



# JENE-PCLCD Specifications

## 1. Product Description

LCD is a small operator panel required to be used together with the JENEsys PC1000/6000 family of products or JACE 2/6 family of products.

The operator panel gives the user access to parameters without communicating directly to the BAS system. Additionally, it monitors status, adjust set points, set schedules, acknowledge and clear alarms and perform other functions as required by the user. All values are displayed with explanatory text in the alphanumeric display window.

## 2. Nomenclature

### Alarms

Alarms indicate that there has been a change in a point that warrants the user's attention.

### Backlight

The form of illumination used in a LCD display. Backlight is used in small displays to increase readability in low light conditions.

### Boolean Point

A changeable value that is binary (e.g. True/False; Off/On).

### Default

A setting or value automatically assigned to the JENEsys™ PC Series LCD Operator's Panel outside of user intervention.

### Device Timeout

A specified period of time elapses before a specified event is to take place. In the case of the LCD operator's panel, the system must revert to sign on and the user must login again.

### Edit

This function requires the user to make changes to settings in the system. Once the user saves changes, it must update the underlying settings in the LCD and becomes permanent.

### Fallback

The "default" value of a writable point. When all inputs (1-16) on the point are null, this must be the "out" value.

### JACE 2/6

The Tridium trade style for Lynxspring's JENEsys™ PC1000/6000.

### JENEsys™ PC1000/6000

The Lynxspring trade style for Tridium's JACE 2/6.

## **LCD**

A liquid crystal display (commonly abbreviated LCD) is a thin, flat display device made up of any number of color or monochrome pixels arrayed in front of a light source or reflector. It uses very small amounts of electric power, and is therefore suitable for use in battery-powered electronic devices.

## **LED**

Stands for light-emitting diode, and is a semiconductor device that emits incoherent narrow-spectrum light.

## **Operator's Panel**

The entire assembly of the LCD: including circuit boards, connecting devices and display.

## **Out**

The output value of a control point.

## **Page**

The user-defined display of information accessed via the bottom arrow keys on the display.

## **Passcode**

The code necessary to access the LCD. The passcode must be modified by the developer and must be a four character numeric value.

## **ProBuilder™**

The Lynxspring trade style for the NiagaraAX™ software development environment. This software is called WorkPlaceAX by Tridium.

## **Schedules**

Schedules are regular, repeating events by "time-of-day" and "day of week," and must be used to control points in the system.

## **Scroll Indicators**

Arrows that must be displayed on the top and/or bottom rows of the display to indicate that there is more information on the page. The scroll function must be accessed via the side arrow up/down keys and allows information to exceed a single LCD display window.

## **Sort Order**

Value set on the LCD extension code that controls where on a page the value is displayed relative to other items. Extensions with a sort order of 0 must be sorted alphabetically after any extensions with a numeric sort order.

## **System Settings**

System Settings must provide the user a way to change the current time and date, as well as the time zone (including Daylight Saving Time, if it applies.)

### **WorkPlaceAX**

The Tridium trade style for the NiagaraAX™ software development environment. This software is called ProBuilder™ by Lynxspring.

### **Writable**

Value set on the LCD extension that must control whether the point is writable through the LCD interface.

## **3. Compatibility**

LCD must be compatible with the JENE-PC1000/6000 or JACE 2/6 and set up must be within ProBuilder or WorkPlaceAX via a module file.

## **4. Open Architecture**

LCD must be compatible with the NiagaraAX software development environment.

## **5. Display Functions and Characteristics**

The LCD must support a passcode to view the menu screen. There must be four functions on the menu screen: points, alarms, scheduling, and system settings. Points must display the title of the user's choice. Alarms must indicate that there has been a change in a point that warrants the user's attention. Schedules must be able to be modified by the LCD and control points in the system. System Settings must be used to change the current time and date, as well as the time zone (including Daylight Saving Time, if it applies.)

## **6. Navigation**

All display functions must be viewed by using the arrow keys to navigate, which must move the cursor up or down or from screen to screen.

## **7. Functions**

**Password Protections** – A password must be entered on the display menu page to access Points, Alarms, Setup and Schedules.

**Readable Points** – Readable points require the user to select in Niagara software whether the point can be written to or not through the LCD. If set to readable, the point must be displayed on the LCD and without a solid line underneath. If set to not writable (readable), the point must show a dashed line underneath when displayed on the LCD

**Writable Points** – Writable points require the user to select in Niagara software whether the point can be written to or not through the LCD. If set to writable, the point must be displayed on the LCD and will show a solid line underneath. If set to not writable, the point must show a dashed line underneath when displayed on the LCD.

**Schedule Modification** – Schedules must control points in the system. The LCD module must support “Boolean” schedules, that is, you must turn items on or off based on the time and the day of the week. Schedules must be created in ProBuilder or WorkPlaceAX but required to be modified through the JENE-PCLCD.

**Alarm Handling and Acknowledgement** - Alarms are used to indicate that there have been changes in a point that warrants the user’s attention. The LCD module must show alarms, and must allow the user to acknowledge the alarm. Set of alarms must be done using ProBuilder/WorkPlaceAX.

**System Settings – Time and Date** - System Settings must support changing the current time and date, as well as the time zone (including Daylight Saving Time, if it applies.) The time and daylight savings must default to the value set on the controller.

**Backlight** - The backlight must turn on when any key is pressed on the LCD. Once the LCD has been inactive for 30 seconds the backlight must shut off.

**Scroll Indication** - The scroll indicator must point in the direction where more information must be displayed. When the LCD is set up to display more than 6 points per page, scroll indicators must appear to indicate that more information is available.

**Log Off** - If the LCD has been idle for the amount of time set in the program in the controller, the user must be required to re-enter the passcode to gain access to the points. The Device Timeout must be set between 30 seconds – 1 hour.

## **8. Uninstalling LCD**

Users must be able to install the LCD and use it on a different controller.

## **9. Programming**

LCD must be programmed using ProBuilder/WorkPlaceAX software.

## **10. Documentation**

LCD must be accompanied by complete documentation that includes: connecting the LCD and basic functions, detailed set up, installation and uninstalling requirements, terminology and definitions, index, and detailed examples of installation with appropriate screen shots.