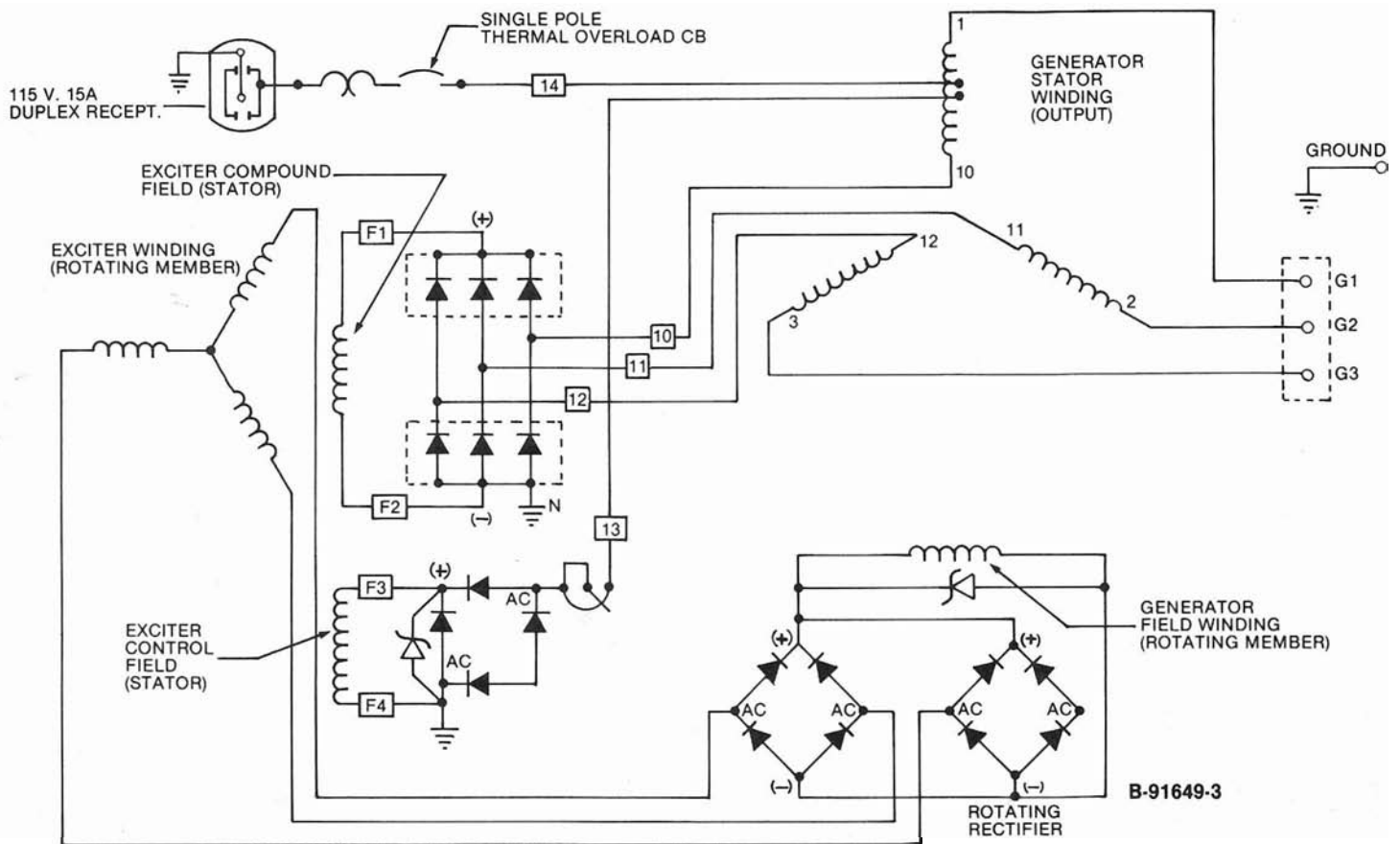


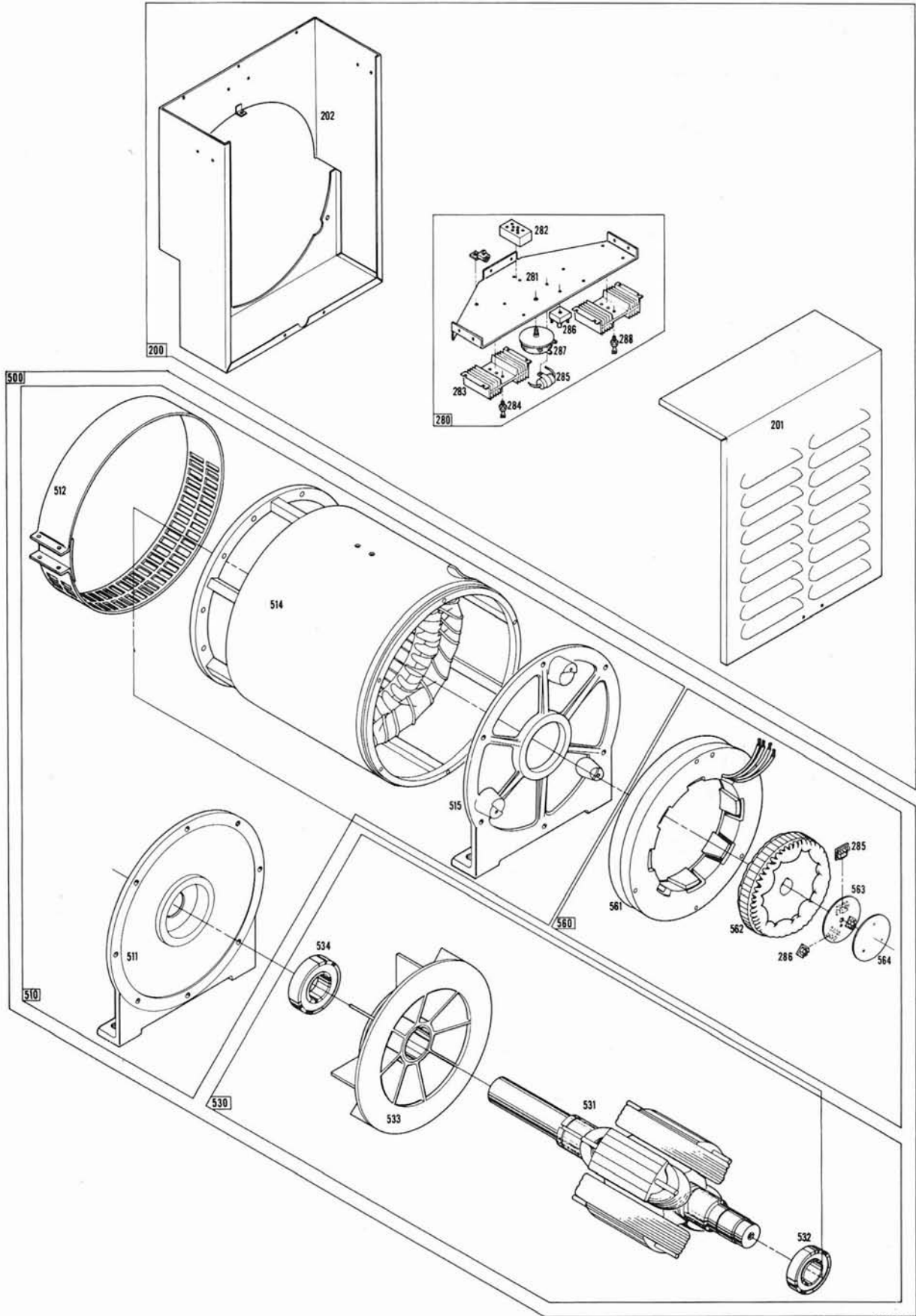
ILLUSTRATED PARTS LIST



Wire No. 14 not used on /A Models.

SCHEMATIC DIAGRAM

This IPL contains wiring, illustration, parts list, ordering information and technical data to perform routine maintenance on this generator. Consult factory with model no., serial no. and test data for further assistance.



MODEL 20PS4G-18/A & B

REF. NO.	DESCRIPTION	QTY.	PART NO.	REF. NO.	DESCRIPTION	QTY.	PART NO.
200	Control Panel Ass'y.			500	Generator Ass'y.	1	91408-4
201	Box Cover	1	91479	510	Generator Stator Ass'y.	1	
202	Welded Box Ass'y.	1	91475-1	511	End Bracket (Drive End)	1	91381
				512	Cover Ass'y. (Impeller)	1	91337
258	Circuit Breaker*	1	91598	514	Stator Ass'y.	1	91148-6
259	Receptacle (Duplex)*	1	24749	515	End Bracket	1	91380
260	Protective Cover*	1	91600				
				530	Rotor Ass'y.	1	
280	Shelf Ass'y.	1	91507	531	Rotor	1	91407
281	Rectifier Shelf Bare	1	91463-1	532	Bearing	1	91111
282	Terminal Block	1	51795	533	Impeller	1	91101
283	Heat Sink	2	91459	534	Bearing (Drive End)	1	91401
284	Diode (Reverse Pol.)	3	91509				
285	Surge Suppressor	2	91445	560	Exciter Ass'y.	1	
286	Rectifier	3	91452	561	Exciter Stator	1	91674-2
287	Rheostat (Volt. Adj.)	1	91483	562	Exciter Rotor	1	91442
288	Diode (Std. Polarity)	3	91508	563	Rotating Rect. Ass'y.	1	91413
				564	Cover (Rot. Rect.)	1	91411-1

*Model 20PS4G-18/B Ref. No.'s not illustrated.

PARTS ORDERING INFORMATION REQUIRED

To fill your order for service parts, please advise the complete WINCO Generator model number and serial number, part number(s), and part description. If in doubt, consult the factory prior to placing the order. Send all parts orders to WINCO, Division of Dyna Technology, Inc., 225 South Cordova Ave., Le Center, Mn 56057.



TECHNICAL DATA

GENERATOR SPECIFICATIONS:

KW—20; Volts—277/480(120); Amps.—15; PF—0.8; PH—3; Hz—60; RPM—1800

Normal Voltage:

	No Load	Full Load
Stator Output 3 ϕ	480-490 Volts A.C.	480-490 Volts A.C.

3 ϕ Voltage is adjustable between 400 and 520 Volts.

Residual Voltage:

40-60 Volts A.C. L to L; 20-30 Volts A.C. L to N
Main field open 8.5 VAC L to L; 5 VAC L to N

Resistance:

Exciter Field—Control winding F3-F4 43.5 ohms; Forcing winding F1-F2 .027 ohms
Exciter Rotor—.35 ohms
Rotating Field—3.5 ohms
Stator Main—.20 ohms L to N per phase

Separately Excited:

12 VDC to Exciter Field; F3 Positive-F4 Negative
Approximately 400 Volts L to L; 230 Volts L to N

Convenience Outlet: /B Models Only

Volts—120; Amps.—15; PH—1; Hz—60

BASIC TEST PROCEDURE:

Refer to illustration for component location by Reference Number
Example: No output—Check rectifiers, Reference Number 286.

Reference Number 280 is shelf assembly; Reference Number 286, a rectifier, is mounted on shelf assembly.

Reference Number 563 is rotating rectifier assembly; there are two Reference Number 286 rectifiers mounted on rectifier assembly

No Output:

- Check for loose or open connections.
- Check residual voltage output, Reference Number 282.
Check rectifiers, Reference Number 286.
- Check winding resistance, opens and grounds, Reference Numbers 514, 531, 561, and 562.
Separately excite and check output.

Low Voltage—No Load:

- Check speed (1800 RPM nominal).
- Check for loose connections.
Check voltage adjust rheostat, Reference Number 287.
Check rectifiers, Reference Number 286.
Check exciter field resistance, F3 to F4 to ground and F1, Reference Number 561.

Low Voltage—Full Load:

- Check speed (1800 RPM nominal)
- Check for loose connections.
- Check rectifiers, Reference Numbers 284, 288, 286.
- Check voltage adjust rheostat, Reference Number 287.
- Check exciter field resistance, F3 and F4, Reference Number 561.
- Check compound field resistance, F1 to F2, Reference Number 561

WINGCO[®]

Division of
DYNA TECHNOLOGY, INC.
225 South Cordova
Le Center, MN 56057
Phone (612) 357-6821
Telex 290753