



**Aviation
Ground
Equipment Corp.**

HOBART[®]
GROUND POWER

Illustrated Parts List
for

POWERMASTER[®] ADV

Series 500048B



45 and 60 kVA, 208/240 V with 28.5 VDC
Solid State Frequency Converters

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Chapter 1 Illustrated Parts List

Section 1 Introduction

1) General

The illustrated parts list identifies, describes, and illustrates main assemblies, subassemblies, and detail parts of the 400 Hz Solid State Converter manufactured by Hobart Ground Power Division, Troy, Ohio, USA..

2) Purpose

The purpose of this list is to provide parts identification and descriptive information to maintenance and provisioning personnel for use in provisioning, requisitioning, purchasing, storing, and issuing of spare parts.

3) Arrangement

Chapter 1 is arranged as follows:

Section 1 - Introduction
Section 2 - Parts List
Section 3 - Numerical index

4) Explanation of Parts List

a) Contents

The parts list contains a breakdown of the equipment into assemblies, subassemblies, and detail parts. All parts of the equipment are listed except:

- (1) Standard hardware items (attaching parts) such as nuts, screws, washers, etc., which are available commercially.
- (2) Bulk items such as wire, cable, sleeving, tubing, etc., which are commercially available.
- (3) Permanently attached parts, which lose their identity by being welded, soldered, riveted, etc., to other parts, weldments, or assemblies.

b) Parts List Form

This form is divided into six columns. Beginning at the left side of the form and proceeding to the right, columns are identified as follows:

- (1) FIGURE-ITEM NO. Column

This column lists the figure numbers of the illustration applicable to a particular parts list and identifies each part in the list by an item number. These item numbers also appear on the illustration. Each item number on an illustration is connected to the part to which it pertains by a leader line. Thus, the figure and item numbering system ties the parts lists to the illustrations and

vice-versa. The figure and index numbers are also used in the numerical index to assist the user in finding the illustration of a part when the part number is known.

(2) HOBART PART NUMBER Column

All part numbers appearing in this column are Hobart part numbers. In all instances where the part is a purchased item, the vendor's identifying five-digit code and his part number will appear in the "NOMENCLATURE" column. Vendor parts, which are modified by Hobart, will be identified as such in the "NOMENCLATURE" column. In case Hobart does not have an identifying part number for a purchased part, the "HOBART PART NUMBER" column will reflect "No Number" and the vendor's number will be shown in the "NOMENCLATURE" column. Parts manufactured by Hobart will reflect no vendor or part number in the "NOMENCLATURE" column.

(3) NOMENCLATURE Column

The item-identifying name appears in this column. The indented method is used to indicate item relationship. Thus, components of an assembly are listed directly below the assembly and indented one space. Vendor codes and part numbers for purchased parts are also listed in this column when applicable.

(4) EFF (Effective) Column

This column is used to indicate the applicability of parts to different models of equipment. When more than one model of equipment is covered by a parts list, some parts are used on only one model. This column is used for insertion of a code letter A, B, etc., to indicate these parts and to identify the particular model they are used on.

Parts coded "A" are usable on Part Number 500048B-21131 only.
Parts coded "B" are usable on Part Number 500048B-31131 only.

(5) UNITS PER ASSEMBLY Column

This column indicates the quantity of parts required for an assembly or subassembly in which the part appears. This column does not necessarily reflect the total used in the complete end item.

Section 2 Illustrated Parts List

1) Explanation of Parts List Arrangement

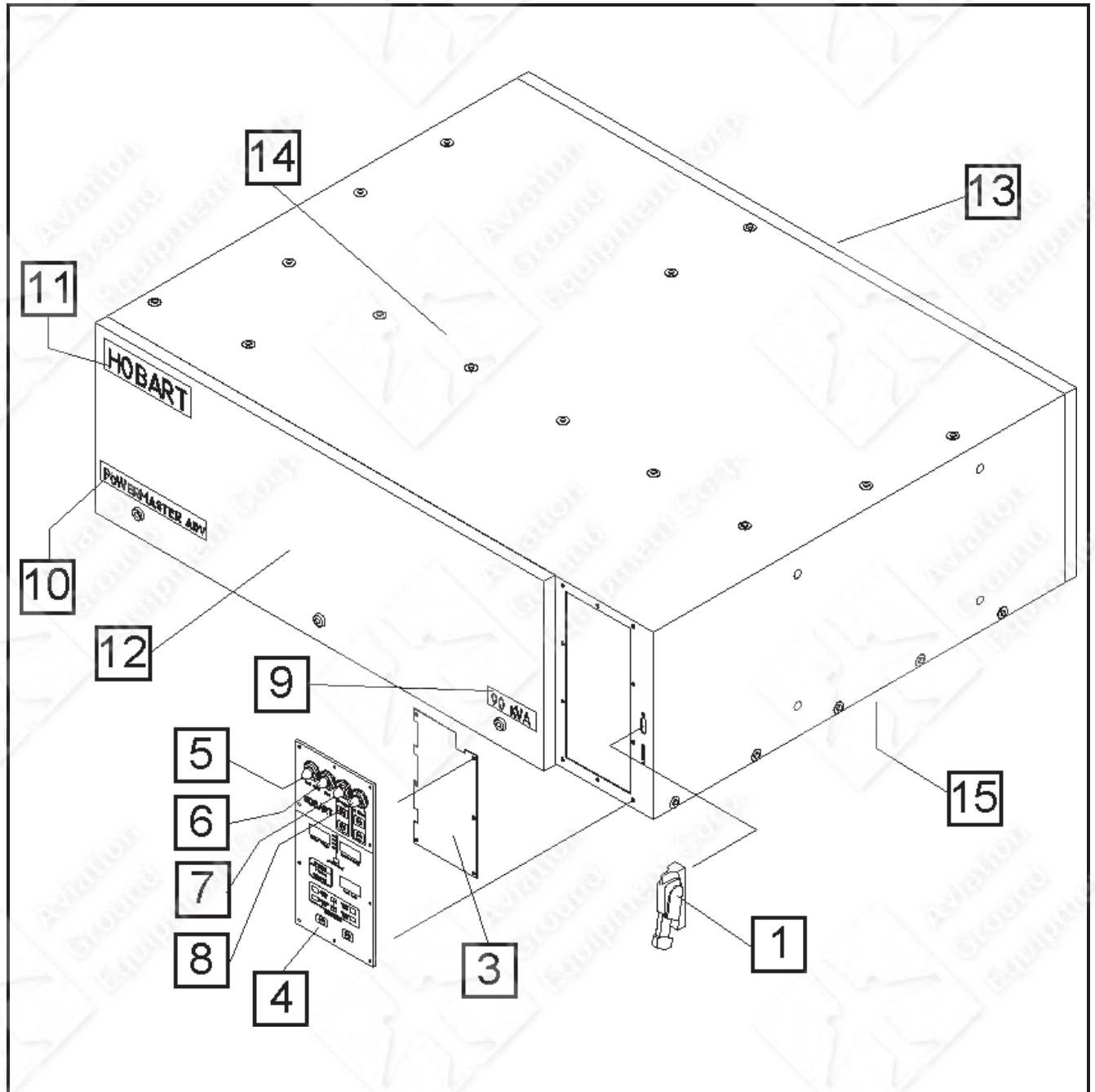
The parts list is arranged so that the illustration will appear on a left-hand page and the applicable parts list will appear on the opposite right-hand page. Unless the list is unusually long, the user will be able to look at the illustration and read the parts list without turning a page.

2) Symbols and Abbreviations

The following is a list of symbols and abbreviations used in the parts list:

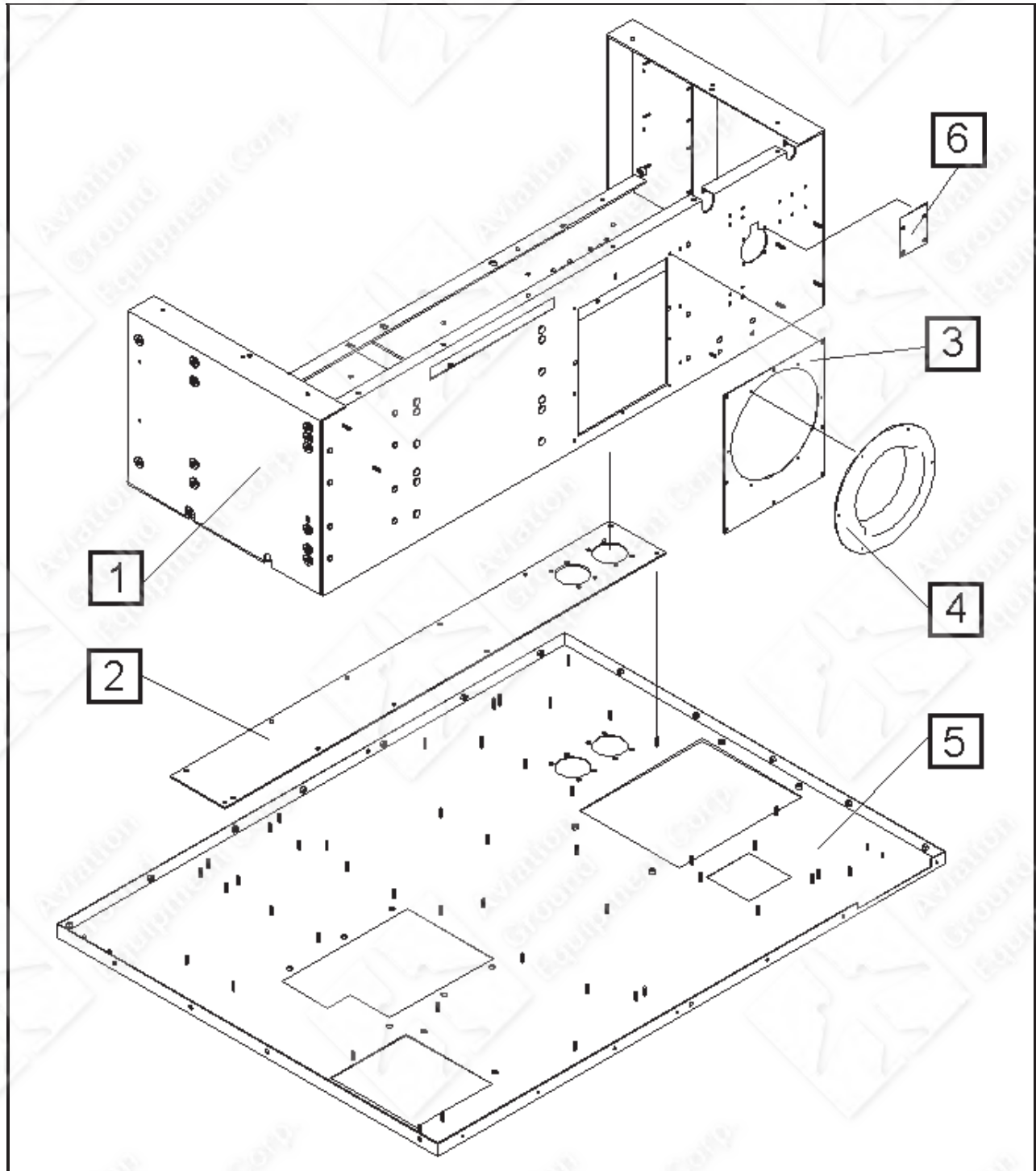
*	-	Item not illustrated
A, or AMP	-	Ampere
AC	-	Alternating current
AR	-	As required
DC	-	Direct current
Fig.	-	Figure
hd.	-	Head
hex	-	Hexagon
Hz	-	Hertz (cycles-per-second)
I.D.	-	Inside diameter
IN	-	Inch
KVA	-	Kilovolt-ampere
uF	-	Microfarad
No.	-	Number
NHA	-	Next higher assembly
PRV	-	Peak reverse voltage
PSI	-	Pounds per square inch
Ref	-	Reference (the item has been listed previously)
RH	-	Right Hand
LH	-	Left Hand
TM	-	Technical Manual
T-R	-	Transformer-rectifier
V	-	Volt or used as a prefix indicating vendor code

NOTE: An item which does not reflect an index number is an assembly which is not illustrated in it's assembled state, or it is similar (right-hand, left-hand, top, etc.) to an item which is illustrated.



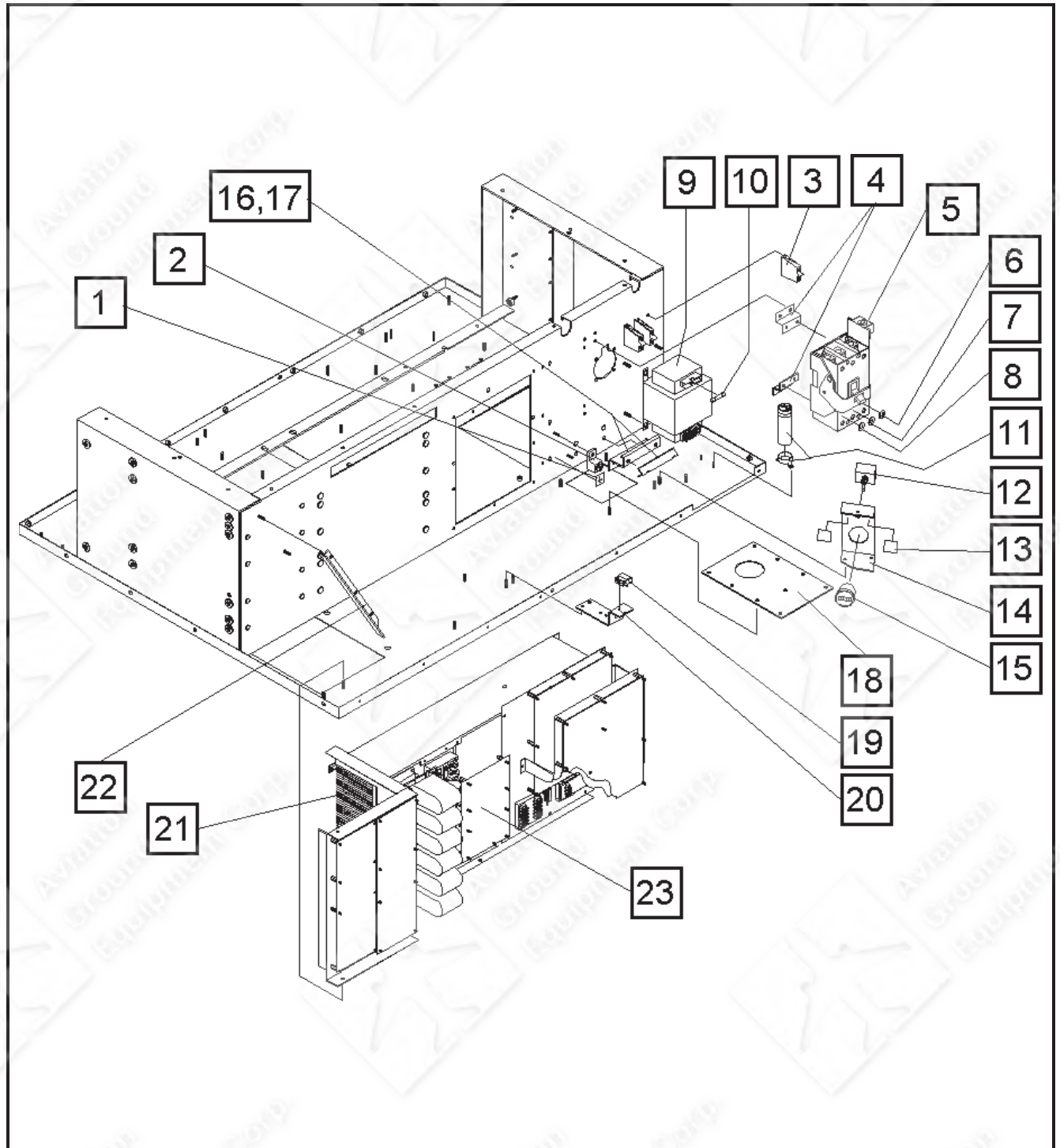
PoWerMaster ADV Converter
Figure 1

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
1 -	1	286416-001		1
*	2	Circuit Breaker Actuator Handle (V14799 #9422A3)		1
	3	Frame Assembly (See Figure 2)		Ref.
	4	286411		1
	5	286398-003		1
	6	82B1066-010		1
	7	Green Pilot Light Ay., 12v (V2B664 #9001-SKP-32G9)		1
*	8	400613-004		1
	9	82B1066-001		1
*	10	400613-004		1
	11	82B1066-012		1
*	12	400613-004		1
	13	82B1066-012		1
*	14	400613-004		1
	15	82B1066-013		1
*	16	400613-004		1
	17	283714-005	A	1
	18	283714-004	B	1
	19	286457		1
	20	402987		1
*	21	Hobart Label		1
*	22	Front Interior Components (See Figure 3)		Ref.
*	23	Rear Interior Components (See Figure 5)		Ref.
*	24	Canopy Components (See Figure 10)		Ref.
*	25	Bottom Exterior Components (See Figure 11)		Ref.
*	26	287341		1
		Wire Harness Assembly (used throughout)		1
		Miscellaneous Labels (none are shown)		
*	27	288918-002		1
*	28	288730		1
	29	286377		1
*	30	287460		1
*	31	286442		2
*	32	286442		1
*	33	283716		1
*	34	288164-001		1
		Label, Rainproof		1
		Nameplate, ID		1
		Label, TR Units (AC/DC)		1
		Interior Harnesses and Cables		
*	35	286326-001		1
*	36	286475-005	A	1
*	37	286475-009	B	1
	38	286580-006		1
*	39	287341		1
*	40	288096		1
*	41	288567		1
*	42	288568		1



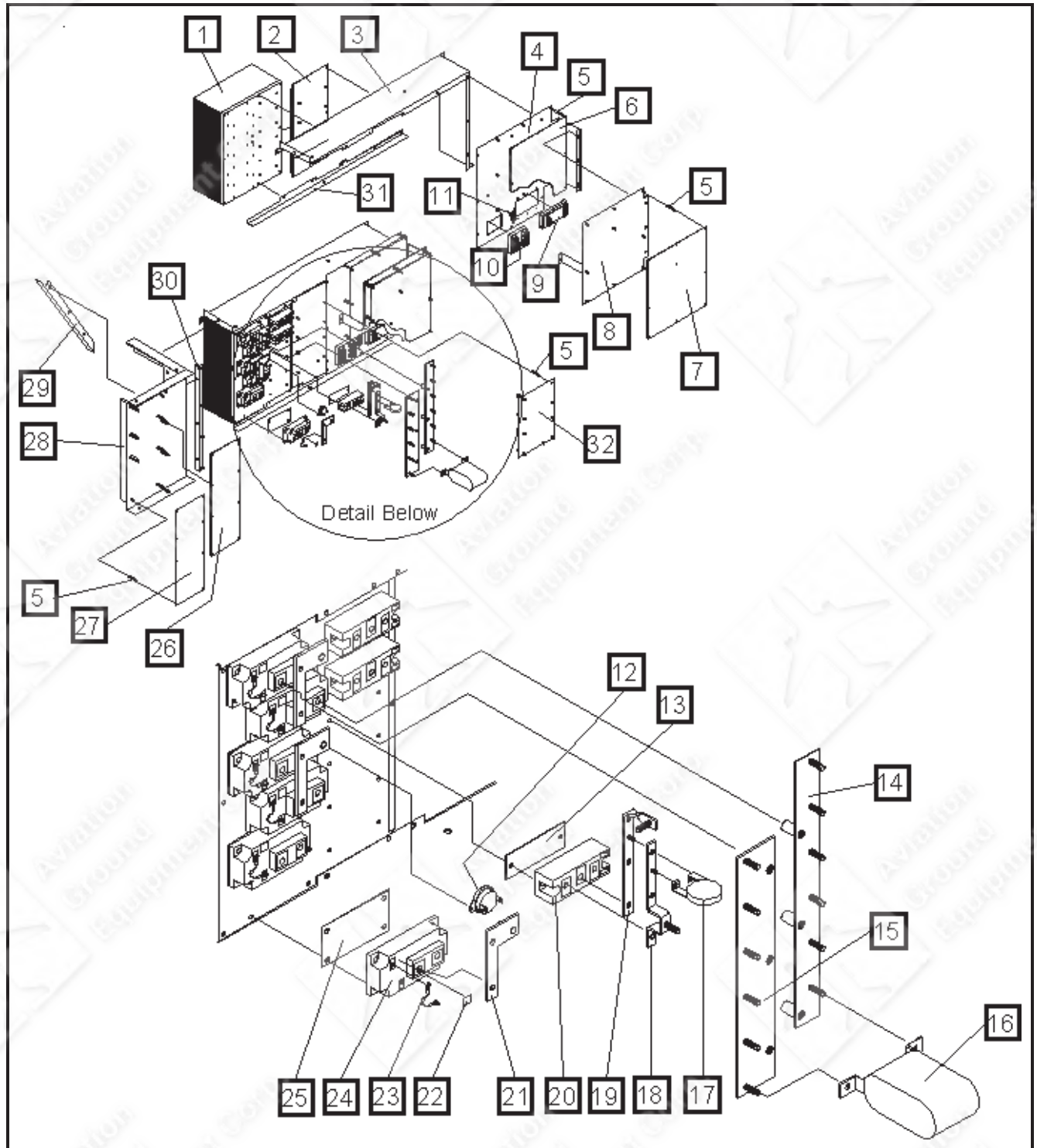
Frame Assembly
Figure 2

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.	
2 -	1	286535		1	
	2	286354		1	
	3	286376		1	
	4	283157-003	Impeller Inlet Ring (V62292 #9621-2-4013)		1
	5	288549	Base		1
	6	287836		1	
		Cover, Fan Hole			



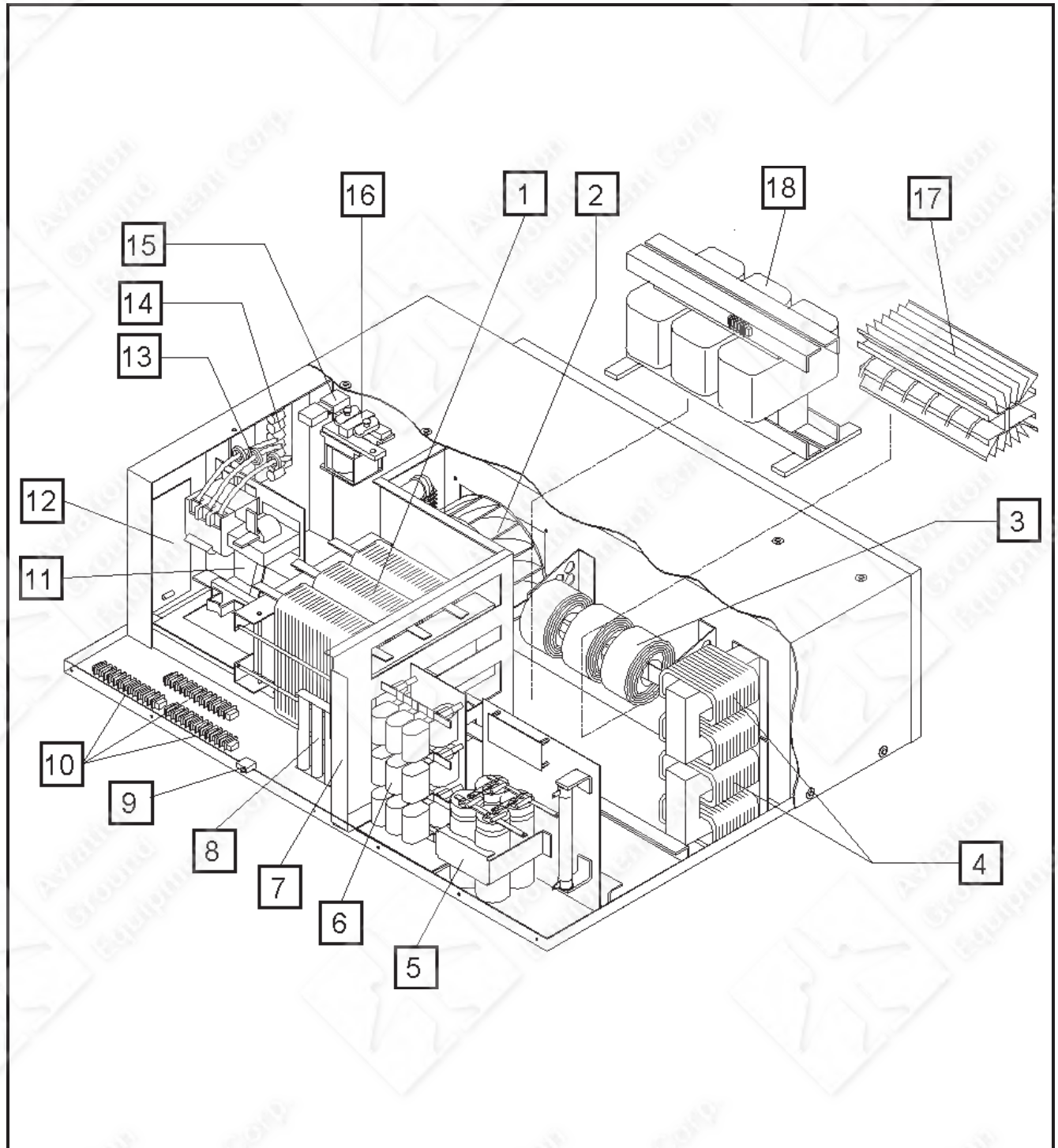
Front Interior Components
Figure 3

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.	
3 -	1	280807		1	
	2	285104-001		1	
	3	285315-001		3	
	4	291139		2	
	5	291269-002		1	
*	291268-001	...Actuator, Circuit Breaker (V14799 # 9422 CSF30)		1	
	6	83A1114		1	
	7	83A1113		1	
	8	83A1112		1	
	9	404960-034	Control Transformer, 115v (V6Y440 #B750-1213-1)		1
	10	W10502-031	Slow Blow Fuse, 15 A, 500 V (V71400 #FNQ)		1
	11	281848-002	Capacitor, 1800 UF, 250 VDC		1
	12	402682	Toggle Switch		1
	13	286327	Voltage Selection Label		1
14	286448	Meter Support Bracket		1	
15	181358	Hour Meter (V6H359 #85101)		1	
16	287856	Cable Clamp Support		1	
17	285568	Cable Clamp Bracket		1	
18	286423	Input Cable Plate		1	
19	280673	Door Interlock Switch (V1W134 #SSI2ET10-20Y3)		1	
20	286445	Front Door Switch Support		1	
21		Heatsink Panel Assembly, (See Figure 4)		Ref.	
22	287841	LH Input Filter Guide		1	
23	286597	Board, PC, DC Controls		1	



Heat Sink Panel Assembly
Figure 4

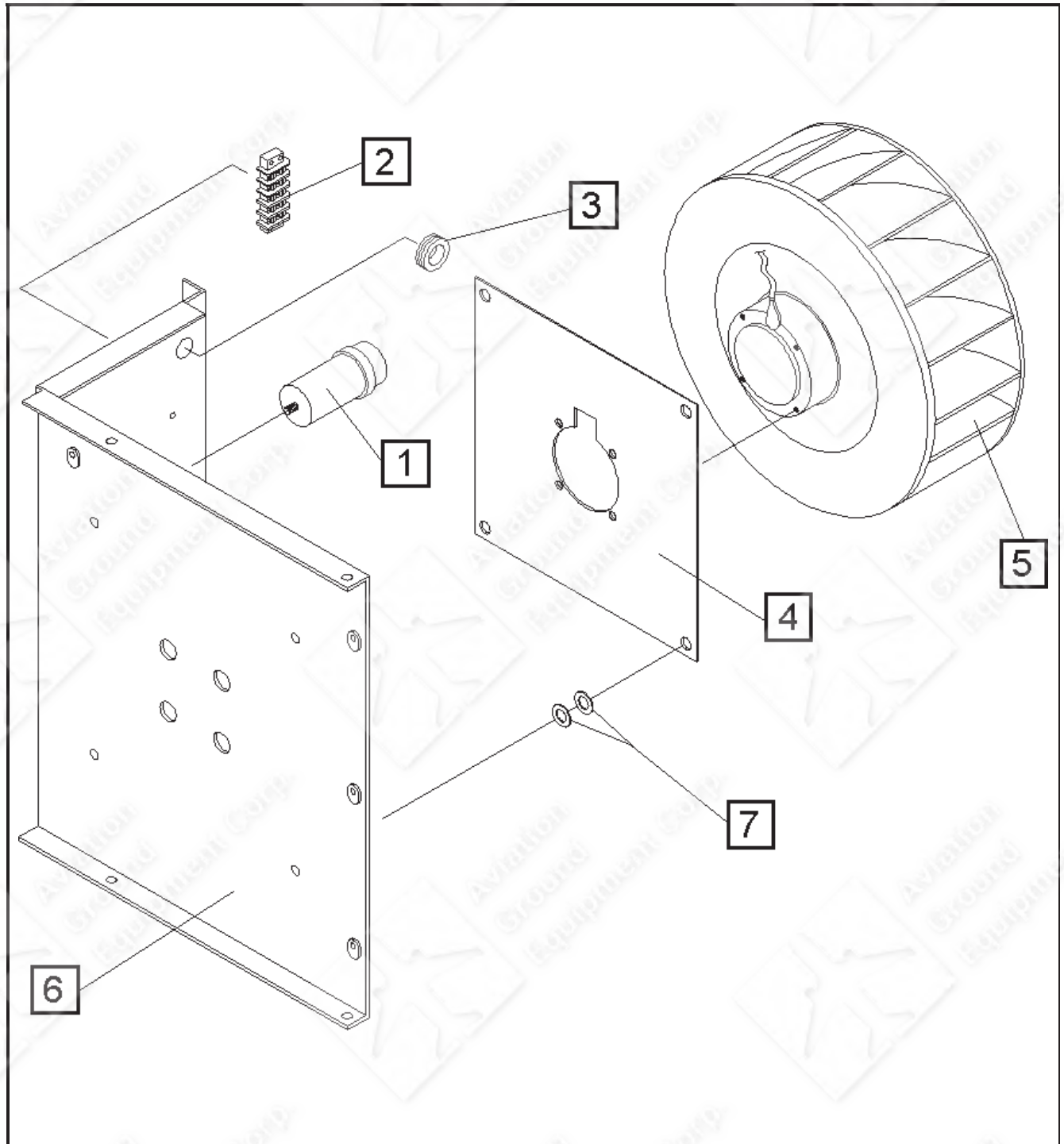
FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
4 -	1	287857		1
	2	286269		1
	3	287844		1
	4	287833		1
	5	284316-002		34
	6	286246B		1
	7	286400A		1
*		192266-001		1
	8	286443		1
	9	286528A		1
	10	286367-001		1
	11	286482-001		1
	12	404044-004		1
	13	283196-003		6
	14	287825		1
*		402674-002		1
	15	287826		1
*		402674-001		1
	16	286389-001		6
	17	403955-021		2
	18	287830		2
	19	287831		2
	20	286285-001		6
	21	287824		3
	22	407970		6
	23	285170		6
	24	283867-005		6
	25	283196-002		6
	26	286144		1
	27	287353A		1
	28	286533		1
	29	286420		1
	30	286274		1
	31	287843		1
	32	286597		1
*	33	288594		1
*	34	77A1109		1
*	35	77A1108		1
*	36	77A1107		1
*	37	286394		1



Rear Interior Components
Figure 5

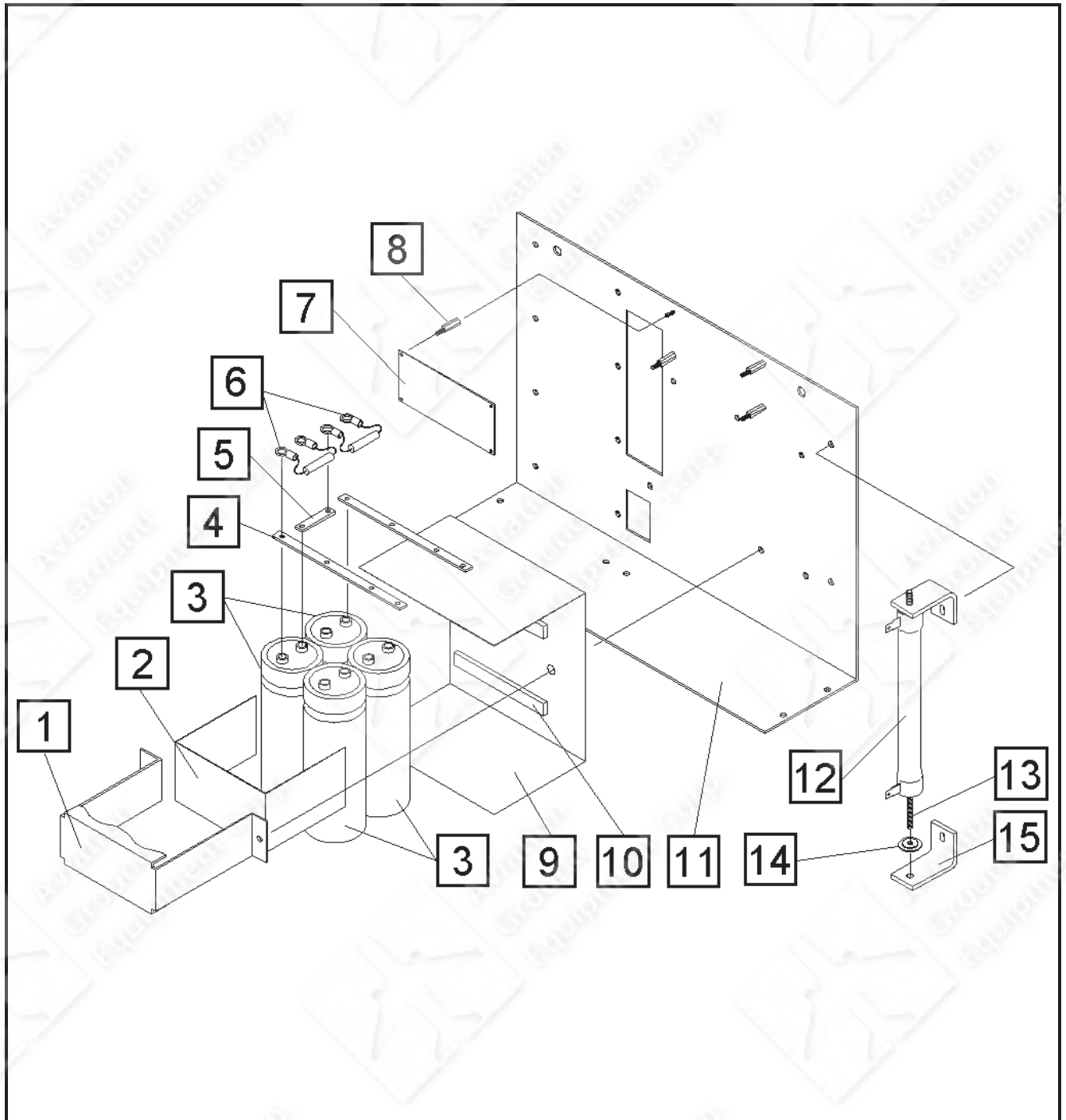
FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
5 -	1	288543-001		1
*		281971-005	A	1
*		281971-004	B	1
*		286449		1
*		286438		4
*		286316-001		4
2		Fan Assembly Components (See Figure 6)		Ref.
3	286492-001	3 Phase Air Core Inductor		1
4	493712	Filter Reactor		2
*	289751	...Insulator		2
5		DC Electrolytic Capacitor Assembly (See Figure 7)		Ref.
6		AC Capacitor Assembly (See Figure 8)		Ref.
7	287847	Main Transformer Baffle		1
8	288095-001	Preload Resistor Assembly (see figure 12)		1
9	280673	Interlock Switch Door (V1W134 #SS12ET10-20Y3)		1
*		286444		1
10	283066-002	12 Station Terminal Block(V71400 #KUH12)		3
*		286380		1
*		286382		1
*		286531-001		2
*		288974		2
11		Contactor Panel Assembly (See Figure 9)		Ref.
12	286392-001	I/O PC Board Assembly		1
*		16DA4252-037		1
*		284316-002		6
13	285102-001	Current Transformer (V05HB5 #20130) [see note]		7
14	288117	DC Capacitor PCB Assembly		1
*		286266		5
15	280022	Shunt, 800 Amp, 50 millivolt		1
*		288569		
16	286810-001	DC Contactor, 800 Amps, 24 VDC		1
*		288566		1
17		Heatsink Assembly (see figure 13)		Ref
18	286333-002	Transformer, 208/240V		1

Note: Item 13 – Current Transformer Usage:
3 CTs used on system input (L1, L2, L3) – shown
1 CT used on input neutral line – not shown
3 CTs used on AC input to TR – not shown



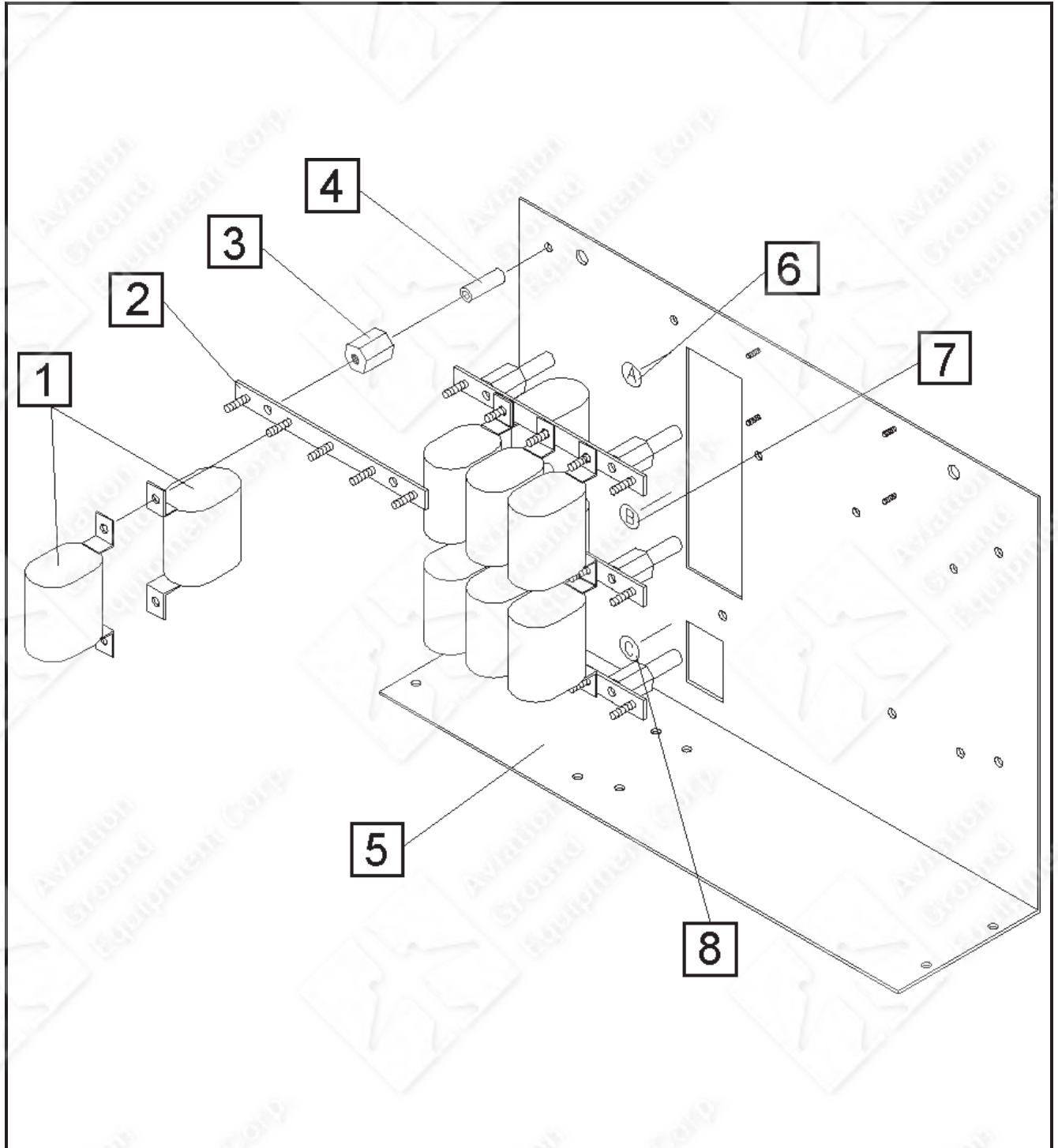
Fan Assembly Components
Figure 6

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
6 -	1	283156-003		1
	2	401911-005		1
*		400792-001		6
*		286486-001		2
	3	402037-006		1
	4	287846		1
	5	283155-003		1
	6	287842		1
	7	281929-015		12



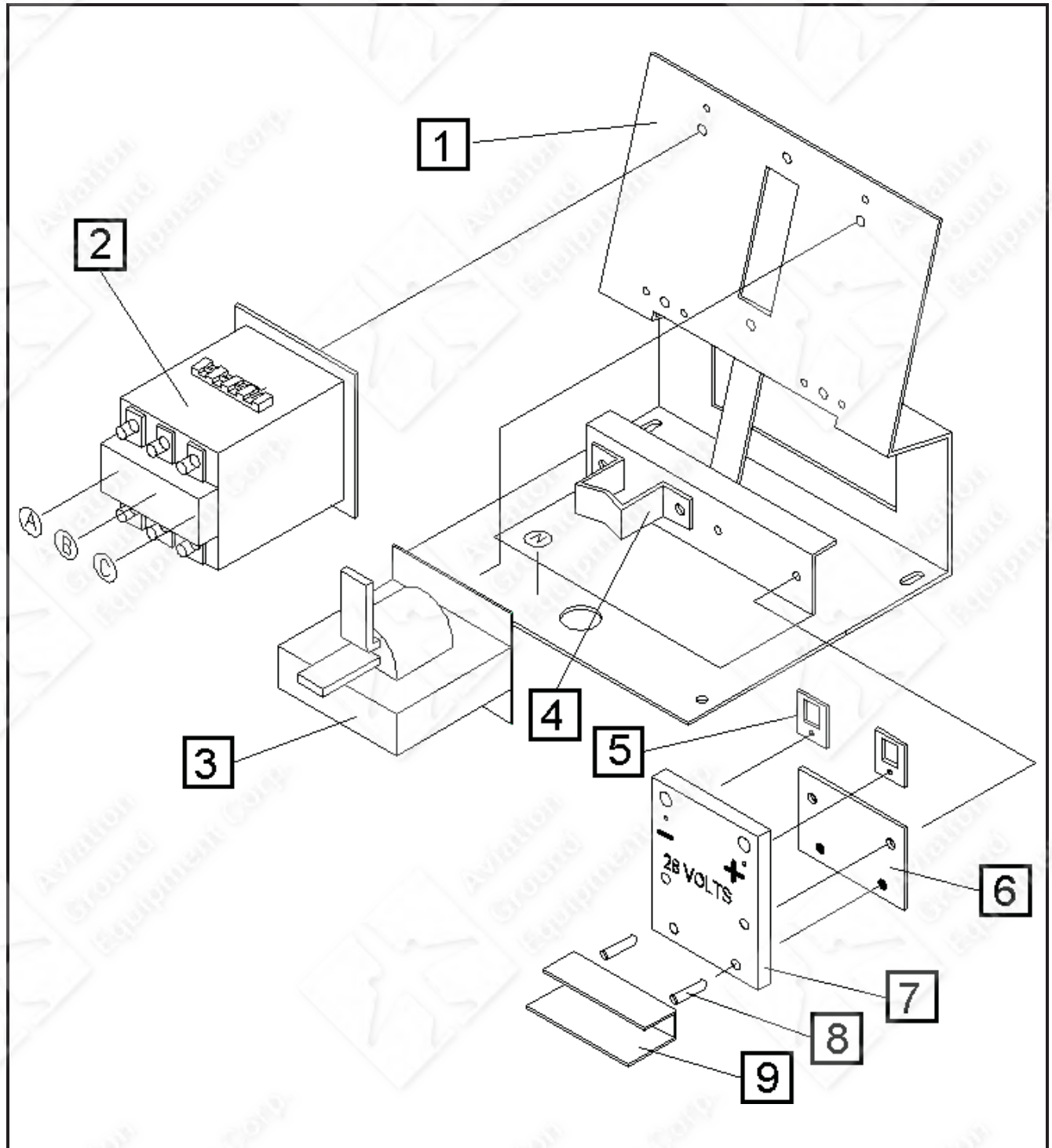
DC Electrolytic Capacitors Assembly
Figure 7

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
7 -	1	286429		1
	2	286440-001		1
	3	281848-001	DC Capacitors, 6800 MFD	4
	4	286433	Long Bus Bar	2
	5	286431	Short Bus Bar	2
6	281971-001	Resistor Assembly		4
7	286250A	Bus Discharge PC Board Assembly		1
8	284316-002	Metal Standoff		4
9	286434	Bottom and Back Insulator		1
10	056210	Neoprene Rubber Strip		1.5 ft.
11	286534	DC Capacitors Bracket		1
12	404249-003	Resistor, 225 W, 50 ohm (V44655 #L225J50R)		1
13	283387-002	Threaded Rod		1
14	286489-001	Centering Washer (V44655 #6003)		2
15	286468	Resistor Bracket		2



AC Capacitor Assembly
Figure 8

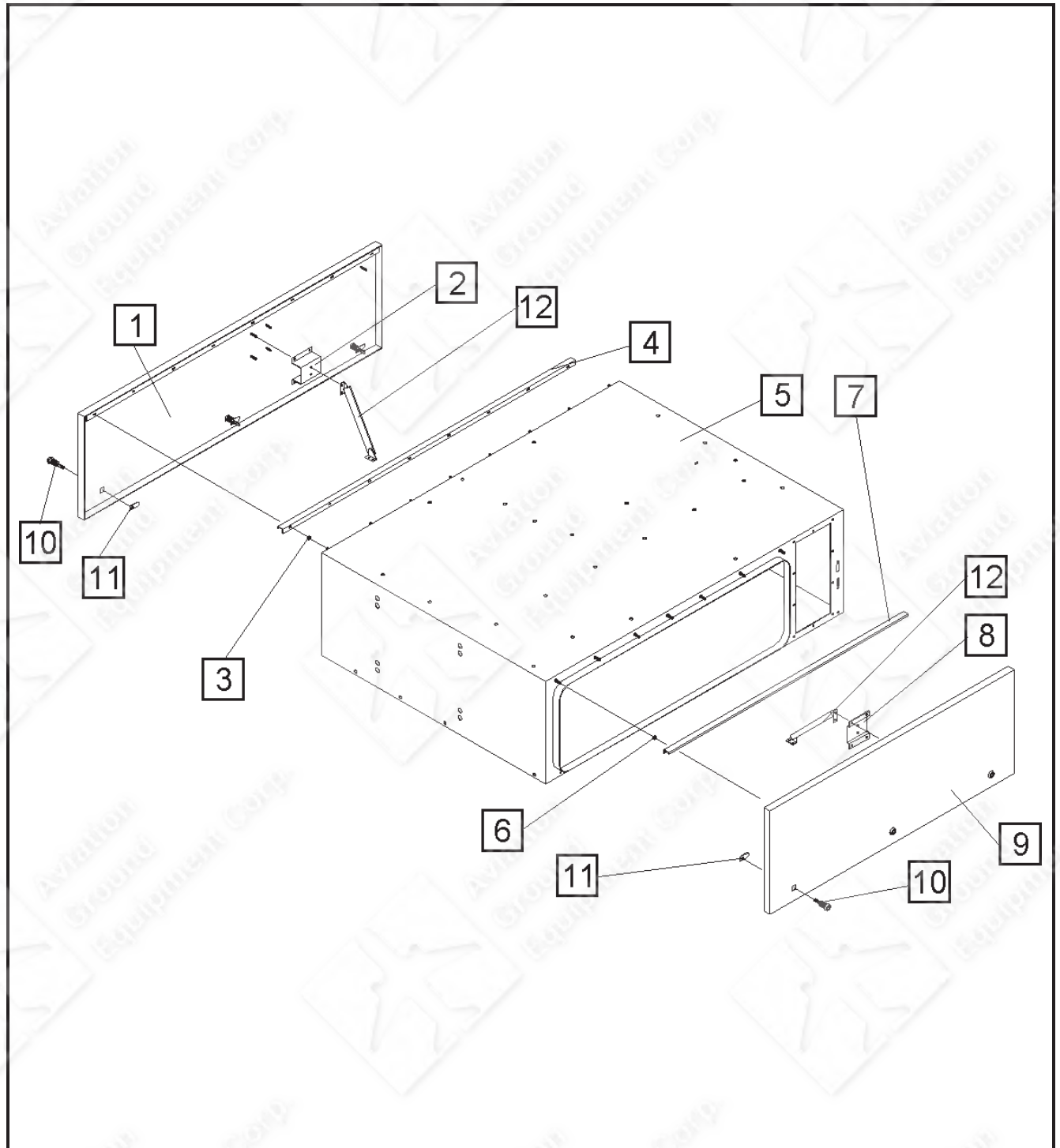
FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
8 -	1	286389-002		12
	2	286406		4
	3	404033		8
	4	286386-001		8
	5	286534		1
	6	77A1107		1
	7	77A1108		1
	8	77A1109		1



Contactor Panel Assembly
Figure 9

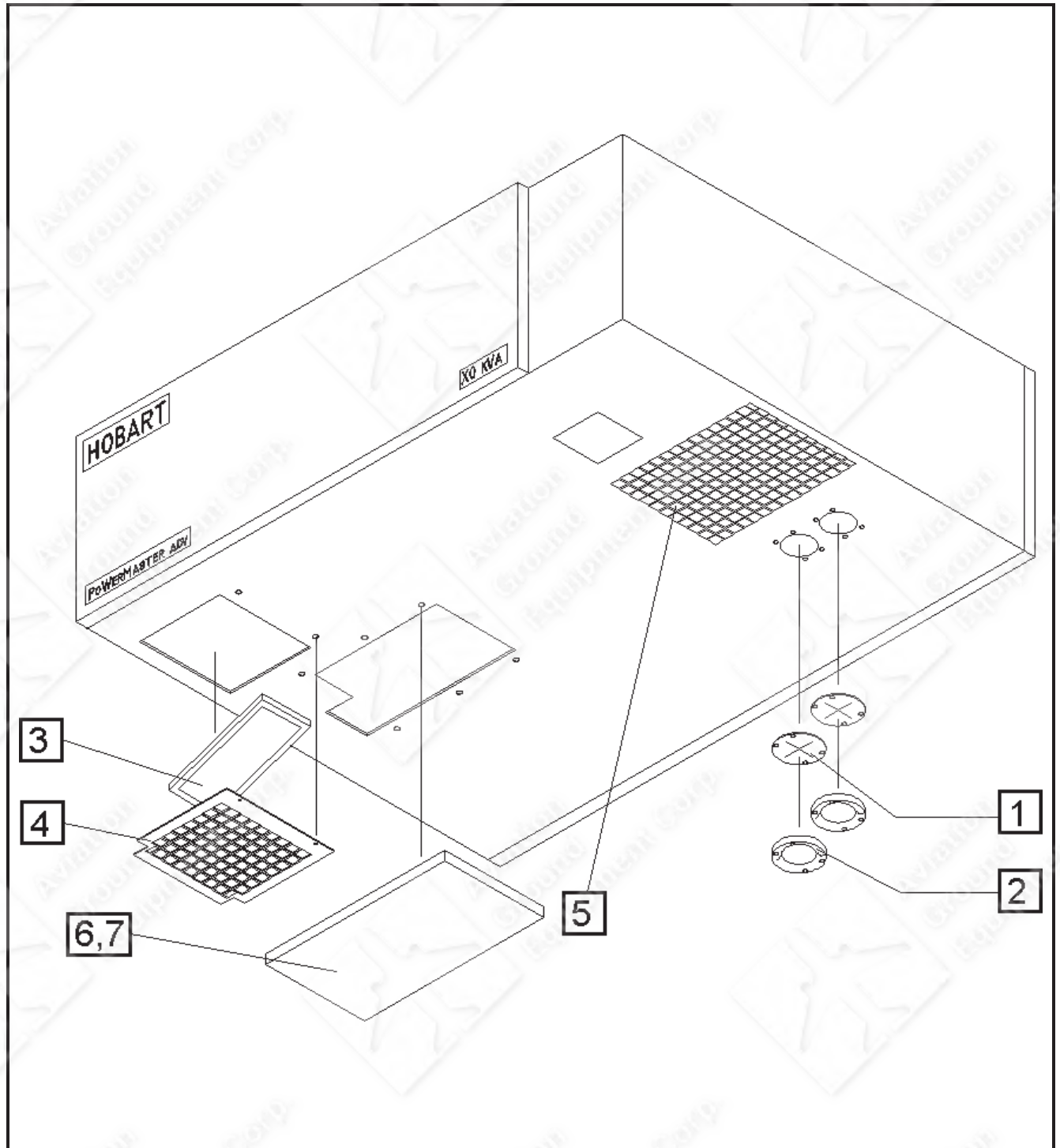
FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
9 -	1	286450		1
	2	282130-001		1
	3	288092		1
	4	284359		1
	4	284397		1
	5	288103		2
	6	288100		1
	7	288101		1
	8	489971		2
	9	283322		1
	10	77A1107		1
	11	77A1108		1
	12	77A1109		1
	13	78A1035		1
	14	400435		1
	15	402674-001		1
	16	402674-002		1

Note: Two clamps of different sizes are included for item 5. Use the size appropriate for your AC cable.



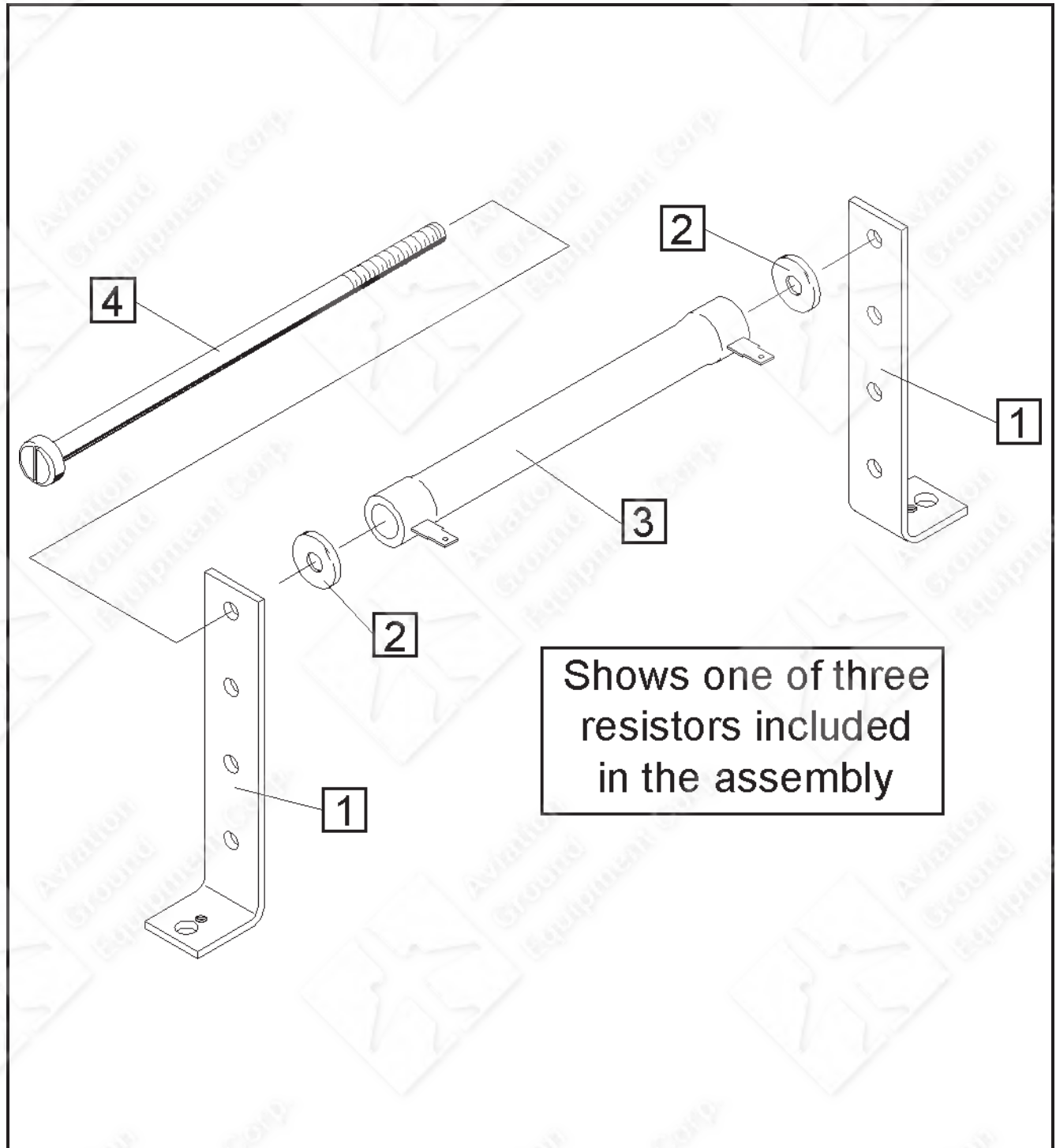
Canopy Components
Figure 10

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
10 -	1	286518		1
*		286485-001		11 ft.
*		288574-002		1
	2	286515		1
	3	286279-001		8
	4	286277		1
	5	286519		1
	6	286279-001		7
	7	286278		1
	8	286498		1
	9	286517		1
*		286485-001		11 ft.
*		288574-001		1
	10	287542-001		6
*		288225		6
	11	287546-001		6
	12	284606-001		2



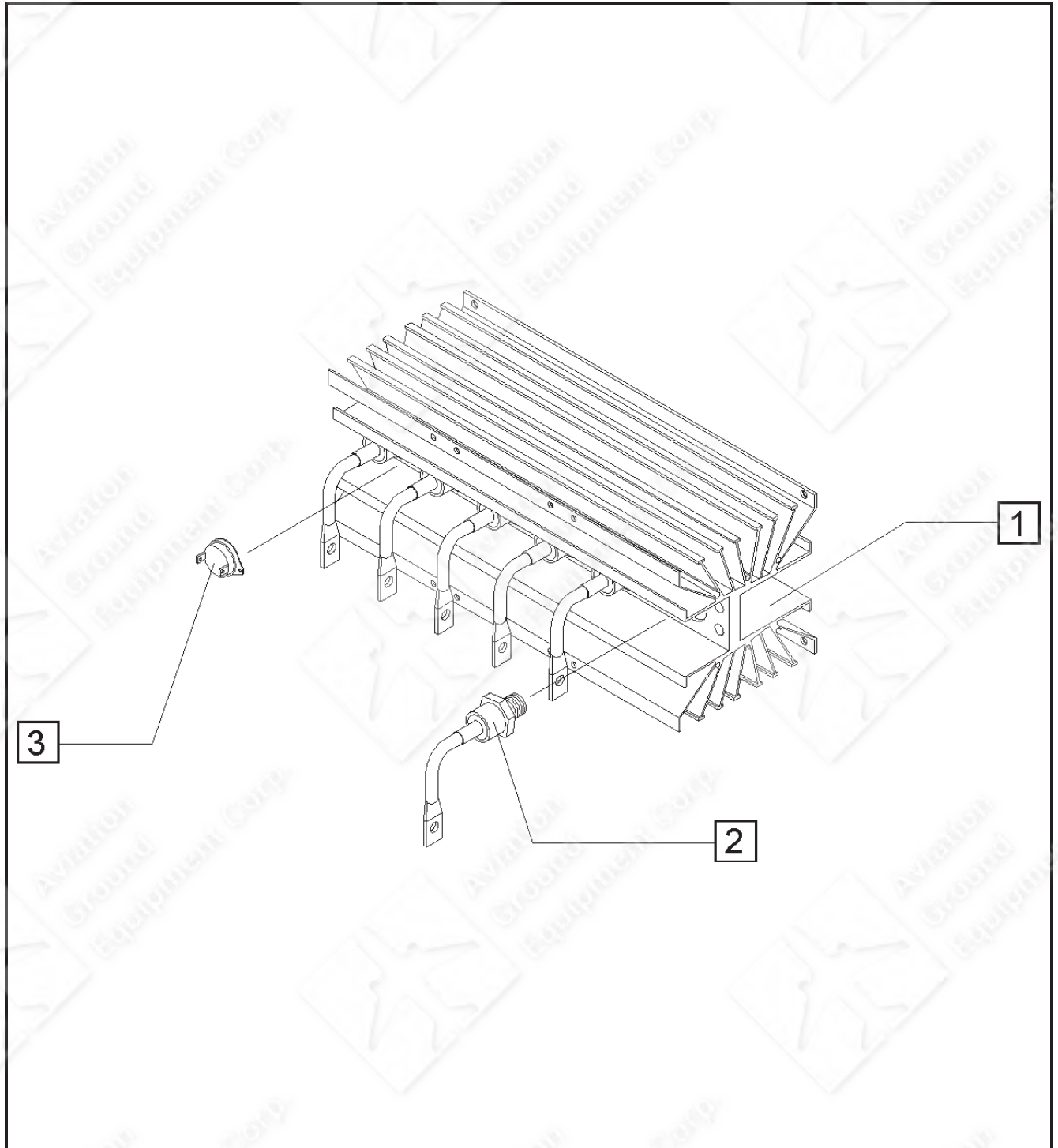
Bottom Panel Components
Figure 11

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
11-	1	286469		2
	2	286478		2
	3	283159-003		1
	4	286455		1
*	283168-002	...Captive Screw		2
*	283171-002	...Captive Screw Receptacle		2
*	283172-001	...Retainer, Metal		2
	5	287853		1
*	6	288552		1
	7	288553		1



Preload Resistor Assembly
Figure 12

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
12-	288095-001	Resistor, Preload Assembly		Ref.
1	288080	...Resistor Mounting Bracket		2
2	16DA3493	...Insulator, Washer		6
3	288380-001	...Resistor, Fixed, 100W		3
4	W11114-012	...Screw, 1/4-20 X 7.25, RD HD, ST.		3



Heatsink / Diode Assembly
Figure 13

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
13 -	1	286603		1
	2	W10931-003		6
	3	404044-004		1
*	4	288550		1
*	5	288571		1
*	6	288551		1
*	7	286266		4
*	8	042580		4 FT.

Section 4 Numerical Index

1) Explanation of Numerical Index

The purpose of this index is to assist the user in finding the illustration and description of a part when the part number is known. Part numbers are arranged in alphanumerical sequence. Thus, any part number beginning with the letter "A" would be located at or near the top of the index list. Likewise, a part number "9" would be listed near the end of the list and far below a part number "1000". The figure number and item number location of the part is directly opposite the part. If the part is used in more than one place, each location is listed commencing with the first location the part is listed.

FIGURE ITEM NO.	HOBART PART NO.	FIGURE ITEM NO.	HOBART PART NO.
3-10	W10502-031	9-4	284359
13-2	W10931-003	9-4	284397
12-4	W11114-012	10-12	284606-001
13-8	042580	5-13	285102-001
7-10	056210	3-2	285104-001
12-2	16DA3493	4-23	285170
5-	16DA4252-037	3-3	285315-001
3-15	181358	3-17	285568
4-	192266-001	4-26	286144
5-15	280022	4-6	286246B
3-19	280673	7-7	286250A
5-9	280673	5-	286266
3-1	280807	13-7	286266
7-3	281848-001	4-2	286269
3-11	281848-002	4-30	286274
6-7	281929-015	10-4	286277
7-6	281971-001	10-7	286278
5-	281971-004	10-3	286279-001
5-	281971-005	10-6	286279-001
9-2	282130-001	4-20	286285-001
5-10	283066-002	5-	286316-001
6-5	283155-003	1-24	286326-001
6-1	283156-003	3-13	286327
2-4	283157-003	5-18	286333-002
11-3	283159-003	2-2	286354
11-	283168-002	4-10	286367-001
11-	283171-002	2-3	286376
11-	283172-001	1-19	286377
4-25	283196-002	5-	286380
4-13	283196-003	5-	286382
9-9	283322	8-4	286386-001
7-13	283387-002	4-16	286389-001
1-9	283714-004	8-1	286389-002
1-9	283714-005	5-12	286392-001
1-22	283716	4-37	286394
4-24	283867-005	1-4	286398-003
4-5	284316-002	4-7	286400A
5-	284316-002	8-2	286406
7-8	284316-002	1-3	286411

FIGURE ITEM NO.	HOBART PART NO.	FIGURE ITEM NO.	HOBART PART NO.
1-1	286416-001	4-21	287824
4-29	286420	4-14	287825
3-18	286423	4-15	287826
7-1	286429	4-18	287830
7-5	286431	4-19	287831
7-4	286433	4-4	287833
7-9	286434	2-6	287836
5-	286438	3-22	287841
7-2	286440-001	6-6	287842
1-21	286442	4-31	287843
4-8	286443	4-3	287844
5-	286444	6-4	287846
3-20	286445	5-7	287847
3-14	286448	11-5	287853
5-	286449	3-16	287856
9-1	286450	4-1	287857
11-4	286455	12-1	288080
1-10	286457	9-3	288092
7-15	286468	5-8	288095-001
11-1	286469	12-	288095-001
1-26	286475-005	1-28	288096
1-26	286475-009	9-6	288100
11-2	286478	9-7	288101
4-11	286482-001	9-5	288103
10-	286485-001	5-14	288117
10-	286485-001	1-23	288164-001
6-	286486-001	10-	288225
7-14	286489-001	12-3	288380-001
5-3	286492-001	5-1	288543-001
10-8	286498	2-5	288549
10-2	286515	13-4	288550
10-9	286517	13-6	288551
10-1	286518	11-6	288552
10-5	286519	11-7	288553
4-9	286528A	5-	288566
5-	286531-001	1-29	288567
4-28	286533	1-30	288568
7-11	286534	5-	288569
8-5	286534	13-5	288571
2-1	286535	10-	288574-001
1-27	286580-006	10-	288574-002
3-23	286597	4-33	288594
4-32	286597	1-18	288730
13-1	286603	1-17	288918-002
5-16	286810-001	5-	288974
1-16	287341	5-	289751
1-25	287341	3-4	291139
4-27	287353A	3-	291268-001
1-20	287460	3-5	291269-002
10-10	287542-001	9-14	400435
10-11	287546-001	1-	400613-004

FIGURE ITEM NO.	HOBART PART NO.
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1-	400613-004
1-	400613-004
1-	400613-004
6-	400792-001
6-2	401911-005
6-3	402037-006
4-	402674-001
9-15	402674-001
4-	402674-002
9-16	402674-002
3-12	402682
1-11	402987
4-17	403955-021
8-3	404033
4-12	404044-004
13-3	404044-004
7-12	404249-003
3-9	404960-034
4-22	407970
9-8	489971
5-4	493712
4-36	77A1107
8-6	77A1107
9-10	77A1107
4-35	77A1108
8-7	77A1108
9-11	77A1108
4-34	77A1109
8-8	77A1109
9-12	77A1109
9-13	78A1035
1-6	82B1066-001
1-5	82B1066-010
1-7	82B1066-012
1-8	82B1066-013
3-8	83A1112
3-7	83A1113
3-6	83A1114