ALVARADO

protecting assets and controlling the flow of people

model SU2000-SM

DESCRIPTIVE SPECIFICATIONS

The Supervisor 2000-SM is our thinnest barrier-free turnstile. Its compact form is well suited for applications where space is at a premium.

COMMON APPLICATIONS

- Employee and Visitor Access Control
- Time & Attendance Integration
- People Counting

TYPICAL INSTALLATION SITES

- Government Facilities
- Corporate Lobbies
- Entertainment Venues

FUNCTION

The Supervisor 2000-SM is a barrier-free, optical turnstile that provides bi-directional access control and other passage modes (described below). In access control mode, upon receipt of a valid card signal from an access control system, or GateKeeper turnstile control software (see Options), the integrated sensors allow a single user to pass through the turnstile in the requested direction. If an unauthorized user attempts to tailgate on the entry, the unit will recognize the illegal passage, a violation alarm will sound and red notification lights will flash.

The SU2000-SM utilizes integrated optical sensors to control access. The optical sensors detect patrons, determine the direction of patron movement and (in conjunction with the facility access system) detect unauthorized users as well as “piggybacking” or “tailgating” on allowed entries.

While access control throughput will depend on the access control system and readers used, the SU2000-SM supports extremely rapid entry and throughput. It will “stack” valid scans and process patrons as fast as they can walk through the turnstile.

AVAILABLE CONFIGURATIONS

SU2000-SM

The SU2000-SM consists of a pair of end cabinets that create a single lane with a 28”-36” wide passageway. Center cabinets (that are the same dimensions as end cabinets) may be added to create multi-lane configurations; i.e. two end cabinets and two center cabinets create three lanes.

AVAILABLE FINISHES

STAINLESS STEEL

External cabinet materials are fabricated from #304 stainless steel polished to a #4 satin finish. See Options for details on powder coating or cabinet construction using alternate materials.

MATERIALS

CABINET

The cabinet is fabricated from formed and welded #304 stainless steel. See Options for details on cabinet construction using alternate materials. The cabinet base is fabricated from formed and welded carbon steel and powder coated black.

INTERNAL FRAME

A powder coated steel internal frame houses electronics, motors and other internal components.

CABINET LIDS

Cabinet lids are fabricated from 14-gauge aluminum in a clear anodized #4 satin finish.

OPERATIONAL MODES & FUNCTIONALITY

PASSAGE MODES

The SU2000-SM offers the following user-configurable passage modes:

Controlled Passage - Upon receipt of an authorization signal from an access control system, a single passage in the authorized direction is allowed. Controlled Passage can be either single direction or bi-directional.

Free Passage - An authorization signal is not required for a user to pass through the lane. Free Passage can be either single direction or bi-directional.

No Passage (Lane Closed) - No passage is allowed. Valid electronic credentials are ignored. Any passage will set off violation alarms. No Passage can be either single direction or bi-directional.

STATUS LED DISPLAY*

An illuminated status LED array is flush mounted within the cabinet lid. It is configured to function in the following manner:

Yellow LED - An illuminated yellow LED means the turnstile is ready for card presentation.

Green LED - An illuminated green LED indicates passage is allowed in the direction indicated and/or valid credentials have been presented.

Red LED - An illuminated red LED indicates passage is prohibited in the direction indicated and/or invalid credentials have been presented.

Green LED Flashing - A flashing green LED indicates the turnstile is in free passage mode in the direction indicated.

AUDIBLE ALERTS & VIOLATION ALARMS

The SU2000-SM features audible alerts for the following conditions:

- Unauthorized Passage
- Blocked Sensor
- Tailgating/Piggybacking

TAILGATE SENSITIVITY

Tailgate sensitivity can be adjusted via dip switches or with GateKeeper turnstile control software (see Options).

EMERGENCY OVERRIDE / FIRE ALARM

Activation in conjunction with a fire alarm or other life safety system is achieved by supplying a sustained dry contact to the SU2000-SM. During emergencies the SU2000-SM will not emit alarm signals and status LEDs will turn off.

*Photos depicting Status LEDs may be found at **www.alvaradomfg.com**

INTERFACE

INTERFACE TO TURNSTILE

There are three types of interfaces available for the SU2000-SM:

DRY CONTACT - Single passage activation for either direction of operation is achieved by supplying an isolated, voltage free, momentary dry contact. The length of contact is user definable through the turnstile control software. The type of input (open or closed) is also definable.

RS485 - Many turnstile settings, including passage activation, can be controlled and monitored using optional GateKeeper turnstile control software. Refer to the GateKeeper specification for additional information.

CUSTOM - Custom methods of integration with the facility access system can be provided. Contact Alvarado to discuss requirements.

INPUTS & OUTPUTS

The SU2000-SM has a number of available inputs and outputs. The length and type of input/output (normally open or normally closed) is user definable. Terminal strip connections are provided for the following signals:

Input Signal	# of Terminals
Direction Closed	2
Direction Open	2
Override Passage	2
Passage Allowed	4
Passage Denied	2
Alarm Reset	1
Emergency Override	1

Output Signal	# of Terminals
Authorized Passage	2
Unauthorized Passage	2
Violation Alarm	2
Aborted Entry (Time Out)	2
Blocked Sensor	2
Total Passage Counter	2

OPTIONS

ALTERNATE CABINET MATERIALS

Cabinets may be fabricated from wood, laminates or other materials. Contact Alvarado to discuss requirements.

POWDER COATED CABINETS

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

LANE KEY CONTROLS

A pair of 3-position key switches are provided to control each direction of travel per lane. Turning the key to one of three positions overrides all settings and can place the turnstile in Controlled Passage Mode, Free Passage Mode or No Passage Mode. Setting is user-configurable for each direction of travel.

AUTHORIZATION CHIME

A chime indicates that an activation signal has been provided to the turnstile and the user is allowed passage.

BASEPLATE

A baseplate for either single or multi-lane configuration is available. The baseplate is treated with a non-slip coating in the passageway area.

GATEKEEPER TURNSTILE CONTROL AND MONITORING SOFTWARE

GateKeeper is a PC-based application that allows installed SU2000-SM turnstiles to be monitored and administrated from a single PC. GateKeeper software allows users to configure and control multiple SU2000-SM's or a combination of SU2000-SM's and other Alvarado optical turnstiles. Please contact Alvarado's Customer Service Department about requirements involving the SU2000-SM and other Alvarado turnstiles. The program runs on Windows XP, Vista and Windows 7 operating systems and communicates with SU2000-SM units via an RS485 serial interface.

ALTERNATE POWER SUPPLY & 240 VAC ON/OFF SWITCH

A 110/240 VAC, 50/60 Hz power supply and appropriately rated key switch are utilized.

CONDUIT REQUIREMENTS

PRIMARY POWER CONDUIT

1" power conduit for primary power must be run to each master controller cabinet.
Note: The product standard is 110 VAC (see Options for alternate power supply availability).

LOW-VOLTAGE & COMMUNICATION CONDUIT

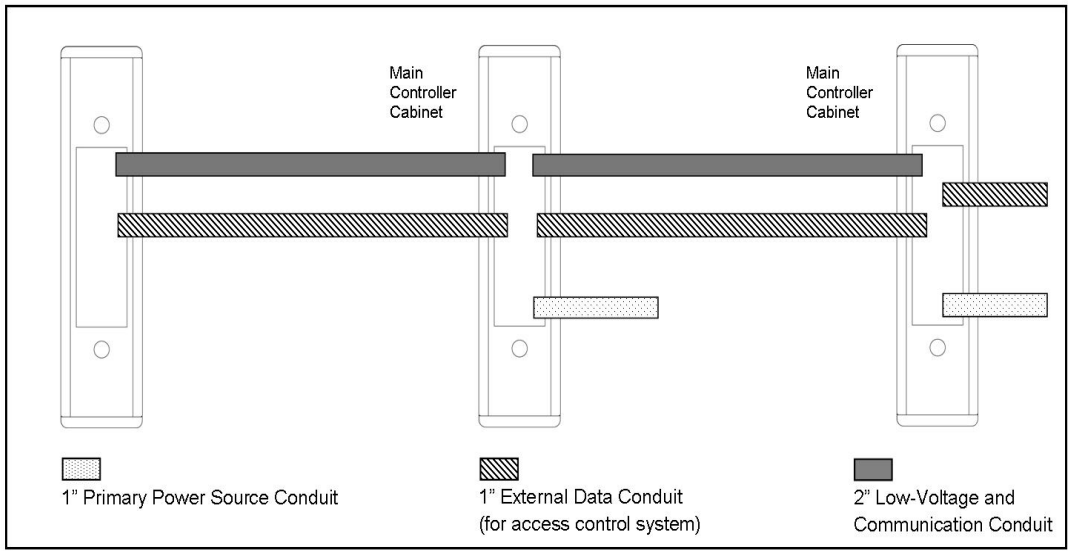
2" conduit must be run to interconnect the cabinet sets that form each passage lane. 20' cables to interconnect cabinets are provided to control lane operation and functionality. Conduit that interconnects a cabinet set should generally not exceed 10' in length.

EXTERNAL DATA CONDUIT

Alvarado recommends a 1" conduit for external data sources (i.e. access control systems). Alvarado does not provide cables for access control systems. Consult with access control system provider for power and communication conduit specifications for integrating card readers or other access control devices with turnstiles.

GATEKEEPER

Optional GateKeeper software is Windows based and communicates with the SU2000-SM via RS485. Four wire communication cable must be daisy-chained from the COM port on the host computer to each turnstile to provide communication. No more than 16 turnstiles may be daisy-chained to each COM port. Total cable length from the COM port to the last turnstile in the daisy-chain may not exceed 3,000 feet (914m). RS485 communication cable must not be run in the same conduit as AC Power.



SHIPPING & SITE PREPARATION

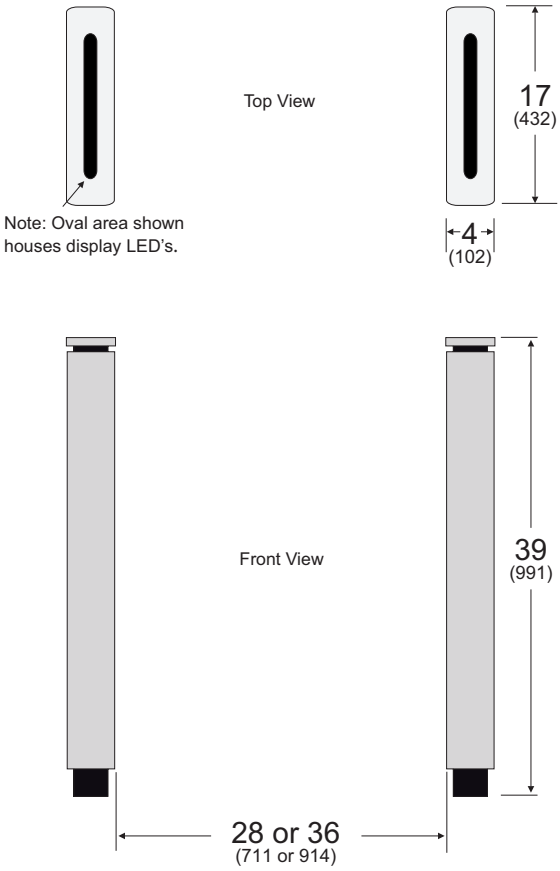
SHIPPING

SU2000-SM cabinets are shipped fully assembled for easy installation. Each cabinet includes mounting hardware (anchors, bolts, washers, etc.) to mount the unit to a standard, 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 recommended slab platform should be a minimum of 4" 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 shown in inches (mm).

THROUGHPUT RATES	
CARD READER TYPE*	USERS PER MINUTE**
PROXIMITY	40
MAGNETIC SWIPE	25
MAGNETIC SWIPE WITH NUMERIC KEYPAD	20
OMNI-DIRECTIONAL BARCODE SCANNER	40
*Access control system response is assumed to be instantaneous	**Approximate. Rates may increase with user familiarity.

ELECTRICAL	
	DESCRIPTION
POWER SUPPLY	120VAC, 60 Hz.
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 KEY SWITCH	An on/off key switch is located on each master cabinet.

WEIGHT, DIMENSIONS, ENVIRONMENT			
	STANDARD	METRIC	
PRODUCT WEIGHT*	50 lbs.	23 kg	*Per cabinet weight
SHIPPING WEIGHT**	100 lbs.	45 kg	**Includes weight of shipping crate(s)
HEIGHT	39”	991mm	
WIDTH	4”	102mm	
DEPTH	17”	432mm	
OPERATING TEMP. RANGE	32° to 104° F	0 to 40° C	
STORAGE TEMP. RANGE	0° to 104° F	-4 to 40° C	
RH	5-90% (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.