



**CORPORATE OFFICE**

Triangle MicroSystems, Inc  
2716 Discovery Drive  
Raleigh, NC 27616-1852  
Office: 800.334.5548  
Fax: 919.878.5554

# Building Automation Controls



Accurate and consistent control of building operations are essential for energy savings through building automation. In the competitive market of today, efficient building operation and scheduling are key factors in increasing system performance and achieving overall cost savings.

Triangle MicroSystems has the tools you need to properly monitor and control your facilities.

You're In Control Now ....

# Introducing the BASYX Environmental Control System ...

# System Support & Services ...



Triangle MicroSystems, Inc. / Raleigh, NC 27616-1852 / 800.334.5548

February 2007

We are pleased to introduce our complete line of building control products ....

Triangle MicroSystems has manufactured quality control since 1979 for all building types and applications. From our original FACILITEC to our latest BASYX Building Automation and Temperature Control System, we have designed products to fit the needs of commercial, industrial and retail facilities.

The BASYX system provides total environmental control and automation for all types of mechanical and lighting systems. Our TriComm graphical interface program allows interrogation via direct, modem or internet/intranet connection. The simple point-and-click interface provides for an easy setup and monitoring of retail stores, convenience stores, manufacturing, educational facilities, medical facilities and office buildings. The system contains logic programming for larger facilities such as campus or industrial sites.

The BASYX PSC is a completely programmable stand-alone board, and the addition of our RFW/RFC wireless controllers lends itself to the rapidly changing building market. Our VAV and VVR controllers bring the latest technological advances to the control of variable air volume systems.

Triangle MicroSystems, through our distributor/dealer network, offers the hardware, software, installation materials and applications engineering for virtually any building or system. Our unique position in the manufacturing community allows custom design or OEM systems to fit your specific needs.

All systems are designed, built, programmed and thoroughly tested in our labs, ensuring a quick and easy field installation.

Contact your local dealer to see how we can save you time and money in your future control and automation plans.

Respectfully,

Triangle MicroSystems, Inc.



Jeffrey L. Luther  
Vice President Building Controls

Triangle MicroSystems works closely with our distribution network, providing technical support and warranties to insure trouble free installation and system operation.

TMS provides modem or internet assistance through our distributor/dealer network in diagnosing system problems. Service includes interfacing and operation of mechanical equipment, and troubleshooting of operational inadequacies. Complete programming support insures optimum operation of all mechanical and lighting systems.

All TMS manufactured products carry a two (2) year warranty from the shipment month, and all system programming is covered by a one (1) year conditional warranty. All field materials are protected by a one (1) year warranty. Remote access to the system via modem or internet is required for programming warranty.

Triangle MicroSystems authorized distributors and dealers offer a multitude of value-added services to further enhance your installation. Service agreements can be provided for monitoring and report generation, alarm monitoring and mechanical services. TMS fully supports all programs provided by our network, and assistance is always available at the factory level. Extended warranty contracts are offered to protect your investment for years to come. Complete project assistance in reference to application or installation can be performed by the distribution network.

**SYSTEM FACTORY SUPPORT**

- Modem or Internet Diagnosis
- Programming Assistance

**FACTORY WARRANTIES**

- TMS Products
- TMS Programming
- Third Party Devices

**VALUE ADDED SERVICES**

- Monitoring Contracts
- Alarm Monitoring
- Mechanical Services
- Extended Warranties

Call your local representative today to find out more about the BASYX product line ....

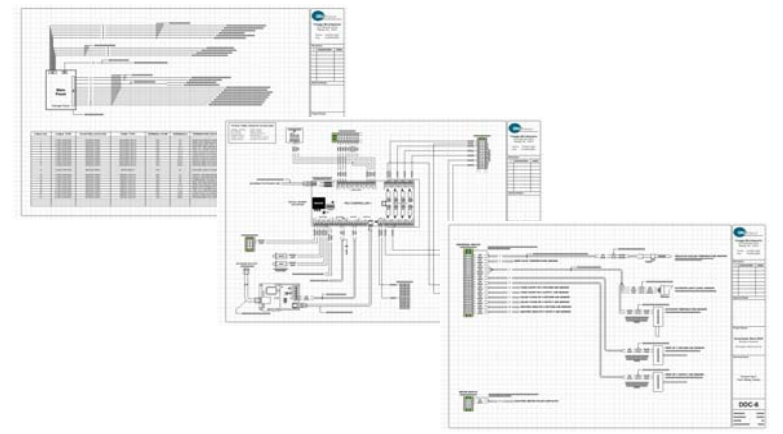
# Factory Engineering Services ...

Triangle MicroSystems is a UL authorized assembly shop for the USA and Canada. As a service to our distribution network, complete design, panel assembly, programming and testing of system panels is available.

**SYSTEM DESIGN**

- Point Listings
- Panel Locations & Layout
- Operation Sequences
- Installation Drawings

TMS provides complete assistance in the development of point listings, panel location layout and mechanical system operation sequences.

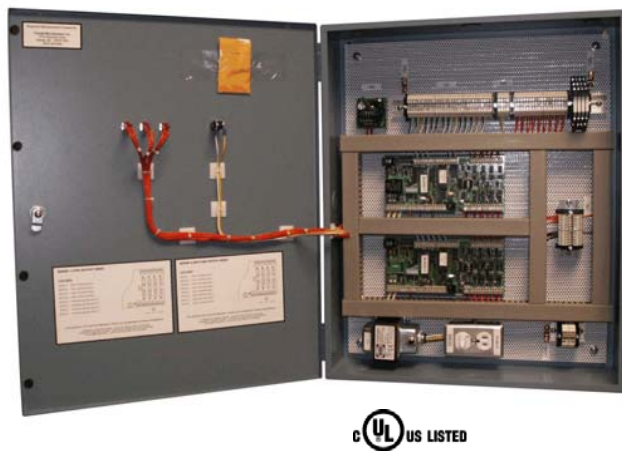


Detailed installation drawings showing internal panel wiring, device field connections and cable routing are included.

**PANEL ASSEMBLY & PROGRAMMING**

- UL Listed
- Internal Wiring to Terminal Strips Tested
- Complete Operational Programming
- Optional Graphics Interface Screens
- Completely Tested

Based on the system design and per the control drawings, the panels are assembled with required controllers, power supplies and power connections. All input/output points are wired to terminal strips for easy field installation. Utilizing this service, contractors can eliminate engineering and assembly time, thus reducing installation cost. Factory testing insures that all board and panel connections are correct, reducing on-site startup and commissioning labor.



TMS provides complete operational programming installed and tested before shipment of the panels. This service, along with panel assembly, virtually eliminates on-site engineering resulting in a clean and efficient installation.

# System Markets & Applications ...

Triangle MicroSystems designs, manufactures and supports building control products for a variety of markets. Products are marketed through an ever-expanding distributor/dealer network which includes the United States, Canada, Australia, United Kingdom and the European Continent.

Control of commercial buildings has been a staple of TMS installations for over 25 years. Systems have been designed to control all aspects of HVAC, mechanical and lighting equipment to maintain proper levels of temperature, humidity and air quality. Customized design and programming insures the operation of each facility is performed in the most economical manner, in accordance with the exact requirements of the operating personnel.

TMS provides complete systems for control of temperature and lighting to the retail market. Convenience stores, retail operations and other stand-alone buildings can benefit from the control available through the BASYX product line. The design of our products is ideally suited for all size buildings, from small branch offices or store fronts to multiple location installations. Systems can be monitored and controlled from a single location, reducing the manpower for support and mechanical system service.

Educational facilities, from single school buildings to multi-facility campuses can benefit from the consistent control provided by the BASYX system. The new RFW wireless controller is especially suited for environmental control of modular classrooms, requiring no hard wiring between buildings. The system can integrate all buildings into a common system allowing complete monitoring from one location.

Industrial facilities face increasing competition from all markets, and must reduce operating expenses to remain competitive. Proper control of HVAC, lighting, exhaust and other processes is one area that substantial savings can be achieved, while maintaining environmental and product conditions.

Original equipment manufacturers can benefit from the customized control capabilities of the TMS systems. Our OEM group has successfully designed hardware and software for the specific requirements of OEM equipment and systems utilizing our easy to use platform.

**COMMERCIAL**

- Office Buildings
- Bank Branches
- Lighting Systems

**RETAIL**

- Convenience Stores
- Food Services
- National Chains
- Regional Markets

**EDUCATIONAL**

- Single Schools
- Modular Classrooms
- Campus Installations

**INDUSTRIAL**

- Manufacturing & Distribution

**OEM GROUP**

- HVAC Equipment Manufacturers

TMS manufactures the **BASYX** product line, which is designed for easy installation in all types of applications. Our **TimeWatch** system is a stand-alone tenant override and billing system which can interface with any control system on the market.

- BASYX PSC**
- Rooftop Unit
  - Air Handling Units
  - Boilers & Chillers
  - Exhaust Fans
  - Lighting Control

The **BASYX PSC** is the heart of the product line, a programmable system controller for monitoring and control of virtually any environmental, mechanical or lighting equipment. The PSC may be networked with additional controllers for complete systems in excess of 6,000 points.



- BASYX RFW & RFC**
- Water Source Heat Pumps
  - Fan Coil Units
  - Rooftop Units
  - Modular Buildings
  - Lighting Control

The **BASYX RFW/RFC** controllers are reduced point boards which allow wireless databus communications requiring no communications cables between the units. The units were designed for water source heat pumps, rooftop units and modular building control.



- BASYX VAV & VVR**
- Cooling Only
  - Electric Reheat
  - Hot Water Reheat
  - Fan Powered
  - Constant Volume

The **BASYX VAV** is a complete assembly for control of variable air volume boxes. A Single unit consisting of the damper actuator, velocity sensor and controller makes field installation quick and easy. The stand-alone capabilities of the unit make it ideal for pneumatic retrofit applications. The **VVR** is a snap-track mounted controller for use with existing damper actuators.



- TIMEWATCH**
- Voice-Prompted
  - Tenant Override
  - Tenant Billing
  - Time Clock Functions

The **TimeWatch** is a stand-alone unit which provides voice prompted overriding of any mechanical or lighting system via any telephone. Complete historical data is calculated for individual tenant "after-hours" usage. Invoices are generated by owner set hourly rates. The system utilizes relay outputs, and can interface through contact input with any control system on the market.



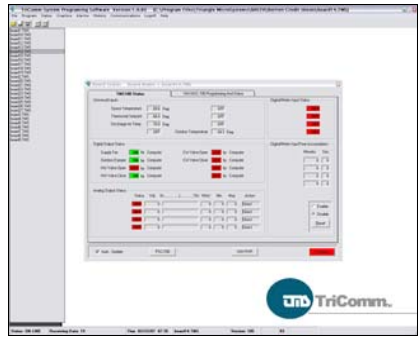
Understanding complex software packages is often a deterrent to achieving the potential benefits of building automation. In many current systems, software is a major cost and setup expense, additional fees are regularly imposed. Triangle MicroSystems regards the ability to use the system as an integral part of your operation, and therefore does not license or charge for the TriComm interface software or updates.

TMS can provide all devices required for a complete building automation system installation. Third party devices have been researched for quality and compatibility with the **BASYX** product line. All devices provided by TMS are backed by a one (1) year warranty.

- FIELD DEVICES**
- Sensors
  - Valves & Actuators
  - Relays & Electrical Devices

The **TriComm** interface software is a single program which allows access to the **BASYX** hardware through a direct, modem or internet/intranet connection. The software may be installed on as many computers as desired with no additional license fees or software costs. Current or updated software is always available through our website.

- TRICOMM SOFTWARE**
- Single Program for All Connection Types
  - No License Fees
  - Graphical Interface
  - Free Updates



The Windows based software utilizes a menu driven method of accessing system status screens and programming functions. Simple setup of schedules, temperature setpoints and other control functions are performed through simple point-and-click screens

An Integral graphics interface allows custom views of system operation.

