

## Instructions for Fuel Pump Diaphragm Kit No. 40280 & No. 40290



GLM No. 40280 Replaces No. 42909A4		
Ref.	Description	Qty.
a	Base Gasket	1
b	Boost Chamber Gasket	1
c	Pulse Chamber Gasket	1
d	Diaphragm - w/ Oil Mix Holes	1
e	Diaphragm - Solid	1
f	Check Valve Retainer	2
g	Check Valve	2
h	Cap (small)	1
i	Compression Spring (small)	1
j	Cap (large)	1
k	Compression Spring (large)	1

GLM No. 40290 Replaces No. 21-857005A1		
Ref.	Description	Qty.
a	Base Gasket	1
b	Boost Chamber Gasket	1
c	Pulse Chamber Gasket	1
d	Diaphragm - w/ Oil Mix Holes	n/a
e	Diaphragm - Solid	2
f	Check Valve Retainer	2
g	Check Valve	2
h	Cap (small)	1
i	Compression Spring (small)	1
j	Cap (large)	1
k	Compression Spring (large)	1

\* Individual Kit Components Not Sold Separately

**GLM No. 40280 Diaphragm Kit**  
Used with **WHITE** fuel pump body; 90 degree oil/fuel check valve.  
(Diaphragm with dual holes.)

**GLM No. 40290 Diaphragm Kit**  
Used with **BLACK** fuel pump body; in-line oil/fuel check valve.

## Disassembly of Fuel Pump Diaphragm

### CAUTION

Disconnect fuel source from engine, gasoline is extremely flammable & explosive. The procedures described must be done in a well ventilated & spark free area & all gasoline wiped up immediately.

### CAUTION

Disconnect wiring harness from engine to prevent possible spark or electrical shock.

1. Remove pulse line from fitting.
2. Remove fuel line at pump.

### IMPORTANT:

Note location of lines to fuel pump fittings. Lines must be reattached to the same fuel pump fittings on re-assembly.

3. Remove retaining screws & pump.

### IMPORTANT:

Note location of components as re-assembly will be similar.  
(Except check valve retainers).

4. Remove & discard gaskets, diaphragms, check valve retainers, check valves, check valve disks (if present), spring caps & springs. (see Fig. A)

### Cleaning & Inspection

1. Clean all gasket material from pump being careful not to damage gasket surfaces.
2. Wipe off pump sections (do not immerse in solvent) & blow off with compressed air.
3. Inspect for cracks or bad gasket contact areas and replace if necessary.

### Preparation (see Fig. B)

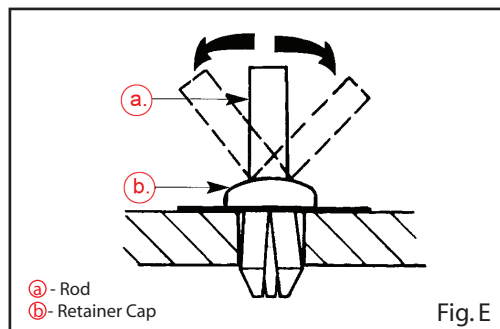
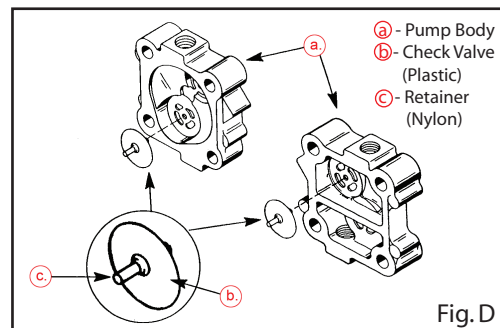
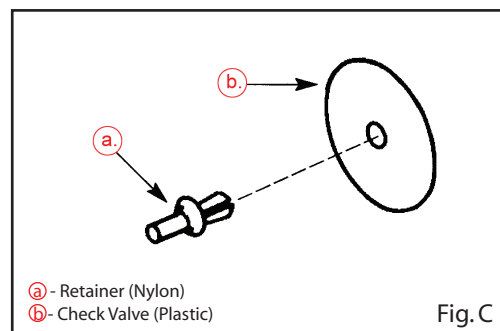
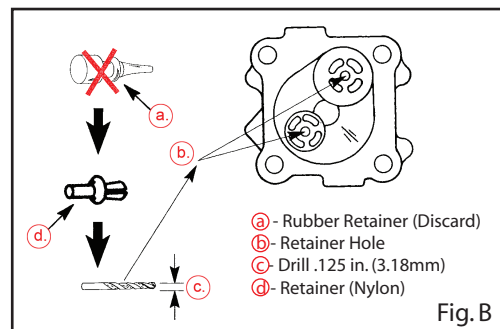
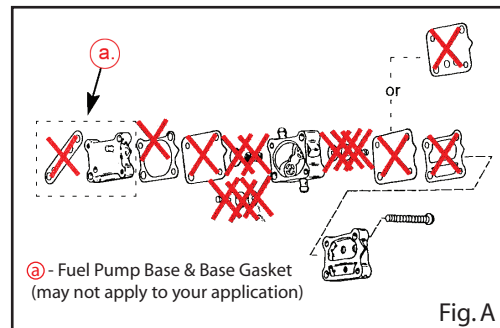
### IMPORTANT:

When replacing rubber check valve retainer with nylon c.v.r., retainer holes in fuel pump body must be enlarged to .125 in. (3.18mm) diameter & hole edges chamfered.

## Assembly of Fuel Pump Diaphragm

1. Insert retainer thru plastic check valve. (see Fig. C)
2. Install check valves & retainers into fuel pump body. (see Fig. D)
3. With retainer installed in pump body, break retainer rod from retainer by bending sideways. (see Fig. E)

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## Assembly of Fuel Pump Diaphragm Continued...

4. Reinstall rod into retainer cap. (see Fig. F)
5. Using a hammer & punch, tap the rod down until flush with the top of retainer. (see Fig. G)
6. Assemble remainder of components as shown & install retaining screws thru to align. (see Fig. H).

**NOTE:** Base & gasket may not apply to your engine.

7. Install pump onto engine. Torque to 50-60 lb. in. (5.6 - 6.8 Nm).
8. Install hoses onto proper fittings & secure with sta-straps.
9. Run engine & check for leaks.

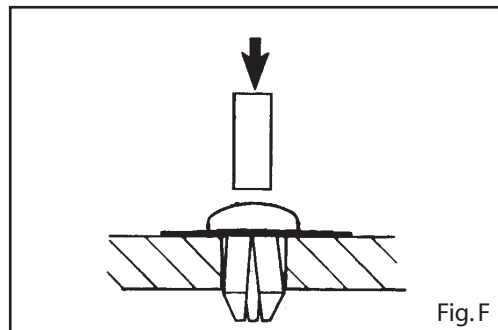


Fig. F

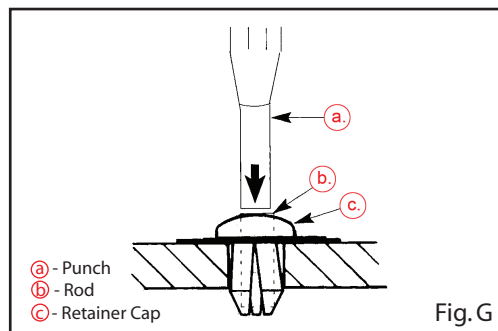


Fig. G

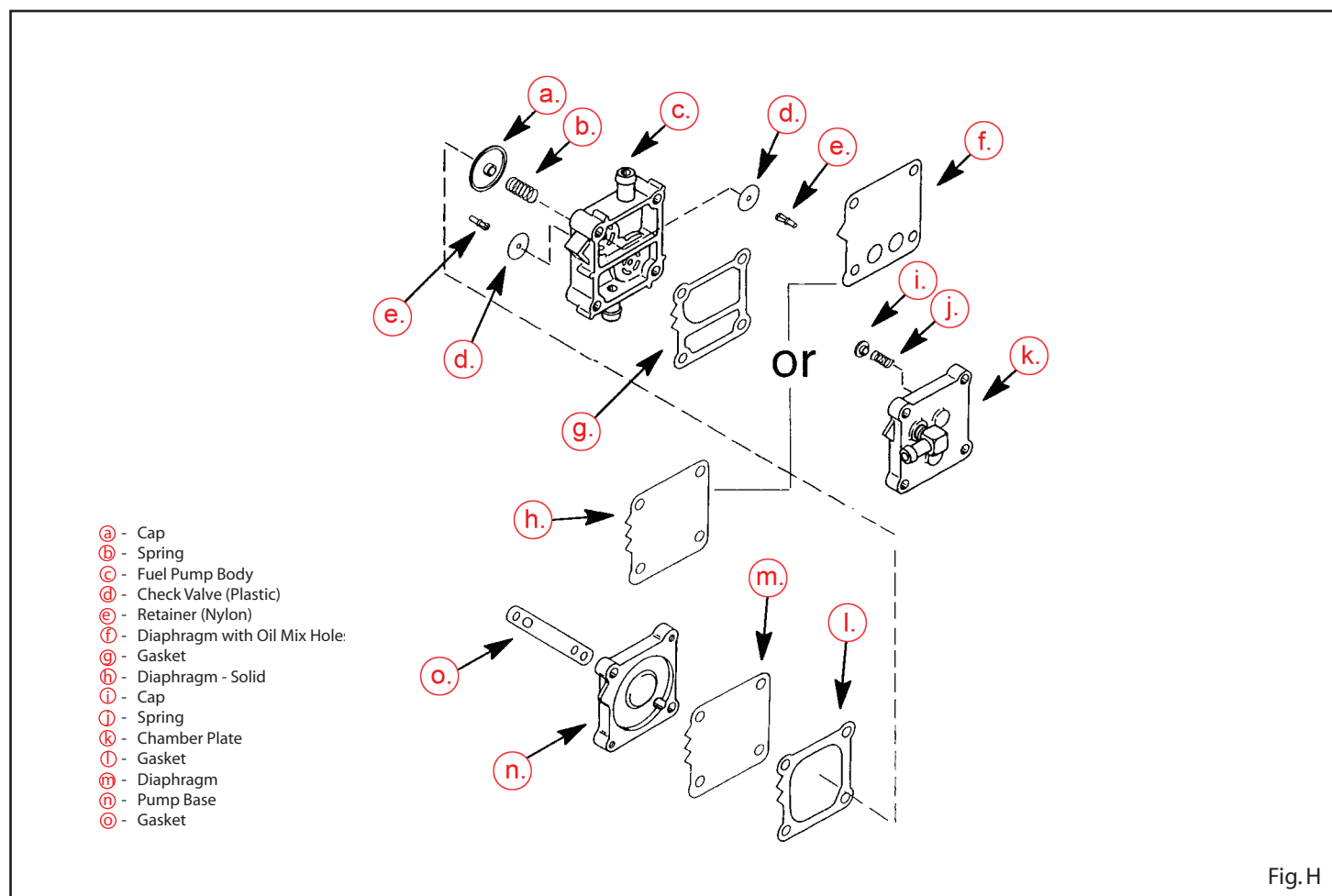


Fig. H