

SU500

Optical Counting Turnstile

The compact SU500 is a barrier-free optical turnstile designed for patron counting applications. The SU500 counts passing patrons in either one or both directions.



COMMON APPLICATIONS

- People Counting
- Capacity Monitoring

TYPICAL INSTALLATION SITES

- Theme and Water Parks
- Museums
- Casinos
- Fairs
- Specialty Applications

FUNCTION

The SU500 is an optical counting turnstile. For access control applications where a card or credential reader will be used, the SU2000 provides barrier-free access control in a similar product footprint.

The SU500 has an advanced optical detection system that counts patrons as they pass through the turnstile cabinets. The SU500 can count patrons in either one or both directions. When configured for one direction counting, an alarm can sound when passage in the opposite direction is detected.

The SU500 is a TCP/IP enabled device, allowing it to communicate count passages directly to Alvarado's GateWatch10 facility counting software in real-time over a facility network. In the event that it is not possible or desirable to network installed SU500s, the turnstile can also output counts in the form of a dry contact. An IP-based communication and configuration functionality is included with all SU500 optical turnstiles, making it possible to adjust core settings via TCP/IP using an included web application called LaneConfig. Using a PC, tablet or smart phone, this application allows adjustment of configurable features over a TCP/IP network.

Alvarado also offers a web-based counting application called GateWatch10. This server-based application provides a real-time view of current count activity as well as a historic database of past count activity. The application uses an SQL database that allows customers to easily pull and combine count data with information from other systems for data analysis purposes.

AVAILABLE CONFIGURATIONS

SU500 / SU500E

The SU500 consists of a pair of end cabinets that create a single 28" wide passageway. The SU500E is an extension center cabinet, with the same dimensions as an end cabinet, used to create additional counting passageways with the addition of a single cabinet. For example, one SU500 and one SU500E (total 3 cabinets) would be used to create two counting passage lanes. Additional expansion center cabinets are used to create additional counting passage lanes.

SU500-A / SU500E-A

The SU500-A consists of a pair of end cabinets that create a single 36" wide counting passageway. The SU500E-A is an expansion center cabinet that allows an additional 36" counting passageway with the addition of a single cabinet as described in the section above.

COMBINING 28" AND 36" PASSAGEWAYS

Center cabinets that have a 28" passageway on one side and a 36" passageway on the other side are available (shown right).



Multi-lane configuration with 36" passage width on left and 28" passage width on right

AVAILABLE FINISHES

STAINLESS STEEL, POWDER COATED AND PLATED

External cabinet materials are fabricated from #304 stainless steel polished to a #4 satin finish. Powder coated and plated cabinets are available (see Options).

MATERIALS

CABINET

Cabinets are fabricated from #304 stainless steel.

CABINET LIDS

Cabinet lids are fabricated from Livingstone solid surface acrylic (color: Starry Night Black). Lids can also be provided in any available solid surface color.

INTERNAL FRAME

Electronics are internally attached to a powder coated internal frame.

CONTROLS, OPERATIONAL MODES AND FUNCTIONALITY

The barrier-free SU500 optical turnstile has an advanced optical detection system that counts passing patrons. A main turnstile controller runs the operational application and interfaces to the optical sensors over an internal, high-speed, serial bus. The turnstile controller also interfaces to Alvarado configuration and counting applications, LaneConfig and GateWatch10, via TCP/IP – see Available Related Applications.

COUNTING MODES

Bi-Directional	A patron passage in either direction generates a passage count in either the entry or exit direction, as applicable.
Single Direction	The SU500 can be configured to count in either the exit or entry direction.
No Passage	When configured for one direction counting, an alarm can sound when passage in the opposite direction is detected.

COUNT OUTPUT OPTIONS

GateWatch	The SU500 outputs passage counts to GateWatch10 in real-time over a TCP/IP network. GateWatch10 is a web-based application that provides a real-time view of current passage count activity as well as a historic database of past count activity.
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Local Digital Counter Counts can be output to a small digital counter installed in the turnstile cabinet. One counter is required per direction. The counter can either be continuous (non-resettable) or resettable, in which case a key switch adjacent to the counter returns the count to 0.

OTHER USES

The SU500 is also used for specialty applications. When combined with Alvarado's GWCB-12E count controller, the SU500 can be used to display entries or in-venue totals on a large LED wall display. Other uses include in-exhibit and ride loading capacity counting, as well as providing a relay output when a defined capacity is reached. This output is typically used to turn on a "capacity reached" sign or turn on or off HVAC systems.

AVAILABLE RELATED APPLICATIONS

LANECONFIG

LaneConfig is a web-based application that comes standard with all SU500s. The application allows configurable features of the SU500 and software updates to be installed over a network. Use of LaneConfig in a networked setting eliminates the need to physically plug into individual turnstiles to change turnstile configurations or update software. LaneConfig is accessible from a PC, tablet or smart phone that is networked to installed SU500 turnstiles. In installations where SU500 turnstiles are not networked, LaneConfig is loaded on a laptop which is temporarily plugged into the Ethernet port of individual turnstiles when turnstile configurations are changed or software is updated.

GATEWATCH

Alvarado's GateWatch10 is server-based patron counting software that works in conjunction with our waist high, optical and full height turnstiles. GateWatch10 provides real-time entry and exit counts, in-venue totals and historical counts.

OPTIONS

ALTERNATE LID COLORS AND MATERIALS

Lids can be provided in any available solid surface color.

BASEPLATE

A baseplate for either single turnstile or multi-turnstile configurations is available. The baseplate is powder coated black with a black non-slip coating in the passageway area. A baseplate eliminates the need for trenching or stubbing up conduit from floor.

COUNT CONTROLLER

Alvarado's GWCB-12E is a count controller that is used with the SU500 and other counting turnstiles for specialized applications such as outputting to a large LED display and capacity counting.



CUSTOM CABINETS

External cabinet materials may be powder coated in a variety of colors.

POWER SUPPLY - EXTERNAL ENCLOSURE

A portable enclosure is provided for remote installation of the SU500 primary power supply. The enclosure houses up to three power supplies (one supply per turnstile). The enclosure has openings for connecting 110/220VAC primary power to the power supplies and for the running of low voltage power to the turnstiles.

WALL DISPLAY

Count outputs from the SU500 turnstiles can be output to a large four-digit wall display. This option requires the use of a GWCB-12E count controller which communicates to the wall display via RS-485.

CONDUIT REQUIREMENTS

HIGH-VOLTAGE PRIMARY POWER SOURCE CONDUIT

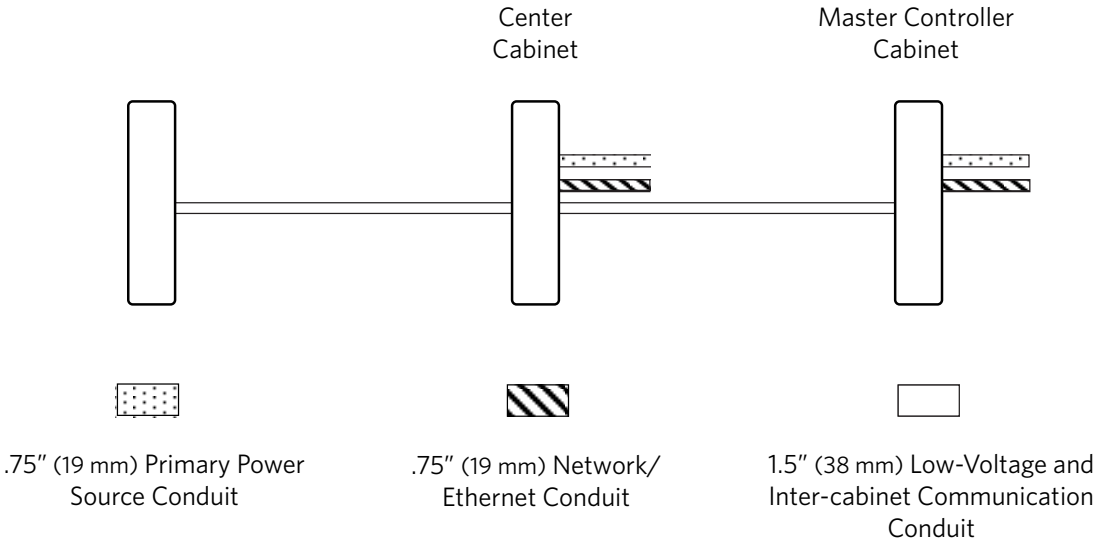
.75" (19 mm) power conduit for primary power must be run to each master controller cabinet. Note: The product standard is 110-120 VAC (use of 220-240 VAC is an option).

LOW VOLTAGE INTER-CABINET COMMUNICATION CONDUIT

1.5" (38 mm) conduit must be run to allow passage of the interconnect cable between cabinet sets. 8' (244 cm) interconnect cables are included. Longer 20' (610 cm) cables are available.

ETHERNET CONDUIT (GATEWATCH / NETWORK)

.75" (19 mm) power conduit for Ethernet. Networked turnstiles must have Ethernet cable run to all master and center cabinets.



SHIPPING AND SITE PREPARATION

SHIPPING

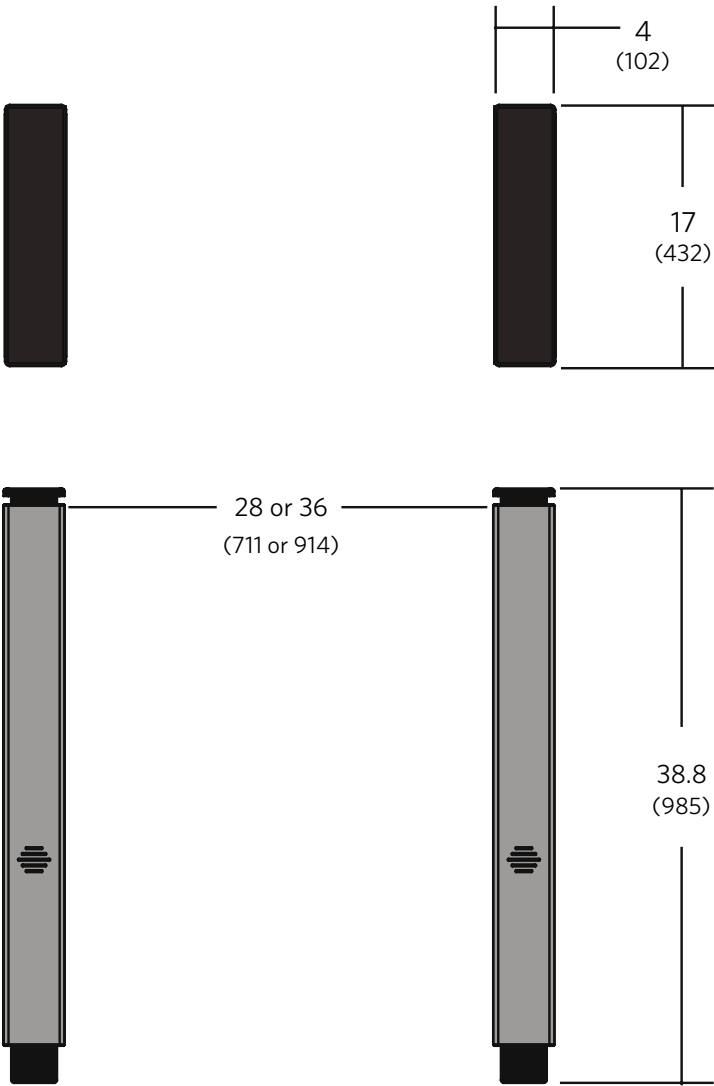
SU500 cabinets are shipped assembled for easy installation. Each cabinet includes mounting hardware (anchors, bolts washers, etc.) to mount the unit to a level concrete floor.

SITE PREPARATION

Turnstiles must be installed on a firm foundation in a manner that allows the required power and access control cabling to be pulled into the turnstile cabinet. The slab platform should be a minimum of 4" (102 mm) deep, level concrete. Installation should be performed by a skilled installer following Alvarado's instructions. Detailed drawings and installation manuals are available online.

TECHNICAL DIMENSIONS

Dimensions are shown in inches (mm). All measurements are approximate.



Electrical	Description	
UL Rated Power Supply	1120 VAC, 60 Hz or 220-240 VAC, 50 Hz (optional)	
Power Requirements	Maximum power consumption is 60W per lane with all options installed.	
Operational Voltage	Primary power is stepped down and rectified for low voltage 12 VDC and 5 VDC operation.	
On/Off Power Button	Recessed on/off power button is located in the base of each master cabinet.	
Weights and Environmental		
Product Weight	50 lbs.	23 kg Per cabinet weight
Shipping Weight	100 lbs.	45 kg Includes weight of shipping crate(s)
Operating temperature	50° to 90° F	10 to 32° C
Storage Temperature	0° to 104° F	-4 to 40° C
Relative Humidity	15-85% (non-condensing)	--

WARRANTY

For a period of 18 months from the date of purchase, Alvarado will replace or repair, at Alvarado’s option, any products or parts which are defective in materials or workmanship, provided recommended installation and maintenance procedures are followed. This warranty is void if damage is due to improper installation, maintenance or use. This warranty is limited to parts only, and does not cover labor or shipping charges incurred in connection with the removal or replacement of warranted products or parts.

This warranty is expressly made in lieu of any and all other warranties, expressed or implied, including, but not limited to implied warranties of merchantability and fitness for a particular purpose. Alvarado shall not be liable for any loss or damage, directly or indirectly, arising from the use of purchased products. In no event shall Alvarado be liable to buyer for consequential damages, special damages, incidental damages, loss of use, business interruption, loss of profits, or damages of any kind arising out of the use or inability to use a purchased product. In no event shall Alvarado be liable for damages which exceed the purchase price of a covered product.

