*ACCESS CODE LOG SHEET*

**ACCESS CODE**          **NAME**

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# AMERICAN ACCESS SYSTEMS, INC.



**PROXIMITY 2000**

**INSTALLATION & PROGRAMMING INSTRUCTIONS**

**MODEL**
**23-106**
**Reader&Controller**

**PLEASE READ BEFORE USING THIS EQUIPMENT**

## AAS 1-Year Limited Warranty

**What item(s) this warranty applies to:**
American Access Systems "Prox 2000 (23-XXX series)" access controls.

**What is covered:**
Any defect in materials or workmanship.

**For how long:**
One year from date of purchase.

**What we will do:**
If your AAS product is defective and returned within 1 year 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 one of the same or similar design. The repair or replacement will be warranted for (a) 90 days or (b) 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 one year from date of purchase. We will not pay for loss of time, inconvenience, loss of use of your AAS product, service calls, or property damage caused by your AAS product or 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 may not apply to you.

**What we ask you to do:**
To get warranty service for your AAS product, you muse 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 contact American Access Systems at (303) 799-9757 and we will direct you to an authorized dealer or distributor of American Access Systems 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, and a brief description of the operating problem.

**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 your warranty has expired on your AAS product or if your product is NOT covered 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. We, at our option, may replace rather than repair your AAS product with a new or similar design if the damage to the unit is severe or extensive.

This warranty is the only one we give on this product, and it sets forth all 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 which vary from state to state.

**AMERICAN ACCESS SYSTEMS, INC.**
**7079 SOUTH JORDAN ROAD / 6**
**ENGLEWOOD, CO. 80112**
**PH: (303) 799-9757**
**FAX: (303) 799-9756**

# 30-016A CIRCUIT BOARD
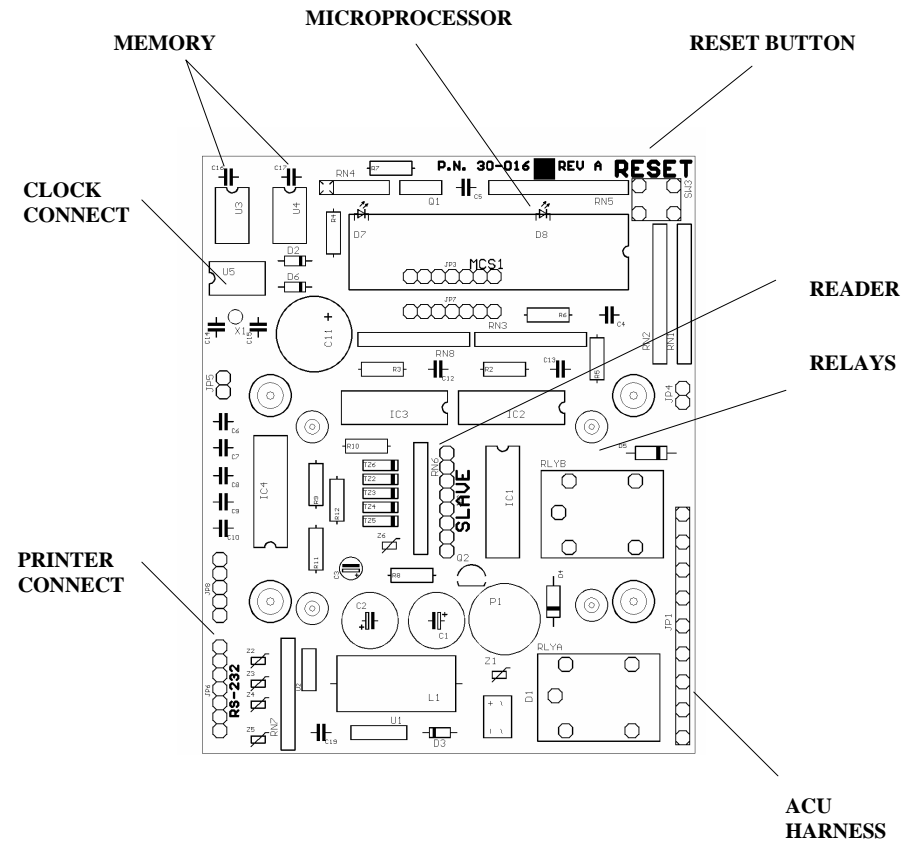


**American Access Systems, Inc.**
**7079 South Jordan Road / 6**
**Englewood, Co. 80112**
**Tech: (303) 799-9757**
**Sales: 800-541-5677**
**Fax: (303) 799-9756**

*default is 1/2 second. In most cases this is adequate for gate operators. However, with door strikes and mag locks a longer output time may be desired.*

**To set the output time of relay B in seconds enter the 4 digit "SYSTEM MASTER CODE" followed by sub-mode "301" and then a 2 digit number corresponding to the number of seconds.**

<div align="center">(SYSTEM MASTER CODE)   +   3 0 1   +   (SECONDS)</div>

The unit will respond with a GOODBEEP and exit from the program mode once the seconds for relay B has been accepted. If you enter 00 for seconds the output time is set 1/2 second. Should you make an entry error, simply press the * key and re-enter the correct data.

## "302" Sub-Mode 302 (SET CLOCK TIME)

**To set the clock time enter the 4 digit "SYSTEM MASTER CODE" followed by sub-mode "302" then the "HOURS" and "MINUTES" of the day in military format.**

<div align="center">(SYSTEM MASTER CODE)   +   3 0 2   +   (HOURS)   +   (MINUTES)<br>
eg.      8:23 a.m. = "08" + "23"<br>
5:00 p.m. = "17" + "00"</div>

The unit will respond with a GOODBEEP and exit from the program mode after the TIME has been accepted into the unit. Should you make an entry error, simply press the * key and re-enter the correct data.

## "303" Sub-Mode 303 (SET CLOCK DATE)

DESCRIPTION: *The DKS unit incorporates an on board 365 a year calendar and also adjusts for LEAP YEAR. Years can be entered up to 2025.*

**To set the clock date enter the 5 digit "MASTER CODE" followed by sub-mode "303" then the "MONTH" and "DAY" and "YEAR".**

<div align="center">(SYSTEM MASTER CODE)   +   3 0 3   +   (MONTH)   +   (DAY)   +   (YEAR)<br>
eg.      06/20/95 = "06" + "20" + "95"<br>
04/08/2003 = "06" + "08" + "03"</div>

The unit will respond with a GOODBEEP and exit from the program mode after the DATE has been accepted into the unit. Should you make an entry error, simply press the * key and re-enter the correct data.

## "304" Sub-Mode 304 (PRINT HISTORY BUFFER)

**NOTE: THE UNIT MUST BE INTERFACED TO A PRINTER TO INVOKE THIS SUB-MODE.**

DESCRIPTION: *The DKS is capable of storing up to 1000 transactions in it's history buffer. Once the unit reaches 1000 transactions the unit will roll over and overwrite the first transaction unless the buffer is cleared (see sub-mode 299).*

**To print out the history buffer enter the 4 digit "SYSTEM MASTER CODE" followed by sub-mode "304".**

<div align="center">(MASTER CODE)   +   3 0 4</div>

The unit will continually print out all transactions from first transaction to last. Should you make an entry error, simply press the * key and re-enter the correct data. Once the unit has finished it will respond with a GOODBEEP and exit from the program mode. To halt printing simply turn the printer off.

<div align="center">

# PARTS CHECKLIST

Enclosed with this box you should have the following items.

### (23-106 Mullion w/ controller)

</div>

| Qty | Description |
|---|---|
| 1 | Post Mount Control Station |
| 1 | 16.5 VAC 20VA Transformer |
| 1 | Square mounting flange |

<div align="center">

**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

</div>

## BEFORE PROCEEDING

To take full advantage of the 12 month limited warranty, you must be registered with American Access Systems, Inc.  Please read the enclosed warranty statement, (pg. 2), fill out the warranty registration card provided and send it to:

**American Access Systems, Inc.**
**Warranty Registration**
**7079 South Jordan Road / 6**
**Englewood, Co. 80112**

## INTRODUCTION

Your new Proximity 2000  unit is a high quality, programmable, commercial control station.  The unit combines  the convenience of opening a door or gate remotely, with  card reader security.  Programming is achieved through the use of the internally mounted, plastic keypad.  Cards are programmed into, or deleted from, memory either individually or in blocks.  A quick entry and delete feature is also incorporated allowing quick programming or deleting of cards. The Proximity 2000 also features an interface to a serial printer. A history buffer  which stores up to 1000 transactions is also employed into the system for audit trail.  The unit incorporates 2 relays on the circuit board. The relay output times are user selectable from 1/2 to 99 seconds and provide a normally open (N/O) and normally closed (N/C) output.  Make sure to read and understand all instructions before proceeding with each step.

**STEP1 - MOUNTING THE UNIT.**  Please  see supplemental "MOUNTING INSTRUCTIONS" provided with each unit

*ACCESS CONTROL UNITs*
*(ACU)*

## STEP 2-SYSTEM CONNECTIONS

Study the ACU HARNESS COLOR CODE chart and then proceed to the hookup steps.

23-106

*ACU HARNESS COLOR CODES (JP1 CONNECTOR)*

| | |
|---|---|
| WHITE | 16-24 volts |
| WHITE | AC or DC |

*RELAY A CONTROL COLOR CODES*

| | |
|---|---|
| BROWN | RELAY A COMMON |
| ORANGE | RELAY A NORMALLY OPEN(N/O) |
| BLUE | RELAY A NORMALLY CLOSED(N/C) |

*RELAY B CONTROL COLOR CODES*

| | |
|---|---|
| GRAY | RELAY B COMMON |
| VIOLET | RELAY B NORMALLY OPEN (N/O) |
| YELLOW | RELAY B NORMALLY CLOSED(N/C) |

*ACU HARNESS (JP1)*

## HOOKUP STEPS

**(A).** Your unit can operate on 16- 24 volts AC or DC.  Measure your incoming voltage and make sure that it falls within these tolerances.  Locate the two white wires from the ACU HARNESS and, UNDER WITH THE POWER OFF, connect them to the power supply leads.  Polarity need not be observed as the unit is rectified.

**(B).** Connect the device(s) to be controlled to the appropriate control leads.

**(C).** Double check your connections.  When you are sure you have the unit hooked up correctly, apply power to the unit.  If this is the first time power up, the unit will perform some self diagnostics and setup the memory.  The unit will flash the LED's several times while it is performing the first time setup.  If everything goes O.K., you will hear a GOOD BEEP from the unit.  If the unit does not perform as above, quickly turn off power to the unit and contact American Access Systems.

**NOTE: THE UNIT WILL ONLY PERFORM THE SELF DIAGNOSTICS AND MEMORY SETUP THE FIRST TIME IT IS POWERED UP.  FROM THERE ON OUT THE UNIT WILL SOUND A GOOD BEEP IMMEDIATELY AFTER POWER IS APPLIED.**

---

program mode.  Should you make an entry error, simply press the * key and  re-enter the correct data.  You may select any 4 digit code that is not already a system or quick entry  master.  Should you receive an ERROR, you must select a different code as it is already used as a master code.

## --GROUP 200 (DELETING DATA)--

### "200" SUB-MODE 100 (DELETE CARDS-Block Format)

**To delete cards  from the ACU memory, enter the  4-digit "SYSTEM  MASTER CODE" followed by sub-mode "200" from the ACU keypad.  Enter  the  4 digit  starting user code  followed by the 4 digit ending user code of the block.**

   (SYSTEM MASTER CODE)   +   2 0 0   +   (STARTING USER CODE)   +   (ENDING USER CODE)

### *EXAMPLES:*

**BLOCK PROGRAMMING**

If you wished to delete cards **1** thru **50**  from the ACU memory, you would enter:
            (SYSTEM MASTER CODE)   +   2 0 0   +   0 0 0 1   +   0 0 5 0
The starting user code must be less than the  ending user code and must reside within the memory limit of the PROXIMITY 2000 unit other wise you will receive an ERROR, (ie. a 500 code unit may use cards 1 thru 500).

**EXAMPLE:  PROGRAMMING A SINGLE CARD**

Ex. If you wished to delete a card with user code 25 from the ACU memory, you would enter:
            (SYSTEM MASTER CODE)   +   2 0 0   +   0 0 2 5   +   0 0 2 5
When deleting a single card your starting and ending user code must be the same.  The  card's user code must reside within  the  memory limit  of the PROXIMITY 2000 unit other wise  you  will receive  an ERROR, (ie. a 100 code unit must use cards 1 thru 100).

### "201" Sub-Mode 201 (CLEAR PRINTER HISTORY BUFFER)

**To clear the entire contents of the history buffer enter the 4 digit "SYSTEM MASTER CODE" followed by sub-mode "201" and then re-enter the 4 digit "SYSTEM MASTER CODE".**

            (SYSTEM MASTER CODE)   +   2 0 1   +   (SYSTEM MASTER CODE)

The LED's will flash on and off while the printer memory is being cleared and the unit will respond with a GOODBEEP when finished.  Should you make an entry error, simply press the * key and re-enter the correct data.  An ERROR will occur and the unit will exit the program mode if the second system master code entered is incorrect.

## --GROUP 300 (MISCELLANEOUS)--

### "300" Sub-Mode 300 (SET RELAY A OUTPUT TIME)

DESCRIPTION:  *The output time of relay A can be set anywhere from 1/2 to 99 seconds. The factory default is 1/2 second.  In most cases this is adequate for gate operators.  However, with door strikes and mag locks a longer output time may be desired.*
**To set the output time of relay A  in seconds enter the 4 digit "SYSTEM MASTER CODE" followed by sub-mode "300" and then a 2 digit number corresponding to the number of seconds.**

            (SYSTEM MASTER CODE)   +   3 0 0   +   (SECONDS)

The unit will respond with a GOODBEEP and exit from the program mode once the seconds for relay B has been accepted.  If you enter 00 for seconds the output time is set to 1/2 second.  Should you make an entry error, simply press the * key and re-enter the correct data.

### "301" Sub-Mode 301 (SET RELAY B OUTPUT TIME)

DESCRIPTION:  *The output time of relay B can be set anywhere from 1/2 to 99 seconds.  The factory*
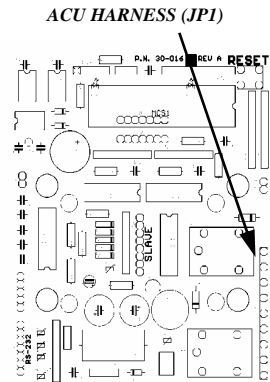
## "106" SUB-MODE 106 (SET SYSTEM FACILITY CODE(s)

DESCRIPTION: *For a brief description of the facility code, please see "THE CARD", on page 6. The ACU can be programmed to recognize up to 3 different facility codes.*

**To program facility codes into the ACU locate the card(s) containing the facility code(s) you wish to program into the ACU. Enter the 4-digit "SYSTEM MASTER CODE" followed by sub-mode 106. The yellow led will begin to flash and a QUICKBEEP will be issued by the ACU.**

(PRESENT MASTER CODE)  +  106  +  **Wave card in front of reader**  +  (Wait for LED to stop flashing)

**A QUICKBEEP will be issued by the ACU with acceptance of each facility code. Wait for the LED to stop flashing before using the unit. Should you program 3 facility codes into the ACU, the yellow led will stop flashing after the 3rd entry. If you are entering just one facility code you can wave the card in front of the reader 3 times to exit the programming mode quicker.**

## "107" SUB-MODE 107 (CHANGE SYSTEM MASTER CODE)

DESCRIPTION: *The master code is used to gain access to the program mode. The master code is only accepted into the system from the ACU keypad. The master code cannot be deleted from memory, only changed. The program mode is not accessible while in the sleep mode (see sub-mode 102).*
**To change the system master code enter the PRESENT 4-digit SYSTEM MASTER CODE followed by sub-mode "107" from the ACU keypad. Enter the NEW SYSTEM MASTER CODE you wish to program into the ACU.**

(PRESENT SYSTEM MASTER CODE) + 107 + (NEW SYSTEM MASTER CODE)

The ACU will issue a GOODBEEP after acceptance of the new system master code and exit the program mode. Should you make an entry error, simply press the * key and re-enter the correct data. You may select any 4 digit code that is not already a quick entry or quick delete master. Should you receive an ERROR, you must select a different code as it is already used as a master code.

## "108" SUB-MODE 108 (CHANGE QUICK ENTRY MASTER CODE)

DESCRIPTION: *The quick entry master code is used to quickly program cards as access cards into the ACU memory . The quick entry master code is only accepted into the system from the ACU keypad and cannot be deleted from memory, only changed. The quick entry mode is not accessible while in the sleep mode (see sub-mode 102).*
**To change the quick entry master code enter the 4-digit SYSTEM MASTER CODE followed by sub-mode "108" from the ACU keypad. Enter the NEW 4-digit QUICK ENTRY MASTER CODE you wish to program into the ACU.**

(SYSTEM MASTER CODE) + 108 + (NEW SYSTEM MASTER CODE)

The ACU will issue a GOODBEEP after acceptance of the new quick entry master code and exit the program mode. Should you make an entry error, simply press the * key and re-enter the correct data. You may select any 4 digit code that is not already a system or quick delete master. Should you receive an ERROR, you must select a different code as it is already used as a master code.

## "109" SUB-MODE 109 (CHANGE QUICK DELETE MASTER CODE)

DESCRIPTION: *The quick delete master code is used to quickly delete cards from the ACU memory . The quick delete master code is only accepted into the system from the ACU keypad and cannot be deleted from memory, only changed. The quick delete mode is not accessible while in the sleep mode (see sub-mode 102).*
**To change the quick delete master code enter the 4-digit SYSTEM MASTER CODE followed by sub-mode "109" from the ACU keypad. Enter the NEW 4-digit QUICK DELETE MASTER CODE you wish to program into the ACU.**

(SYSTEM MASTER CODE) + 109 + (NEW SYSTEM MASTER CODE)

The ACU will issue a GOODBEEP after acceptance of the new quick delete master code and exit the

## STEP-3 SETTING THE SYSTEM FACILITY CODE(s) (first time)

Before your PROXIMITY 2000 system can be used, you must set the System Facility Code (See "THE ACCESS CARD" on page 6 for a brief overview of the facility code. The PROXIMITY 2000 will accept up to 3 different facility codes at any one time. Please see "PROGRAMMING THE FACILITY CODE(s) on page 12 before proceeding

## USING A PRINTER WITH THE PROXIMITY 2000

The PROXIMITY 2000 incorporates an RS-232 serial interface on board for connection to a AAS 21-047 or 21-045 printer in order to print out recorded transactions. The transactions may be printed as they occur or the contents of the history buffer may be dumped out to the printer.**Note: A standard serial printer WILL NOT work with the 23-106.**

## Connecting the printer

CABLE TYPE: 22 gauge, 6 conductor, shielded **(BELDEN #9942)**
MAX DISTANCE: 50 feet **(*)SEE BELOW**

*63-034*



Keep the cable run at least 1 foot away from high voltage, transformers, florescence lights, etc.
An interface cable, (63-024), is required to link the ACU to the printer. Locate the mid-point of the 63-024 cable and cut with a pair of wire cutters. Plug the B. end into the printer receptacle located on the underside of the printer. Plug the A. end onto the ACU circuit board marked "RS-232"
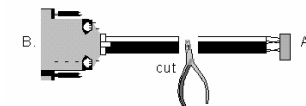
## Printer Setup

The PROXIMITY 2000 unit communicates with the printer at 9600 bps, 8 bits, no parity. Locate your printer manual and set the printer to the above settings. To test the printer, load the printer with paper, plug the printer in, make sure the printer is on line and simply turn on power to the unit.

## THE MASTER CODES

The PROXIMITY 2000 incorporates three different master codes. A System Master Code, a Quick Entry Master Code, and a Quick Delete Master Code. There descriptions and functions are as follows:

| MASTER CODE | DESCRIPTION |
|---|---|
| *"System Master Code"* | This is a 4 digit programmable code for gaining access to the program mode. This code is only accepted from the ACU keypad and after entry, will allow the user to program the ACU. The factory default is "1 2 5 1". |
| *"Quick Entry Master Code"* | This is a 4 digit programmable code for programming cards as ACCESS cards into the ACU memory. This code is only accepted from the ACU keypad and after entry will allow the user to quickly program cards into the unit as ACCESS cards. The factory default is "1 2 5 2". |
| *"Quick Delete Master Code"* | This is a 4 digit programmable code for deleting cards regardless of the function from the ACU memory. This code is only accepted from the ACU keypad and after entry will allow the user to delete any |

**THE CARDS**

A card is a device used to perform a specific function or gain entry onto or into a secured area . Each card is pre-programmed with two different codes, a USER CODE and a FACILITY CODE. These codes are transmitted to the ACU when the card button is depressed. The facility code is like a master code and is **unique to a set of cards,** (ie. all cards in a set will have the same facility code). The USER code on the other hand is specifically **unique to that card,** (ie. all cards in a set will have different user codes. Both codes are labeled on the back side of the card (see above right). The facility code is prefixed with an S and the user code is prefixed with a U. There are a maximum of 256 different facility codes, 3 of which may be programmed into the PROXIMITY 2000 at any one time. The number of user codes you may use is reflected in the maximum code capacity of your unit. On a 1000 code unit you may use cards from U1 to U1000.

**ACCESS CARDS & FUNCTION CARDS**

Depending on which model you have, your unit may be programmed with multiple cards. The maximum number of cards that can be programmed into the unit is reflected in the model number (eg. 14-**100** = 100 access codes). There are two different types of cards; ACCESS CARDS & FUNCTION CARDS. Access cards are standard entry cards and will be used to gain access onto or into a restricted area. Function cards are assigned a specific function. Any card may be assigned as an ACCESS or FUNCTION card and may be programmed into the ACU in blocks or individually. The Access and Function Cards and their descriptions are as follows.

## ACCESS CARD

*"Access Card"*
*Card)*

When this card is recognized by the ACU it will activate relay *(Relay A* A. This card is disabled in the sleep state.

## FUNCTION CARDS

| FUNCTION | DESCRIPTION |
|---|---|
| *"Sleep Card"* | When this card is recognized by the ACU it will put the ACU into a sleep state. In the sleep state all Master Codes and Function Cards, with the exception of Managers Cards, will be disabled. When the Sleep card is issued again the unit will wake up from the sleep state. |
| *"Manager Card"* | When this card is recognized by the ACU it will activate relay A regardless of the sleep state of the unit. Cards assigned this function should only be issued to individuals authorized to gain access onto the property at any time. |
| *"Relay A Latch Card"* | When this card is recognized by the ACU it will toggle the output state of Relay A. This function will be used to hold open a gate or door connected to relay A. This card is disabled in the sleep state. |
| *"Relay B Latch Card"* | When this card is recognized by the ACU it will toggle the output state of Relay B. This function will be used to hold open a gate or door connected to relay A. This card is disabled in the sleep state. |
| *"Relay B Card"* | This card serves the same function as an Access or Relay A card except that it activates Relay B. This card is disabled in the sleep state. |

**GOODBEEPS, ERRORBEEPS, & QUICKBEEPS**

A "GOODBEEP" is represented by an oscillating high tone. An "ERRORBEEP" is represented by a single low tone. A "QUICKBEEP" is a series of 5 quick high beeps in succession.

must reside within the memory limit of the PROXIMITY 2000 unit otherwise you will receive and ERROR, (ie. a 100 code unit must use user codes 1 thru 100).

# "104" <u>SUB-MODE 104 (PROGRAM LATCH B CARDS-Block Format)</u>

DESCRIPTION: *A latch B card is used to toggle the output state of relay B. In most cases this code will be used to hold a gate or door open. Each time the latch B card is recognized by the ACU the card's user code, date, and time are logged into the history buffer and the unit toggles the output state of relay B. This code is not accessible while the unit is in the SLEEP MODE (see sub-mode 102).*

**NOTE:** IN ORDER TO UTILIZE THIS FUNCTION IN A GATE OPERATOR, THE OPERATOR MUST INCORPORATE AN "OPEN OVERRIDE CIRCUIT".

**To program in latch B cards enter the 4-digit "SYSTEM MASTER CODE" followed by sub-mode "103" from the ACU keypad. Enter the 4 digit starting user code followed by the 4 digit ending user code of the block.**

**(SYSTEM MASTER CODE) + 1 0 3 + (STARTING USER CODE) + (ENDING USER CODE)**

*EXAMPLES:*
**BLOCK PROGRAMMING "LATCH B" CARDS**
If you wished to program cards **95** thru **100** as latch B cards, you would enter:
  **(SYSTEM MASTER CODE) + 1 0 3 + 0 0 9 5 + 0 1 0 0**
Your starting user code must be less than your ending user code and your block numbers must reside within the memory limit of the PROXIMITY 2000 unit otherwise you will receive and ERROR, (ie. a 500 code unit may use user codes 1 thru 500).

**PROGRAMMING A SINGLE "LATCH B" CARD**
Ex. If you wished to program a card with user code 25 as a latch B card, you would enter:
  **(SYSTEM MASTER CODE) + 1 0 3 + 0 0 2 5 + 0 0 2 5**
When programming a single card your starting and ending user code will be the same. Your user code must reside within the memory limit of the PROXIMITY 2000 unit otherwise you will receive and ERROR, (ie. a 100 code unit must use user codes 1 thru 100).

# "105" <u>SUB-MODE 105 (PROGRAM RELAY B CARDS-Block Format)</u>

DESCRIPTION: *Relay B cards are cards issued to end users to gain access onto the property through a device connected to relay B. Each time a relay B card is recognized by the ACU, the card's user code, date, and time are logged into the history buffer. Relay B cards are not recognized by the ACU while the unit is in the SLEEP MODE (see sub-mode 102).*

**To program in relay B cards enter the 4-digit "SYSTEM MASTER CODE" followed by sub-mode "105" from the ACU keypad. Enter the 4 digit starting user code followed by the 4 digit ending user cod of the block.**

**(SYSTEM MASTER CODE) + 1 0 5 + (STARTING USER CODE) + (ENDING USER CODE)**

*EXAMPLES:*
**BLOCK PROGRAMMING "RELAY B" CARDS**
If you wished to program cards **1** thru **50** as relay B cards, you would enter:
  **(SYSTEM MASTER CODE) + 1 0 5 + 0 0 0 1 + 0 0 5 0**
Your starting user code must be less than your ending user code and your block numbers must reside within the memory limit of the PROXIMITY 2000 unit other wise you will receive an ERROR, (ie. a 500 code unit may use cards 1 thru 500).

**EXAMPLE: PROGRAMMING A SINGLE "RELAY B" CARD**
Ex. If you wished to program a card with user code 25 as a relay B card, you would enter:
  **(SYSTEM MASTER CODE) + 1 0 5 + 0 0 2 5 + 0 0 2 5**
When programming a single card your starting and ending user code must be the same. Your card's user code must reside within the memory limit of the PROXIMITY 2000 unit other wise you will receive an ERROR, (ie. a 100 code unit must use cards 1 thru 100).

within the memory limit of the PROXIMITY 2000 unit otherwise you will receive and ERROR, (ie. a 500 code unit may use user codes 1 thru 500).

## PROGRAMMING A SINGLE "MANAGER" CARD

Ex. If you wished to program a card with user code 25 as a manager's card, you would enter:

(SYSTEM MASTER CODE)  +  1 0 1  +  0 0 2 5  +  0 0 25

When programming a single card your starting and ending user code will be the same.  Your user code must reside within the memory limit of the PROXIMITY 2000 unit otherwise you will receive and ERROR, (ie. a 100 code unit must use user codes 1 thru 100).

## "102" SUB-MODE 102 (PROGRAM SLEEP CARDS-Block Format)

DESCRIPTION:  The SLEEP MODE is the mode of operation in which the unit shuts down and goes to sleep.  Only MANAGERS CARDS are recognized by the ACU in this mode.  Each time a sleep card is recognized by the ACU, the card's user code, date, and time are logged into the history buffer and the sleep state of the ACU is toggled.

**To program in sleep cards enter the 4-digit "SYSTEM MASTER CODE" followed by sub-mode "102".   Enter the 4 digit starting user code followed by the 4 digit ending user code of the block.**

(SYSTEM MASTER CODE)  +  1 0 2  +  (STARTING USER CODE)  +  (ENDING USER CODE)

*EXAMPLES:*
## BLOCK PROGRAMMING "SLEEP" CARDS

If you wished to program cards **1** thru **5** as sleep cards, you would enter:

(SYSTEM MASTER CODE)  +  1 0 2  +  0 0 0 1  +  0 0 0 5

Your starting user code must be less than your ending user code and your block numbers must reside within the memory limit of the PROXIMITY 2000 unit other wise you will receive and ERROR, (ie. a 500 code unit may use user codes 1 thru 500).

## PROGRAMMING A SINGLE "SLEEP" CARD

Ex. If you wished to program a card with user code 25 as a sleep card, you would enter:

(SYSTEM MASTER CODE)  +  1 0 2  +  0 0 2 5  +  0 0 25

When programming a single card your starting and ending user code will be the same.  Your user code must reside within the memory limit of the PROXIMITY 2000 unit otherwise you will receive and ERROR, (ie. a 100 code unit must use user codes 1 thru 100).

## "103" SUB-MODE 103 (PROGRAM LATCH A CARDS-Block Format)

DESCRIPTION:  *A latch A card is used to toggle the output state of relay A.  In most cases this code will be used to hold a gate or door open.  Each time the latch A card is recognized by the ACU the card's user code, date, and time are logged into the history buffer and the unit toggles the output state of relay A. This code is not accessible while the unit is in the SLEEP MODE (see sub-mode 102).*
**NOTE:** IN ORDER TO UTILIZE THIS FUNCTION IN A GATE OPERATOR, THE OPERATOR MUST INCORPORATE AN "OPEN OVERRIDE CIRCUIT".
**To program in latch A cards enter the 4-digit "SYSTEM MASTER CODE" followed by sub-mode "103" from the ACU keypad. Enter the 4 digit starting user code followed by the 4 digit ending user code of the block.**

(SYSTEM MASTER CODE)  +  1 0 3  +  (STARTING USER CODE)  +  (ENDING USER CODE)

*EXAMPLES:*
## BLOCK PROGRAMMING "LATCH A" CARDS

If you wished to program cards **95** thru **100** as latch A cards, you would enter:

(SYSTEM MASTER CODE)  +  1 0 3  +  0 0 9 5  +  0 1 0 0

Your starting user code must be less than your ending user code and your block numbers must reside within the memory limit of the PROXIMITY 2000 unit otherwise you will receive and ERROR, (ie. a 500 code unit may use user codes 1 thru 500).

## PROGRAMMING A SINGLE "LATCH A" CARD

Ex. If you wished to program a card with user code **25** as a latch A card, you would enter:

(SYSTEM MASTER CODE)  +  1 0 3  +  0 0 2 5  +  0 0 25

When programming a single card your starting and ending user code will be the same.  Your user code

## THE RED & YELLOW LED's

Two different colored LED's are mounted to the ACU circuit board.  The RED LED will light during the duration of the relay(s) activation period.  The YELLOW LED will light while the unit is in the program mode.  During memory clear or setup both LED's will flash.

## RESETTING THE UNIT

Your PROXIMITY 2000  unit provides two different types of resets, a  UNIT RESET, and a  SYSTEM MASTER RESET.  A SYSTEM MASTER RESET should be utilized in the event that you lose or forget your master code or if the unit is locked in the sleep, lockA, or lockB mode.  When a SYSTEM MASTER RESET is performed, the system master code will  be set back to the factory default.  A UNIT RESET is provided should it ever become necessary to reset the unit back to the initial factory state.  After a UNIT RESET has been performed the unit will erase the entire memory contents and  the ACU master codes will be set back to their  factory default settings.

## SYSTEM MASTER RESET

RESET BUTTON

Follow these steps precisely.  If you make an entry error, the unit will ERROR and you will have to start over.
(1).     Disconnect power from the ACU by pulling the **ACU HARNESS (JP1)** away from the board
(2).     Reconnect power to the board while holding down the **RESET BUTTON**
(3).     Keep holding down the RESET BUTTON until the unit beeps then release.
(4).     The unit will prompt you with a QUICKBEEP to enter * ,*, * f from the keypad.

The unit will then issue a GOODBEEP and the system master code will be set back to 1 2 5 1.  If the unit was initially locked up in the sleep, lockA, or lockB state, the unit will be released from that state and returned to the idle mode without affecting the system master code.

## SYSTEM UNIT RESET

(!!! WARNING: ALL CODES WILL BE DELETED FROM MEMORY !!!)

Follow these steps precisely.  If you make an entry error, the unit will ERROR and you will have to start over.
(1).     Disconnect power from the unit by pulling the **ACU     HARNESS (JP1)** away from the board
(2).     Reconnect power to the board while holding down the **RESET BUTTON**.
(3).     Keep holding down the RESET BUTTON until the unit beeps then release. Release the reset button and enter #, *, # from the           keypad.
(4).     The unit will prompt you with a QUICKBEEP to enter 1251 from the ACU keypad. (The unit will go into an endless cycle of beeps).
(5).     Disconnect & Reconnect power to the unit. (The unit   will go through the "FIRST TIME POWER UP" sequence (See "HOOKUP STEPS", page 4, step C).
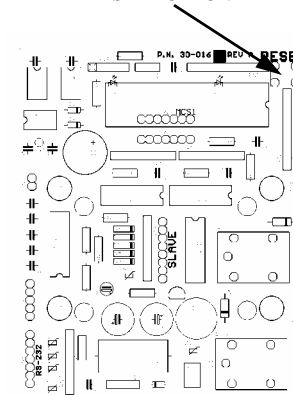
## THE IDLE MODE

The idle mode is the normal mode of operation.  When in this mode the ACU sits and waits for data from the receiver or the ACU keypad.  In this mode you will have approximately 3 seconds between key presses.  If this time is exceeded you will receive an ERROR.

## THE PROGRAM MODE

The program mode is the mode of operation in which you will enter, delete, or change your codes or set specific features of the unit.  The program mode is only accessed by entering the "SYSTEM MASTER", "QUICK ENTRY MASTER", or "QUICK DELETE MASTER" code from the ACU keypad.  After entry of a master code, you will receive a QUICKBEEP and the yellow LED will come on indicating that you are in the program mode.  In this mode you will have approximately 30 seconds between key presses. If this time is exceeded, you will receive and ERROR and be exited from the program mode.

The * and # keys on the ACU keypad serve specific functions while in the idle or program mode. The * key is always the clear key and a double beep will be heard when depressed. You should use this key if you make an entry error. The # key also serves as a clear key in the idle mode. In the program mode however, it serves as the exit key and will at any time, when depressed, exit you from the program mode.

# PROGRAMMING

## QUICK ENTRY & QUICK DELETE PROGRAMMING

DESCRIPTION: *The PROXIMITY 2000 incorporates a feature for quickly programming or deleting cards into the ACU memory. The QUICK ENTRY mode assigns cards recognized by the ACU as ACCESS CARDS. The QUICK DELETE mode erases cards from the ACU memory regardless of what feature or function the card is assigned.*

**To quickly program or delete cards from the ACU memory, enter the "Quick Entry" or "Quick Delete" MASTER CODE from the ACU keypad. A QUICK BEEP will sound from the ACU and the yellow led will light indicating that you are in the program mode. Point the card to be entered or deleted towards the receiver and press the card button. Each time a successful entry or deletion is completed, the ACU it will issue a QUICK BEEP. When you are finished, press the # key to exit the QUICK mode**

### QUICK ENTER

*(QUICK ENTRY MASTER)* + card + *etc.... (# TO EXIT)*

### QUICK DELETE

*(QUICK DELETE MASTER)* + card + *etc.... (# TO EXIT)*

## SYSTEM PROGRAMMING

A person desiring access to the program mode will enter the present SYSTEM MASTER CODE. If the system master code is valid the yellow LED will light and the individual will be prompted with a GOODBEEP to enter a 3 digit number corresponding to a SUB-MODE. There are 3 groups of SUB-MODES. Group 100 is for PROGRAMMING DATA, group 200 is for DELETING DATA, and group 300 is MISCELLANEOUS SETTINGS. There are a total of 17 different sub-modes to choose from. They are as follows;

### GROUP 100 SUBMODES (PROGRAMMING DATA)

| SUB-MODE | DESCRIPTION |
| --- | --- |
| 100 | Program access cards |
| 101 | Program managers cards |
| 102 | Program sleep cards |
| 103 | Program latch cards relay A |
| 104 | Program latch cards relay B |
| 105 | Program relay B code cards |
| 106 | Set System Facility Code(s) |
| 107 | Change System Master Code |
| 108 | Change Quick Entry Master Code |
| 109 | Change Quick Delete Master Code |

Block Format

### GROUP 200 SUBMODES (DELETING DATA)

| | | |
| --- | --- | --- |
| Block Format | 200 | Delete cards |
| | 201 | Clear printer history buffer |

### GROUP 300 SUBMODES (MISCELLANEOUS)

| | |
| --- | --- |
| 300 | Set relay A output time |
| 301 | Set relay B output time |
| 302 | Set clock time |
| 303 | Set clock date |
| 304 | Print history buffer |

### --GROUP 100 (PROGRAMMING DATA)--

**NOTE***: THE LAST PAGE OF THIS MANUAL IS A LOG SHEET WHICH MAY BE PHOTO-COPIED FOR KEEPING TRACK OF ALL CARDS IN THE SYSTEM*

## "100" SUB-MODE 100 (PROGRAM ACCESS CARDS-Block Format)

DESCRIPTION: *Access cards are cards issued to end users to gain access onto the property and will activate relay A. Each time an access card is recognized by the ACU, the card's user code, date, and time are logged into the history buffer. Access cards are not recognized by the ACU while the unit is in the SLEEP MODE (see sub-mode 102).*
**To program in new access cards enter the 4-digit "SYSTEM MASTER CODE" followed by sub-mode "100" from the ACU keypad. Enter the 4 digit starting user code followed by the 4 digit ending user cod of the block.**

**(SYSTEM MASTER CODE) + 1 0 0 + (STARTING USER CODE) + (ENDING USER CODE)**

*EXAMPLES:*
**BLOCK PROGRAMMING "ACCESS" CARDS**
If you wished to program cards **1** thru **50** as access cards, you would enter:
**(SYSTEM MASTER CODE) + 1 0 0 + 0 0 0 1 + 0 0 5 0**
Your starting user code must be less than your ending user code and your block numbers must reside within the memory limit of the PROXIMITY 2000 unit other wise you will receive an ERROR, (ie. a 500 code unit may use cards 1 thru 500).

**EXAMPLE: PROGRAMMING A SINGLE "ACCESS" CARD**
Ex. If you wished to program a card with user code 25 as an access card, you would enter:
**(SYSTEM MASTER CODE) + 1 0 0 + 0 0 2 5 + 0 0 2 5**
When programming a single card your starting and ending user code must be the same. Your card's user code must reside within the memory limit of the PROXIMITY 2000 unit other wise you will receive an ERROR, (ie. a 100 code unit must use cards 1 thru 100).

## "101" SUB-MODE 101 (PROGRAM MANAGER CARDS-Block Format)

DESCRIPTION: *Managers cards are issued to individuals to gain access onto the property regardless of the SLEEP STATE (see sub-mode 102) of the unit. Each time a manager's card is recognized by the ACU, the card's user code, date, and time are logged into the history buffer.*
**To program in managers cards enter the 4-digit "SYSTEM MASTER CODE" followed by sub-mode "101" from the ACU keypad. Enter the 4 digit starting user code followed by the 4 digit ending user code of the block.**

**(SYSTEM MASTER CODE) + 1 0 1 + (STARTING USER CODE) + (ENDING USER CODE)**

*EXAMPLES:*
**BLOCK PROGRAMMING "MANAGERS" CARDS**
If you wished to program cards **25** thru **50** as manager's cards, you would enter:
**(SYSTEM MASTER CODE) + 1 0 1 + 0 0 2 5 + 0 0 5 0**
Your starting user code must be less than your ending user code and your block numbers must reside