

DATE: February 12, 2014

Service Instruction No. 1154R
(Supersedes Service Instruction No. 1154P)
Engineering Aspects are
FAA Approved

SUBJECT: FAA-Approved Starters and Alternators

MODELS AFFECTED: Lycoming engines as herein specified

TIME OF COMPLIANCE: As required for replacement


NOTE

Incomplete review of all the information in this document can cause errors. Read the entire Service Instruction to make sure you have a complete understanding of the requirements.

This Service Instruction includes lists (by Lycoming engine model) of FAA-approved starters (Table 1) and alternators (Table 2) available for purchase from Lycoming Engines. Tables 3 through 7 identify starters, alternators, generators, voltage regulators, and relays that are no longer available from Lycoming Engines.

NOTE

Delco-Remy starters, generators, alternators, and related regulators and relays are no longer available from Lycoming Engines. Lycoming Engines will, however, continue to supply mounting brackets and attaching parts for units now in use.

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**TABLE 1 – STARTERS■
(AVAILABLE FROM LYCOMING)**

VENDOR & Starter Fit Information	ENGINE SERIES	PART NUMBER		DESCRIPTION			
		Lycoming	Vendor No.	Type	Voltage	Pinion Pitch	Weight (Lbs.)
Hartzell Engine Technologies (HET), LLC (formerly Kelly Aerospace Power Systems, Inc. and Electrosystems) Refer to HET's Starter Application Guide (Lycoming Engines) relative to aircraft and Lycoming engine fit.	235	31B26042	ERB-8012	Geared	24V.	10/12	9.5
	235,320	31A26043	ERZ-8012	Geared	12V.	10/12	9.5
		31A22361	PM1203	Geared		10/12	11.5
		31B22362	PM2403	Geared	24V.	10/12	11.5
	235,290,320,340,360,390,540,580	31A26041	ERZ-8011	Geared	12V.	12/14	9.5
	320,360,540	31A26901*	ELZ8021	Geared	12V.	12/14	9.5
		31A22206	PM1201	Geared		12/14	11.5
		31A22552*	PM1204	Geared		12/14	11.5
		31B22553*	PM2404	Geared	24V.	12/14	11.5
	320,340,360,540,580	LW-15572	MHB-4016	Geared	24V.	12/14	18.0
		31B22476	MHB-6018	Geared		12/14	8.0
	320,360,"76 Series",540	31B26900*	ELB8011	Geared	24V.	12/14	9.5
	320,340,360,540,580 Exceptions: IO-360-A1B6D Cessna IO-360-A1A Mooney IO-360-A1B6D Mooney IO-360-A3B6D Mooney AEIO-360-A1B6 Morovan, IO-360-A1B Partenavia IO-360-A1B6 Partenavia IO-360-A1B6 Robin IO-360-L2A Cessna IO-540-AB1A5 Cessna	31B26040	ERB-8011	Geared	24V.	12/14	9.5
	TIGO-541	78791	MHB-4005	Geared	24V.	12/14	18.0
	IO-720	LW-12787	MHJ-4005	Geared	24V.	10/12	18.0
720	31B22462	MHB-4016A	Geared	24V.	10/12	18.0	
	77879	MHJ-4004	Geared	24V.	10/12	18.0	
Sky-Tec Refer to the Sky-Tec Flyweight Starters Aircraft Fit Guide for starter selection relative to aircraft and Lycoming engine fit.	235, 320, 340, 360, 540	31A22102	122-12PM	Geared	12V.	10/12	8.25
		31A22106	122-12LS	Geared	12V.	10/12	8.25
		31A22112	122-12HT	Geared	12V.	10/12	8.50
		31B22103	122-24PM	Geared	24V.	10/12	8.25
		31B22107	122-24LS	Geared	24V.	10/12	8.25
		31B22113	122-24HT	Geared	24V.	10/12	8.50
		31B22117	122-HT/ec	Geared	24V.	10/12	8.50
		31B23590	122-NL	Geared	12V/24V.	10/12	9.40
		31B26552	122-NL/ec	Geared	24V.	10/12	9.40

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**TABLE 1 – STARTERS■
(AVAILABLE FROM LYCOMING)**

VENDOR & Starter Fit Information	ENGINE SERIES	PART NUMBER		DESCRIPTION			
		Lycoming	Vendor No.	Type	Voltage	Pinion Pitch	Weight (Lbs.)
Sky-Tec (Cont'd.)	235, 290, 320, 340, 360, 390, 540, 580 (cont'd.)	31A22104	149-12LS	Geared	12V.	12/14	8.25
		31A22100	149-12PM	Geared	12V.	12/14	8.25
		31A22110	149-12HT	Geared	12V.	12/14	8.50
		31B22101	149-24PM	Geared	24V.	12/14	8.25
		31B22105	149-24LS	Geared	24V.	12/14	8.25
		31B22111	149-24HT	Geared	24V.	12/14	8.50
		31B22116	149-HT/ec	Geared	24V.	12/14	8.50
		31B23592	149-NL	Geared	12V/24V.	12/14	9.40
		31B26554	149-NL/ec	Geared	24V.	12/14	9.40
	320,360,540	31A22114*	149-12HTL	Geared	12V.	12/14	8.50
		31B22115*	149-24HTL	Geared	24V.	12/14	8.50
		31B26555*	149-NLR/ec	Geared	24V.	12/14	9.40
		31B23593*	149-NLR	Geared	12V/24V.	12/14	9.40
	TIO-541	31B22111	149-24HT	Geared	24V.	12/14	8.50
		31B22116	149-HT/ec	Geared	24V.	12/14	8.50
	720	31B22113	122-24HT	Geared	24V.	10/12	8.50
		31B23590	122-NL	Geared	12V/24V.	10/12	9.40
		31B26552	122-NL/ec	Geared	24V.	10/12	9.40

■ Starters to be ordered by using Lycoming part numbers

* Reverse rotation

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**TABLE 2 – ALTERNATORS ■
(AVAILABLE FROM LYCOMING)**

ENGINE SERIES	Lycoming Basic Alternator P/N	Vendor P/N*	Lycoming Alternator Assy. P/N	Vendor Alternator Assy. P/N	Description
235	LW-14334 ●♠	ALY-6520LS	LW-14374	ALY-6520LS	12V.-60A
235,320,360	LW-14333 ●	ALY-6520LS	LW-14373 ◆	ALY-8420LS	12V.-60A.
235,320,360,540	LW-14327 ♠	ALU-8521LS	32C19554 ◆	-----	24V.-70A.
	LW-14313	ALY-8520LS	LW-14371 ◆	ALY-8420LS	12V.-60A.
	32B23992	AL12-P70	-----	-----	12V.-70A.
235,320,360,390,540,580	LW-14336 ♠	ALX-8521LS	32B19550 ◆	-----	12V.-70A.
		ALX-8521LS	32B19560 ◆	-----	12V.-70A.
		ALX-8521LS	32B19566◆	-----	12V.-70A.
	LW-14318	ALX-8521LS	32B19549 ◆	-----	12V.-70A.
		ALX-8521LS	32B19561◆	-----	12V.-70A.
235,320,360,390,540,580,720	LW-14326	ALU-8521LS	32C19553 ◆	-----	24V.-70A.
320	LW-14335	ALY-8526LS	-----	-----	12V.-60A.
320,360	32C21997	ALU-8532LS	-----	-----	24V.-75A.
320,360,390,540,580	LW-14328 ♠	ALU-8521LS	32C19568	-----	24V.-70A.
320,360,540	LW-14338 ●	ALX-8521-LS1	32B19569 ●◆	-----	12V.-70A.
	LW-14339 ●	ALU-8521LS-1	32C19570 ●◆	-----	24V.-70A.
	32C21420	ES-4019LS	32C21703◆	-----	28V.-130A.
320,360,540,580,720	32C21447♠	ES-4011LS	32C21448 ◆	-----	28V.-90A.
360	LW-14333 ●	ALY-6520LS	32B19555 ●◆	-----	12V.-60A.
	LW-14318	ALX-8521LS	LW-14353	-----	12V.-70A.
360 Steel Pulley	LW-14313	ALY-8520LS	LW-14351◆	ALY-8520	12V.-60A.
	LW-14326	ALU-8521LS	LW-14357◆	ALU-8521	24V.-70A.
360,(Kit 05K21701),540	32C20114	ES-4011LS	32C21681 ◆	-----	28V.-90A.
360,390	32C22737	ES-4019LS	32C23585	-----	24V.-130A.
	LW-14337 ♠	ALX-8521LS	32B19567◆	-----	12V.-70A.
360,540	LW-14326	ALU-8521LS	32C19571 ◆	-----	24V.-70A.
	LW-14329 ●	ALU-6521LS	LW-14367 ◆	-----	24V.-70A.
360,540	32C22029 ♠	ES-4019LS	-----	-----	28V.-130A.
360,580	LW-14318	ALX-8521LS	32B19561 ◆	-----	12V.-70A.
360,720	LW-18888 ●	ALV-8512	LW-18904 ●◆	-----	24V.-100A.
390	32C20114	ES-4011LS	32C26767 ◆	-----	28V.-90A.
	32C21355	ES-4018LS	32C26768 ◆	-----	24V.-70A.
	LW-14326	ALU-8521LS	32C19573◆	ALU-8521	24V.-70A.
	LW-14327♠	ALU-8521LS	32C19574◆	ALU-8521	24V.-70A.
	LW-14328♠	ALU-8521LS	32C19575◆	ALU-8521	24V.-70A.
GO-480, VO-435	LW-14220 ‡	ALX-9422L	-----	-----	12V.-70A.
540	LW-14326	ALU-8521LS	LW-14354 ◆	-----	24V.-70A.
	LW-14326	ALU-8521LS	LW-14363 ◆	-----	24V.-70A.
	LW-14326	ALU-8521LS	32C19559 ◆	-----	24V.-70A.

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**TABLE 2 – ALTERNATORS ■
(AVAILABLE FROM LYCOMING)**

ENGINE SERIES	Lycoming Basic Alternator P/N	Vendor P/N*	Lycoming Alternator Assy. P/N	Vendor Alternator Assy. P/N	Description
540 (cont.)	LW-14315 ●	ALY-6527	-----	-----	24V.-60A
	LW-14329 ●	ALU-6521-LS	LW-14369 ◆	-----	24V.-70A.
	LW-14329 ●	ALU-6521-LS	LW-14365◆	-----	24V.-70A.
	LW-14327 ♠	ALU-8521-LS	32C19563	-----	24V.-70A
	LW-14327 ♠	ALU-8521-LS	32C19564	-----	24V.-70A
	LW-14326	ALU-8521-LS	32C19562	-----	24V.-70A.
	32C20114	ES-4011LS	32C22786 ◆	-----	28V.-90A.
540 (Pack, 05J22487)	32C22491	ES-4011-1LS	32C22492 ◆	-----	24V.-90A.
540 (Kit, 05K22787)	32C22491	ES-4011-1LS	32C22951 ◆	-----	24V.-90A.
TIO-540-AE2A (70A) RT▲	LW-14326	ALU-8521-LS	32C19558 ◆	-----	24V.-70A.
TIO-540-AE2A (70A) LT▲	LW-14326	ALU-8521-LS	32C19562 ◆	-----	24V.-70A.
TIO-540-AE2A (75A) LT▲▲	32C22515	ALU-6539LS	32C22527 ◆	-----	24V-75A.
TIO-540-AE2A (75A) RT▲▲	32C22515	ALU-6539LS	32C22528 ◆	-----	24V-75A.
540,541	LW-18885	ALV-8511	LW-18906 ◆	-----	24V. -100A
540,580	LW-14326	ALU-8521-LS	32C19565 ◆	-----	24V.-70A.
	32C21447 ♠	ES-4011LS	32C23288	-----	28V.-90A.
540,720	LW-18885	ALV-8511	LW-18900 ◆	-----	24V.-100A.
540, 720 Grooved Pulley	LW-14326	ALU-8521-LS	LW-14356 ◆	ALU-8521	24V.-70A.
540, 720	LW-14327 ♠	ALU-8521-LS♠	LW-14359◆	-----	24V.-70A.
TIGO-541	LW-18873●	ALV-9510L	-----	-----	24V.-100A.
580	LW-14328♠	ALU-8521-LS	32C19572	-----	24V.-70A.
<ul style="list-style-type: none"> ■ Alternator to be ordered by using Lycoming part numbers. ◆ Assembly includes Lycoming supplied pulley. ● Less blast tube. ♠ Thermocoupled ▲ Use on PA-46 Aircraft Serial Number 131 and Lower ▲▲ Use on PA-46 Aircraft Serial Number 132 and Higher 					

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**TABLE 3 – STARTERS
(NO LONGER AVAILABLE FROM LYCOMING)**

Vendor	ENGINE SERIES	PART NUMBER		DESCRIPTION			
		Lycoming	Vendor No.	Type	Voltage	Pinion Pitch	Weight (Lbs.)
Delco-Remy	235,290,320	69953	1109669	Direct Drive	24V.	10/12	18.0
	720	72279	1113471	Geared	12V.	10/12	18.0
Hartzell Engine Technologies (HET), LLC (formerly Kelly Aerospace Power Systems, Inc. and Electrosystems)	235	LW-15483	MHB-4015	Direct Drive	24V.	10/12	18.0
		LW-16207	MMU-4001	Direct Drive		10/12	18.0
		31B22475	MMU-6001	Direct Drive		10/12	8.0
	235,290,320	76210	MZ-4204	Direct Drive	12V.	10/12	18.0
		31A22473	MZ-6204	Direct Drive		10/12	8.0
	235,290,320,340,360,540	76211	MZ-4206	Geared	12V.	12/14	18.0
		LW-14207	MZ-4218	Geared		12/14	18.0
		LW-15571	MZ-4222	Geared		12V.	12/14
	235,290,320,340,360,390,540,580	31A22470	MZ-6222	Geared	12V.	12/14	8.0
	320,360	LW-16460	MZ-4224	Geared	12V.	12/14	18.0
		31A22471	MZ-6224	Geared		12/14	8.0
	320,340,360,540	76212	MHB-4001	Geared	24V.	12/14	18.0
		LW-14208	MHB-4010	Geared	24V	12/14	18.0
	320,360,360	LW-10556*	MZ-4216	Geared	12V.	12/14	18.0
	320,340,360,540,580	31B22474	MHB-6016	Geared	24V.	12/14	8.0
	320,360,	31A22472*	MZ-6220	Geared	12V.	12/14	18.0
		LW-14215*	MZ-4220	Geared	12V.	12/14	18.0
	320,360,540	LW-14214*	MHB-4014	Geared	24V.	12/14	18.0
		31B22477*	MHB-6014	Geared		12/14	8.0
		31B22207	PM2401	Geared		12/14	11.5
	360	76213	MZ-4205	Geared	12V.	12/14	18.0
		LW-14209	MZ-4217	Geared		12/14	18.0
		LW-15573	MZ-4221	Geared		12/14	18.0
		LW-18989	MZ-4226	Geared		12/14	18.0
		LW-18047	MZ-4225	Geared		12/14	18.0
		LW-18990	MHB-4020	Geared	24V.	12/14	18.0
		76214	MHB-4003	Geared		12/14	18.0
LW-14210		MHB-4012	Geared	12/14		18.0	
LW-14447		MHB-EO-26102	Geared	12/14		18.0	
LW-15574	MHB-4019	Geared	12/14	18.0			
VO-435-B1A	75787	MZ-4208	Geared	12V.	16 Pitch	18.0	
TVO-435, VO-435	LW-12023	MHB-4008	Geared	24V.	12/14	18.0	
540	LW-11936	MHB-4007	Geared	24V.	12/14	18.0	
	LW-14213	MHB-4013	Geared		12/14		
	LW-15577	MHB-4018	Geared		12/14	18.0	
LTIO-540	LW-12159*	MHB-4009	Geared	24V.	12/14	18.0	

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TABLE 3 – STARTERS
(NO LONGER AVAILABLE FROM LYCOMING)

Vendor	ENGINE SERIES	PART NUMBER		DESCRIPTION			
		Lycoming	Vendor No.	Type	Voltage	Pinion Pitch	Weight (Lbs.)
Hartzell Engine Technologies (Cont'd.)	TIO-541-A	75699	MZ-4207	Geared	12V.	12/14	18.0
		LW-14211	MZ-4219	Geared		12/14	
		LW-15575	MZ-4223	Geared		12/14	
	TIO-541-E	75700	MHB-4002	Geared	24V.	12/14	18.0
		LW-14212	MHB-4011	Geared		12/14	
		LW-15576	MHB-4017	Geared		12/14	
Lycoming	235,320,360,540	31A21198	-----	Geared	12V.	12/14	8.0
		31A21210	-----	Geared		10/12	8.0
		31B21064	-----	Geared	24V.	12/14	12.0
		31B21211	-----	Geared		10/12	12.0

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**TABLE 4 – ALTERNATORS
(NO LONGER AVAILABLE FROM LYCOMING)**

ENGINE SERIES	Lycoming Basic Alternator P/N	Vendor P/N*	Lycoming Alternator Assy. P/N	Vendor Alternator Assy. P/N	Description	
235,320,360,540	78308	ALE-8406	-----	-----	12V.-40A.	
	78401 ●	ALE-6406	-----	-----		
	LW-14300	ALE-8420	-----	-----		
	LW-14302 ●	ALE-6420	-----	-----		
	235,320,360,540,720	78407	ALY-8403	-----	-----	12V.-60A.
		78409 ●	ALY-6403	-----	-----	
		LW-14308	ALY-8420	LW-12832 **	ALY-8520 "G"	
			ALY-8520	-----	-----	
LW-14310 ●	ALY-6420	LW-12834 **	ALY-6520 "G"			
235,320,360,540,720	78312	ALT-8404	-----	-----	24V.-50A.	
	LW-14319	ALT-8421	-----	-----		
	LW-14321	ALT-8421LS	32C19551 ◆	-----		
	LW-14316	ALX-8421	-----	-----		
235,320,360,540,720	LW-14324	ALU-8421	LW-12845 **	ALU-8521 "G"	24V.-70A.	
320	LW-10372	ALY-8405	-----	-----	12V.-60A.	
	LW-14312	ALY-8526	LW-12839 **	ALY-8426 "G"		
	-----	-----	LW-14375 ◆	ALY-8526 "G"		
320,540	-----	-----	32C21356	-----	24V.-70A.	
320,360,540	78403	ALZ-8401	-----	-----	12V.-50A.	
	78405 ●	EO-20041-LB	-----	-----		
	LW-14304	ALZ-8423	-----	-----		
	LW-14306 ●	-----	-----	-----		
320,360,540,720	74319	1100717	74880	-----	12V.-70A.	
	78310	ALX-8403	-----	-----		
	LW-14316	ALX-8421	LW-12840 **	ALX-8421 "G"		
320,360,540,720	78314	ALU-8403	-----	-----	24V.-70A.	
360 Steel Pulley	LW-10511	ALY-8403LS	LW-10513 ◆	-----	12V.-60A.	
	-----	-----	LW-12837 **◆	ALY-8520 "G"	12V.-60A.	
	-----	-----	LW-12842 **	ALX-8521 "G"	12V.-70A.	
360	LW-14310 ●	ALY-6420	LW-15404	-----	12V.-60A.	
360	74319	1100717	76165	-----	12V.-70A.	
	78412	ALX-8403LS	-----	-----	12V.-70A.	
360 Steel Pulley	LW-14321	ALT-8421LS	LW-14358 ◆	-----	24V.-50A.	
360	-----	-----	LW-12849	-----	24V.-70A.	
	-----	-----	LW-12850	-----		
360 (Kit, LW-13479)	LW-10966	ALV-8402L	-----	-----	24V.-100A.	
360,540	79036	ALU-8403LS	-----	-----	24V.-70A.	
	-----	-----	32C22030 ◆	-----	28V.-130A.	
360,540,720	LW-10544 ●	ALV-6403LS	LW-10979 ●◆	-----	24V.-100A.	

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**TABLE 4 – ALTERNATORS
(NO LONGER AVAILABLE FROM LYCOMING)**

VO-435	LW-12882	ALV-9405L	-----	-----	24V.-100A.
	LW-18874	ALV-9511L	-----	-----	24V.-100A.
VO-435,TVO-435, GO-480	LW-11648 ‡	ALU-9404L	-----	-----	24V.-70A.
	LW-14222 ‡	ALU-9422L	LW-12851 **	ALU-9422L“G”	24V.-70A.
GO-480,VO-435	78411 ‡	ALX-9404L	LW-12819 **	ALX-9404L“G”	12V.-70A.
	-----	-----	LW-12843**	ALX-9422L“G”	12V.-70A.
540	-----	-----	LW-12836 **	ALY-6527 “G”	12V.-60A.
	-----	-----	32C19556 ♦	-----	24V.-70A.
	-----	-----	LW-12847 **♦	ALU-8521 "G"	24V.-70A.
	LW-10009 ●	ALY-6406	-----	-----	12V.-60A.
	LW-12277	ALT-8404	-----	-----	24V.-50A.
	LW-14322	ALT-8421	-----	-----	
	LW-10966	ALV-8402L	LW-14817	-----	24V.-100A.
	-----	-----	32C22375	-----	28V.-90A.
540,720	LW-10966	ALV-8402L	LW-10967	-----	24V.-100A.
IGO-540	LW-11884	ALV-9406L	-----	-----	24V.-100A.
	LW-18871	ALV-9412L	-----	-----	
TIO-541	74884	1100749	75723	-----	12V.-70A.
TIGO-541	LW-10256	ALV-9401LS	-----	-----	24V.-100A.
720	78414	ALT-8404LS	LW-13352 ♦	-----	24V.-50A.
720 Grooved Pulley	LW-14321	ALT-8421LS	LW-14361 ♦	-----	
* Seven digit numbers are Delco-Remy. Letter prefix numbers are Hartzell Engine Technologies (HET), LLC (formerly Kelly Aerospace Power Systems, Inc. ** Assembly includes ground strap ♦ Assembly includes Lycoming supplied pulley ● Less blast tube ‡ Flanged					

**TABLE 5 -GENERATORS
NO LONGER AVAILABLE FROM LYCOMING**

Vendor	ENGINE SERIES	PART NUMBER		DESCRIPTION
		Lycoming	Vendor No.	
Delco-Remy	235, 290, 320, 340, 360	68767	1101900	12V.-35A.
	235, 290, 320, 340, 360, 540	68764	1101899	12V.-20A.
	235, 290, 320, 540	71744	1101915	12V.-50A.
	320, 360, 540	71980	1105052	24V.-40A.
	320, 360, 540, 720	72695	1105055	24V.-50A.
	320	LW-11429*	1101923	12V.-50A.
Bendix	GO-435, GO-480	68263	1589-1-E	24V.-50A.
* Reverse rotation				

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**TABLE 6 - VOLTAGE REGULATOR
NO LONGER AVAILABLE FROM LYCOMING**

Vendor	ENGINE SERIES	PART NUMBER		DESCRIPTION
		Lycoming	Vendor No.	
Delco Remy	235, 290, 320, 340, 360, 540	72205	1119226	12V.-20A.*
		62833	1118704	12V.-35A.*
		68872	1118799	24V.-25A.*
		71745	1119224	24V.-50A.*
	320, 340, 360, 540	68626	1119145	12V.-35A.**
		72077	1119246	12V.-50A.**
	320, 360, 540	68810	1119139	12V.-20A.**
	320, 360, 540	71350	1118976	24V.-25A.**
		71979	1119237	24V.-40A.**
		72311	1119273	24V.-40A.*
		73340	-----	24V.-50A.*
	320, 360, VO-435, 540, TIO-541, 720	74291	9000590	12V.♦
	320, 360, 540, 720	74292	900951	24V.♦
360, 540, 720	72696	1119656	24V.♦	
Lear Siegler	360	LW-12364	51565	24V.
Prestolite	235, 320, 360, 540, 720	LW-12749	FVR-4002‡	12V.**♦
	235, 320, 360, GO-480, 540, 720	LW-10185	VSF-7203	12V.♦
	235, 320, 360, 540, VO-435, 720	LW-12747	FVR-4004	12V.♦
		LW-15895	FVR-4224	12V.♦♦
	235, 320, 360, VO-435, TVO-435, 540, IGO-540, TIGO-541, 720	77347	VSF-7402	24V.♦
		LW-10179	VSF-7403	24V.♦
	235, 320, 360, 540, VO-435	LW-12748	FVR-4005●	24V.♦
320, 360, 540	LW-12750	FVR-4003‡	24V.**♦	
Prestolite (Cont'd.)	Optional twin engine installations.	LW-11139	EO-20803	12V.**♦
	Optional twin engine installations.	LW-11140	EO-20713	24V.**♦
Wico	235, 320, 360, 540, VO-435, 720	LW-11357	X-17990●	12V.♦

* Non-paralleling.
 ** Paralleling.
 ♦ Transistor.
 ● Single engine, internally grounded field alternator installations only.
 ‡ Twin engine, internally grounded field alternator installations only.

**TABLE 7 -RELAYS
NO LONGER AVAILABLE FROM LYCOMING**

Vendor	ENGINE SERIES	PART NUMBER		DESCRIPTION
		Lycoming	Vendor No.	
Delco-Remy	290, 320, 340, 360, 540	68628	1116887	12 Volt
	320, 360, VO-435, 540, 720	74461	1115831	12 Volt
	320, 360, 540, 720	71349	1116902	24 Volt
		74804	1115832	
Prestolite	235, 320, 360, VO-435, GO-480, 540	78059	FOC-4002A	12 Volt
	320, 360, TVO-435, 540, IGO-540, TIGO-541, 720	78060	FOC-4003A	24 Volt

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