

# UTICOR

## Visualization Products

Feature Rich, Easiest-to-Use & Cost Effective



### Operator Interface Products for Every Need

Touch Panel HMIs -- Text Panels -- Marquees  
Industrial PCs and Software -- Industrial Monitors

**AVG**  
Automation

**UTICOR**

**AUTOTECH  
CONTROLS**

## A Brief Overview...

AVG, an American Group of companies, is vertically integrated to design and manufacture state of the art electronic products, cost effectively, for the best Return On Investment for our customers.

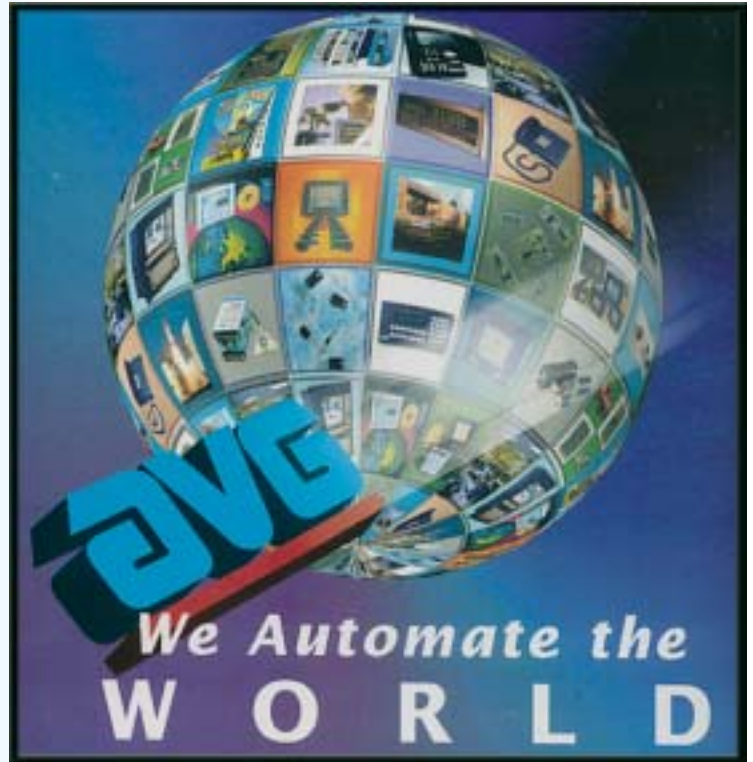
## Significant Highlights & Core Competencies...

- Established in 1975, AVG has introduced more than 500 innovative new products.
- Extensive hardware, firmware, & software design capability, in Illinois & Iowa.
- Hold 20+ Patents & 7 New Pending
- Has an install base of over \$1 Billion in fortune 500 companies such as Ford, GM, P&G, Abbot, Miller, & IBM.
- PCB fabrication.
- 3 EMS Plants for Complete Turn Key Assembly & Box Build.
- Thick Film Hybrids.
- One of the largest semi-conductor FABs.
- Known for "Uticor Tough," High Reliability, HALT-HASSed Products, designed to operate in harsh industrial environments.
- In the fore-front of High Technology such as BGA and controlled impedance high density board products.



## Industry Leadership

AVG Products are featured on the front cover of New Equipment Digest and IAN.



First established in 1968 as Struther Dunn's Systems Division, UTICOR became part of AVG in 1995. In the early 1970s Uticor did pioneering, patented work on PLCs, used widely for welding controls in automotive plants. In collaboration with Ford, Uticor performed fundamental research on welding controls.

Uticor products have earned a reputation for being highly reliable & robust while performing very well in the



harshest industrial environments. The industry recognizes this by calling Uticor products "Uticor Tough," or by acknowledging that the Uticor products are "built like a tank."

These "Uticor Tough" products are enhancing productivity in several Fortune 500 companies, such as GM, FORD, Chrysler, Kimberley-Clark, Miller Brewing, etc.

Best known for its PMD message displays and marquees, Uticor has been acknowledged in numerous trade studies as the most recognized name for such products.

# ...Highlights

## Widest Variety of Visualization Products for the Automation Industry.

Top-of-the-line features, Easiest-to-Use & most Cost-effective.



Bettendorf, IA.



Quick "Cheetah-like" response to custom products.



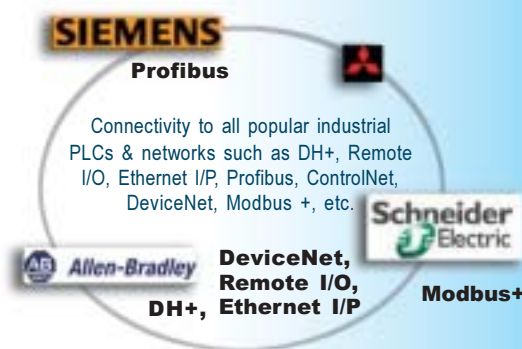
More than **200** different products offered, from inexpensive 2-line text displays to 17 inch industrial PCs and everything in between.

Offering Plug-n-play replacements for products made obsolete by other manufacturers.

All products designed & manufactured in the USA.

**One Source** for Text Panels, Touch Panels, Marquees, Industrial PCs, Flat Panel Monitors, & Visualization Software.

"Uticor Tough" products "built like a tank" to minimize plant downtime.



### PowerPanel™

Intuitive & Simple-To-Use Touch Panels from 6" to 15" Sizes with connectivity to most major PLCs & industrial networks. (See Pages 5-12)



### PowerText™

Text panels, available in various sizes with connectivity to major PLCs. (See Pages 13-16)



### PowerMarquee™

Marquees, available in different sizes for plant-wide communications. (See Pages 17-23)

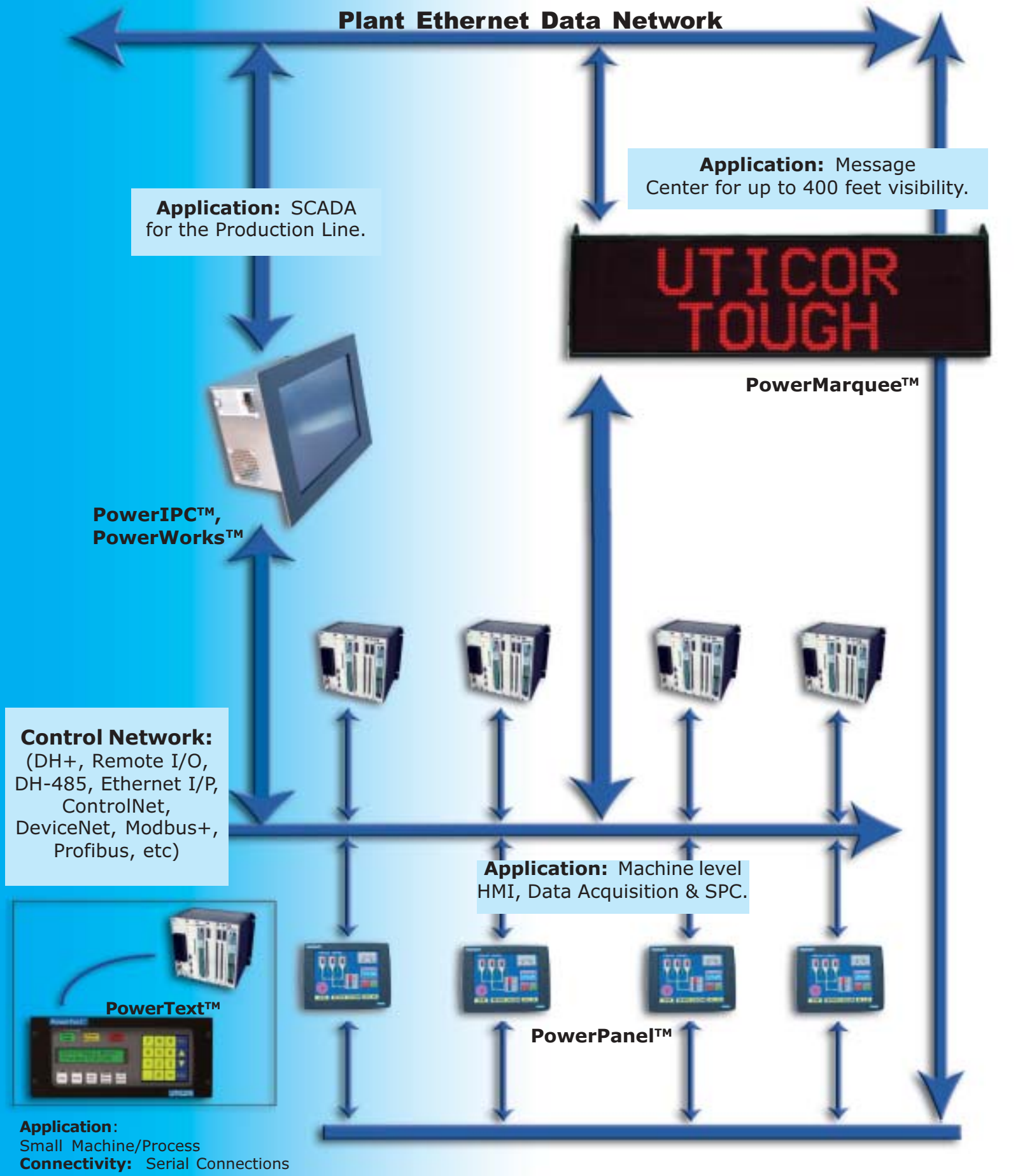


### PowerIPC™ & PowerWorks™

Industrial PCs, Industrial Flat Panel Monitors, visualization software. (See Pages 24-30)

# UTICOR Visualization Products on Plant Floor

## All Networked Together to Increase Productivity



# PowerPanel™

## Much More than an Operator Interface!

**V**isualization   **D**ata Acquisition   **S**tatistical Process Control  
**7 Patents Pending!**

Touch Panels are increasingly used in machines and processes to replace hard-wired control panels, text panels, and high-end workstations. But many Touch Panels available today are not so easy to program and have limited graphics. Licensing and cost of programming software is always an issue.

Uticor invested 100,000+ engineering hours to address these issues in its new family of G2 and Q2 panels. While designing these Panels, Uticor set the following goals:

1. The screen design should be very simple. Any one who has worked with PCs & Windows should be able to design screens without training.

**“Screen Design so simple,  
even your CEO can use it in minutes.”**

2. Simplicity should not come at the cost of features. In fact, PowerPanel’s features rival those of more expensive workstation based HMIs.
3. Design PowerPanel to be much more than just an Operator Interface. Consequently, the Data Acquisition and SPC features were added to the Panel making it very useful for Operators, Maintenance personnel, Process Engineers, and Quality Control.

**“Features so rich,  
your CCO would want it now.”**

4. The Panels should be cost effective.

**“Prices so good,  
that your CFO would love it.”**

The Following pages illustrate how we achieved our goals.



- **DAZZLING GRAPHICS, yet incredibly simple to use.**
- **FREE Software & Upgrades**
- **NEMA 4x: Class 1, Div II, Stainless Steel Option**
- **Connectivity to Most Major PLCs: DH+, Modbus+, Remote I/O, Profiles, Ethernet**
- **Plug & Play Replacements for Competitor Obsolete Panels**
- **Data Acquisition, SPC & Communication to Excel**
- **The One & Only Panel with Online programming**

# Intuitive & Simple to Use

Full 32-Bit Windows attributes to develop screens in the shortest time.



## Easy as 1-2-3

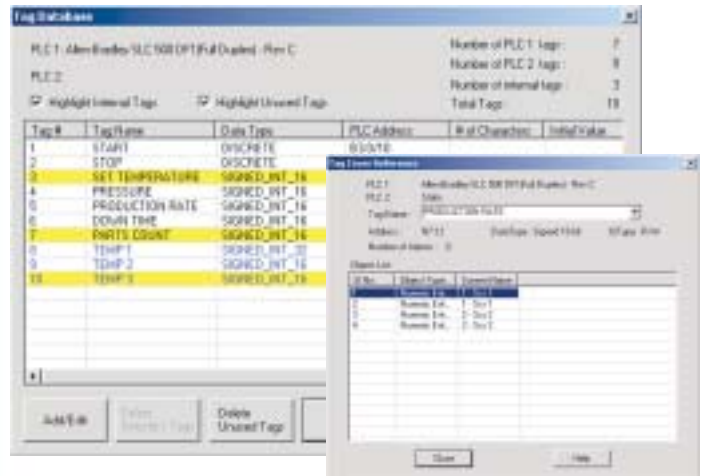
One of the key goals was “ease-of-use.” The programming software for the new panels is very intuitive, requiring virtually no learning curve. If you are familiar with Windows applications, you will be designing screens within minutes.

## Tag Based Addressing Saves Time

The PLC addressing uses Tag names, so that you can associate meaningful, easy-to-remember names to the addresses. Additionally, Tags are useful if you use different PLCs with the same HMI program. You will need to design the HMI program only once! Then just change the Tag definitions to match the PLC you have to use — a wonderful time saving feature.



You can also export the Tag database to a CSV file or to an excel application. With UTICOR’s PowerPanel editor you can monitor tag values. You can read as well as write to tags in PLC. This allows you to use Powerpanel editor to monitor PLC variables for diagnostic purposes (or any other purpose) without using PLC’s ladder logic editor. (Panel editor does allow entry of PLC addresses in their native format also without the use of tag names.)

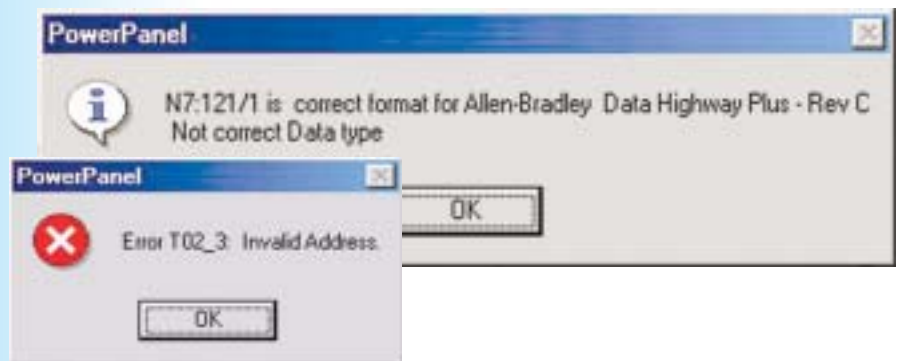


*PowerPanel editor has several convenience features built-in to save you development time. You can highlight unused tags for error checking & cleanup. The cross-reference feature offers fast where-used list for tags.*

## Syntax Checking of Address

PowerPanel editor’s intelligent software checks for the PLC address syntax as well as the correct data type, at the time of its entry, making PowerPanel’s programming software virtually error-proof.

By finding simple mistakes formed at the beginning of the programming process, this simple feature found on UTICOR’s PowerPanels can save your company both time and money.



**“Screen design so simple,**

# PowerPanel™

**Much More than an Operator Interface!**

**V**isualization    **D**ata Acquisition    **S**tatistical Process Control

## Same Feature Set & Programming Across all Sizes & Models



All models have the same feature set & are programmed using a single, **FREE software**. You can very easily switch from smaller panels to large panels & vice versa.

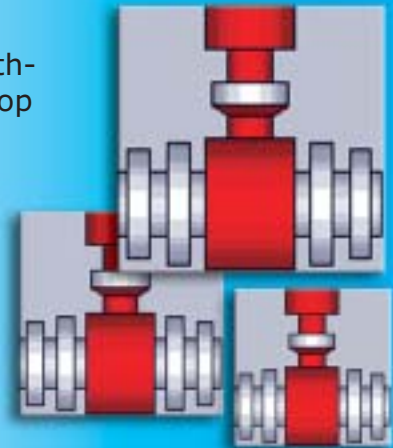
### Resize Bitmaps within Editor

The PowerPanel uses vector-based designs for the panel components & imported bitmaps. This gives the user unlimited scaling of the objects without distortion & saves them from having to go to programs like Photoshop to scale the bitmaps.

In addition to the distortion-free scaling, the vectorbased designs use PowerPanel memory very efficiently, allowing almost 500 screens of reasonable complexity to fit within 512 KB of memory.

### Import/Export to Excel

PowerPanel allows you to export data from several objects to a PC network. You can export data from Trend Graph, FIFO Tables and Alarm History. You can also import tag and message data from an Excel Spreadsheet to the panel.



### Unique ON Line Programming

PowerPanel is the ONLY panel in the market that allows you to edit screens and collect PLC data while the panel is communicating with the controller. This feature cuts down machine start-up and diagnostic time dramatically.

### Programming over Ethernet

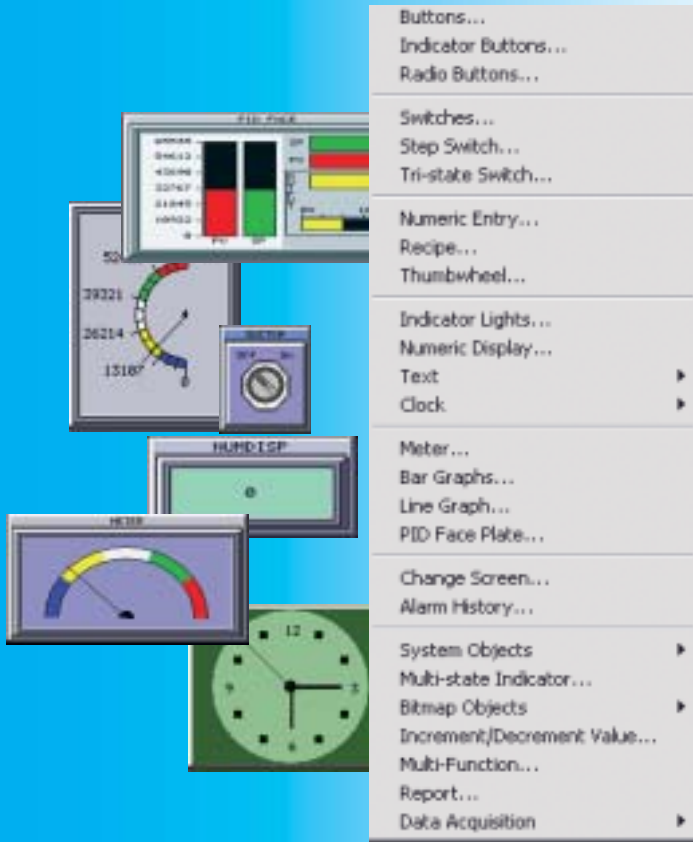
With our optional Ethernet to Serial adapter, you can program the PowerPanels over Ethernet running standard TCP/IP protocol. You can even do the online programming over Ethernet, allowing you to make modifications to installed PowerPanels from the convenience of office (which may be half way across the world).

***even your CEO can do it in minutes.***

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# Simple to Use Yet Feature Rich



## Dazzling Graphics & 256 Colors

Though extremely easy to configure, these touch panels are much more than push-button & pilot-light replacements. These panels provide high-end panel components & compelling real-life graphics that you would normally expect only on an expensive PC-based software HMI. Additionally, with 128 colors, blinking abilities, and extensive bitmap support, the unit offers dazzling graphics that would please any discerning user.

## Pre-Built Panel Components

In addition to pushbuttons, indicator lights, numeric entry and displays, the PowerPanel offers panel components such as Analog Meters, PID Faceplates, Bar Graphs, Trend Graphs, Alarms, Recipes, Radio Buttons, Thumbwheels, a variety of Switches, and a rich library of bitmaps.

Also, the user can select from a palette of 128 rich colors for all these components. Each color can be selected to blink in order to create components that will grab the operator's attention.

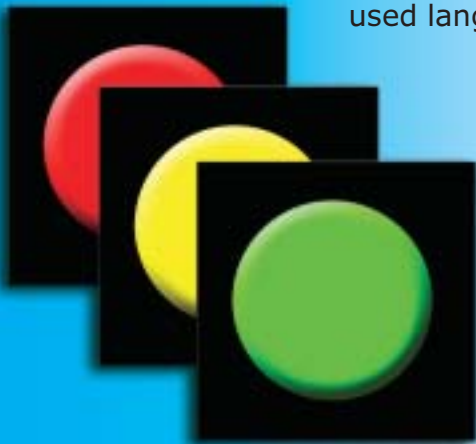
## Multiple Languages

With PowerPanel's multiple language capabilities, you can now program the text for Panel components in up to 9-different languages. This means English reading operators can work with the panel in English, while the Spanish proficient operators can work in the Spanish language on the same panel. Also, with up to 9 different languages, OEMs exporting to other countries can develop programs to cover many of the commonly used languages.



## Multi-state Indicator & Bitmap Buttons.

The multi-state indicators allow you to visualize process conditions, such as three states of a traffic light. PowerPanel also offers Bitmap-based multi-state indicators, where you can use up to 256 bitmaps to indicate 256 different conditions. The bitmaps allow you to design very intuitive screens.



*“Features so rich,*

# PowerPanel™

## Much More than an Operator Interface!

**V**isualization    **D**ata Acquisition    **S**tatistical Process Control

### Math-logic/Multi-function Buttons, Overlapping Objects

In addition to allowing the overlapping of touch objects, PowerPanel offers a sophisticated control, called the Multi-function button. As the name implies, this button allows you to perform multiple functions, including Mathematical and Logical operations, with the touch of one button. For example, you can set/reset multiple bits & transfer constants or variables or expressions to tags. Remarkably, this Benefit allows a user to perform up to 20 operations with one button (and several buttons can be overlapped). PowerPanel also allows you to perform these Multiple functions under the PLC control- a very useful feature to offload mathematical & logical computations from the ladder logic to the panel.

### Alarms

PowerPanels offer a sophisticated Alarm system. It allows you to monitor events (bits), and values (registers). The values can be monitored for a variety of conditions (=, >, <, in/out of range).

The alarms can be selectively displayed, printed and/or logged.

#### Move

Allows to Set a bit, Reset a bit, & move a constant or variable to another variable.

#### Math

Absolute Value  
Add  
Division  
Modulo  
Multiplication  
Negate  
Round  
Subtract

#### Logical

AND  
NOT  
OR  
Shift Left  
Shift Right  
XOR



### Flash Card & Flash-Firmware

G<sup>2</sup> & Q<sup>2</sup> PowerPanels use flash memory for it's firmware. This allows you to quickly upgrade the firmware in the field. You do not have to un-install the units, or send it to factory for any firmware upgrade.

**In addition, PowerPanel supports an optional flashbased plug-in module. This module can be used to back up the user program and provide program portability. For example, OEMs can use the convenience of the plug-in module to distribute upgraded versions of their programs to customers and plant engineers can modify or upgrade programs with out the use of programming computers on the plant floor.**

### Connectivity

The PowerPanel has the ability to connect to a variety of PLCs. PowerPanels communicate with most major PLCs, such as Allen-Bradley, Modicon, Siemens, GE, Omron, Mitsubishi. In addition to the serial drivers, PowerPanels communicate on DH+, Remote I/O, Modbus plus, Profibus, Ethernet/IP, DeviceNet networks, etc.



***your CCO would want it now.***

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# Much More than an Operator Panel

## Data Acquisition.

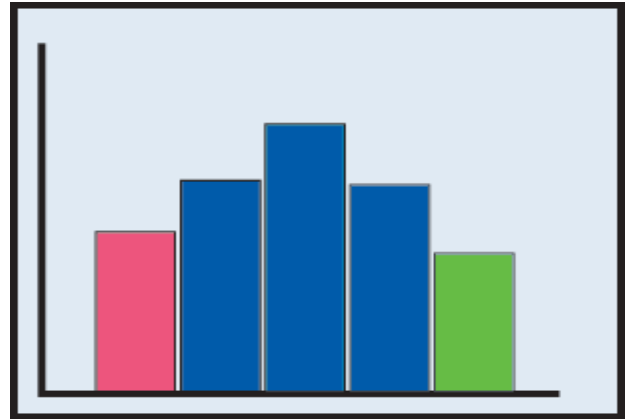
The PowerPanel is the only product in its class that offers Data Acquisition and SPC capabilities. Data can be acquired periodically, or based on an event. The acquired data is stored in a FIFO (First-in-first-out) buffer of user programmed length. The data so acquired can be used for SPC & be read over serial or Ethernet port.

## Statistical Process Control (SPC)

PowerPanel can perform a variety of Statistical computations on the data stored in the FIFO, which is useful for SPC (Statistical Process Control).

The PowerPanel performs and displays following computations:

- Mean or X-bar
- Range
- Mode
- Median
- Min-Max
- Cpk

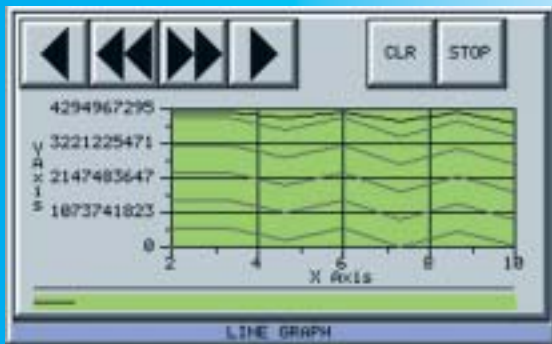
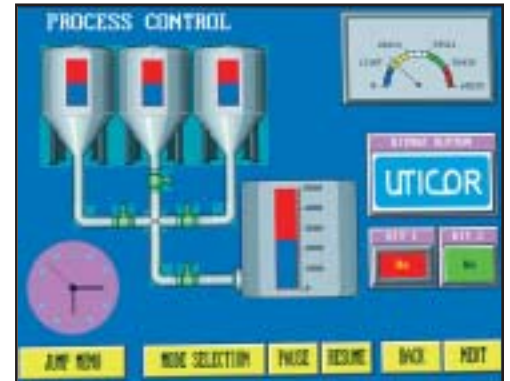


## Machine Diagnostics

With its extensive graphics, multi-state bitmaps, alarming & messaging capabilities, PowerPanels provide graphical machine diagnostics to quickly trouble-shoot the operation of machine/process.

## Monitor Tags

The PowerPanel editor allows you to monitor tag values. You can read as well as write to tags in PLC. This allows you to use Powerpanel editor to monitor PLC variables for diagnostic purpose (or any other purpose) without using PLC's ladder logic editor.



## Line Graph

PowerPanel offers you a powerful trend or line graph feature. One trend graph object can track up to 6 variables. You can have any number of such objects in your program. Readings are time or event-based, and are taken even if the graph is not on currently displayed screen.

In addition, the graphs allow you to scroll back & forth; moreover, the graph points can be read back by a PC, and exported to Excel spreadsheets.

## Automatic Data Collection Utility

PowerPanel offers a utility to collect data from the panel. The utility that runs on a PC can collect data using Panels programming port.

***“Prices so good,***

# PowerPanel™

**Much More than an Operator Interface!**

**V**isualization    **D**ata Acquisition    **S**tatistical Process Control

## Competitively Priced

In spite of high-end features, the PowerPanels are priced very competitively. With high-end feature set, FREE software & upgrades, and competitive prices, the PowerPanels offer the best value in the market.

## 3 Year Warranty.

PowerPanel's reliable design and Uticor's manufacturing quality allows us to offer a 3 year warranty making PowerPanel the only Touch panel product in the industry to offer you 3 years warranty.

## FREE programming Software

With our FREE programming software, you don't have to worry about licensing. Everybody can have their own copies, and keep them current without worrying about the maintenance fees.

## FREE Firmware Upgrades

Like the programming software, the upgrades to software and firmware are FREE to download from our website.



## Customization & Private Labeling

With hardware, firmware and programming software under one roof, Uticor is in a unique position to provide you customization of PowerPanel products, including private labeling.

## Replacement for Obsolete Panels & FREE Program Conversion

Uticor's PowerPanels are replacing several competing obsolete products. Uticor offers, in many cases, mechanically compatible units for competing products. That is, you can install powerpanels without making any change to your cutouts. Uticor even helps qualified customers in converting screens to PowerPanel screens FREE of charge.

## Uticor Tough/HALT-HASS

Uticor Products go through HALT (Highly Accelerated Life Test) to identify and eliminate components/areas likely to fail prematurely. HALT-HASS process simulates product life over the next 20 years of operation.

***your CFO will love it."***

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# PowerPanel™ Specifications

| G <sup>2</sup> Series | 6" Mono<br>6" Color STN  | 8" Color<br>STN                            | 10" Color STN<br>10" Color TFT                       | 15" Color TFT                |
|-----------------------|--|--|--|------------------------------|
| Display               | <b>Mono:</b> 4.72"x 3.5"<br>16 Grey Shades<br><b>Color:</b> 4.65" x 3.5"<br>128 Colors | 6.65" x 5.024"<br>128 colors               | 8.31"x 6.22"<br>128 colors                           | 12.02"x 9.02"<br>128 Colors  |
| Screen Pixels         | 320 x 240  | 640 x 480                                  |  |                              |
| Operating Temp        | 0-50 °C  | 0-45 °C                                    | <b>10" STN:</b> 0-50 °C<br><b>10" TFT:</b> 0-55 °C   | 0-55 °C                      |
| Ext Dimensions        | 8.576"x6.800"x 2.800"  | 10.516" x 8.212" x 2.800"                  | 13.168" x 10.124" x 3.035"                           | 16.100"x12.336"x4.208"       |
| Panel Cutout          | 7.54" x 5.64"  | 9.25" x 7.10"                              | 11.93" x 8.94"                                       | 14.96"x11.68"                |
| Display Brightness    | <b>Mono:</b> 140 nits<br><b>Color:</b> 180 nits  | 90 nits                                    | <b>10" STN:</b> 180 nits<br><b>10" TFT:</b> 200 nits | 250 nits                     |
| Touch Screen          | 48 resistive cells<br>(8 x 6 matrix)   | 192 resistive touch cells (16 x 12 matrix) |  |                              |
| Weight                | <b>Mono:</b> 2.2 lbs<br><b>Color:</b> 2.3 lbs  | 2.9 lbs                                    | 4.75 lbs   | 8.9 lbs                      |
| Power Input           | 20-30VDC 15 Watts @<br>24VDC   | 20-30VDC 16 Watts @<br>24VDC               | 20-30VDC 18 Watts @ 24VDC                            | 20-30VDC 33 Watts @<br>24VDC |
| User Memory           | 512Kb System RAM   |  |  | 1Mb System RAM               |
| RAM Modules           | 512Kb RAM Module, 1Mb RAM Module   |  |  |                              |
| Flash Modules         | 512Kb Flash Module, 1Mb Flash Module, 2Mb Flash Module                                 |  |  |                              |

| Q2 Series          | 6" Mono<br>6" Color STN"  | 8" Color STN<br>8" Color TFT                | 10" Color STN (AC & DC)<br>10" Color TFT (AC & DC)                     |
|--------------------|---|---|--|
| Display            | 4.72" x 3.5"<br><b>Mono:</b> 16 Gray Shades<br><b>Color:</b> 128 Colors | 6.65" x 5.024"<br>128 colors"               | 8.31" x 6.22" 128 colors   |
| Screen Pixels      | 320 x 240   | 640 x 480                                   |  |
| Operating Temp     | 0-50 °C   | <b>STN:</b> 0-45 °C<br><b>TFT:</b> 0-55 °C  | 0-50 °C  |
| Ext Dimensions     | 7.688" x 5.824"<br>x 2.2.209"   | 10.790"x8.500"<br>x 2.738"                  | <b>DC:</b> 12.480"x9.570"x 2.926"<br><b>AC:</b> 12.480"x9.570"x 3.375" |
| Panel Cutout       | 6.10" x 4.45"   | 10.20" x 7.92"                              | 11.89" x 8.98"   |
| Display Brightness | <b>Mono:</b> 140 nits<br><b>Color:</b> 180 nits                         | <b>STN:</b> 90 nits<br><b>TFT:</b> 200 nits | <b>STN:</b> 180 nits<br><b>TFT:</b> 200 nits                           |
| Touch Screen       | 192 resistive touch cells (16 x 12 matrix)                              |   |  |
| Weight             | 2.95 lbs  | 3.54 lbs                                    | <b>DC:</b> 4.72 lbs<br><b>AC:</b> 5.50 lbs                             |
| Power Input        | 20-30VDC<br>15 Watts @ 24VDC  | 20-30VDC<br>16 Watts @ 24VDC                | <b>DC:</b> 20-30VDC 18 Watts @ 24VDC<br><b>AC:</b> 100-250VAC, 25 VA   |
| User Memory        | 512Kb System RAM  |   |  |
| RAM Modules        | ---   | 512Kb RAM Module, 1Mb RAM Module            |  |
| Flash Modules      | 512Kb Flash Module, 1Mb Flash Module, 2Mb Flash Module                  |   |  |
| Replacement:       | <b>Mono:</b> Quick Panel Jr.<br><b>Color:</b> Quick Panel Jr.           | Quick Panel 9" EL                           | Quick Panel 10"<br>Panelview 900 & 1200"                               |

| General Specifications for All Models |   |
|---------------------------------------|---|
| Num of Screens                        | Up to 999<br>(Limited by Memory)  |
| Com Ports                             | <b>PLC Port:</b><br>RS232C, RS422A, RS485A,<br>15 pin D-Sub (Female)<br><br><b>Program Port:</b><br>RS232C, RS422A,<br>RS485A, 9-pin D-Sub (Female) |
| Storage Temp                          | -20 to +60 °C   |
| Humidity                              | 10-95% R.H.<br>Non-Condensing   |
| Vibration                             | 5-55 Hz, 2 G for 2 hrs<br>in the X, Y, Z directions   |
| Shock                                 | 10 G for under 12 ms<br>in the X, Y, Z directions   |
| Electrical Noise                      | NEMA ICS 2-230<br>showering arc<br>ANSI C37, 90a-1974 SWC<br>Level C Chattering Relay Test  |
| Enclosure                             | NEMA 4, 4X (Indoor)   |
| Agency Approvals                      | UL, CUL, CE   |

# PowerText™

Easy to Use, Feature Rich, Good Value

## A New Family of Text Panels from the #1 Recognized Name

While designing the PowerText family, Uticor set the goal of making it the easiest to use text panel for the operators. In addition to being operator-friendly the PowerText needed to be Programmer-friendly, and carry the same "Uticor Tough" legacy.

Uticor engineers achieved these goals by designing several features, including:

1. A PLC-message-indicator LED that clearly tells the operator whether the message on display is a PLC message (triggered by PLC) or a Local Message for machine setup & diagnostics.
2. Ability to arrange Local Messages in folders for organization & quick navigation.
3. Ability to display up to 3 data values within each line of display, & ability to extract these data values from any registers in PLC as against only one data value channeled through one register that requires extensive PLC programming.
4. An intuitive, easy to use, 32-bit Windows based software.



These features & FREE programming software, make the PowerText unit an Operator-friendly, as well as Programmer-friendly, or in a nutshell Easiest to Use, feature rich, and a very good value. Figure below illustrates this:

**PLC Message** indicator light for clearly indicating message type

**Customizable, Field Insertable** Legends on Annunciators and Pushbuttons

Bright user defined **Tricolor annunciators**, visible from a distance

Local messages arranged in **Folders** for quick navigation

Local Messages  
 - Setup Information  
 - Product  
     Enter Batch: 1111  
     Enter Pcode: 1111  
 + Machine  
 + Diagnostic  
 + Miscellaneous

PLC Messages  
 001: Setup mode  
 002: Err Code 1111-222-333  
 003: RUN MODE  
 004: Batch: 1111MM: 22YY: 33  
 005: Temp: 111F Pres: 22psi  
 006: Tot: 11111 Rej: 222

PLC Data, up to 32 Bit BCD or Binary for each variable, can be from random registers & does not need to be channeled through a common PLC register.

| Location | Data |
|----------|------|
| N7:100   | 234  |
| N7:110   | 66   |
| N7:111   | 23   |
| N7:112   | 111  |
| N7:113   | 4567 |
| N7:114   | 2    |
| N7:115   | 123  |

Messages with **embedded data** (Up to 3 per line)

Keypad and Up/Down arrow for **data entry**

User defined **LED and Pushbuttons**. Pushbuttons can be programmed as Momentary, Toggle, or Set by button-reset by PLC

# Connectivity & More Features!

## Connectivity to Major PLCs

PowerText communicates with most major PLCs on market such as, AB, Modicon, Siemens, GE, etc., using serial protocols. The drivers support reading/writing of 16 or 32 bit values in BCD and Binary formats. If your controller is not on the list, please consult factory for getting a driver developed for your controller.

- AB Micrologix DF1
- AB PLC5 DF1
- AB SLC500 DF1
- Direct Logic K Sequence
- Direct Logic DirectNet
- GEServer 90/30 SNPX
- Mitsubishi Melsec FX
- Modicon - Modbus RTU
- Omron Host Link
- Siemens S7



## Multiplexer

Because of serial protocol, only one PowerText communicates with the PLC. However, with a multiplexer, up to 5 PowerText units (any mix of models) can communicate with one PLC. The Multiplexer is very useful in situations where you would like to place multiple PowerText units at convenient points around your large machines/processes areas. A Unique architecture makes this Multiplexer super fast in responding to user & PLC inputs/outputs.

## Setpoint Unit with Bright LED Numeric Display

The PowerText family also includes a Setpoint Panel that offers a 16 character LCD display as well as a bright 8-digit LED display. The user can program up to 256 messages, which may be triggered by operator and, optionally, by PLC. The user can associate a PLC register with each of the messages.

The value of this PLC register is displayed on the 8-digit LED display. The operator can optionally modify the displayed-value or the set point.



## 3-Year Warranty

The high quality and ruggedness of PowerText family of products, like Uticor's PowerPanels, allows us to offer a 3-year warranty.

## Customization & Private Labeling

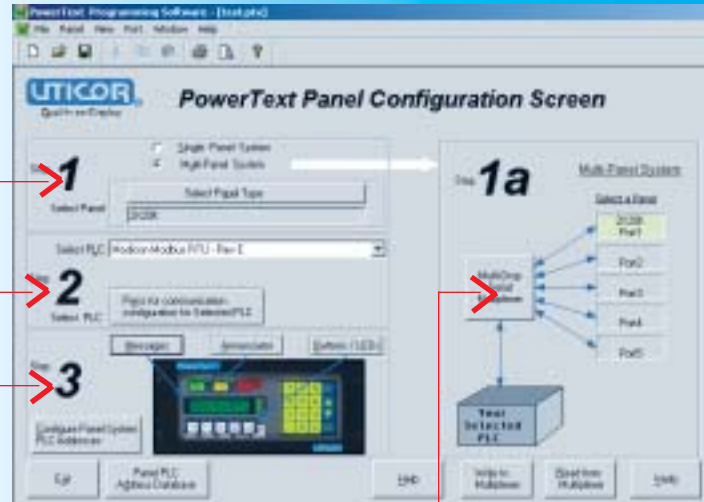
Uticor with its extensive engineering and manufacturing capabilities is ideally positioned to customize PowerText to meet your need. Please consult factory for Customization and private labeling.

# FREE, Intuitive, Programming Software

**1 Select Single or Multiple system and TextPanel Models.**

**2 Select Controller and program it's communication parameters.**

**3 Click the area or button to program messages, Buttons, or LEDs.**

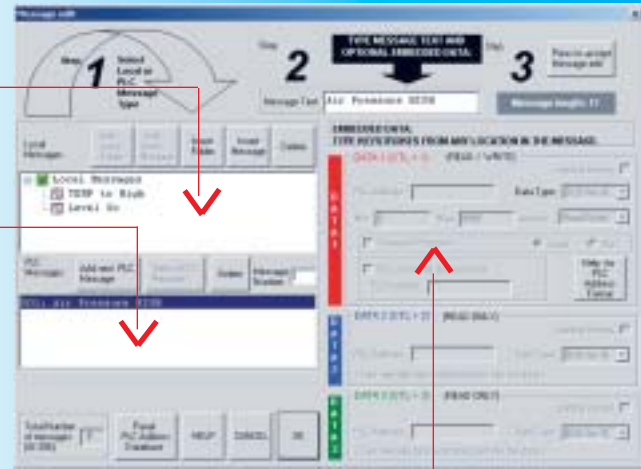


**System Diagram with Multiple panels**

**Local Messages**

**PLC Messages**

**Embedded Data for the Messages**



## A Very Good Value...

PowerText, with the best feature set of any text panel in its class, like PLC message indicator, bright TriColor enunciators, up to 3 embedded variables per line from random registers, folder organized local messages for quick navigation, customizable & field insertable Legends on Enunciators and Pushbuttons, keypad for data entry, and User defined LED & Pushbuttons, And Free Programming Software, represents a very good value for low-end operator interface applications.

## ...under \$500 List

**And FREE Programing Software!**



# PowerText™ Specifications

| Features Common to All Models |   |
|-------------------------------|---|
| Input Voltage                 | 24VDC (20-30VDC operating range)  |
| Enclosure                     | NEMA 4, 4X  |
| Agency Approval               | UL, cUL, CE   |
| Operating Temperature         | 0° to 45°C (32° to 113°F)   |
| Storage Temperature           | -20° to 60°C (-4° to 140°F)   |
| Humidity                      | 10-95% RH, (non-condensing)   |
| Electrical Noise              | NEMA ICS 2-230 showering arc<br>ANSI C37.90a-1974 SWC Level C Chattering Relay Test |
| Withstand Voltage             | 1000VDC (1 minute), between power supply input terminal and protective ground (FG)  |
| Vibration                     | 5 - 55Hz 2G for 2 hours in the X, Y, and Z axes                                     |
| Shock                         | 10G for under 12 ms in the X, Y, and Z axes   |
| Burn-in                       | Temperature cycled 96 hours and then fully functional tested                        |
| LED/LCD Life                  | 100,000 hours   |
| Serial Communications         | Download/Program/PLC Port RS-232/RS422/RS485<br>15-pin D-sub (female)               |



2X20L



2X20N



2X20K



4X20L



SP000

|                    | UPT-2X20N-001  | UPT-2X20L-001  | UPT-4X20N-001  | UPT-2X20K-001  | UPT-SP000-001   |
|--------------------|--|--|--|--|---|
| Description        | 2x20 LCD display, five user defined pushbuttons, five LEDs | 2x20 LCD display, large characters, five user defined pushbuttons, five LEDs | 4x20 LCD display, five user defined pushbuttons, five LEDs | 2x20 LCD display, numeric keypad, five user defined push buttons, three tri-color LED annunciators | 1x16 LCD display, five control pushbuttons                                |
| Power Consumption  | 4 Watts @ 24VDC  | 4.5 Watts @ 24VDC  | 4 Watts @ 24VDC  | 5.5 Watts @ 24VDC  | 6.5 Watts @ 24VDC   |
| Display Type       | Character LCD, 2 lines by 20 characters w/LED backlight    |  | Character LCD, 4 lines by 20 characters w/LED backlight    | Character LCD, 2 lines by 20 characters w/ LED backlight   | Character LCD 1 line by 16 characters w/ 8 digit .52" LED numeric display |
| Character Height   | 5.55mm (0.22")   | 8.06mm (0.316")  | 4.75mm (0.187")  | 5.55mm (0.22")   | 8.06mm (0.316")   |
| Keypad Overlay     | 5 user-defined pushbuttons and 4 Navigation control keys   |  |  | 5 user-defined pushbuttons, 4 Navigation control keys, Numeric Keypad                              | 4 Navigation control keys   |
| Indicator LEDs     | 5 user-defined LEDs  |  |  | 5 user-defined LEDs, and 3 user-defined annunciators   |   |
| Dimensions (in/mm) | 6.650x4.124"   | 9.250x4.124"   | 6.650x4.124"   | 9.250x4.124"   |   |
| Mounting Cutout    | 5.910x3.712"   | 8.510x3.712"   | 5.910x3.712"   | 8.510x3.712"   |   |
| Weight (lbs.)      | 0.6  | 1  | 0.6  | 1  | 1   |
| Number of Messages | 256 (PLC as well as Local messages)                        |  |  | 256 (PLC as well as Local messages)  |   |
| Embedded Data      | 3 Variables per message (one read/write and two Read-Only) |  |  | 3 Variables per message (one read/write and two Read-only)"  | 1 (on LED)  |

# PowerMarquee™

## Applying a Marquee Could not be Simpler! A New Breed of Marquees from the #1 recognized name.

Uticor Marquees are known for their high quality, uniformly-bright LEDs, connectivity to major PLC networks, and robustness.

**You can tell a Uticor Marquee from any other Marquee by looking at it years from the day it was first installed, because where as other marquees will develop a non-uniform display due to LED aging, a Uticor Marquee maintains uniform brightness through out its life.**

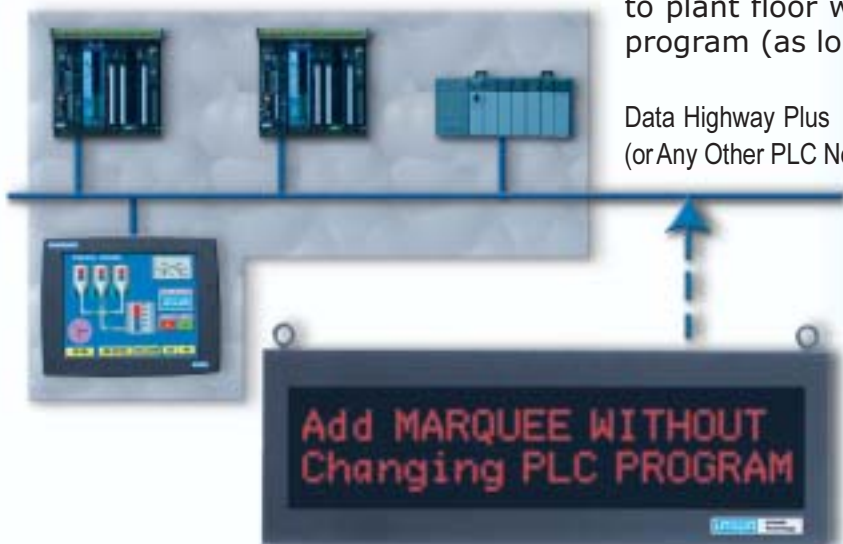
Because of highly reliable design & manufacturing, Uticor is able to offer 4 years of warranty on its marquee products--an industry first.

Uticor now introduces a new family of Marquees, called PowerMarquee. PowerMarquee product line, while continuing the same high quality lineage, adds new features based on our customer's feedback. In particular, the PowerMarquee adds following features to our popular PMD 3000 series of marquees.

1. A simple to use windows based program with export-import features.
2. Making application of marquees yet easier by adding the ability to display messages without touching PLC program.
3. Flexible data embedding in messages by allowing you to embed any random registers in the messages.

### Add a Marquee to a PLC Network without Changing PLC Program

PowerMarquee now allows you to add a display to communicate Machine/Process status and alarms to plant floor without having to make any changes to PLC program (as long as the data is available in PLC).



- **Easiest to Apply**

No Ladder Logic Change

- **Connectivity**

Major PLC Networks

- **Matched LEDs**

Uniformly Bright Displays

- **Quality**

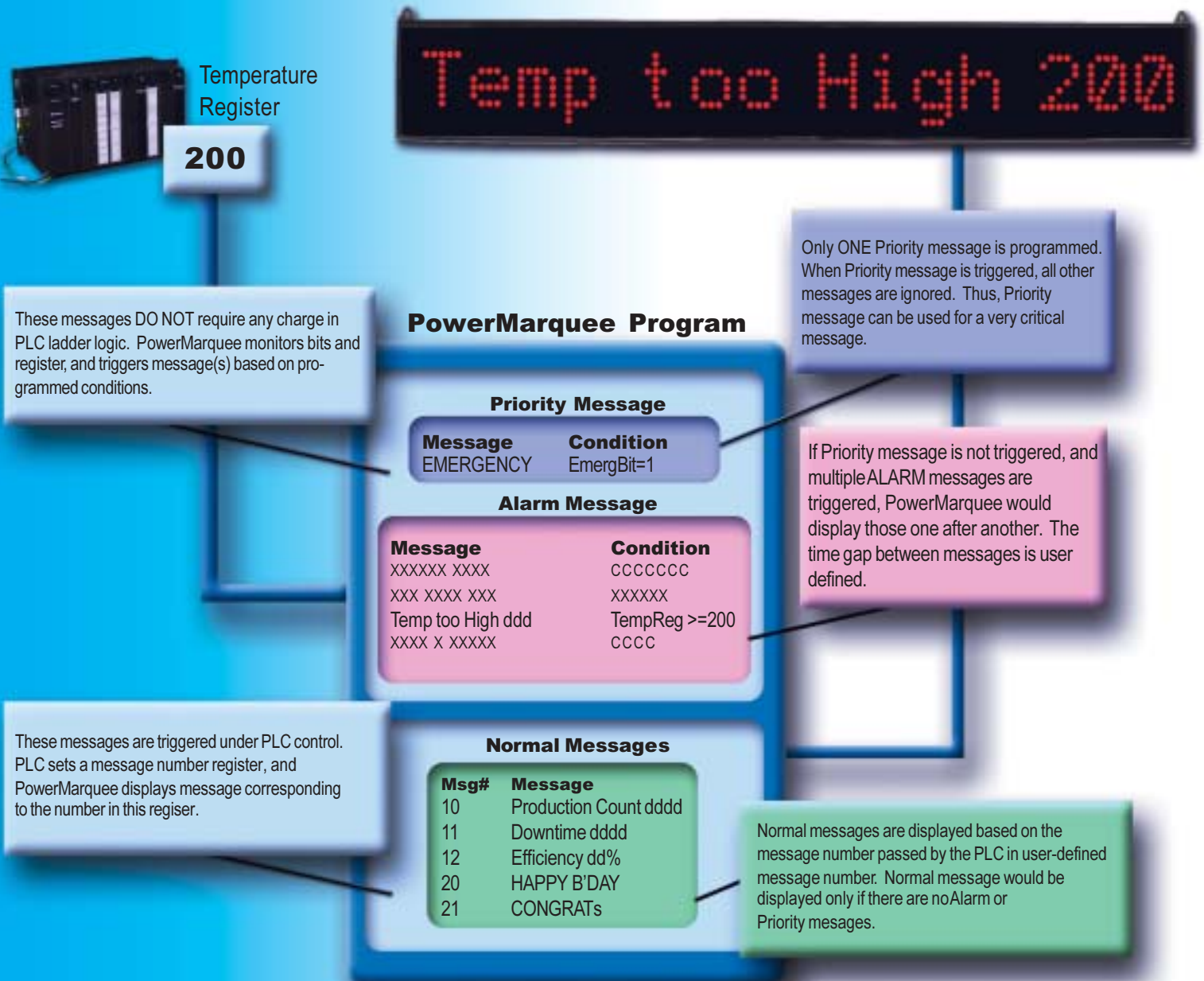
4 Years Warranty

# How Does PowerMarquee™ Do It?

PowerMarquee program consists of 3 types of messages, as shown in the figure below. PowerMarquee allows you to program a (single) Priority Message along with a condition (such as Bit is set, a register is beyond a value or outside a range, etc). PowerMarquee would continuously monitor the programmed and condition, and display this message when the condition is met. No other message is displayed when priority message is displayed, so this is used for only critical messages.

The second types of messages are Machine/Process Status & alarm messages. Like the priority message, user needs to program message display conditions. You can program any number of such messages. If multiple messages need to be displayed, PowerMarquee would cycle through these messages.

The normal messages are programmed along with a message number, and which of the programmed message needs be displayed is controlled by the PLC. Only for this type of message, you will have to provide logic in the PLC. The Priority and Status/Alarm messages DO NOT NEED to do anything with the PLC program.

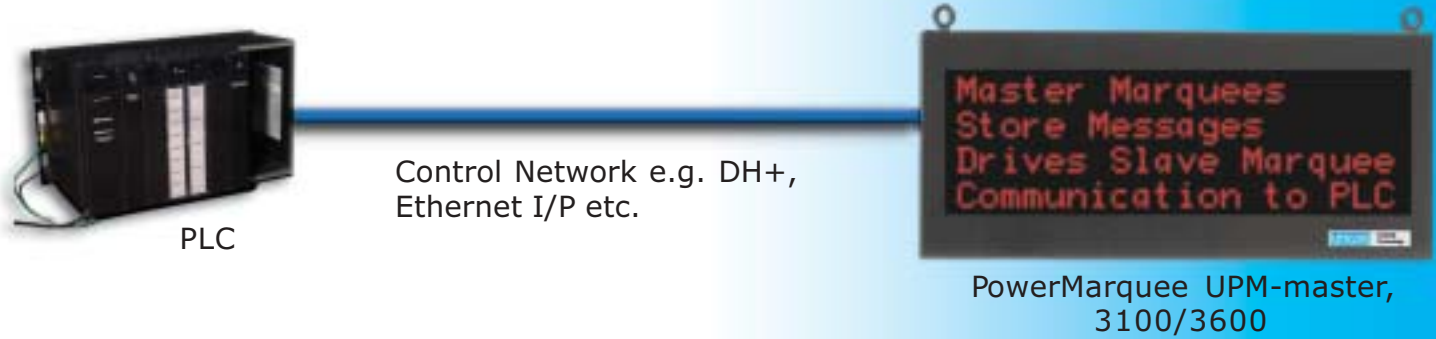


# PowerMarquee™

## Applying a Marquee Could not be Simpler!

### Marquee Configurations

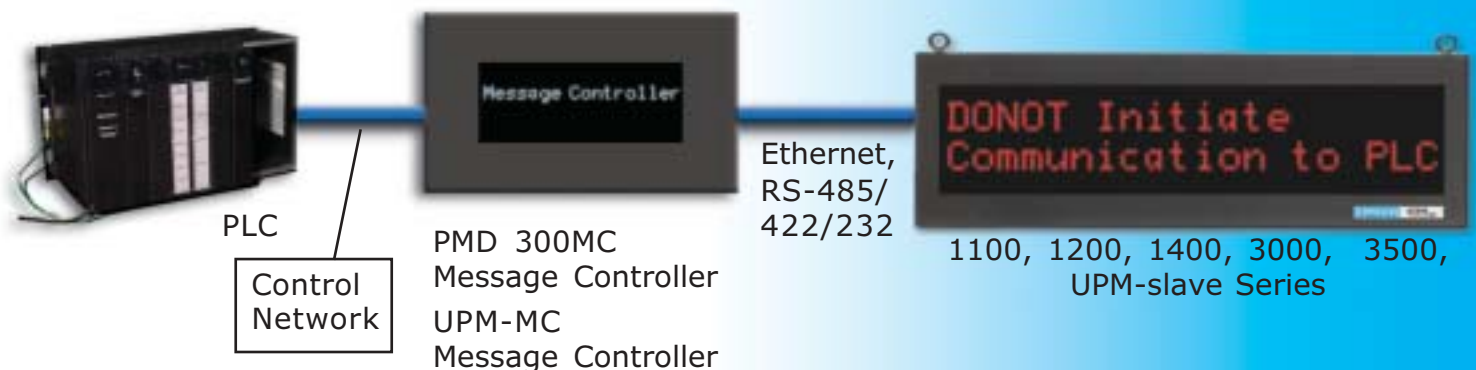
**Master marquees** STORE user-programmed messages. These marquees have PLC interfaces, and INITIATE communications with PLCs to monitor various PLC registers. Based on PLC register values, and programmed messages, Master Marquees display messages. Master Marquees can also drive Slave Marquees.



**Slave Marquees** DO NOT STORE message, and do not initiate communications with other intelligent devices, such as PLCs. These Marquees display characters received on their serial port. The slave marquees are typically driven by another Master marquee, message controller or some other intelligent device, such as a PC.



**Message Controllers**, like Master Marquees, store messages and communicates with the PLC. Message controllers are used to drive slave marquees. One message controller can drive several slave marquees.



# PowerMarquee™ Models

## Applying a Marquee Could not be Simpler!

### PowerMarquee UPM Master (RED)

- 8 Standard sizes & custom sizes available (See Table A for Sizes)
- Variable character sizes on the same unit, selectable from 2", 4", 6", 8" and 8" narrow
- Up to 4 embedded data variables with 5 digits each per message from random registers
- Ability to display messages without touching PLC programs
- Connectivity to a variety of PLC networks
- Wall mount or hang. NEMA 12, NEMA 4X



### PowerMarquee UPM Master (TriColor)

- Available in 1W4H, 2W4H, 4W4H. (See Table A)
- Rest of Features Same as above.



### PowerMarquee UPM-MC (Message Controller)

- All the features of PowerMarquee UPM Master except: No display.
- For use with all slave marquees
- Ability to drive up to 32 Slave maquees

### PMD 3000 RED/3500 TriColor Series Slave

- 8 Standard sizes & custom sizes available (See Table A)
- Variable character sizes on the same unit, selectable from 2", 4", 6", 8" and 8" narrow
- Driven by PC, PLC, Touch Panel, PMD message controller, or some intelligent device
- Wall mount or hang. NEMA 12, NEMA 4X, Stainless Steel



### UPM-Slave RED & TriColor-Reduced Cost Slaves

- All the features of PMD3000, except different housing
- Available sizes for RED: 1W2H, 1W4H, 2W2H, 2W4H
- Available sizes for TriColor: 1W4H, 2W4H

### PMD 1100 & 1200 Series (Slave)

- One line of 2" high 20 characters (1100) or 4" high 20 characters (1200)
- Stackable up to 8 high to create multi-line displays
- Driven by PC, PLC, Touch Panel, PMD message controller, or some intelligent device
- International character set
- Up to four Embedded variable data of 5 digits each
- Wall mount or suspend



### PMD1400 (Slave)

- Driven by PC, PLC, Touch Panel, PMD message controller, or some intelligent device
- 4 or 6 digits, 7-segment, 4" high, visible up to 200 feet
- Selectable decimal point or colon
- Stackable up to 8 units high
- Clock/counter/timed printing options
- Wall mount or suspend



# 3000 Series Models

## 3100 RED & 3600 TriColor Master Marquee

- 8 Standard sizes & custom sizes available (See Table A for Sizes)
- Up to 4 embedded data variables with 5 digits
- Connectivity to a variety of PLC networks
- International Character Set
- Wall mount or hang. NEMA 12, NEMA 4X & Stainless Steel



## 3100 Master Marquee & PMD 300 MC

### Message Controller Additional Features

**Blinking:** A character, word, or message flashes at user programmed rate. Flashing messages attract more attention.

**Chained Message:** You can link up to 115 messages together, and display them at a user defined rate.

**Circular Message Que:** A list of messages that is displayed in the order that they are triggered according to their message display time. The list wraps around from the last message back to the first message and continue to cycle through the que until user makes a change.

**Data Log:** An area of memory set aside for a time and date-stamped historical record of events in the unit.

**Invisible Message:** Ability to send messages to a printer or Slave marquees, without displaying the same on the master marquee.

**Realtime Clock:** Marquees have built-in real time clock to display time. Eliminates the need to sending time information from PLC.

**Scrolling Message:** Marquees can scroll message from left to right, and from bottom to top.

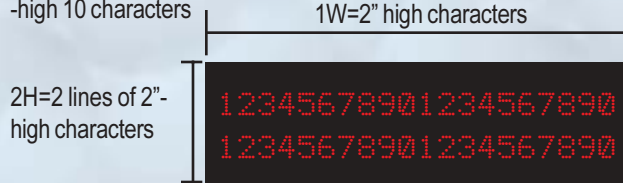
Table A (N=Narrow)

| Unit | Char. Size | # of Char. | # of Lines |
|------|------------|------------|------------|
| 1W2H | 2"         | 20         | 2          |
| 1W2H | 4"         | 10         | 1          |
| 1W4H | 2"         | 20         | 4          |
| 1W4H | 4"         | 10         | 2          |
| 1W4H | 6"         | 6          | 1          |
| 1W4H | 8"         | 5          | 1          |
| 1W4H | 8" N       | 10         | 1          |
| 1W8H | 2"         | 20         | 8          |
| 1W8H | 4"         | 10         | 4          |
| 1W8H | 6"         | 6          | 2          |
| 1W8H | 8"         | 5          | 2          |
| 1W8H | 8" N       | 10         | 2          |
| 2W2H | 2"         | 40         | 2          |
| 2W2H | 4"         | 20         | 1          |
| 2W4H | 2"         | 40         | 4          |
| 2W4H | 4"         | 20         | 2          |
| 2W4H | 6"         | 13         | 1          |
| 2W4H | 8"         | 10         | 1          |
| 2W4H | 8" N       | 20         | 1          |
| 2W8H | 2"         | 40         | 8          |
| 2W8H | 4"         | 20         | 4          |
| 2W8H | 6"         | 13         | 2          |
| 2W8H | 8"         | 10         | 2          |
| 2W8H | 8" N       | 20         | 2          |
| 4W2H | 2"         | 80         | 2          |
| 4W2H | 4"         | 40         | 1          |
| 4W4H | 2"         | 80         | 4          |
| 4W4H | 4"         | 40         | 2          |
| 4W4H | 6"         | 26         | 1          |
| 4W4H | 8"         | 20         | 1          |
| 4W4H | 8" N       | 40         | 1          |

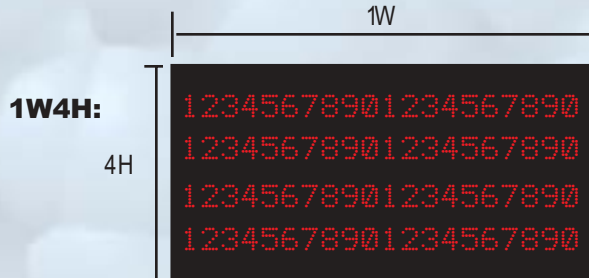
The table shows all standard sizes and maximum number of lines and characters for each character height supported.

You can display characters of different heights in the same line.

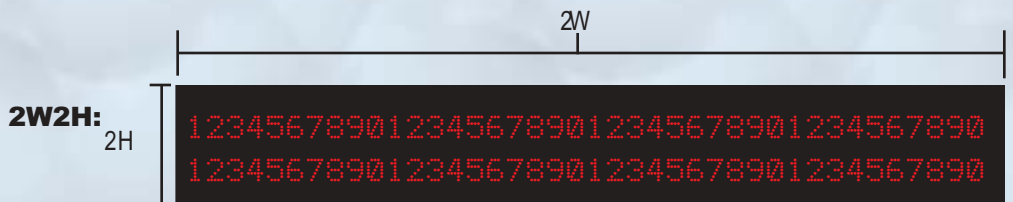
**1W2H:** 2 lines of 2"-high 20 characters, or 1 line of 4"-high 10 characters



Uticor's 3000 series (3000, 3050, 3100, 3500, 3600) & PowerMarquees are available in several standard sizes. The smallest size is called 1W2H as shown here.



1W refers to one-wide and equals 20 characters (each 2" high). 2H refers to two-high, and equals 2-line of 2" high characters, as shown below. The other sizes are multiple of the smallest size, such as 1W4H, 2W2H, etc.



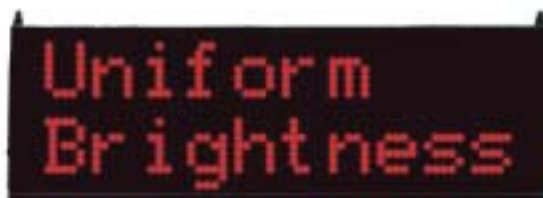
# PowerMarquee™

Applying a Marquee Could not be Simpler!

## Quality Manufacturing Process

### Matched LEDs for Uniform Brightness

Uticor uses specially matched LEDs for its marquee product lines. Because of matched LEDs, the brightness of LEDs remain uniform over the life of Marquee, making it pleasant to look at.



### 96 Hour Burn-in

Uticor Marquees offer the highest quality, uniformly bright LED display. In addition to selecting matched LEDs, Uticor product goes through a 96 hour burn-in period to eliminate infant mortality from more than 10,000 LEDs in the smallest marquee.

## NEMA 12, NEMA 4X, & Stainless Steel Housings Available.

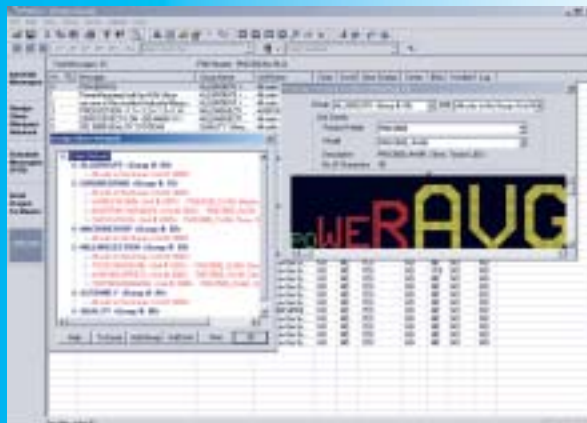


### 4 Year Warranty

The high quality manufacturing process translates in years of trouble free service with consistent looking display. Uticor reliable manufacturing allows us to offer a FOUR YEAR warranty on all it's marquee products.

### Connectivity

The PowerMarquee has connectivity to major PLCs and industrial networks, such as AB, Modicon, GE, Siemens, Mitsubishi, DH+, Profibus, etc.



### FREE Windows Based Software.

UTICOR Marquees are programmed using a FREE and Easy, Windows based programming software. This software contains message import/export capabilities to other applications, making our displays more compatible with your company.

## 1100/1200/1400 Series

Stackable up to 8 High

| Model  | Dimensions (WxDxH) | # of Lines | Characters per Line | Character Height | Viewing Distance | Alpha/Numeric | Stored Messages | Interface                 |
|--|--------------------|------------|---------------------|------------------|------------------|---------------|-----------------|---------------------------|
| <b>1100 Series (Slave)</b> Note: Add 4.27" to H for each Additional Line |                    |            |                     |                  |                  |               |                 |                           |
| 1100   | 38.45x4.224x5.5    | 1-8        | 20                  | 2"               | 100'             | A/N           | No              | RS-422/485 / ASCII        |
| <b>1200 Series (Slave)</b> Note: Add 6.52" to H for each Additional Line |                    |            |                     |                  |                  |               |                 |                           |
| 1200   | 74.453x4.224x7.75  | 1-8        | 20                  | 4"               | 200'             | A/N           | No              | RS-422/485 / ASCII        |
| 1205   | 38.453x4.224x7.75  | 1-8        | 10                  | 4"               | 200'             | A/N           | No              | RS-422/485 / ASCII        |
| <b>1400 Series (Slave)</b> Note: Add 6.52" to H for each Additional Line |                    |            |                     |                  |                  |               |                 |                           |
| 1404   | 19.43x4.0x7.75     | 1-8        | 4                   | 4"               | 200'             | N             | No              | RS-232/422 Paralel Inputs |
| 1406   | 28.23x4.0x7.75     | 1-8        | 6                   | 4"               | 200'             | N             | No              | RS-232/422 Paralel Inputs |

## 3000 Models

3000/31xx/3500/36xx Models

Master: 31xx (Red), 36xx (Tricolor)

Slave: 3000 (Red), 3500 (Tricolor)

| Unit | Dimension (W x H x D) | Character Height       | Characters per Line | # of Lines | Weight   |
|------|-----------------------|------------------------|---------------------|------------|----------|
| 1W2H | 40" x 11.5" x 4.25"   | 2" / 4"                | 20/10               | 2/1        | 47 lbs.  |
| 1W4H | 40" x 16.3" x 4.25"   | 2" / 4" / 6" / 8" / 8N | 20/10/6/5/10        | 4/2/1/1/1  | 65 lbs.  |
| 1W8H | 40" x 25.9" x 4.25"   | 2" / 4" / 6" / 8" / 8N | 20/10/6/5/10        | 8/4/2/2/2  | 101 lbs. |
| 2W2H | 76" x 11.5" x 4.25"   | 2" / 4"                | 40/20               | 2/1        | 81 lbs.  |
| 2W4H | 76" x 16.3" x 4.25"   | 2" / 4" / 6" / 8" / 8N | 40/20/13/10/20      | 4/2/1/1/1  | 112 lbs. |
| 2W8H | 76" x 25.9" x 4.25"   | 2" / 4" / 6" / 8" / 8N | 40/20/13/10/20      | 8/4/2/2/2  | 178 lbs. |
| 4W2H | 150" x 11.5" x 4.25"  | 2" / 4"                | 80/40               | 2/1        | 189 lbs. |
| 4W4H | 150" x 16.3" x 4.25"  | 2" / 4" / 6" / 8" / 8N | 80/40/26/20/40      | 4/2/1/1/1  | 250 lbs. |

Connectivity

| Model Master Units | COMM. Interface          |
|--------------------|--------------------------|
| 3100/3600          | RS-232/422/Paralel       |
| 3150/3650          | Allen-Bradley Remote I/O |
| 3160/3660          | Siemens/TI Remote I/O    |
| 3170/3670          | Modicon Remote I/O       |
| 3175/3675          | Modicon Modbus Plus      |
| 3180/3680          | GE Genius I/O            |
| <b>Slave Units</b> |                          |
| 3000/3500          | RS-232/422               |

## PowerMarquee™ UPM Series

| Unit  | Dimension (W x H x D)   | LED Type     | Char. Height      | Char. per Line | # of Lines | Weight  |
|-------|-------------------------|--------------|-------------------|----------------|------------|---------|
| 1WX2H | 37.05" x 7.28" x 4.18"  | Red          | 2" / 4"           | 20/10          | 2/1        | 18 lbs. |
| 1WX4H | 37.05" x 12.08" x 4.18" | Red/Tricolor | 2" / 4" / 6" / 8" | 20/10/6/5      | 4/2/1/1    | 34 kbs. |
| 2WX2H | 73.25" x 7.28" x 4.18"  | Red          | 2" / 4"           | 40/20          | 2/1        | 34 lbs. |
| 2WX4H | 73.25" x 12.08" x 4.18" | Red/Tricolor | 2" / 4" / 6" / 8" | 40/20/13/10    | 4/2/1/1    | 70 lbs. |

PowerMarquee sizes 1W8H, 2W8H, 4W2H, 4W4H have the same dimenstions as the 3000 Series models

Connectivity

| Model Master Units                         | COMM. Interface (Part #: UPM-x/WxH-...) |
|--|---|
| 000x0                                      | Serial Interfaces                       |
| 000x1                                      | Allen-Bradley DH+ / Remote I/O          |
| 000x4                                      | Modicon Modbus Plus                     |
| 000x5                                      | DeviceNet                               |
| 000x6                                      | ControlNet                              |
| 000x7                                      | Ethernet Modbus TCP/IP                  |
| 000x8                                      | Profibus                                |
| 000x9                                      | Ethernet IP                             |
| <b>Slave Units (Part #: UPM-x/WxH-...)</b> |   |
| 00100                                      | RS-232/422/485                          |
| 0010A                                      | Ethernet                                |

## General Specifications for All Marquees

**NEMA RATING:** NEMA 12, NEMA 4X

**Power Source:** 115 VAC (102-132)  
47-63 Hz 230  
VAC (194-250) 47-63 Hz

**Operating Temp:** 0-60 C Ambient

**Storage Temp:** -40 to 95 C Ambient

**Humidity:** 10 to 95% RH, Non-condensing

**Electrical**

**Interference:** NEMA ICS 2-230  
Showering Arc Test

**Electrical Tolerance:**

ANSI C37.90a-1974 (SWC)  
Surge With-Stand Capability Test

# PowerIPC™ & PowerWorks™

Industrial PCs, Monitors & Visualization Software

## Not every Industrial PC is the Same! Here is why!



### IPCs & Industrial Market Place

Many companies offer industrial PCs; however, the industrial user still faces the following challenges:

1. Products are not "industrial" enough & do not last long in industrial environments, such as high temperature, high humidity, oil & coolant mists, hose-downs for machine wash, high shock & vibration. And when a component fails, it takes a long time to replace it, **causing a loss of machine productivity.**
2. Most companies do not offer ready-to-use products, requiring customers to spend a day or two to install necessary software. Should incompatibilities or driver issues come up, this time could extend to weeks.
3. PCs become obsolete very quickly, making it difficult to acquire plug & play replacement units; furthermore, the new replacements quite often have compatibility issues that **cause control engineers to go nuts!**

- **Uticor Tough**
- **Shortest MTTF**  
(Mean Time To Fix)
- **Assured Future**  
Availability of the Same Products
- **Pre-Configured, Ready to Use**
- **Dual Monitor & Touch Screen**

### Uticor IPCs

When Uticor decided to enter the Industrial PC market, we listened to customers and set the following goals for our product line:

1. Like other industrial control products, IPCs should be rugged enough to withstand a tough industrial environment.
2. MTTF (**M**ean **T**ime **T**o **F**ix) should be in minutes to minimize production disruption due to a failed component in the PC.
3. Offer a stable product supply to protect from quick product obsolescence common to PC market.
4. Provide custom-configured, tested, and ready-to-use computers to eliminate costly time spent in software installation, and to eliminate any incompatibility issues.
5. Add features suitable for industrial applications such as dual monitors & touch screens, while still maintaining the PC architecture.

As you will see in the following pages, and we are proud to say that, our engineers have more than met our marketing goals.



Hinged Bezel Assembly for Quick Replacement of Display & Touch Screen.

# UTICOR PowerIPCs™ are TOUGH by Design

## Not every Industrial PC is the Same!

Experienced Design Team

PowerIPCs were designed by an engineering team with an average of 23 years of experience per engineer, in designing industrial products.



*Team of Engineers*

HALT-HASS

Uticor used HALT (Highly Accelerated Life Testing) for identifying component & interconnect issues.



*HALT-Hass Chamber*

Electrical Noise Test

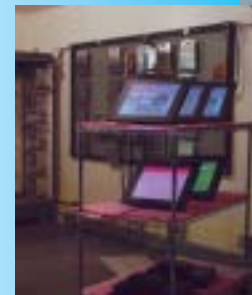
HALT tests new designs for temperature & mechanical shock. HASS (Highly Accelerated Stress Screening) is used to ensure continued industrial quality in production.

Like every other product designed by Uticor, PowerIPCs went through extensive electrical tests such as: NEMA ICS 2-230, showering arc, ANSI C37.90a-1974, & Surge.

*Noise Test Fixture*

Regulatory Tests

Uticor Industrial Computer products have all appropriate regulatory approvals, such as UL, cUL, and CE for European market.



*Burn-in Chamber*

Burn-in Chamber

During production, computers get a 24-hour burn-in to eliminate premature mortality.

IPC Fit for an Industrial Environment



The result is an Industrial Computer Capable of withstanding the harshest industrial environment!

Visit Us at: [www.avg.net](http://www.avg.net) & [www.uticor.net](http://www.uticor.net)

(800)711-5109 25

# MTTF of less than 2 Minutes

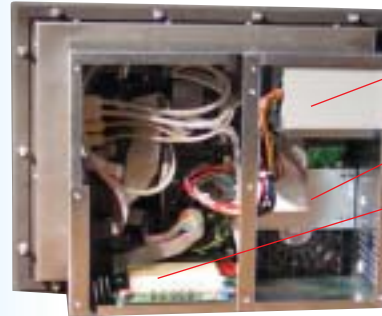
(Mean Time To Fix)



ARJUN Series of IPCs sport innovative packaging design so that major components like Hard Disk, displays & touch screen, Power Supply, ISA/PCI Cards etc. are very easy to replace without disconnecting Field wiring or taking the computer out from the machine!



ARJUN Series Panel computers & workstations allow you to change the display and touch screen within minutes while the unit is installed.

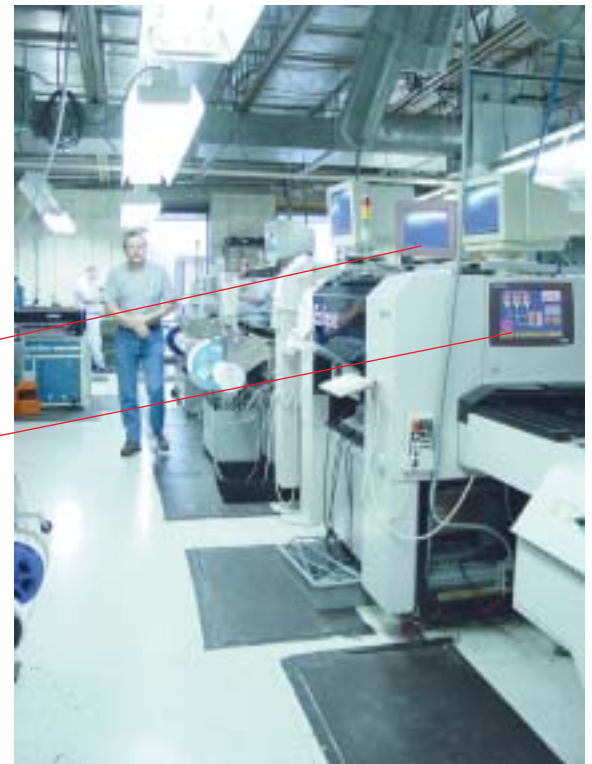


Cover plate slides on the back of the IPC without having to screw it down. Components and Cards inside can be quickly removed.

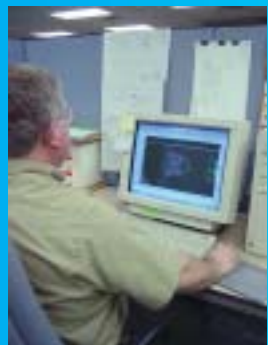
Unscrew Bezel & remove from two hinges for quick replacement.

## Dual Monitors & Touch Screens

Quite often, an industrial machine/process needs to have two operators/setup personnel to read the computer display simultaneously as well as enter data into the IPC from two stations. ARJUN Series IPCs have been designed with a VGA and Serial Port to connect to a second monitor and touch screen, to allow simultaneous operation.



## Stable Product Supply Protection from Obsolescence



Uticor's internal design, manufacturing & configuration provides customers an assured supply of the same model, or a compatible solution for a relatively long period of time, compared to the quick obsolescence prevalent in many so-called industrial computers.

**Design      Manufacture      Configuration**

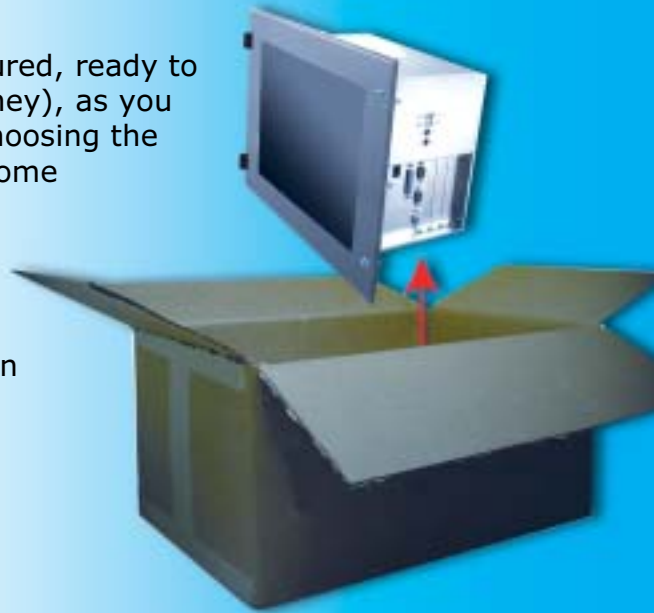
# Pre-configured, Tested, Ready to Use

## Not every Industrial PC is the Same!

Uticor Industrial computers can be ordered totally configured, ready to use in your application. This saves a lot of time (and money), as you don't deal with the complex issues of installing the OS, choosing the right options from a myriad of choices, or worry about some incompatible drivers.

### Simple Ordering

Ordering and creating the right part number for the pre-configured computers is easy. Use our online configuration to create the part number to order.



## Industrial Features

Uticor Industrial Computers are designed keeping the Industrial Applications in mind.

## 2 Year Standard Warranty

### Variety of Packaging

- Panel Mount
- Node
- 19" Rack Mount
- 3-6 ISA/PCI Expansion Slots

### Sturdy Steel Construction

Easy Access to Parts for Quick Replacement (without removing the unit from the panel)

Various Display Sizes (10", 12", 15" & 17")

Configurable Reset Switch for Safety

Backlight Burnout Detection (Available with Select Models)

Activity LEDs Power, HDD, Network for simple diagnostics

Optional Stainless Steel Bezel for Food & Drug applications

NEMA 4X, Class 1 DIV 2 RATED FRONT for tough industrial environment

VGA Port for a 2nd Monitor

Intensity Adjustment Potentiometer for adjusting to varying light conditions

The VGA port is very useful to connect a second monitor to the PC. The monitor (and a Touch Screen) can be located on the other side of the machine/process for operators convenience.

# Computer Models Available

## ARJUN Series

---

### Panel Computers

- 10", 12", 15", 17" Display Sizes
- 3 PCI Slots
- Disk on Chip Option
- Windows 2000, XP, XP Embedded OS



### Panel Computers (CE)\*

- 6", 8", 10", 15" Display Sizes
- Network Cards, DH+, Remote I/O, Modbus+, Profibus, DeviceNet, ControlNet
- Windows CE



\*Available Q2, '03

### Work Station Computer

- 12", 15", 17" Display Sizes
- 6 Slots, 3 PCI Slots, 2 ISA Slots, 1 PICMG
- Panel Mount
- Windows 2000, XP Operating System



### Node

- 6 Slots, 3 PCI Slots, 2 ISA Slots, 1 PICMG
- Panel Mount
- Windows 2000, XP Operating System



### 19" Rackmount Computer

- Rack Mount
- Windows 2000, XP Operating System



# Industrial Flat Panel Monitors

## Press Hardened

The Uticor Industrial Flat Panel Monitors are specifically designed to mount on the column of a press.

Each component inside the monitor is carefully selected and secured to withstand the shock and vibration encountered on the column of a 2500-ton press.

The panel mount monitors have a slim profile, and come with optional stainless steel bezel for food & drug manufacturing plants.



### \*12 Inch Monitor

- 1024x768 resolution
  - Panel Mount
  - NEMA 4X
- \*Check for Availability



### 15 Inch Monitor

- 1024x768 resolution
- Panel Mount
- NEMA 4X



### 17 Inch Monitor

- 1280x1024 resolution
- Panel Mount
- NEMA 4X

| Monitors         | 15"   | 17"                              |
|------------------|---|----------------------------------|
| Display          | 15" TFT   | 17" TFT                          |
| Resolution       | 1024x768  | 1280x1024                        |
| Brightness       | 300 Nits  | 350 Nits                         |
| Power Input      | 100-250 vac, 50/60 Hz   |                                  |
| Touch screen     | Analog Resistive  |                                  |
| Operating Temp   | 0-50 deg C  |                                  |
| Dimension        | 16.25" w x 12.50" h<br>x 2.55" d  | 18.25" w x 14.50" h<br>x 2.65" d |
| Cutout           | 14.22" x 10.99"   | 16.63 x 12.99"                   |
| Storage Temp     | -20 to + 60 °C  |                                  |
| Humidity         | 10-95% R.H., Non-Condensing   |                                  |
| Vibration        | 5-55 Hz, 2 G for 2 hrs in the X, Y, Z directions  |                                  |
| Shock            | 10 G for under 12 ms in the X, Y, Z directions  |                                  |
| Electrical Noise | NEMA ICS 2-230 showering arc<br>ANSI C37, 90a-1974 SWC Level C<br>Chattering Relay Test |                                  |
| Enclosure        | NEMA 4, 4X (Indoor)   |                                  |
| Agency Approvals | UL, CUL, CE   |                                  |

# IPC Software for your SCADA/HMI Needs

PowerWorks is a state-of-the art 32-bit SCADA/HMI software package that runs on various Windows platforms. The OPC based software provided sophisticated tools for visualization, Supervisory Control and Data Acquisition, Alarming, Reporting, Recipe Management, and SPC/SQC. PowerWorks integrates easily with your MIS and MES systems.

## PowerIPC™ Specifications

|                  | CE Computer Available Q2, '03   | Panel Computers  | WorkStation  | 6 Slot Node                       | 19" Rackmount                   |
|------------------|---|--|--|-----------------------------------|---------------------------------|
| CPU              | 300Mhz ARM Processor  | Intel Celeron (700Mhz)   | Intel Pentium III (850Mhz)                                     |                                   |                                 |
| Power Supply     | AC 115-230VAC @ 47-63 Hz  | ATX 80 watts   | ATX 235 watts  |                                   |                                 |
| Memory           | 64 MB (Expandable Up to 512MB)  | 128 Mb (up to 512 Mb)  | 256 Mb (up to 1.5 Gb)  | 256 Mb (up to 512 Mb)             |                                 |
| Bios             | Flash ROM   | Award PnP Bios, flash ROM  |  | Phoenix Award BIOS                |                                 |
| Hard Disk        | N/A   | 40 Gb hard drive   |  |                                   |                                 |
| Solid State Disk | SDD Disk On Chip - 64MB Std (Exp. To 256MB)   | Disk on Chip Option (32Mb-256Mb)   |  |                                   |                                 |
| Floppy DD        | 1 dedicated RS-232 port;<br>1 RS-232/422/485 port   | Optional (external USB)  | Internal 1.44Mb  |                                   |                                 |
| CD ROM           | SPP/EPP/ECP supported   | Optional (external USB)  | Internal 48X type  |                                   |                                 |
| Mouse            | N/A   | PS/2 Interface port  |  |                                   |                                 |
| Keyboard         | 32 bit PnP Ethernet controller<br>10/100 Base TX ( RJ-45 )  | PS/2 Interface port  |  |                                   |                                 |
| LAN              | USB x 2 ports   | 10 BaseT/100 Base TX Ethernet  |  |                                   |                                 |
| Serial Ports     | Network Card to support various Networks  | COM1 dedicated RS-232 port; COM2 RS-232/422/485 port   |  |                                   |                                 |
| Parallel Port    | NEMA 4/4x (indoor use only)   | LPT1 SPP/EPP/ECP supported   |  |                                   |                                 |
| USB              | No  | 2 ports (1.1)  | 1 port (1.1)   | 2 ports (1.1)                     |                                 |
| PCMCIA           | 6" STN 320x 240, 8" STN 640x480,<br>8" TFT 640x480, 10" STN 640x480,<br>10" TFT 640x480   | Optional (type 2) (uses 1 PCI slot)  |  |                                   |                                 |
| Expansion        | 10.4" = 640 x 480 (TFT)   | 3 PCI slots  | 3 PCI slots, 2 ISA slots, 1 PICMG slot                         |                                   |                                 |
| Cooling Fan      | 15" = SVGA (TFT)  | Optional   | Yes (with washable filter)                                     |                                   |                                 |
| Display          | Mouse   | 10.4" FPD (TFT 230 nits) SVGA<br>12.1" FPD (TFT 250 nits) SVGA<br>15.0" FPD (TFT 250 nits) XVGA  | 12.1" FPD (TFT 250 nits) SVGA<br>15.0" FPD (TFT 250 nits) XVGA | --                                | --                              |
| VGA Out          | 1 External Floppy Interface   | S-VGA OUTPUT (60ft max.)   |  |                                   |                                 |
| Touch Screen     |   | Analog Resistive Touchscreen   |  | --                                | --                              |
| Operating System | Windows CE  | Windows XP Pro<br>Windows XP/e (Embedded)<br>(consult factory on XP/e)   | Windows XP Pro<br>Windows 2000                                 |                                   |                                 |
| Housing          | NEMA 4/4X (indoor use only)   |  |  |                                   |                                 |
| Overall Size     | 12 level timer with timeout intervals<br>from 0.5-30,000 sec.   | 10/12": 13.0" W x 11.0" H x 7.0" D<br>15": 16.25" W x 12.5" H x 7.75" D  | 12.1" / 15.0"<br>17.25" W x 12.7" H x 7.75" D                  | 15.125" W x 8.167" H<br>x 11.4" D | 19.0" W x 6.929" H<br>x 21.0" D |
| Mounting         | TBD   | 10/12": 11.70" x 9.85"<br>15": 14.32" x 11.09"   | 12.1" / 15.0"<br>15.226" x 11.284"                             | Flange Mount                      | 19" Rack Mount - 4U             |
| Electrical       | 115/230 vac   | 115/230VAC, 120W   | 115/230VAC, 375W   |                                   |                                 |
| Environment      | 0 to 50 °C. operating; -20 to 60 °C. non-operating RH: 5%-95% Non Condensing  |  |  |                                   |                                 |
| Agency Approvals | UL/CUL CE Mark  |  |  |                                   |                                 |
| Connectors       | D-Sub 9 pin x 2 (male);<br>D-Sub 25 pin x 1 (female);<br>P/S 2 x 1 for Keyboard & Mouse;<br>RJ-45 x 1 for Ethernet;<br>D-sub 15 x 1 (female) for SVGA | Serial Ports: D-Sub 9 pin (male); Parallel Port: D-Sub 25 pin (female);<br>Mouse Port: PS/2 Din connector;<br>Keyboard PS/2 Din connector;<br>Ethernet: RJ-45; S-VGA: D-sub 15 (female), USB Ports: standard USB connector |  |                                   |                                 |

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