



# bus GUIDE

2015/16  
e d i t i o n

The Industry's Most Referenced Guide for New Bus Equipment

**NEW**  
this year!  
**INNOVATION  
CENTER**  
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# innovation center



This new section highlights recent advances in vehicle technologies, systems, products, and service applications that promise significant benefits to industry fleet operations.

This year the spotlight turns to the rapidly increasing popularity and benefits of propane fuel options. With approved systems available for more than 700 vehicle platforms, ICOM North America is America's largest supplier of propane systems offering the most advanced mono and bi-fuel systems available in the USA and Canadian marketplace.

We also shine a spotlight on a critical industry-wide need for a next generation small bus. A small robust transit bus capable of handling the more severe-use operating environment of public transit and similar vocational applications over a 12+ year service life. Code-named the LTB (Light Transit Bus) concept bus may very well answer that need!





# The Revolution of Alternative Vehicle Fuel Systems



As every fleet manager knows, fuel is a major cost factor in every transportation organization. Any reduction in fuel costs will translate directly to increased profitability and a better bottom line.

In recent years, remarkable advances have been made in fuel technology, particularly in the use of mono and in bifuel propane autogas systems. Worldwide propane has become the transportation industry's most popular fuel alternate - for very good reason! Not only is propane autogas less expensive, it is also a cleaner and a more environmentally friendly fuel option.

- Substantial fuel cost savings as compared to gasoline or diesel
- Reduce emissions of toxins by up to 30-90% compared to gasoline
- Produced domestically - from abundant North American reserves
- Lower maintenance cost
- Greenhouse gas emissions are reduced approximately 20%
- Provides the same power and drivability as gasoline

North America's leading supplier of propane autogas systems, ICOM NORTH AMERICA, has gained EPA Certification for more than 700 vehicle platforms; more than twice that of its nearest competitor. This includes most window vans and small to mid-size bus brands, particularly those based on the Ford and GM lines of light-duty and medium-duty chassis, as well as a number of other chassis/manufacturing brands.

- 15,000 Propane Systems estimated to be in use in North America utilizing ICOM Technology
- Fleets have benefitted in fuel cost savings totalling \$188,000,000 to date
- Estimated emissions reduction by over 30%
- Particulate emissions reduced to nearly 0%
- 350,000,000 miles driven



**\$1.2-million  
per year in  
estimated  
fuel savings**

#### **DHL Contractor - AAustin Express**

- 200 vehicles
- \$5,000.00 per day estimated fuel savings
- or about 1.2 Million dollars savings per year
- 750,000 gallons of foreign oil displaced per year
- Continually adding Icom Systems as new vehicles are replaced or added...



**Fuel Savings:  
\$1.5-million  
in estimated  
savings**

#### **METROCARs**

##### **Detroit Airport Transportation Company**

- 260 vehicles equipped with ICOM System
- Estimated \$1.5 Million in fuel savings yearly
- Operates Lincoln Navigators & Town Cars, Ford E450 Buses, and Chevy Suburbans
- Continually adding Icom Systems as new vehicles are replaced or added...



**Fuel Savings  
\$1.50 per  
gallon**

#### **Provide-A-Ride Cleveland OH**

- 45 vehicles equipped with ICOM system each running about 225 miles per day
- Operates Para-Transit van services in the greater Cleveland region
- Using 800/900 gallons of propane daily, resulting in about \$1,275 in savings per day, or \$400,000 annually

ICOM mono and bifuel systems are EPA Certified for the Ford E150, E250, E350, E450, F150, F250, F350, F450, F550, F650, F53 and F59 chassis models. Additionally the Ford Transit and Ford vehicles equipped with the Ford 3.5L Eco-Boost engine are currently undergoing EPA Certification.

EPA Certification for both mono and bifuel ICOM systems includes the GM 2500 and 3500 chassis models equipped with gas engines. Certification includes the Silverado, Sierra, Express and Savannah, Tahoe, Yukon, Suburban and Avalanche GM brands.

Given the increasing social concern for the environment, alternate fuels such as propane powered vehicles are becoming an important marketing tool. Provide-A-Ride President Alan Groedel turned to the alternative fuel because he wanted to reflect his company's concern for the environment and control over fuel costs. Thanks to his knowledge of auto-gas, his Cleveland-based firm that runs government-funded specialized transportation programs was awarded a contract with the Greater Cleveland Regional Transit Authority (RTA). "The Cleveland RTA is running vehicles on propane, propane and gas, and electricity," he says. "So propane helped make us look like a smarter partner to work with."

Converting to either a mono or bifuel propane system will not only generate significant fuel cost savings over the long term, but depending on vehicle type, duty cycles, and mileage, a newly installed ICOM system will typically pay for itself within the first 6 to 12 months. Beyond the fact that it is a cleaner fuel thus reducing emissions, it lowers our nation's dependence on foreign oil. Given that it is produced and distributed domestically it also creates greater employment opportunities here at home.



## ICOM JTG Liquid Injection System vehicles vs. CNG vehicles

*Some believe that propane and natural gas are just different names for basically the same fuel. Propane however is a very different fuel, exhibiting far different properties.*

**Cost:** Propane system installed is less expensive so the ROI is more beneficial & savings are increased

**Performance:** Increased throttle response with superior power, torque, & drivability; no backfires & no acceleration lag with propane vehicles

**Environment:** Fueling Infrastructure - unlike CNG propane is not a greenhouse gas; propane can be found more available in rural areas; propane fuel costs & maintenance costs are less, and propane is more prevalent throughout the USA, Canada

**Tanks:** Propane (LPG) tanks are approximately 3 to 4x smaller than CNG tanks of the same useable gallonage; propane utilizes more useable gallonage per tank; LPG tanks are usually lighter; propane pressure is at 312psi maximum, while CNG pressure is at 3600psi maximum

**Facility:** Propane Vehicle system installation and service normally do not require any modifications to the existing building while CNG often requires substantial modifications at significantly high cost (ref: NFPA 58 and NFPA 52 building requirements).

Today's propane systems are incredibly reliable. ICOM systems are 'plug and play' in which the fuel tank, fuel rails and hoses are preassembled. The ECU is not affected as calibration matches gasoline injectors in amount of energy delivered with fuel.

By 2016 most vehicle OEMs will be utilizing direct-injection technology which provides for more horsepower, fewer emissions, and better fuel economy. ICOM direct injection systems have been in operation in Europe, Australia and Asia for over six years with zero engine issues. Liquid propane gas actually enhances the efficiencies of direct-injection technology, and being a clean fuel, has proven to lower overall maintenance costs.

ICOM systems are also federally approved for use in Canada, and applicable ICOM JTG II components are Canadian IGAC Certified to -40 Degrees & for Safety and Durability. ICOM North America maintains an extensive installation and service dealer network throughout the USA, Canada, and currently has plans to expand into Mexico and the

Caribbean. ICOM North America is affiliated with the Icom Group, that has manufacturing and distribution facilities in 15 countries including Italy, Greece, Turkey, Bulgaria, Poland, Germany, France, Belgium, England, Australia and Korea. Founded in 1984 the Icom Group is a Tier 1 OEM supplier, and ISO 9001 and ISO 14001 certified. Worldwide there are some 4 million ICOM LPG automotive tanks and more than 250,000 JTG liquid propane systems currently in service.

Propane is among the most abundant of North America's fuel resources and efficiently produced without many of the environmental problems that are faced in oil production.

Propane autogas has the potential to dramatically reduce your company's fuel costs, gain a definitive competitive edge, and do so in a more environmentally responsible way.

Why not make that call to an ICOM specialist today! Telephone (248) 573-4935, Email: [Albert@IcomNorthAmerica.com](mailto:Albert@IcomNorthAmerica.com), or go on-line and visit [www.IcomNorthAmerica.com](http://www.IcomNorthAmerica.com)