

Service Guide: Power Supply Model 153808

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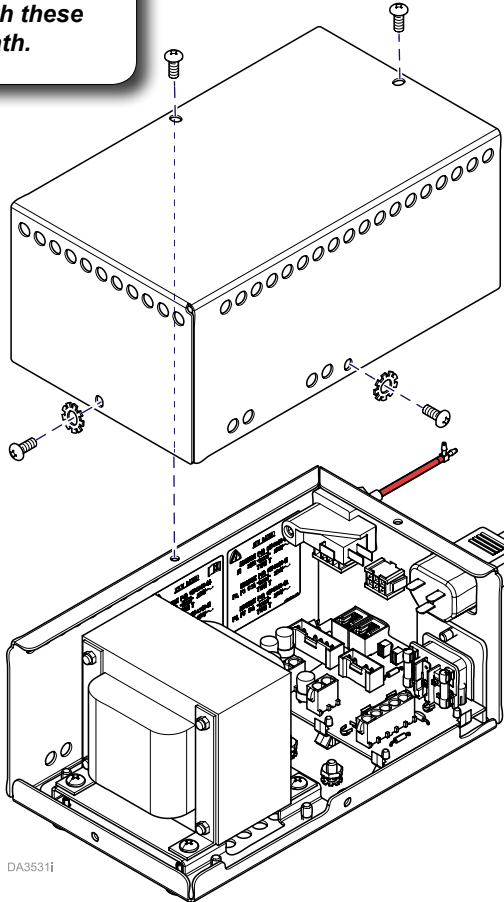
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Language of origin: English

Note
 The Power Supply, converts, regulates and distributes electric power from the electrical mains supply to components installed on Midmark Dental Chairs.

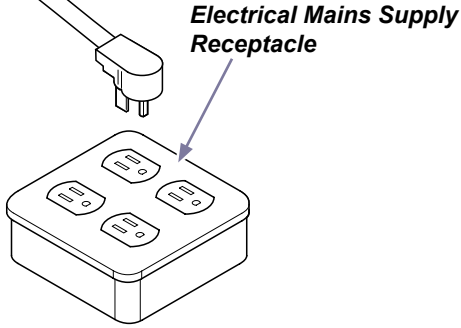
Accessing the Power Supply

DANGER
 To prevent the possibility of electrical shock, always disconnect electrical mains supply to the Power Supply before removing the cover. Failure to comply with these instructions could result in severe personal injury or death.



To access the power supply...

- A) Disconnect power.
- B) Remove four screws and two lock washers
- C) Lift cover from the power supply.



DA3531i

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Replacing Fuses



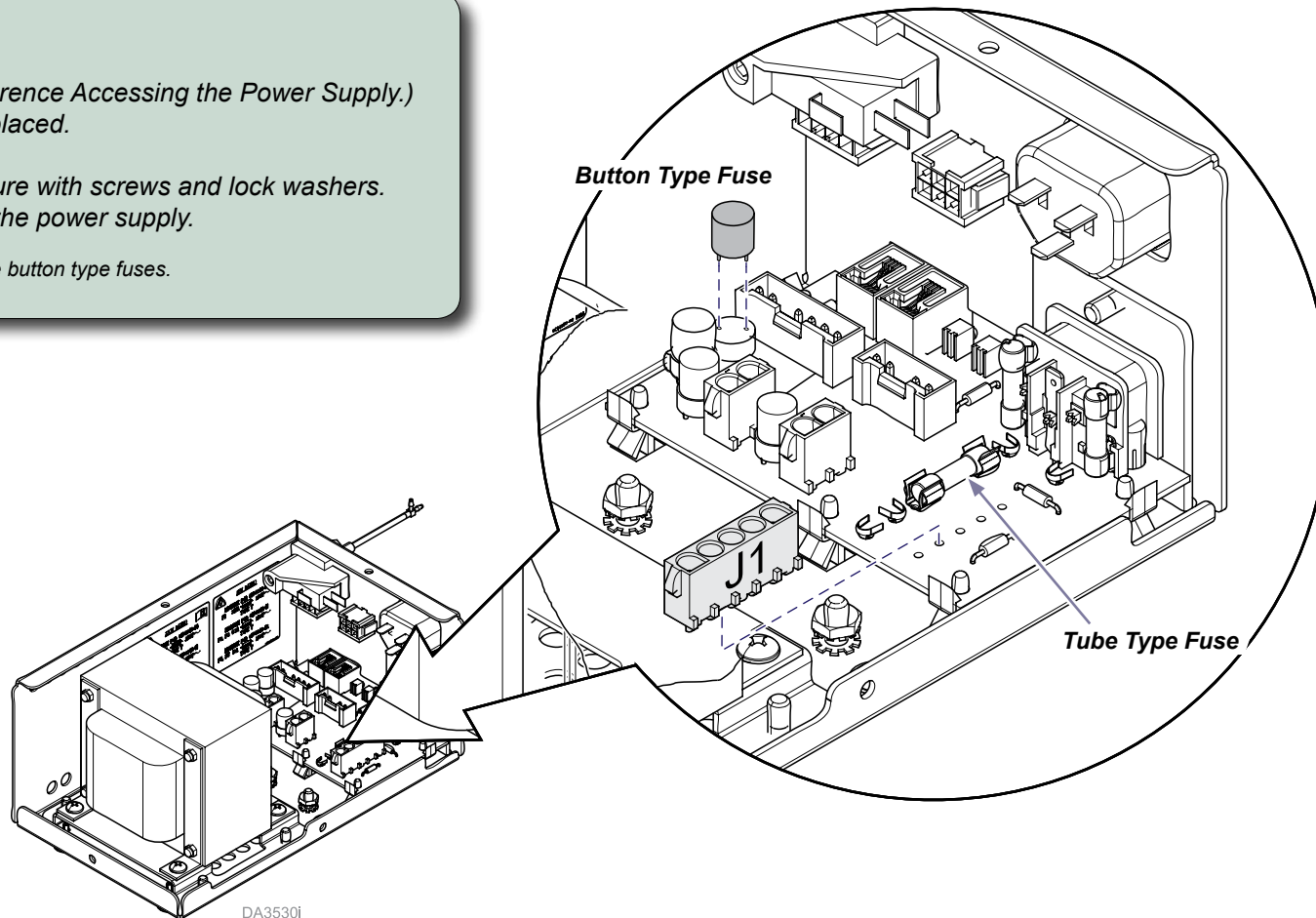
DANGER

To prevent the possibility of electrical shock, always disconnect electrical mains supply to the Power Supply before removing the cover. Failure to comply with these instructions could result in severe personal injury or death.

To replace fuses...

- A) Disconnect power.
- B) Remove cover. (Reference Accessing the Power Supply.)
- C) Extract fuse to be replaced.
- D) Install new fuse.
- E) Install cover and secure with screws and lock washers.
- F) Reconnect power to the power supply.

Note: Lift straight up to remove button type fuses.



[Fuse Specifications](#)

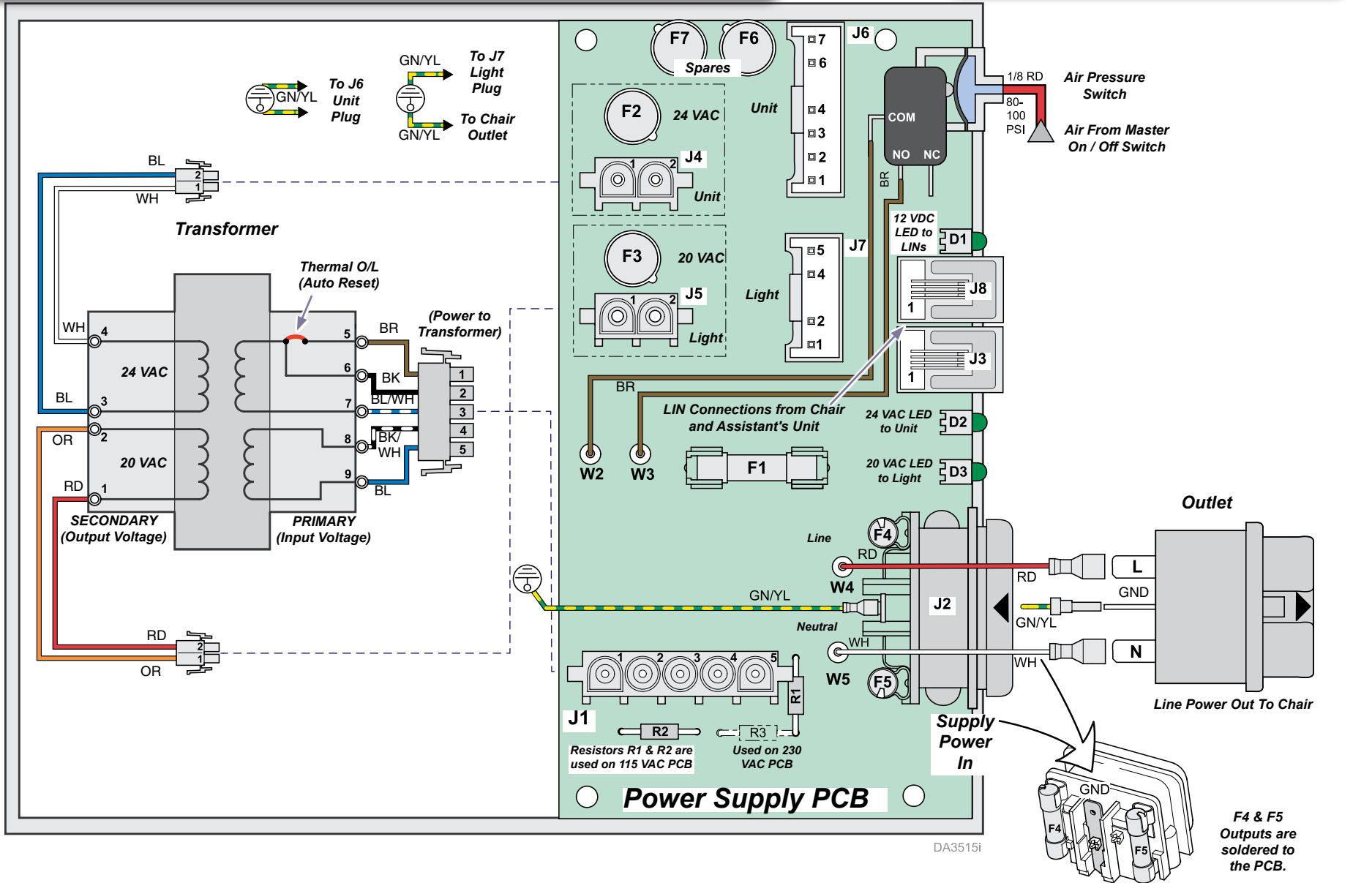
Wiring Diagram - Power Supply Assembly

Note This drawing is for clarity. All leads come out the same side of the transformer.



Equipment Alert

Use care to prevent static discharge when handling PC Boards.



Fuse Specifications

Fuse	Rating	Notes
F1	20 VAC	Light
F2	24 VAC	Unit
F3	20 VAC	Light
F4	12 VDC	LED to LINs
F5	24 VAC	LED to Unit
F6	24 VAC	Spares
F7	24 VAC	Spares

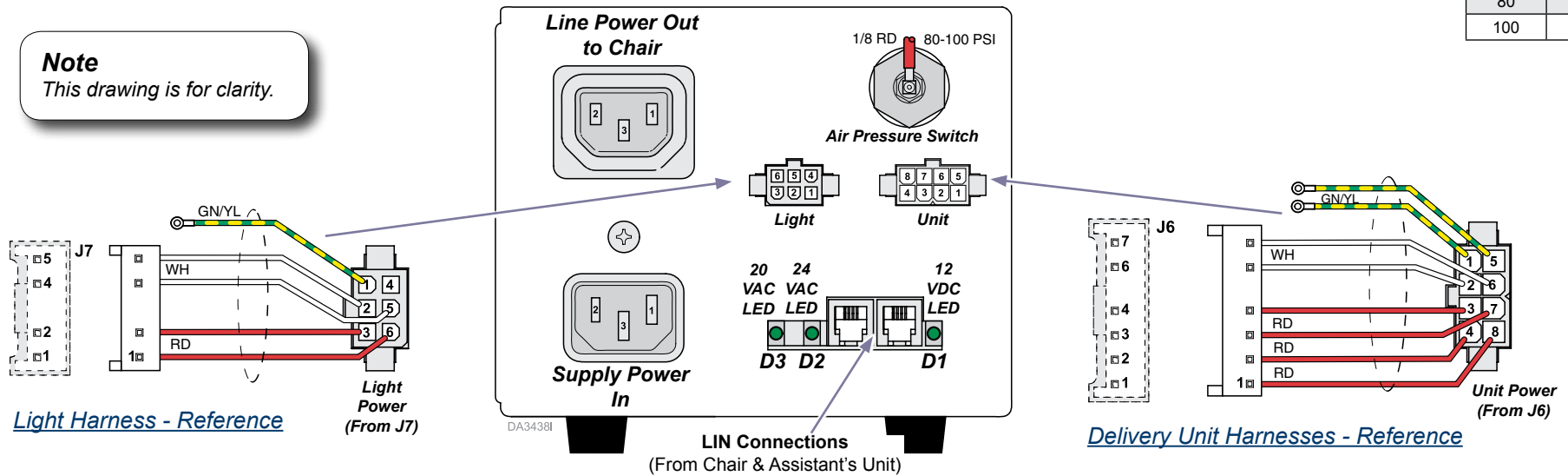
F4 & F5 Outputs are soldered to the PCB.

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Wiring Diagram - Power Supply Assembly (End View)

PSI	kpa
30	206.8
50	344.7
80	551.6
100	689.5

Note
This drawing is for clarity.



Light Harness - Reference

Delivery Unit Harnesses - Reference

POWER SUPPLY PCB TEST POINTS
(Refer to Wiring Diagram - Power Supply Assembly)

Note: Air Pressure Switch must be operated. (Contact COM & NO closed)
All fuses, F1, F2, F3, F4, & F5 must be good.
Transformer Thermal Overload (O/L) must be closed.

Line Voltage at J2 Supply Power In

- Terminals W4 & W5

Line Voltage on PCB

- Terminals W3 & W5
- Terminals W2 & W5
- Terminal W5 & on J1 plug terminal 1 (Brown lead)

Line Voltage for 115 or 230 VAC to Transformer

- Line Voltage at J1 plug Terminals 1 & 5
- 115 VAC at Terminals 2 & 3
- 115 VAC at Terminals 4 & 5

24 VAC Supply to Unit

- J4 plug Terminals 1 & 2
- J6 plug Terminals 1 & 3, 2 & 4 (D2 LED is ON).

20 VAC Supply to Light

- J5 plug Terminals 1 & 2
- J7 plug Terminals 1 & 2 (D3 LED is ON)

12 VDC Supply to LIN Connections (Chair & Assistant's Unit)

- J3 plug Terminals 1 & 2
- J8 plug Terminals 1 & 2 (D1 LED is ON)

Continuity Check of Transformer's Thermal Overload (O/L)
Continuity should be present at Transformer Brown & Black leads

- J1 plug Terminals 1 & 2

LED Power Indicators	
D1	ON when 12 VDC is supplied to J3 & J8 LIN Connections.
D2	ON when 24 VAC is supplied to J6 Unit Connector.
D3	ON when 20 VAC is supplied to J7 Light Connector.

Power to Unit J6 Plug	
1	PE Gnd
2	LIN Gnd
3	24 VAC Com
4	24 VAC
5	PE Gnd
6	LIN
7	24 VAC Com
8	24 VAC

Power to Light J7 Plug	
1	PE Gnd
2	LIN Gnd
3	20 VAC Com
4	N/C
5	LIN
6	20 VAC



















Chair - Power	
1	Line
2	Neutral
3	PE Gnd

Supply Power In J2 Plug	
1	Line
2	Neutral
3	PE Gnd

Note:
PE Gnd.....Protective Earth Ground.
LIN Gnd...Chair Control DCV Ground reference.

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Color Abbreviation Chart

	Item	Color (English)	Farbe (Deutsch)	Couleur (Français - Europe)	Color (español europeo)	Colore (italiano)	Color (others)
	BK	Black	Schwarz	Noir	Negro	Nero	
	BL	Blue	Blau	Bleu	Azul	Blu	
	BR	Brown	Braun	Marron	Marrón	Marrone	
	CL	Clear	Durchsichtig	Incolore	Transparente	Trasparente	
	GN	Green	Grün	Vert	Verde	Verde	
	GY	Grey	Grau	Gris	Gris	Grigio	
	OR	Orange	Orange	Orange	Naranja	Arancione	
	PR	Purple	Purpur	Pourpre	Morado	Porpora	
	CL/PR	Clear Purple	Durchsichtig Purpur	Incolore Pourpre	Transparente Morado	Trasparente Porpora	
	RD	Red	Rot	Rouge	Rojo	Rosso	
	WH	White	Weiß	Blanc	Blanco	Bianco	
	YL	Yellow	Gelb	Jaune	Amarillo	Giallo	
	PK	Pink	Pink	Rose	Rosa	Rosa	
	TN	Tan	Hellbraun	Fauve	Marrón claro	Tanè (marrone scuro)	
	BK/WH	Black/White	Schwarz / Weiß	Noir / Blanc	Negro / Blanco	Bianco / Nero	
	BL/WH	Blue/White	Blau / Weiß	Bleu / Blanc	Azul / Blanco	Blu / Bianco	
	BR/WH	Brown/White	Braun / Weiß	Marron / Blanc	Marrón / Blanco	Marrone / Bianco	
	CL/BK	Clear / Black	Durchsichtig / Schwarz	Incolore / Noir	Transparente / Negro	Trasparente / Nero	
	GN/WH	Green / White	Grün / Weiß	Vert / Blanc	Verde / Blanco	Verde / Bianco	
	GN/YL	Green / Yellow	Grün / Gelb	Vert / Jaune	Verde / Amarillo	Verde / Giallo	
	OR/WH	Orange / White	Orange / Weiß	Orange / Blanc	Naranja / Blanco	Arancione / Bianco	
	PR/WH	Purple / White	Purpur / Weiß	Pourpre / Blanc	Morado / Blanco	Porpora / Bianco	
	RD/WH	Red / White	Rot / Weiß	Rouge / Blanc	Rojo / Blanco	Rosso / Bianco	
	VI/WH	Violet / White	Violett / Weiß	Violet / Blanc	Violeta / Blanco	Viola / Bianco	
	YL/WH	Yellow / White	Gelb / Weiß	Jaune / Blanc	Amarillo / Blanco	Giallo / Bianco	
	YL/GN	Yellow / Green	Gelb / Grün	Jaune / Vert	Amarillo / Verde	Giallo / Verde	
	YL/BK	Yellow / Black	Gelb / Schwarz	Jaune / Noir	Amarillo / Negro	Giallo / Nero	