



United Technologies
turn to the experts

Fleet Runs Smarter With IntelliSet™ Capability.



IntelliSet™ Control Application Simplifies Temperature Control and Saves Fuel for KLLM.

Embracing technology throughout all levels of its operations has helped propel KLLM Transport Services LLC of Jackson, Miss., into one of the nation's leading refrigerated haulers. KLLM lists among its many technology achievements being the first nationwide temperature-controlled carrier to use satellite communications to link its entire fleet to headquarters. KLLM was also one of the first adopters of Carrier Transicold's IntelliSet™ control capability, which brings payoffs in terms of improved customer satisfaction, simple operation for drivers, reduced claims due to errors and, for KLLM, seven-figure cost savings through improved fuel efficiency of refrigeration unit operation.

Carrier Transicold Solution:

Part of Carrier Transicold's suite of Reefer Apps™, the IntelliSet capability introduced push-button simplicity to refrigeration-unit operation. With it, a wide range of refrigeration parameters are selected for individual commodities and locked into a single setting that drivers can easily select by name from a scrolling list. It's almost as simple as using the "popcorn" button on a microwave oven.

Originally an option available for Carrier Transicold's prior top-tier control system, IntelliSet is now standard with the APX™ control used on the company's latest refrigeration units.

For KLLM, the use of IntelliSet settings brings two key financial benefits: It helps reduce the chance of load claims caused by driver error, and it is used to fine-tune the balance of cooling and fuel economy for specific commodities or customers, a capability that has generated significant savings for the hauler.



The IntelliSet option helps KLLM find the best balance of fuel economy and temperature control for each commodity.



Location:
Jackson, Miss., USA

Customer:
KLLM Transport Services LLC, a technology-driven temperature-controlled carrier providing daily service to a major portion of the lower 48 states and Mexico through over-the-road, regional and dedicated services.

Fleet:
1,600 tractors and more than 2,200 refrigerated trailers, all equipped with Carrier Transicold units using controls featuring IntelliSet.

Objectives:
Eliminate claims caused by operator error, and optimize fuel consumption of refrigeration units.

Decision Drivers:
Ease of use; Fuel savings.

Carrier Transicold Equipment:
Model 2500 from the X2 Series with IntelliSet installed in Advance® and APX™ controls.

Equipment Usage:
IntelliSet capability lets KLLM fine-tune refrigeration unit performance to improve fuel efficiency. Pre-set configurations optimize product protection for customers and help reduce driver errors.

For more information please visit www.trucktrailer.carrier.com



IntelliSet Helps KLLM Save *(continued)*

Managing temperatures inside a trailer involves far more than picking a single setpoint. Today's refrigeration controls offer settings for air flow, temperature variance, system response to ambient temperatures, and more – nearly 60 different operating parameters. As KLLM can attest, that degree of precision helps generate ultimate customer satisfaction, but it can be time consuming to configure without a tool like IntelliSet.

A top-10 refrigerated fleet with more than 2,200 refrigerated trailers, KLLM has used the IntelliSet application since its earliest iteration in the late 1990s. Recognizing the potential of IntelliSet to improve its operations, KLLM worked closely with Carrier Transicold and KLLM's Carrier dealer, Southern States Utility of Jackson, Miss., to test IntelliSet, as well as to pose challenges that helped evolve the product into today's offering. At KLLM the use of IntelliSet has become institutionalized – drivers and dispatchers are trained in its function to make certain proper settings are used, customers appreciate how it protects product quality and eliminates claims, and settings are updated during preventive maintenance checks for every unit.

"We worked as a team to progress the system," said Jim Richards, president and chief executive officer, KLLM. "Over the years we've gotten better at how we use it. It helps us to reduce our claims exposure with our customers, and it takes the driver out of the control equation somewhat.

"We talk to our customers about how they would like their products maintained," Richards said, explaining that about 70 percent of KLLM's customers are in the food and beverage industry, including national brands in poultry, frozen foods and produce. "We program the IntelliSet exactly how the customer wants it to satisfy their needs – even separate settings for yellow bananas and green bananas for one customer. The driver simply selects the customer mode needed."

Savings in the Settings

"Fuel savings has become an even bigger benefit over the last couple of years. In the past, we would often use continuous run mode," Richards said, attributing this to driver preference. "With IntelliSet, we program the unit to run based on customer spec's. If a customer doesn't require continuous run, we run the unit in start/stop mode, and that certainly saves fuel.

"We know for a fact that we've reduced the run hours on our units. Typically we would run each unit about 2,500 hours a year, and now we run about 1,600 a year," Richards said. That savings of about 900 fewer hours per unit each year translates into nearly two million gallons of diesel fuel saved by the fleet each year. The 36 percent reduced runtime not only saves fuel, but it brings an environmental benefit of reducing fleet carbon emissions by a commensurate amount.

By reducing refrigeration unit runtime by more than a third, maintenance intervals can be extended, which provide another "huge savings for us," Richards said, adding that reduced runtimes also improve resale value of the units.

KLLM uses its trailer tracking system to monitor conditions inside each unit, and eventually plans to use satellite telemetry to update and manage IntelliSet settings. This could remove the driver from temperature-setting responsibilities.

"The day may come in the near future that when we send a driver to pick up a load and know in advance what he's getting, we will set the unit for him from the office."

Technology and cost savings aside, it still comes down to customer satisfaction, according to Richards. "And at the end of the day, the goal is to provide premium service to our customers and to do so better than anyone else."

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The IntelliSet application is built into the APX control available with Carrier Transicold's latest refrigeration units.



With more than a half century in the trucking industry, KLLM traces its roots to 1963 when the company founders started a truck brokerage business. Today, with nearly all of its refrigerated trailers equipped with Carrier Transicold units, KLLM specializes in providing high-quality transportation services in North America, hauling temperature-controlled and dry commodities, such as food, medical supplies, paper products, chemicals and cosmetics.



With IntelliSet settings preprogrammed to customer specifications, KLLM's drivers can easily select the right profile for a specific haul, as this driver is doing via an Advance® controller on an X2 Series unit.