



# CASE STUDY



## Motorcars Toyota

### CARRIER ROOFTOP UNITS AND WI-FI® THERMOSTATS WIN UTILITY REBATE, DELIVER EFFICIENT COOLING

#### CARRIER ROOFTOP AND CONTROLS SOLUTION DELIVER PRECISE COMFORT AND UTILITY REBATE



The Carrier 48LC WeatherExpert® high-efficiency rooftop units qualified for a \$4,472.00 energy rebate, partially offsetting their first costs.

#### Project Objectives

Motorcars Toyota is a family-owned car dealership in Mayfield Heights, Ohio. The 30,000 ft<sup>2</sup> facility struggled with an 18-year-old rooftop unit that had become unreliable and inefficient, jeopardizing both the comfort of customers and staff, and the energy and maintenance costs of the company. The old heating, ventilating and air conditioning (HVAC) system also had outdated controls that were neither secure nor easily accessible to the owner. Management required that the replacement equipment be both highly energy efficient and reliable. In addition, the new controls solution would need to maximize overall system efficiency and provide dealership management with real time, remote access.

**“The Connect thermostat is easy to use and makes it possible to have different areas of the dealership on different HVAC schedules, according to their needs.”**

– Matt Gile, President, Motorcars Toyota

#### Project Solution

Motorcars Toyota selected Refrigeration Sales Corporation (RSC) to help them choose replacement units that would be highly efficient and reliable, with controls that maximized efficiency and kept the dealership management in touch with the HVAC system, no matter where they were. RSC’s Peter Eno provided modeling using Carrier Commercial Invest Rooftop Payback Analyzer to demonstrate the cooling cost savings of the Carrier 48LC WeatherExpert® rooftop unit. RSC also recommended the Carrier Connect™ Wi-Fi®-enabled thermostat, which allows the management to view and adjust the HVAC system via smartphone or tablet from any Wi-Fi-enabled location. The high-efficiency rooftop units also qualified for a \$4,472.00 energy rebate, partially offsetting their first costs.



## Synopsis

The family-owned Motorcars Toyota dealership located in Mayfield Heights, Ohio is a company which strives to create "customers for life." To accomplish this, they work to make each customer's experience a positive one at every point of contact within the organization. That means the dealership facility must be a comfortable and welcoming place. However, the 30,000 ft<sup>2</sup> facility was struggling with an 18-year-old rooftop unit that had become unreliable and inefficient, jeopardizing both the comfort of customers and staff, as well as the energy and maintenance costs of the company. The old heating, ventilating and air conditioning (HVAC) system also had outdated controls which were neither secure nor easily accessible to Matt Gile, the President of Motorcars Toyota. The Gile family consulted their mechanical contractor, Ken Castro of Tri-C Sheetmetal, who recommended Carrier replacement units based on his positive previous experience with Carrier products.

Motorcars Toyota worked with Refrigeration Sales Corporation (RSC) to select replacement units that would be highly efficient and reliable. RSC's Peter Eno provided modeling using Carrier Commercial Invest Rooftop Payback Analyzer to demonstrate clearly the short return on investment and ongoing cooling cost savings of the Carrier 48LC WeatherExpert® rooftop unit. Eno said, "Customers manage decisions that they can easily measure. Commercial Invest is the most reliable ruler to measure the difference in rooftop unit efficiencies. When a client has the facts, it's easy to decide on a high-efficiency unit."

The Carrier 48LC WeatherExpert rooftop unit is a single-packaged unit that provides gas heating and electric cooling. Due to high part-load efficiency, the 48LC rooftop unit provides very high efficiency comfort cooling year-round, and is ideal for single-zone

variable air volume systems, which makes it well suited for a facility such as Motorcars Toyota. It is available in various sizes, from 3 to 23 tons of cooling capacity.

To address the need for management to have remote access to the HVAC system, Refrigeration Sales Corporation recommended the Carrier Connect™ Wi-Fi®-enabled thermostat. The Connect thermostat allows the management to view and adjust the HVAC system via computer, smartphone or tablet from any Internet-enabled location. The thermostat controls both fan speed and humidity, has seven day scheduling, and provides password-protected access to the system, so that no unauthorized changes can be made.



Matt Gile, President of Motorcars Toyota, said, "The Connect thermostat is easy to use and makes it possible to have different areas of the dealership on different HVAC schedules, according to their needs. We're open seven days a week, except for a couple of holidays. We have the system respond when everyone leaves a given area, so we're not wasting energy on empty departments."

The high-efficiency 48LC WeatherExpert rooftop units won Motorcars Toyota a \$4,472.00 energy rebate, offsetting their first costs. The low cost of cooling demonstrated by the 48LC units in the Commercial Invest modeling also led the company to select the same units for two of their other facilities.

## Project Summary

**LOCATION:** Mayfield Heights, OH

**PROJECT TYPE:** Retrofit

**BUILDING SIZE:** 30,000 ft<sup>2</sup>

**BUILT:** 1999

**FACILITY USAGE:** Car dealership

**OBJECTIVES:** Replace outdated equipment with high efficiency, reliable units for comfort cooling for customers and staff; centralize control of system, and provide remote access

**EQUIPMENT:** 11 Carrier 48LC WeatherExpert® rooftop units

**CONTROLS:** Carrier Connect™ Wi-Fi®-enabled thermostats

**TOTAL COOLING TONS:** 243

**MAJOR DECISION DRIVERS:** Lower energy costs for HVAC system, as demonstrated by Commercial Invest software; more reliable comfort cooling; utility rebate; ability to view and control HVAC system from smartphone

**INSTALLATION DATE:** 2017

For more information, contact your Carrier representative, call 1.800.CARRIER or visit [carrier.com/commercial](http://carrier.com/commercial)

