



LV-450

Dual Mode Communication

Track and control reefers anywhere.

Managers with refrigerated trailers in their fleets require an additional level of intelligence around the status and temperature of their trailers to stay compliant with food safety regulations such as in the U.S. FDA's Food Safety Modernization ACT (FSMA). When a refrigeration system breaks down, the problem becomes an urgent matter because temperature sensitive products such as food and pharmaceuticals can quickly spoil. The LV-450 enables users to monitor and remotely manage refrigerated trailers and cargo. The LV-450 was developed to address the need for continuous coverage where there may be gaps in cellular connectivity due to rural spots, cross-border applications, or natural disasters and extreme weather. It is a reliable dual-mode communication solution that includes LTE cellular data as the primary communication mode, and global

satellite communication from Iridium® as a backup to ensure the transmission of critical data.

Our seamless two-way integration with Carrier Transicold and Thermo King refrigeration units allow fleet managers to remotely control and monitor a reefer from their web browser and address any issues before it is too late. The solution delivers around-the-clock refrigerated trailer monitoring regardless of hooked or dropped status including location, set point temperature, inlet and outlet air temperature, fuel level (even when the reefer is turned off), and alarm events with notification occurring in real time. All conveniently accessible on our easy to use web-based software application. Additionally, our data integrates seamlessly with many fleet management systems such as TMW, McLeod, and AddOn Systems.

FEATURES

LTE CELLULAR WITH
SAT FALLBACK



2-WAY COMMAND/CTRL TO
CHANGE SET POINT



- Full reefer monitoring of temperature, alarms, and operational status
- Remote two-way command and control temperature set point
- GPS tracking
- Dwell time reporting
- View hitched/unhitched and door open/closed
- Geofencing for accurate reporting of arrival and departure times
- Landmark reporting with fuel level capture upon arrival and departure
- Automated or desktop yard checks
- Carrier eSolutions and ThermoKing ConnectedSuite supported

PROBLEMS SOLVED

RELIABLE VISIBILITY

Continuous coverage for high-value, time or temperature-sensitive cargo and increased security.

COMPLIANCE

Provide proof of temperature for the entire trip.

REDUCE LOAD/LOSS DAMAGE

Prevent cargo claims or degradation of cargo quality with alerting on temperature out of range, unscheduled door openings, and route variation.

COST REDUCTION

Manage and reduce maintenance costs through engine hour tracking and improved scheduling.

FLEET PERFORMANCE

"Landmarks" to automatically show when trailers arrive and depart. Receive alerts to start billing for detention and capture fuel levels.



Intelligent Logistics

The LV-450 delivers continuous coverage to keep fleets connected via dual-mode communication. It provides critical insight on status and condition of your refrigerated trailer fleet. Tethered or untethered, the LV-450 updates you with out-of-range alert notifications, fuel level status, landmark arrival and departure, and the accurate proof of temperature information you need to manage your food safety compliance. Simplify your maintenance program by automatically recording refrigeration unit engine hours and fault codes, helping you schedule preventative maintenance and real-time temperature management and control at all times.

WHY CHOOSE A DUAL-MODE CELLULAR-SATELLITE DEVICE?

Fleets can reduce the risk of network failure and coverage gaps by taking advantage of both the broad geographic coverage offered by satellites and high-volume, low-cost data transmission over cellular networks. Dual-mode connected solutions are ideal for fleets to address some of these challenges:

Coverage Gaps: Cellular coverage has made significant strides in the last decade however, there are still areas where it is patchy such as rural and mountainous areas. Without continuous connectivity, fleet operations managers can't react to issues in real-time.

Natural Disasters: Hurricanes, ice storms, tornadoes and other extreme weather conditions can take down cellular

networks and in some cases it could take weeks to get them up and running again.

Network Congestion: In contrast to traveling in and out of rural areas, when assets move into heavily populated areas can create spikes and bandwidth issues in cellular networks, resulting in delayed transmissions or outages.

Customer Satisfaction: The relationship between shippers and carriers is growing more critical in the aftermath of v-19. Customers want improved transparency and reliable service. A dual-mode device ensures accurate reporting and timely notifications such as estimated arrival times, delays, load/unload status, and dwell times.