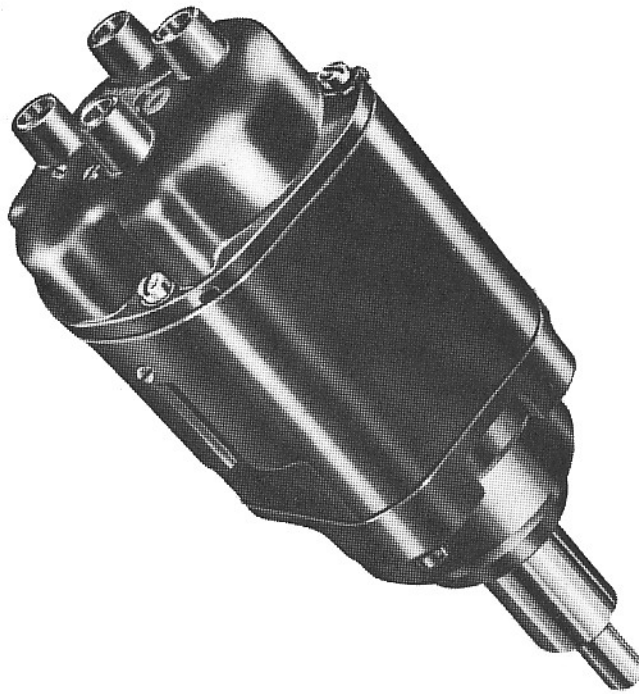


COMPLETE INSTRUCTIONS AND PARTS LIST  
FOR CARE AND OPERATION OF

# SERIES JEM WICO MAGNETOS



WICO-BUILT  
IGNITION

*Wico Electric Company*  
WEST SPRINGFIELD, MASSACHUSETTS

### WARRANTY

We warrant each piece of apparatus manufactured by us to be free from defects in material and workmanship under normal use and service. Our obligation under this warranty is limited to the furnishing of any part of said apparatus which shall within a period of ninety (90) days after delivery to the original purchaser, be returned either to one of our authorized service stations, or to the factory, transportation charges prepaid, and which, upon examination by one of our authorized representatives, shall disclose to our satisfaction to have been thus defective.

Any magneto or other piece of apparatus shall not be considered to have been under normal use and service if it appears to have been subjected to misuse, abuse, neglect, or accident, or if it has been repaired or altered outside of our factory so as, in our judgment, to affect its stability or reliability, or if any part not of Wico manufacture has been substituted for a part of Wico manufacture.

This warranty is in lieu of all other warranties, either expressed or implied; and we do not authorize any person or persons to assume for us any other liability in connection with the sale of our equipment; nor are we responsible for any liability for any damage or injury to any person or part resulting directly or indirectly from design, material, workmanship or installation of any of our apparatus.

### WARRANTY ADJUSTMENT PROCEDURE

Apparatus assumed to come within the terms of the warranty should be submitted to the nearest authorized Wico Service Station with a formal request for adjustment.

If, upon examination by such authorized representation, the apparatus is found to be actually defective and within the warranty period, it will be placed in proper operating condition and no charge made, either for labor or material.

The term labor does not refer to that involving the removing or installing the apparatus, nor for transportation, duty or tax thereon, but only refers to the actual bench labor on the apparatus itself. Any labor charge other than for such bench labor, is to be borne by the owner, who will be required to sign a warranty Service Report form at the time a warranty adjustment is made. The service station will be reimbursed upon receipt of the warranty service report by the factory.

When the Service Station is in doubt as to the cause of the apparatus being inoperative, the owner shall pay the service station for the material and labor charges, who will forward the units or parts claimed defective to the factory, together with a signed Warranty Service Report form. Upon receipt and examination by the factory of the units or parts and the warranty service report form, the claim will be carefully considered and if in the opinion of the factory the units or parts are found to have been defective credit will be issued to the Service Station for both labor and material and the Service Station will reimburse the owner the amount paid for material and labor.

WICO ELECTRIC COMPANY,  
West Springfield, Mass.

# WICO MODEL JEM MAGNETOS

## INSTALLATION: TIMING TO IMPULSE SPARK

When the impulse spark is to be used in timing the magneto to the engine, and in the absence of other information from the engine manufacturer, turn the magneto shaft over in the proper direction of rotation until the impulse has just tripped and the monel metal segment of the distributor arm is near the tower marked No. 1 on the distributor cap. Then turn

the engine over to top dead center on No. 1 cylinder on the compression stroke. Clamp the magneto to the engine.

Recheck the timing after the magneto is attached to the engine by turning the engine over until No. 1 piston of No. 1 cylinder is again at top dead center on the compression stroke. Magneto impulse should snap at this point.

## SERVICE INSTRUCTIONS FOR WICO MODEL JEM MAGNETO

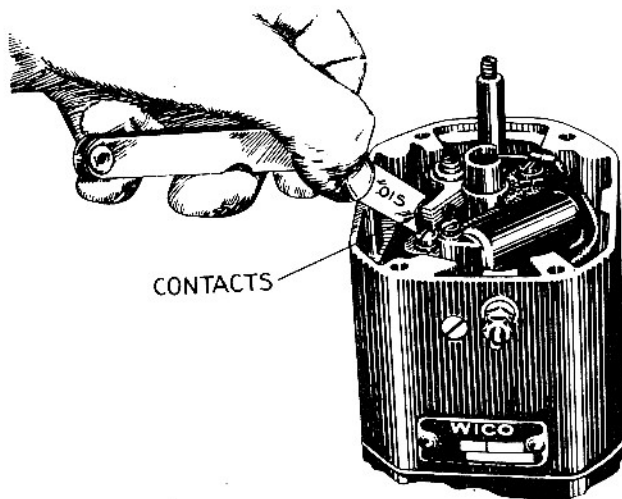
### REMOVAL OF DISTRIBUTOR CAP & ARM

Unscrew the four distributor cap screws enough to permit the removal of the cap. The distributor arm may then be removed from the cam. Before replacing the distributor arm, line up the key inside the arm with the flat on the cam and press the arm down until it bottoms. When replacing the distributor cap, be sure that the gasket is in place.

### REMOVAL OF CAM

Remove cam screw, lock washer and washer. In removing the cam, it may be necessary to tap the top of the rotor shaft very lightly with a piece of brass rod while pulling on the cam. To replace the cam, line up the key on the rotor shaft with the keyway in the cam and press the cam down until it bottoms.

### REMOVAL, REPLACEMENT & ADJUSTMENT OF BREAKER POINTS



### REMOVAL OF CONDENSER

Take off the breaker arm spring screw, lock washer and two leads. Remove the two condenser screws and lock washers and lift out the condenser. When replacing the condenser, be sure the gasket is under the condenser.

### REMOVAL OF END PLATE

Remove the end plate from the bearing plate by taking off the two screws and locks. Hold the drive shaft down and pull the end plate off the shaft so that the drive shaft and impulse parts are still attached to the magneto. Put a few drops of Wico or S.A.E. No. 20 oil on the drive shaft before replacing the end plate.

When replacing the end plate, be sure the gasket is in place and that the witness marks on the end plate and bearing plate line up.

Some end plates are equipped with a special oil seal and bushing. The pin in the drive shaft must seat in the slot in these bushings.

### REMOVAL & REPLACEMENT OF DRIVE SHAFT & IMPULSE PARTS

With the end plate off, lift out the drive shaft with the impulse parts attached. Take off the impulse parts. Remove the cam plate from the drive shaft by taking off the hexagonal nut and lock washer.

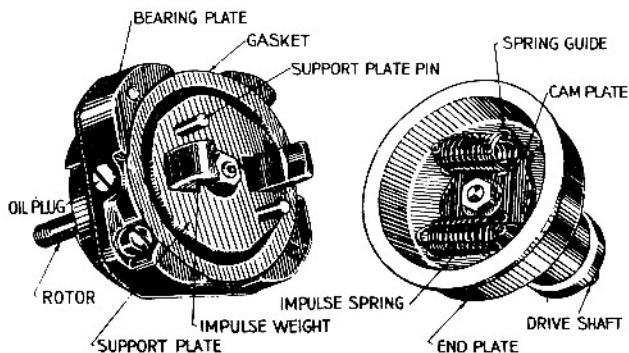
Remove the distributor cap, arm and breaker cover. To remove the breaker assembly as a complete unit, disconnect the ground lead and insulated primary lead from the breaker spring screw. Remove the two screws, plain washers, and lock washers holding the breaker plate to the housing and lift out the assembly.

If the whole assembly does not have to be removed, take off the breaker arm spring screw, lock washer and the two leads. Remove the screw, lock washer and spacing washer from the breaker arm pivot and lift the breaker arm group off the pivot.

To remove the fixed contact bracket, take off the screw, lock washer and washer and lift the assembly off the breaker arm pivot. If the points need replacing, it is recommended that both the fixed and movable contact be replaced at the same time. (See illustration).

The points should be adjusted to an opening of .015" when the breaker arm shoe is on the high point of the cam. This is done by shifting the fixed contact bracket by means of the small eccentric screw. (See illustration.)

After adjustment, the bracket must be secured by means of the fixed contact screw. Contact points must be free from oil or grease; clean with lacquer thinner if necessary. Check proper alignment so that the full surface of both points meet squarely (use Wico Tool No. S-5449).



The impulse mechanism consists of two impulse springs; four spring guides; one support plate group which includes two trip arms and two impulse spring pivots; and a cam plate which includes two impulse spring pivots. Spread a thin layer of grease on the cam plate, support plate and corners of each trip arm. To reassemble the impulse mechanism proceed as follows: Install the cam plate on the drive shaft; place two impulse spring guides in each impulse spring and the two spring guides over a cam plate pivot as illustrated. Assemble the impulse mechanism to the magneto by setting the support plate pivots through the impulse spring guides.

#### REMOVAL & REPLACEMENT OF TRIP ARMS

Remove the trip arm from the support plate by removing the cotter pins and trip arm pivot. When replacing the cotter pins, be sure the head of the cotter pin is nearest the center of the support plate.

#### REMOVAL OF BEARING PLATE & ROTOR

The bearing plate, rotor and end plate may be removed as a unit by taking out the two screws and lock washers which hold the bearing plate to the main housing. The screws will have to be removed a little at a time while removing the rotor from the housing. Be sure the breaker cam has been removed, if done before removal of breaker assembly.

To remove the rotor from the bearing plate, take off the end plate and impulse mechanism. Remove the hexagonal nut, lock washer, washer and support plate and take out the rotor.

When replacing the bearing plate and rotor, be sure the gasket is in place between the main housing and the bearing plate and that the oil plug on the bearing plate lines up with the oil plug in the main housing.

#### THE MAGNETO ROTOR

**DO NOT RECHARGE THE MAGNET ROTOR.** The magnet steel used in Wico rotors has a strength heretofore unattainable, especially in regard to its coercive property. This high coercive value makes it virtually impossible for the magnets to lose their charge.

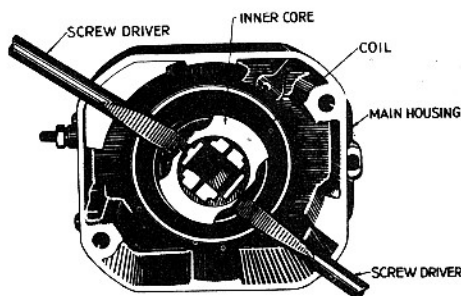
Extreme care should be taken when handling the rotor before it is reinstalled in the magneto to be sure that no metallic chips adhere to it.

#### REMOVAL OF SECONDARY PENCIL

In order to remove the secondary pencil it will be necessary to first remove the coil. After this has been done remove the two screws and lock washers which hold the secondary pencil to the housing. When removing the pencil, be careful not to lose the contact spring on the end of the pencil.

#### REMOVAL & REPLACEMENT OF INNER CORE

Remove the inner core snap ring and then press the coil down a little to give some clearance between the coil and inner core. Place two screw drivers 180° apart under the inner core and pry it out, being careful not to damage the coil or inner core. (See illustration).

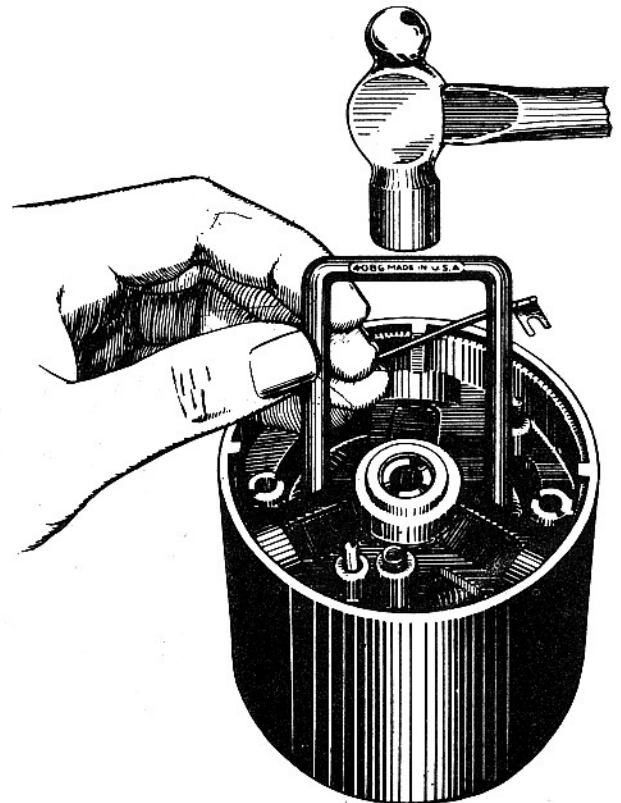


When the inner core is reinstalled, press it down as far as it will go and insert a new snap ring so that the split of the snap ring is over the split in the inner core.

#### HOW TO TEST COIL

**DO NOT REMOVE COIL FROM MAGNETO.** Remove the distributor cap, arm and breaker cover. When using an Eise-mann Coil Tester, connect the ground lead of the tester to the magneto main housing; connect breaker lead of tester to ground terminal of the magneto; connect spark lead of tester to high tension spring on magneto secondary pencil; turn the cam until the breaker points are open. The coil must be replaced if it requires more than 1.50 amperes to give a steady spark on a 5 mm gap.

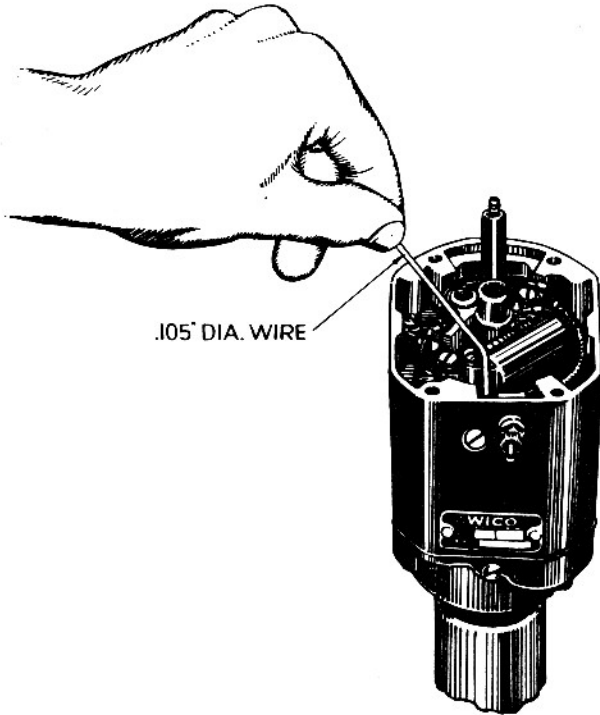
#### REMOVAL & REPLACEMENT OF COIL



If the coil is to be replaced, first remove the inner core, the breaker plate and disconnect all coil leads. Bend coil leads up so that when the coil is removed the lead terminals will not catch on the housing. Remove the coil by using Wico Tool No. 4086 as follows: With the main housing 'right side up', place one leg of the tool in the round hole in the housing casting; place the other leg in the hole in the housing which is in line with the center of the housing and the first leg of the tool; move the tool around until it is as nearly across the center of the housing as possible; with the legs of the tool against the coil, strike the top of the tool with a hammer and drive out the coil, being careful not to damage the coil insulation. (See illustration).

When replacing the coil, be sure there is a good contact between the secondary pencil and the secondary clip on the coil. Press the coil down and insert the wedges so that they are on the same side of the core as the split in the core.

**TIMING MAGNETO ON ALLEN OR WEIDENHOFF TEST STAND**



Remove the distributor cap, arm and breaker cover. Place the magneto on the test stand so that the name plate is facing out. If the magneto is not gear driven, a pin will have to be

inserted in the magneto drive shaft to avoid slipping of the chuck at low speeds. Turn the shaft in its specified rotation until the points are open. The correct point setting is .015". Insert a piece of .105" diameter drill rod or wire in the hole in back of the ground stud or terminal for magnetos of counter-clockwise rotation and in the hole at the right of the ground stud or terminal for magnetos of clockwise rotation (See illustration). This permits checking the edge distance of the rotor and the pole shoe. Take up all play by turning the cam and shaft in the opposite direction of magneto rotation and observe position of slit in the turn table of the test stand. Remove the drill rod or wire. Disconnect coil primary lead from the breaker arm spring screw; connect a 6 volt battery to the test stand.

Turn the shaft by hand and find where the spark occurs. If the spark does not come in at the same angular position as above, adjust the breaker plate until it does.

**SPARK OUTPUT**

When the secondary current is taken through the distributor cap:

- 65 R. P. M.—No. 4 star gap or 9/32" needle gap.
- 150 R. P. M.—No. 5 star gap or 11/32" needle gap.

If a star gap or needle gap is used in connection with an Allen or Weidenhoff test stand, be sure to properly ground the gap to the stand.

**ADJUSTMENT OF IMPULSE RANGE**

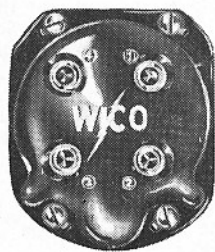
The impulse range may be changed by moving the end plate in relation to the bearing plate. To increase the impulse range, move the magneto around in the opposite direction to its specified rotation. To decrease the impulse range, move the magneto around in its specified direction of rotation. The maximum range which can be attained is 15° on the magneto.

**LUBRICATION**

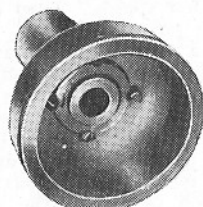
Adequate means for lubricating the oil-less bushings have been provided by the two oil plugs located on the main housing and the bearing plate. It should not be necessary to oil the magneto as frequently as has been the common practice. Abnormal conditions, such as excessive heat or continuous service, may exist where it will be advisable to remove the oil plugs and fill the holes provided with Wico or S.A.E. No. 20 oil every five hundred (500) hours of operation.

LIST PRICE, MODEL JEM-1348 .....	\$32.00
LIST PRICE, MODEL JEM-1509 .....	32.00
LIST PRICE, MODEL JEM-1460D .....	32.00
LIST PRICE, MODEL JEM-1591 .....	32.00

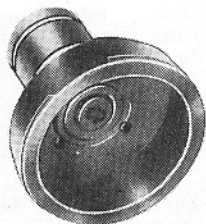
*Less hold down arms and drive members.*



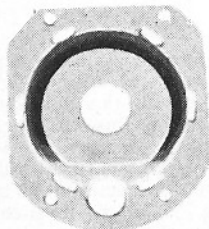
X 3788



X 3979



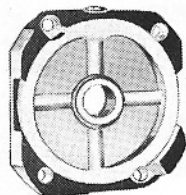
X 3820B



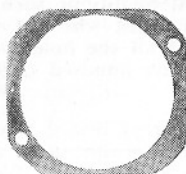
4992



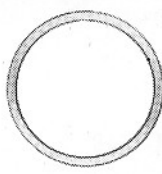
X 3975



X 3826  
X 3976



3802



3801

2264  
A OR B

3783



X 3765



X 3797



X 3976



X 1413



1196



X 1408



3817



3806



IXA-256



1207  
1418



1197



M-36X



1533



1902



16-738



1383



M-31X



M-90X



M-55XA



2573



M-55XA



1127



4113



1130



X 3815  
X 3958



4112



M-116X

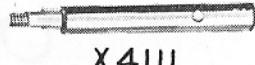


3977

M-95X



3830



X 4111



3771



3770



3799



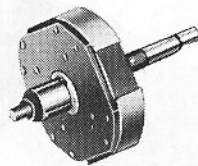
3800



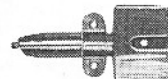
X 3827  
X 3960



X 3682



X 3805  
X 3910



Y 3684

M 54X

1902

IXA 345

**PARTS PRICE LIST FOR WICO JEM MAGNETO**

Part Number	Part Name	List Price	Part Number	Part Name	List Price
M-31X	Fixed contact screw	.05	X3797	Distributor arm group	.50
M-35X	Ground stud insulating bushing	.05	3799	Impulse spring	.25
M-36X	Breaker assembly clamp washer	.05	3800	Impulse spring guide	.10
M-54X	Secondary pencil screw L. W.	.05	3801	End plate gasket	.05
M-55XA	Breaker assembly screw L. W.	.05	3802	Bearing plate gasket	.05
M-55XA	Breaker arm clamp screw L. W.	.05	X3805	Rotor assembly (CCW)	7.15
M-55XA	Cam screw L. W.	.05	3806	Cams screw lock plate	.05
M-55XA	Coil ground connection L. W.	.05	3808	Name plate	.20
M-55XA	Fixed contact screw L. W.	.05	3810	Secondary pencil contact spring	.10
M-61X	Cam plate clamp nut L. W.	.05	X3813	Ground stud lead group	.10
M-90X	Condenser screw L. W.	.05	X3815	Cam plate group (CCW)	.55
M-95X	Trip arm pivot cotter pin	.05	3817	Breaker cam (4 cyl. CCW)	1.05
M-116X	Bearing plate clamp screw L. W.	.05	X3819	Use X4111	
M-126XB	Coil ground connection screw	.05	X3820B	End plate group (spec. 1348)	3.15
IXA-256	Fixed contact screw washer	.05	X3826	Bearing plate group	1.85
IXA-345	Oil plug	.05	X3827	Support plate group (CCW)	.80
16-738	Breaker arm clamp screw	.05	3902	Breaker cam (4 cyl. CW)	1.05
16-738	Breaker arm spring screw	.05	X3910	Rotor assembly (CW)	7.15
IXA-862	Ground stud insulating washer	.05	3934	Oil wick	.05
1127	End plate screw clamp lock	.05	X3958	Cam plate group (CW)	.55
1130	Bearing plate clamp screw	.05	X3960	Support plate group (CW)	.80
1130	End plate clamp screw	.05	X3975	Main housing assembly	7.15
1146	Cam key	.05	X3976	Breaker plate group	1.05
1196	Fixed contact	.55	3977	Drive Shaft (spec. 1460)	1.60
1197	Breaker arm spacing washer	.05	X3979	End plate group (spec. 1460)	2.65
1207	Breaker arm clamp screw washer	.05	4021	Breaker cam (2 cyl. CCW)	1.75
1248	Name plate drive screw (part of main housing)	.05	4083	Shaft thrust washer	.05
1383	Condenser screw	.05	4110	Oil seal (spec. 1348) (sealed with shellac)	.55
X1408	Breaker arm group	1.30	X4111	Drive shaft group (spec. 1348) (includes pin)	2.10
X1413	Condenser assembly	1.25	4112	Cam plate clamp nut	.05
1418	Breaker arm spacer	.05	4112	Support plate clamp nut	.05
1533	Condenser case gasket	.05	4113	Cam plate nut washer	.05
1902	Breaker assembly screw	.05	4113	Support plate nut washer	.05
1902	Cam screw	.05	4117	Rotation arrow (varnish in place)	.05
1902	Secondary pencil screw	.05	4136	Distributor cap group (2 cyl.)	2.90
2264B	Coil wedge	.05	4299	Inner core spacing washer	.05
2573	Breaker arm spring screw L. W.	.05	4474	Coil shield	.10
2573	Ground stud nut L. W.	.05	X4409	End plate group (spec. 1509)	4.20
3230	Ground stud nut	.05	X4571	Drive shaft (spec. 1509)	1.20
3538	Ground stud	.10	4584	Impulse spring cup	.05
3539	Ground stud lock	.05	X4599	Secondary pencil kit (includes secondary pencil, coil shield, secondary terminal spring, breaker cover, and coil snap ring.) Use on all JEM serial nos. prior to 0056751 on subsequent numbers use Y3658	.85
3600	Drive tongue pin (spec. 1591)	.05	X4600	Impulse spring group	.75
3634	Distributor cap gasket	.05	4749	Bearing plate clamp screw L. W.	.05
X3682	Coil group	3.15	4768	Trip arm (for high throw-out impulse)	.80
Y3684	Secondary pencil	.55	4779	Trip arm spring (use with 4768)	.10
3692	Hold-down arm group (spec. 1509)	1.75	5001	Drive shaft (spec. 1591)	2.10
3694	Drive shaft collar (spec. 1509)	.80	X5013	End plate group (CCW) (spec. 1591)	4.20
3695	Ground stud washer (brass)	.10	X5014	Hold down arm group (spec. 1591)	.55
3725	Ground stud washer	.05	5015	Drive tongue (spec. 1591)	1.05
X3765	Inner core group	.55	4992	Dist. cap gasket	.20
3770	Trip arm	.65			
3771	Trip arm pivot	.15			
3782	Rotor shaft bushing	.05			
3783	Inner core snap ring	.05			
X3788	Distribution cap group (4 cyl.) (includes gasket, screws and L. W.)	2.10			

**FACTORY**

**Wico Electric Company**

West Springfield, Mass.

**TULSA, OKLAHOMA**

Harry Lolley, Southwest District Manager  
310 Thompson Bldg.

**LOS ANGELES, CALIFORNIA**

V. T. Chevallier, Western District Manager  
1116 S. Hope St.  
Los Angeles, California

**NEW YORK**

Wico Electric Company  
38 Pearl St.  
New York, N. Y.

**DISTRIBUTORS  
SALES AND SERVICE**

**NOTE:** This list includes only central stations. A complete directory of all authorized Wico Service Stations will be supplied on request.

<b>Alabama</b>	Birmingham	Birmingham Electric Battery Co., 23rd St. & Ave. B.	<b>Texas</b>	Amarillo	E. S. Cowie Electric, 700 Van Buren St.
<b>Arizona</b>	Phoenix	Jones Battery & Electric Company, 318 W. Jefferson St.		Dallas	Beard & Stone Electric Co., 2101 Bryan at Olive.
<b>California</b>	Los Angeles	Electric Equipment Company, 1611 So. Hope St.		El Paso	Randel Battery & Magneto Co., 423 Texas St.
	San Francisco	Auto Electric & Supply Co., 543 Van Ness Ave.		Fort Worth	Generator Service Company, 1115 Commerce St.
<b>Colorado</b>	Denver	Spitzer Electric Company, 43 W. 9th Ave.		Houston	Beard & Stone Electric Co., Inc., San Jacinto and Polk Ave.
<b>Florida</b>	Jacksonville	Spencer Elec., Inc., 40 W. Beaver St.		Kilgore	Magneto Sales & Service Co.
	Miami	Electrical Equipment Co., 42 N. W. 4th St.		San Antonio	S. X. Callahan, 419-425 N. Flores St.
	Tampa	Spencer Auto Electric Co., 607 Cass St.	<b>Utah</b>	Salt Lake City	Frank Edward's Company Motor Equip. Div., 601 S. State St.
<b>Georgia</b>	Atlanta	Auto Electric & Magneto Co., 477 Spring St., N. W.	<b>Virginia</b>	Richmond	Richmond Battery & Ignition Co., 1319 West Broad St.
<b>Idaho</b>	Boise	Oakley Automotive, 1105 Idaho St.	<b>Washington</b>	Seattle	Pacific Magneto Service, Inc., 2719 First Ave. So.
<b>Illinois</b>	Chicago	Illinois Auto Electric Co., 2101 Indiana Ave.	<b>West Virginia</b>	Charleston	MacFadden Ignition, 108 Broad St.
<b>Indiana</b>	Indianapolis	Gulling Auto Electric Co., 450 N. Capitol Ave.	<b>Wisconsin</b>	Milwaukee	Wisconsin Magneto Co., 918 Broadway.
<b>Iowa</b>	Wichita	E. S. Cowie Electric Co., 230 S. Topeka Ave.			
<b>Kansas</b>	Lexington	Kentucky Ignition Co., Rose St. at Vine	<b>Australia</b>	Sydney	<b>AUSTRALIA</b>
<b>Kentucky</b>	Louisville	Kentucky Ignition, 4th St. at York			Carr & Elliott, Cr. Kent & Market Sts.
<b>Louisiana</b>	New Orleans	John M. Walton, 1009 St. Charles St.	<b>Alberta</b>	Calgary	<b>CANADA</b>
	Shreveport	Magneto Ignition Service Co., 804 Louisiana Ave.		Edmonton	R. Hutton, 131 Eleventh Ave., West.
<b>Maryland</b>	Baltimore	Parks & Hull Automotive Corp., 1033 Cathedral St.	<b>British Columbia</b>	Vancouver	Smith Battery & Auto Elec.
<b>Massachusetts</b>	Boston	A. & J. Auto Ignition Company, 55 Brighton Ave.	<b>Manitoba</b>	Winnipeg	Jeffree & Jeffree, Ltd., 775 Homer St.
<b>Michigan</b>	Detroit	Auto Elec. & Service Corp., 90 Selden Ave.	<b>Ontario</b>	Toronto	Beattie Auto Electric Co., Ltd., 176 Fort St.
<b>Minnesota</b>	Minneapolis	Reinhard Bros. Co., Inc.	<b>Quebec</b>	Montreal	A. Cross & Co., 45 Elm St.
<b>Missouri</b>	Kansas City	E. S. Cowie Electric Co., 1819 Wyandotte St.	<b>Saskatchewan</b>	Regina	International Electric Co., Ltd., 1037 Bleury St.
	St. Louis	Medart Auto Elec. Co., Inc., 3134 Washington Blvd.			Elec. Motor Service.
<b>Montana</b>	Billings	Pasley & Spitzer, 2011 33rd St.	<b>Channel Islands</b>	Guernsey	<b>CHANNEL ISLANDS</b>
<b>Nebraska</b>	Omaha	Carl A. Anderson, Inc., 16th and Jones St.			Auto and Electrical Supply Co., Ltd.
<b>New Jersey</b>	Newark	Henry's Company, 376 High St.	<b>Cuba</b>	Habana	<b>CUBA</b>
<b>New Mexico</b>	Albuquerque	Spitzer Electrical Co.			Electrical Equipment Co. of Cuba, Avenida de Italia 29.
<b>New York</b>	Buffalo	Peter Hettrich, 1032 Ellicott St.	<b>Hawaii</b>	Honolulu, T. H.	<b>HAWAIIAN ISLANDS</b>
	Long Island City	Steiner Bros., Inc., North Blvd. at 34th St.			Automotive Service Co., So. and Kawaiahao Streets.
	Troy	Ehrlich Electric Service, 200 Fourth St.	<b>Mexico</b>	Mexico City	<b>MEXICO</b>
<b>North Carolina</b>	Charlotte	Carolina Rim & Wheel Co., 306 No. Graham St.			Anannac Machinery Co., SH. Bucareli No. 12.
<b>Ohio</b>	Toledo	Electric Power Maintenance Co., 26-30 17th St.	<b>New Zealand</b>	Wellington	<b>NEW ZEALAND</b>
<b>Oklahoma</b>	Oklahoma City	American Electric Ignition Co., 725 N. Broadway			H. E. W. Silver Magneto & Ignition Co., 45/7 Lower Cuba St.
	Tulsa	Magneto Ignition, 701 W. Fifth Ave.	<b>Philippine Is.</b>	Manila	<b>PHILIPPINE ISLANDS</b>
<b>Oregon</b>	Portland	Magneto Equipment Co., 1111 So. E. Grand Ave.			Caro Electrical Service, 110 Padre Faura St.
<b>Pennsylvania</b>	Philadelphia	Tri-State Electric Co., 3330 N. Broad St.	<b>Porto Rico</b>	San Juan	<b>PORTO RICO</b>
	Pittsburgh	Automotive Ignition Co., 4917 Baum Blvd.			Ricardo Davila, P. O. Box 475.
	Providence	A & J Auto Ignition, 43 Broadway.	<b>Roumania</b>	Bucaresti	<b>ROUMANIA</b>
<b>Rhode Island</b>		Magneto & Electric Service.			Progresul Mecanic.
<b>South Carolina</b>	Columbia	Battery & Electric Co., 300-314 Buncombe St.	<b>South Africa</b>	Durban	<b>SOUTH AFRICA</b>
	Greenville	R. T. Clapp Co., 401 No. Broadway		Bloemfontein	Messrs. J. M. Moir
<b>Tennessee</b>	Knoxville	Automotive Electric Service Company, 982 Linden St.	<b>Orange Free State</b>	Cape Town	Electric Service Station Corp., Ltd., 34 Henry St.
	Memphis			Johannesburg	Motor Units Pty., Ltd., Cor. Bree and Riekeek Streets.
					Thos. Barlow & Sons, Ltd., (S. A.)
			<b>Argentina</b>	Buenos Aires	<b>SOUTH AMERICA</b>
					Armido Bonelli, Rauch 1849, Entre Calleo y Corrientes.