
3	GM20572	Hinge, ATS enclosure	2	2	6	6	3	3	3
4	X-22-9	Washer, lock, .20 ID x .373 in. OD	4	4	6	6	6	6	6
4	X-70-3	Nut, hex machine screw, 10-32	4	4	2	2	6	6	6
5	295009	Retainer	2	2	2	2	2	2	2
6	X-25-40	Washer, plain, .281 ID x .625 in. OD	2	2	2	2	2	2	2
7	X-791-3	Screw, slotted hex washer head, machine	2	2	1	1	2	2	2
8	GM20575	Gasket, compression latch	1	1	1	1	1	1	1
9	GM20573	Latch, compression	1	1	2	2	1	1	1
10	GM20574	Key, compression latch	2	2	1	1	2	1	2
11	GM20166	Door, enclosure (600-800 amp)					1	1	
11	GM28763	Door, enclosure							1
13	362176	Decal, danger	1	1	1	1	1	1	1
11	GM21523	Door, silkscreen (30-150 amp)	1						
11	GM21524	Door, silkscreen (30-150 amp)		1					
11	GM21525	Door, silkscreen (225-400 amp)			1				
11	GM21526	Door, silkscreen (225-400 amp)				1			
14	X-6246-14	Decal, Kohler Power Systems						1	1
14	X-6246-4	Decal, Kohler Power Systems							1
15	273746	Decal						1	1
15	GM21373	Decal							1

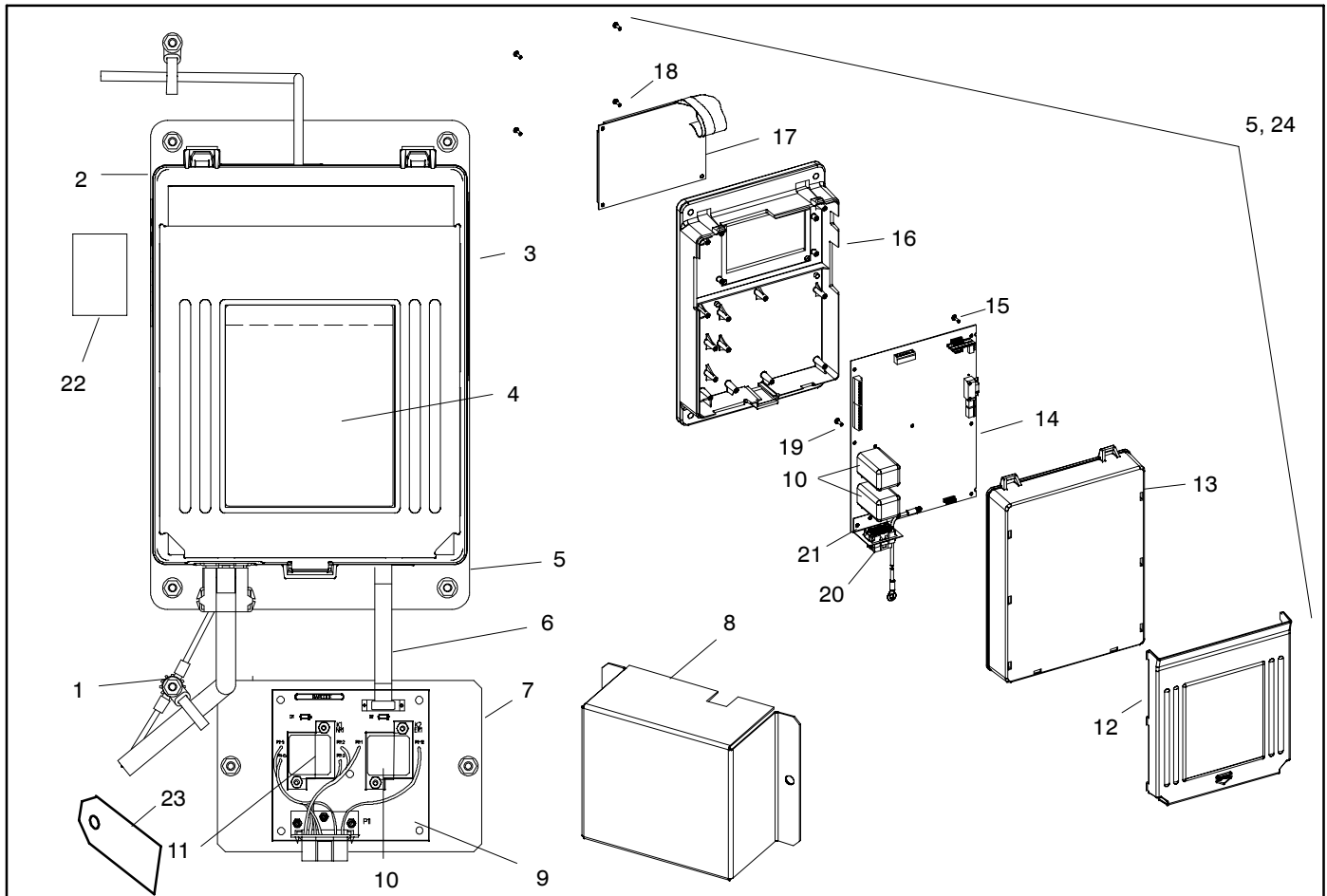
Door, NEMA1 and 3R Module Number Key

Model Designation Code								Module Number
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	
K	C	T	A	all	N, T, V, W, Z	A	30-200	GM21069-KA1
K	C	T	A	all	N, T, V, W, Z	C	30-200	GM21069-KA2
K	C	T	A	all	N, T, V, W, Z	A	225, 260, 400	GM21292-KA1
K	C	T	A	all	N, T, V, W, Z	C	225, 260, 400	GM21292-KA2
K	C	T	A	C, D, F, G, H, J, K, M	N, T, V, W, Z	A	230	GM21069-KA1
K	C	T	A	C, D, F, G, H, J, K, M	N, T, V, W, Z	C	230	GM21069-KA2
K	C	T	A	N	N, T, V, W, Z	A	230	GM21292-KA1
K	C	T	A	N	N, T, V, W, Z	C	230	GM21292-KA2
K	C	T, P	A	all	N, T, V, W, Z	A, C	600-1000	GM21293-KA1
K	C	T	A	all	N, T, V, W, Z	A	600-1000	GM21293-KA2
K	C	P	A	all	N, T	A, C	150-400	GM28764-KA1
K	C	T, P	A	all	N, T, V, W, Z	A	1200-3000	GM21076-KA1
K	C	T, P	A	all	N, T, V, W, Z	A	4000	GM21077-KA1
K	D, M	T	A	all	N, T, V	A, C	600	GM28764-KA1

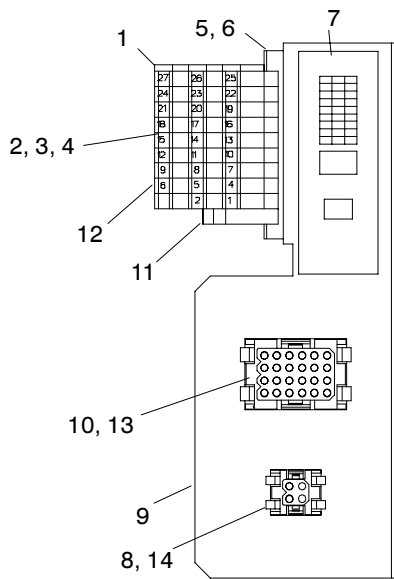
Please refer to instructions on page 2 for an explanation of how to use this table.



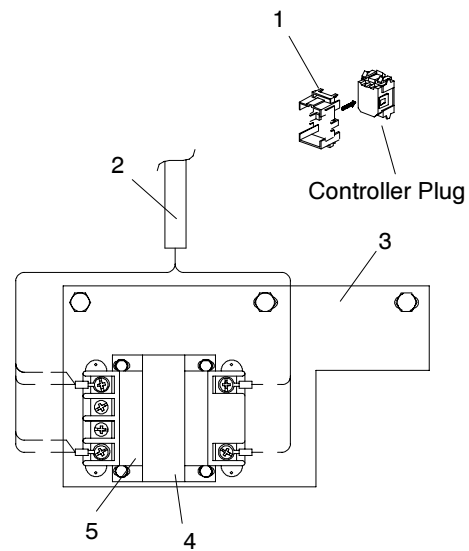
Logic



Field Connection Kit



Transformer



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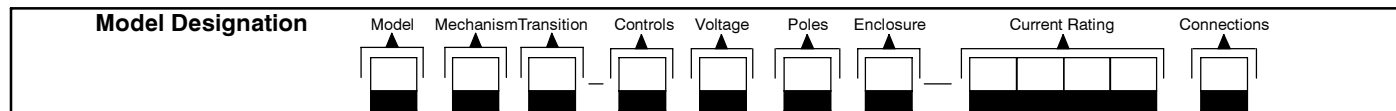
Item	Part Number	Description	Quantity								
			Module								
			GM21079-MA1	GM21079-MA2	GM21079-MA3	GM21079-MA4	GM21079-MA5	GM21079-MA6	GM21079-MA7	GM21079-MA8	GM21079-MA9
1	X-22-12	Washer, lock, .262 ID x .743 in. OD	1	1	1	1	1	1	1	1	1
2	GM22366	Decal, terminal switch	1	1	1	1	1	1	1	1	1
3	GM22365	Decal, DIP switch	1	1	1	1	1	1	1	1	1
4	GM21291	Decal, nameplate	1	1	1	1	1	1	1	1	1
5	GM21364	Logic assembly (void, use GM32320)	1	1	1						
5	GM28287	Logic assembly, 600 V (void, use GM32320 and remove transformer)				1	1	1			
5	GM32320	Logic assembly							1	1	1
6	352291	Multiconductor cable, ribbon		1			1			1	
6	GM21340	Ribbon cable assembly			1			1			1
7	GM21392	Cover, PT		1	1		1	1		1	1
8	GM21391	Plate, mounting		1	1		1	1		1	1
9	GM21268	PCB assembly, PTIB-T340		1	1		1	1		1	1
10	295253	Relay, 10 A	2	4	4	2	4	4	2	2	2
11	269972	Clip, relay		2	2		2	2			
12	GM21358	Holder, literature	1	1	1	1	1	1	1	1	1
13	GM21357	Cover, logic	1	1	1	1	1	1	1	1	1
14	GM22516-A	PCB assembly	1	1	1	1	1	1			
14	GM22516-B	PCB assembly							1	1	1
15	GM23307	Screw, plastic tapping	9	9	9	9	9	9	9	9	9
16	GM21356	Carrier, logic	1	1	1	1	1	1	1	1	1
17	GM21107	Decal, membrane switch	1	1	1	1	1	1	1	1	1
18	GM21374	Screw, plastic tapping	4	4	4	4	4	4	4	4	4
19	GM23312	Screw, plastic tapping	4	4	4	4	4	4	4	4	4
20	GM21320	Harness, T340 board to contactor	1	1	1	1	1	1	1	1	1
21	294635	Bracket, mounting	1	1	1	1	1	1	1	1	1
22	GM23620	Decal (controller I/O assignments)	1	1	1	1	1	1	1	1	1
23	297949	Tag, hang (before reconnecting plug)	1	1	1	1	1	1	1	1	1
24	GM24749	Logic service kit (includes items 2, 3, 5)	1	1	1				1	1	1

Logic

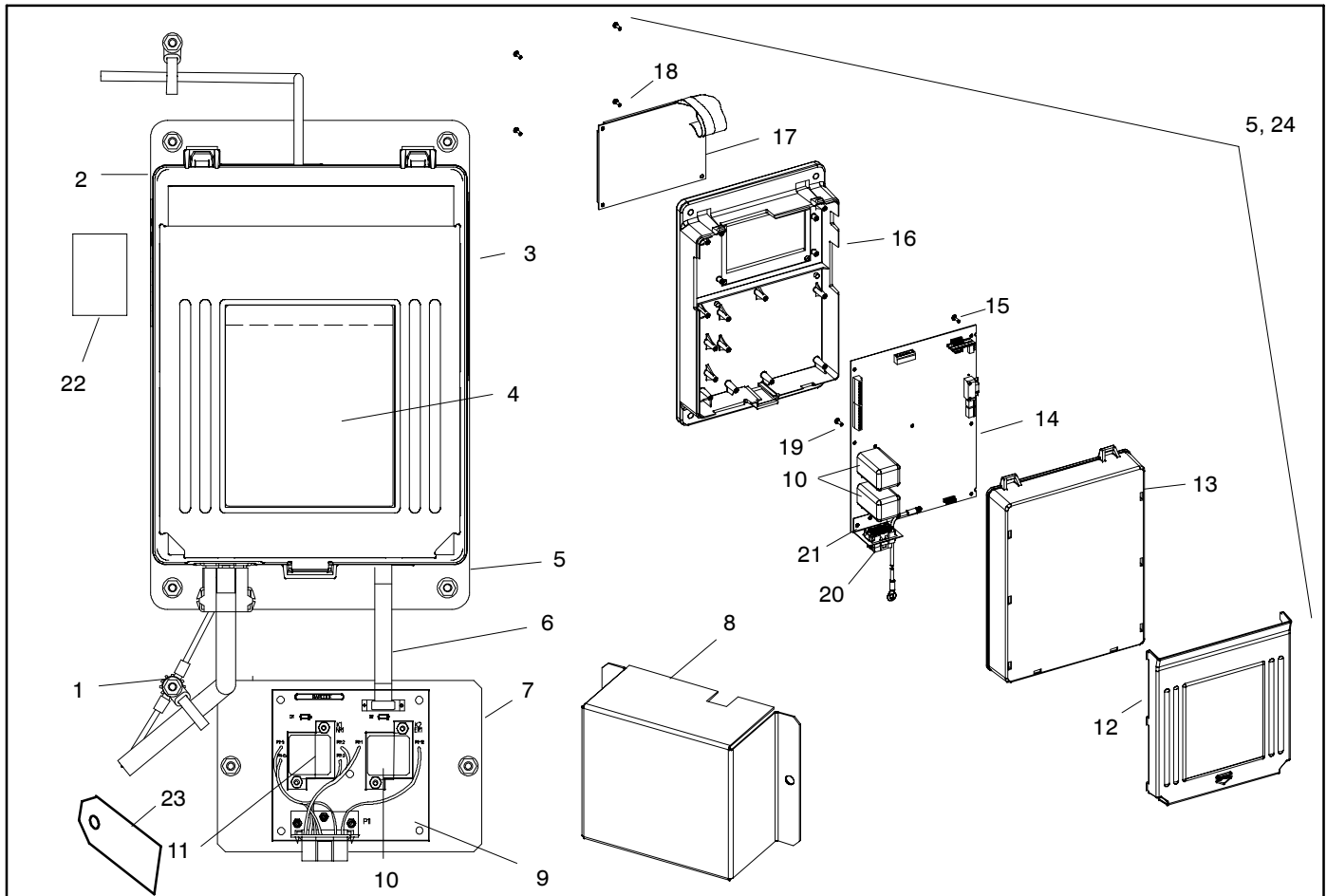
Module Number Key

Model Designation Code							Module Number
Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections	
T	A	all except N	all	all	all	S	GM21079-MA1
P	A	all except N	all	all	all	S	GM21079-MA2
T, P	A	all except N	all	all	1600-2000	F	GM21079-MA3
T	A	N	all	all	all	S	GM21079-MA4
P	A	N	all	all	all	S	GM21079-MA5
T, P	A	N	all	all	1600-2000	F	GM21079-MA6
T	A	all	all	all	all	S	GM21079-MA7
P	A	all	all	all	all	S	GM21079-MA8
P	A	all	all	all	all	F	GM21079-MA9

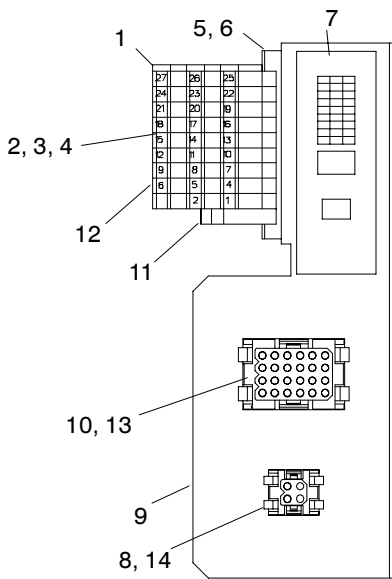
Please refer to instructions on page 2 for an explanation of how to use this table.



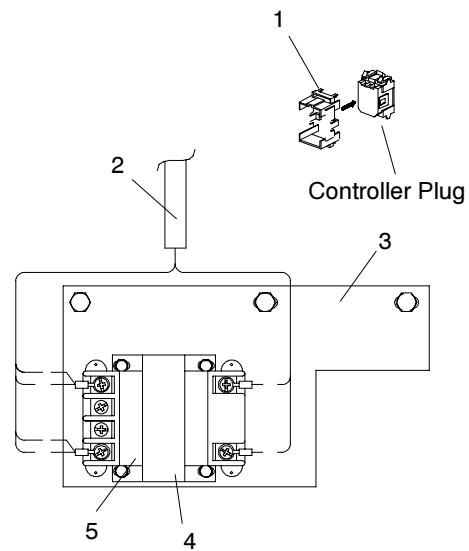
Logic, continued



Field Connection Kit



Transformer



6158_7

Logic, continued

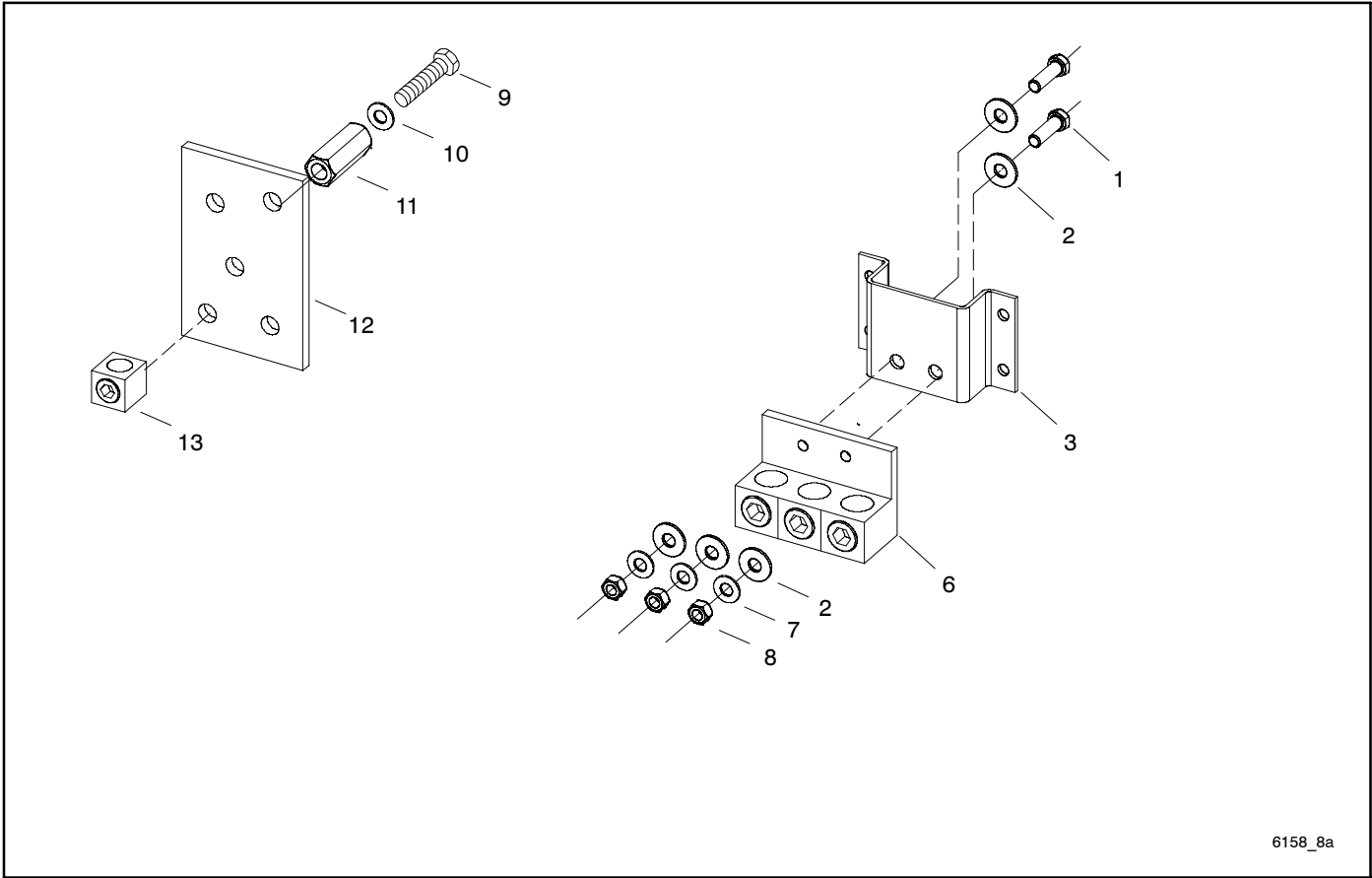
Field Connection Kit

Item	Part Number	Description	Quantity
			Module Number GM21311-KA1
1	GM21315	End section	1
2	GM22883	Strip, marker (1-10)	1
3	GM22884	Strip, marker (11-20)	1
4	GM22885	Strip, marker (21-30)	1
5	GM21339	Rail, DIN	1
6	X-67-113	Screw, hex washer, thread-forming	2
7	GM22491	Decal	1
8	GM21312	Connector, 4-position	1
9	GM21338	Bracket, field connection kit	1
10	295145	Connector, 24-position	1
11	321025	Stop, end	1
12	GM21313	Block, terminal	9
13	GM21317	Harness	1
14	GM21318	Harness	1

Transformer, 600 V

Item	Part Number	Description	Quantity
			Module Number GM26859-KA1
1	321330	Boot, connector	1
2	GM26857	Harness, wiring	1
3	GM26858	Panel, mounting	1
4	GM26855	Transformer	1
5	GM26856	Guard, terminal	1

Neutral Assembly, 30-400 Amp



6158_8a

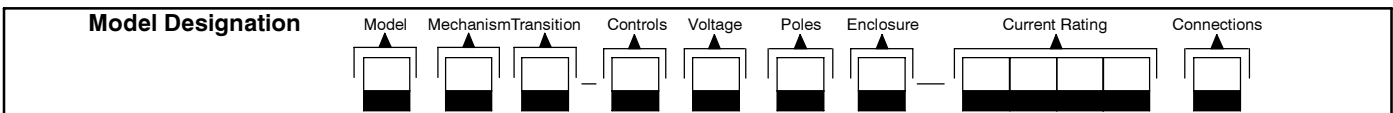
Item	Part Number	Description	Quantity		
			Module Number		
			GM21070-KA1	GM21071-KA1	GM26317-KA1
1	X-6238-4	Bolt, hex cap	2	2	
2	X-25-118	Washer, plain, .406 ID x 1 in. OD	4	4	
3	GM20991	Bracket, neutral mounting, 30-400 A	1		
3	GM25826	Bracket, neutral mounting 225-400 A		1	
6	X-6207-12	Lug, terminal	1		
6	X-6207-14	Lug, terminal, aluminum		1	
7	X-6086-6	Washer, spring, .39 ID x .81 in. OD	2	2	
8	X-83-7	Nut, hex, 3/8-16, zinc	2	2	
9	X-465-6	Bolt, hex cap			7
10	X-6086-16	Washer, spring, .281 ld x .875 OD			7
11	X-6128-30	Standoff, insulator, 1/4-20 x 1 in.			2
12	GM28294	Bus, neutral			1
13	297712	Lug, terminal			3

Neutral Assembly, 30-400 Amp

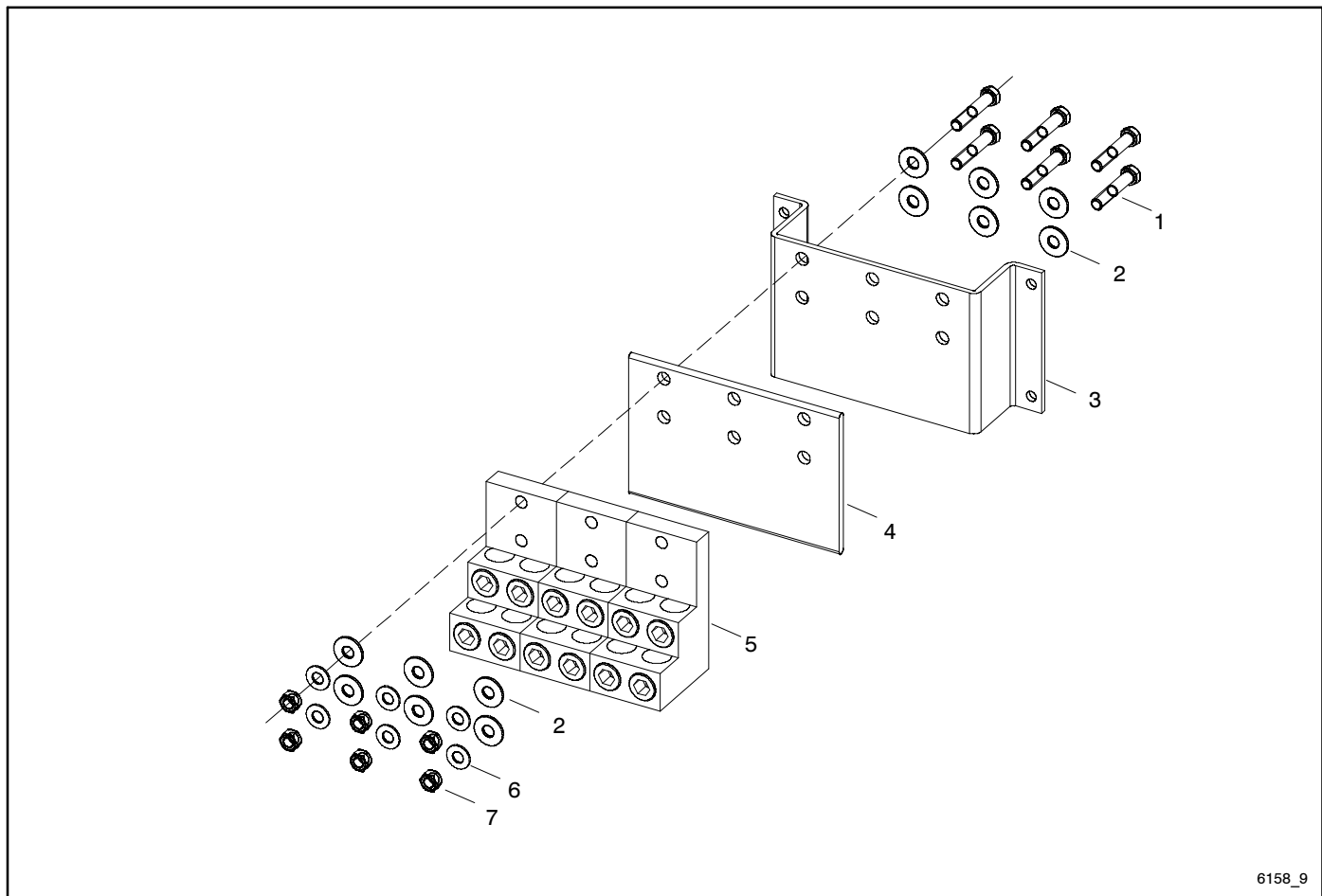
Module Number Key

Model Designation Code									Module Number
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections	
K	C	T	A	all	all	all	30-200	S	GM26317-KA1
K	C	P	A	all	all	all	225-400	S	GM21071-KA1
K	D, M	T	A	all	all	all	40-225	S	GM21070-KA1

Please refer to instructions on page 2 for an explanation of how to use this table.



Neutral Assembly, 600-1000 Amp



6158_9

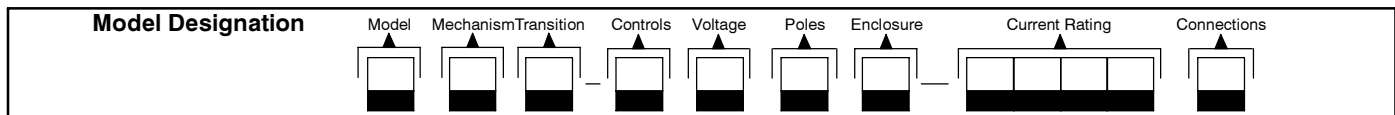
Item	Part Number	Description	Quantity	
			Module Number GM21294-KA1	Module Number GM29496-KA1
1	X-6238-6	Bolt, hex cap	6	4
2	X-25-118	Washer, plain, .406 ID x 1 in. OD	12	8
3	GM20992	Bracket, neutral mounting	1	1
4	GM21010	Bus, neutral, 600-1200 A	1	1
5	297582	Lug, terminal, aluminum	3	
5	295296	Lug, terminal, aluminum		2
6	X-6086-6	Washer, spring, .39 ID x .81 in. OD	6	4
7	X-83-7	Nut, hex, 3/8-16, zinc	6	4

Neutral Assembly, 600-1000 Amp

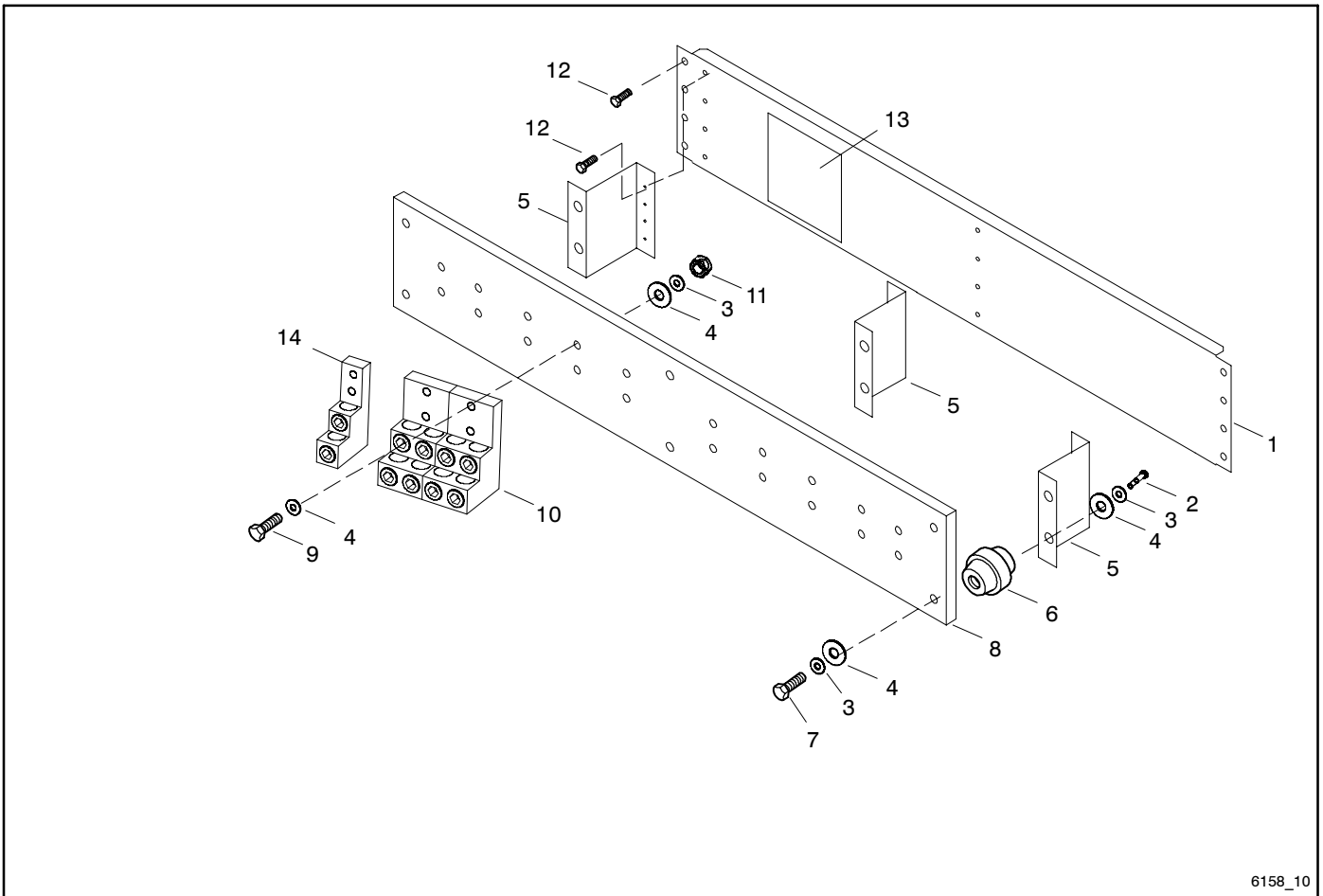
Module Number Key

Model Designation Code									Module Number
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections	
K	C, B, N	T, P	A	all	all	all	600-1000	S	GM21294-KA1
K	D, M	T	A	all	all	all	600	S	GM29496-KA1

Please refer to instructions on page 2 for an explanation of how to use this table.



Neutral Assembly, 1200-4000 Amp



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Neutral Assembly, 1200-4000 Amp

Item	Part Number	Description	Quantity		
			Module Number		
			GM21078-KA1	GM21078-KA2	GM21078-KA3
1	GM12588	Channel, neutral support			1
1	GM14054	Channel, neutral support			1
2	X-6238-10	Bolt, hex cap	6	6	6
3	X-6086-6	Washer, spring, .39 ID x .81 in. OD	12	12	12
4	X-25-118	Washer, plain, .406 ID x 1 in. OD	12	12	12
5	GM12589	Bracket, neutral bus support	3	3	3
6	X-6128-29	Standoff insulator, 3/8-16 x 2 in.	6	6	6
7	X-6238-11	Bolt, hex cap	6		
7	X-6238-4	Bolt, hex cap		6	
7	X-6238-5	Bolt, hex cap			6
8	GM14055	Bus, neutral	1	2	
8	GM20995	Bus, neutral			2
12	X-67-114	Screw, hex washer, thread-forming	18	18	18
13	297556	Decal, torque	1	1	1

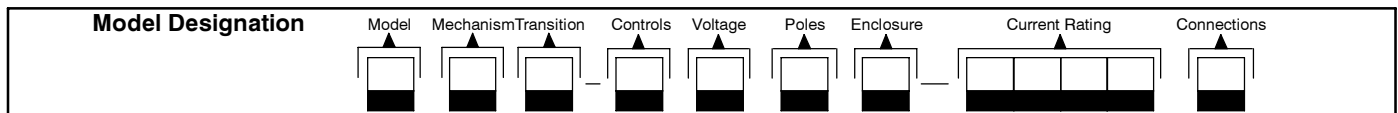
Item	Part Number	Description	Quantity		
			Module Number		
			GM21565-KA1	GM21565-KA2	GM21565-KA3
1	GM14054	Channel, neutral support	1	1	1
2	X-6238-10	Bolt, hex cap	6	6	6
3	X-6086-6	Washer, spring, .39 ID x .81 in. OD	20	24	32
4	X-25-118	Washer, plain, .406 ID x 1 in. OD	28	36	52
5	GM12589	Bracket, neutral bus support	3	3	3
6	X-6128-29	Standoff insulator, 3/8-16 x 2 in.	6	6	6
7	X-6238-11	Bolt, hex cap	6		
7	X-6238-4	Bolt, hex cap		6	6
8	GM21310	Bus, neutral	1	2	2
9	X-6238-1	Bolt, hex cap	8		
9	X-6238-6	Bolt, hex cap		12	12
10	297605	Lug, terminal, aluminum	4	6	8
11	X-83-7	Nut, hex, 3/8-16, zinc	8	12	20
12	X-67-114	Screw, hex washer, thread-forming	18	18	18
13	297556	Decal, torque	1	1	1
14	353354	Lug, terminal			2

Neutral Assembly, 1000-4000 Amp

Module Number Key

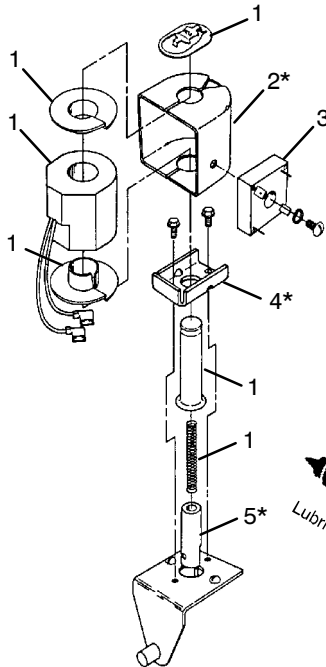
Model Designation Code									Module Number
Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections	
K	all	T, P	A	all	all	all	1200	S	GM21565-KA1
K	all	T, P	A	all	all	all	1600-2000	S, F	GM21565-KA2
K	all	T, P	A	all	all	all	2600-3000	S	GM21565-KA3
K	all	T, P	A	all	all	all	4000	S	GM21078-KA3

Please refer to instructions on page 2 for an explanation of how to use this table.



Contactor, Model KCT & KNT 30-200 Amp

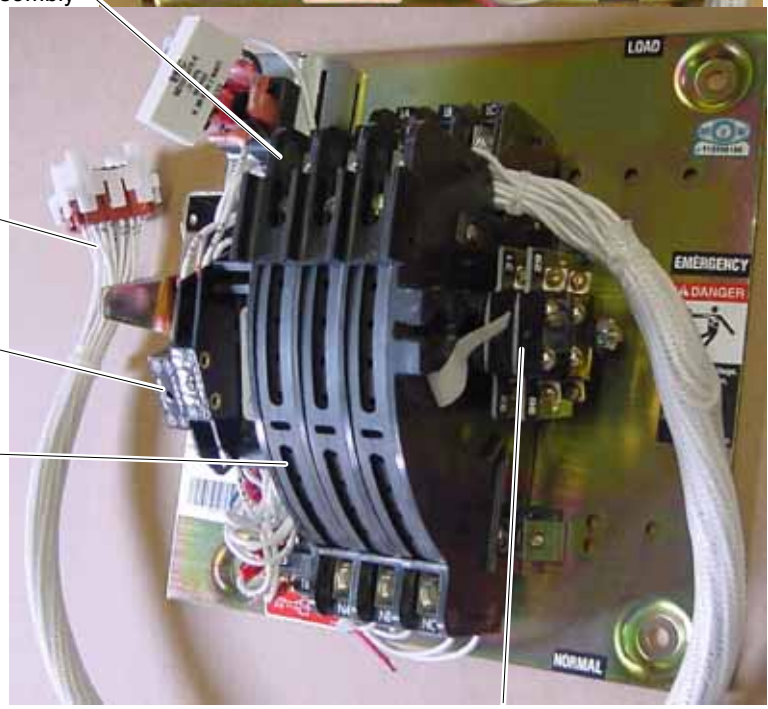
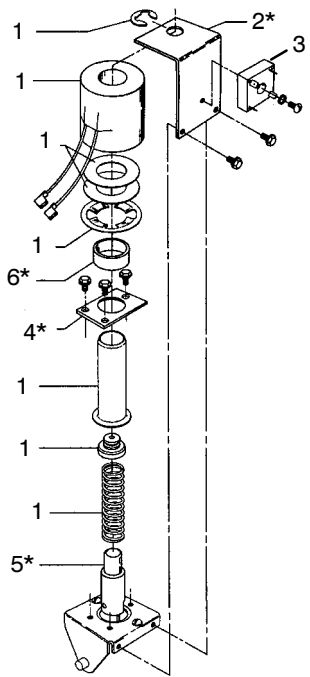
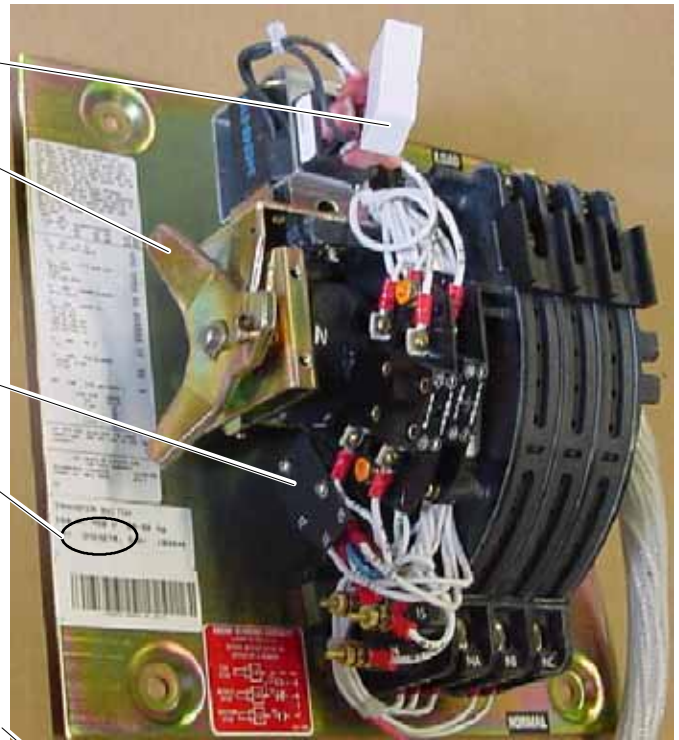
30-104 Amp Shown P/N GM23274



Contactor Part Number



14 Contactor Assembly



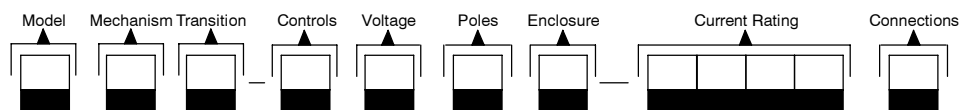
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* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number

Model Designation



Contactor, Model KCT & KNT

30-200 Amp

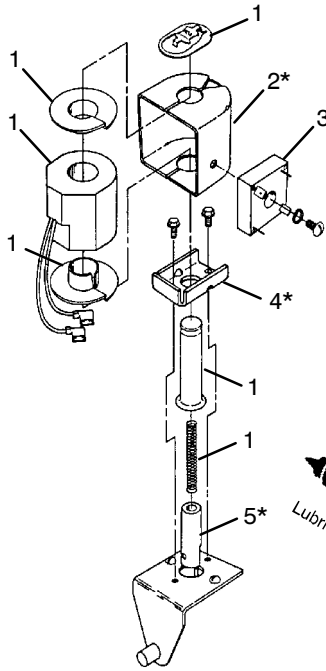
Item	Part Number	Description
1	See chart below	Coil kit
2	*	Yoke, 30-104 amp
2	*	L-bracket, 150 amp
3	294544	Rectifier (snubber no longer required because of improved rectifier)
4	*	Retainer, core tube
5	*	Core
6	*	Ring, spacer
7	*	Handle, manual operating
8	GM24251	Switch, miniature
9	*	Harness, contactor
10	GM24239	Contacts, coil control
11	*	Chute, arc
12	GM24252	Contact, auxiliary
13	GM24237	Lubrication kit, coil core tube
14	See chart below	Contactor assembly

This table lists coil kit and contactor part numbers. **Know the contactor part number before servicing contactors.** Effective December 9, 2002, the 30-104 amp frame size changed. As a result, 30-104 amp coil kits are NOT interchangeable between contactor numbers. See the previous page for the location of the contactor part number.

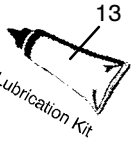
30-104 Amp Contactor and Coil Kit Replacement Part Numbers						
Poles/Wires Code(s)	Poles/Wires	Voltage Codes(s)	Voltage	Part Number		
				Contactor Assembly	Coil Kit	Service Contactor
N	2	C	208	GM23266 GM26237	GM24254 GM24276	GM26237 -
		D, F	220-240	GM23267 GM26238	GM24256 GM24277	GM26238 -
		G, H, J	380-416	GM23268 GM26239	GM24257 GM24278	GM26239 -
		K, M	440-480	GM23269 GM26240	GM24258 GM24279	GM26240 -
		N	600	GM23270 GM26241	GM24260 GM24280	GM26241 -
T	3/4 solid neutral	C	208	GM23271 GM26242	GM24255 GM24281	GM26242 -
		D, F	220-240	GM23272 GM26243	GM24256 GM24282	GM26243 -
		G, H, J	380-416	GM23273 GM26244	GM24257 GM24283	GM26244 -
		K, M	440-480	GM23274 GM26245	GM24253 GM24284	GM26245 -
		N	600	GM23275 GM26246	GM24259 GM24285	GM26246 -
V	4/4 switched neutral	C	208	GM23276 GM26247	GM24255 GM24281	GM26247 -
		D, F	220-240	GM23277 GM26248	GM24256 GM24282	GM26248 -
		G, H, J	380-416	GM23278 GM26249	GM24257 GM24283	GM26249 -
		K, M	440-480	GM23279 GM26250	GM24253 GM24284	GM26250 -
		N	600	GM23280 GM26251	GM24259 GM24285	GM26251 -
W	4/4 overlapping neutral	C	208	GM23281 GM26252	GM24255 GM24281	GM26252 -
		D, F	220-240	GM23282 GM26253	GM24256 GM24282	GM26253 -
		G, H, J	380-416	GM23283 GM26254	GM24257 GM24283	GM26254 -
		K, M	440-480	GM23284 GM26255	GM24253 GM24284	GM26255 -
		N	600	GM23285 GM26256	GM24259 GM24285	GM26256 -

Contactor, Model KCT & KNT 30-200 Amp

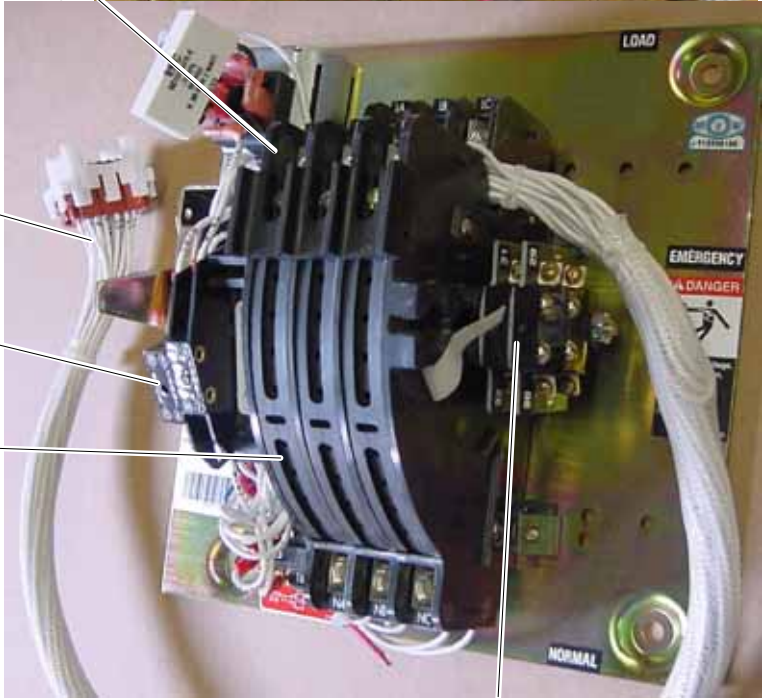
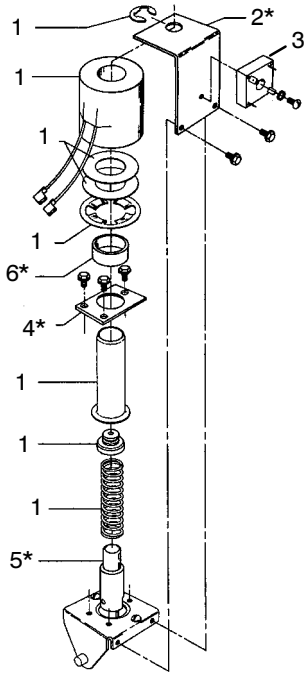
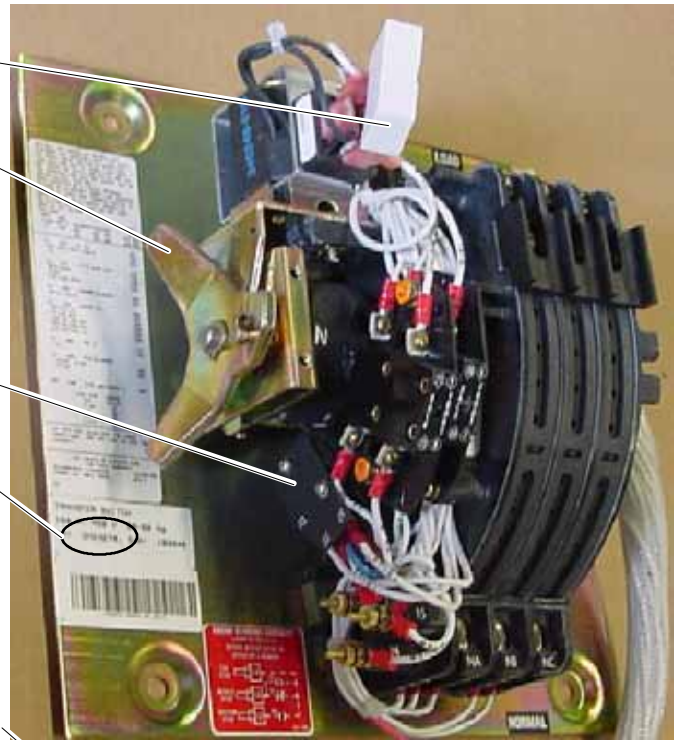
30-104 Amp Shown P/N GM23274



Contactor Part Number



14 Contactor Assembly



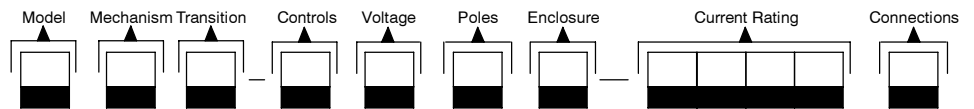
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* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number

Model Designation



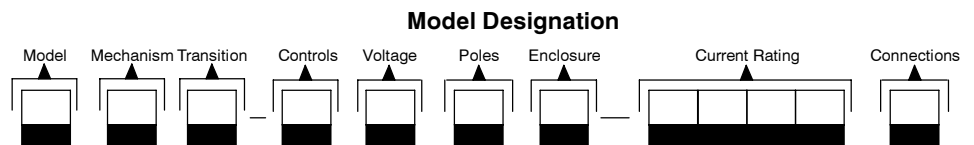
Contactor, Model KCT & KNT

30-200 Amp

150-200 Amp Contactor and Coil Kit Replacement Part Numbers							
Amps	Poles/Wires Code(s)	Poles/Wires	Voltage Codes(s)	Voltage	Part Number		
					Contactor Assembly	Coil Kit	Service Contactor
150	N	2	C	208	GM17900 GM26257	GM24276 GM24276	GM26257 -
			D, F	220-240	GM17901 GM26258	GM24277 GM24277	GM26258 -
			G, H, J	380-416	GM17902 GM26259	GM24278 GM24278	GM26259 -
			K, M	440-480	GM17903 GM26260	GM24279 GM24279	GM26260 -
			N	600	GM17904 GM26261	GM24280 GM24280	GM26261 -
150	T	3/4 solid neutral	C	208	GM17906 GM26262	GM24281 GM24281	GM26262 -
			D, F	220-240	GM17907 GM26263	GM24282 GM24282	GM26263 -
			G, H, J	380-416	GM17908 GM26264	GM24283 GM24283	GM26264 -
			K, M	440-480	GM17909 GM26265	GM24284 GM24284	GM26265 -
			N	600	GM17910 GM26266	GM24285 GM24285	GM26266 -
150	V	4/4 switched neutral	C	208	GM17912 GM26272	GM24281 GM24281	GM26272 -
			D, F	220-240	GM17913 GM26273	GM24282 GM24282	GM26273 -
			G, H, J	380-416	GM17914 GM26274	GM24283 GM24283	GM26274 -
			K, M	440-480	GM17915 GM26275	GM24284 GM24284	GM26275 -
			N	600	GM17916 GM26276	GM24285 GM24285	GM26276 -
150	W	4/4 overlapping neutral	C	208	GM19098 GM26282	GM24281 GM24281	GM26282 -
			D, F	220-240	GM19099 GM26283	GM24282 GM24282	GM26283 -
			G, H, J	380-416	GM19100 GM26284	GM24283 GM24283	GM26284 -
			K, M	440-480	GM19101 GM26285	GM24284 GM24284	GM26285 -
			N	600	GM19102 GM26286	GM24285 GM24285	GM26286 -
200	N	2	C	208	GM24694 GM26287	GM24276 GM24276	GM26287 -
			D, F	220-240	GM24695 GM26288	GM24277 GM24277	GM26288 -
			G, H, J	380-416	GM32226 GM32228	GM24278 GM24279	- -
			K, M	440-480	GM32228	GM24279	-
200	T	3/4 solid neutral	C	208	GM24696 GM26289	GM24281 GM24281	GM26289 -
			D, F	220-240	GM24697 GM26290	GM24282 GM24282	GM26290 -
			G, H, J	380-416	GM32227	GM24283	-
			K, M	440-480	GM32229	GM24284	-
200	W	4/4 overlapping neutral	C	208	GM32284	GM24281	-
			D, F	220-240	GM32375	GM24282	-
			G, H, J	380-416	GM32376	GM24283	-
			K, M	440-480	GM32377	GM24284	-

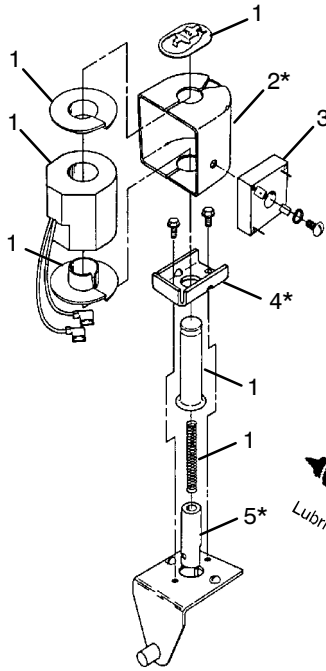
* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number

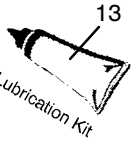


Contactor, Model KCT & KNT 230 Amp

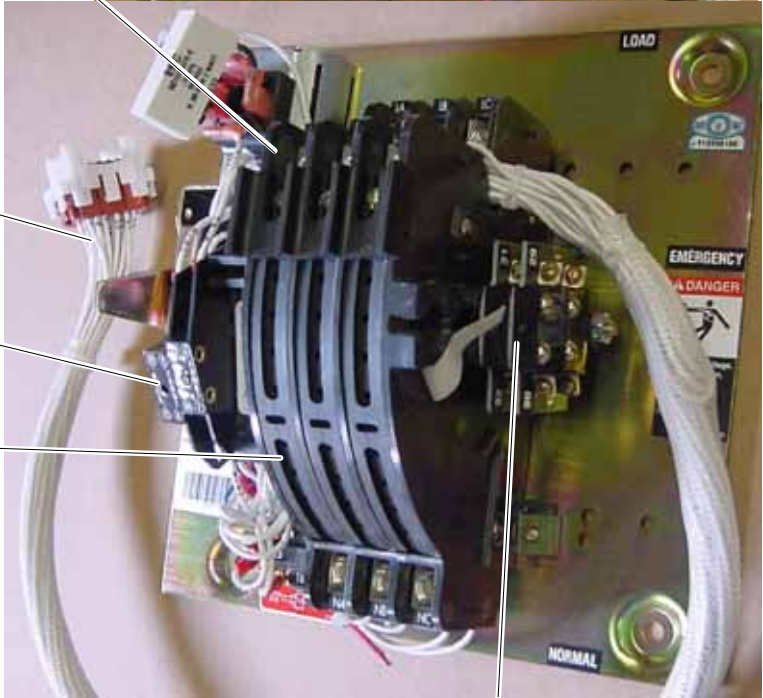
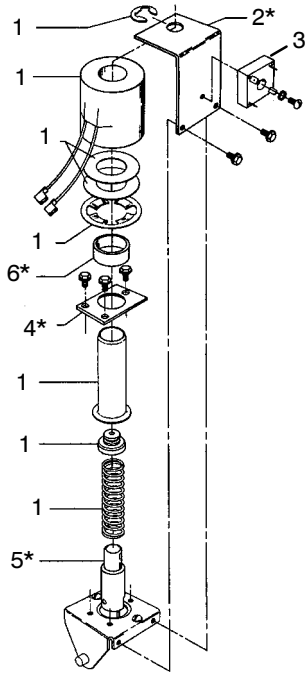
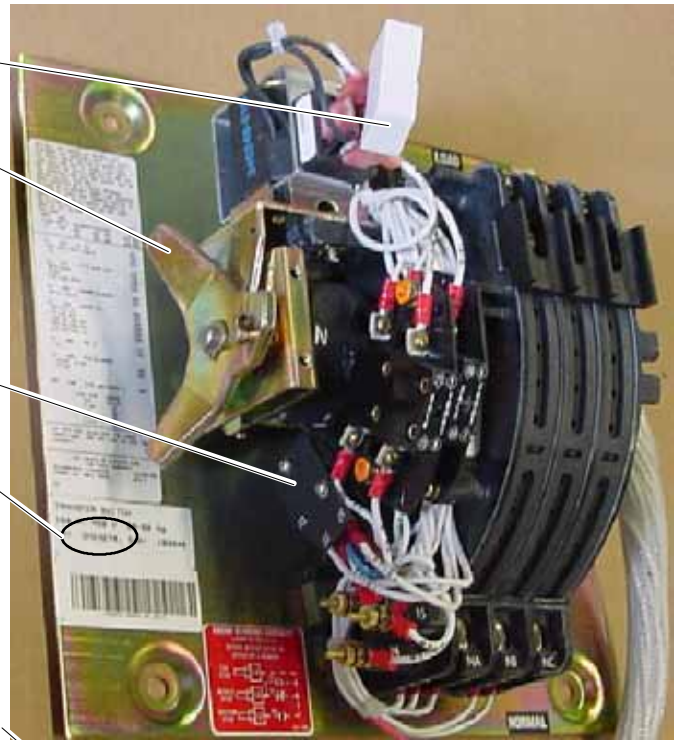
30-104 Amp Shown P/N GM23274



Contactor Part Number



14 Contactor Assembly



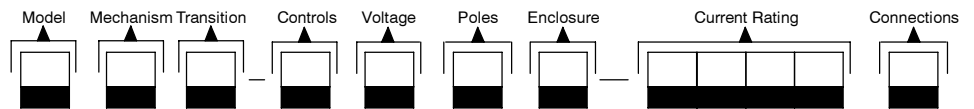
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* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number

Model Designation



Contactor, Model KCT & KNT

230 Amp

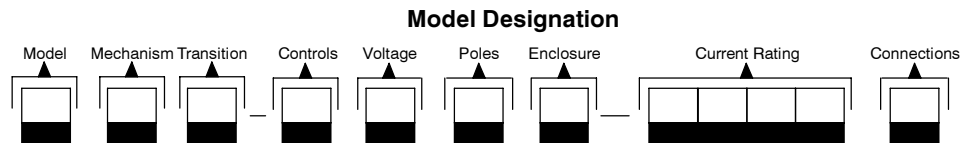
Item	Part Number	Description
1	See chart below	Coil kit
2	*	Yoke, 30-104 amp
2	*	L-bracket, 150 amp
3	294544	Rectifier (snubber no longer required because of improved rectifier)
4	*	Retainer, core tube
5	*	Core
6	*	Ring, spacer
7	*	Handle, manual operating
8	GM24251	Switch, miniature
9	*	Harness, contactor
10	GM24239	Contacts, coil control
11	*	Chute, arc
12	GM24252	Contact, auxiliary
13	GM24237	Lubrication kit, coil core tube
14	See chart below	Contactor assembly

230 Amp Contactor and Coil Kit Replacement Part Numbers

Transition	Amps	Poles/Wires Code	Poles/Wires	Voltage Code(s)	Voltage	Contact Part Number	Coil Kit Part Number
T	230	N	2	C	208	GM32263	GM24276
		N	2	D, F	220-240	GM32264	GM24277
		N	2	G, H, J	380-416	GM32265	GM24278
		N	2	K, M	440-480	GM32266	GM24279
		T	3	C	208	GM32268	GM24281
		T	3	D, F	220-240	GM32269	GM24282
		T	3	G, H, J	380-416	GM32270	GM24283
		T	3	K, M	440-480	GM32271	GM24284
		V	4/4 switched neutral	C	208	GM32278	GM24281
		V	4/4 switched neutral	D, F	220-240	GM32279	GM24282
		V	4/4 switched neutral	G, H, J	380-416	GM32280	GM24283
		V	4/4 switched neutral	K, M	440-480	GM32281	GM24284
		W	4/4 overlapping neutral	C	208	GM32259	GM24281
		W	4/4 overlapping neutral	D, F	220-240	GM32260	GM24282
		W	4/4 overlapping neutral	G, H, J	380-416	GM32261	GM24283
		W	4/4 overlapping neutral	K, M	440-480	GM32262	GM24284

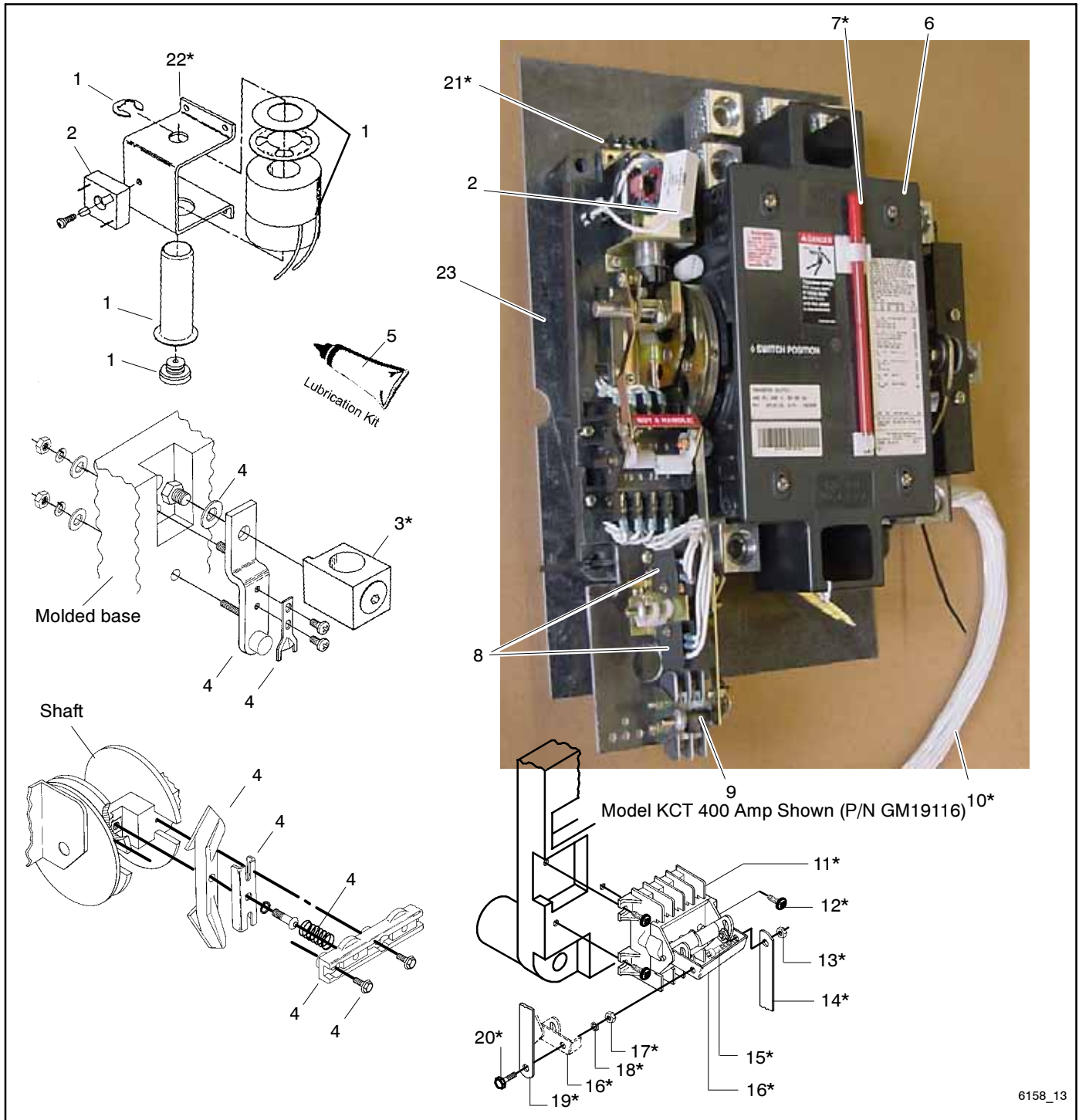
* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number



Contactor, Model KCP & KCT

150-400 Amp (2, 3 pole KCP)
225, 260, 400 Amp (KCT)



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* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number

Model Designation

Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections
□	□	□	□	□	□	□	□ □ □ □	□
■	■	■	■	■	■	■	■ ■ ■ ■	■

Contactor, Model KCP & KCT

150-400 Amp (2, 3 pole KCP)

225, 230 (600 V), 260, 400 Amp (KCT)

Item	Part Number	Description
1	See chart	Coil kit
2	294544	Rectifier (snubber no longer required because of improved rectifier)
3	*	Lug
4	See chart	Contact kit
5	GM24237	Lubrication kit, coil core tube
6	GM24240	Barrier
7	*	Handle, manual operating
8	321992	Switch, miniature
9	GM24250	Contact, auxiliary
10	*	Harness, contactor
11	*	Contacts, coil control
12	*	Screw, Phillips self-tapping
13	*	Locknut, #10-32
14	*	Link, lower drive
15	*	Screw, #10-32 Allen head
16	*	Bracket, drive
17	*	Nut, hex
18	*	Washer, lock
19	*	Link, upper drive
20	*	Screw, #10-32 shoulder screw
21	*	Terminal, engine start
22	*	Frame
23	See next page	Contactor assembly

Item 1, Coil Kit

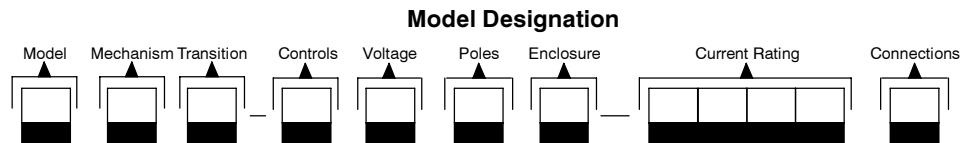
Transition	Voltage Code(s)	Voltage	Poles/Wires Code	Poles/Wires	Amps	Part Number
P, T	C	208	N	2	225, 260, 400	GM24261
P, T	D, F	220-240	N	2	225, 260, 400	GM24262
P, T	G, H, J	380-416	N	2	225, 260, 400	GM24263
P, T	M	460-480	N	2	225, 260, 400	GM24264
P, T	N	600	N	2	225, 230, 260, 400	GM24265
P, T	C	208	T	3	225, 260, 400	GM24266
P, T	D, F	220-240	T	3	225, 260, 400	GM24267
P, T	G, H, J	380-416	T	3	225, 260, 400	GM24268
P, T	M	460-480	T	3	225, 260, 400	GM24269
P, T	N	600	T	3	225, 230, 260, 400	GM24270
T	C	208	V, W	4	225, 260, 400	GM24271
T	D, F	220-240	V, W	4	225, 260, 400	GM24272
T	G, H, J	380-416	V, W	4	225, 260, 400	GM24273
T	M	460-480	V, W	4	225, 260, 400	GM24274
T	N	600	V, W	4	225, 260, 400	GM24275

Item 4, Contact Kit

Poles/Wires Code	Poles/Wires	Amps	Part Number
N	2	225/260	GM24241
T	3	225/260	GM24242
N	2	400	GM24243
T	3	400	GM24244

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number



Contactor, Model KCP & KCT

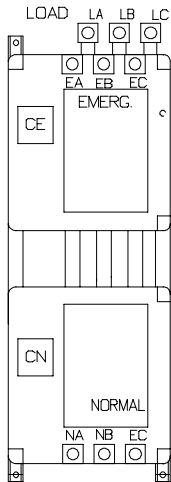
150-400 Amp (2, 3 pole KCP)

225, 230 (600 V), 260, 400 Amp (KCT)

Item 23 Contactor Assembly



Model KCT
225, 230 (600 V), 260, 400 Amp



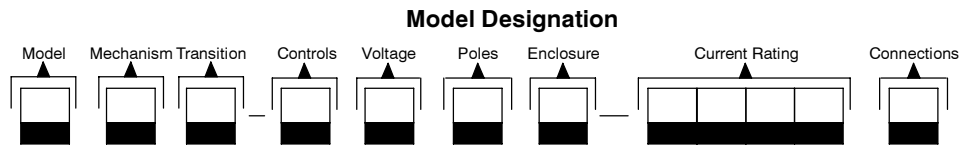
Model KCP
150-400 Amp (2, 3 pole)

Use this table to identify the switch's contactor part number.

Contactor Part Numbers						
Transition	Amps	Poles/Wires Code	Poles/Wires	Voltage Code(s)	Voltage	Part Number
P	150	N	2	C	208	GM17899
		N	2	D, F	220-240	GM17905
		N	2	G, H, J	380-416	GM17911
		N	2	K, M	440-480	GM17917
		N	2	N	600	GM17923
		T	3	C	208	GM17929
		T	3	D, F	220-240	GM17935
		T	3	G, H, J	380-416	GM17941
		T	3	K, M	440-480	GM17947
		T	3	N	600	GM17953
P	225	N	2	C	208	GM22587
		N	2	D, F	220-240	GM22588
		N	2	G, H, J	380-416	GM22589
		N	2	K, M	440-480	GM22590
		N	2	N	600	GM22591
		T	3	C	208	GM22592
		T	3	D, F	220-240	GM22593
		T	3	G, H, J	380-416	GM22594
		T	3	K, M	440-480	GM22595
		T	3	N	600	GM22596
P	260	N	2	C	208	GM18079
		N	2	D, F	220-240	GM18085
		N	2	G, H, J	380-416	GM18091
		N	2	K, M	440-480	GM18098
		N	2	N	600	GM18099
		T	3	C	208	GM18100
		T	3	D, F	220-240	GM18101
		T	3	G, H, J	380-416	GM18102
		T	3	K, M	440-480	GM18103
		T	3	N	600	GM18104
P	400	N	2	C	208	GM18110
		N	2	D, F	220-240	GM19111
		N	2	G, H, J	380-416	GM18112
		N	2	K, M	440-480	GM18113
		N	2	N	600	GM18114
		T	3	C	208	GM18115
		T	3	D, F	220-240	GM18116
		T	3	G, H, J	380-416	GM18117
		T	3	K, M	440-480	GM18118
		T	3	N	600	GM18119

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number



Contactor, Model KCP & KCT

150-400 Amp (2, 3 pole KCP)

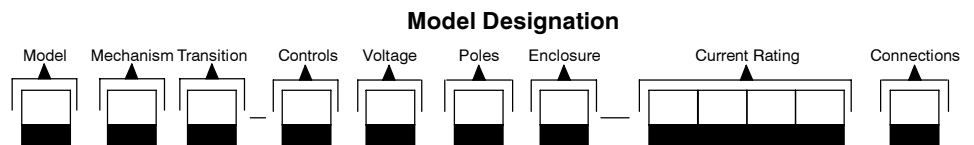
225, 230 (600 V), 260, 400 Amp (KCT)

Use this table to identify the switch's contactor part number.

Contactor Part Numbers						
Transition	Amps	Poles/Wires Code	Poles/Wires	Voltage Code(s)	Voltage	Part Number
T	225	N	2	C	208	GM22567
		N	2	D, F	220-240	GM22568
		N	2	G, H, J	380-416	GM22569
		N	2	K, M	440-480	GM22570
		N	2	N	600	GM22571
		T	3	C	208	GM22572
		T	3	D, F	220-240	GM22573
		T	3	G, H, J	380-416	GM22574
		T	3	K, M	440-480	GM22575
		T	3	N	600	GM22576
		V	4/4 switched neutral	C	208	GM22582
		V	4/4 switched neutral	D, F	220-240	GM22583
		V	4/4 switched neutral	G, H, J	380-416	GM22584
		V	4/4 switched neutral	K, M	440-480	GM22585
		V	4/4 switched neutral	N	600	GM22586
		W	4/4 overlapping neutral	C	208	GM22563
		W	4/4 overlapping neutral	D, F	220-240	GM22564
		W	4/4 overlapping neutral	G, H, J	380-416	GM22565
		W	4/4 overlapping neutral	K, M	440-480	GM22566
		W	4/4 overlapping neutral	N	600	GM22682
T	230	N	2	N	600	GM17940
		T	3	N	600	GM17946
		W	4/4 overlapping neutral	N	600	GM19112
T	260	N	2	C	208	GM17936
		N	2	D, F	220-240	GM17937
		N	2	G, H, J	380-416	GM17938
		N	2	K, M	440-480	GM17939
		N	2	N	600	GM17940
		T	3	C	208	GM17942
		T	3	D, F	220-240	GM17943
		T	3	G, H, J	380-416	GM17944
		T	3	K, M	440-480	GM17945
		T	3	N	600	GM17946
		W	4/4 overlapping neutral	C	208	GM19108
		W	4/4 overlapping neutral	D, F	220-240	GM19109
		W	4/4 overlapping neutral	G, H, J	380-416	GM19110
		W	4/4 overlapping neutral	K, M	440-480	GM19111
W	4/4 overlapping neutral	N	600	GM19112		
T	400	N	2	C	208	GM17954
		N	2	D, F	220-240	GM17955
		N	2	G, H, J	380-416	GM17956
		N	2	K, M	440-480	GM17957
		N	2	N	600	GM17958
		T	3	C	208	GM17960
		T	3	D, F	220-240	GM17961
		T	3	G, H, J	380-416	GM17962
		T	3	K, M	440-480	GM17963
		T	3	N	600	GM17964
		W	4/4 overlapping neutral	C	208	GM19113
		W	4/4 overlapping neutral	D, F	220-240	GM19114
		W	4/4 overlapping neutral	G, H, J	380-416	GM19115
		W	4/4 overlapping neutral	K, M	440-480	GM19116
W	4/4 overlapping neutral	N	600	GM19117		

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

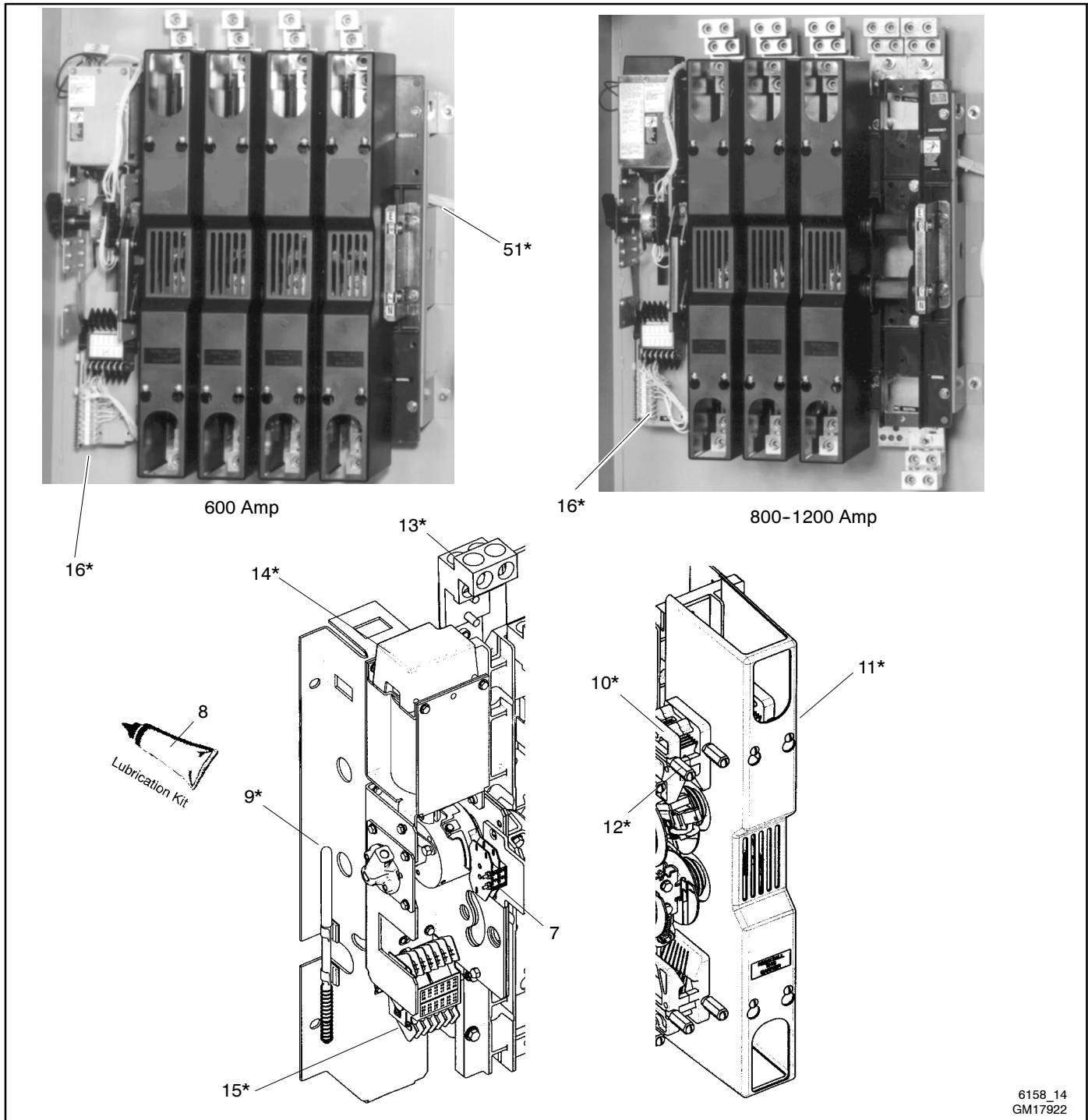
Transfer Switch Serial Number
Contactor Serial Number



Contactor, Model KCP & KCT

150-400 Amp (4 pole KCP)

600-1200 Amp (KCT)



6158_14
GM17922

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number

Model Designation

Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections
□	□	□	□	□	□	□	□ □ □ □	□
■	■	■	■	■	■	■	■ ■ ■ ■	■

Contactor, Model KCP & KCT

150-400 Amp (4 pole KCP)

600-1200 Amp (KCT)

Item	Part Number	Description	Item	Part Number	Description
1	See chart	Coil kit	28	*	Insulator, shaft
2	See chart	Solenoid assembly (includes coil kit)	29	*	Washer, flat
3	GM24312	Contact, movable arcing	30	*	Washer, disc
4	GM24313	Contact assembly, movable arcing and main	31	*	Nut, hex
5	GM24314	Contact kit, stationary arcing	32	*	Screw, 1/4-20 x 3/8 in.
6	GM24311	Contact assembly, stationary	33	*	Contact, arcing
7	GM24320	Contact, coil control	34	*	Nut, hex
8	GM24237	Lubrication kit	35	*	Washer, disc
9	*	Handle, manual operating	36	*	Washer, flat
10	*	Chute, arc	37	*	Plate, terminal
11	*	Barrier	38	*	Bracket, arc chute mounting
12	*	Nut, insulator	39	*	Block, contact
13	*	Lug	40	*	Pin, clevis
14	*	Cover, rectifier	41	*	Screw, drive link
15	*	Switch, miniature	42	294544	Rectifier (snubber no longer required because of improved rectifier)
16	*	Terminal, engine start	43	*	Bracket, solenoid retaining
17	*	Screw, shunt	44	*	Frame, solenoid
18	*	Bracket, spring	45	*	Screw, rectifier cover
19	*	Retainer, spring	46	*	Cover, rectifier
20	*	Spring, arcing contact	47	*	Screw, mounting
21	*	Pin, pivot	48	*	Screw, contact mounting
22	*	Pin, cotter	49	*	Washer, lock
23	*	Contact assembly, movable arcing contact	50	*	Washer, flat
24	*	Cover, contact	51	*	Harness, contactor
25	*	Bolt, hex head			
26	*	Washer, lock			
27	*	Clamp, shaft			

Item 1, Coil Kit

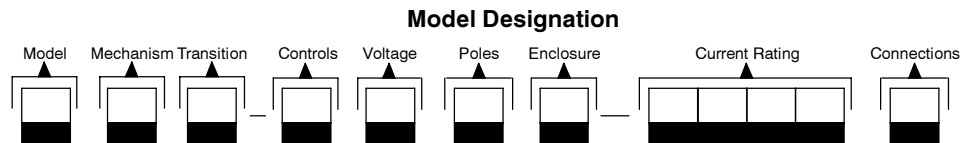
Transition	Voltage Code(s)	Voltage	Poles/Wires Code	Poles/Wires	Amps	Part Number
P	C	208	V, W, Z	4	150-400	GM24306
P	D, F	220-240	V, W, Z	4	150-400	GM24307
P	G, H, J	380-416	V, W, Z	4	150-400	GM24308
P	M	460-480	V, W, Z	4	150-400	GM24309
P	N	600	V, W, Z	4	150-400	GM24310
P, T	C	208	N, T, V	2, 3, 4	600-1200	GM24306
P, T	D, F	220-240	N, T, V	2, 3, 4	600-1200	GM24307
P, T	G, H, J	380-416	N, T, V	2, 3, 4	600-1200	GM24308
P, T	M	460-480	N, T, V	2, 3, 4	600-1200	GM24309
P, T	N	600	N, T, V	2, 3, 4	600-1200	GM24310

Item 2, Solenoid Assembly (Includes Coil Kit)

Transition	Voltage Code(s)	Voltage	Poles/Wires Code	Poles/Wires	Amps	Part Number
P	C	208	V, W, Z	4	150-400	GM24315
P	D, F	220-240	V, W, Z	4	150-400	GM24316
P	G, H, J	380-416	V, W, Z	4	150-400	GM24317
P	M	460-480	V, W, Z	4	150-400	GM24318
P	N	600	V, W, Z	4	150-400	GM24319
P, T	C	208	N, T, V	2, 3, 4	600-1200	GM24315
P, T	D, F	220-240	N, T, V	2, 3, 4	600-1200	GM24316
P, T	G, H, J	380-416	N, T, V	2, 3, 4	600-1200	GM24317
P, T	M	460-480	N, T, V	2, 3, 4	600-1200	GM24318
P, T	N	600	N, T, V	2, 3, 4	600-1200	GM24319

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

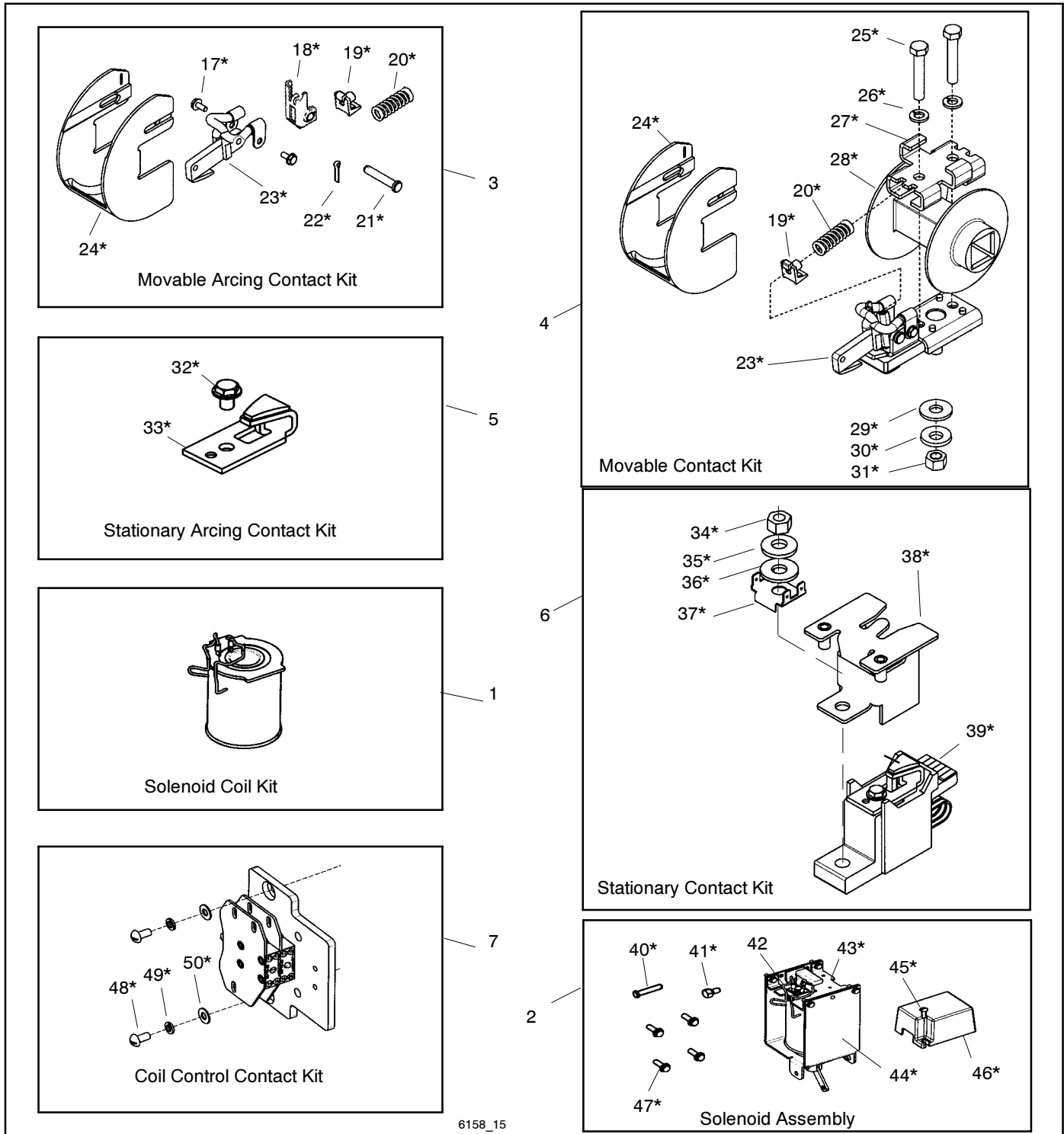
Transfer Switch Serial Number
Contactor Serial Number



Contactor, Model KCP & KCT

150-400 Amp (4 pole KCP)

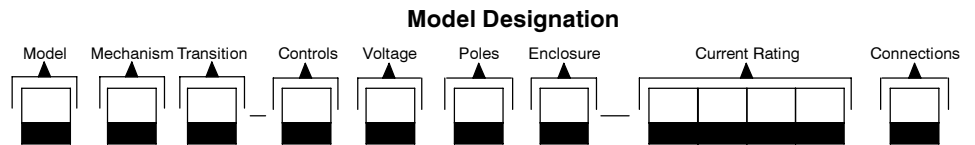
600-1200 Amp (KCT)



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* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number



Contactor, Model KCP & KCT

150-400 Amp (4 pole KCP)

600-1200 Amp (KCT)

Item	Part Number	Description	Item	Part Number	Description
1	See chart	Coil kit	28	*	Insulator, shaft
2	See chart	Solenoid assembly (includes coil kit)	29	*	Washer, flat
3	GM24312	Contact, movable arcing	30	*	Washer, disc
4	GM24313	Contact assembly, movable arcing and main	31	*	Nut, hex
5	GM24314	Contact kit, stationary arcing	32	*	Screw, 1/4-20 x 3/8 in.
6	GM24311	Contact assembly, stationary	33	*	Contact, arcing
7	GM24320	Contact, coil control	34	*	Nut, hex
8	GM24237	Lubrication kit	35	*	Washer, disc
9	*	Handle, manual operating	36	*	Washer, flat
10	*	Chute, arc	37	*	Plate, terminal
11	*	Barrier	38	*	Bracket, arc chute mounting
12	*	Nut, insulator	39	*	Block, contact
13	*	Lug	40	*	Pin, clevis
14	*	Cover, rectifier	41	*	Screw, drive link
15	*	Switch, miniature	42	294544	Rectifier (snubber no longer required because of improved rectifier)
16	*	Terminal, engine start	43	*	Bracket, solenoid retaining
17	*	Screw, shunt	44	*	Frame, solenoid
18	*	Bracket, spring	45	*	Screw, rectifier cover
19	*	Retainer, spring	46	*	Cover, rectifier
20	*	Spring, arcing contact	47	*	Screw, mounting
21	*	Pin, pivot	48	*	Screw, contact mounting
22	*	Pin, cotter	49	*	Washer, lock
23	*	Contact assembly, movable arcing contact	50	*	Washer, flat
24	*	Cover, contact	51	*	Harness, contactor
25	*	Bolt, hex head			
26	*	Washer, lock			
27	*	Clamp, shaft			

Item 1, Coil Kit

Transition	Voltage Code(s)	Voltage	Poles/Wires Code	Poles/Wires	Amps	Part Number
P	C	208	V, W, Z	4	150-400	GM24306
P	D, F	220-240	V, W, Z	4	150-400	GM24307
P	G, H, J	380-416	V, W, Z	4	150-400	GM24308
P	M	460-480	V, W, Z	4	150-400	GM24309
P	N	600	V, W, Z	4	150-400	GM24310
P, T	C	208	N, T, V	2, 3, 4	600-1200	GM24306
P, T	D, F	220-240	N, T, V	2, 3, 4	600-1200	GM24307
P, T	G, H, J	380-416	N, T, V	2, 3, 4	600-1200	GM24308
P, T	M	460-480	N, T, V	2, 3, 4	600-1200	GM24309
P, T	N	600	N, T, V	2, 3, 4	600-1200	GM24310

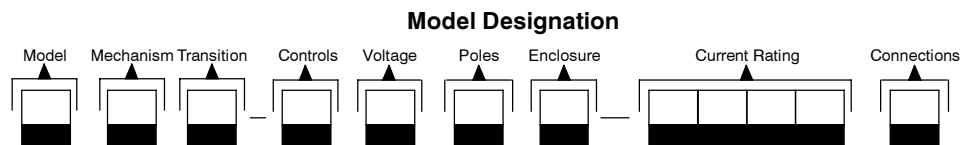
Item 2, Solenoid Assembly (Includes Coil Kit)

Transition	Voltage Code(s)	Voltage	Poles/Wires Code	Poles/Wires	Amps	Part Number
P	C	208	V, W, Z	4	150-400	GM24315
P	D, F	220-240	V, W, Z	4	150-400	GM24316
P	G, H, J	380-416	V, W, Z	4	150-400	GM24317
P	M	460-480	V, W, Z	4	150-400	GM24318
P	N	600	V, W, Z	4	150-400	GM24319
P, T	C	208	N, T, V	2, 3, 4	600-1200	GM24315
P, T	D, F	220-240	N, T, V	2, 3, 4	600-1200	GM24316
P, T	G, H, J	380-416	N, T, V	2, 3, 4	600-1200	GM24317
P, T	M	460-480	N, T, V	2, 3, 4	600-1200	GM24318
P, T	N	600	N, T, V	2, 3, 4	600-1200	GM24319

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number

Contactor Serial Number



Contactor, Model KCP & KCT

1600-3000 Amp

P/N GM20394 1600 Amp Shown

10* CONTROL MODULE

11*

13* Movable Contact Assembly

14* Stationary Contact Assembly

15* Movable Arcing Contact

16* Stationary Arcing Contact

6 Lubrication Kit

1

2 Solenoid Assembly (includes entire solenoid with frame, coils, core tube, core spring, core and link)

3

4

5

7

8

9*

12*

17* Replacement Arc Chutes

18*

18*

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* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

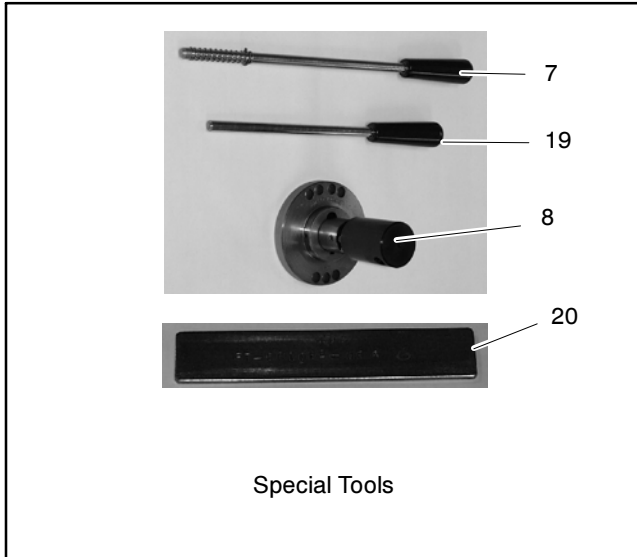
Transfer Switch Serial Number
Contactor Serial Number

Model Designation

Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections
□	□	□	□	□	□	□	□ □ □ □ □	□
■	■	■	■	■	■	■	■ ■ ■ ■ ■	■

Contactor, Model KCP & KCT

1600-3000 Amp



Item	Part Number	Description
1	See chart	Coil kit
2	See chart	Solenoid assembly
3	GM24245	Contact, coil control
4	GM24300	Module, control
5	See chart	Relay, control module (SER, ERR)
6	GM24237	Lubrication kit
7	GM25404	Handle, maintenance
8	GM25406	Hub, adjusting
9	*	Barrier
10	*	Cover
11	*	Lug
12	*	Switch, miniature
13	*	Contact assembly, movable
14	*	Contact assembly, stationary
15	*	Contact, movable arcing
16	*	Contact, stationary arcing
17	*	Chute, arc
18	*	Contacts, auxiliary
19	GM25405	Pin, adjusting
20	GM25407	Sim gauge, main contact

Item 1, Coil Kit

Voltage Code(s)	Voltage	Poles/Wires Code	Poles/Wires	Amps	Part Number
C	208	N, T, V	2, 3, 4	1600-2000	GM24301
D, F	220-240	N, T, V	2, 3, 4	1600-2000	GM24302
G, H, J	380-416	N, T, V	2, 3, 4	1600-2000	GM24303
M	460-480	N, T, V	2, 3, 4	1600-2000	GM24304
N	600	N, T, V	2, 3, 4	1600-2000	GM24305

Item 2, Solenoid Assembly

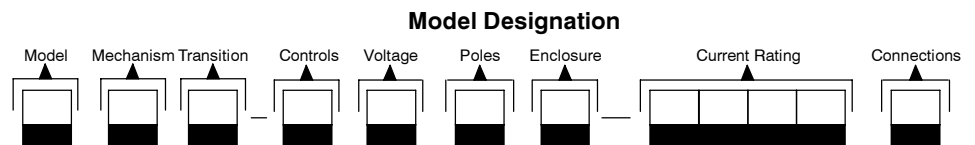
Voltage Code(s)	Voltage	Poles/Wires Code	Poles/Wires	Amps	Part Number
C	208	N, T, V	2, 3, 4	1600-2000	GM24290
D, F	220-240	N, T, V	2, 3, 4	1600-2000	GM24291
G, H, J	380-416	N, T, V	2, 3, 4	1600-2000	GM24292
M	460-480	N, T, V	2, 3, 4	1600-2000	GM24293
N	600	N, T, V	2, 3, 4	1600-2000	GM24294

Item 5, Control Module Relay

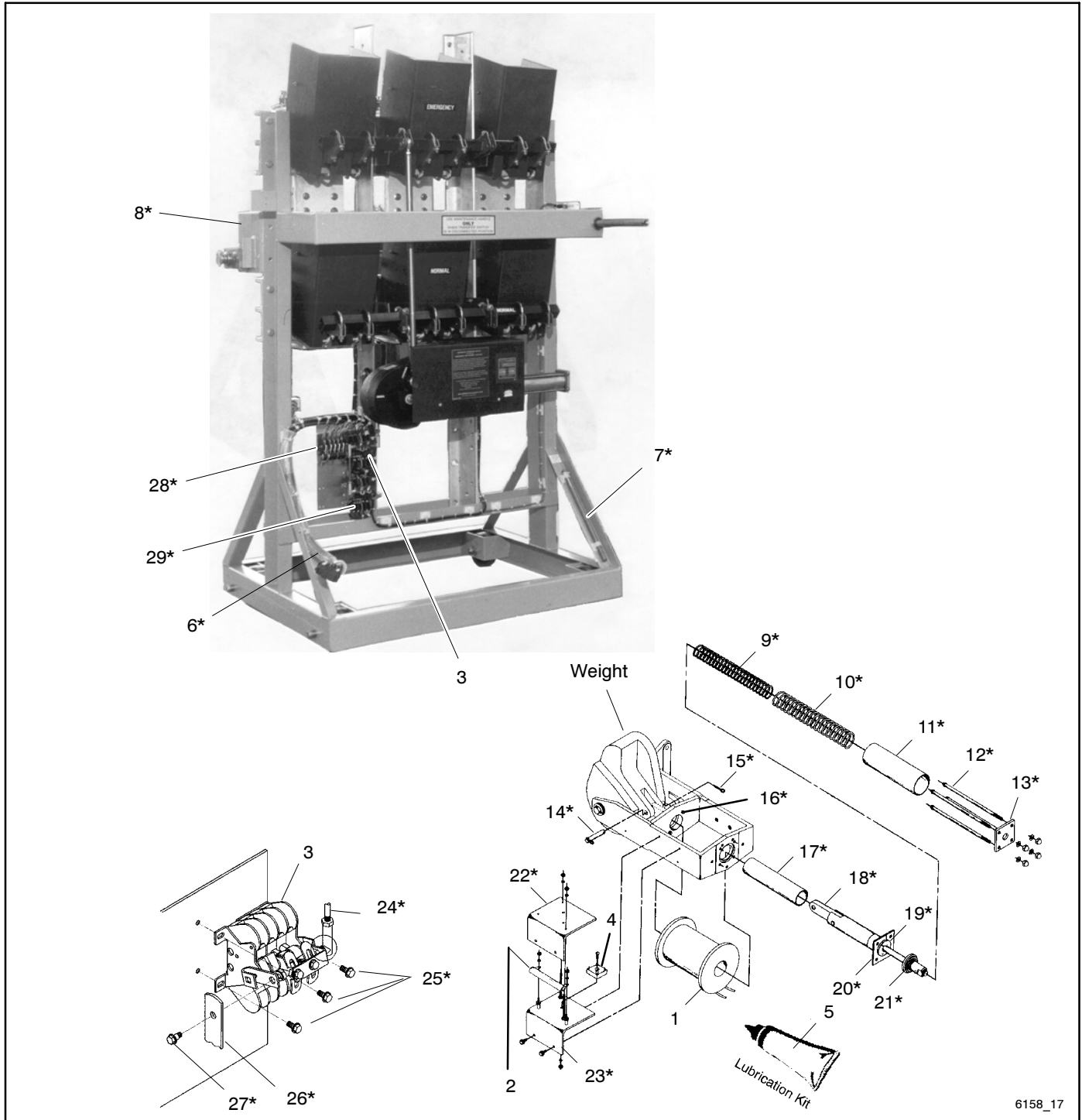
Voltage Code (s)	Voltage	Part Number
C	208	GM24295
D, F	220-240	GM24296
G, H, J	380-416	GM24297
M	460-480	GM24298
N	600	GM24299

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number



Contactor, Model KCP & KCT 4000 Amp



* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number

Model Designation

Model	Mechanism	Transition	Controls	Voltage	Poles	Enclosure	Current Rating	Connections
□	□	□	□	□	□	□	□ □ □ □	□
■	■	■	■	■	■	■	■ ■ ■ ■	■

Contactor, Model KCP & KCT

4000 Amp

Item	Part Number	Description
1	See chart	Coil kit
2	See chart	Resistor
3	GM24238	Contact, coil control
4	294544	Rectifier (snubber no longer required because of improved rectifier)
5	GM24237	Lubrication kit
6	*	Harness, contactor
7	*	Handle, manual operating
8	*	Lug
9	*	Spring, inside
10	*	Spring, outside
11	*	Tube, spring
12	*	Rod
13	*	Plate, retaining
14	*	Pin, pivot
15	*	Pin, cotter
16	*	Screw, coil clamping
17	*	Tube, core
18	*	Stem, core and link assembly
19	*	Washer, leather
20	*	Plate, cover
21	*	Stop, core
22	*	Cover, rectifier
23	*	Panel, rectifier mounting
24	*	Link, upper drive
25	*	Screw, mounting
26	*	Link, lower drive
27	*	Screw, #10-32 shoulder
28	*	Miniature switches
29	*	Auxiliary contacts

Item 1, Coil Kit

Voltage Code(s)	Voltage	Poles/Wires Code	Poles/Wires	Amps	Part Number
C	208	T, V	3 & 4	4000	GM24288
D, F	220-240	T, V	3 & 4	4000	GM24286
G, H, J	380-416	T, V	3 & 4	4000	GM24289
M	460-480	T, V	3 & 4	4000	GM24287

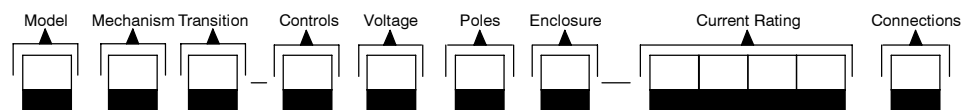
Item 2, Resistor

Voltage Code(s)	Voltage	Part Number
C	208	GM24249
D, F	220-240	GM24246
G, H, J	380-416	GM24247
M	460-480	GM24248

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

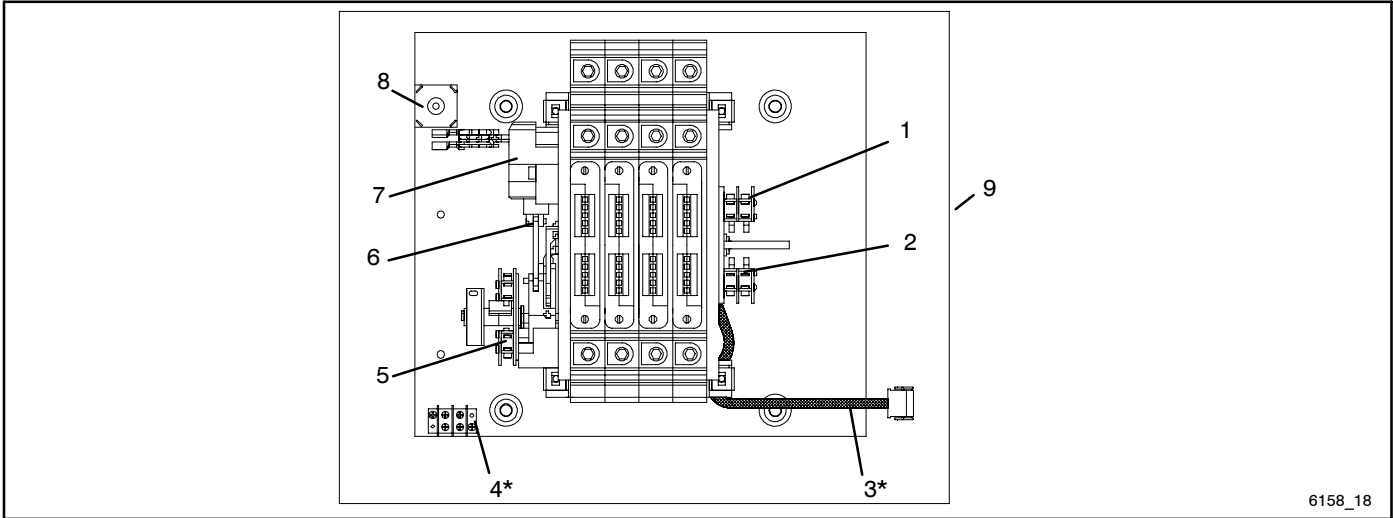
Transfer Switch Serial Number
Contactor Serial Number

Model Designation



Contactor, Model KDT & KMT

40-225 Amp



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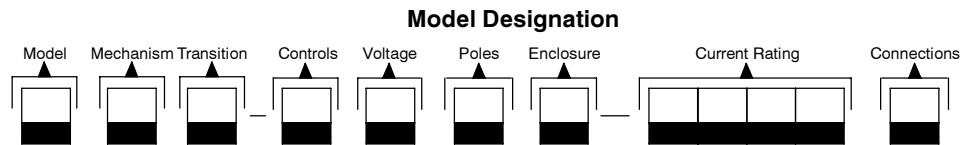
Item	Part Number	Description
1	GM25434	Auxiliary Contacts
2	GM25434	Auxiliary Contacts
3	*	Wiring harness
4	*	Terminal block, engine start
5	GM25434	Switch, coil cutout
6	GM32387	Solenoid plunger and link
7	See chart	Solenoid
8	See chart	Rectifier
9	See chart	Contactor assembly

Items 7 and 8, Solenoid and Rectifier

Voltage Code(s)	Voltage	Part Number	
		Item 7, Solenoid	Item 8, Rectifier
C, D	208/220	362087	GM32388
F	240	362135	GM32388
G, H, J	380/400/416	362089	321781
K, M	440/480	362090	321781

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number



Contactor, Model KDT & KMT 40-225 Amp

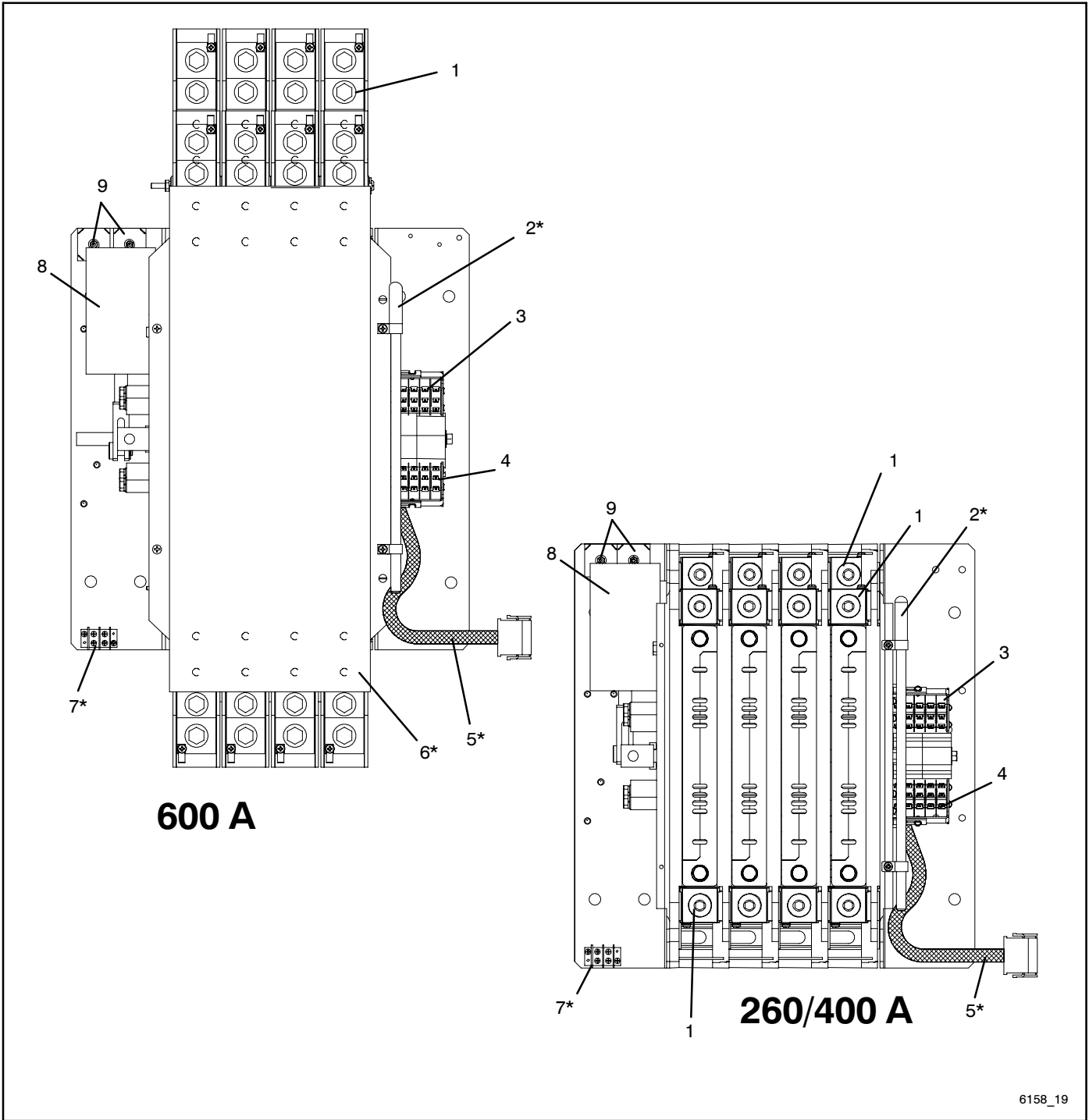
Use this table to identify the switch's contactor part number.

Item 9, Contactor Assembly			
Amps	Poles/Wires Code	Voltage Code	Part Number
40	N	C	GM30267
		D, F	GM30268
		G, H, J	GM30269
	T	K, M	GM30270
		C	GM30271
		D, F	GM30272
		G, H, J	GM30273
	V	K, M	GM30274
		C	GM30275
D, F		GM30276	
G, H, J		GM30277	
80	N	K, M	GM30278
		C	GM30279
		D, F	GM30280
		G, H, J	GM30281
	T	K, M	GM30282
		C	GM30283
		D, F	GM30284
		G, H, J	GM30285
	V	K, M	GM30286
		C	GM30287
		D, F	GM30288
		G, H, J	GM30289
100	N	K, M	GM30290
		C	GM30291
		D, F	GM30292
		G, H, J	GM30293
	T	K, M	GM30294
		C	GM30295
		D, F	GM30296
		G, H, J	GM30297
	V	K, M	GM30298
		C	GM30299
		D, F	GM30300
		G, H, J	GM30301
	K, M	GM30302	

Item 9, Contactor Assembly			
Amps	Poles/Wires Code	Voltage Code	Part Number
150	N	C	GM30303
		D, F	GM30304
		G, H, J	GM30305
	T	K, M	GM30306
		C	GM30307
		D, F	GM30308
		G, H, J	GM30309
	V	K, M	GM30310
		C	GM30311
D, F		GM30312	
G, H, J		GM30313	
200	N	K, M	GM30314
		C	GM30315
		D, F	GM30316
		G, H, J	GM30317
	T	K, M	GM30318
		C	GM30684
		D, F	GM30685
		G	GM30686
	V	K, M	GM30687
		C	GM30688
		D, F	GM30689
		G, H, J	GM30690
225	N	K, M	GM30691
		C	GM28989
		D, F	GM28990
		G, H, J	GM28991
	T	K, M	GM28992
		C	GM28993
		D, F	GM28994
		G, H, J	GM28995
	V	K, M	GM28996
		C	GM28997
		D, F	GM28998
		G, H, J	GM28999
	K, M	GM29000	

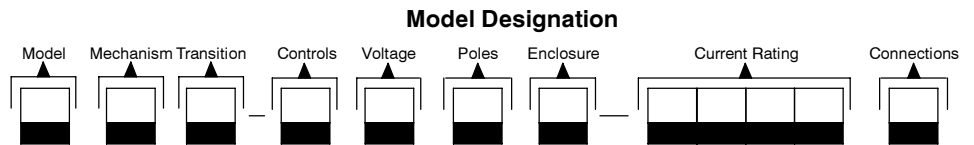
Contactor, Model KDT & KMT

260-600 Amp



* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number



Contactor, Model KDT & KMT

260-600 Amp

Item	Part Number	Description
1	GM32389	Lug, cable connection (260/400 amp)
1	321744	Lug, cable connection (600 amp)
2	*	Handle
3	GM25434	Switch, coil cutout
4	GM25434	Auxiliary contacts
5	*	Wiring Harness
6	*	Barrier
7	*	Terminal block, engine start
8	See chart	Solenoid
9	321781	Rectifier
10	See chart	Contactor assembly

Item 8, Solenoid

Voltage	Voltage Code(s)	Part Number
		Item 8, Solenoid
208/220/240	C, D, F	GM32390
380/416	G, H, J	GM32391
440/480	K, M	GM32392

Use this table to identify the switch's contactor part number.

Item 9, Contactor Assembly

Amps	Poles/Wires Code	Voltage Code	Part Number
260	N	C	GM29001
		D, F	GM29002
		G, H, J	GM29003
		K, M	GM29004
	T	C	GM29005
		D, F	GM29006
		G, H, J	GM29007
		K, M	GM29008
	V	C	GM29009
		D, F	GM29010
		G, H, J	GM29011
		K, M	GM29012
400	N	C	GM29013
		D, F	GM29014
		G, H, J	GM29015
		K, M	GM29016
	T	C	GM29017
		D, F	GM29018
		G, H, J	GM29019
		K, M	GM29020
	V	C	GM29021
		D, F	GM29022
		G, H, J	GM29023
		K, M	GM29024

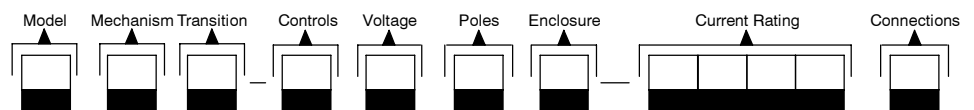
Item 9, Contactor Assembly

Amps	Poles/Wires Code	Voltage Code	Part Number
600	N	C	GM29025
		D, F	GM29026
		G, H, J	GM29027
		K, M	GM29028
	T	C	GM29029
		D, F	GM29030
		G, H, J	GM29031
		K, M	GM29032
	V	C	GM29033
		D, F	GM29034
		G, H, J	GM29035
		K, M	GM29036

* Servicable items without part numbers are available by recording the serial numbers and model designation below and contacting your supplier of Kohler Co. parts. See Introduction for more instructions.

Transfer Switch Serial Number
Contactor Serial Number

Model Designation



Literature

Qty.	Description	Part Number
1	Warranty, 1-year limited	TP-5373
1	O/I/M Model KCT/KCP ATS	TP-6126
1	S/M ATS	TP-6127
1	P/C Model KCT/KCP/KBT/KBP ATS	TP-6158

Accessories

Annunciator Kits

Kits: GM28938-KP1, GM28938-KP1S, GM29905-KP1, and GM29905-KP1S						
Qty.	Description	Common Parts	Unique Parts			
			GM28938-KP1	GM28938-KP1S	GM29905-KP1	GM29905-KP1S
1	Annunciator	GM31026				
1	Battery, Annunciator	GM31562				
1	Decal, Touch Screen Overlay		GM29618	GM29619	GM29618	GM29619
1	Enclosure, Annunciator		GM28885	GM28885		
1	Decal, danger	362176				
1	Connector, Plug	GM23792				
4	Bracket, Mtg	GM29233				
1	Panel, Mtg		GM29524	GM29524		
1	Power Supply	GM29525				
1	Decal	GM29542				
4	Screw, slotted pan head machine		X-50-73	X-50-73		
1	Panel, Annunciator				GM30040	GM30040
1	Installation instructions	TT-1343				

Battery Charger Kits, 30-800 A

Kits: GM22498-KP1 to GM22498-KP4						
Qty.	Description	Common Parts	Unique Parts			
			208 V GM22498-KP1	240 V GM22498-KP2	480 V GM22498-KP3	600 V GM22498-KP4
1	Battery charger	GM22502				
1	Harness, wiring		GM22530	GM22532	GM22531	GM22529
2	Jumper lead	SWJ-1004-1414				
1	Terminal, 1/4 in. eyelet, 16-22 gauge	X-283-9				
2	Terminal, 3/16 in. pushon, 16-22 ga.	X-431-48				
2	Terminal, 3/8 in. eyelet, 16-22 gauge	X-283-21				
2	Terminal, 3/8 in. eyelet, 16-14 gauge	X-283-3				
2	Terminal, #10 eyelet, 10-12 gauge	X-283-11				
1	Screw, 1/4-20 x 3/4 in. thread forming	X-67-114				
4	Nut, 1/4-20	X-6210-2				
1	Lockwasher, 1/4 in. internal/external	X-22-12				
1	Installation instructions	TT-1320				

Accessories

Battery Charger Kits, 1000-4000 A

Kits: GM22498-KP5 to GM22498-KP8						
Qty.	Description	Common Parts	Unique Parts			
			208 V GM22498-KP5	240 V GM22498-KP6	480 V GM22498-KP7	600 V GM22498-KP8
1	Battery charger	GM22502				
1	Harness, wiring		GM22530	GM22532	GM22531	GM22529
1	Panel, mounting	GM22398				
2	Jumper lead	SWJ-1004-1414				
1	Terminal, 1/4 in. eyelet, 16-22 gauge	X-283-9				
2	Terminal, 3/16 in. pushon, 16-22 ga.	X-431-48				
2	Terminal, 3/8 in. eyelet, 16-22 gauge	X-283-21				
2	Terminal, 3/8 in. eyelet, 16-14 gauge	X-283-3				
2	Terminal, #10 eyelet, 10-12 gauge	X-283-11				
5	Screw, 1/4-20 x 3/4 in. thread forming	X-67-114				
4	Nut, 1/4-20	X-6210-2				
1	Lockwasher, 1/4 in. internal/external	X-22-12				
1	Installation instructions	TT-1320				

Chicago Alarm Accessory Kit

GM26313-KP1

Qty.	Description	Part Number
1	Installation Instructions	TT-1342
1	Decal, Kohler Power System	X-6246-12
1	Alarm assembly, ATS (includes the following)	GM26313
1	Relay, 120 VAC, 10 A	269958
1	Terminal block, 6 position	295314
1	Fuse holder, inline	322557
1	Block, Contact	GM20928
1	Operator, Red	GM26166
1	Operator, Amber	GM26167
2	Light Module	GM26168
2	Bulb, 120V	GM26169
1	Horn, Alarm A.C. Vibrating	GM26312
1	Switch, Pushbutton	GM28444
1	Decal, Alarm Contacts	GM28446
1	Decal, ATS Alarm	GM28447
1	Enclosure	GM28448
1	Panel, Mounting	GM28449
1	Bracket, Mounting	GM28550
1	Terminal block	X-405-2
1	Strap, holddown	X-6124-5
1	Harness, wiring Chicago alarm	GM30444
1	Fuse, 3 A, 250 V	243273

Device Modem Kit, 60 Hz

GM29509-KP1

Qty.	Description	Part Number
1	Modem	294987
1	Null modem	GM29363
1	Connector	GM29364
1	Installation Instructions	TT-1349

Accessories, continued

Device Modem Kit, 50 Hz

GM29509-KP2

Qty.	Description	Part Number
1	Modem	353071
1	Null modem	GM29363
1	Connector	GM29364
1	Installation Instructions	TT-1349

Input/Output Module

GM21359-KA1(KP1)

Qty.	Description	Part Number
1	Circuit board assembly	GM21115-A
2	Module, PC mounting	GM21332
8	Pin, PC mounting	GM21333
2	Screw, cross recess, sheet metal	X-67-143
1	Installation intructions	TT-1316

Input/Output Module Mounting

3 Foot Cable

GM21360-KA1(KP1)

Qty.	Description	Part Number
1	Pan, accessory mounting	GM21330
1	Rail, DIN	GM21328
1	Cover, I/O module	GM21334
1	Harness, I/O module	GM21341-1
1	Washer, lock, .262 ID x .743 in. OD	X-22-12
4	Nut, 10-32	X-6210-1
5	Nut, 1/4-20	X-6210-2
1	Installation instructions	TT-1316

Battery Option Board

GM26139-KA1(KP1)

Qty.	Description	Part Number
1	Circuit board assembly	GM24168
3	Module, PC mounting	GM21332
8	Pin, PC mounting	GM21333
2	Screw, cross recess, sheet metal	X-67-143
1	Installation intructions	TT-1340
1	Diagram, wiring	GM28627

Line To Neutral Voltage Monitoring

Module, 30-800 Amp

GM23425-KA1(KP1)

Qty.	Description	Part Number
1	Tool, pin extractor	241918
3	Base, cable tie	298776
3	Tie, cable	X-468-1
3	Terminal, 3/8 in. eyelet	X-283-21
3	Lead, 66 in.	SWN-1866-19200
1	Installation instructions	TT-1328

Accessories, continued

Line To Neutral Voltage Monitoring Module, 1000-4000 Amp

GM23425-KA2(KP2)

Qty.	Description	Part Number
1	Tool, pin extractor	241918
3	Base, cable tie	298776
3	Tie, cable	X-468-1
3	Terminal, 3/8 in. eyelet	X-283-21
3	Lead, 120 in.	SWN-18120-19200
1	Installation instructions	TT-1328

Load Shed Module

GM23469-KA1

Qty.	Description	Part Number
3	Contactors	353390
1	Relay	GM13641
1	Transformer	GM23491
1	Bracket, mounting	GM23492
1	Socket	X-6124-4
1	Strap, holddown	X-6124-5
4	Fuse holder, 30 A, 600 V	X-6129-16
2	Fuse, 5 A, 250 V	X-6134-14
2	Fuse, 2 A, 600 V	X-6135-3
1	Rail, Din	GM23502
8	Screw, hex washer, thread-forming	X-67-113
1	Installation Instructions	TT-1330

PC to External Modem Kit, 60 Hz

GM29508-KP1

Qty.	Description	Part Number
1	Connector	294988
1	Cable	GM29362
1	Modem	294986
1	Installation Instructions	TT-1349

PC to External Modem Kit, 50 Hz

GM29508-KP2

Qty.	Description	Part Number
1	Connector	294988
1	Cable	GM29362
1	Modem	353072
1	Installation Instructions	TT-1349

Preferred-Source Selector Switch

GM20933-KP1(KA1)

Qty.	Description	Part Number
1	Switch assembly (2 position)	GM20927
2	Key, switch assembly (included with GM20927)	—
1	Contact assembly (1 NO contact)	GM20928
1	Terminal block (2 position)	GM20930
1	Decal, preferred source	GM21287
1	Harness, 9-pin ribbon (used with GM20932-KA1)	GM10945
1	Installation instructions	TT-1317

Accessories, continued

Programmable Input/Output Module GM23159-KA1(KP1)

Qty.	Description	Part Number
1	I/O circuit board	GM21115-A
3	Module, PC mounting	GM21332
8	Pin, PC mounting	GM21333
2	Screw, sheet metal	X-67-143
1	Installation instructions	TT-1316

RS232 Connector GM23010-KA1(KP1)

Qty.	Description	Part Number
1	Harness, 9-pin ribbon	GM10945

Setup Software GM23174-KP1

Qty.	Description	Part Number
1	Cable, DB9M/DB9F, Null Modem	GM16657
1	Software, Windows MPAC	GM23177
1	O/M MPAC setup program	TP-6135

Supervised Transfer Control Switch GM20932-KA1(KP1) (for automatic operation)

Qty.	Description	Part Number
1	Switch assembly (3 position)	GM20926
2	Key, switch assembly (included with GM20926)	—
1	Contact assembly (1 NO/1 NC contacts)	GM20929
1	Connector, plug, 3-position	GM11496
1	Decal, supervised transfer control	GM21286
1	Harness, 9-pin ribbon (used with GM20933-KA1)	GM10945
1	Installation instructions	TT-1318

Supervised Transfer Control Switch GM23173-KA1 (for non-automatic operation)

Qty.	Description	Part Number
1	Switch assembly (3 position)	GM20926
2	Key, switch assembly (included with GM20926)	—
1	Contact assembly (1 NO/1 NC contacts)	GM20929
1	Connector, plug, 3-position	GM11496
1	Decal, supervised transfer control	GM21286

Surveyor, USB GM29223-KP1

Qty.	Description	Part Number
1	USB Interface	GM29225
1	MPAC Surveyor Software CD	GM29226
1	Converter, RS232 to RS485	GM29361
1	Operation/Installation Manual Surveyor Software	TP-6214

Accessories, continued

Surveyor, Parallel

GM29223-KP2

Qty.	Description	Part Number
1	Parallel Interface	GM29224
1	MPAC Surveyor Software CD	GM29226
1	Converter, RS232 to RS485	GM29361
1	Operation/Installation Manual Surveyor Software	TP-6214


User Interface Covers with Padlock

Qty.	Description	Common Parts	Unique Parts				
			30-800 A			1000-4000 A	
			GM22703-KA1	GM22703-KA2	GM22703-KA5	GM22703-KA3	GM22703-KA4
-	Bracket, padlock		GM20576 (2)	GM20576 (2)	GM20576 (2)	GM20576 (1)	GM20576 (1)
1	Cover, security		GM22504		GM22504	GM22504	
1	Cover, security (with window)			GM22505			GM22505
1	Bracket, latch	GM22533					
1	Latch, compression (key operated)	GM22534					
2	Key, compression latch	GM20574					
6	Nut, 10-32	X-6210-1					
1	Installation instructions	TT-1319					

Notes

Appendix A Abbreviations

The following list contains abbreviations that may appear in this publication.

A, amp	ampere	cfm	cubic feet per minute	exh.	exhaust
ABDC	after bottom dead center	CG	center of gravity	ext.	external
AC	alternating current	CID	cubic inch displacement	F	Fahrenheit, female
A/D	analog to digital	CL	centerline	fglass.	fiberglass
ADC	analog to digital converter	cm	centimeter	FHM	flat head machine (screw)
adj.	adjust, adjustment	CMOS	complementary metal oxide substrate (semiconductor)	fl. oz.	fluid ounce
ADV	advertising dimensional drawing	cogen.	cogeneration	flex.	flexible
AHWT	anticipatory high water temperature	com	communications (port)	freq.	frequency
AISI	American Iron and Steel Institute	coml	commercial	FS	full scale
ALOP	anticipatory low oil pressure	Coml/Rec	Commercial/Recreational	ft.	foot, feet
alt.	alternator	conn.	connection	ft. lb.	foot pounds (torque)
Al	aluminum	cont.	continued	ft./min.	feet per minute
ANSI	American National Standards Institute (formerly American Standards Association, ASA)	CPVC	chlorinated polyvinyl chloride	g	gram
AO	anticipatory only	crit.	critical	ga.	gauge (meters, wire size)
API	American Petroleum Institute	CRT	cathode ray tube	gal.	gallon
approx.	approximate, approximately	CSA	Canadian Standards Association	gen.	generator
AR	as required, as requested	CT	current transformer	genset	generator set
AS	as supplied, as stated, as suggested	Cu	copper	GFI	ground fault interrupter
ASE	American Society of Engineers	cu. in.	cubic inch	GND, 	ground
ASME	American Society of Mechanical Engineers	cw.	clockwise	gov.	governor
assy.	assembly	CWC	city water-cooled	gph	gallons per hour
ASTM	American Society for Testing Materials	cyl.	cylinder	gpm	gallons per minute
ATDC	after top dead center	D/A	digital to analog	gr.	grade, gross
ATS	automatic transfer switch	DAC	digital to analog converter	GRD	equipment ground
auto.	automatic	dB	decibel	gr. wt.	gross weight
aux.	auxiliary	dBA	decibel (A weighted)	H x W x D	height by width by depth
A/V	audiovisual	DC	direct current	HC	hex cap
avg.	average	DCR	direct current resistance	HCHT	high cylinder head temperature
AVR	automatic voltage regulator	deg., °	degree	HD	heavy duty
AWG	American Wire Gauge	dept.	department	HET	high exhaust temperature, high engine temperature
AWM	appliance wiring material	dia.	diameter	hex	hexagon
bat.	battery	DI/EO	dual inlet/end outlet	Hg	mercury (element)
BBDC	before bottom dead center	DIN	Deutsches Institut fur Normung e. V. (also Deutsche Industrie Normenausschuss)	HH	hex head
BC	battery charger, battery charging	DIP	dual inline package	HHC	hex head cap
BCA	battery charging alternator	DPDT	double-pole, double-throw	HP	horsepower
BCI	Battery Council International	DPST	double-pole, single-throw	hr.	hour
BDC	before dead center	DS	disconnect switch	HS	heat shrink
BHP	brake horsepower	DVR	digital voltage regulator	hsg.	housing
blk.	black (paint color), block (engine)	E, emer.	emergency (power source)	HVAC	heating, ventilation, and air conditioning
blk. htr.	block heater	EDI	electronic data interchange	HWT	high water temperature
BMEP	brake mean effective pressure	EFR	emergency frequency relay	Hz	hertz (cycles per second)
bps	bits per second	e.g.	for example (<i>exempli gratia</i>)	IC	integrated circuit
br.	brass	EG	electronic governor	ID	inside diameter, identification
BTDC	before top dead center	EGSA	Electrical Generating Systems Association	IEC	International Electrotechnical Commission
Btu	British thermal unit	EIA	Electronic Industries Association	IEEE	Institute of Electrical and Electronics Engineers
Btu/min.	British thermal units per minute	EI/EO	end inlet/end outlet	IMS	improved motor starting
C	Celsius, centigrade	EMI	electromagnetic interference	in.	inch
cal.	calorie	emiss.	emission	in. H ₂ O	inches of water
CARB	California Air Resources Board	eng.	engine	in. Hg	inches of mercury
CB	circuit breaker	EPA	Environmental Protection Agency	in. lb.	inch pounds
cc	cubic centimeter	EPS	emergency power system	Inc.	incorporated
CCA	cold cranking amps	ER	emergency relay	ind.	industrial
ccw.	counterclockwise	ES	engineering special, engineered special	int.	internal
CEC	Canadian Electrical Code	ESD	electrostatic discharge	int./ext.	internal/external
cert.	certificate, certification, certified	est.	estimated	I/O	input/output
cfh	cubic feet per hour	E-Stop	emergency stop	IP	iron pipe
		etc.	et cetera (and so forth)	ISO	International Organization for Standardization
				J	joule
				JIS	Japanese Industry Standard

k	kilo (1000)	MTBF	mean time between failure	RHM	round head machine (screw)
K	kelvin	MTBO	mean time between overhauls	rly.	relay
kA	kiloampere	mtg.	mounting	rms	root mean square
KB	kilobyte (2 ¹⁰ bytes)	MW	megawatt	rnd.	round
kg	kilogram	mW	milliwatt	ROM	read only memory
kg/cm ²	kilograms per square centimeter	μF	microfarad	rot.	rotate, rotating
kgm	kilogram-meter	N, norm.	normal (power source)	rpm	revolutions per minute
kg/m ³	kilograms per cubic meter	NA	not available, not applicable	RS	right side
kHz	kilohertz	nat. gas	natural gas	RTV	room temperature vulcanization
kJ	kilojoule	NBS	National Bureau of Standards	SAE	Society of Automotive Engineers
km	kilometer	NC	normally closed	scfm	standard cubic feet per minute
kOhm, kΩ	kilo-ohm	NEC	National Electrical Code	SCR	silicon controlled rectifier
kPa	kilopascal	NEMA	National Electrical Manufacturers Association	s, sec.	second
kph	kilometers per hour	NFPA	National Fire Protection Association	SI	<i>Système international d'unités</i> , International System of Units
kV	kilovolt	Nm	newton meter	SI/EO	side in/end out
kVA	kilovolt ampere	NO	normally open	sil.	silencer
kVAR	kilovolt ampere reactive	no., nos.	number, numbers	SN	serial number
kW	kilowatt	NPS	National Pipe, Straight	SPDT	single-pole, double-throw
kWh	kilowatt-hour	NPSC	National Pipe, Straight-coupling	SPST	single-pole, single-throw
kWm	kilowatt mechanical	NPT	National Standard taper pipe thread per general use	spec, specs	specification(s)
L	liter	NPTF	National Pipe, Taper-Fine	sq.	square
LAN	local area network	NR	not required, normal relay	sq. cm	square centimeter
L x W x H	length by width by height	ns	nanosecond	sq. in.	square inch
lb.	pound, pounds	OC	overcrank	SS	stainless steel
lbm/ft ³	pounds mass per cubic feet	OD	outside diameter	std.	standard
LCB	line circuit breaker	OEM	original equipment manufacturer	stl.	steel
LCD	liquid crystal display	OF	overfrequency	tach.	tachometer
ld. shd.	load shed	opt.	option, optional	TD	time delay
LED	light emitting diode	OS	oversize, overspeed	TDC	top dead center
Lph	liters per hour	OSHA	Occupational Safety and Health Administration	TDEC	time delay engine cooldown
Lpm	liters per minute	OV	overvoltage	TDEN	time delay emergency to normal
LOP	low oil pressure	oz.	ounce	TDES	time delay engine start
LP	liquefied petroleum	p., pp.	page, pages	TDNE	time delay normal to emergency
LPG	liquefied petroleum gas	PC	personal computer	TDOE	time delay off to emergency
LS	left side	PCB	printed circuit board	TDON	time delay off to normal
L _{wa}	sound power level, A weighted	pF	picofarad	temp.	temperature
LWL	low water level	PF	power factor	term.	terminal
LWT	low water temperature	ph., ∅	phase	TIF	telephone influence factor
m	meter, milli (1/1000)	PHC	Phillips head crimplite (screw)	TIR	total indicator reading
M	mega (10 ⁶ when used with SI units), male	PHH	Phillips hex head (screw)	tol.	tolerance
m ³	cubic meter	PHM	pan head machine (screw)	turbo.	turbocharger
m ³ /min.	cubic meters per minute	PLC	programmable logic control	typ.	typical (same in multiple locations)
mA	milliampere	PMG	permanent-magnet generator	UF	underfrequency
man.	manual	pot	potentiometer, potential	UHF	ultrahigh frequency
max.	maximum	ppm	parts per million	UL	Underwriter's Laboratories, Inc.
MB	megabyte (2 ²⁰ bytes)	PROM	programmable read-only memory	UNC	unified coarse thread (was NC)
MCM	one thousand circular mils	psi	pounds per square inch	UNF	unified fine thread (was NF)
MCCB	molded-case circuit breaker	pt.	pint	univ.	universal
meggar	megohmmeter	PTC	positive temperature coefficient	US	undersize, underspeed
MHz	megahertz	PTO	power takeoff	UV	ultraviolet, undervoltage
mi.	mile	PVC	polyvinyl chloride	V	volt
mil	one one-thousandth of an inch	qt.	quart, quarts	VAC	volts alternating current
min.	minimum, minute	qty.	quantity	VAR	voltampere reactive
misc.	miscellaneous	R	replacement (emergency) power source	VDC	volts direct current
MJ	megajoule	rad.	radiator, radius	VFD	vacuum fluorescent display
mJ	millijoule	RAM	random access memory	VGA	video graphics adapter
mm	millimeter	RDO	relay driver output	VHF	very high frequency
mOhm, mΩ	milliohm	ref.	reference	W	watt
MOhm, MΩ	megohm	rem.	remote	WCR	withstand and closing rating
MOV	metal oxide varistor	Res/Coml	Residential/Commercial	w/	with
MPa	megapascal	RFI	radio frequency interference	w/o	without
mpg	miles per gallon	RH	round head	wt.	weight
mph	miles per hour			xfmr	transformer
MS	military standard				
m/sec.	meters per second				

Appendix B Common Hardware Application Guidelines

Use the information below and on the following pages to identify proper fastening techniques when no specific reference for reassembly is made.

Bolt/Screw Length: When bolt/screw length is not given, use Figure 1 as a guide. As a general rule, a minimum length of one thread beyond the nut and a maximum length of 1/2 the bolt/screw diameter beyond the nut is the preferred method.

Washers and Nuts: Use split lock washers as a bolt locking device where specified. Use SAE flat washers with whiz nuts, spirallock nuts, or standard nuts and preloading (torque) of the bolt in all other applications.

See Appendix C, General Torque Specifications, and other torque specifications in the service literature.

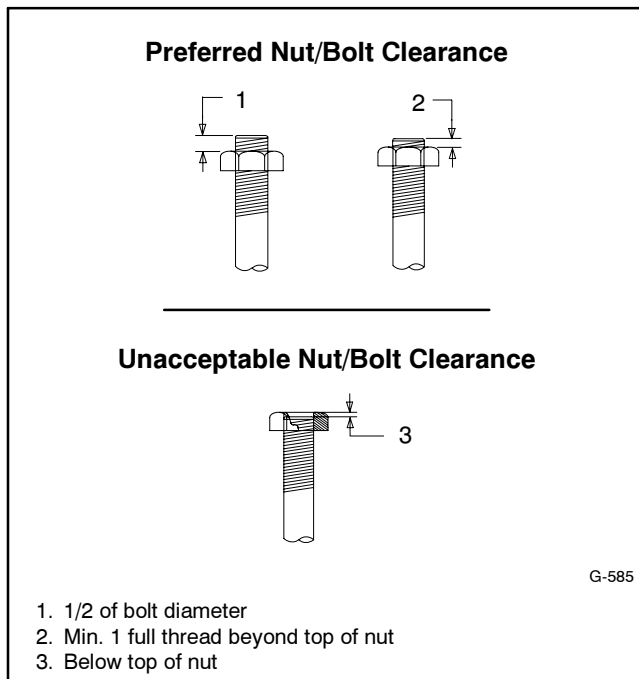


Figure 1 Acceptable Bolt Lengths

1. 1/2 of bolt diameter
2. Min. 1 full thread beyond top of nut
3. Below top of nut

Steps for common hardware application:

1. Determine entry hole type: round or slotted.
2. Determine exit hole type: fixed female thread (weld nut), round, or slotted.

For round and slotted exit holes, determine if hardware is greater than 1/2 inch in diameter, or 1/2 inch in diameter or less. Hardware that is *greater than 1/2 inch* in diameter takes a standard nut and SAE washer. Hardware *1/2 inch or less* in diameter can take a properly torqued whiz nut or spirallock nut. See Figure 2.

3. Follow these SAE washer rules after determining exit hole type:
 - a. Always use a washer between hardware and a slot.
 - b. Always use a washer under a nut (see 2 above for exception).
 - c. Use a washer under a bolt when the female thread is fixed (weld nut).
4. Refer to Figure 2, which depicts the preceding hardware configuration possibilities.

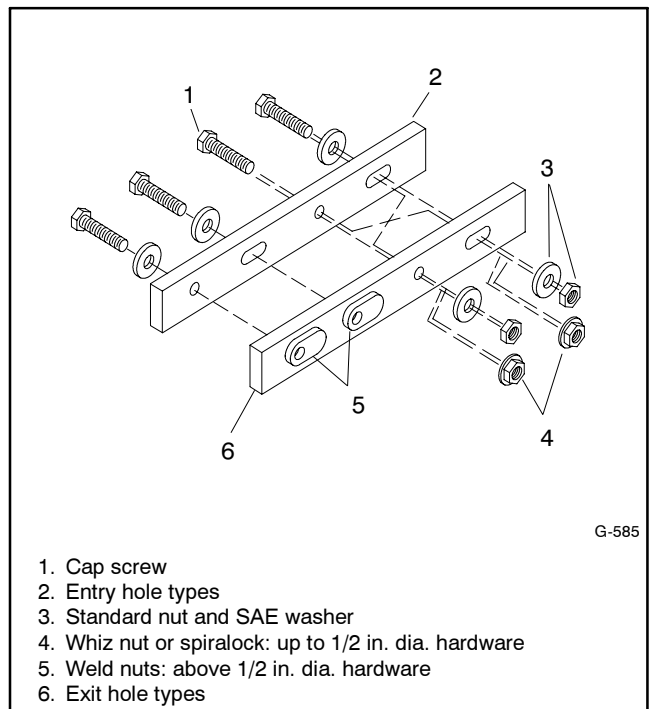


Figure 2 Acceptable Hardware Combinations

1. Cap screw
2. Entry hole types
3. Standard nut and SAE washer
4. Whiz nut or spirallock: up to 1/2 in. dia. hardware
5. Weld nuts: above 1/2 in. dia. hardware
6. Exit hole types

Appendix C General Torque Specifications















Use the following torque specifications when service literature instructions give no specific torque values. The charts list values for new plated, zinc phosphate, or










oiled threads. Increase values by 15% for nonplated threads. All torque values are +0%/-10%.






American Standard Fasteners Torque Specifications					
Size	Torque Measurement	Assembled into Cast Iron or Steel			Assembled into Aluminum Grade 2 or 5
		Grade 2	Grade 5	Grade 8	
8-32	Nm (in. lb.)	1.8 (16)	2.3 (20)	—	1.8 (16)
10-24	Nm (in. lb.)	2.9 (26)	3.6 (32)	—	2.9 (26)
10-32	Nm (in. lb.)	2.9 (26)	3.6 (32)	—	2.9 (26)
1/4-20	Nm (in. lb.)	6.8 (60)	10.8 (96)	14.9 (132)	6.8 (60)
1/4-28	Nm (in. lb.)	8.1 (72)	12.2 (108)	16.3 (144)	8.1 (72)
5/16-18	Nm (in. lb.)	13.6 (120)	21.7 (192)	29.8 (264)	13.6 (120)
5/16-24	Nm (in. lb.)	14.9 (132)	23.1 (204)	32.5 (288)	14.9 (132)
3/8-16	Nm (ft. lb.)	24.0 (18)	38.0 (28)	53.0 (39)	24.0 (18)
3/8-24	Nm (ft. lb.)	27.0 (20)	42.0 (31)	60.0 (44)	27.0 (20)
7/16-14	Nm (ft. lb.)	39.0 (29)	60.0 (44)	85.0 (63)	—
7/16-20	Nm (ft. lb.)	43.0 (32)	68.0 (50)	95.0 (70)	—
1/2-13	Nm (ft. lb.)	60.0 (44)	92.0 (68)	130.0 (96)	—
1/2-20	Nm (ft. lb.)	66.0 (49)	103.0 (76)	146.0 (108)	—
9/16-12	Nm (ft. lb.)	81.0 (60)	133.0 (98)	187.0 (138)	—
9/16-18	Nm (ft. lb.)	91.0 (67)	148.0 (109)	209.0 (154)	—
5/8-11	Nm (ft. lb.)	113.0 (83)	183.0 (135)	259.0 (191)	—
5/8-18	Nm (ft. lb.)	128.0 (94)	208.0 (153)	293.0 (216)	—
3/4-10	Nm (ft. lb.)	199.0 (147)	325.0 (240)	458.0 (338)	—
3/4-16	Nm (ft. lb.)	222.0 (164)	363.0 (268)	513.0 (378)	—
1-8	Nm (ft. lb.)	259.0 (191)	721.0 (532)	1109.0 (818)	—
1-12	Nm (ft. lb.)	283.0 (209)	789.0 (582)	1214.0 (895)	—

Metric Fasteners Torque Specifications, Measured in Nm (ft. lb.)					
Size (mm)	Assembled into Cast Iron or Steel			Assembled into Aluminum Grade 5.8 or 8.8	
	Grade 5.8	Grade 8.8	Grade 10.9		
M6 x 1.00	5.6 (4)	9.9 (7)	14.0 (10)	5.6 (4)	
M8 x 1.25	13.6 (10)	25.0 (18)	35.0 (26)	13.6 (10)	
M8 x 1.00	21.0 (16)	25.0 (18)	35.0 (26)	21.0 (16)	
M10 x 1.50	27.0 (20)	49.0 (35)	68.0 (50)	27.0 (20)	
M10 x 1.25	39.0 (29)	49.0 (35)	68.0 (50)	39.0 (29)	
M12 x 1.75	47.0 (35)	83.0 (61)	117.0 (86)	—	
M12 x 1.50	65.0 (48)	88.0 (65)	125.0 (92)	—	
M14 x 2.00	74.0 (55)	132.0 (97)	185.0 (136)	—	
M14 x 1.50	100.0 (74)	140.0 (103)	192.0 (142)	—	
M16 x 2.00	115.0 (85)	200.0 (148)	285.0 (210)	—	
M16 x 1.50	141.0 (104)	210.0 (155)	295.0 (218)	—	
M18 x 2.50	155.0 (114)	275.0 (203)	390.0 (288)	—	
M18 x 1.50	196.0 (145)	305.0 (225)	425.0 (315)	—	

Appendix D Common Hardware Identification

Screw/Bolts/Studs	
Head Styles	
Hex Head or Machine Head	
Hex Head or Machine Head with Washer	
Flat Head (FHM)	
Round Head (RHM)	
Pan Head	
Hex Socket Head Cap or Allen™ Head Cap	
Hex Socket Head or Allen™ Head Shoulder Bolt	
Sheet Metal Screw	
Stud	
Drive Styles	
Hex	
Hex and Slotted	
Phillips®	
Slotted	
Hex Socket	

Nuts	
Nut Styles	
Hex Head	
Lock or Elastic	
Square	
Cap or Acorn	
Wing	
Washers	
Washer Styles	
Plain	
Split Lock or Spring	
Spring or Wave	
External Tooth Lock	
Internal Tooth Lock	
Internal-External Tooth Lock	

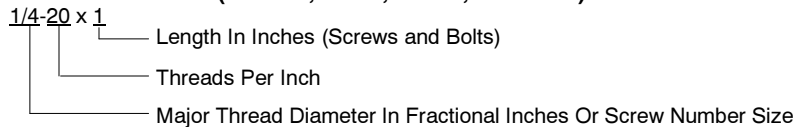
Hardness Grades	
American Standard	
Grade 2	
Grade 5	
Grade 8	
Grade 8/9 (Hex Socket Head)	
Metric	
Number stamped on hardware; 5.8 shown	

Allen™ head screw is a trademark of Holo-Krome Co.

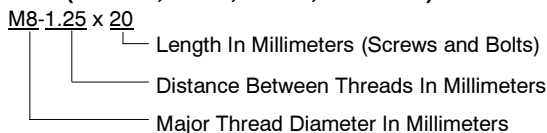
Phillips® screw is a registered trademark of Phillips Screw Company.

Sample Dimensions

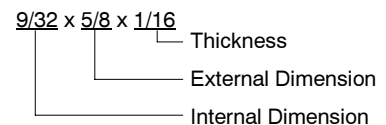
American Standard (Screws, Bolts, Studs, and Nuts)



Metric (Screws, Bolts, Studs, and Nuts)



Plain Washers



Lock Washers



Appendix E Common Hardware List

The Common Hardware List lists part numbers and dimensions for common hardware items.

American Standard

Part No.	Dimensions	Part No.	Dimensions	Part No.	Dimensions	Type
Hex Head Bolts (Grade 5)						
X-465-17	1/4-20 x .38	X-6238-14	3/8-24 x .75	X-6009-1	1-8	Standard
X-465-6	1/4-20 x .50	X-6238-16	3/8-24 x 1.25	X-6210-3	6-32	Whiz
X-465-2	1/4-20 x .62	X-6238-21	3/8-24 x 4.00	X-6210-4	8-32	Whiz
X-465-16	1/4-20 x .75	X-6238-22	3/8-24 x 4.50	X-6210-5	10-24	Whiz
X-465-18	1/4-20 x .88			X-6210-1	10-32	Whiz
X-465-7	1/4-20 x 1.00	X-6024-5	7/16-14 x .75			
X-465-8	1/4-20 x 1.25	X-6024-2	7/16-14 x 1.00	X-6210-2	1/4-20	Spiralock
X-465-9	1/4-20 x 1.50	X-6024-8	7/16-14 x 1.25	X-6210-6	1/4-28	Spiralock
X-465-10	1/4-20 x 1.75	X-6024-3	7/16-14 x 1.50	X-6210-7	5/16-18	Spiralock
X-465-11	1/4-20 x 2.00	X-6024-4	7/16-14 x 2.00	X-6210-8	5/16-24	Spiralock
X-465-12	1/4-20 x 2.25	X-6024-11	7/16-14 x 2.75	X-6210-9	3/8-16	Spiralock
X-465-14	1/4-20 x 2.75	X-6024-12	7/16-14 x 6.50	X-6210-10	3/8-24	Spiralock
X-465-21	1/4-20 x 5.00	X-129-15	1/2-13 x .75	X-6210-11	7/16-14	Spiralock
X-465-25	1/4-28 x .38	X-129-17	1/2-13 x 1.00	X-6210-12	1/2-13	Spiralock
X-465-20	1/4-28 x 1.00	X-129-18	1/2-13 x 1.25	X-6210-15	7/16-20	Spiralock
		X-129-19	1/2-13 x 1.50	X-6210-14	1/2-20	Spiralock
X-125-33	5/16-18 x .50	X-129-20	1/2-13 x 1.75			
X-125-23	5/16-18 x .62	X-129-21	1/2-13 x 2.00	X-85-3	5/8-11	Standard
X-125-3	5/16-18 x .75	X-129-22	1/2-13 x 2.25	X-88-12	3/4-10	Standard
X-125-31	5/16-18 x .88	X-129-23	1/2-13 x 2.50	X-89-2	1/2-20	Standard
X-125-5	5/16-18 x 1.00	X-129-24	1/2-13 x 2.75			
X-125-24	5/16-18 x 1.25	X-129-25	1/2-13 x 3.00			
X-125-34	5/16-18 x 1.50	X-129-27	1/2-13 x 3.50			
X-125-25	5/16-18 x 1.75	X-129-29	1/2-13 x 4.00			
X-125-26	5/16-18 x 2.00	X-129-30	1/2-13 x 4.50			
230578	5/16-18 x 2.25	X-463-9	1/2-13 x 5.50			
X-125-29	5/16-18 x 2.50	X-129-44	1/2-13 x 6.00			
X-125-27	5/16-18 x 2.75					
X-125-28	5/16-18 x 3.00	X-129-51	1/2-20 x .75			
X-125-22	5/16-18 x 4.50	X-129-45	1/2-20 x 1.25			
X-125-32	5/16-18 x 5.00	X-129-52	1/2-20 x 1.50			
X-125-35	5/16-18 x 5.50					
X-125-36	5/16-18 x 6.00	X-6021-3	5/8-11 x 1.00			
X-125-40	5/16-18 x 6.50	X-6021-4	5/8-11 x 1.25			
		X-6021-2	5/8-11 x 1.50			
X-125-43	5/16-24 x 1.75	X-6021-1	5/8-11 x 1.75			
X-125-44	5/16-24 x 2.50	273049	5/8-11 x 2.00			
X-125-30	5/16-24 x .75	X-6021-5	5/8-11 x 2.25			
X-125-39	5/16-24 x 2.00	X-6021-6	5/8-11 x 2.50			
X-125-38	5/16-24 x 2.75	X-6021-7	5/8-11 x 2.75			
		X-6021-12	5/8-11 x 3.75			
X-6238-2	3/8-16 x .62	X-6021-11	5/8-11 x 4.50			
X-6238-10	3/8-16 x .75	X-6021-10	5/8-11 x 6.00			
X-6238-3	3/8-16 x .88					
X-6238-11	3/8-16 x 1.00	X-6021-9	5/8-18 x 2.50			
X-6238-4	3/8-16 x 1.25					
X-6238-5	3/8-16 x 1.50	X-6239-1	3/4-10 x 1.00			
X-6238-1	3/8-16 x 1.75	X-6239-8	3/4-10 x 1.25			
X-6238-6	3/8-16 x 2.00	X-6239-2	3/4-10 x 1.50			
X-6238-17	3/8-16 x 2.25	X-6239-3	3/4-10 x 2.00			
X-6238-7	3/8-16 x 2.50	X-6239-4	3/4-10 x 2.50			
X-6238-8	3/8-16 x 2.75	X-6239-5	3/4-10 x 3.00			
X-6238-9	3/8-16 x 3.00	X-6239-6	3/4-10 x 3.50			
X-6238-19	3/8-16 x 3.25					
X-6238-12	3/8-16 x 3.50	X-792-1	1-8 x 2.25			
X-6238-20	3/8-16 x 3.75	X-792-5	1-8 x 3.00			
X-6238-13	3/8-16 x 4.50	X-792-8	1-8 x 5.00			
X-6238-18	3/8-16 x 5.50					
X-6238-25	3/8-16 x 6.50					

Washers

Part No.	ID	OD	Thick.	Bolt/ Screw
X-25-46	.125	.250	.022	#4
X-25-9	.156	.375	.049	#6
X-25-48	.188	.438	.049	#8
X-25-36	.219	.500	.049	#10
X-25-40	.281	.625	.065	1/4
X-25-85	.344	.687	.065	5/16
X-25-37	.406	.812	.065	3/8
X-25-34	.469	.922	.065	7/16
X-25-26	.531	1.062	.095	1/2
X-25-15	.656	1.312	.095	5/8
X-25-29	.812	1.469	.134	3/4
X-25-127	1.062	2.000	.134	1

Metric

Hex head bolts are hardness grade 8.8 unless noted.

Part No.	Dimensions	Part No.	Dimensions	Part No.	Dimensions
Hex Head Bolts (Partial Thread)		Hex Head Bolts (Partial Thread), continued		Hex Head Bolts (Full Thread), continued	
M931-05055-60	M5-0.80 x 55	M960-16090-60	M16-1.50 x 90	M933-12016-60	M12-1.75 x 16
M931-06040-60	M6-1.00 x 40	M931-16090-60	M16-2.00 x 90	M933-12020-60	M12-1.75 x 20
M931-06055-60	M6-1.00 x 55	M931-16100-60	M16-2.00 x 100	M961-12020-60F	M12-1.50 x 20
M931-06060-60	M6-1.00 x 60	M931-16100-82	M16-2.00 x 100*	M933-12025-60	M12-1.75 x 25
M931-06060-SS	M6-1.00 x 60	M931-16120-60	M16-2.00 x 120	M933-12025-82	M12-1.75 x 25*
M931-06070-60	M6-1.00 x 70	M931-16150-60	M16-2.00 x 150	M961-12030-60	M12-1.25 x 30
M931-06070-SS	M6-1.00 x 70			M933-12030-82	M12-1.75 x 30*
M931-06075-60	M6-1.00 x 75	M931-20065-60	M20-2.50 x 65	M961-12030-82F	M12-1.50 x 30*
M931-06090-60	M6-1.00 x 90	M931-20090-60	M20-2.50 x 90	M933-12030-60	M12-1.75 x 30
M931-06145-60	M6-1.00 x 145	M931-20100-60	M20-2.50 x 100	M933-12035-60	M12-1.75 x 35
M931-06150-60	M6-1.00 x 150	M931-20120-60	M20-2.50 x 120	M961-12040-82	M12-1.25 x 40*
		M931-20140-60	M20-2.50 x 140	M933-12040-60	M12-1.75 x 40
M931-08035-60	M8-1.25 x 35	M931-20160-60	M20-2.50 x 160	M933-12040-82	M12-1.75 x 40*
M931-08040-60	M8-1.25 x 40				
M931-08045-60	M8-1.25 x 45	M931-22090-60	M22-2.50 x 90	M961-14025-60	M14-1.50 x 25
M931-08050-60	M8-1.25 x 50	M931-22120-60	M22-2.50 x 120	M933-14025-60	M14-2.00 x 25
M931-08055-60	M8-1.25 x 55	M931-22160-60	M22-2.50 x 160	M961-14050-82	M14-1.50 x 50*
M931-08055-82	M8-1.25 x 55*				
M931-08060-60	M8-1.25 x 60	M931-24090-60	M24-3.00 x 90	M961-16025-60	M16-1.50 x 25
M931-08070-60	M8-1.25 x 70	M931-24120-60	M24-3.00 x 120	M933-16025-60	M16-2.00 x 25
M931-08070-82	M8-1.25 x 70*	M931-24160-60	M24-3.00 x 160	M961-16030-82	M16-1.50 x 30*
M931-08075-60	M8-1.25 x 75	M931-24200-60	M24-3.00 x 200	M933-16030-82	M16-2.00 x 30*
M931-08080-60	M8-1.25 x 80			M933-16035-60	M16-2.00 x 35
M931-08090-60	M8-1.25 x 90	Hex Head Bolts (Full Thread)		M961-16040-60	M16-1.50 x 40
M931-08095-60	M8-1.25 x 95	M933-04006-60	M4-0.70 x 6	M933-16040-60	M16-2.00 x 40
M931-08100-60	M8-1.25 x 100			M961-16045-82	M16-1.50 x 45*
M931-08110-60	M8-1.25 x 110	M933-05030-60	M5-0.80 x 30	M933-16045-82	M16-2.00 x 45*
M931-08120-60	M8-1.25 x 120	M933-05035-60	M5-0.80 x 35	M933-16050-60	M16-2.00 x 50
M931-08130-60	M8-1.25 x 130	M933-05050-60	M5-0.80 x 50	M933-16050-82	M16-2.00 x 50*
M931-08140-60	M8-1.25 x 140			M933-16060-60	M16-2.00 x 60
M931-08150-60	M8-1.25 x 150	M933-06010-60	M6-1.00 x 10	M933-16070-60	M16-2.00 x 70
M931-08200-60	M8-1.25 x 200	M933-06012-60	M6-1.00 x 12		
		M933-06014-60	M6-1.00 x 14	M933-18035-60	M18-2.50 x 35
M931-10040-82	M10-1.25 x 40*	M933-06016-60	M6-1.00 x 16	M933-18050-60	M18-2.50 x 50
M931-10040-60	M10-1.50 x 40	M933-06020-60	M6-1.00 x 20	M933-18060-60	M18-2.50 x 60
M931-10045-60	M10-1.50 x 45	M933-06025-60	M6-1.00 x 25		
M931-10050-60	M10-1.50 x 50	M933-06030-60	M6-1.00 x 30	M933-20050-60	M20-2.50 x 50
M931-10050-82	M10-1.25 x 50*	M933-06040-60	M6-1.00 x 40	M933-20055-60	M20-2.50 x 55
M931-10055-60	M10-1.50 x 55	M933-06050-60	M6-1.00 x 50		
M931-10060-60	M10-1.50 x 60			M933-24060-60	M24-3.00 x 60
M931-10065-60	M10-1.50 x 65	M933-07025-60	M7-1.00 x 25	M933-24065-60	M24-3.00 x 65
M931-10070-60	M10-1.50 x 70			M933-24070-60	M24-3.00 x 70
M931-10080-60	M10-1.50 x 80	M933-08010-60	M8-1.25 x 10		
M931-10080-82	M10-1.25 x 80*	M933-08012-60	M8-1.25 x 12	Pan Head Machine Screws	
M931-10090-60	M10-1.50 x 90	M933-08016-60	M8-1.25 x 16	M7985A-03010-20	M3-0.50 x 10
M931-10090-82	M10-1.50 x 90*	M933-08020-60	M8-1.25 x 20	M7985A-03012-20	M3-0.50 x 12
M931-10100-60	M10-1.50 x 100	M933-08025-60	M8-1.25 x 25	M7985A-04010-20	M4-0.70 x 10
M931-10110-60	M10-1.50 x 110	M933-08030-60	M8-1.25 x 30	M7985A-04016-20	M4-0.70 x 16
M931-10120-60	M10-1.50 x 120	M933-08030-82	M8-1.25 x 30*	M7985A-04020-20	M4-0.70 x 20
M931-10130-60	M10-1.50 x 130			M7985A-04050-20	M4-0.70 x 50
M931-10140-60	M10-1.50 x 140	M933-10012-60	M10-1.50 x 12	M7985A-04100-20	M4-0.70 x 100
M931-10180-60	M10-1.50 x 180	M961-10020-60	M10-1.25 x 20		
M931-10235-60	M10-1.50 x 235	M933-10020-60	M10-1.50 x 20	M7985A-05010-20	M5-0.80 x 10
M931-10260-60	M10-1.50 x 260	M933-10025-60	M10-1.50 x 25	M7985A-05012-20	M5-0.80 x 12
M960-10330-60	M10-1.25 x 330	M961-10025-60	M10-1.25 x 25	M7985A-05016-20	M5-0.80 x 16
		M933-10025-82	M10-1.50 x 25*	M7985A-05020-20	M5-0.80 x 20
M931-12045-60	M12-1.75 x 45	M961-10030-60	M10-1.25 x 30	M7985A-05025-20	M5-0.80 x 25
M960-12050-60	M12-1.25 x 50	M933-10030-60	M10-1.50 x 30	M7985A-05030-20	M5-0.80 x 30
M960-12050-82	M12-1.25 x 50*	M933-10030-82	M10-1.50 x 30*	M7985A-05080-20	M5-0.80 x 80
M931-12050-60	M12-1.75 x 50	M961-10035-60	M10-1.25 x 35	M7985A-05100-20	M5-0.80 x 100
M931-12050-82	M12-1.75 x 50*	M933-10035-60	M10-1.50 x 35		
M931-12055-60	M12-1.75 x 55	M933-10035-82	M10-1.50 x 35*	M7985A-06100-20	M6-1.00 x 100
M931-12060-60	M12-1.75 x 60	M961-10040-60	M10-1.25 x 40		
M931-12060-82	M12-1.75 x 60*			Flat Head Machine Screws	
M931-12065-60	M12-1.75 x 65			M965A-04012-SS	M4-0.70 x 12
M931-12075-60	M12-1.75 x 75			M965A-05012-SS	M5-0.80 x 12
M931-12080-60	M12-1.75 x 80			M965A-05016-20	M5-0.80 x 16
M931-12090-60	M12-1.75 x 90			M965A-06012-20	M6-1.00 x 12
M931-12100-60	M12-1.75 x 100				
M931-12110-60	M12-1.75 x 110				

* This metric hex bolt's hardness is grade 10.9.

Metric, continued

Part No.	Dimensions	Type
Hex Nuts		
M934-03-50	M3-0.50	Standard
M934-04-50	M4-0.70	Standard
M934-04-B	M4-0.70	Brass
M934-05-50	M5-0.80	Standard
M934-06-60	M6-1.00	Standard
M934-06-64	M6-1.00	Std. (green)
M6923-06-80	M6-1.00	Spirallock
M982-06-80	M6-1.00	Elastic Stop
M934-08-60	M8-1.25	Standard
M6923-08-80	M8-1.25	Spirallock
M982-08-80	M8-1.25	Elastic Stop
M934-10-60	M10-1.50	Standard
M934-10-60F	M10-1.25	Standard
M6923-10-80	M10-1.50	Spirallock
M6923-10-62	M10-1.50	Spirallock†
M982-10-80	M10-1.50	Elastic Stop
M934-12-60	M12-1.75	Standard
M934-12-60F	M12-1.25	Standard
M6923-12-80	M12-1.75	Spirallock
M982-12-80	M12-1.75	Elastic Stop
M982-14-60	M14-2.00	Elastic Stop
M6923-16-80	M16-2.00	Spirallock
M982-16-80	M16-2.00	Elastic Stop
M934-18-80	M18-2.5	Standard
M982-18-60	M18-2.50	Elastic Stop
M934-20-80	M20-2.50	Standard
M982-20-80	M20-2.50	Elastic Stop
M934-22-60	M22-2.50	Standard
M934-24-80	M24-3.00	Standard
M982-24-60	M24-3.00	Elastic Stop
M934-30-80	M30-3.50	Standard

Washers

Part No.	ID	OD	Thick.	Bolt/ Screw
M125A-03-80	3.2	7.0	0.5	M3
M125A-04-80	4.3	9.0	0.8	M4
M125A-05-80	5.3	10.0	1.0	M5
M125A-06-80	6.4	12.0	1.6	M6
M125A-08-80	8.4	16.0	1.6	M8
M125A-10-80	10.5	20.0	2.0	M10
M125A-12-80	13.0	24.0	2.5	M12
M125A-14-80	15.0	28.0	2.5	M14
M125A-16-80	17.0	30.0	3.0	M16
M125A-18-80	19.0	34.0	3.0	M18
M125A-20-80	21.0	37.0	3.0	M20
M125A-24-80	25.0	44.0	4.0	M24

† This metric hex nut's hardness is grade 8.

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