



The Revolution of Alternative Fuel Vehicle Systems



***Latin America
&
Caribbean***



At Icom North America

We Have One Of The Best and Most Positive Missions:

HELPING FLEETS TO ACHIEVE AS SEAMLESSLY AS POSSIBLE

First:



CLEANER AIR --

Propane can reduce emissions by up to 60% & **ZERO** Particular matter

Second:



DOMESTIC FUEL--

The USA and CANADA have abundant Propane and Natural Gas Resources!

Third:



FLEET FUEL SAVINGS--

*****NO WARS!!!*****
Energy Security



Fleets can often dramatically reduce their fuel costs by using propane autogas!



\$\$\$\$savings\$\$\$\$

Hundreds of Icom Fleet Success Stories Including:

PUBLIC SECTOR:

- ***US National Park Services***
 - ***An Icom customer for 5 years with many contracts across the country***
- ***WSDOT***
 - ***An Icom customer for 3 years with hundreds of systems***
- ***Yale University***
 - ***An Icom customer for 2 years with a couple dozen systems***
- ***Numerous Para-Transit & Shuttle bus companies Around the country***
 - ***With well OVER 1,000 systems as far back as 6 years***
- ***Springfield Illinois Police Dept.***
 - ***An Icom customer for 5 years with approximately 80 systems, including 50 police vehicles***
- ***Columbus OH Airport Authority Shuttle Buses***
 - ***An Icom customer for 6 years with over 60 shuttle buses***
- ***Wyandotte County KS***
 - ***An Icom Customer for 5 years with approximately 80 systems***
- ***City of Boston***
 - ***An Icom customer for 3 years with a few dozen vehicles***
- ***City of Livonia MI***
 - ***An Icom customer for 4 years with dozens of vehicles***



All the above fleets and many others continue to add Icom systems each year!

Hundreds of Icom Fleet Success Stories Including:

PRIVATE SECTOR:

- ***UPS***
 - ***An Icom customer for 5 years with hundreds and hundreds of systems***
- ***FEDEX Contractors***
 - ***Many Icom customers around the country for 4 years with many dozens of systems***
- ***Metro Cars***
 - ***An Icom customer for 6 years with OVER 500 systems***
- ***Old Town Trolleys***
 - ***An Icom customer for 5 years with a few hundred systems***
- ***Groomes Transportation***
 - ***An Icom customer for 5 years with hundreds of systems across the country***
- ***Super Shuttle***
 - ***An Icom customer for 3 years with dozens of systems***
- ***Yellow Cab companies***
 - ***Icom customers for 5 years with hundreds of systems***
- ***Eastern Propane***
 - ***An Icom customer for 4 years with a few hundred systems***



Benefits of Utilizing Propane Autogas



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Substantial fuel cost savings as compared to gasoline or diesel



Reduce emissions of toxins by up to 30-90% compared to gasoline



Domestic – Propane is produced in North America, with large reserves in the U.S. and Canada

\$\$\$

Lower maintenance cost



Greenhouse gas emissions are reduced approximately 20%



Maintains the torque, horsepower, and drivability you would feel in a gasoline vehicle

Courtesy of PERC



For some more information on propane please visit the U.S. Department of Energy, Energy Efficiency and Renewable Energy website or contact your local American Lung Association office.

What is Propane?

Propane is liquefied petroleum gas that consists of propane, propylene, butane, and butylenes in various mixtures. In the United States, propane is the primary ingredient. Propane is a by-product of natural gas processing and petroleum refining and it is stored under moderate pressure to maintain its liquid state.

Why is Propane a Clean Air Choice?

Propane vehicles produce less tailpipe emissions of virtually all pollutants associated with automobile vehicles that use gasoline or diesel. According to the U.S. Environmental Protection Agency, a typical four-horsepower gasoline lawnmower engines generates almost six times as much volatile organic compound (VOCs) per hour of use as a typical car. Converting small utility engines such as lawnmowers to burn propane can reduce emissions of ozone precursors by one third and increase fuel economy by 14 percent.

What are the other benefits of Propane?

- **Energy Security:** the majority of propane used in the U.S. today is domestically produced.
- **Cost:** Propane costs less than gasoline and diesel fuel per gallon
- **Availability:** with numerous propane vehicles available and a national infrastructure of pipelines, processing facilities, and storage already exists for the efficient distribution of propane, the propane option is accessible to the masses.

American Lung Association of The Upper Midwest

490 Concordia Avenue

St. Paul, MN 55103-2441

Phone: 651-227-8014

Fax: 651-227-5459

Email: cleanairchoice@lungum.org

Propane Autogas is Safe.

- Meets all federal motor vehicle safety standards.
- Fuel tanks are 20 times more puncture-resistant than gasoline and diesel tanks.
- Stored at relatively low pressure, about 250 psi.



Propane Autogas is Safe

Propane Autogas is a contained fuel source:

- No spillage
- No shrinkage
- No pilferage
- No contamination
- Non-toxic



Conclusion: *Propane Autogas hits the sweet spot for most CLASS 2 to CLASS 7 vehicles (with CLASS 8 Trucks on their way soon!!!) in most fleet sectors.*

- ✓ ***ROI is the best!***
- ✓ ***Maximized fuel range***
- ✓ ***Fueling Infrastructure is reasonably priced & can be located almost anywhere!***
- ✓ ***EPA Certified Systems availability is the widest and deepest of all the Alternative Fuels!***
- ✓ ***Cradle to Grave emissions are among the best!***
- ✓ ***Fuel supply partners are numerous & financially sound***

PROPANE AUTOGAS IS THE BEST CHOICE!



Property of ICOM North America

ICOM North America



- *Established North American operations in 2004*
- *Headquarters and Assembly Plant in New Hudson, Michigan*
- *Icom systems utilize a substantial percentage of domestic components*
- *Icom systems are **Safety tested & safe:** NFPA 58 & DOT FMVSS303 compliant, Canadian CSA Certified to -40 degrees, E67/01 Certified, & Successfully Crash Tested*
- *Icom has the industry leading list of **OVER 1,200 EPA CERTIFIED** vehicle platforms and over 400 EPA Certificates*
- *Both Bifuel & Monofuel (Dedicated) Systems*



Property of ICOM North America

Icom Systems and Technology in North America

Approximately:

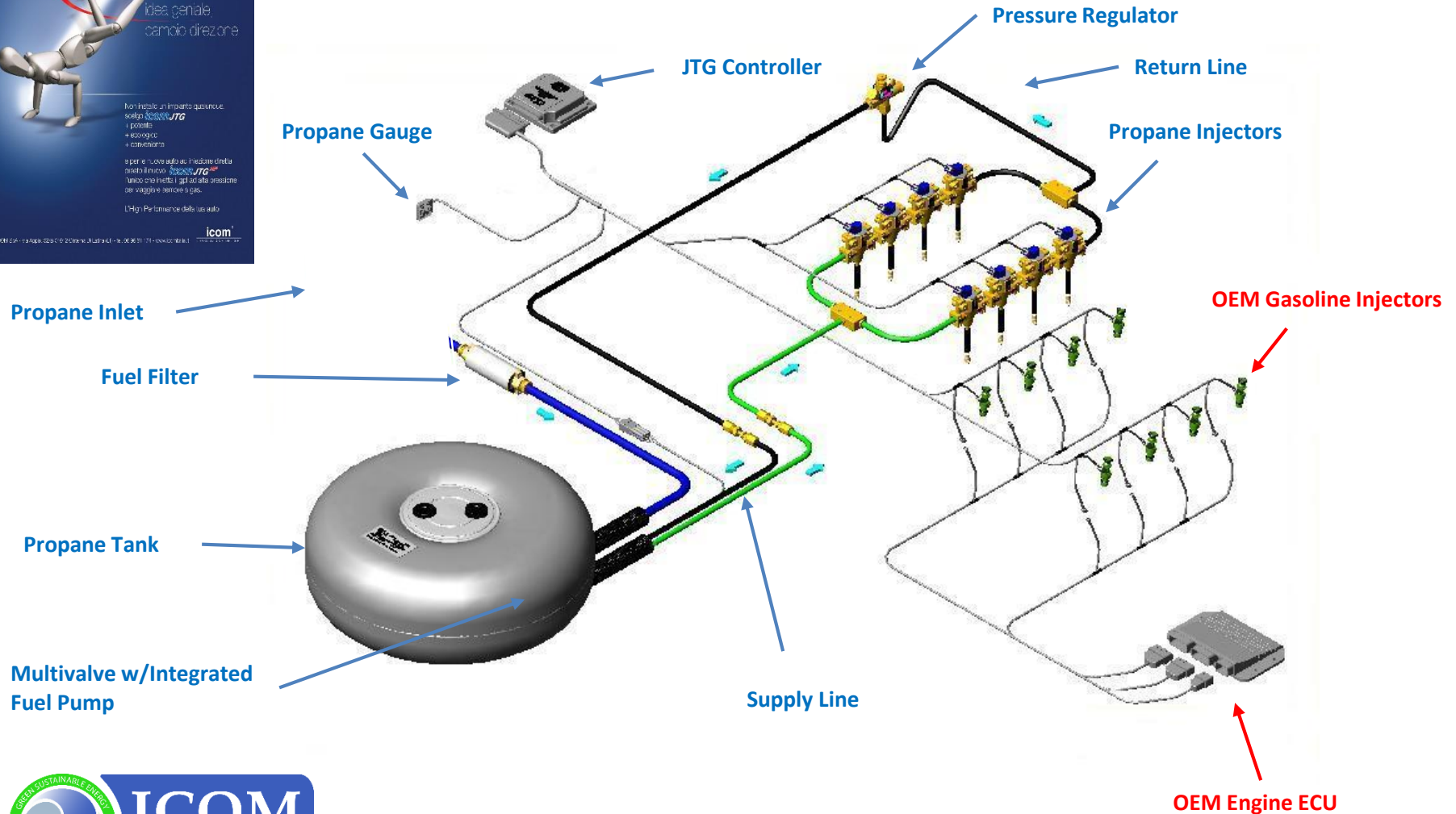
- 30,000 Propane Liquid Injection Systems in use in North America utilizing Icom Technology
- Fleets enjoyed a huge fuel cost savings of over \$1,500,000,000 to date
- **Estimated emissions reduction over 35% and Particulate Matter reduced to *Zero!***
- **APPROACHING 1 BILLION GALLONS OF PROPANE AUTOGAS UTILIZED!**
- 900,000,000 gallons of gasoline and diesel displaced
- **7.5 Billion** miles driven safely!
- Icom is working hard with our partners and Dealers to place over **100,000 Icom systems** on the road in the next 5 years



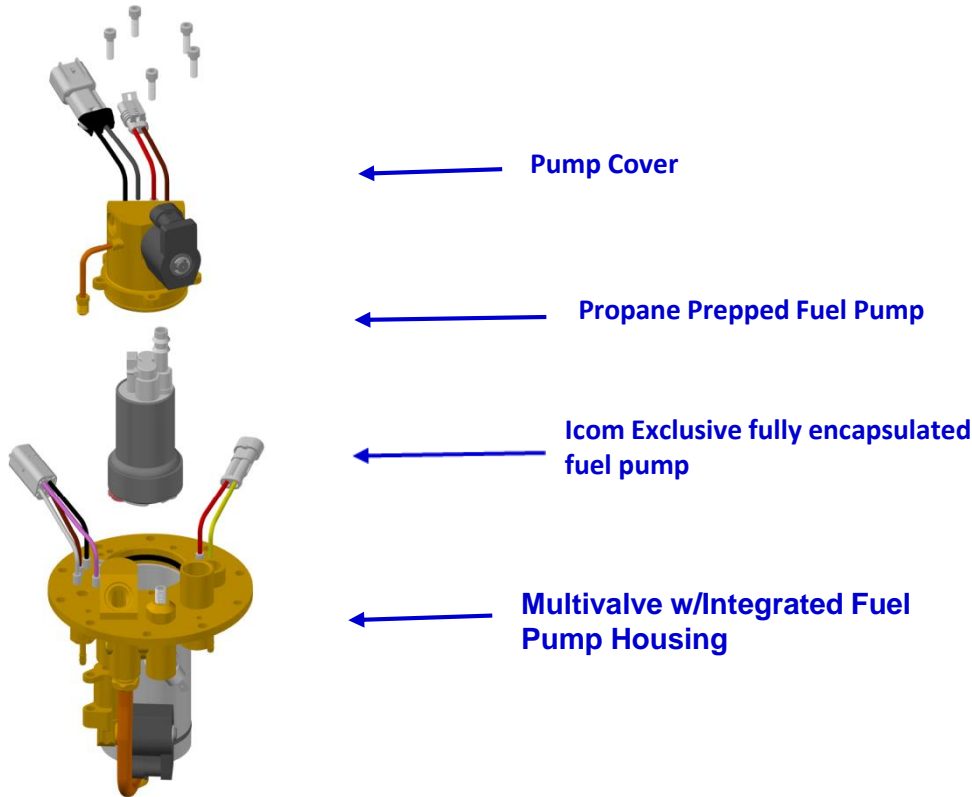


Icom's JTG® Bi-Fuel System

Propane Liquid Injection System Schematic



JTG® MultiValve



*The Advanced JTG
Multivalve with Integrated
Exclusive fully Encapsulated Fuel
Pump*

*Developed and Patented by Icom
for improved serviceability!!*

- ✓ ***Utilizing the Icom Exclusive fully Encapsulated Pump which does not sit on the bottom of the tank attracting debris!***
- ✓ ***No need to depressurize fuel tank to access fuel pump!***
- ✓ ***Increased flow rate for fast filling***



EPA Certifications

The Icom JTG II system is EPA Certified for over 1,200 2009-2018 vehicle platforms including many Ford models.

The Total Solution for any Type of Fleet!



**E150
E250
E350**



**F150
F250
F350**



**F450 F550
F550 F650
F750**



E450



**Ford Taurus
Lincoln MKZ**



**Ford Explorer
Lincoln MKT**



**Lincoln Navigator
Ford Expedition**



Ford Transit



**F53
F59
(Bakery, Linen,
FedEx type
box trucks)**



*Please confirm with Icom engine family
Property of ICOM North America*

EPA Certifications

***ICOM JTG Liquid Injection Bi-Fuel Propane System is EPA certified
for most 2010-2018 GMC and Chevrolet Light trucks and SUV's
equipped with the 4.8L, 5.3L engine & 6.0L***



**Chevy Silverado
GMC Sierra**



**Chevy Express
GMC Savana**



**Chevy Tahoe
GMC Yukon
Chevy Suburban
Chevy Avalanche**



Available shortly

6.0L HD



Chevy Cutaway



6.0L 2500HD, 3500HD



Property of ICOM North America

Please confirm with Icom engine family

Autogas Fleet Case Study



Approximately

- *Happy Icom customer since 2011*
- *OVER 300 vehicles with Icom system currently*
- *Utilized OVER 500 Icom systems in the last 7 years!*
- *Many-Many Millions gallons of propane Autogas utilized since 2007*
- *Vehicles endure 3 years of hard driving and LOTS of idling*
- *Lincoln Navigators, & Town Cars, Ford E450 Shuttle Buses, and Chevy Suburbans*



Autogas Fleet Case Study



Alabama Dept
of Corrections

- **Happy Icom customer since 2014**
- **63 - Ford E250 and E350 Inmate driven work release farm/factory Passenger vans**
- **Annual average of 55,000 miles per vehicle @ 11MPG**
- **Average per gallon SAVINGS of \$1.12 as compared to gasoline**
- **SAVINGS from project of Approximately \$1 Million**
- **UTILIZED OVER 1 MILLION GALLONS OF AUTOGAS TO DATE!!**



Autogas Fleet Case Study

***Icom Propane Systems are
Certified for and start and run well down to
-40 degrees BRRRRR!!!***



***Many – Many Hundreds of Icom
Monofuel Systems across Canada***

***Utilizes Millions of gallons of propane
annually and continues to grow year
after year!!***



Autogas Fleet Case Study

Approximately:

250 Icom Propane Trolleys, Shuttles and Support Vehicles in many locations in the USA including:

Key West FL

St. Augustine FL

Arlington National Cemetery

Savannah GA



Icom Customer Since 2011

Adds on average 50 New Propane Vehicles per year

LOTS of IDLING
NO BLACK EXHAUST



**MILLIONS OF GALLONS OF PROPANE
UTILIZED ANNUALLY!!**

Thank You for your interest!

With the proper use of alternative fuels, we can enjoy increased energy security, increased employment in an emerging sector, and decreased emissions.



www.icomnorthamerica.com

54790 Grand River Avenue
New Hudson, MI. 48165

Feel free to contact us either by phone:
(248) 573-4935

Or by email:

info@icomnorthamerica.com



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