## AAS 11-3500 With Remote Open Input

## User/Installation Manual



## AAS 2-Year Limited Warranty

This warranty applies to all product or equipment specifically and solely designed for and manufactured by American Access Systems, Inc. Any equipment used in AAS products that is not manufactured by American Access Systems, Inc. (this includes all products purchased by AAS for OEM purposes) is liable and subject to warranty terms of that specific manufacturer. Those products used by AAS which are not covered by the AAS 2-Year Limited Warranty are: TekTone, HID, SecuraKey and Omniprint.

If your AAS product is defective and returned within two years of the date of purchase, we will repair it, or at our option, replace it at no charge to you. If we repair your AAS product, we may use new or reconditioned parts. If we choose to replace your AAS product, we may replace it with a new or reconditioned unit of the same or similar design. The repair or replacement will be warranted for 90 days or the remainder of the original two-year warranty period, whichever is longer.

Limitations:
Implied warranties, including those of fitness for a particular purpose and merchant ability (an unwritten warranty that the product is fit for ordinary use), are limited to two years from date of purchase. We will not pay or recompense for loss of time, inconvenience, loss of use of your AAS product, service calls or property damage caused by your AAS product, its failure to work or any other incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above exclusions or limitations my not apply to you.

## What we ask you to do:

To get warranty service for your AAS product, you must provide proof of the date of purchase. Contact the original dealer or installer of the product and return your AAS product along with the receipt to them. If you have problems locating the dealer or installer, please contact American Access Systems, Inc at (303) 799-9757 and we will direct you to an authorized dealer or distributor of AAS products. If you ship your AAS product, you must prepay all shipping costs. We suggest that you retain your original packing material in the event you need to ship your AAS product. On return, include your name, address, phone number, proof of date of purchase, RMA \# (obtained through an authorized AAS dealer or distributor) and a brief description of the operating problem. IF AN RMA \# IS NOT LISTED ON THE EXTERIOR OF THE PACKAGING OR THE PAPERWORK YOU INCLUDE, THE PRODUCT WILL BE RETURNED TO YOU. NO SERVICE WORK WILL BE PERFORMED UNTIL AN RMA \# IS OBTAINED AND INCLUDED WITH YOUR SHIPMENT TO US.

What this warranty does not cover:
This warranty does not cover defects resulting from accidents, damage while in transit, alterations, unauthorized repair, failure to follow instructions, misuse, fire, flood or acts of God. Nor do we warrant your AAS product to be compatible with any particular external device or peripheral. If the warranty has expired on your AAS product or if your product is NOT covered, please contact your dealer or installer for advice on whether we will repair your AAS product and other repair information, including estimated repair costs and other charges.

This warranty is the only one we give on our products, and it sets forth all of our responsibilities regarding your AAS product. There are no other express warranties.

State Law Rights:
This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

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## PARTS CHECKLIST

## Enclosed with this box you should have the following items.

| Qty | Description |
| :--- | :--- |
| 1 | Control Station |
| 4 | $1 / 4$ by $1 / 2$ carriage bolts (Post mount units only) |
| 4 | $1 / 4-20$ hex nuts (Post mount units only) |
| 1 | Square mounting flange (Post mount units only) |
| 1 | 12 Volt AC Transformer ON "L" MODELS ONLY |
| If any of the above items are missing from this box, contact American Access Systems |  |

## TOOLS YOU WILL NEED

Wire nuts or appropriate connectors
Wire strippers
Wire cutters
3/8" drive ratchet with 6 " extension and 7/16" socket (Post mount units only)

Digital or Analog multi-meter

## INTRODUCTION

The 11-3500 is a stand alone access control system that will control access to a passageway for up to 3500 individuals ( 1750 when the Timed Antipassback feature is activated).

There are two kinds of cards used with the 11-3500, access cards and program cards.
Access cards are used by individuals to gain access to the passageway. Each access card is magnetically encoded with two types of information: the system code (or facility code) and the ID number. Your access cards will all have the same system code, but each will have its own ID number. Your unique system code is what prevents cards from other systems from activating your unit. The ID number is what distinguishes one user card from another.

Program cards are used to tell the 11-3500 what it is to do. As with access cards, program cards are magnetically encoded with a common system code and instruction information. The system code of your program cards is the same as the system code of your access cards. Your unique system code is what prevents program cards from other systems from programming your system. There are 15 different program cards. There are ten number cards ( 0 through 9 ) and five function cards. The program cards are as follows:

| "0" | ZERO |
| :---: | :---: |
| "1" | ONE |
| "2" | TWO |
| "3" | THREE |
| "4" | FOUR |
| " 5 " | FIVE |
| "6" | SIX |
| "7" | SEVEN |
| "8" | EIGHT |
| "9" | NINE |
| "*" | THRU |
| "VALID" | VALIDATE |
| "VOID" | VOID OR CANCEL |
| "SET TIMER" | SET LATCH TIMER OR ANTIPASSBACK TIMER |
| "ACTIVE/INACTIVE" | ACTIVATE OR INACTIVATE SYSTEM |



Fig 1

## SETTING THE SYSTEM (FACILITY) CODE

When received, the correct system code may already be set. Should it become necessary to reset the system code, unlock the panel to gain access to the reset button (see figure 2).
Momentarily depress the reset button. The LED indicator will flash red and green alternately (If at power up, the LED is already flashing red/green, it is not necessary to open the panel and press the reset button). While the LED indicator is flashing, place either a programming card or an access card with the proper system code onto the touch plate and remove it. The 11-3500 will "remember" the system code and retain it until reprogrammed. If the reset button is pushed, but no card is placed on the TOUCH CARD® reader plate before the LED indicator times out, the system code will be unchanged. Wait for the LED indicator to time out before programming the unit.

There may occur situations which require the unit to recognize more than one system (facility) code. The 11-3500 can be set to recognize up to three different system codes. To program multiple system codes, follow the procedure above for programming a single system code, but place a card with the second system code (and third system code if necessary) on the TOUCH CARD® reader plate before the red/green LED indicator times out. When more than one facility code has been programmed, the unit will not distinguish between cards having different facility codes but the same ID number.


Figure 2

## PROGRAMMING THE 11-3500

Functions of the 11-3500 are programmed by placing the program cards on the TOUCH CARD® reader plate in a proper sequence. It is helpful to think of placing a program card on the TOUCH CARD® reader plate as depressing a key on a keyboard or key pad. You may begin programming at any time by placing the first program card of the sequence on the TOUCH CARD® reader plate. At this point the LED indicator will show an amber color. When you remove the program card from the TOUCH CARD® reader plate, the LED indicator will flash the amber color awaiting the next program card. Placement of the next program card on the TOUCH CARD® reader plate causes the amber LED to stop flashing and become solid. In like manner, the remainder of the program cards for the programming sequence are placed on the TOUCH CARD® reader plate. At the end of the programming sequence, the LED indicator will flash green to indicate that the programming instruction has been accepted. While programming, it is necessary to place the next card of the sequence on the TOUCH CARD® reader plate while the LED indicator is flashing amber (you have approximately 10 seconds between each card). If the amber LED times out, it will be necessary to restart the programming sequence. Should an error be made in the programming sequence, the LED indicator will flash red instead of green.

VALIDATING A SINGLE CARD.
To validate a single card, place the sequence of program cards representing the card number on the TOUCH CARD® reader plate and then place the "VALID" card on the TOUCH CARD® reader plate.

Example: Validate card number 100.
Place the " 1 " card on the TOUCH CARD® reader plate, remove it and place the " 0 " card on the TOUCH CARD® reader plate, remove it and place again the " 0 " card on the TOUCH CARD® reader plate, remove it and place the "VALID" card on the TOUCH CARD® reader plate, and remove it.
$1+0+0+$ VALID

## VALIDATING A BLOCK OF CARDS.

To validate a block (continuous sequence) of cards, place the sequence of cards representing the first card number of the block on the TOUCH CARD® reader plate, then the "**" (THRU) card, then the sequence of cards representing the last card number of the block, and then place the "VALID" card on the TOUCH CARD® reader plate.

Example: Validate cards 5 thru 225.
Place the " 5 " card on the TOUCH CARD® reader plate, remove it and place the "*" (THRU) card on the TOUCH CARD® reader plate, remove it and place the " 2 " card on the TOUCH CARD® reader plate, remove it and again place the " 2 " card on the TOUCH CARD® reader plate, remove it and place the " 5 " card on the TOUCH CARD® reader plate, remove it and place the "VALID" card on the TOUCH CARD® reader plate, and remove it.

$$
5+{ }^{*}+2+2+5+\text { VALID }
$$

## VOIDING CARDS.

Cards may also be voided (cancelled) either singly or in blocks. Follow the instructions for validating above, replacing the "VALID" card with the "VOID" card.

SETTING THE LATCH TIMER.
The output from the relay may be set to any number of seconds from 1 to 30 . To set the latch timer, place on the TOUCH CARD® reader plate the sequence of program cards representing the number of seconds the latch is to be on, then place the "SET TIMER" card on the TOUCH CARD® reader plate and removeit.

Example: Set latch timer for 15 seconds.
Place the " 1 " card on the TOUCH CARD® reader plate, remove it and place the " 5 " card on the TOUCH CARD® reader plate, remove it and place the "SET TIMER" card on the TOUCH CARD® reader plate, and remove it.

$$
1+5+\text { SET TIMER }
$$

Setting the latch timer to " 0 " produces a 0.25 second output, timed from when a valid card is placed on the TOUCH CARD® reader plate.

ACTIVE/INACTIVE.
The 11-3500 may be made inactive for entry by placing the "ACTIVE/INACTIVE" card on the TOUCH CARD® reader plate and then removing it. While the reader is in the inactive mode, the LED indicator will flash red approximately once every second. The unit may not be programmed while it is in the inactive mode. To reactivate the reader, again place the "ACTIVE/INACTIVE" card on the TOUCH CARD® reader plate and remove it.

## DOOR UNLOCK MODE.

The relay may be set to stay latched (door unlocked) during periods when access control is unwanted. While in the "DOOR UNLOCK" mode, the relay stays activated, and the LED indicator will flash green approximately once every second. The unit may not be programmed with the programming deck, nor will it recognize access cards while in the "DOOR UNLOCK" mode. To set the unit to the "DOOR UNLOCK" mode, place the "*" (THRU) card on the TOUCH CARD® reader plate, remove it and place the "ACTIVE/INACTIVE" card on the TOUCH CARD® reader plate and remove it.

## * + ACTIVE/INACTIVE

To return the 11-3500 to normal operation, place the "ACTIVE/INACTIVE" card on the TOUCH CARD® reader plate and remove it.

TIMED ANTIPASSBACK FEATURE.
If the Timed Antipassback feature is activated, a card used for entry is made temporarily void for a settable amount of waiting time. The purpose of this feature is to deter a user from "passing back" his card to another for unauthorized entry. When this feature is activated, the maximum ID number that the unit will accept is 1750 . When this feature is deactivated, the maximum ID number is 3500 .

If you activate the Timed Antipassback feature, cards with ID numbers greater than 1750 will no longer be recognized by the unit. The status (Void or Valid) of cards with ID numbers of 1750 or less will remain unchanged. Once activated, you must set an antipassback waiting time for this feature to be functional (See below).

To activate the Timed Antipassback feature, place the "*" (THRU) card on the TOUCH CARD® reader plate and remove it. Then place the "SET TIMER" card on the TOUCH CARD® reader plate and remove it. Then place the "VALID" card on the TOUCH CARD® reader plate and remove it.
${ }^{*}+$ SET TIMER + VALID

To deactivate the Timed Antipassback feature, place the " 0 " card on the TOUCH CARD® reader plate and remove it. Then place the "*" card on the TOUCH CARD® reader place and remove it. Then place the "SET TIMER" card on the TOUCH CARD® reader plate and remove it.

$$
0+{ }^{*}+\text { SET TIMER }
$$

## ANTIPASSBACK WAITING TIME.

The antipassback waiting time may be set to any number of minutes from 1 to 30 . However, the actual waiting time will fluctuate between the time set and twice the time set. Thus, if the antipassback time is set to 5 minutes, users will have to wait a minimum of 5 minutes and a maximum of 10 minutes before reentry will be allowed. Setting the antipassback waiting time to 0 will disable the Antipassback feature and reentry will be allowed immediately. See above to reactivate the Antipassback feature.

To set the antipassback waiting time, place on the TOUCH CARD® reader plate the sequence of cards representing the number of minutes of the minimum waiting period ( 1 to 30 ), then place the "*" card on the TOUCH CARD® reader place and remove it, then place the "SET TIMER" card on the TOUCH CARD® reader plate and remove it.

Example: Set antipassback waiting time to 3 minutes.
Place the " 3 " card on the TOUCH CARD® reader plate, remove it, and place the "*" on the TOUCH CARD® reader plate, remove it, and place the "SET TIMER" card on the TOUCH CARD® reader plate, and remove it.

```
3 + * + SET TIMER
```

SecuRelayTM Mode. 26SA units with firmware version 4.0 or higher may be used with the SecuRelayTM for increased vandal resistance.

To place the unit in the SecuRelayTM mode, place the "*" card on the reader twice, followed by the " 8 " card.

* $+{ }^{*}+8$

To return to normal mode, place the "*" card on the reader twice followed by the " 1 " card.

$$
\text { * }+{ }^{*}+1
$$

## INSTALLATION

## WIRING INSTRUCTIONS

The 11-3500 is provided with a connector and 10 wire leads (see figure 2). Using appropriate wire nuts or crimp on connectors, wire the unit as per table 1 below. Be sure unused wires are insulated to avoid shorting. In addition to the wiring below, and on following page, AN EARTH GROUND IS REQUIRED.

| WIRE | WIRE COLOR | DESCRIPTION |
| :---: | :--- | :--- |
|  |  | POWER |
| 1 | WHITE | 10 TO 24 VAC OR |
| 2 | WHITE TO 24 VDC |  |
|  |  | LATCH CONTACTS, 3 AMP |
| 3 | YELLOW | NORMALLY OPEN |
| 4 | BLUE | NORMALLY CLOSED |
| 5 | GREEN | COMMON |
| 6 | YELLOW/BLACK | NORMALLY OPEN |
| 7 | BLUE/BLACK | NORMALLY CLOSED |
| 8 | GREEN/BLACK | COMMON |
| 9 | BROWN | REMOTE OPEN |
| 10 | ORANGE | REMOTE OPEN |

Table 1

## Typical Installation for 11-3500 to Gate Operator



White night light leads will hook directly to power leads when using 12 VAC transformer. If using 24VAC operator control voltage you MUST connect a 100 ohm 10 watt resistor in series with on of the white night light leads to reduce voltage to 12 volts

## NEW FEATURES AVAILABLE ON 11-3500 VERSION 4.0 AND LATER.

REMOTE OPEN (REX). Connect the Brown and orange wires to any Normally Open switch. Closing this circuit will activate the latch Relay/Shunt Relay for the number of seconds you have selected when you set the Latch Timer.

SecuRelayTM. The SecuRelayTM from Secura Key may be purchased separately for use with ENTRACOMP $®$ 26SA units which have firmware version 4.0 or later. SecuRelayTM allows the lock/gate control circuit to be remotely located so that attacking the 26SA will not open the passageway. SecuRelayTM comes with a wiring harness which plugs directly into the 3-pin header on the 26SA circuit board (see figure 1) NOTE: Remote Open must be disabled if SecuRelayTM is used.

## SPECIFICATIONS

POWER REQUIREMENTS
10 to 24 VAC, $150 \mathrm{~mA}, 50$ or 60 Hz or 10 to $24 \mathrm{VDC}, 150 \mathrm{~mA}$
OUTPUTS
Latch \& Alarm Shunt DPDT contact, 3 A up to 277 VAC or 30 VDC
Tamper (optional) SPDT contact, 115 VAC, 2A maximum
SecuRelayTM (optional) 3 -wire data and power circuit
INPUTS
Remote Open (REX) Close circuit to operate Latch Relay
ENVIRONMENT
Ambient Temperature -40 oF to $1580 \mathrm{~F}(-40 \mathrm{oC}$ to 70 oC$)$
Humidity
$0 \%$ to $95 \%$ relative humidity (non-condensing)
OPERATIONAL
Memory E2 PROM (non-volatile)
Card Capacity $\quad 3500$ cards ( 1750 with timed antipassback)
Facility Code Up to 3 different codes simultaneously
Latch/Alarm Shunt Timer Programmable from 1 to 30 seconds
Timed Antipassback
Programmable from 1 to 30 minutes

This product complies with UL 294 standards.
TouchCard® and SecuRelay ${ }^{\top \mathrm{M}}$ are trademarks of Secura Key.

Notes:

## CONTACT INFORMATION

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