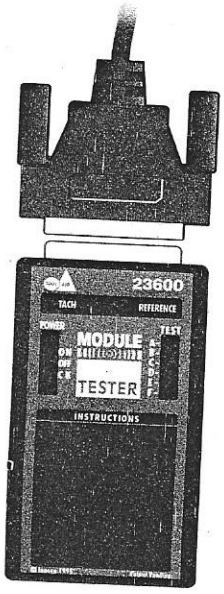
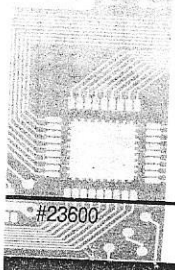
IGNITION MODULE TESTER

23600 Instructions

Dynamically Tests
Domestic and Import
Ignition Modules
On-Car or Off-Car





General Information

1.1 YOUR VEHICLE'S IGNITION MODULE

Many of today's vehicles are equipped with an electronic ignition system. The electronic ignition module is a solid state component that works as a switch to turn the primary current of the coil on and off to fire the spark plugs. A faulty electronic ignition module can cause an engine to not start, run rough or cut out during prolonged driving.

1.2 ABOUT THE IGNITION MODULE TESTER

This tester is a go-no-go tester which can identify up to 75% of the catastrophic problems in an ignition module.

1.2.1 Power Switch: ON - Power on for testing.
OFF - No power
CK - Checks internal battery.

1.2.2 Test Switch: A,B,C,D,E&F - See "Module Map" for position.

1.2.3 LEDs: Displays results of tests.

1.2.4 Module Cable: D-sub connector connect to Tester. "Alligator Clips" connect to module pins.

1.2.5 9 Volt Battery: (sold separately)

NOTE: Testing with a 9 volt battery provides a limited test for modules. We recommend using the 12 VDC Power Cord for a more thorough test.

Installing The Battery

a. Slide the battery compartment off the rear of the Tester.
b. Attach the connector to the battery and place the battery inside the compartment.
c. Reinstall the battery compartment cover.

Checking The Battery

a. Set the Power Switch to CK.
b. Observe LEDs:
   - Battery is good if both LEDs light.
   - Battery is bad if one or no LEDs light
c. Set Power Switch to OFF.

1.2.6 #23602 12VDC Power Cord

NOTE: Ignition modules require up to 3 Amps of 12VDC power for proper testing. This accessory is strongly recommended.

Plug the 12VDC Power Cord into the side of the Ignition Module Tester and connect to the vehicle's battery directly by using the direct battery clamps.

Testing Procedures

2.1 APPLICATIONS

The Ignition Module Tester can dynamically test **most** domestic and import electronic ignition modules on-car or off-car.

2.2 TESTING ELECTRONIC IGNITION MODULES

- Always observe safety precautions whenever working on a vehicle and make sure the ignition is turned off.
- Make sure contact points are clean before making tester connections.
- Make sure test leads do not contact each other, this can cause false test results.

1. Check the tester battery power (**CK**).
2. Turn tester **OFF.**
3. Connect module to cable by following the Module Map.

NOTE: Most modules only require disconnecting the wiring harness while connected to the vehicle for testing. Others may require removing the module from the vehicle. Consult your vehicle service manual for module location and procedures for accessing it. Make sure you reapply thermo grease when reinstalling the module.

4. Connect cable to Tester.
5. Select test position (**A, B, C, D, E, F**) by following the Module Map.

NOTE: Some modules require performing more than 1 test i.e. "A then D".

6. Turn Power switch to **ON.**
   - Good Module: 1 or 2 LEDs flashing. Test marked with "#2 LEDs" requires 2 LEDs flashing.
   - Bad Module: 1 or 2 LEDs constantly off or constantly on. Only 1 LED flashing on "#2 LEDs" test.

NOTE: There may be a 1 to 2 second delay before some modules display their test results.

7. Turn the Power switch to OFF. Disconnect module from cable.

2.3 CONTINUITY CHECKS

This function lets you check for continuity in electrical circuits. Use this function to check for broken wires, ground connections, switch operation, etc.

- Always observe safety precautions whenever working on a vehicle.

Testing Procedures

- **DO NOT CHECK LIVE CIRCUITS.**
- Make sure contact points are clean before making tester connections.

a. If checking "on car" circuits, disconnect cable from negative post of vehicle battery.
b. Set Power switch to **ON.** Set Test switch to **A.**
c. Connect tester leads to circuit:
   - Connect brown lead to one end of wire or circuit.
   - Connect black lead to remaining end of wire or circuit.
d. Observe LEDs:
   - If TACH LED turns off, there is continuity (good wire, solid ground connection, switch closed, etc.)
   - If TACH LED remains on, there is no continuity (broken wire, bad ground connection, switch open, etc.)
e. Disconnect tester leads from circuit. Set Power switch to **OFF.**

2.4 DIODE CHECKS

This function lets you check diodes to ensure they are functioning properly.

- Make sure contact points are clean before making tester connections.

a. Set Power switch to **ON.** Set Test switch to **A.**
b. Connect tester leads to diode:
   - Connect black lead to anode of diode.
   - Connect brown lead to cathode of diode.
c. Observe LEDs:
   - The TACH LED should remain on.
   - If not, diode is defective.
d. Reverse tester lead connections:
   - Connect black lead to cathode of diode.
   - Connect brown lead to anode of diode.

1.2.7 Operating Specifications

Operating Temperature: 32 - 135°F / 0 - 43°C
Operating Humidity: 0 - 90% relative humidity

1.3 SAFETY PRECAUTIONS

- For quick easy test and long lasting use.
- Always observe safety precautions whenever working on a vehicle.

a. Always wear safety eye protection.
b. Only work on your vehicle in a well-ventilated area.
c. Put transmission in "park" (for automatic) or "neutral" (for manual). Set parking brake.
d. Put blocks on drive wheels.
e. Avoid moving fan blades or any potentially moving parts.
f. Avoid hot engine parts.
g. Turn off ignition before connecting (or disconnecting) any testing equipment.
h. Please read your vehicle's service manual and follow it's safety procedures.

1.3.1 Before You Begin

- Fix any known mechanical problems before performing any test.

Make a thorough under-the-hood check before starting any diagnostic procedure. Loose or damaged hoses, wiring, or electrical connectors are often responsible for poor engine performance. Check the following areas:

- Intake air filter
- Belts
- Wiring and connectors
- All fluid levels
- Vacuum hoses
- Primary and secondary ignition wires

Please read your vehicle's service manual and perform all required preliminary checks **BEFORE** removing or testing your ignition module.

1.4 VEHICLE SERVICE MANUALS

It is recommended that you consult the manufacturer's instructions and specifications in these service manuals before any test or tune-up procedures are performed.

Contact your local car dealership, auto parts store, book store or public library for availability of these manuals. The following companies publish valuable repair manuals for DIYers:

- **Chilton Book Company**
  Chilton Way, Radnor
  Pennsylvania 19089
  Phone: (610) 964-4000
  Fax: (610) 964-4745
- **Haynes Publication**
  861 Lawrence Drive
  Newbury Park, California 91320
  Phone: (805) 498-6703
  Fax: (805) 498-2867
- **H.M. Gousha / Chek-Chart Publications**
  3100 Mt. Pleasant Street
  Racine, Wisconsin 53404-1583
  Phone: (414) 681-0710
  Fax: (414) 639-1158
- **Mitchell International**
  9889 Willow Creek Road
  P.O. Box 26260
  San Diego, California 92196-0260
  Phone: (619) 578-6550
  Fax: (619) 578-4752
- **Motor Publications**
  5600 Crooks Road
  Troy, Michigan 48098
  Phone: (313) 828-0000
  Fax: (313) 828-0215

e. Observe LEDs:
   - The TACH LED should turn off.
   - If not, diode is defective.
f. Disconnect tester leads from circuit. Set Power switch to **OFF**.

2.5 VOLTAGE CHECKS

This function lets you check for positive DC voltage throughout your vehicle's electrical system.

- Always observe safety precautions whenever working on a vehicle and make sure the ignition is turned off.
- Make sure contact points are clean before making tester connections.

a. Set Power switch to **ON**. Set Test switch to **A**.
b. Connect tester leads to circuit:
   - Connect black lead to circuit ground.
   - Connect white lead to positive side of circuit.
c. Observe LEDs:
   - If the REFERENCE LED lights, there is DC voltage in the circuit.
   - If the REFERENCE LED does not light, there is no DC voltage in the circuit.
d. Disconnect tester leads from circuit. Set Power switch to **OFF**.

3.1 LIMITED ONE YEAR WARRANTY

The Manufacturer warrants to the original purchaser that this unit is free of defects in materials and workmanship under normal use and maintenance for a period of one (1) year from the date of original purchase.

If the unit fails within the one (1) year period, it will be repaired or replaced, at the Manufacturer's option, at no charge, when returned prepaid to the Service Center with Proof of Purchase. The sales receipt may be used for this purpose. All replacement parts, whether new or re-manufactured, assume as their warranty period only the remaining time of this warranty.

This warranty does not apply to damage caused by improper use, accident, abuse, improper voltage, service, fire, flood, lightning, or other acts of God, or if the product was altered or repaired by anyone other than the Manufacturer's Service Center.

The Manufacturer, under no circumstances shall be liable for any consequential damages for breach of any written warranty of this unit.

This warranty gives you specific legal rights, and you may also have rights which vary from state to state.

 THIS WARRANTY IS NOT TRANSFERABLE.

For service, send prepaid via U.P.S. (if possible) to:

S & G TOOL-AID CORP.
43-53 E. Alpine St.
Newark, N.J. 07114

Allow 3-4 weeks service time

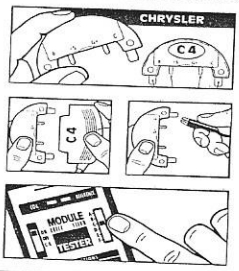
3.2 SERVICE PROCEDURES

If you have any questions, please contact your local store, distributor or the Manufacturer's Service Center.
USA & Canada: (800) 888-2080 (8:00 - 5:00, Monday - Friday EST
FAX: (201) 621-7132 (24 hr.)

IGNITION MODULE MAP

For # 23600

INSTRUCTIONS *Mode d'emploi • Instrucciones*



1. Match Module with Map.
1. Faire correspondre le module avec le plan.
1. Comparar el módulo con el diagrama.

2. Connect Module to Cable.
2. Raccorder le module au câble.
2. Conectar el modulo al cable.

3. Select Test Position and Test.
3. Mettre sur la position de test et effectuer la mesure.
3. Seleccionar la posición del probador y efectuar la prueba.

Good Module : 1 or 2 LEDs flashing. Test marked with "2 LEDs" requires 2 LEDs flashing
Module en bon état : 1 ou 2 DEL clignotent. Pour la mesure marquée "#2 LEDs", les deux DEL doivent clignoter.
Modulo en buenas condiciones : 1 ó 2 LED con luz intermitente. La prueba indicada con "#2 LEDs" requiere que destellen 2 LEDs.

Bad Module : 1 or 2 LEDs constantly ON or OFF or only 1 LED flashing on "#2 LEDs" test.
Module défectueux : 1 ou 2 DEL allumées ou éteintes en permanence. Une seul DEL clignotante lors de la mesure "#2 LEDs".
Módulo defectuoso : 1 ó 2 LED que enciende y apaga. Sólo 1 LED destellando en prueba de "#2 LEDs".

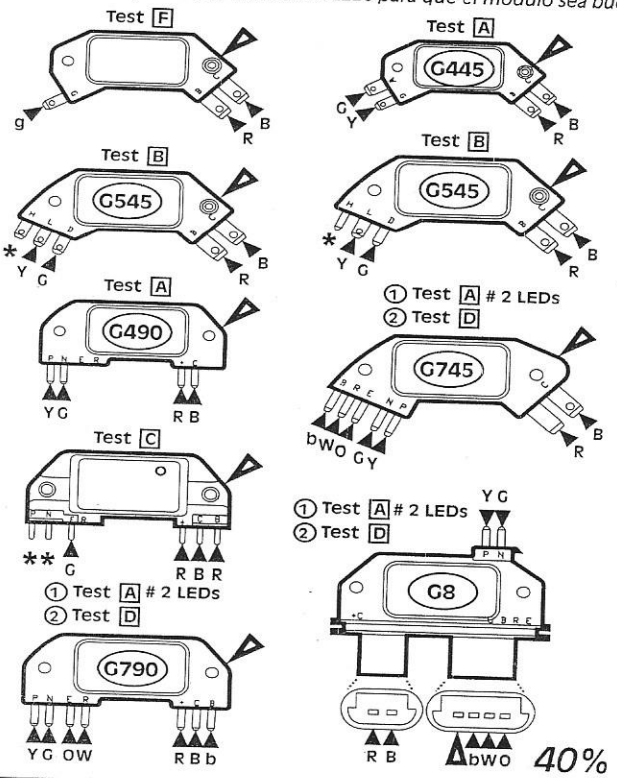
CABLE LEGEND *Câble - Légende • Simbologia del cable*

CLIP *Pince Sujetador*	SYMBOL *Symbole Simbolo*	COLOR *Couleur Color*	FUNCTION *Fonction Función*
		Black / Noir / Negro	Ground / Terre / Tierra
	R	Red / Rouge / Rojo	+ 12 V / + 12 V / + 12 V
	R	Red / Rouge / Rojo	+ 12 V / + 12 V / + 12 V
	G	Green / Vert / Verde	Pickup 1 / Capteur 1 / Detector 1
	Y	Yellow / Jaune / Amarillo	Pickup 2 / Capteur 2 / Detector 2
	B	Brown / Marron / Marrón	Tach / Compte-tour / Tacómetro
	g	Gray / Gris / Gris	Solenoid / Soléno'ide / Solenoide
	O	Orange / Orange / Naranja	EST, Spout / EST, Spout / EST, Spout
	b	Blue / Bleu / Azul	Bypass / Dérivation / Derivación
	W	White / Blanc / Blanco	Reference, PIP / Référence, PIP / Reference, PIP
—	*	—	No Test / Pas de mesure / No se efectúa prueba

Note : Connect to a clean metal surface.
Remarque : Raccorder à une surface métallique propre.
Nota : Conectar a una superficie metálica limpia.

GM

 # 2 LEDs : This test requires 2 LEDs flashing to be a good module
Lors de cette mesure, les deux DEL doivent clignoter si le module est bon
Esta prueba requiere que destellen 2 LEDs para que el módulo sea bueno



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FORD

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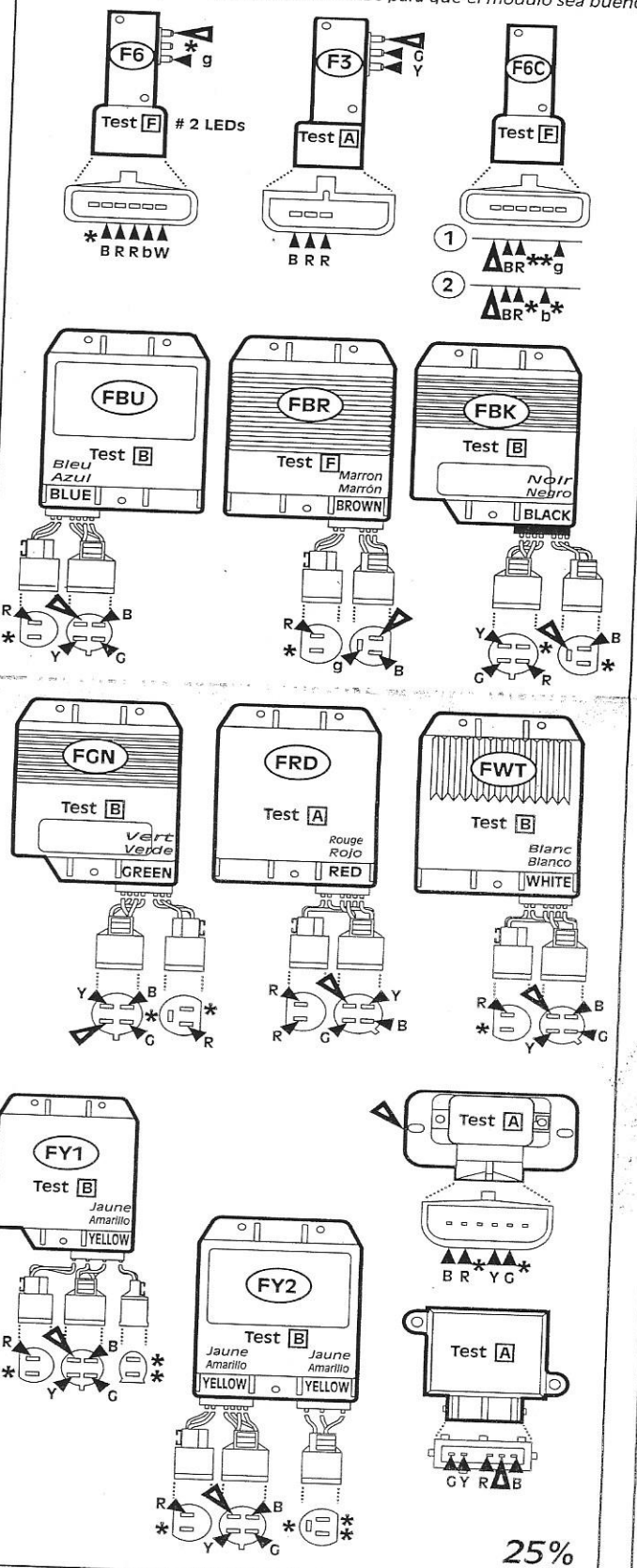

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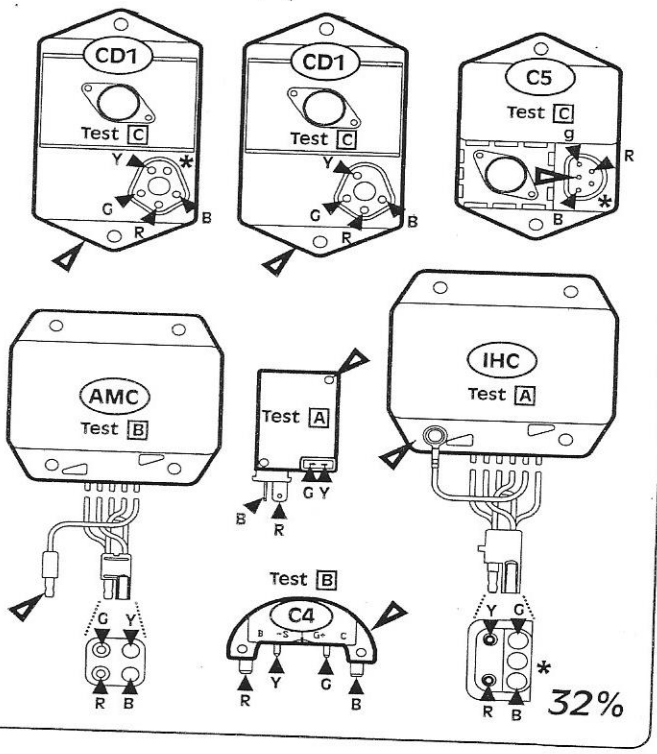
Plan du module d'allumage • Diagrama del módulo de ignición

CHRYSLER / IHC



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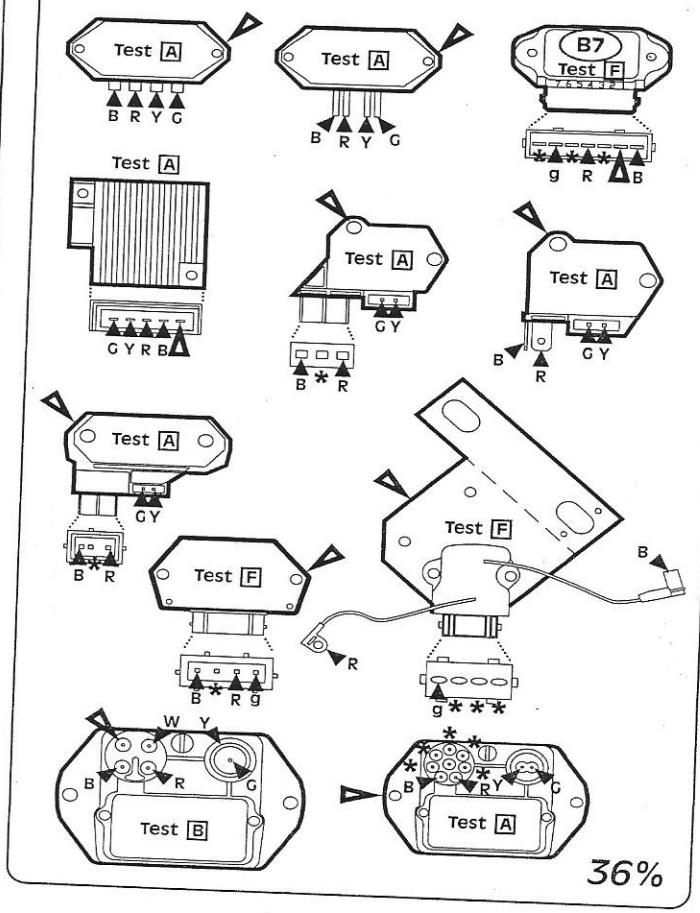

ASIAN / ASIATIQUE / ASIÁTICOS

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