



⚠ WARNING

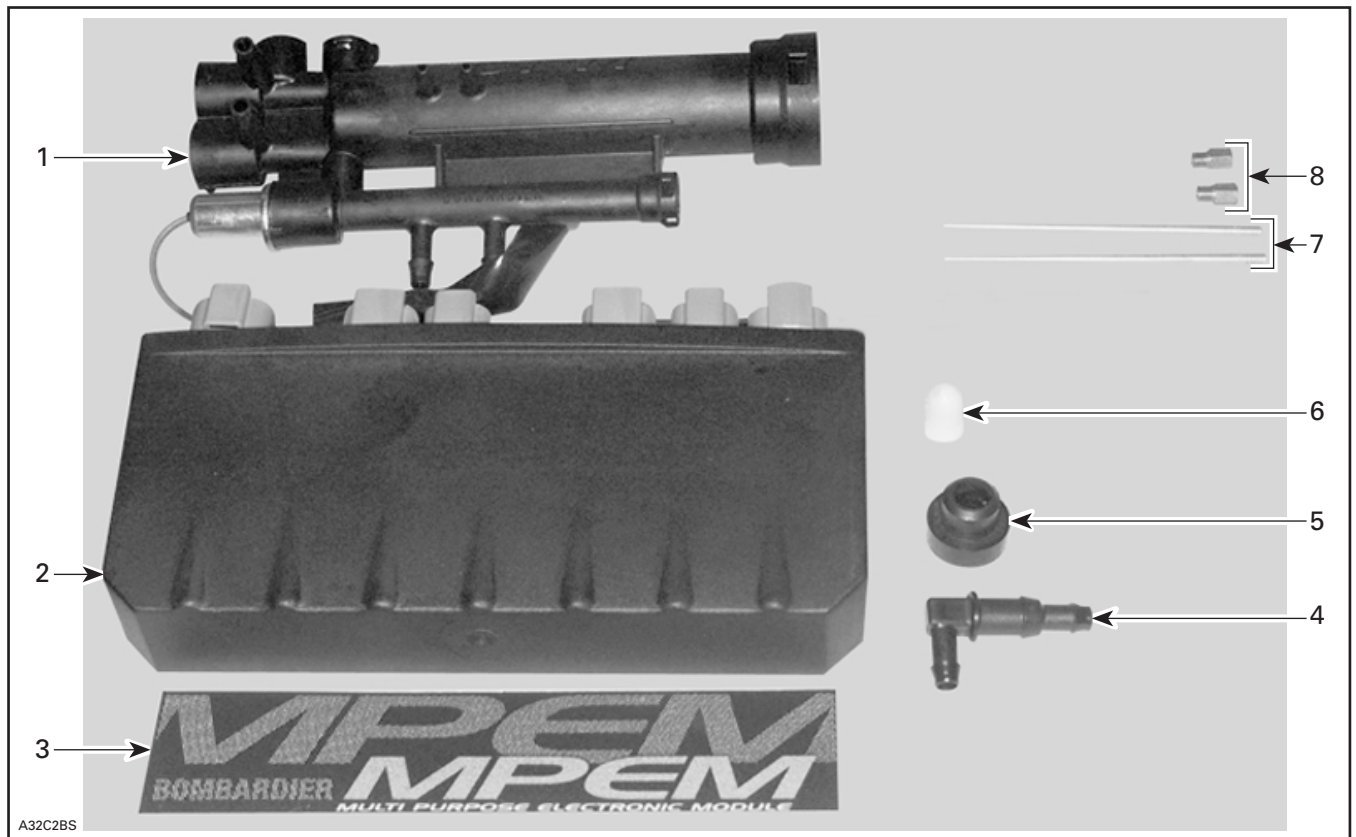
For safety reasons, this kit must be installed by an authorized Ski-Doo® snowmobile dealer. Should removal of a locking device (e.g. lock tabs, self-locking fasteners, etc.) be required when undergoing disassembly/assembly, always replace with a new one. This instruction sheet should be given to the purchaser. This kit is designed for specific applicable models only. It is not recommended for units other than those for which it was sold.

NOTE: Installation time is 1.1 hours.

This *Instruction Sheet* applies to the 2000 model year Summit* 800 H.M. only.

PARTS TO BE INSTALLED

(Carburetors Recalibration Kit)



- 1. DPM Pressure Manifold Assembly
- 2. MPEM
- 3. Sticker
- 4. 90° Fitting

- 5. Rubber Grommet
- 6. Cap
- 7. Needle (2)
- 8. Main Jet (2)

PARTS TO BE INSTALLED (CONT'D)

(Enricher Plunger Shaft and "E" Clip Replacement)

DESCRIPTION	PART NUMBER	QTY
Set Screw	404 161 949	1
Ring	404 161 951	1
Shaft	404 161 952	1

NOTE: Within this procedure, for plunger shaft and "E" clip replacement, **required parts must be ordered separately** through regular channel.

INSTRUCTION

IMPORTANT: Even before starting this procedure, since MPEM has to be replaced, check if bar coded sticker is still on the engine; number shown will be required to reset engine timing in new MPEM.

If bar coded sticker is still there and readable, go to **Bar Coded Sticker OK** on page 3.

If bar coded sticker is no longer there, using the 3.3 version updated programmer, get the number that will be used to reset engine timing, from the actual MPEM, by simply performing the following.

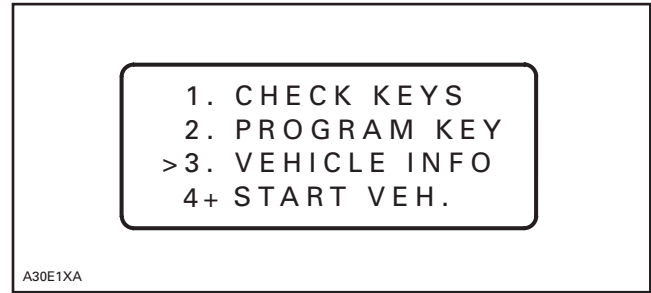
We strongly recommend the use of the by-pass wire (P/N 529 035 675), (refer to following illustration), **instead of starting engine** in order to reduce the chances of data transfer problems.



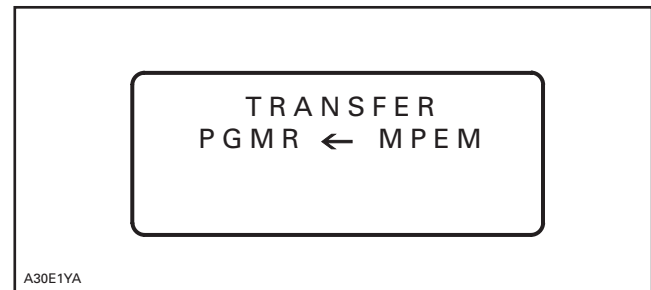
Connect by-pass wire or start engine. Turn on programmer then enter password.

Increase engine speed to 2500 RPM (**unless by-pass wire is used**).

From main menu select no. 3. VEHICLE INFO.

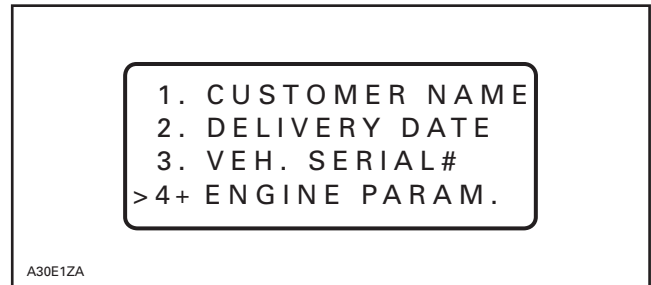


Engine will misfire while vehicle information is being transferred from MPEM to programmer (unless by-pass wire is used). If engine stalls, restart it, keep engine speed at 2500 RPM and select no. 3 VEHICLE INFO again.

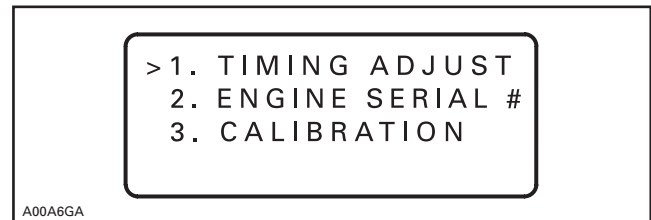


NOTE: In fact the programmer takes a **copy** of all vehicle parameters scribed in MPEM. This copy will be modified within the programmer then transferred to the MPEM.

Select no. 4. ENGINE PARAMETER.

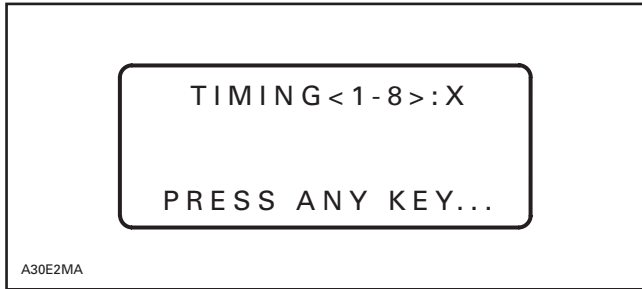


Select no. 1 TIMING ADJUSTMENT.



Press ENTER.

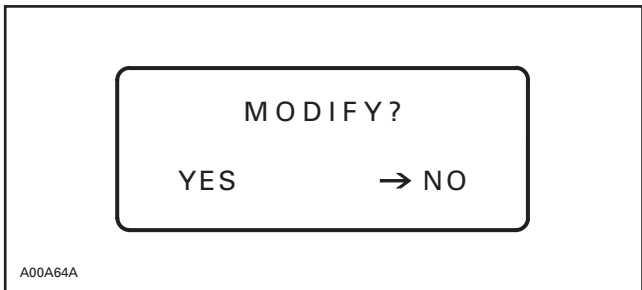
Now the display shows the engine timing correction factor that is programmed in the MPEM.



NOTE: X being the timing correction factor recorded in existing MPEM (a number from 1 to 8).
Using a marker, write that timing correction number on MAG side head cover of engine.



1. Area to use to write timing correction number (if need be)
Press any key.
Select NO using the key ↔.



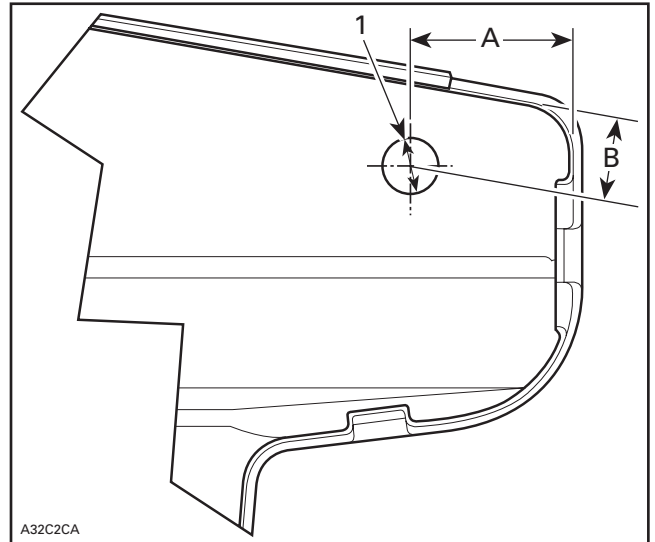
Return to main menu and unplug programmer.
Continue with the following procedure.

Bar Coded Sticker OK

Lift hood and remove belt guard.
Unhook DPM pressure manifold with its supports from air silencer.
Remove air silencer.

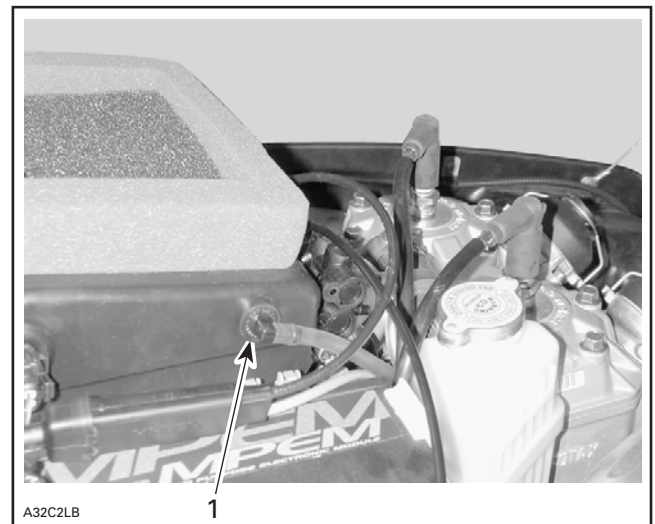
Vent Hole in Air Silencer

As per following drawing, locate drilling spot on air silencer.



RIGHT SIDE OF AIR SILENCER SHOWN

- 1. 12.7 mm (1/2 in) diameter
- A. 37 mm (1-29/64 in)
- B. 19 mm (3/4 in)



1. Proper positioning of vent hole/rubber grommet/90° fitting in air silencer

Start hole using a 6.35 mm (1/4 in) drill bit with its end coated with a little grease to pick up plastic particles and then, complete drilling hole with a 12.7 mm (1/2 in) drill bit also with its end coated with a little grease.

Clean around hole and insert rubber grommet **no. 5** and then 90° fitting **no. 4** parallel to top of air silencer; set air silencer aside for now.

Carburetor Needle Replacement

Pinch DPM pressure manifold hoses from carburetors, using pinchers (P/N 295 000 076), to avoid fuel leakage. Disconnect and discard DPM pressure manifold.

WARNING

Whenever a fuel line is disconnected, obstruct line with a hose pincher (P/N 295 000 076) or equivalent device. Fuel is flammable and explosive under certain conditions. Always wipe off any fuel or oil spillage from the vehicle. Ensure work area is well ventilated. Do not smoke or allow open flames or sparks in the vicinity.

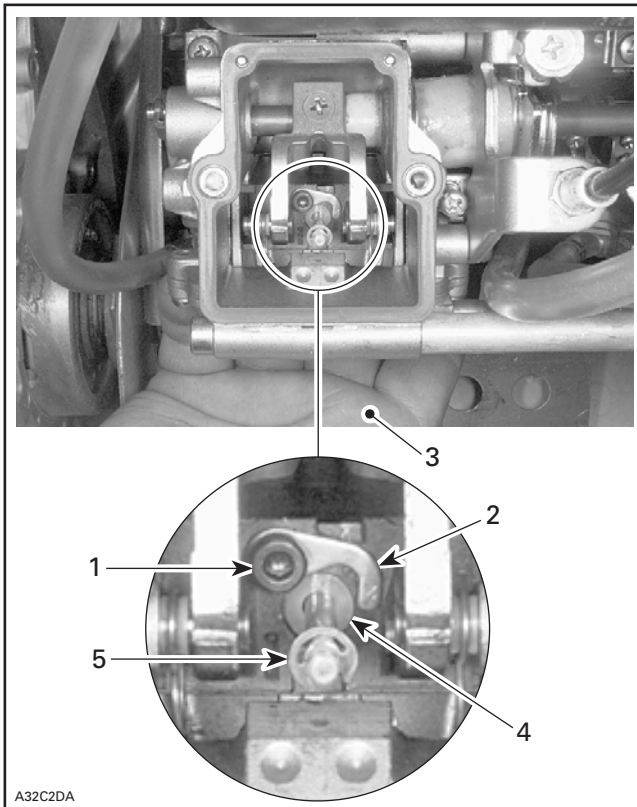
Remove both carburetor covers.

Loosen piston valve top Allen screw and slide plate aside to access needle.

From engine side, gently lift needle, **making sure nylon packing remains in its seat.**

Remove needle; switch "E" clip from old to new single groove needle **no. 7** and slide new needle in place.

Slide plate back at its place and tighten piston valve top Allen screw.



1. Piston valve top Allen screw
2. Plate
3. Lifting needle from underneath
4. Nylon packing
5. "E" clip

Reinstall both carburetor covers.

Main Jet Replacement

Place a fuel recuperating container under both carburetors and remove float body drain plugs, ensure O-rings are kept.

WARNING

Fuel is flammable and explosive under certain conditions. Always wipe off any fuel or oil spillage from the vehicle. Ensure work area is well ventilated. Do not smoke or allow open flames or sparks in the vicinity.

Using special tool from carburetor tool kit, (P/N 404 112 000), unscrew main jet from both carburetors and install new ones, **no. 8.**

Reinstall float body drain plug with O-ring on each carburetor.

Plunger Shaft Replacement

NOTE: For the following operation, dealer had to order required parts through regular channel.

Remove carburetors from engine intake sockets.

Remove "E" clip retaining plunger shaft.

Loosen all 3 lever screws so that shaft can slide freely.

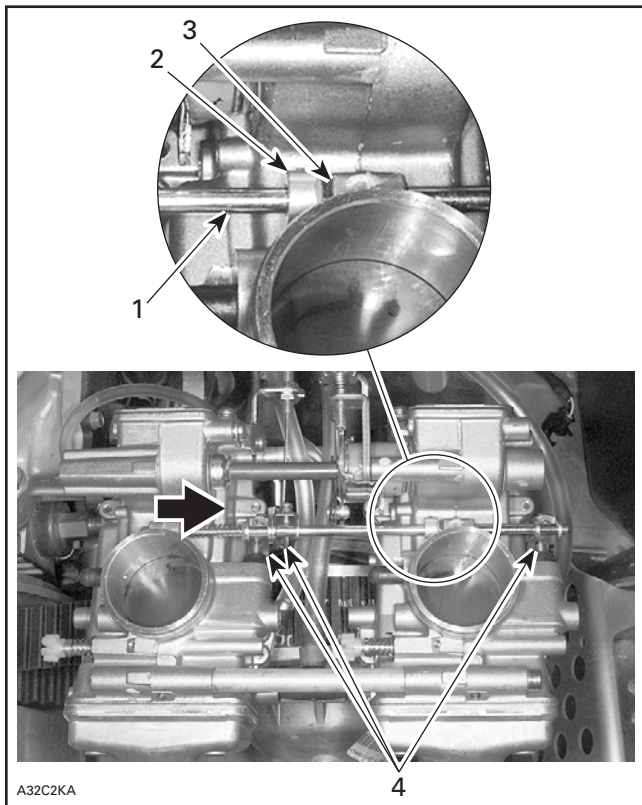
Proceed with **new shaft** installation by inserting it slowly, leaning and pushing on old shaft.

Make sure proper shaft end is inserted first and in the proper direction, starting from MAG side carburetor towards PTO side carburetor.

Before reaching PTO side carburetor, insert **new ring**, secure same with **new set screw** properly indexed, (apply Loctite[†] 243 (blue) on set screw) and **ensure to keep nylon packing, already there.**

Push shaft till the end, index and tighten all 3 lever screws.

[†] Loctite is a registered trademark of Loctite Corporation.



ARROW SHOWS DIRECTION OF INSERTION

1. Shaft
2. Ring
3. Nylon packing already there
4. Levers

Set carburetors aside for next operation.

DPM Vent Hole Relocation

Remove DPM vent hose from engine fitting.

Plug up engine vent hole fitting with supplied cap **no. 6**.

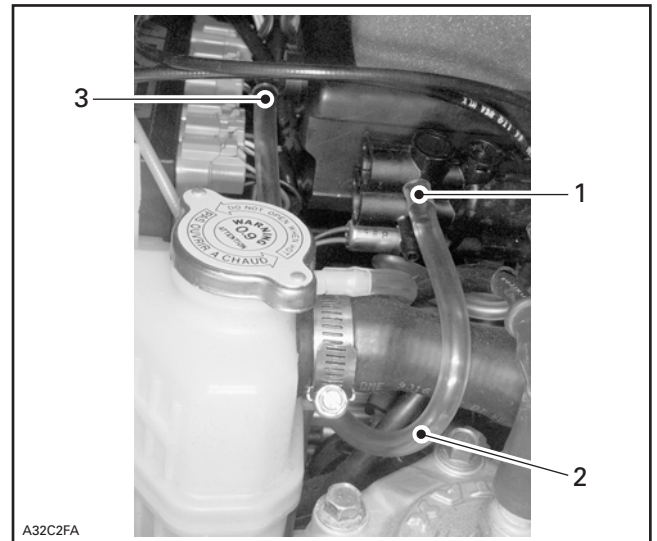
Cut DPM pressure manifold vent hose to 290 mm (11-27/64 in).

Reinstall carburetors, air silencer and new DPM pressure manifold assembly **no. 1**.

Ensure throttle cable moves freely and normally.

Connect all hoses to new DPM pressure manifold and remove hose pinchers previously installed.

Circle engine cooling system by-pass hose with vent hose and connect to 90° fitting in air silencer.



1. Vent hose at DPM pressure manifold
2. Vent hose going around cooling system by-pass hose
3. Vent hose at air silencer

MPEM Replacement

Clean surface of MPEM **no. 2**, where sticker is to be applied, so it is free from grease and grime.

Install sticker **no. 3** onto new MPEM.

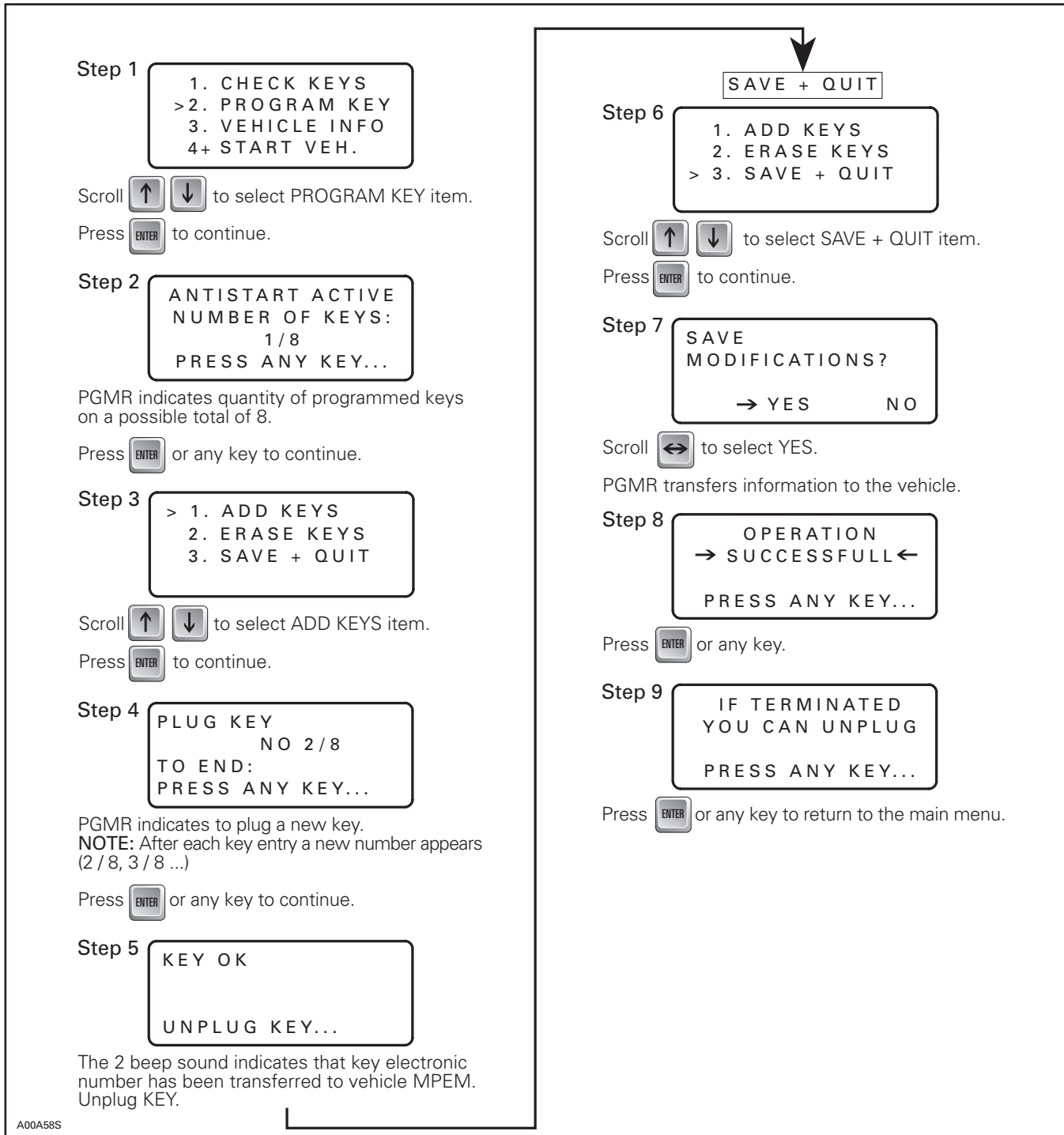
Replace existing MPEM with new one.

Reinstall belt guard.

Program Key in New MPEM

Using the 3.3 version updated programmer, proceed with key programming procedure.

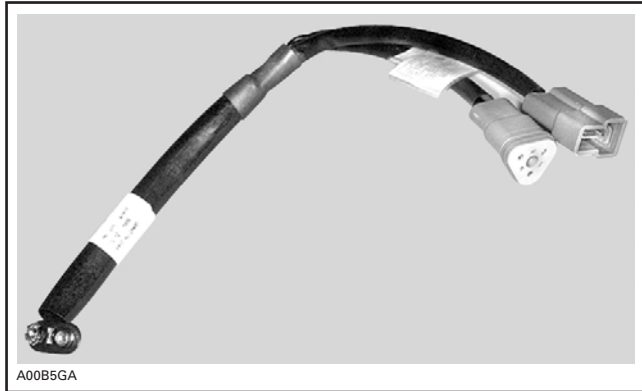
The following chart lays out the complete procedure to program a new key.



Reset Timing

Perform following procedure to reset engine timing as per the number shown on bar coded sticker on engine or obtained at the very beginning of this instruction sheet.

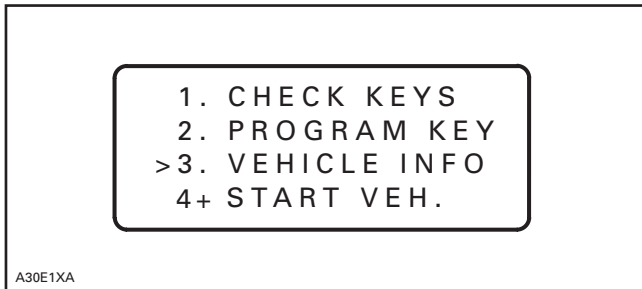
We strongly recommend the use of the by-pass wire (P/N 529 035 675), (refer to following illustration), **instead of starting engine** in order to reduce the chances of data transfer problems.



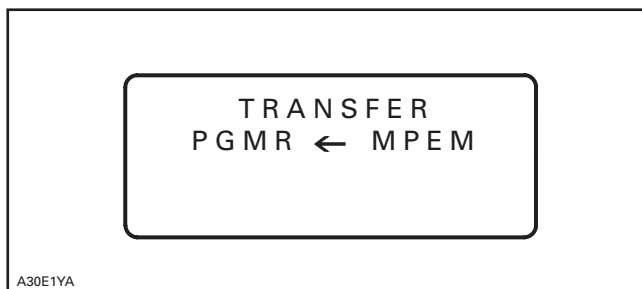
Connect by-pass wire or start engine. Turn on programmer then enter password.

Increase engine speed to 2500 RPM (**unless by-pass wire is used**).

From main menu select no. 3. VEHICLE INFO.

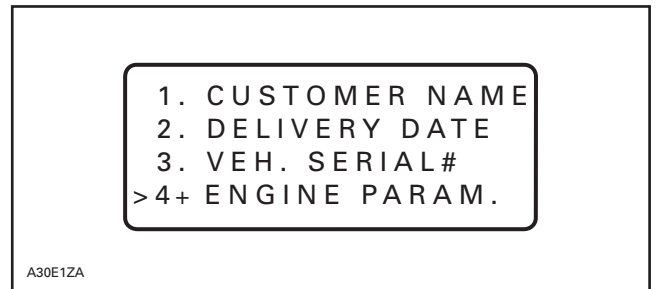


Engine will misfire while vehicle information is being transferred from MPEM to programmer (unless by-pass wire is used). If engine stalls, restart it, keep engine speed at 2500 RPM and select no. 3 VEHICLE INFO again.

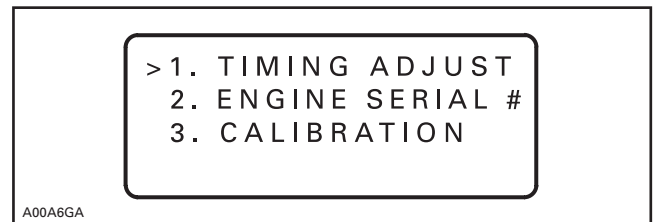


NOTE: In fact the programmer takes a **copy** of all vehicle parameters scribed in MPEM. This copy will be modified within the programmer then transferred to the MPEM.

Select no. 4. ENGINE PARAMETER.

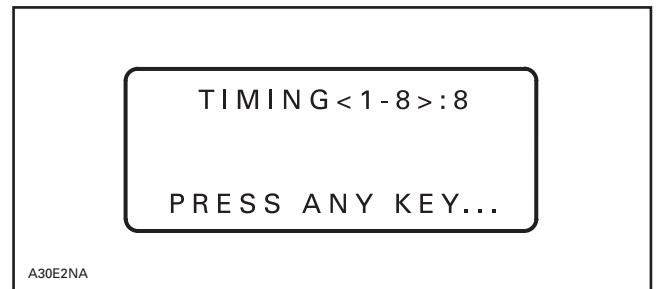


Select no. 1 TIMING ADJUSTMENT.



Press ENTER.

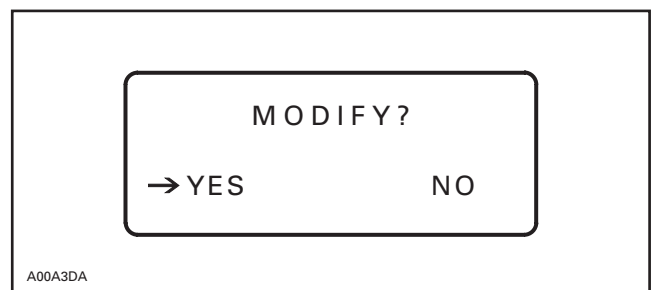
Now the display shows the engine timing correction factor that is preset in the new MPEM.



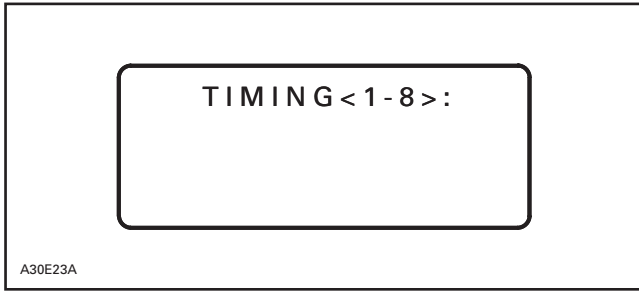
NOTE: This new MPEM (P/N 512 059 382) had its timing correction factor preset at 8 from the factory (more likely needs resetting).

Press any key.

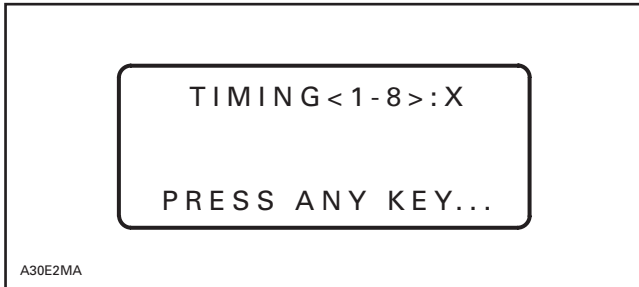
Select YES using the key ↔.



Press ENTER.

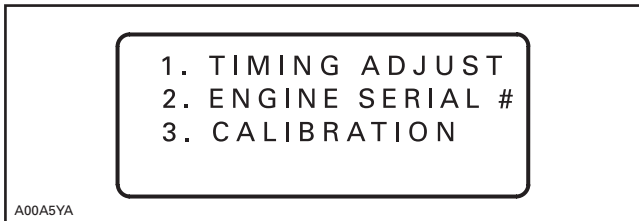


Select the timing correction factor corresponding to correction needed (number shown on bar coded sticker on engine right side or obtained at the very beginning of this instruction sheet).

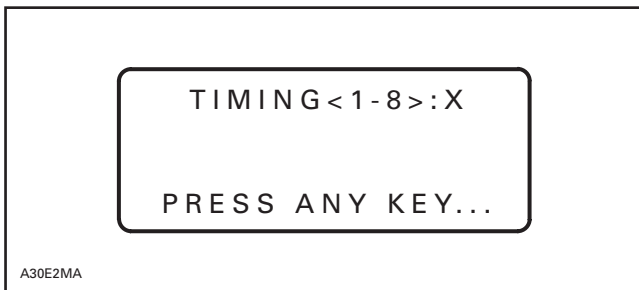


NOTE: X being the timing correction factor recorded in existing MPEM (a number from 1 to 8).

Press ENTER.

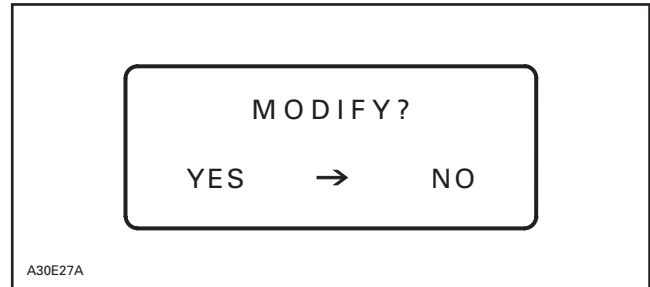


Press ENTER.



The display confirms that correction factor has been changed to no. X (number shown on bar coded sticker on engine right side or obtained at the very beginning of this instruction sheet).

Press any key.

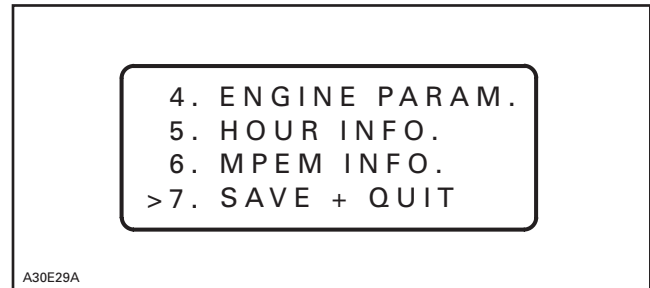


If the new correction factor selected above is the good one select NO.

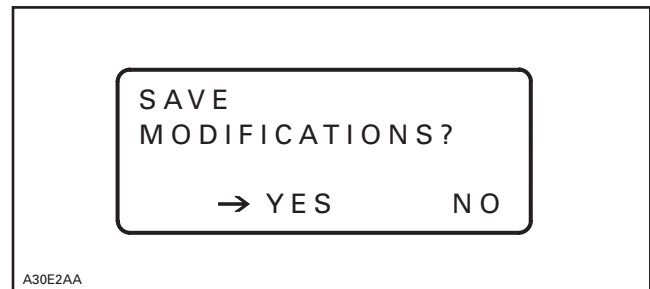
Press MENU.

Scroll to no. 7 **SAVE AND QUIT**.

IMPORTANT: The *SAVE AND QUIT* step is a must otherwise the entire procedure will have to be re-done.



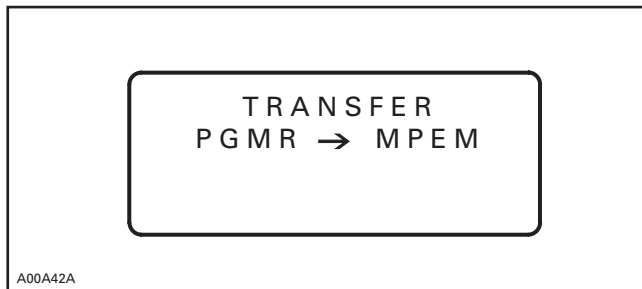
Press ENTER.



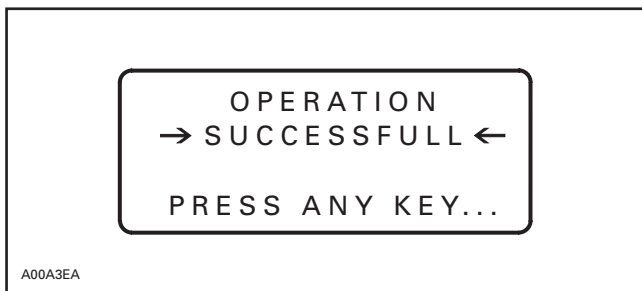
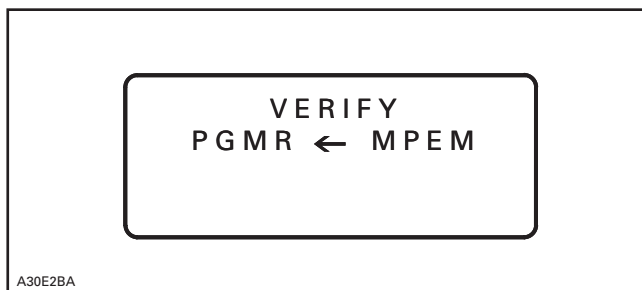
Increase engine speed to 2500 RPM (unless bypass wire is used).

Press ENTER.

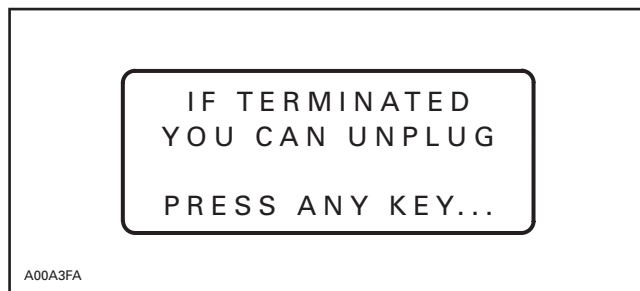
Engine will misfire while vehicle information is being transferred from programmer to MPEM (unless by-pass wire is used). If engine stalls, restart it, keep engine speed at 2500 RPM and restart procedure all over again from the beginning.



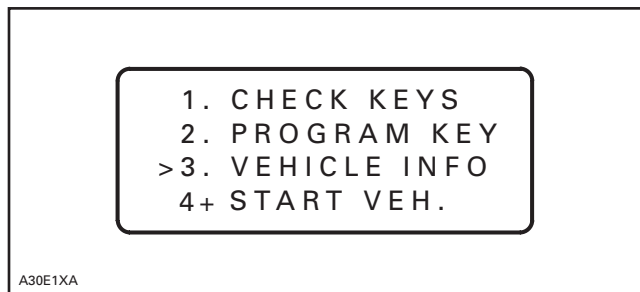
During a very short period of time the following message will appear.



Press any key.



Press any key.



Stop engine (unless by-pass wire is used) and close hood.

590 030 800

1.	512 059 408	DPM Pressure Manifold Assembly	Tubulure de pression du DPM (complète)
2.	512 059 382	MPEM	MEM
3.	516 000 245	Sticker	Autocollant
4.	414 580 600	90° Fitting	Raccord à 90°
5.	513 032 908	Rubber Grommet	Passe-fils de caoutchouc
6.	420 960 770	Cap	Bouchon
7.	404 161 962	Needle (2)	Pointeau (2)
8.	404 108 200	Main Jet (2)	Gicleur principal (2)