

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-61-1  
Relating to Exemptions under Section 27156  
of the Vehicle Code

MOTOROLA INC.  
"BREAKERLESS ELECTRONIC IGNITION SYSTEM KIT"  
Model Numbers GSK2028 and GSK2029

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Section 39515 of the Health and Safety Code;

IT IS ORDERED AND RESOLVED: That the installation of the "Breakerless Electronic Ignition System Kit" models GSK2028 and GSK2029 manufactured by Motorola Inc., 9401 W. Grand Ave., Franklin Park, Illinois 60131 has been found not to reduce the effectiveness of required motor vehicle emission control devices and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1976 and older model year vehicles for the following applications:

Model 6SK-2028

<u>Application</u>	<u>Sensor Plate Adapter No.</u>
GM - 8 Cylinder	DR-CW8 or DR-CCW8 64-44117E04 64-44117E06
Ford - 8 Cylinder (1972 thru 1976)	F-8 64-44117E01
Ford - 6 Cylinder (1972 thru 1976)	F-6 64-44117E02
AMC - 8 Cylinder	DR-CW8 64-44117E04
JEEP - 8 Cylinder	DR-CW8 64-44117E04
Austin, Ford (English), Morris, Rover, Sunbeam Triump - 4 Cylinder	LUCAS CCW4 64B44696E
DATSUN - 4 Cylinder	Datsun CCW4 64B44626E01

Model 6SK-2029

<u>Application</u>	<u>Sensor Plate Adapter No.</u>
Toyota 4 - Cylinder	Toyota CW4 64B44668E01
Capri 6 - Cylinder	Bosch CW4 64B44690E01
Ford 6 - Cylinder	Bosch CW4 64B44690E01
Alfa-Romeo, Audi, BMW, Capri Ford, Mercedes Benz, Opel, Saab, Volkswagen - 4 Cylinder	Bosch CW4 64B44696E01

Executive Order D-16 dated October 14, 1975 granting exemption to the same device under Models 6SK2026A and 6SK2027A for 1974 and older vehicles is still valid.

This device is not for use on vehicles originally equipped with breakerless, C-D, electronic ignition systems and 1966-1970 vehicles with a NOx device using 4° basic spark retard (i.e. Carter-CER, Echlin, STP - Air Computer, and AQP - Electro-NOx). The installation instructions indicate these prohibitions. The device consists of a magnetic reluctance sensor operating on the original distributor cam and an amplifier module for transistor switching of the primary current to the standard ignition coil.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different than those listed by the vehicle manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, that adversely affect the performance of the vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE "BREAKERLESS ELECTRONIC IGNITION SYSTEM KIT".

No claim of any kind, such as "Approved by Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Section 17500 of the Business and Professions Code makes unlawful, untrue or misleading advertising and Section 17534 makes violation punishable as a misdemeanor.

Section 43644 of the Health and Safety Code provide as follows:

(a) No person shall install, sell, offer for sale, or advertise, or except in an application to the state board for certification of a device, represent, any device as a motor vehicle pollution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle pollution control device as a certified device which in fact is not a certified device. Any violation of this subdivision is a misdemeanor.

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executed at Sacramento, California this 8 day of ~~February~~<sup>March</sup>, 1976.

Original signed by  
WILLIAM H. LEWIS, JR.  
Executive Officer

State of California  
AIR RESOURCES BOARD

Jan 15, 1976  
Staff Report

Evaluation of the Motorola Inc.  
"Breakerless Electronic Ignition"  
Model Numbers 6SK2028 and 6SK2029

I. Introduction

Motorola Inc. of 9401 W. Grand Ave, Franklin Park, Illinois 60131 has applied for an extension of their exemption from the prohibitions of Section 27156 of the California Motor Vehicle Code for their "Breakerless Electronic Ignition System Kit" models 6SK2028 and 6SK2029 for the 1976 and older model year vehicle (Exhibits A and B):

The device has been granted exemption under Executive Order D-61 dated October 14, 1975 for 1974 and older year vehicles for previous models 6SK2026A and 6SK2027A. The same device with new model designations will be sold with new part numbers and a different packaging scheme as indicated below:

Model 6SK-2029

<u>Application</u>	<u>Sensor Plate Adapter No.</u>
Toyota 4 cylinder	Toyota CW4 64B44668E01
Capri 6 cylinder	Bosch CW4 64B44690E01
Ford 6 cylinder	Bosch CW4 64B44690E01

January 20, 1976

Alfa-Romeo, Audi, BMW                    Bosch CW4  
Capri, Ford, Mercedes Benz            64B4469E01  
Opel, Saab, Volkswagen-  
4 cylinder

Model 6SK-2028

<u>Application</u>	<u>Sensor Plate Adapter No.</u>
GM-8 cylinder	DR-CW8 or DR-CCW8 64-44117E04 64-44117E06
Ford-8 cylinder (1972 thru 1976)	F-8 64-44117E01
Ford - 6 cylinder (1976 thru 1976)	F-6 64-44117E02
AMC - 8 cylinder	DR-CW8 64-44117E04
Jeep - 8 cylinder	DR-CW8 64-44117E04
Datsun - 4 cylinder	Datsun CCW4 64B44626E01
Austin, Ford (English), MG, Morris, Rover, Sunbeam Triump - 4 cylinder	LUCAS CCW4 64B44696E

This device is not for use on vehicles originally equipped with breakerless, C-D, electronic ignition systems and 1966-1970 vehicles with a NOx device using 4° basic spark retard (i.e. Carter-CER, Echlin, STP - Air Computer, and AQP - Electro-NOx). The installation instructions indicate these prohibitions.

II. System Description

The Motorola "Breakerless Electronic Ignition System Kit" is a kit designed to replace the breaker points within a distributor. The device consists of a magnetic reluctance sensor operating on the original distributor cam and an amplifier module for transistor switching of the primary current to the standard ignition coil. A Staff Report on the same device dated September 25, 1975, describes in more detail the operation and function of the device.

III. System Evaluation

The staff evaluated the new models and found that they are electrically identical to the kits of the older models; the only difference is in the packaging. Since the basic operating characteristics of the device are not changed, a confirmatory test was not considered necessary.

IV. Conclusion and Recommendation

Based on the above evaluation of the staff concludes that the Motorola "Breakerless Electronic Ignition System" models 6SK2028 and 6SK2029 would not adversely affect the performance or operation of the OEM emission control system. The staff recommends that Motorola Inc. be issued an exemption from the prohibition of Section 27156 of the Vehicle Code for their "Breakerless Ignition System Kit" models 6SK2028 and 6SK2029. Executive Order D-16 granting exemption to previous models is still valid.

MOTOROLA INC.



November 25, 1975

Mr. G. C. Hass  
Chief  
Division of Vehicle Emissions Control  
Air Resources Board  
9528 Telstar Avenue  
El Monte, California 91731

Dear Mr. Hass:

As you may know, we are currently marketing a breakerless, electronic aftermarket ignition kit in the state of California under the exemption granted to us by executive order #D-61. This order covers our model numbers 6SK2026A and 6SK2027A, used in conjunction with distributor adapter kits 6-19, 6-20, 6-22, 6-23, 6-26, 6-30, 6-31, 6-32, 6-33, 6-34, 6-35, and 6-41, and subject to constraints, defined in executive order.

We are currently in the process of releasing to the market, two new model numbers (6SK2028 and 6SK2029). These new kits are simply a combination of the parts from the kits listed above. All of the hardware and electronics are identical to our previous kits; the only difference is in the packaging.

We wish to include these two model numbers (6SK2028 and 6SK2029) in our executive order so we can market these model numbers in California. Please advise us if any samples or further communication is required to accomplish this. We are anxious to resolve this as quickly as possible, so your cooperation will certainly be appreciated.

Thank you.

Sincerely,

Myles H. Kitchen  
Electrical Engineer

MHK:jc

MOTOROLA INC.



January 16, 1976

Mr. Fernando Tan  
c/o Air Resources Board  
9528 Telstar Ave.  
El Monte, California 91731

Dear Fernando:

As per our phone conversation of 1/15/76, Motorola will add to the ignition package of the 6SK2078 and 6SK2029 ignition systems, the following information:

"Applies to California only:  
This device not for 1966-1970 vehicles  
with NOx devices and 4° retard."

The other constraints mentioned in the executive order are covered by other areas of our entire product, either in the application chart, the instruction sheets, or the inherent product design. Thank you for your cooperation. Please contact us with any further questions.

/lc

Sincerely,

Myles H. Kitchen  
Electrical Engineer



State of California

AIR RESOURCES BOARD

September 25, 1975

Staff Report

Evaluation of the Motorola Inc.,  
"Breakerless Electronic Ignition System Kit"

I. Introduction

Motorola Inc. of 9401 W. Grand Ave., Franklin Park, Illinois 60131 has applied for an exemption from the prohibitions of Section 27156 of the California Motor Vehicle Code for the "Breakerless Electronic Ignition System Kit" models 6SK2027A and 6SK2026A (Exhibit A) for 1974 and older model year vehicles as follows:

<u>Application</u>	<u>Adapter Number</u>	<u>Application</u>	<u>Adapter Number</u>
GM-8 cylinder	6-20, 6-19	Holley (IHC) - 8 cyl.	6-26
GM-6 cylinder	6-21	Hitachi (Datsun) 4 cyl.	6-30
Ford-8 cylinder (1972 thru 1974)	6-22	Denso (Toyota) - 4 cyl.	6-31 & 6-32
		Bosch - 4 cyl.	6-33 & 6-32
Ford-6 cylinder (1972 thru 1974)	6-23	Bosch - 6 cyl.	6-41
		Lucas - 4 cyl.	6-34 & 6-32
		Femsa - 4 cyl.	6-35

This device is not for use on vehicles originally equipped with breakerless, C-D, electronic ignition systems or leading ignition systems for rotary engines or dual point distributors where one of the points are used for emission control and 1966-1970 vehicles with NOx devices and 4° spark retard (i.e., Carter-CER, Echlin, STP - Air Computer and AQP-Electro-NOx).

September 25, 1975

Section 27156 of the Motor Vehicle Code prohibits the installation of any device or mechanism which reduces the effectiveness of the required emission control devices. This vehicle code section also authorizes the Air Resources Board to exempt devices from this prohibition if a finding shows that the device will not adversely affect the performance of the emission control system.

## II. System Description

The Motorola "Breakerless Electronic Ignition System Kit" is a kit designed to replace the breaker points within a distributor. This kit consists of an amplifier, magnetic pick-up unit, mounting bracket, solderless connectors and feeler gauge. The installation instructions are attached as Exhibit B. The manufacturer presented the electrical schematic of the amplifier in drawing number 63D44479E. The drawing has been classified "Company Confidential".

A magnetic pick-up is placed on a mounting bracket supplied with the kit. This bracket is custom made for each specific distributor application. The air gap between the pick-up and the distributor cam lobe is determined by a feeler gauge. When the high points of the cam moves past the magnet pick-up, an induced voltage signal is generated. This signal is transferred to the amplifier which triggers an electronic switch controlling the current flow to the primary side of the ignition coil. This signal stops the current flow to the primary side of the coil which causes the magnetic field of the coil primary to collapse. The collapse of the magnetic field builds up the voltage in the coil secondary and causes the spark plug to fire.

September 25, 1975

The pick-up unit is free from wear prevalent with standard distributor points and thus is capable of providing better control of ignition timing. According to the applicant the purpose of this device is to reduce ignition system maintenance.

### III. System Evaluation

The applicant did not submit any emission data indicating the device will not have any adverse effect on the emission control system. The applicant did submit data describing the electrical characteristics of the unit. In order to evaluate the device, the output characteristics of three ignition systems with and without the device were compared. Confirmatory tests were conducted on the Air Resources Board's ignition system simulator which consists of a Sun Distributor Tester, Tektronix Oscilloscope, Sun Ignition Analyzer and associated accessories according to SAE J973a, Ignition System Measurements Procedure.

The ARB evaluation of the unit consisted of measuring the spark duration, available secondary voltage, secondary voltage rise time, average secondary voltage and current, and centrifugal and vacuum advance timing characteristics. The baseline and device tests were conducted with 1968 General Motors 6 cylinder, 1973 Ford 8 cylinder and 1973 Volkswagen 4 cylinder distributors. The results of this comparison are shown in Tables I, II and III.

September 25, 1975

The device test data for the General Motors 6 cylinder distributor indicated a spark retard in excess of the ARB limit of 4° crankshaft.

The difference between the baseline and device results for the Ford 8 cylinder and Volkswagen 4 cylinder are within experimental and test variabilities. Therefore the installation of the device will not change the ignition performance characteristics.

#### IV. Conclusion and Recommendations

Based on the evaluation of the application and ARB test results, the installation of the Motorola - "Breakerless Electronic Ignition System Kit" would not adversely affect the performance or operation of the OEM emission control system. The staff recommends that Motorola Inc. be issued an exemption from the prohibitions of Section 27156 of the Vehicle Code for its "Breakerless Electronic Ignition System Kit" for 1974 and older model year vehicles for the kits specified in the introduction except the General Motors 6 cylinder vehicles.

Table I

1973 Volkswagen - 4 Cylinder Distributor

Centrifugal Spark Advance in Crankshaft Degrees

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
600	0	0
1400	8	7
2000	13	10
2600	17	15
3200	21	18
3800	23	20

Vacuum Spark Advance in Crankshaft Degrees

<u>Vacuum in. Hg.</u>	<u>Baseline Test</u>	<u>Device Test</u>
3	0	0
6	1	1
9	6	6
15	6	6
20	6	6

Spark Duration in Microseconds

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
800	950	700
4000	600	650

Secondary Voltage Rise Time in Microseconds

<u>Engine RPM</u>	<u>Baseline Tests</u>	<u>Device Test</u>
800	80	50
4000	40	50

Spark Energy in Millijoules

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
800	18.0	13.3
4000	10.1	13.5

26%

Table II

1973 Ford 8 Cylinder Distributor  
Centrifugal Spark Advance in Crankshaft Degrees

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
600	0	0
1400	6	5
2000	9	8
2600	13	12
3000	15	14

Vacuum Spark Advance in Crankshaft Degrees

<u>Vacuum in. Hg.</u>	<u>Baseline Test</u>	<u>Device Test</u>
3	0	0
6	1	1
9	8-1/2	8
15	20	20
20	25	25

Spark Duration in Microseconds

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
600	1300	1200
3000	950	900

Secondary Voltage Rise Time in Microseconds

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
600	40	50
3000	40	50

Spark Energy in Millijoules

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
600	19.6	16.6
3000	11.3	11.6

15<sup>th</sup>

Table III

1968 General Motors 6 Cylinder

Centrifugal Spark Advance in Crankshaft Degrees

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
600	0	0
1400	8	6
2000	17	14
2600	19	19
3000	21	21

Vacuum Spark Advance in Crankshaft Degrees

<u>Vacuum in. Hg.</u>	<u>Baseline Test</u>	<u>Device Test</u>
3	0	0
6	0	0
9	7	5
12	18	14
15	26	21
18	26	21
20	26	21

Spark Duration in Microseconds

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
600	1500	1400
3000	1400	1600

Secondary Voltage Rise Time in Microseconds

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
600	40	30
3000	30	30

Spark Energy in Millijoules

<u>Engine RPM</u>	<u>Baseline Test</u>	<u>Device Test</u>
600	22.6	18.1
3000	25.3	22.8

11.9

MOTOROLA INC.



June 26, 1975

Mr. Richard Kenney  
 California Air Resources Board  
 9528 Telistar Avenue  
 El Monte, California 91731

Dear Mr. Kenney:

Enclosed you will find a copy of data taken with respect to our models 6SK2026 and 6SK2027 aftermarket ignition systems. This data, in conjunction with your specifications form is being submitted for certification for sale and use of these products in the state of California.

We have limited our list of applications to include only those which fall within your 4° retard limit. (See List.)

List of distributor applications submitted for exemption (see enclosed test data).

			<u>Kit #</u>
General Motors	CCW	V8	6-20
General Motors	CW	V8	6-19
General Motors	CW	6	6-21
Ford 6 (Vacuum only dist.)		Pre 1967	6-23
Holley (I.H.C.)		8	6-26
Hitachi (Datsun)		4	6-30
Denso (Toyota)		4	6-31
Bosch		4	6-33
Bosch		6	6-41
Lucas		4	6-34
Femsa		4	6-35

We have tested the advance characteristics of all of these distributors and have found that retard introduced by the installation of our system is less than 4° engine in all cases (see enclosed test data).

At this time, we have chosen to exclude the following applications as their advance characteristics exceed your 4° retard limit.

List of distributor applications excluded from submission:

Chrysler	CW	6	
Chrysler	CW	8	
Chrysler	CCW	8	
Ford		8	
Ford		6	1967 to present (centrifugal and vacuum)



Mr. Richard Kenney  
Page 11  
June 26, 1975

We are currently engineering revisions to our system to bring the above applications within your prescribed limits. When this is accomplished, we will separately submit these applications to you for exemption.

The data enclosed was taken on our laboratory test equipment in conjunction with S.A.E. standards for ignition testing, numbers SAE - J139, and SAE - J973a. You will note that the electrical data was taken for a Ford 8 application. This application is not being submitted, however the electrical parameters for all applications are similar and this was selected as being typical. I might also mention that the modules in both the 6SK2026 and the 6SK2027 are electrically identical. The only difference between the two kits is the physical size of the sensor. The sensor used with the 6SK2027 is smaller so it will fit in certain 4 cylinder distributors.

We request an early review of our application. As you know, we are unable to compete in California without the sought exemption. In view of the fact that many of our competitors do not meet your retard limit and yet are able to market in California under previous standards, we find ourselves at a precarious competitive disadvantage. We will appreciate your immediate and expeditious processing of our application.

Sincerely,

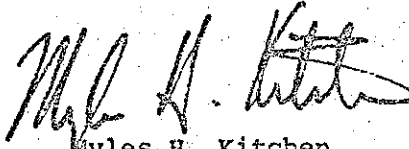
  
Myles H. Kitchen  
Electrical Engineer



Exhibit A  
**MOTOROLA**

electronic  
ignition

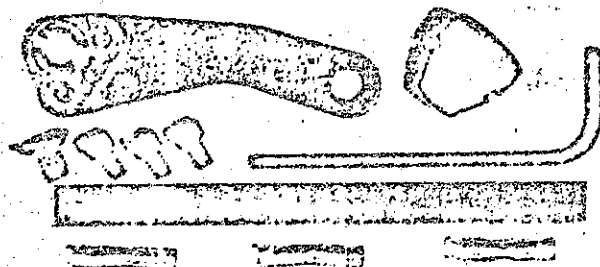
# ELECTRONIC IGNITION SYSTEM

## 12 VOLT NEGATIVE GROUND FOR GAS ENGINES WITH STANDARD IGNITION SYSTEM

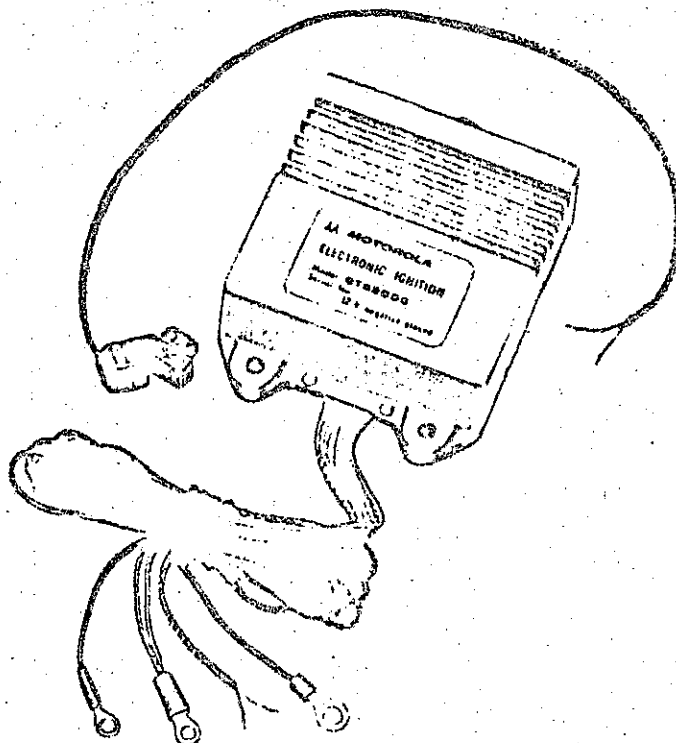
### IMPORTANT FEATURES

Kit 6SK2026

- Improves starting capability.
- Extends miles between ignition tune up.
- Replaces points and condenser.
- Uses original coil and distributor.
- Easy to install.
- Complete system in 2 kits.
- Does not effect operation of most tachometers.
- Module and sensor epoxy encapsulated to protect against moisture and vibration.

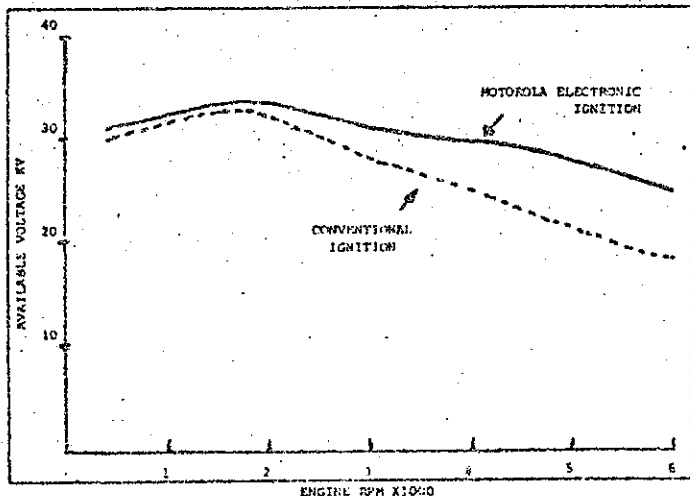


The proper sensor plate for each application is required with the 6SK2026 kit. Kit No. 6-23 shown.

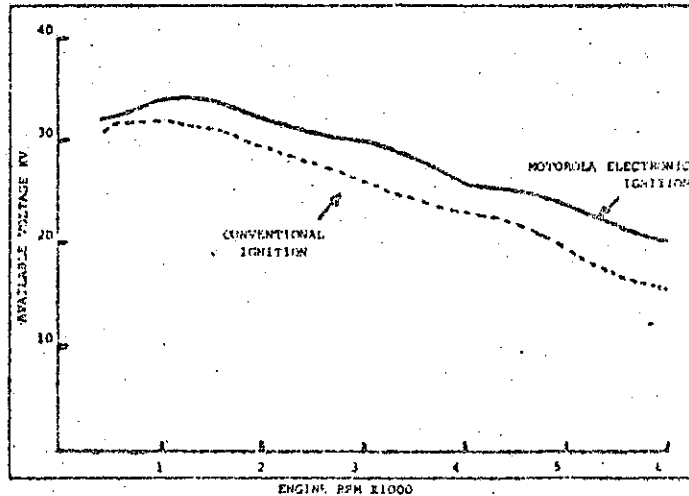


### PERFORMANCE CURVES

6 CYLINDER APPLICATION



8 CYLINDER APPLICATION



### TEST PARAMETER

Output voltage measured with coil secondary open.  
 Supply voltage 14 volts.  
 Coil primary resistance 1.38 ohm.  
 Coil primary inductance 7.3 mh.

Performance measured on techtronic type 564B  
 oscilloscope with type P60 15 high voltage probe.

SPECIFICATIONS

- |  |   |
|--|---|
| <p>1. Current drain 8 cycle engine.<br/>                 Start — 4.5 amps @ 0 rpm<br/>                 Idle — 4.9 amps @ 100 rpm<br/>                 Run — 2.9 amps @ 3000 rpm</p> <p>2. Output voltage.<br/>                 Start — 32 KV @ 100 rpm<br/>                 Run — 25 KV @ 3000 rpm</p> <p>3. Rise time 40 MSEC @ 3000 rpm.</p> | <p>4. Spark duration 2.3 MSEC @ 3000 rpm.</p> <p>5. Primary stored energy 75.5 millijoules @ 100 rpm.</p> <p>6. Supply voltage 12-14 volts. Unit will operate with battery as low as 6 volts.</p> <p>7. Temperature -40°F to + 260°F.</p> |
|--|---|

SPECIAL FEATURES

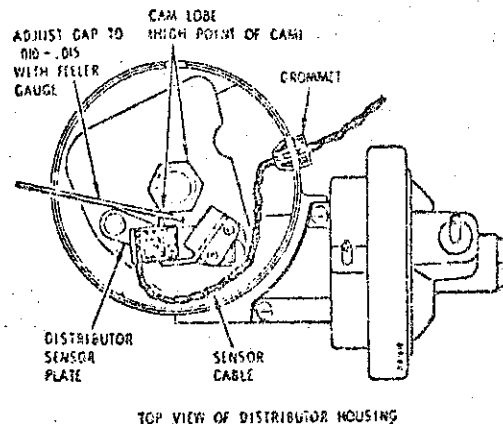
- Dwell circuitry is designed for maximum performance.
- System has radio frequency suppression. "Remove Capacitors On Coil"
- Protected for load dump and high voltage transients.
- Reverse polarity protected.
- System may be transferred to future car.
- One system operates on all 12 volt — Neg Gnd Standard Ignition Systems.

SENSOR PLATE KITS

<b>AMERICAN MOTORS</b>	
6 Cyl. All '63 & later .....	6-21
8 Cyl. All .....	6-19
<b>BUICK</b>	
6 Cyl. All '63 & later (except V6).....	6-21
8 Cyl. All '57 & later .....	6-19
<b>CADILLAC</b>	
8 Cyl. All '56 & later .....	6-19
<b>CHECKER</b>	
6 Cyl. All '64 & later .....	6-21
8 Cyl. All .....	6-19
<b>CHEVROLET</b>	
6 Cyl. All '63 & later (except Corvair).....	6-21
8 Cyl. All '57 & later (except dual point) .....	6-19
<b>CHRYSLER CORPORATION CARS</b>	
6 Cyl. All '62 & later .....	6-24
8 Cyl. All '61 & later up to 360 cu. in. and larger (except dual-point)....	6-24
8 Cyl. All '61 & later 361 cu. in. and larger (except dual-point).....	6-25
8 Cyl. Dual point 273, 340 cu. in. ....	6-27
<b>FORD MOTOR COMPANY CARS</b>	
6 Cyl. All '56 & later (except V6).....	6-23
8 Cyl. All '57 & later (except dual-point) .....	6-22
<b>JEEP</b>	
6 Cyl. All '63 & later (except V6).....	6-21
8 Cyl. All .....	6-19
<b>OLDSMOBILE</b>	
6 Cyl. All '63 & later .....	6-21
8 Cyl. All '56 & later .....	6-20
<b>PONTIAC</b>	
6 Cyl. All '63 & later .....	6-21
8 Cyl. All '57 & later (except 307 cu. in.) .....	6-20
8 Cyl. 307 cu. in. ....	6-19

See dealer for chart with other listings.

**MAGNETIC SENSOR INSTALLATION**



1. Remove points and condenser and primary lead.
2. Install sensor plate in position of points.
3. Mount sensor on sensor plate.





# CONVERSION KIT SELECTION CHART

This chart provides three tables to assist you in selecting the proper Sensor Plate Kit and Electronic Ignition System Kit for a particular vehicle or ignition distributor.

- TABLE I lists proper kits by car models for U.S.A. built cars.
- TABLE II lists proper kits by car models for Foreign built cars.
- TABLE III lists proper kits by distributor.

TABLE I

MAKE OF CAR	DESCRIPTION	DISTRIBUTOR ADAPTER	DISTRIBUTOR ROTATION	BASIC INSTALL. KIT
AMERICAN MOTORS	6 Cyl. All '63 & later	6-21	CW	6SK2026
	8 Cyl. All	6-19	CW	6SK2026
BUICK	6 Cyl. All '63 & later (except V-6)	6-21	CW	6SK2026
	8 Cyl. All '57 & later	6-19	CW	6SK2026
CADILLAC	8 Cyl. All '56 & later	6-19	CW	6SK2026
CHECKER	6 Cyl. All '64 & later	6-21	CW	6SK2026
	8 Cyl. All	6-19	CW	6SK2026
CHEVROLET	4 Cyl. All		CW	†
	6 Cyl. All '63 & later (except Corvair)	6-21	CW	6SK2026
	8 Cyl. All '57 & later (except dual points)	6-19	CW	6SK2026
CHRYSLER CORP.	6 Cyl. All '62 & later	6-24	CW	6SK2026
	8 Cyl. All '61 & later up to 360 cu.in. (except dual-pts.)	6-24	CW	6SK2026
	8 Cyl. All '61 & later 361 cu.in. and larger (except dual-points)	6-25	CCW	6SK2026
	8 Cyl. Dual point 273, 340 Cu. in.	6-27	CW	6SK2026
FORD MOTOR CO.	6 Cyl. All '56 & later (except V6)	6-23	CW	6SK2026
	8 Cyl. All '57 & later (except dual-point)	6-22	CCW	6SK2026
	4 Cyl. 2,000 cc engine	6-33	CW	6SK2027 & 6-32
	V6 Cyl. 2,800 cc engine	†	CW	6SK2027 & 6-32
	4 Cyl. 2,300 cc engine			
JEEP	6 Cyl. All '63 & later (except V6)	6-21	CW	6SK2026
	8 Cy. All	6-19	CW	6SK2026
OLDSMOBILE	6 Cyl. All '63 & later	6-21	CW	6SK2026
	8 Cyl. All '56 & later	6-20	CCW	6SK2026
PONTIAC	6 Cyl. All '63 & later	6-21	CW	6SK2026
	8 Cyl. All '57 & later (except 307 cu. in.)	6-20	CCW	6SK2026
	8 Cyl. 307 cu. in.	6-19	CW	6SK2026

All above cars use 6SK2026 Basic kit except 4 cyl. Ford 2,000 cc Engine and 2,800 cc Engine

MAKE OF CAR	MODEL YEARS	MODELS	KITS REQUIRED
ALFA-ROMEO 4 Cyl.	From '66 ----- From '66 ----- From '66 ----- From '66 -----  From '65 ----- From '66 ----- From '66 ----- From '66 -----  From '68 -----	Spider 92 PS (Bosch) 2600 Berlina 130 PS Sprint Spider 145 PS GT 1300 Junior (Dist. #0 231 110 044)  Giulia Super Giulia Sprint 1600 GTV Giulia Spider Duetto 1750 Berlina (Dist. #0231 110 044, and 129034).  Spider Veloce, GTV (Dist. #0231 110 044, and 129034)	6SK2027  6-32  6-33  * 6-36
AUDI 4 Cyl.	From '61 ----- '67 & '68 -----  From '68 ----- '66, '67, '68 ----- From '66 -----  From '68 ----- From '70 -----	Audi 60 Audi 60L, Variant 72 (Dist. #0 231 115 068)  Audi 75L, 75 Variant Audi 80, 80L, Variant 80 Audi Super 90 (Dist. #0 231 115 067)  Audi 100, 100S & 100 LS Audi Coupe S	
AUSTIN HEALEY 4 Cyl.	'58 through '60 --- '61 & '62 ----- '65 & '66 -----	Sprite (H.C.) Sprite Standard Mark II Sprite Mark III	6SK2026 6-34
BMW 4 Cyl.	From '67 ----- From '68 -----  '67 & '68 ----- From '63 -----  '64 & '65 -----  From '65 ----- From '66 -----  From '68 -----  From '68 -----	1600/2 1600 Cabriolet (Dist. #0 231 115 072) 1600 T1, GT 1800 (Dist. #0 231 114 072) 1800 T1, T1/SA (Dist. #0 231 129 026) 2000C Automatic 2000 (Dist. #0 231 115 071) 2002 (Dist. #0 231 115 071) 2002 T1	6SK2027  6-32  6-33  * 6-36
DAIMLER-BENZ 4 Cyl.	From '68 -----	200/8, 220/8 (Dist. #0 231 115 064)	
DATSUN 4 Cyl.	'63 & '64 ----- '63 thru '69 ----- '64 thru '69 ----- '65 thru '67 ----- '65 thru '69 ----- '66 thru '69 -----	PL, SPL 310 LG 35 PL 410 311 PL 411, 520 41 Junior	6SK2026  6-30

III  
 (ROUND ONLY)

MAKE OF CAR	MODEL YEARS	MODELS	KITS REQUIRED
FORD (ENGLISH) 4 Cyl.	'59 thru '61 ----- '61 ----- '63 thru '66 ----- '59 thru '62 ----- '67 thru '69 ----- '67 & '68 -----	Consul Consul 315 Zephyr 4 MK111 Anglina, 105E, & Prefect 1 1/2 to K Series Zephyr 4 LC	6SK2035 6-34
KARMANN GHIA 4 Cyl.	From '68 ----- From '67 ----- From '68 ----- From '67 -----	1500 (44 PS) 1500 Automatic 1600L 1600 L Automatic	6SK2027 6-32 6-33 *6-36
MG 4 Cyl.	From '58 -----	All 4 Cylinder	6SK2026 6-34
MORRIS 4 Cyl.	From '56 -----	All except Cowley Saloon, Oxford, Hindustan (series II), Quarter Ton Van	
OPEL 4 Cyl.	From '67 -----  From '68 ----- From '67 ----- '67 & '68 ----- From '67 ----- From '66 -----  From '67 -----	Kadett B, 1.1 Ltr. 45 PS, 1.1 Ltr. S 55 PS, 1.1 Ltr. SR 60 PS Kadett B, 1.1 Ltr SRUS 60 PS Kadett B, 1.5 Ltr. S 65 PS Kadett B, 1.5 Ltr. SUS 68 PS Kadett B, 1.7 Ltr. S 75 PS Kadett B Rallye (LS), 1.1 Ltr. SR 60 PS Kadett B Rallye (LS) 1.9 Ltr. S 90 PS	6SK2027 6-32 6-33 *6-36
PORSCHE 4 Cyl.	From '65 -----	912 (Dist. #0 231 129 031)	
ROVER 4 Cyl.	-----	All 4 Cyl. models that use Lucas 423-153 points	6SK2026 6-34
SAAB 4 Cyl.	From '68 -----	95 V 4, 96 V4	6SK2027 6-32 6-33 *6-36
SUNBEAM 4 Cyl.	From '57 -----	All 4 Cyl.	6SK2026 6-34
TOYOTA 4 Cyl.	From '67 ----- From '72 -----	Corolla Corona, Corona Mark II	6SK2027 6-31 6-32
TRIUMPH 4 Cyl.	From '58 -----	All 4 Cyl. Except Spitfire	6SK2026 6-34
VOLKSWAGEN	From '67 -----	All Models using Bosch #1 237 013 044,063, 065, or 066 points	6SK2027 6-32 6-33 *6-36

\*If distributor is not equipped with Bosch Rotor 1234 332 074, either order this rotor from Dealer, or obtain Motorola Rotor Kit 6-36, or alter existing rotor as instructed by the instruction sheet packaged with the 6-33 Distributor Kit. (Note - 6-32 is a Sensor Only.)

DISTRIBUTOR MAKE	DIST. PART NO. or PART NO. OF POINTS	NO. OF CYL.	DIST. ROTATION	BASIC KIT NO.	DIST. KIT NO.	ADDITIONAL KITS
BOSCH	1 237 013 044, 1 237 013 051, 1 237 013 057, 1 237 013 058, 1 237 013 063, 1 237 013 065, 1 237 013 066, 1 237 013 067, 1 237 013 068	4	CW	6SK2027	6-33	6-32 *6-36
CHRYSLER/ PRESTOLITE	2098244, 1838643, 2098057	6 & 8	CW	6SK2026	6-24	NONE
	2098244, 1838643, 2098057	8	CCW	6SK2026	6-25	NONE
DELCO/REMY		4				†
	D-108P, 1954557	6	CW	6SK2026	6-21	NONE
		6	CCW			†
	D-106P, PS, 1931988, 1948671, 1949838, 1966289	8	CW	6SK2026	6-19	NONE
	D-106P, PS, 1931968, 1948671, 1949838, 1966289	8	CCW	6SK2026	6-20	NONE
DENSO (TOYOTA)	19145-41010, 19145-41020	4	CW	6SK2027	6-31	6-32
FEMSA (Series DF4)	All	4	CW	6SK2026	6-35	NONE
FORD/BOSCH	464.163 D1F2-12171A DP-124, D2RY 121, 74HF12100LA	4	CW	6SK2027	6-33	6-32 *6-36
	74TF - 12100MA	6	CW	6SK2027	6-41	6-32 *6-42
FORD/MOTORCRAFT	D4ZF12127DA, 7RA12171, FAA12171A, C9A2-12171B, C3D2-12171A, DP3,7,70	6	CW	6SK2026	6-23	NONE
		4				†
	FAB-12171B, FAB-12171A	8	CCW	6SK2026	6-22	NONE
HITACHI (DATSUN)	22145-71301, 22145-18005	4	CCW	6SK2026	6-30	NONE
HOLLEY	433142-C91	8	CW	6SK2026	6-26	NONE
LUCAS	54413568, 423 153 54419946	4	CCW	6SK2026	6-34	NONE
MALLORY	YL-512DV, D1JJ-12100B	8	CCW	6SK2026	6-37	NONE
OPEL/BOSCH	RP1212.007, 1612011, 1212007	4	CW	6SK2027	6-33	6-32 *6-36
VW/BOSCH	311.998.063, 111.998.063	4	CW	6SK2027	6-33	6-32 *6-36

\*If distributor is not equipped with Bosch Rotor 1234 332 074, either order this rotor from Dealer, or obtain Motorola Rotor Kit 6-36, or alter existing rotor as instructed by the instruction sheet packaged with the 6-33 Distributor Kit. (For Bosch Rotor 1234332197 Use Motorola Rotor Kit 6-42) † = To Be Announced

#### INSTRUCTIONS FOR USING TABLE III

- Determine distributor make.
- Determine distributor part number or point set part number.
- Check the number of cylinders.
- Determine whether rotation of distributor is clockwise or counter-clockwise as viewed from top of rotor. Rotation can be determined by either A) cranking engine and observing movement of rotor, or B) twisting rotor which will turn approximately 15 degrees in the direction of rotation and then spring back.
- Select proper Motorola kits from Table.



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MOTOROLA INC.



August 6, 1975

Mr. Richard Kenney  
Air Resources Board Laboratory  
9528 Telstar Avenue  
El Monte, California 91731

Dear Mr. Kenney:

At this time we wish to add two more applications to our submission for exemption for our electronic ignition (model 6SK2026). These two applications are the Ford 8-cylinder - 1957 and later single point, and the Ford 6-cylinder 1968 and later. These applications are our kit numbers 6-22 and 6-23 respectively.

Earlier testing done at our laboratory showed that these applications did not fall within your 4° retard limit. However, upon further investigation, it was found that our lab distributors were no longer within manufacturer's calibration. At this point, new distributors were purchased and one other distributor was removed from a vehicle and tested. All of these were found to be within your 4° retard limit. (See enclosed data.)

At the time of our first submission, your laboratory tested our system on a Ford distributor and found the results to be unsatisfactory. This does not agree with data taken in our laboratory. For this reason, I am planning on bringing the above mentioned distributors with me when I visit your laboratory during the week of August 19 to help clear up this correlation problem.

We discussed this matter in our telephone conversation of July 29 and we agreed that this would be in order.

If you or your staff have any further questions or require any samples, please do not hesitate to contact me. I will be looking forward to visiting your facility in the upcoming weeks and hope that we will be able to clear up this matter.

Thank you.

Sincerely,

Myles H. Kitchen  
Electrical Engineer

MHK:jc



MOTOROLA INC.



August 27, 1975.

Mr. Mitchell Luczynski  
 Engineer  
 State of California  
 Air Resources Board  
 9528 Telstar Avenue  
 El Monte, California 91731

Dear Mitch:

As you required, I am writing you to clarify some of the points we discussed during my recent visit to your facility. These include:

- 1) Electrical connection of the module - Because the high performance connection (see figure 3 of the installation instructions) provides higher levels of spark energy as compared to our standard connection, we are revising the instruction sheet to include only the high performance connection. We will no longer terminate the blue and red leads with a single ring terminal. They will each have separate terminals to accomplish this installation. Existing stock will be re-worked and a suffix "A" will be added to the model number of the basic kits. This means all 6SK2026A and 6SK2027A ignition kits will comply with your request.
- 2) Our current request for exemption asks for all Ford 6 and 8 cylinder applications from 1957 through 1974. We will limit this application on our conversion kit selection chart to model years 1972 - 1974 due to the type of breaker plate used these distributors. The test done in your laboratory demonstrates our ability to perform on this type of distributor. Any other distributor applications listed in our chart; but not applied for exemption (such as Chrysler) will be clearly marked, indicating that they do not comply with California requirements.
- 3) The Motorola 6SK2026A and 6SK2027A is electrically compatible with the Dana Retronox speed sensor. A Dana Retronox device has been tested in our laboratory in conjunction with the 6SK2026A without failure.

I hope this will clear up the issues we discussed. If you have any further questions or require any further correspondence from myself, please contact me directly so I can respond as quickly as possible. We are understandably very anxious to reach the California marketplace with our product just as soon as possible. Any steps you can take to help us minimize any delays will certainly be appreciated.

Let me once again express my sincerest thanks to yourself, Dick Kenney, Rod Summerfield and the rest of the staff for the cooperation and help I was given while visiting your facility. It certainly made my visit enjoyable as well as informative. I will certainly keep in touch to keep track of our progress.

Sincerely,

Myles H. Kitchen

Electrical Engineer

MHK:jc

MOTOROLA INC.



October 2, 1975

Mr. Mitchell Luczynski  
 Engineer  
 State of California  
 Air Resources Board  
 9528 Telstar Avenue  
 El Monte, California 91731

Dear Mitch:

I am writing to confirm our telephone conversation of September 30, 1975, regarding our request for exemption on General Motors' 6-cylinder distributors (clockwise rotation). We will agree to remove this application from our request as there may be cases where we cannot comply with the 4° retard limit. This means that our distributor adapter kit #6-21 should be excluded from the list of applications on my letter of June 26, 1975. As of this date our list of applications should be as follows:

	<u>KIT #</u>
General Motors CCW VS	6-20
General Motors CW VS	6-19
Ford 6 (1972 - 1974)	6-23
Ford 8 (1972 - 1974)	6-22
Holley 8 (I.H.C.)	6-26
Hitachi (Datsun) 4	6-30
Denso (Toyota) 4	6-31
Bosch 4	6-33
Bosch 6	6-41
Lucas 4	6-34
Femsa 4	6-35

These distributor adapter kits are used in conjunction with the basic ignition kits, 6SK2026A and 6SK2027A (as described in my letter of August 27, 1975.) If there are any further questions, please contact me immediately as we are quite anxious to resolve this matter.

Thank you.

Sincerely,

Myles H. Kitchen  
 Electrical Engineer

MHK:jc

# INSTALLATION INSTRUCTIONS FOR MODEL 6SK2026 AND 6SK2027 ELECTRONIC IGNITION SYSTEMS

FOR 12 VOLT NEGATIVE GROUND INSTALLATIONS

## GENERAL

Your Motorola Electronic Ignition system converts the conventional electro-mechanical system to an electronic ignition system in cars that have a 12-volt negative ground electrical system. All parts needed to convert to the Motorola Electronic Ignition System, except distributor sensor plate for the distributor, are provided in this package.

A distributor sensor plate with mounting instructions is available for most makes of cars. Your dealer has a complete listing to assist you in selecting the proper one.

An electronic ignition system, just as a conventional ignition system, performs at optimum efficiency when the spark plugs are in good condition. Therefore, the spark plugs should be checked if there is any doubt about their condition. At the same time, also inspect the distributor rotor, distributor cap, and the ignition wires. We recommend that you replace the ignition wires if they are more than two years old. Should the spark plugs need cleaning and regapping, regap them according to the engine manufacturer's specification.

Another important requirement for top ignition performance is that the engine timing is set to the engine manufacturer's specification (see TIMING CHECK).

This electronic ignition system can be easily removed and reinstalled in another car. The only additional part that will be needed is a distributor sensor plate kit designed for that car. When installing this electronic ignition system, it is advisable to save the parts removed from the car so that, should you decide to trade in your car at a later date, you can remove the electronic ignition system and convert the car back to the conventional ignition system.

## AMPLIFIER INSTALLATION (Figure 1)

1. Disconnect the battery ground cable from battery.
2. Select a well-ventilated surface for mounting the amplifier. The spot should be located away from the radiator and manifold heat. Mounting on one of the front fender splash panels is preferred. Although the unit may be mounted in any position, the position with the wires facing down is preferred.
3. Using the amplifier as a template, drill 0.193" diameter holes (#10 drill bit), then fasten down with the #14 sheet metal screws and lockwashers.

To insure proper alignment, drill holes and install screws one at a time. If mounting surface is of a plastic material, use the three spring nuts provided to hold screws in place.

## SENSOR INSTALLATION

Install sensor as outlined by the instructions packaged with the Distributor Sensor Plate Kit.

## WIRING INSTRUCTIONS (Figure 2)

1. Route wires from amplifier to the ignition coil and distributor as indicated by the hook-up diagram in Figure 2. Route wires along existing har-

ness wherever possible. Use cable straps and wire clamp provided where necessary. Keep wires away from points of high heat, ignition wires, antenna leads, and moving parts.

2. Check the ignition coil and note the type connector attaching the primary wire (wires) to positive terminal (marked either "+" or "BAT"). If the connector is a push-on type, cut connector from wire. Then strip 1/4" of insulation from wire, crimp on a ring terminal and fasten to positive terminal with #10-32 nut. In instances where there were two wires attached to the push-on connector, crimp a ring terminal to each wire. (Ring terminals and 10-32 nuts for this purpose are provided in the Distributor Sensor Plate Kit).

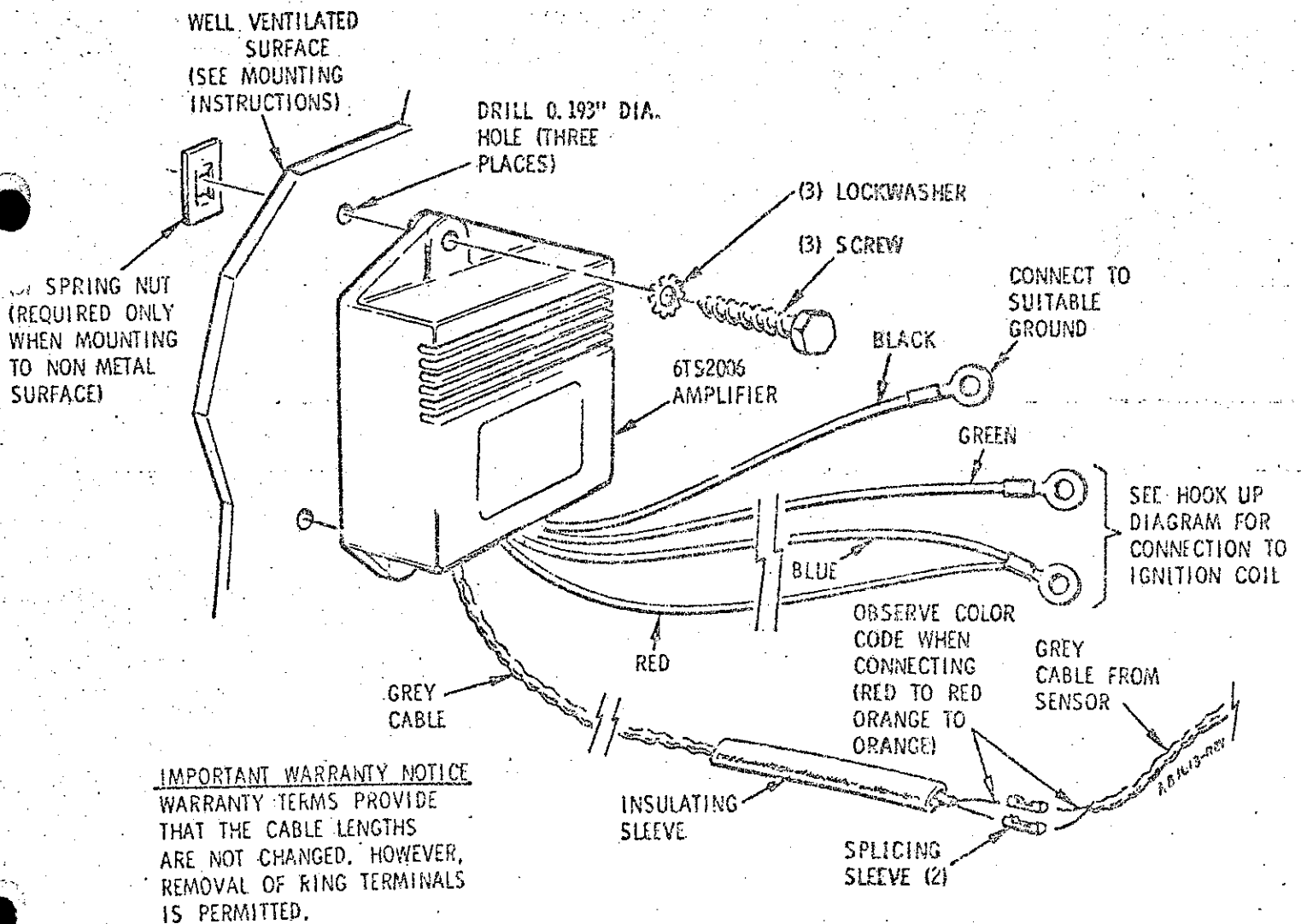


FIGURE 1

3. Connect blue/red wire to positive terminal (marked either "+" or "BAT") of ignition coil. Connect green wire to negative terminal (marked either "-" or "DIST") of ignition coil. See Figure 2. For high performance applications, see Figure 3. A special high performance coil is available for either hook up. See your dealer for more information.
4. Connect black wire to an existing bolt that is grounded to vehicle. If amplifier is mounted on metal panel or surface that provides good ground, the black wire can be connected to one of the amplifier mounting screws. See Figure 1.
5. Connect grey amplifier cable to grey sensor cable from distributor as follows: Slip 4" long black insulating sleeve over one of the cables, then splice red wire to red wire and orange wire to

orange wire with yellow splicing sleeves provided. Use ordinary pliers to crimp sleeves. Cover spliced connections with 4" long black insulating sleeve. (Wires can also be connected by soldering and taping.) Check connections by gently pulling cables.

6. Reconnect battery cable.
7. Start engine. If engine does not start, check that:
  - a) All connections make good contact,
  - b) Rotor has been reinstalled,
  - c) Sensor wires were not connected in reverse,
  - d) High tension wires fit tight into distributor cap,

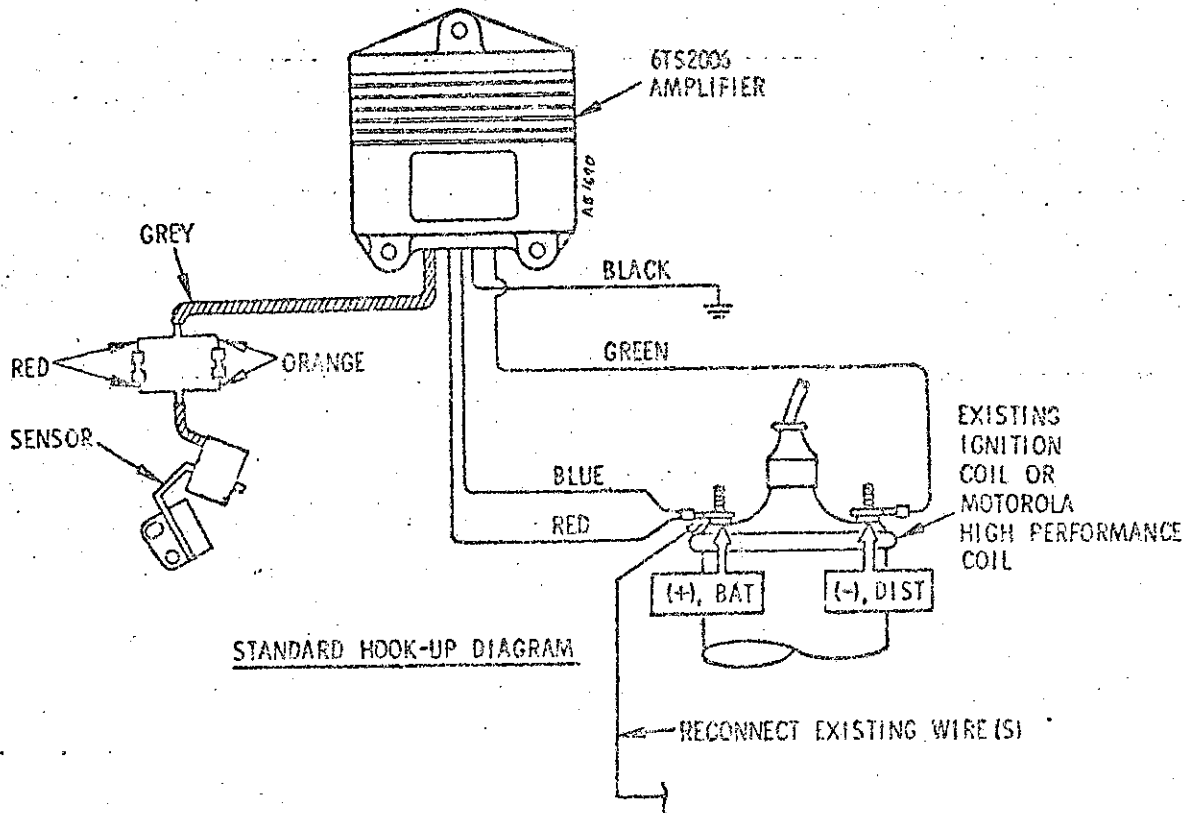


FIGURE 2

continued on back page

- e) Green and blue/red wires from amplifier are connected to proper terminals on ignition coil,
- f) Wire from ignition switch is connected to positive terminal (marked either "+" or "BAT") of coil.

**REPLACEMENT PARTS**

DESCRIPTION	MOTOROLA PART NO.
Sensor for 6SK2026 Ignition Kit (Model 6SM2005)	6-29
Sensor for 6SK2027 Ignition Kit (Model 6SM2008)	6-32
Amplifier for 6SK2026 or 6SK2027 Ignition Kit (Model 6TS2006)	6-28

**TIMING CHECK**

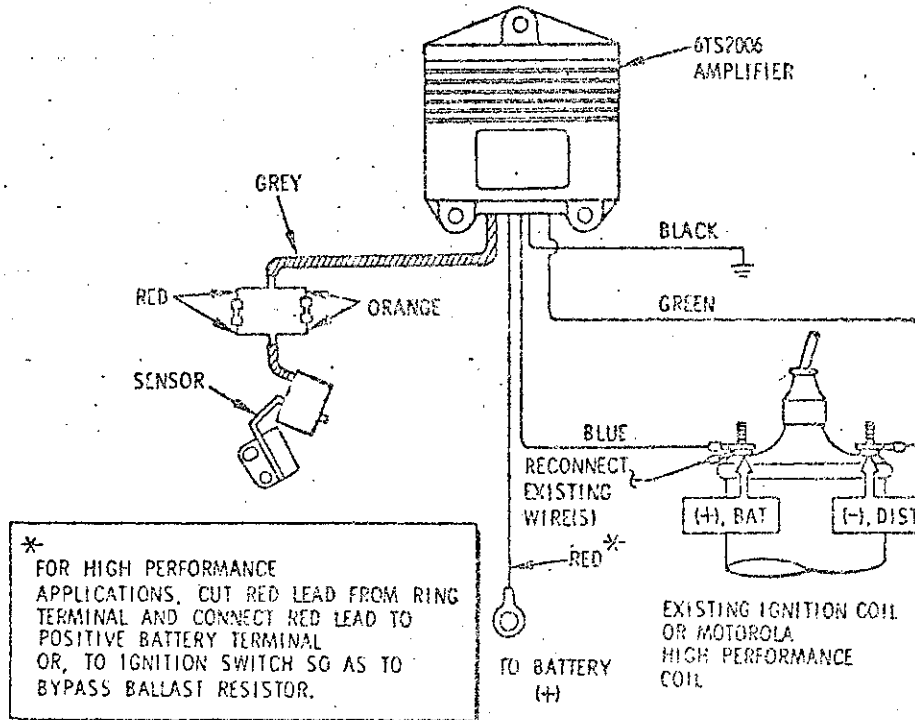
Check timing as instructed in engine manual.

Since dwell in the Motorola Electronic Ignition System is electronically preset at the factory and cannot be adjusted mechanically as in a breaker point ignition system, a dwell meter is not necessary for the timing check or for tune ups. A dwell meter reading taken of a Motorola Electronic Ignition system will differ from a reading taken of a breaker point ignition system and does not indicate improper or erratic dwell. Adjusting the sensor gap has no effect on dwell.

**IMPORTANT:** Engine must be timed properly for efficient operation. However, once the engine is timed properly, it never needs to be re-set unless the distributor is loosened or removed from engine.

**TACHOMETERS**

Your Motorola Electronic Ignition system is compatible with most popular tachometers. Simply, connect tachometer according to manufacturer's installation instructions.



HIGH PERFORMANCE HOOK-UP DIAGRAM

FIGURE 3



# MOTOROLA®

## INSTALLATION INSTRUCTIONS FOR MODEL 6-19 OR 6-20 DISTRIBUTOR SENSOR PLATE

**IMPORTANT:** Before starting the following installation, read the installation instructions provided with the 6SK2026 Electronic Ignition System Kit.

**NOTE:** In many cars, it will be easier to install the sensor plate into the distributor with the distributor removed from the engine block.

### A. REMOVE DISTRIBUTOR

1. Disconnect the battery ground cable from battery.
2. Disconnect point wire from ignition coil.

3. Detach vacuum hose from distributor.
4. Remove distributor cap.
5. Mark position of rotor in relation to distributor housing.
6. Mark position of distributor housing in relation to engine block.
7. Remove bolt and clamp holding distributor to engine block.
8. Remove distributor from engine block.

**CAUTION:** DO NOT CRANK ENGINE WHILE DISTRIBUTOR IS OUT OF ENGINE BLOCK.

### B. INSTALL DISTRIBUTOR SENSOR PLATE

1. Remove rotor.
2. Push point wire grommet upwards into distributor. (If installation is being made with distributor in engine block, it may be difficult to remove grommet. In this case, the grommet can be left inside the distributor since it will not interfere with the operation of the distributor.) Remove radio shield and cam oiler if they are part of the distributor assembly. Then remove the distributor points, the condenser, and point wire from distributor. Save hold-down screws.

*Continued on other side*

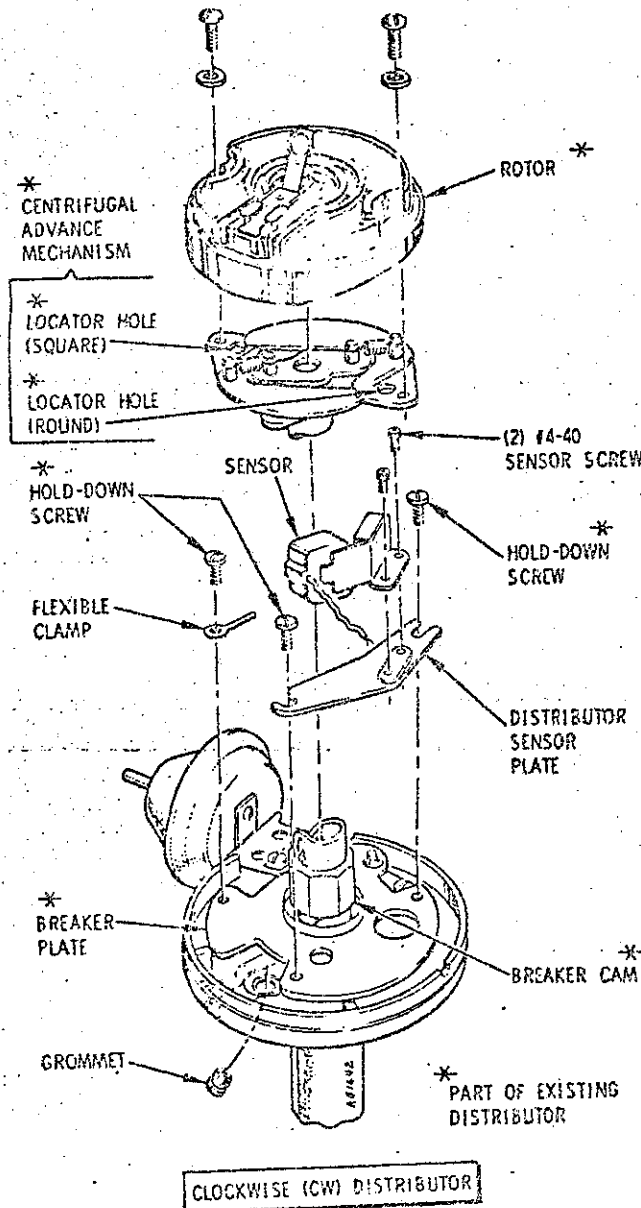


FIGURE 1

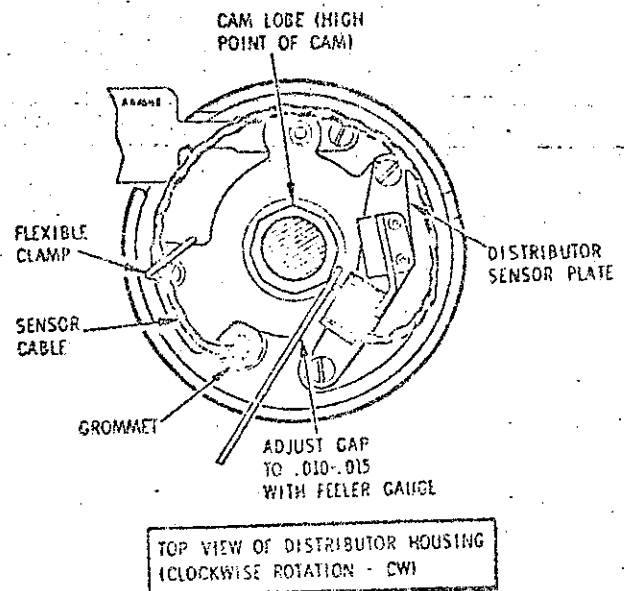


FIGURE 2



# MOTOROLA®

## INSTALLATION INSTRUCTIONS FOR MODEL 6-21 DISTRIBUTOR SENSOR PLATE

**IMPORTANT:** Before starting the following installation, read the installation instructions provided with the 6SK2026 Electronic Ignition System Kit.

1. Disconnect the battery ground cable from battery.
2. Remove distributor cap and rotor.
3. Disconnect point wire from ignition coil; remove the distributor points, the condenser and point wire, and the grommet from the distributor housing. See Figure 1 to remove grommet. (Save hold-down screw and grommet.)
4. Securely mount distributor sensor plate to distributor breaker plate at existing breaker-point mounting hole with the 8-32 flat head screw from this kit. (Figure 1)

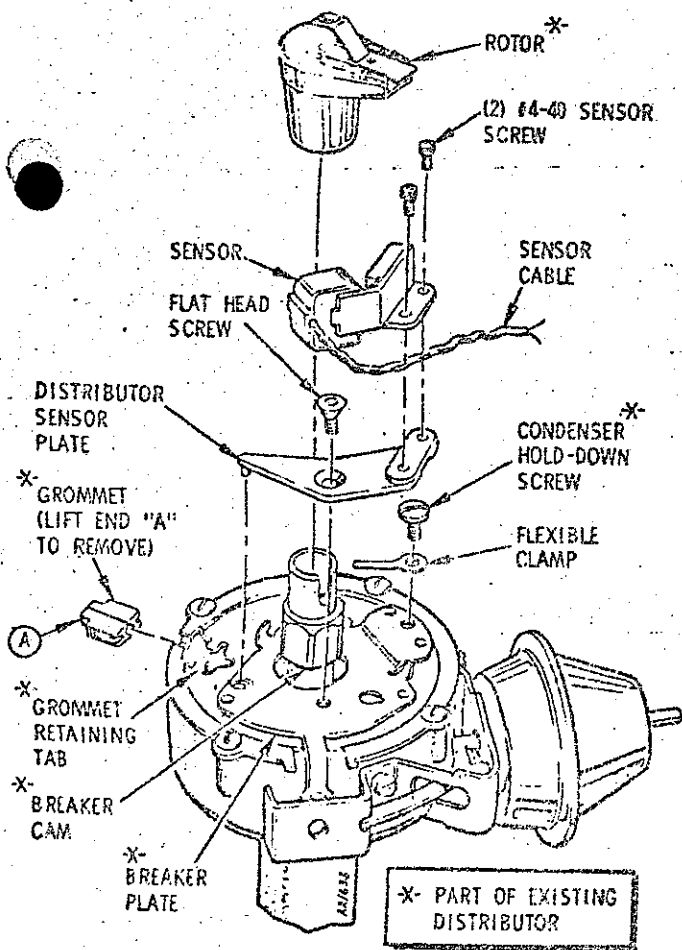


FIGURE 1

5. Mount sensor (part of 6SK2026 Kit) to distributor sensor plate with two #4-40 sensor screws. Tighten sensor screws only enough to keep the sensor in position.
6. Adjust gap between sensor and cam lobe (high point of cam) to .010 - .015 using feeler gauge, and tighten sensor screws securely (Figure 2).
7. Attach flexible clamp to condenser mounting hole in breaker plate with hold-down screw. Route sensor cable (grey) as indicated in Figure 2. Hook flexible clamp around sensor cable to hold cable away from cam. Insert sensor cable into grommet and reinstall grommet to distributor housing, being sure to allow enough slack in cable to account for vacuum movement of breaker plate.
8. Reinstall rotor and distributor cap.
9. Complete the installation as outlined in the installation instructions provided with the 6SK2026 Kit.

NOTE: this kit contains one extra #4-40 sensor screw and one extra splicing sleeve.

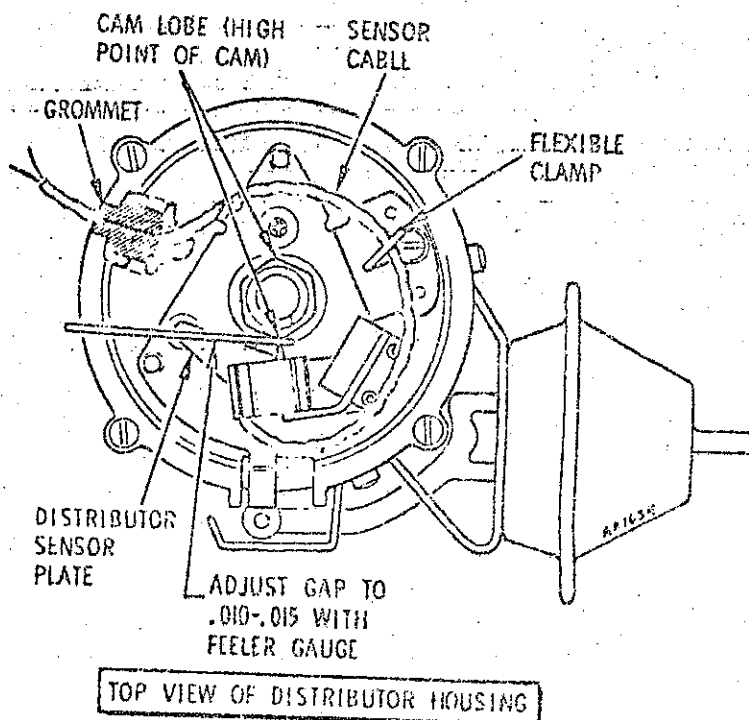


FIGURE 2





# MOTOROLA®

## INSTALLATION INSTRUCTIONS FOR MODEL 6-22 DISTRIBUTOR SENSOR PLATE

**IMPORTANT:** Before starting the following installation, read the installation instructions provided with the 6SK2026 Electronic Ignition System Kit.

1. Disconnect the battery ground cable from battery.
2. Remove distributor cap and rotor.
3. Disconnect point wire from ignition coil; remove the distributor points, the condenser and point wire from the distributor. (Save two hold-down screws.)
4. Securely mount distributor sensor plate to distributor breaker plate, using existing breaker point mounting holes, with one of the hold-down screws and the flat head screw from this kit. (Figure 1)

5. Mount sensor (part of 6SK2026 Kit) to distributor sensor plate with two #4-40 sensor screws. Tighten sensor screws only enough to keep the sensor in position.
6. Adjust gap between sensor and cam lobe (high point) to .010 -- .015 using feeler gauge, and tighten sensor screws securely (Figure 2).
7. Attach flexible clamp to condenser threaded mounting hole in breaker plate with second hold-down screw. Route sensor cable (grey) as indicated in Figure 2, and slip through hole inside of distributor housing. Hook flexible clamp around sensor cable to hold cable away from cam. Then install split grommet around sensor cable and into hole, being sure to allow enough slack in cable to account for vacuum movement of breaker plate.
8. Reinstall rotor and distributor cap.
9. Complete the installation as outlined in the installation instructions provided with the 6SK2026 Kit.

**NOTE:** this kit contains one extra #4-40 sensor screw and one extra splicing sleeve.

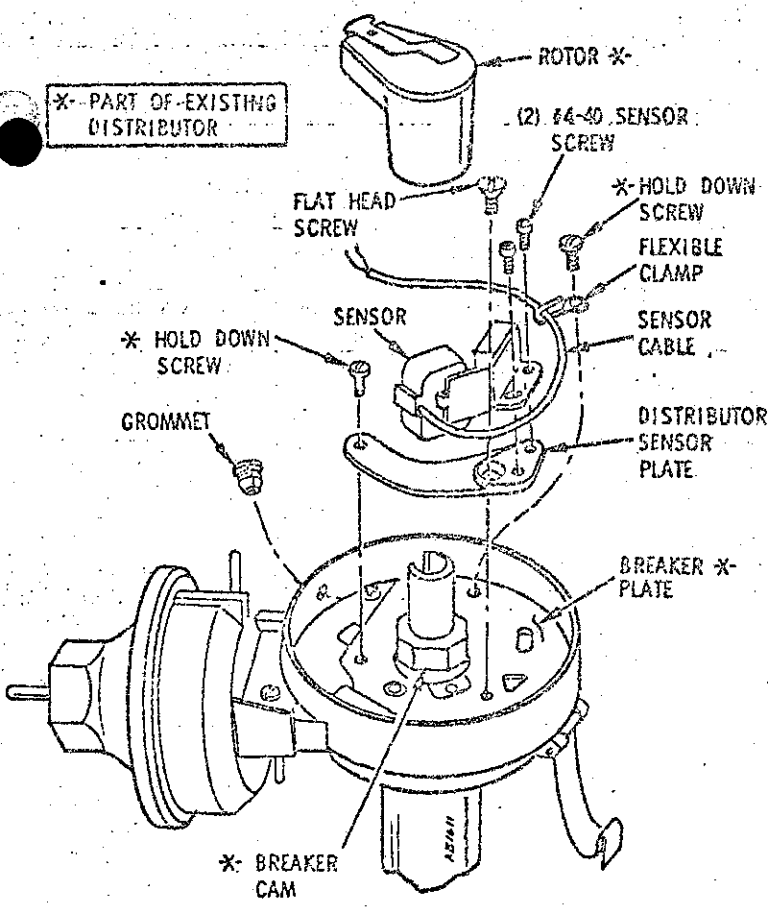
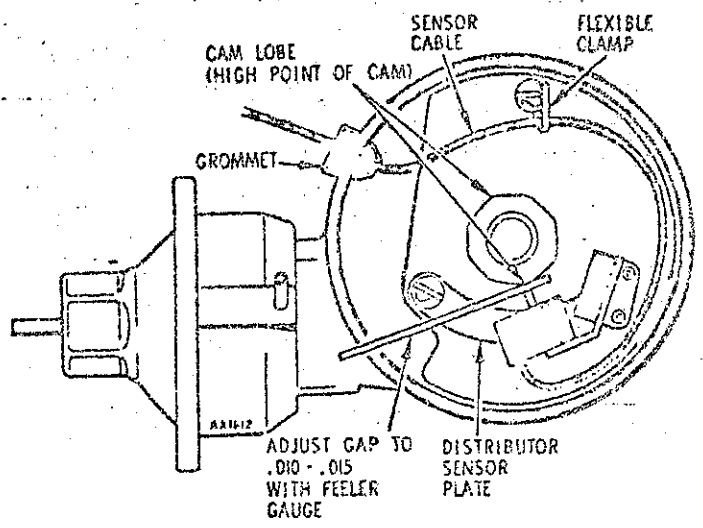


FIGURE 1



TOP VIEW OF DISTRIBUTOR HOUSING

FIGURE 2

- Securely mount distributor sensor plate to distributor breaker plate with hold-down screws, using existing mounting holes. Install flexible clamp as indicated by applicable illustration. Refer to Figures 1 and 2 for CW distributors, and Figures 3 and 4 for CCW distributors.

Mount sensor (part of 6SK2026 kit) to distributor sensor plate with two #4-40 sensor screws. Tighten sensor screws only enough to keep the sensor in position.

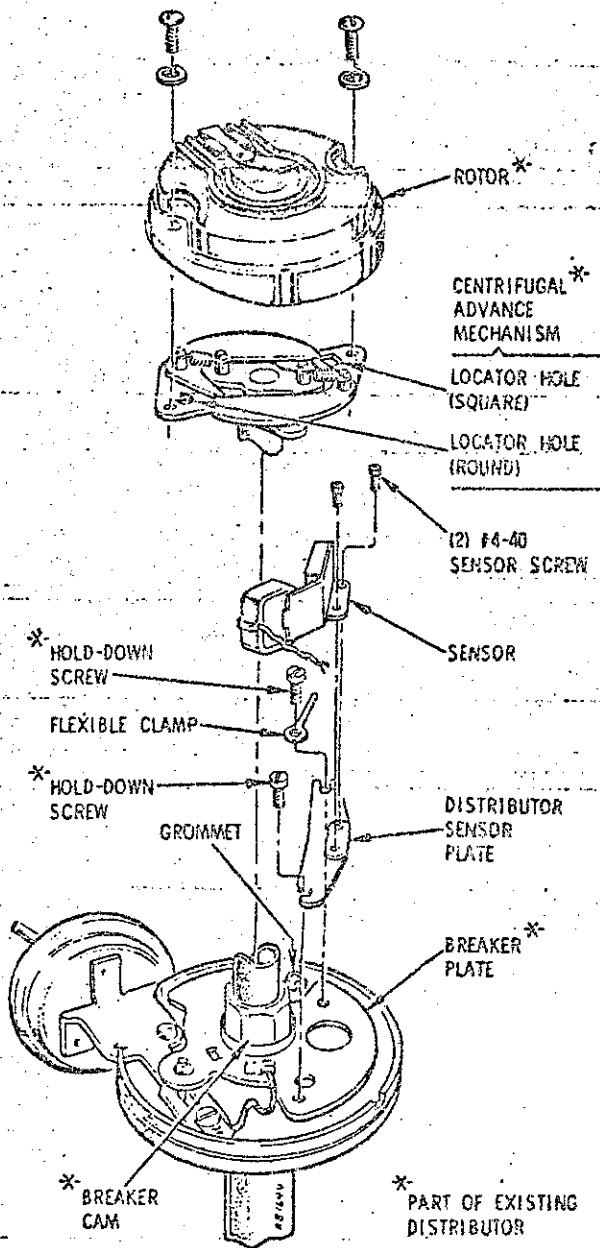
- Adjust gap between sensor and cam lobe (high point) to .010 - .015 using feeler gauge, then tighten sensor screws securely.

- Route sensor cable (grey) as indicated. (Figure 2 for CW distributor or Figure 4 for CCW distributor) Slip cable through hole in base of distributor housing and fit split grommet around sensor cable. Then insert grommet into hole from underneath distributor housing, being sure to allow enough slack in sensor cable to account for vacuum movement of breaker plate. Hook flexible clamp around sensor cable to hold sensor cable away from cam.

C. REINSTALL DISTRIBUTOR

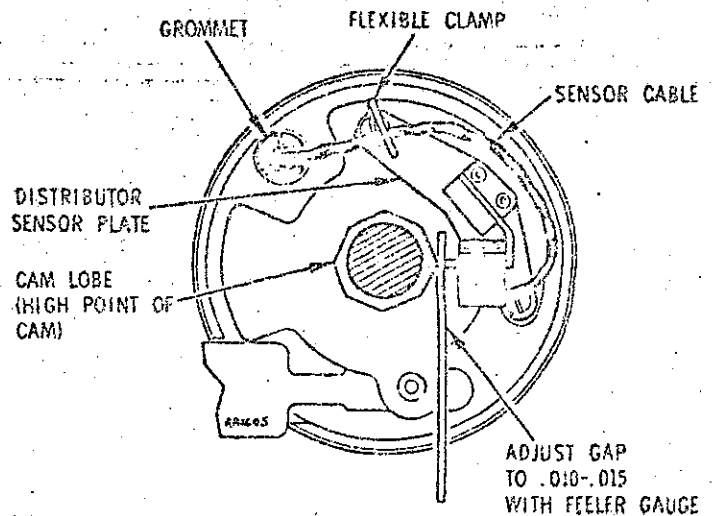
- Reattach rotor.
- Align mark on rotor with mark on distributor housing.
- While holding rotor to distributor alignment, insert distributor base into engine block so that mark on distributor housing lines up with mark on engine block. Use a slight twisting motion while inserting distributor base to align gears. The marks on rotor, distributor housing, and engine block should line up as they did before removal.
- Reinstall distributor cap and vacuum hose.
- Complete the installation as outlined in the installation instructions provided with the 6SK2026 Kit.

NOTE: This kit contains an extra #4-40 sensor screw and an extra splicing sleeve.



COUNTER-CLOCKWISE (CCW) DISTRIBUTOR

FIGURE 3



TOP VIEW OF DISTRIBUTOR HOUSING (COUNTER-CLOCKWISE ROTATION - CCW)

FIGURE 4



# MOTOROLA®

## INSTALLATION INSTRUCTIONS

### FOR MODEL 6-23

## DISTRIBUTOR SENSOR PLATE

**IMPORTANT:** Before starting the following installation, read the installation instructions provided with the 6SK2026 Electronic Ignition System Kit.

1. Disconnect the battery ground cable from battery.
2. Remove distributor cap and rotor.
3. Disconnect point wire from ignition coil; remove the distributor points, the condenser and point wire from the distributor. (Save one hold-down screw.)
4. Securely mount distributor sensor plate to distributor breaker plate, using existing breaker point mounting holes, with one of the hold-down screws and the flat head screw from this kit. (Figure 1)

5. Mount sensor (part of 6SK2026 Kit) to distributor sensor plate with two #4-40 sensor screws. Tighten sensor screws only enough to keep the sensor in position.
6. Adjust gap between sensor and cam lobe (high point) to .010 - .015 using feeler gauge, then tighten sensor screws securely.
7. Route sensor cable (grey) as indicated in Figure 2, and slip cable through hole in side of distributor housing. Then install split grommet around sensor cable and into hole, being sure to allow enough slack in cable to account for vacuum movement of breaker plate.
8. Reinstall rotor and distributor cap.
9. Complete the installation as outlined in the installation instructions provided with the 6SK2026.

**NOTE:** this kit contains one extra #4-40 sensor screw and one extra splicing sleeve.

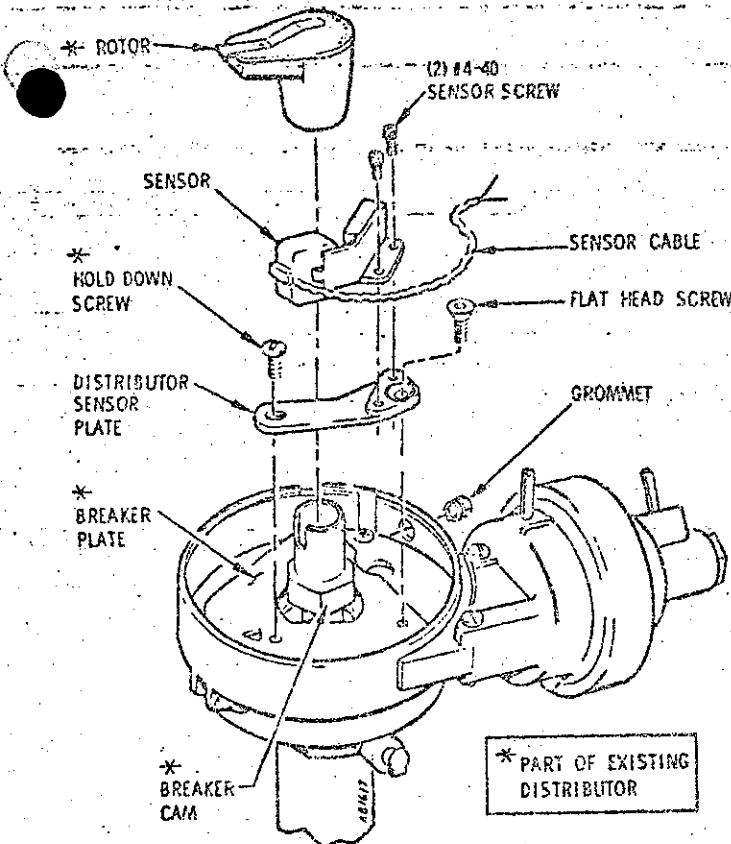
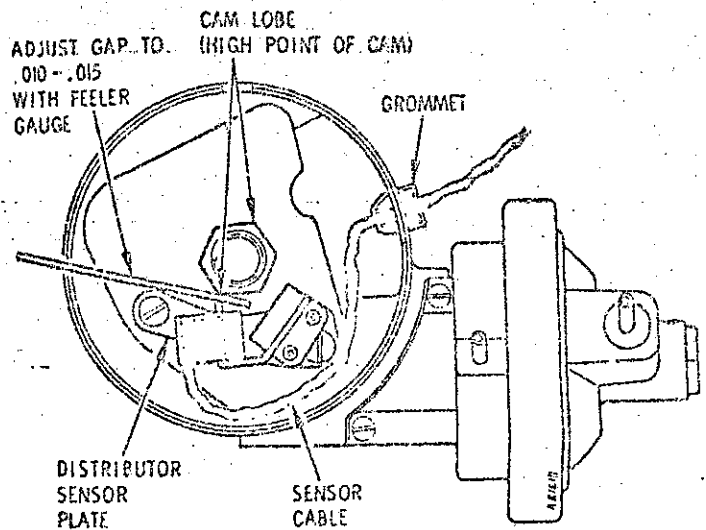


FIGURE 1



TOP VIEW OF DISTRIBUTOR HOUSING

FIGURE 2



**MOTOROLA®**

**INSTALLATION INSTRUCTIONS  
FOR MODEL 6 - 24 OR 6 - 25  
DISTRIBUTOR SENSOR PLATE**

**IMPORTANT:** Before starting the following installation, read the installation instructions provided with the 6SK2026 Electronic Ignition System Kit.

1. Disconnect the battery ground cable from battery.
2. Remove distributor cap and rotor.
3. Disconnect point wire from ignition coil; remove the distributor points, the condenser and point wire from the distributor. (Save one hold-down screw.)
4. Position distributor sensor plate over locating pin on distributor-breaker plate and secure with the flat head screw from this kit (Figure 1).

5. Mount sensor (part of 6SK2026 Kit) to distributor sensor plate with two #4-40 sensor screws. (Note: Top of sensor will be at a higher level than top of cam.) Tighten sensor screws only enough to keep sensor in position.
6. Adjust gap between sensor and cam lobe (high point) to .010 - .015 using feeler gauge and tighten sensor screws securely (Figure 2).
7. Route sensor cable (grey) as indicated in Figure 2, and slip cable through hole in side of distributor housing. Install split grommet around sensor cable and fit grommet into hole from inside of distributor housing.

**NOTE:** Some installations require a flexible clamp as indicated in Figures 1 and 2. For these installations, attach flexible clamp to existing threaded mounting hole in breaker plate with the hold-down screw. Then hook flexible clamp around sensor cable to hold cable away from cam, being sure to allow enough slack in cable to account for vacuum movement of breaker plate.

8. Reinstall rotor and distributor cap.
  9. Complete the installation as outlined in the installation instructions provided with the 6SK2026 Kit.
- NOTE:** This kit contains one extra #4-40 sensor screw and one extra splicing sleeve.

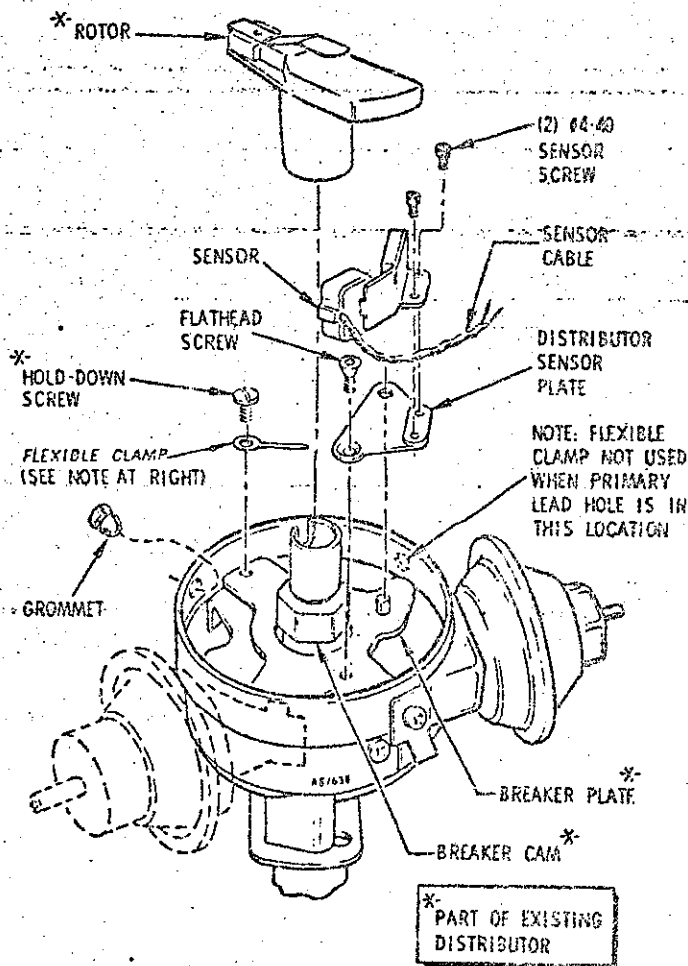
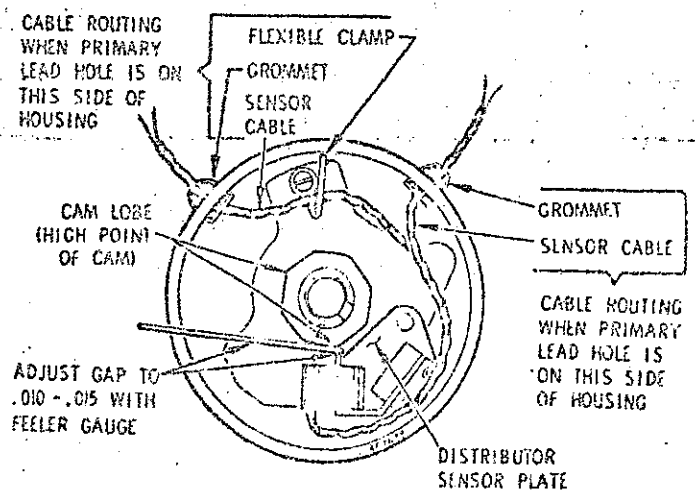


FIGURE 1



TOP VIEW OF DISTRIBUTOR HOUSING  
(VACUUM UNIT NOT SHOWN)

FIGURE 2



# MOTOROLA®

## INSTALLATION INSTRUCTIONS

### FOR MODEL 6-27

### DISTRIBUTOR SENSOR PLATE

1. Disconnect the battery ground cable from battery.
2. Remove distributor cap and rotor.
3. Disconnect point wire from ignition coil; remove distributor points, the condenser and point wire from the distributor. (Save two hold down screws.
4. Securely mount distributor sensor plate to existing mounting holes in distributor breaker plate, using one of the hold-down screws and the flat head screw from this kit (Figure 1).
5. Mount sensor (part of 6SK2026 Kit) to distributor sensor plate with two #4-40 sensor screws. (Note: Top of sensor will be at a higher level
6. Adjust gap between sensor and cam lobe (high point) to .010 — .015 using feeler gauge, and tighten sensor screws securely (Figure 2).
7. Attach flexible clamp to existing threaded mounting hole in breaker plate with second hold-down screw. Route sensor cable (grey) as indicated in Figure 2, and slip cable through hole in side of distributor housing. Hook flexible clamp around sensor cable to hold cable away from cam. Then install split grommet around sensor cable and fit grommet into hole from inside of distributor housing. Be sure to allow enough slack in cable to account for vacuum movement of breaker plate.

8. Reinstall rotor and distributor cap.

9. Complete the installation as outlined in the installation instructions provided with the 6SK2026 Kit.

NOTE: This kit contains one extra #4-40 sensor screw and one extra splicing sleeve.

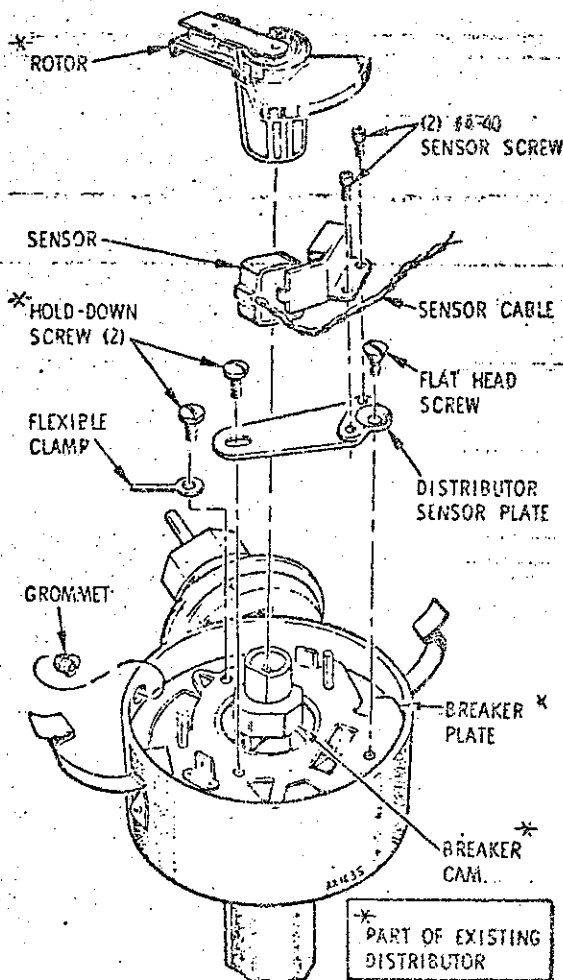
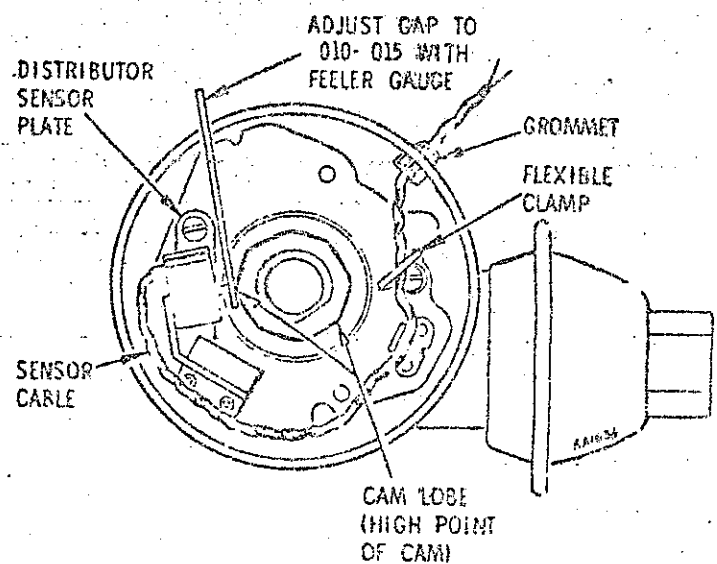


FIGURE 1



TOP VIEW OF DISTRIBUTOR HOUSING

FIGURE 2