Carb & Turbo

Alternative Fuel Systems Specialists

Compressed Natural Gas (CNG) - Propane (LPG)

Installation Guide

Propane (LPG)
Conversion
System

YAMAHA

EF2000iS
Inverter

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Congratulations on the purchase of a **CARB & TURBO** Propane (LPG) Conversion System for use with your **YAMAHA EF2000iS Inverter.**

This guide is intended to assist you with the ***installation only*** of your **Propane (LPG) Conversion System** to your **YAMAHA EF2000iS Inverter**. Should you have any questions and/or concerns, please contact **CARB & TURBO** at **(952) 445-3910**

Prior to attempting the installation,
read this Installation Guide in its entirety.

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

The below pictured and listed tools are required to install this conversion system.

- ✓ Adjustable Pliers
- ✓ Adjustable Wrench
- ✓ 3/8" Ratchet Tool (with both a Long and Short Extension)
- ✓ 10mm Socket
- ✓ Utility Knife
- ✓ 1/4" Drill Bit
- ✓ 3/8" Drill Bit
- ✓ Drill
- ✓ Slotted Screwdriver
- ✓ Phillips Screwdriver

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Step 1

Using a Phillips Screwdriver, remove the top two (2) screws that attach the Back Cover to the Inverter.

Step 2

At the **upper right corner** remove the Back Cover from the Inverter.

***Note**: A substantial amount of force may be required to separate the Back Cover from the Inverter.*

You will now have easy access to the Carburetor and Air Cleaner.

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Step 3 Using a Phillips Screwdriver, remove the Air Cleaner Cover.

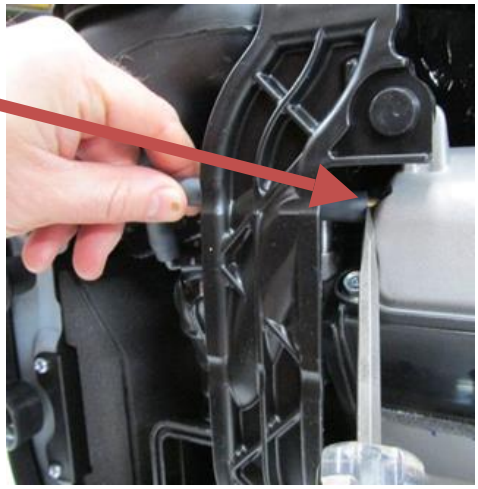
Step 4 Remove the Air Cleaner Filter Element.

Step 5 Using a 3/8" Ratchet Tool with a Long Extension and a 10mm socket, remove the Mounting Bolt from Inside the Air Cleaner.

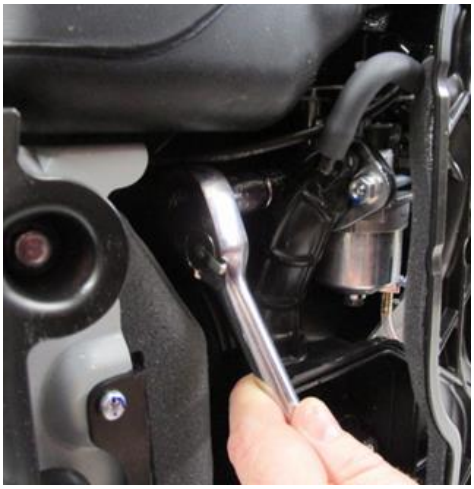
Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Step 6 Using a 3/8" Ratchet Tool and a 10mm socket, remove the Mounting Bolt from outside of the Air Cleaner

Step 7 Using a Slotted Screwdriver, remove the Hose from the Valve Cover.



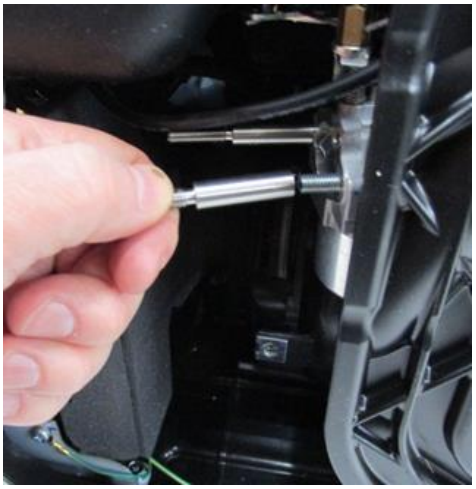
Step 8 Using a 3/8" Ratchet Tool with a Short Extension and a 10mm socket, remove the Carburetor Bolts.



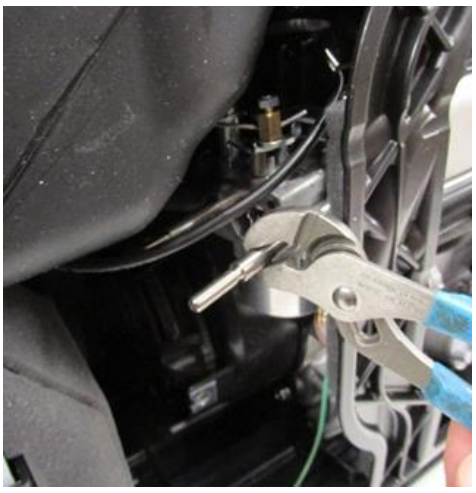
Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Step 9 Pull the Air Cleaner away from the Carburetor and tilt it to remove it from the inverter.

Step 10 Install a Standard-length Stud Extender onto each Carburetor Bolt.

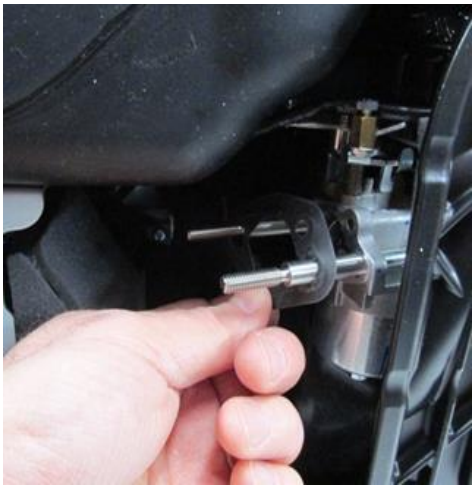


Step 11 Using Adjustable Pliers, tighten both stud extenders.



Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Step 12 Reinstall the OEM Gasoline Carburetor Gasket.



Step 13 At one end of the Inverter, there is a Ventilation Cover. Using a Phillips Screwdriver, remove the four (4) screws and the Ventilation Cover.

Step 14 Slide an adjustable hose clamp over the appropriate end of the Red Fuel Hose. Attach the Red Fuel Hose to the Carburetor Adapter. Using a Phillips Screwdriver, tighten the Clamp.

> ***Note**: The brass fitting has already been Teflon-taped and installed to the Carburetor Adapter.*

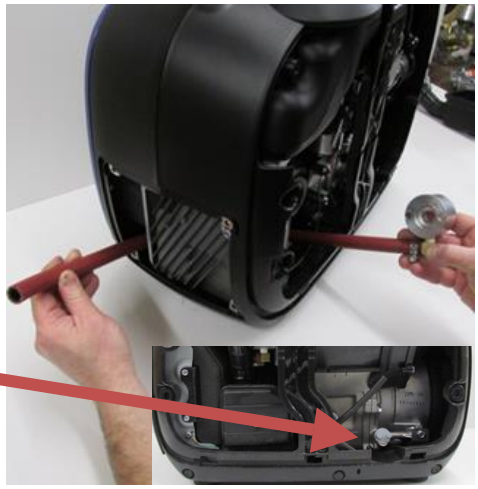
Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Step 15

Feed the Red Fuel Line thru the Air Cleaner cavity and the Ventilation Cover.

Do the same with the ¼" Black Atmospheric Balance Hose.

> ***Note**: Place the open end of the Black Balance Hose inside the Inverter near the oil drain.*



Step 16

Align the holes of the Carburetor Adapter with the Stud Extenders (previously installed) and push it so that it meets the face of the Carburetor.

Step 17

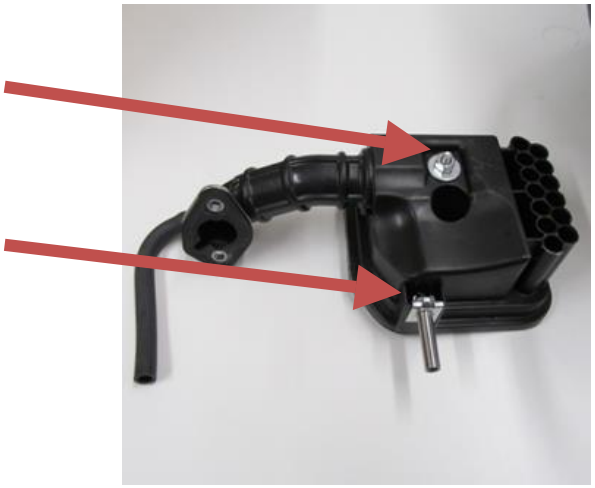
Install the Gasket Included with the kit – be sure to properly align the ventilation hole.

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Step 18

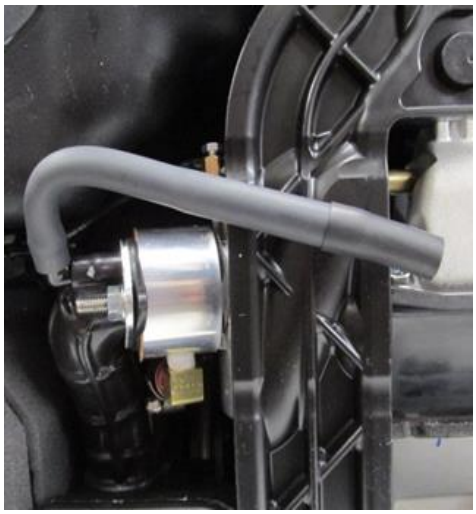
Reinstall the inside bolt of the Air Cleaner and attach the flat washer and nut to the bolt on the back side of the Air Cleaner.

Also install the Short-length Stud Extender onto the side mount of the Air Cleaner.



Step 19

To extend the hose length, insert the White Plastic Tube with the short Black Hose into the Air Cleaner Ventilation Hose.



Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Step 20

Reattach the Air Cleaner to the Adapter.

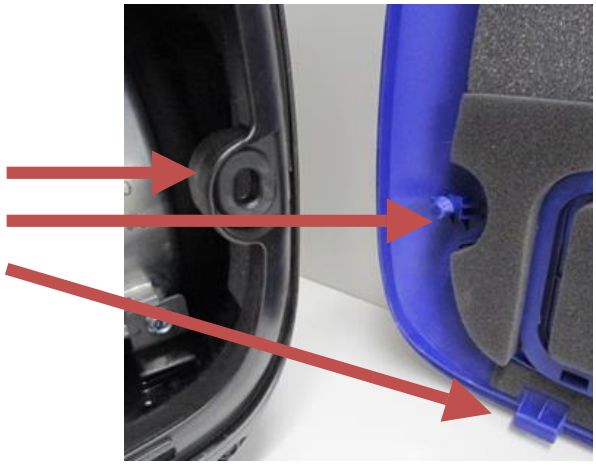
Reattach the side mount of the Air Cleaner to the Engine Block.

Reattach the Ventilation Hose to the Valve Cover.

Step 21

Reattach the Back Cover to the Inverter case.

Check that all of the contact points are properly aligned



> ***Note**: The Back Cover must be properly reattached in order for the Inverter to operate.*

Using a Phillips Screwdriver, reattach the Back Cover.

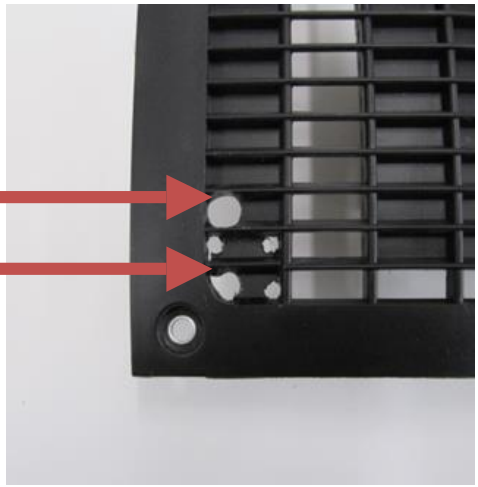
Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Step 22

The Red Fuel and Black Balance hoses should extend beyond the end of the Inverter case.

At this point, you'll need to drill five (5) holes in the Ventilation Cover as depicted.

- Using a 3/8" bit, drill the top hole.
- Using a ¼" bit, drill the four (4) lower holes.



Using a Utility Knife trim the area between the four lower holes.

When you're finished, the Ventilation Cover should look like the picture to the right.

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

On the back of the Ventilation Cover, using a Utility Knife, trim the gray foam from the lower corner (where the Red Fuel and Black Vacuum Hoses will pass through the cover).

Insert the Red Fuel and Black Balance Hoses through the cover as depicted.

Roughly align the mounting holes of the Ventilation Cover as depicted

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

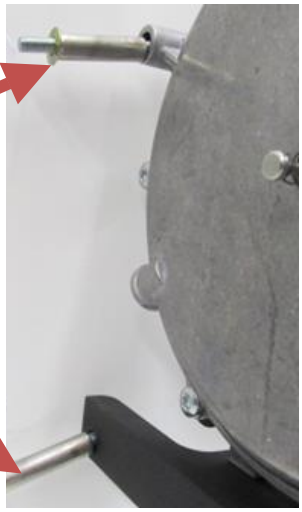
Step 23

Assemble the Screws and Stainless Steel Spacers, with Washers, onto the Regulator as depicted.

***Note**: The two (2) brass fittings have already been Teflon taped and installed to the Regulator.*

Check that the **shorter-length** Spacers are at the **top** of the regulator.

And, that the **longer-length** Spacers are at the **bottom** (through the bottom bracket).



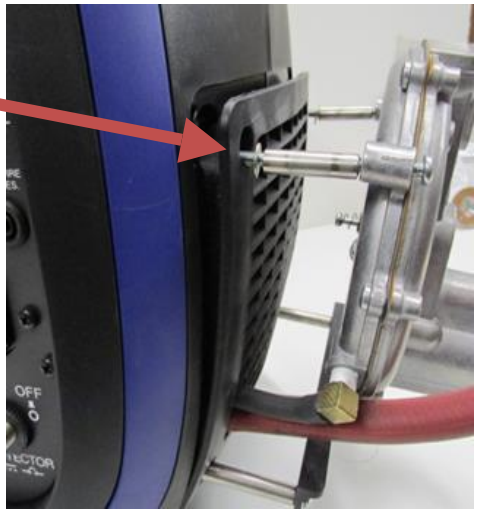
Step 24

Using a Phillips Screwdriver, attach the two (2) **bottom** screws to the Ventilation Cover.

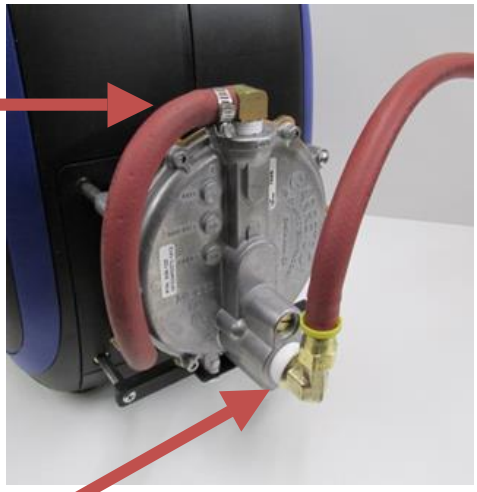
And, attach the Black Balance Hose to the 90° Brass fitting with a ¼" hose barb at the **bottom** of the Regulator.

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

Using a Phillips Screwdriver, attach the two (2) top screws to the Ventilation Cover.



Slide an adjustable hose clamp over the end of the Red Fuel Hose. Attach the Red Fuel Hose to the 90° Brass fitting with a 3/8" hose barb at the **top** of the Regulator. Then, using a Phillips Screwdriver, tighten the adjustable hose clamp.



Attach the Red Hose and Regulator assembly *(pictured to the Right)* to the bottom of the Regulator as depicted.

***Note**: All appropriate brass fittings have been Teflon taped and installed to the Regulator.*

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

At this point, the installation of your conversion system to your Inverter should be completed.

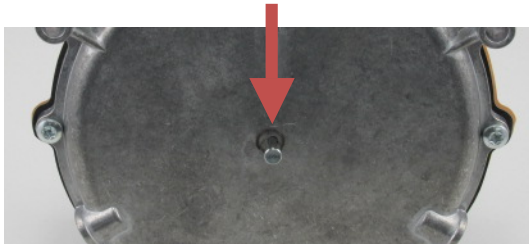
The picture to the Right depicts a completed installation

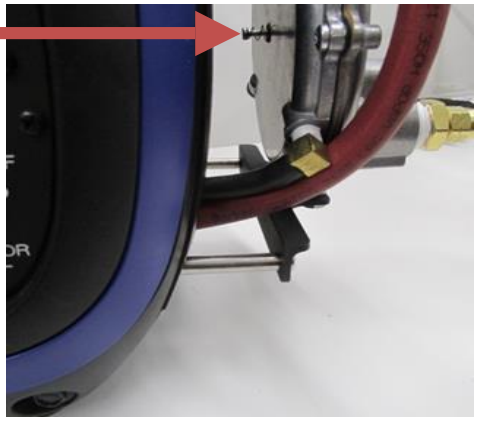
***Note**: The fuel mixtures have been preset for optimal performance. No adjustments are required.*

Attach the Red Hose and Regulator assembly to your Propane (LPG) Tank.

Open the Propane Tank Valve

Press the Regulator Primer.





At this point, you may start your Inverter.

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

YAMAHA EF2000iS Inverter Starting Procedures

This conversion system is designed to allow you to operate your YAMAHA EF2000iS Inverter using the OEM recommended fuel (gasoline) or Propane (LPG). Below noted are the starting procedures for both fuels and the procedure to change from one fuel type to the other.

Starting Procedure – OEM recommended fuel (Gasoline)

- Reference the Owner's Manual for your YAMAHA EF2000iS Inverter

Starting Procedure – Propane

- Reference the Owner's Manual for your YAMAHA EF2000iS Inverter
- Turn the Fuel Cock Knob to 'OFF'
- Run the Inverter until all gasoline has been completely used
- Check that the Red Engine Switch is 'ON'
- Open the Propane Tank Valve
- Press the Regulator Primer
- Pull the Recoil Starter

Starting Procedure – Propane (if the previous use was with Propane)

- Reference the Owner's Manual for your YAMAHA EF2000iS Inverter
- Turn the Fuel Cock Knob to 'OFF'
- Check that the Red Engine Switch is 'ON'
- Open the Propane Tank Valve
- Press the Regulator Primer
- Pull the Recoil Starter

Starting Procedure – OEM recommended fuel (Gasoline) if the previous use was with Propane and you are immediately switching to Gasoline

- Check that the Propane Tank Valve is Closed
- Run the Inverter until all Propane has been completely used
- Reference the Owner's Manual for your YAMAHA EF2000iS Inverter

Starting Procedure – OEM recommended fuel (Gasoline) if the previous use was with Propane and there has been a significant delay (24-hours & greater) switching to Gasoline

- All Propane should be evaporated from the carburetor
- Check that the Propane Tank Valve is Closed
- Reference the Owner's Manual for your YAMAHA EF2000iS Inverter

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

This page is intentionally blank. Use this space for notations.

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com

***CARB & TURBO** offers dedicated, bi-fuel and tri-fuel **Natural Gas and Propane conversion systems** and repair/replacement parts for various engines that serve **Agriculture**, **Commercial**, **Construction**, **Industrial**, **Lawn & Garden**, and **Power** applications. Engine manufacturers include but are not limited to BRIGGS & STRATTON, CRAFTSMAN, GENERAC, HONDA, KOHLER, KUBOTA, LAUSEN-TECUMSEH, MAKITA, KAWASAKI, ONAN, ROBINS-SUBARU, WISCONSIN, VANGUARD and YAMAHA.*

*We also offer EPA-certified and Non-EPA-certified **CNG and Propane conversion systems** for various **Vehicle** applications – Dedicated & Bi-fuel (for gasoline engines) and Dual-fuel (blends CNG or Propane with diesel). Engine manufacturers include but are not limited to CHRYSLER, DODGE, FORD, GENERAL MOTORS and ISUZU.*

Take the Next Step toward Reducing Your Fuel Costs with Clean, American, Energy
*…Contact **CARB & TURBO** Today at **(952) 445-3910***

Carburetion & Turbo Systems, Inc.
Alternative Fuel Systems Specialists / CNG & Propane
1897 Eagle Creek Boulevard
Shakopee, MN 55379
Tel: (952) 445-3910 / Fax: (952) 445-6070
Internet Website: www.CarbTurbo.com