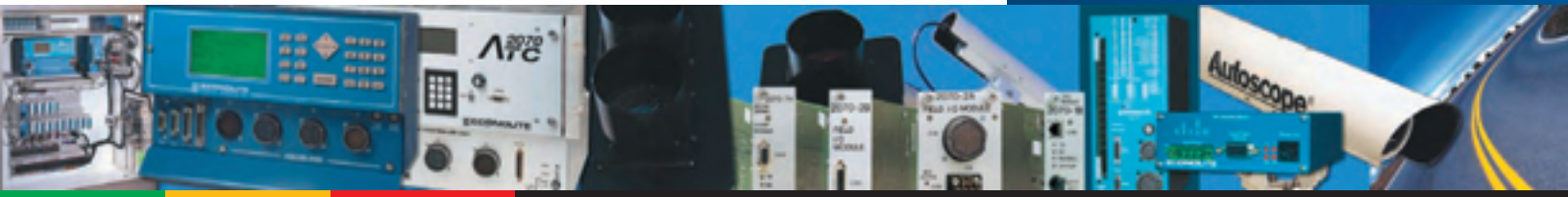


# ASC/2S Series

## NEMA TS2 Actuated Controllers

The ASC/2S combines the ASC/2's familiar software, data module and telemetry with new hardware for greater reliability and lower cost of ownership.



### Features

- Exceeds NEMA TS2 and TS1 requirements.
- NTCIP compliant (optional).
- Advanced Transit Signal Priority functions (optional).
- Surface mount technology provides increased reliability.
- Flash EPROM simplifies software installation.
- Optional 1 MB memory for custom applications.
- Windows based remote user interface program (optional).
- Rechargeable lithium battery eliminates disposal problems.
- 16 x 40 LCD display with automated contrast adjustment.
- Optional display heater for extended periods below 0° F.
- Enhanced electrostatic discharge and line transient protection.
- Multi-system protocol support.

### Description

In 1992 the ASC/2 Series was the first NEMA TS2 Type 1 or Type 2 controller offered to the marketplace. In 1998, the industry standard was raised once more with the introduction of the next member of the ASC/2 family - the ASC/2S.

The ASC/2S provides all of the features of the ASC/2 family of controllers with an updated hardware design that will allow the ASC/2S to serve as a platform for future traffic management applications. This includes being NTCIP compliant and compatible with all Econolite systems.

The ASC/2S is designed using the latest in surface mount technology. This offers the end user a controller that is more reliable, easier to maintain, and less costly than earlier generation controllers. The ASC/2S, utilizes the same software plus telemetry and data modules of the field proven ASC/2 family of controllers.

The majority of the electronic components of the ASC/2S are contained on one easy to replace module. All software in the ASC/2S is stored in flash

EPROMs. This allows quick and easy software updates in the field without changing PROMs. ASC/2S software is easily updated using either a laptop computer or optional software installation module "SIM". A complete software update can be accomplished in minutes.

The ASC/2S uses the industries largest LCD display module (16 line x 40 character alphanumeric) module to simplify the user interface. This display provides improved viewing in all lighting conditions. In addition, an optional display heater is available to enhance display performance in environments with extended periods of below 0° F.

### Controller Models

The ASC/2S is available in two models. All models share a common enclosure, power supply, data, telemetry, and processor/input/output modules.

- The ASC/2S-1000: TS2 Type 1.
- ASC/2S-2100: TS2 Type2/TS1.



## **ASC/2S-1000: TS2**

### **Type 1**

The first version, the ASC/2S-1000 meets and exceeds the requirements of the NEMA TS2 Type 1 Standard. Its interface controls all inputs and outputs over a high-speed RS-485 serial bus (Port 1) with digital addressing to simplify cabinet wiring. This bus is also interfaced directly to a TS2 Malfunction Management Unit (MMU) for enhanced malfunction monitoring.

## **ASC/2S-2100: TS2**

### **Type 2/ TS1**

The second version of the ASC/2S family, the ASC/2S-2100, provides all of the capabilities of the previous two models plus I/O expansion for compatibility with Econolite's ASC-8000 controller. This adds an I/O expansion "D" connector and a 25-pin telemetry connector which match those of the ASC-8000. This allows the ASC/2S-2100 to be used as a replacement for an ASC-8000 or other TS1 controller.

### **Control features**

- 12 phases, 8 concurrent groups, 2 timing rings.
- All standard NEMA TS1 and TS2 timing functions.
- Up to 16 overlaps can be created.
- 12 pedestrian phases.
- Exclusive pedestrian operation.
- Pedestrian overlaps.
- Soft recall.
- Phase re-service.
- Dynamic max operation.

### **Coordinator features**

- 64 coordination patterns, each with its own cycle, offset and split set.
- Three interconnect methods: Plan, TS2, Standard.
- Offset and split entries are available in percent or in seconds.

- Automatic permissive periods.

- Fixed or floating force-off.

### **Preemptor features**

- Six priority and four bus preemption sequences.
- Optional Transit Signal Priority (TSP) control.

### **Time-of-day features**

- Separate control for NIC® (non-interconnected coordination) and TOD (time of day) functions.
- 16 day programs.
- 10 week programs.
- Year program with 53 weeks.
- 36 holiday programs, fixed or floating.
- 200 NIC program steps.
- 100 TOD program steps.

### **Status display features**

- Keyboard selection of detailed dynamic status displays for each of the main controller unit functions; including controller, coordinator, preemptor, NIC/TOD, detectors, and MMU.

### **Detector features**

- 64 vehicle detectors.
- 16 system or speed detectors.
- Nine detector types.
- Detectors individually assignable to phase and functions.
- Lock/non-lock function by detector.

### **Logging features**

- Separate buffers for detector logging, detector failures, controller events, and MMU events.
- Logged data can be viewed on front panel, retrieved via RS-232 terminal port, or transferred via telemetry.

### **Telemetry features**

- Compatible with KMC-10,000 or ASC/2M-1000 zone masters.
- 1200 bps FSK 2/4 wire telemetry or 1200-19,200 bps RS-232 telemetry.
- RS-232 modem port.
- Multi-protocol support.

### **Available Option Models**

- ASC/2S-1000 TS2 Type 1.
- ASC/2S-2100 TS2 Type 2.

### **Telemetry**

- 1200 bps FSK 2/4 wire.
- RS-232 1200 - 19.2K bps.

### **Protocols**

- ECPIP (Standard)
- AB3418 (Standard)
- AB3418+ (Optional)
- NTCIP (Optional)
- Protocol 90™ (Optional)

### **Other Features**

- Display Heater
- Overlap Card & Connector
- Shelf Mounted.

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