



Illustrated Parts List for GPU-600
3-Phase Solid State
Transformer-Rectifiers



Series 500082-6xx
28.5 Volts, 600 Amps

Section 1 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
Ft-lb.	-	Foot-pounds
Hd.	-	Head
Hex	-	Hexagon
Hz	-	Hertz (cycles-per-second)
I.D.	-	Inside diameter
IN	-	Inch
KVA	-	Kilovolt-ampere
UF	-	Microfarad
Number	-	Number
NHA	-	Next higher assembly
N-m	-	Newton-meters
PRV	-	Peak reverse voltage
PSI	-	Pounds per square inch
Ref	-	Reference (the item has been listed previously)
TM	-	Technical Manual
T-R	-	Transformer-rectifier
V	-	Volt (when used as a prefix to a five-digit number, indicates vendor code)

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



Figure 1 Final Assembly of GPU-600 Power Supply

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.	
1		Base Assembly (See Figure 4)		Ref.	
2	288267	Panel, Side		2	
3	288266	Panel, Top		1	
4	283323	Bracket, Cable Hanger		4	
5	282658	Label, Warning Clearance		1	
6	402025-002	Cable, Output, 28 V , 20 ft <i>[Other Lengths Available]</i>		1	
7	288356	Handle Assembly	A-G	1	
	288284	...Handle, 5 th Wheel	A-G	1	
	288281	...Latch, 5 th Wheel	A-G	1	
	288298-001	...Grip, Foam	A-G	2	
*	8	288362-001	Cover, Protective, Changeover Board	A,C,F,J,L	1
*		288362-002	Cover, Protective, Changeover Board	B,E,G,H,K	
*	9	78B1130	Nameplate, Identification		1
*	10	286441	Label, General		1
*	11	288866	Label, Service		1
*	12	287460	Label, Danger, High Voltage	D,E,H	1
*	13	288322	Label, Fan	D,E,H	1
*	14	288300	Label, Emergency Stop	D,E,H	1
*	15	287547-001	Label, CE		1
*	16	288272	Support, Bridge Mount	J,K,L	2
*	17	288542	Shield, Control Box		1

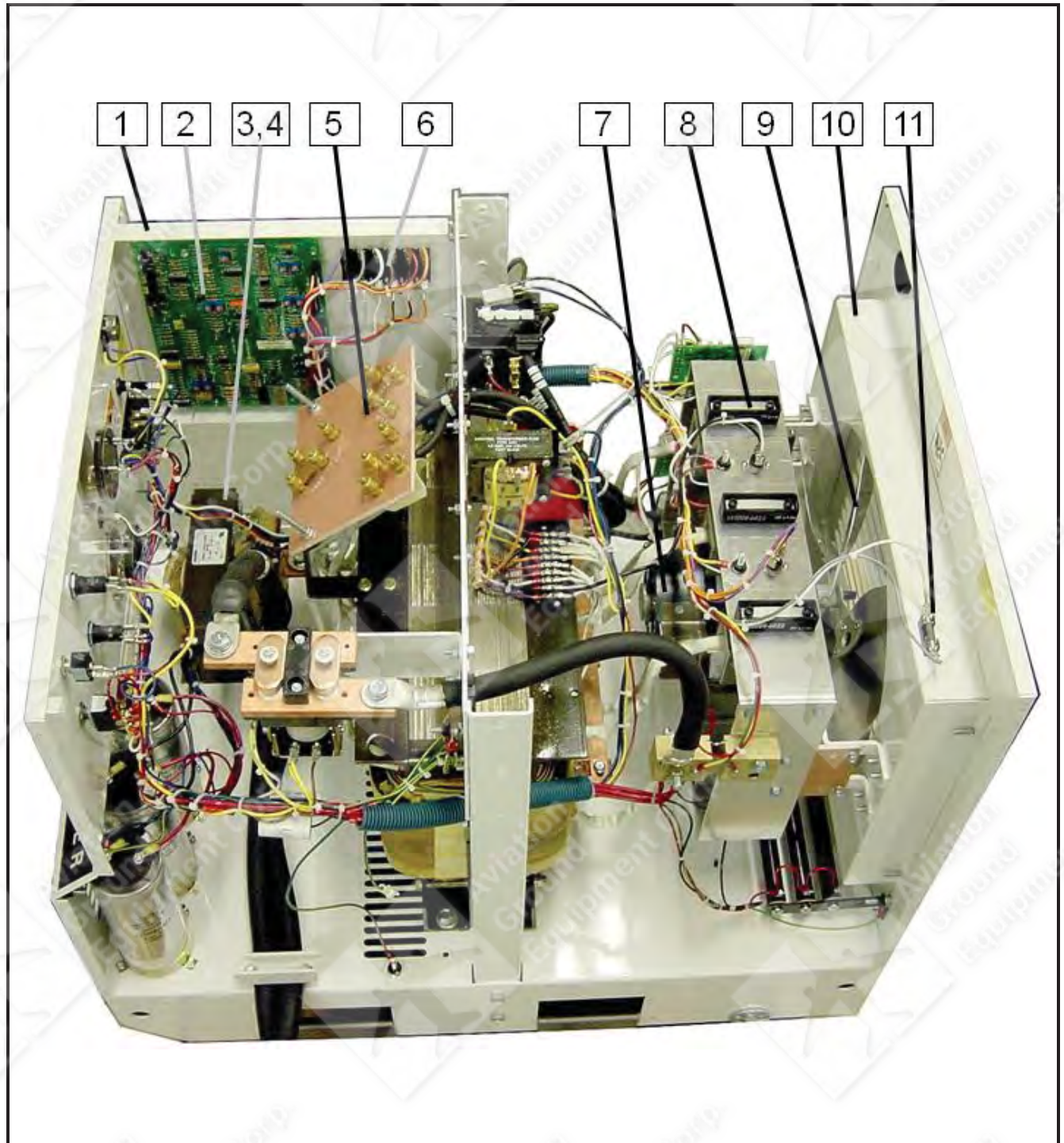


Figure 2 Internal Components – Part 1

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.	
2 -	1	288271		1	
	2	180294B		1	
		404915-001	...Spacer, Pc Board	6	
	3	180480	Choke Assembly	1	
4	180065	Shunt, 2000 Amp, 50 mV (for ammeter)		1	
5	Ref.	Voltage Changeover Board (see note)		Ref.	
6	405129-001	Block, Fuse		1	
	W11166-009	...Fuse, Fast Blow, AGC 1 A, 250 V		6	
	83A1105	...Label, Fuse		1	
7	287637	Motor, Fan		1	
8	288305-002	Rectifier, Output, SCR Assembly (See Figure 7)		1	
9	406991	Blade, Fan		1	
10	201016	Shroud, Fan		1	
	288322	...Label, Warning, Fan		1	
	400234-003	...Tag, Instructions		2	
	201015	...Bracket, Mounting, Fan Shroud		2	
11	288303-001	Block, Fuse		1	
	400647-005	...Fuse, 5 A		1	
	288363	...Label, Precautionary, Fan Fuse		1	
*	12	408567	Relay, 24 VAC, 4PDT (shown on Figure 6)	J,K,L	2
*		408352	...Socket, Relay	J,K,L	2
*		408585	...Spring, Relay	J,K,L	2
*		288366	...Chart, Wire, Bridge Mount Units	J,K,L	2

Note: Item 5, the Voltage Changeover Board, is part of the transformer.

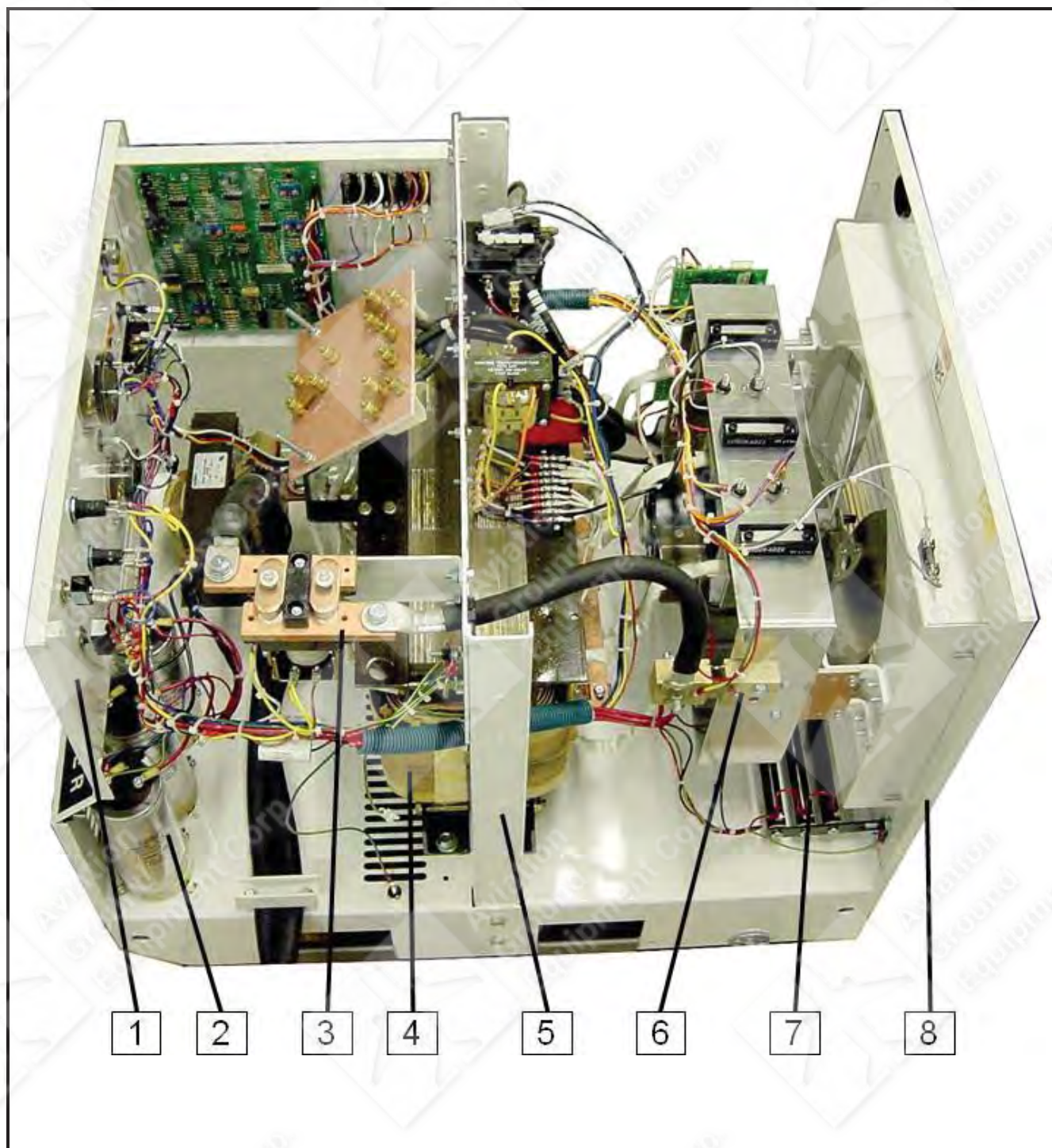


Figure 3 Internal Components – Part 2

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
3 -	1	Panel, Front, GPU, Ay. (See Figure 5)		Ref.
	2	405278-007 Capacitor, ALS, 115000 MF, 40 VDC (V56289, # 36DX772F200DF2A)	A,C,F,J,	3
		Capacitor, ALS, 115000 MF, 40 VDC	B,E,G,H,K	4
*	350488-094	...Insulator, Mylar, .014, 2" Wide	A,C,F,J,	3
*		...Insulator, Mylar, .014, 2" Wide	B,E,G,H,K	4
*	361052-009	...Clamp, Mounting, Capacitor	A,C,F,J,	3
*	361052-009	...Clamp, Mounting, Capacitor	B,E,G,H,K	4
*	788732	Cover, Capacitors, CE	E,H	1
3	286810-001	Output Contactor, 28.5 VDC		1
4	589561	Transformer, Power	A,F,J	1
	180358	Transformer, Power	B,E,G,H,K	1
	181565	Transformer, Power	C,	1
5		Panel, Interior Assembly (See Figure 6)		Ref.
6	280023	Feedback Shunt (See Figure 7)		Ref.
7	487050-005	Resistor, Pre-load, Assembly		1
8	489603	Panel, Rear		1
	403091-008	...Plug, Hole, Plastic		1
*	9	488819 Cable, 2/0 (#202)		1
*	10	W9760-066 Cable, # 6 (#201)		1
*	11	288731 Cover, Contactor & Transformer	E,H	1
*	12	288732 Cover, Capacitors, CE	E,H	1

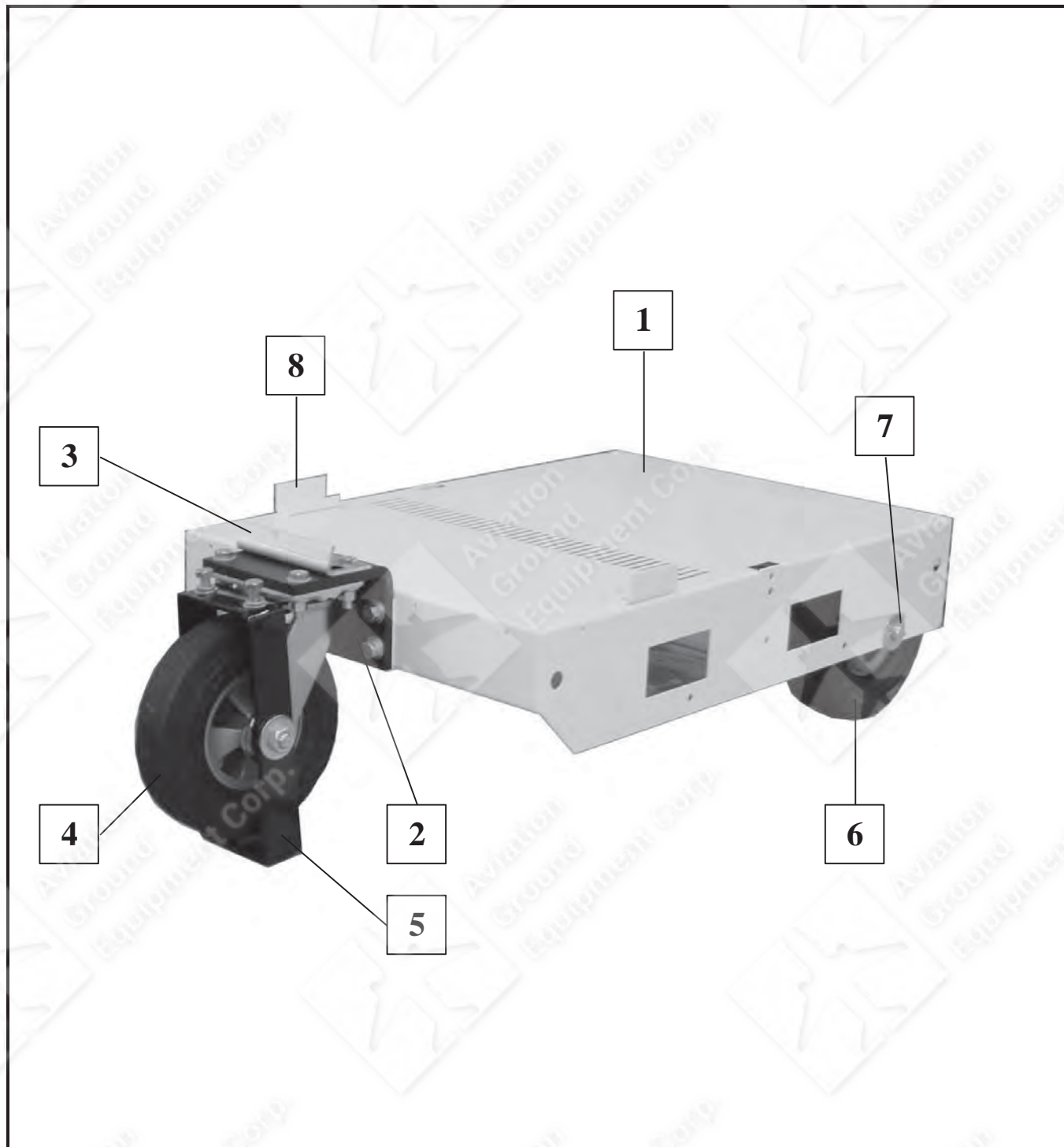


Figure 4 Base Assembly

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
4 -	288321-001	Base, Ay.	A-E	1
	288321-002	Base, Ay.	F-K	1
1	288262	Base, Mounting, GPU		1
2	288282	Support, Caster, 5 th Wheel	A-E	1
	288349	...Spacer, 5 th Wheel	A-E	1
3	288283	Catch, Latch	A-E	1
4	288297-001	Kit, Caster	A-E	1
5	288353	Brake, 5 th Wheel	A-E	1
6	83B1101	Tire, Symmetrical, Ball Bearing, 10°	A-E	2
7	288251	Axle, Mounting, Wheels	A-E	1
8	486143-002	...Spacer, Black, Pipe	A-E	2
	283322	Bracket, Output, Cable		2
	489971	...Spacer, Output Cable		4

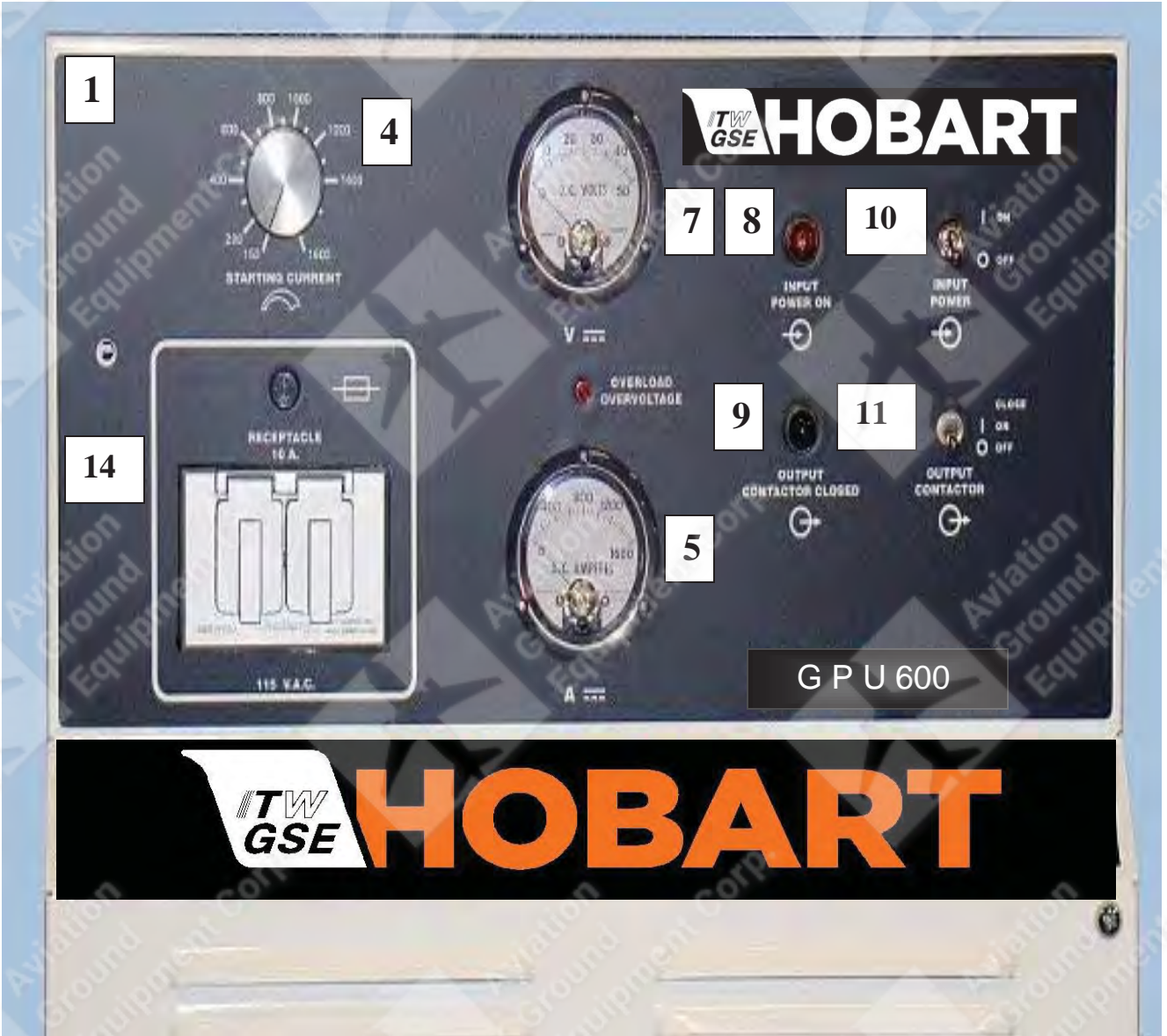


Figure 5 Front panel Assembly

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
5 -	288307-003	Panel, Front, GPU, Assembly	A,C,F,J,L	1
	288307-004	Panel, Front, GPU, Assembly	B,G,K	1
	288307-006	Panel, Front, GPU, Assembly	E,H	1
	288307-008	Panel, Front, GPU, Assembly		1
1	288270	Panel, Front		1
2	288280-002	Label, Controls (GPU-600)		1
3	286607-001	Potentiometer, 10k Ohm, 2 W (see note)		Ref.
4	16DA2162	Knob, Rheostat (V44655, #5150)		1
5	400641-012	Ammeter, DC, 0-2000 Amps, 50 mVDC		1
6	405072-002	Diode, Light		1
	405734	...Clip, Retainer, LED		1
7	400642-003	Voltmeter, DC		1
8	180914	Base, Light, Pilot		1
	400613-006	...Lamp, 120 MB, 120 V, .025 A, T-2-1/2	A-C,F-G,J-	1
	400613-003	...Lamp, Type 757, 28 V, .08 A	E,H	1
	404172-002	...Lens, Light, Pilot, Amber (V72619)		1
9	180914	Base, Light, Pilot		1
	400613-003	...Lamp, Type 757, 28 V, .08 A		1
	404172-003	...Lens, Light, Pilot, Green (V72619 #261193300)		1
10	405365-001	Switch, Toggle		1
11	403189	Switch, Toggle, 3 Position (V91929, #312TS)		1
*	12	287460	Label, Danger, High Voltage [Not Shown]	1
	13	288365	Nameplate, ITW GSE, GPU	1
	14	402670	Receptacle, 3-Wire [125 V, 15 A]	A,C,F,J,
		404277	...Cover, Receptacle (V81703, # WPDC)	A,C,F,J,
		401532-002	...Suppressor Assembly	A,C,F,J,
15	404336	Receptacle, 3-Wire [230 V, 15 A] (V77116)	B,E,G,H,K	1
		404335	...Cover, Receptacle (V81703, # WPRC)	B,E,G,H,K
		403955-017	...Suppressor Assembly	B,E,G,H,K
16	402658	Holder, Fuse (V71400, # HKP-HH)		1
		400647-008	...Fuse, 10 A, 250 V (V71400, # ABC-10)	1
17		Grounding Hardware		Ref.
*	18	288364	Label, Precautionary, Recpt., Fuse	1
*	19	288351	Harness, Wire [not shown]	1
*	20	77A1157	Switch, Maintained, Push/Pull	E,H

Notes:

- A,C,F,J are 60 Hz.
- B,E,G,H,K are 50 Hz.
- Potentiometer (item 3) is included with wire harness (item 19)

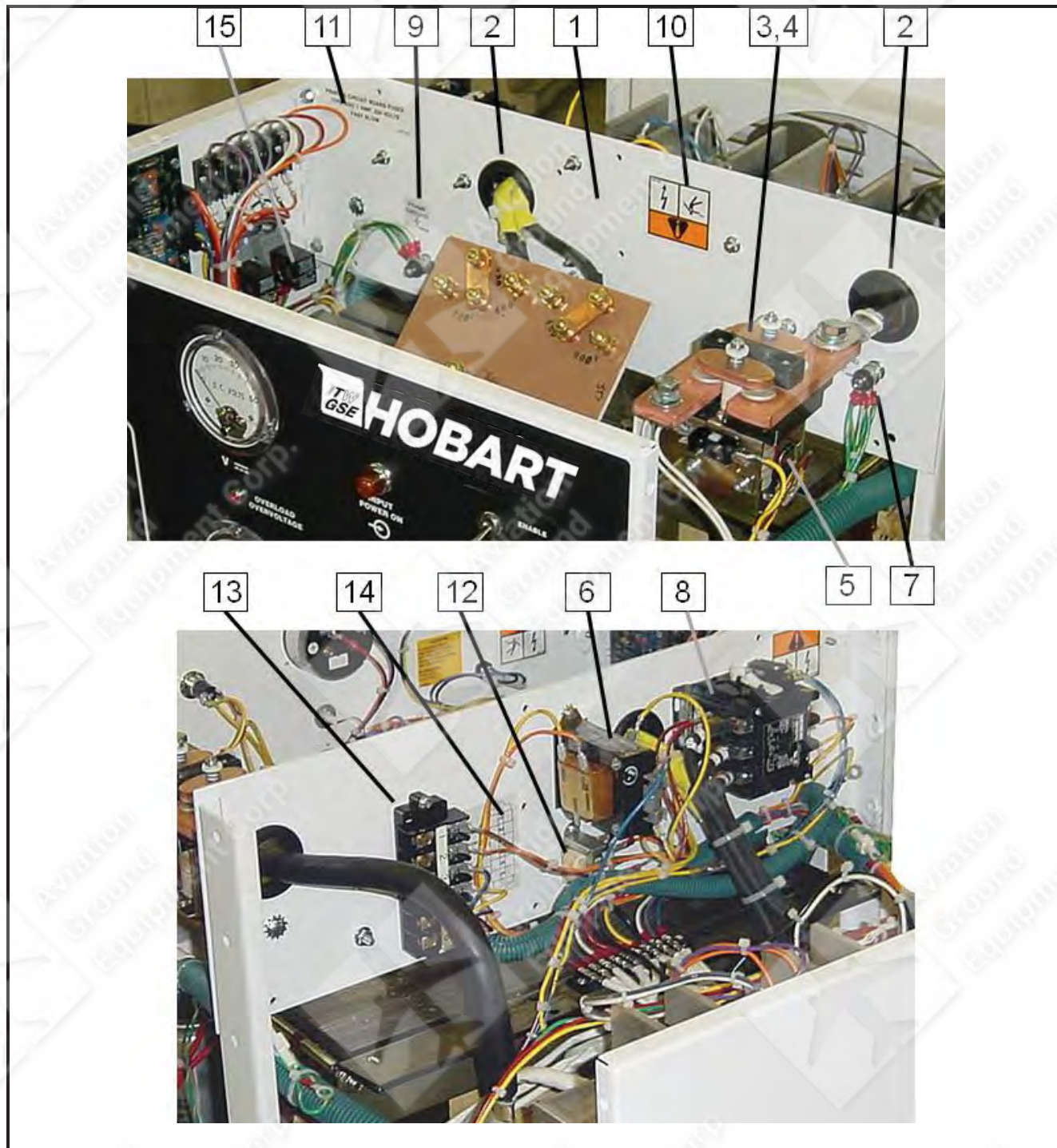


Figure 6 Interior Panel Assembly (shown with bridge mount option)

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
6 -	288310-001	Panel, Interior, Ay.	A,F	1
	288310-002	Panel, Interior, Ay.	B,C,G	1
	288310-003	Panel, Interior, Ay.	J	1
	288310-004	Panel, Interior, Ay.	K	1
	288310-005	Panel, Interior, Ay.	E,H	1
	288310-006	Panel, Interior, Ay.		1
1	288273	Panel, Interior		1
2	402037-027	Grommet, Rubber		2
3	487898A	Bracket, Contactor		1
4	286810-001	Contactor, 28.5 VDC		1
5	201673-004	Diode Assembly (on line contactor)		1
6	406392-001	Transformer, Control	A,F,J	1
	406392-002	Transformer, Control	B,C,G,K,	1
	406247-002	Transformer, Control		1
	406247-003	Transformer, Control	E,H	1
	406484	...Label, Fuse, 4-400-S, .5 Amp, 250 V		1
	W11166-011	...Fuse, Fast Blow, AGC (V71400, #AGC/2)		1
7		Grounding Screws (1/4-20 Hardware)		3
8	400663	Contactor, Line	A-C,F-G,J-	1
	288733-001	Contactor, Line	E,H	1
9	405548	Label, Ground		3
10	287460	Label, Danger, High Voltage		2
11	83A1105	Label, Fuse "PC Board Fuses"		1
12	408584	Transformer, Signal	J,K,	1
13	283066-001	Block, Terminal, 6 Position	J,K,	1
14	286432-001	Label, Bridge Interlock	J,K,	1
15		Relays for bridge mount (see Figure 2)	J,K,	Ref

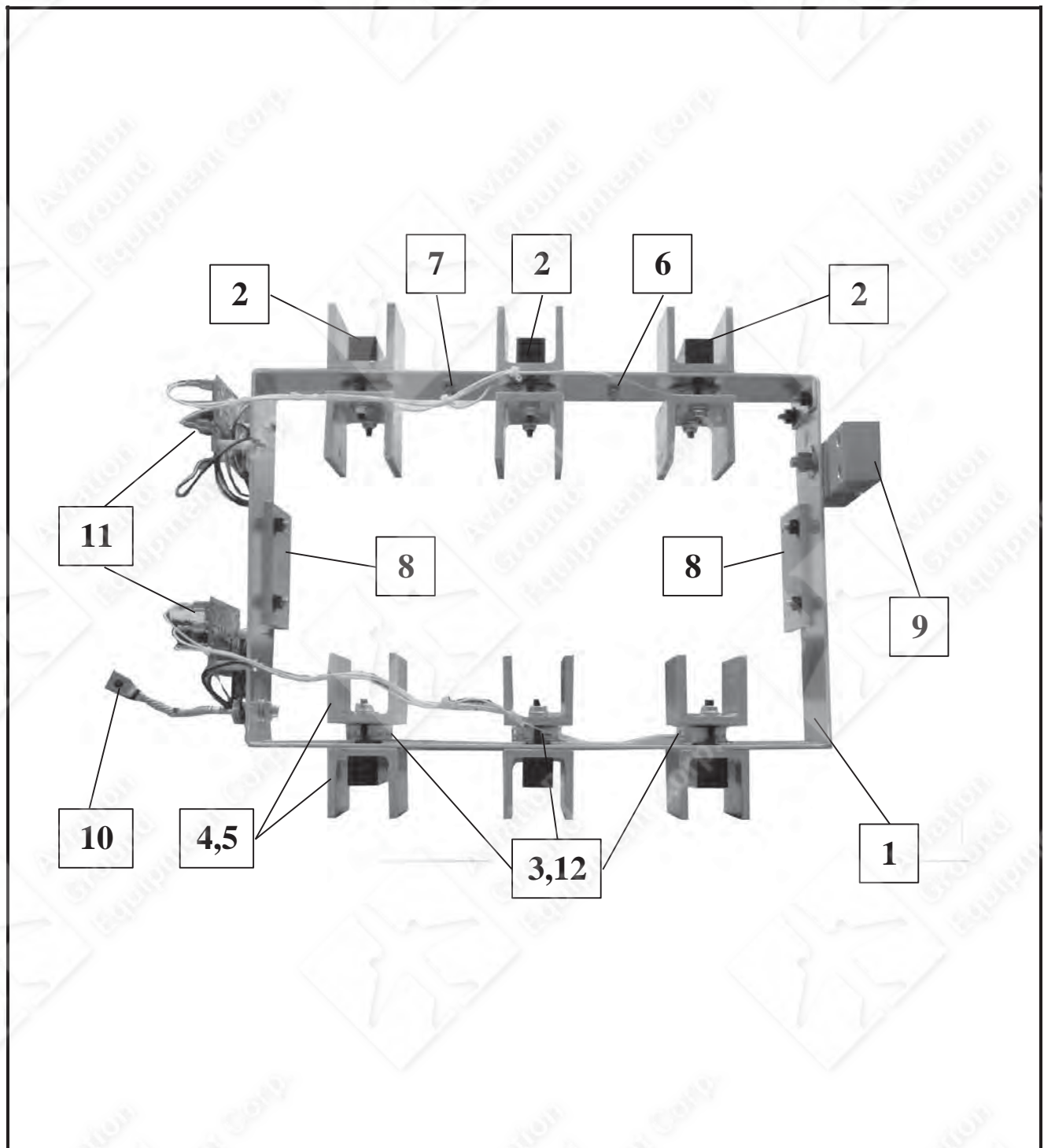


Figure 7 SCR Output Rectifier Assembly of GPU-600 Power Supply

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
7 -	288305-002	Rectifier, Output, SCR Assembly GPU-600		Ref.
1	288277	Heat Sink, Rectifier		1
2	405140-001	Clamp, Mounting		6
3	405139	Rectifier, Silicon, Cont.		6
4	369642	Heat Sink, SCR		6
5	288304	Heat Sink, SCR, Top		6
6	287929-001	Thermostat, Overload		1
7	404044-006	Thermostat, Fan Turn On		1
8	369641	Insulator, Mounting, Rectifier		2
9	280023	Shunt, 1200 A, 50 mV, Assembly		1
10	402832-003	Diode, Silicon, Positive Base		1
11	367634A-003	Suppressor, Surge, Assembly		2
12	16DA954-012	Pin, Spring		6

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