CARL (Computer Assisted Remote Lifting) is an optional control platform for Lift Systems’ current Power Tower Hydraulic Gantry Line. Using state-of-art technology, the operator is informed of all important aspects of the gantry system and lifting operation, such as lift height, travel distance, and system pressures, at all times. Synchronization of lift, travel, and side shifting, allow for precise operation of the System with the greatest of ease.

The CARL control module interacts with all functions of the machine and provides feedback to the operator in an easy-to-read and easy-to-navigate platform. The portability of the 7 lb. control module allows the operator the optimal view of the lift at all times. Radio Remote Control is also an option with the CARL System. All functions of the unit can be performed from a wireless belly pack with an emergency stop button standard.

Unsafe situations are minimized with the CARL System. Visual and audio warnings, with automatic shutdown for out of tolerance conditions, ensures a safer lift. Operator acknowledgement of warning messages is required with the CARL System. Constant monitoring of the gantry system via an electric-over-hydraulic platform gives the operator feedback on the status of system components like never before.

Most existing Lift Systems’ Power Tower Hydraulic Gantry Systems can be retrofitted with the CARL System. Contact your representative for details and pricing!
The first critical step in performing a successful lifting operation with a hydraulic gantry system is proper setup with a strong foundation and level runway track. Proper operation is just as critical as the foundation. Information will assist your operator to perform the lift safely and efficiently. The main lifting page for the CARL Control System provides your operator with the most critical data required all on one screen. No other manufacturer has a system to provide all of the data in one place, requiring the operator to search through the control system screen to find the data they require, thus taking their attention away from the most important item to monitor during a lift — THE LOAD!

<table>
<thead>
<tr>
<th>Warn/Alarm</th>
<th>Leg 1</th>
<th>Warn/Alarm</th>
<th>Leg 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift Height</td>
<td>0.0 IN</td>
<td>Lift Height</td>
<td>0.0 IN</td>
</tr>
<tr>
<td>Pressure</td>
<td>0.0 PSI</td>
<td>Pressure</td>
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<td>Distance</td>
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<tr>
<td>1st Stg</td>
<td>2nd Stg</td>
<td>Cyl Ret</td>
<td>1st Stg</td>
</tr>
<tr>
<td>Warn/Alarm</td>
<td>Leg 3</td>
<td>Warn/Alarm</td>
<td>Leg 4</td>
</tr>
<tr>
<td>Lift Height</td>
<td>0.0 IN</td>
<td>Lift Height</td>
<td>0.0 IN</td>
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<tr>
<td>Pressure</td>
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</table>

From the main lifting page with CARL, the operator is able to:

- Change which legs are activated for operation
- Change which jacks are in freewheel or drive mode
- Turn the synchronization feature on and off
- Toggle between lift, propel, and side shifting functions
- Reset travel distances
- Monitor individual jack height, cylinder pressure, distance traveled, and overall wedgelock engagement status
- View warnings which will appear if an unsafe condition is detected and also determine which jack or jacks require further attention to continue with the lifting operation
The combination of the WedgeLock redundant drop prevention feature and the CARL Control System make Lift Systems’ Power Towers an easy choice, because safety is everyone’s paramount concern. Knowing the status of the safety features incorporated into a machine will give you piece of mind it is functioning properly.

Each wedge of a Wedgelock equipped Power Tower has a sensor to let the operator know the wedge is disengaged when extending or retracting the system. If the sensor reads that the wedge is still engaged, the lift/lower function will be disabled.

This page of the CARL System is designed to immediately show the operator the location the wedge or sensor that may require adjustment or service. If it is determined that the wedge is working properly by the appropriate authority, the wedge sensors may be overridden to allow continued operation of the system until proper replacement or adjustment of the wedge sensor can be made. Extra care is imperative when operating a machine in this state.

NOTE: ONLY PROPERLY TRAINED AND QUALIFIED INDIVIDUALS SHOULD DETERMINE IF IT IS APPROPRIATE TO OVERRIDE ANY SAFETY DEVICE SENSOR. LIFTING OPERATIONS SHOULD CEASE AND THE FACTORY BE CONSULTED IMMEDIATELY SHOULD THERE BE ANY CONSIDERATION IN OVERRIDING A SAFETY DEVICE SENSOR WITHOUT DIRECT APPROVAL FROM A PROPERLY TRAINED AND QUALIFIED AUTHORITY.
Depending on the scope of work you are performing, or the client you are performing the work for, different units of measurement may be a necessity. With the CARL Control System, it is possible to toggle between metric and English units of measure with the press of a button, and without affecting operation of the unit. Once the unit of measure is changed, all information is immediately updated throughout the system.

- **HEIGHT CAN BE DISPLAYED IN:**
  - INCHES
  - FEET
  - METERS
  - CENTIMETERS

- **WEIGHT CAN BE DISPLAYED IN:**
  - POUNDS
  - TONS
  - KILOGRAMS
  - METRIC TONNES

- **PRESSURE CAN BE DISPLAYED IN:**
  - PSI
  - BAR
When overhead obstructions become a factor, CARL is there to make life easier with the Maximum Height Control Feature. Input the height of your runway track, the height of your lifting beams, lifting links, side shift dollies, and the overall height that the gantry system should be allowed to extend to, and CARL will take it from there. Once the programmed maximum height is achieved, the CARL System will automatically cease extending the gantry system. The unit may be lowered at this point and extended again, but it will never extend past the specified height as long as the Maximum Height Control Feature is enabled. Disable the feature, and the operator may resume lifting to the maximum height of the gantry system. Give your clients peace of mind that their pipe racks, electrical lines, lighting, and building roofs are protected while you perform your work.
Options are what CARL is all about! Our multi-language option allows for your gantry system to operate in up to three languages, one of which must be English. The multi-language setup of your unit can be done prior to completion at the factory. Simple, easy to complete, Microsoft Excel spreadsheets will be emailed to you for translation and upon return, downloaded into the CARL Program. This feature will allow you to use native terminology to your language, region, and even within your own organization to make your CARL equipped hydraulic gantry truly your own!

Currently there are CARL equipped machines operating in the field with Turkish, Italian, Portuguese, French, German, Spanish, Japanese, and English language platforms.