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Universal Gate 2100

Universal Gate at-a-glance:

- Modular gate for fare collection and access control
  - Validate usage, reduce fraud
  - Fast throughput
  - Communications with the central system via Ethernet, offline operation up to 7 days
  - Programmable as entry, exit and bi-directional gate
  - High availability, reliability and maintainability
- Flexibility of ticketing options
  - Read/write magnetic tickets via swipe or transport
  - Read/write ISO 14443 Type A and Type B full featured and limited use contactless smart cards using Cubic's Tri-Reader® multi-protocol card interface device
  - Automatically collect Autoload and Ticket on Departure at the gate
- User-friendly interfaces
  - Choice of gate design — turnstile, bi-parting leaf and wide aisle bi-parting leaf for disabled patrons, child pushchairs/strollers, bicycles and luggage
  - Wide aisle gate is DDA/ADA compliant and can open for disabled patrons automatically via smart card credentials or under staff supervision (local or remote control)
  - Large, high-contrast, backlit patron display for open/closed status, fare structure in place (peak/off peak) and remaining card value
- High safety compliance
  - Automatic emergency opening with unobstructed walkway
  - Programmable safety breakthrough in both directions
  - Programmable soft close force
  - Automatic back-off in the event of an obstruction

The Universal Gate offers unmatched flexibility and is configurable to meet a variety of access control, ticketing and user interface requirements. The modularly designed gate features choice of turnstile, bi-parting leaf, and wide aisle bi-parting leaf. The wide aisle gate facilitates access for disabled patrons and patrons requiring wider access for child pushchairs/strollers, bicycles and luggage.

The Universal Gate collects electronic fares, validates usage, grants/restricts access based on criteria and credentials, controls and facilitates patron flow, collects and communicates information.

Accepting magnetic tickets and ISO 14443 Type A and Type B full featured and limited use contactless smart cards, the Universal Gate gives freedom of card choice and enables interoperability between operators. With the use of smart cards, advanced payment features such as Autoload and Ticket on Departure can be automatically collected and used at the gate.

How it works

As smart cards are presented to the target on the gate, Cubic's Tri-Reader® quickly reads the card, calculates the required fare, deducts the correct fare from the stored value or stored rides on the card and re-encodes the remaining value or number of rides to the card or validates a transit pass on the card. The patron display indicates if access is granted or denied and the gates either open to permit access or remain closed.

The Universal Gate communicates with the central system via a dedicated network to upload transactions and equipment status and download configuration data including software updates, fare tables, hotlists and Autoload lists.

Universal Gate 2100

Specifications :

Physical

Dimensions:

Height 1016mm (40in) [cabinet], 1346mm (53in) [top of display], 361mm (14.2 in) to 856mm (33.7in) [top of leaf from floor], 762mm (30in) [top of turnstile from floor]; Width 279mm (11in) [leaf], 178mm (7in) [turnstile], 508mm to 559mm (20in to 22in) [standard aisle], 914mm (36in) [wide aisle]; Depth 1626mm (64in) [cabinet]

Weight: 182kg (400lbs)

Material: stainless steel cabinet, polyurethane foam skin around aluminum core leaf or stainless steel tube turnstile, polycarbonate display

Voltage: 120 VAC at 50/60 Hz

Power Dissipation: 50W Max; 1150W Max with optional heaters, 2 per gate at 300W each

Capacity

Processor: Pentium$^{®}$ III PGA 370, 650 MHz (min)

Operating System: Embedded XP

Memory: 2GB Compact Flash; 256 MB RAM

External Interfaces

10 BaseT Ethernet with RJ-45 jack

USB port (2)

RS-232/422 (10)

SCADA

Emergency open signaling system

Interface for maintenance keypad/keyboard

Parallel printer port

Environmental

Storage Temperature: -23°C to +70°C (-10°F to +158°F)

Operating Temperature: -23°C to +50°C (-10°F to +122°F)

Relative Humidity: 15% to 95%

Vibration: Mil-Std-810D, Method 514.3, Category 8, 0.25g (RMS) all axes, 5 to 25 Hz

Shock: Mil-Std-810D, Procedure I, half-sine pulse, 1g peak, 10msec

Ingress Protection: IP53

Immunity: EN61000-6-2

Emissions: EN61000-6-3, FCC Class B

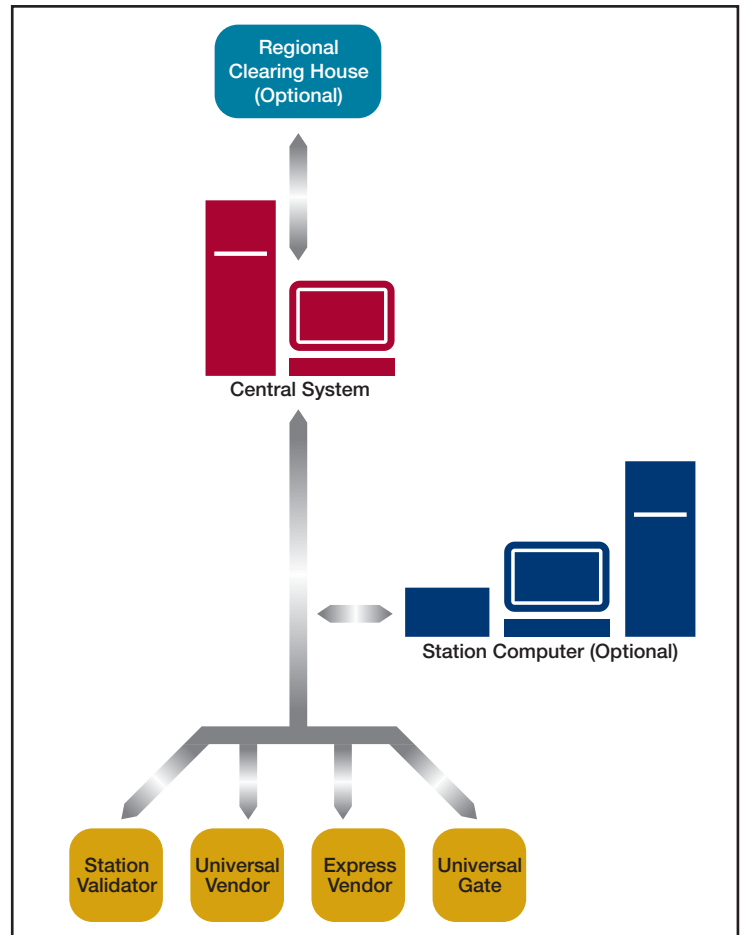Flammability: UL VO for the polycarbonate barriers

User Interfaces

Operator Interface: keypad (86 keys)

Patron Interface: 5.6 in thin film transistor color LCD for aisle and media status, 1 set of red, yellow and green LEDs for smart card transaction status, up to 4 sets of LEDs/photo sensors for aisle movement, concession lamp, audible alarm

Media Issuance: N/A

Media Acceptance: ISO 14443 Type A and Type B full featured and limited use contactless smart cards, optional magnetic ticket capability with 500 ticket capture bin

Tri-Reader® is a registered trademark of Cubic Transportation Systems, Inc.

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In the interests of product improvement Cubic reserves the right to change the above specification without notice.

10/26/09