## 12-Inch Polycarbonate Signal

## What, exactly, is a signal?

A traffic signal is a signaling device that is positioned at road intersections, and other sites that control traffic. The signals are designed to ensure an orderly flow of traffic for vehicles, motorcycles, bicycles, and pedestrians by displaying colored lights in a sequence of phases. The colors signal the user to proceed (green), warn that a signal is changing to red (yellow) or prohibits any traffic from proceeding (red).

## Why do agencies use signals?

Traffic signals provide an opportunity for pedestrians or vehicles to safely cross an intersection from different directions. Traffic signals can also alleviate traffic capacity of an intersection or a given route which leads to lowering emissions from vehicles that are waiting in traffic.

# How do signals benefit the driving public?

Traffic signals increase the overall safety for all roadway users by reducing traffic collisions and providing efficient intersection operations. Traffic signals also provide a continuous movement of traffic at a defined speed along a given route which contributes to reducing commuting times.



### Housing

The housing of each section is a one-piece molded, ultraviolet, and heat-stabilized polycarbonate unit. Two integrally-cast hinge lugs and latch screws are cast on each side of the housing. Built upon a symmetrical concept, each housing is capable of providing either right or left-hand door openings. While the left hinge is standard, the right hinge must be specified. The top and bottom of the housing have openings to accommodate standard 1½-inch pipe brackets. Each signal section is rigidly attached, one above the other, by means of corrosion-resistant bolts and a washer attachment that allows sections to be rotated about a vertical axis. Alternate means for attaching sections together are available. The housing consists of four matching punch-out locations on the top and bottom of each section to allow sections to be bolted together with four 11/2inch and 10-32 corrosion-resistant screws.

The top and bottom of the signal housing have an integrally-cast Shurlock boss. The radial angular grooves of the Shurlock boss, when used with Shurlock fittings, provide positive five-degree increment positioning of the entire signal head to eliminate rotation or misalignment of the signal. Each housing has molded bosses for one five and one six-position terminal block. Each housing has provisions for easily adding a back-plate. Hinge pins, door latching hardware, visor back-plate, and lens clip screws are high-quality stainless steel.

### **Housing Door**

The housing door of each section is a onepiece molded ultraviolet and heat-stabilized polycarbonate unit. Two hinge lugs are molded into one side and two latch jaws are molded onto the other side. The door is attached to the housing by means of two stainless steel hinge pins. Two stainless steel "eye" bolts and wing nuts on one side of the door allow for opening and closing the signal door without the use of any special tools. A gasket groove on the inside of the door accommodates a weatherproof and mildew-proof resilient gasket which, when the door is closed, seals flat against the housing, creating a positive seal. The outer face of the door has four metal threaded inserts, equally spaced about the circumference of the lens opening, with four screws to accommodate the signal head visors. The door and visor overlap to prevent light escaping between visor and door.

#### Terminal Block

Each complete signal face is provided with a terminal block. The terminal block is placed in the bottom section, unless otherwise specified. The terminal block for a standard three-section head is a five-position, ten-terminal, barrier-type strip. To one

side of each "Fast-on" terminal strip is the attached AC common, red, yellow, and green signal section leads, leaving the opposite screw clamp terminal for field wires.

## **Basic Specifications**

- Dimensions 14 in. H x 15¼ in. W x 7¾ in. D
- Weight, typical:
  - Single Section: 3.4lbs
- Standard Colors:
  - Dark Olive Green (matches Federal Standard 595b-14056)
  - Yellow (matches Federal Standard 595b-13538)
  - Dull Black (matches Federal Standard 595b-37038)

#### **Visors**

Visors are tunnel, full-circle, or cap, and are a minimum of ten inches long. Visors are molded from ultraviolet and heat-stabilized polycarbonate and include attaching tabs to facilitate installation.



