Installation/Owner's Manual

Series 1520

Stand Alone Card Readers or Controller
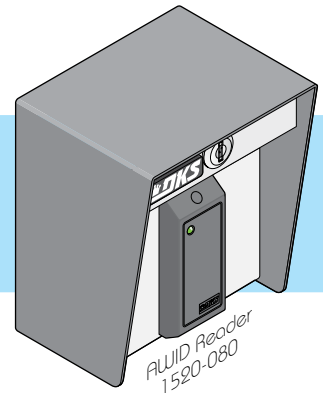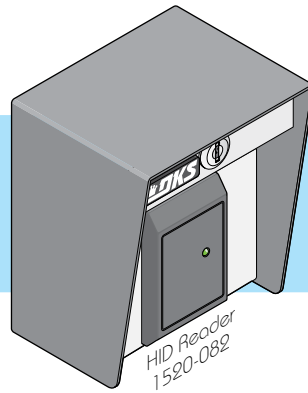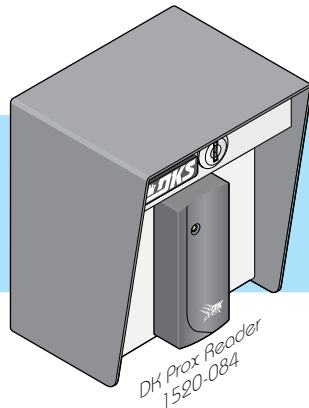
Card Readers

with External Lighting

DK Prox Reader
1520-084

HID Reader
1520-082

AWID Reader
1520-080

Controller

1520-081

Date Installed: _____

Installer/Company Name: _____

_____

Phone Number: _____

Circuit Board
Serial Number
and Revision Letter: _____

Leave Manual with Owner

DKS
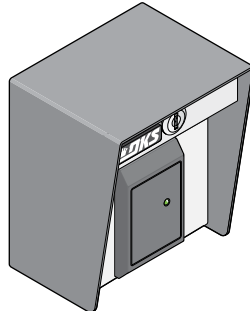
DOORKING®

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SPECIFICATIONS

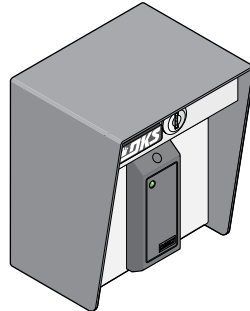**For 1520 Series with circuit board 1505-009 Rev E or higher ONLY.**

1520 Card Readers
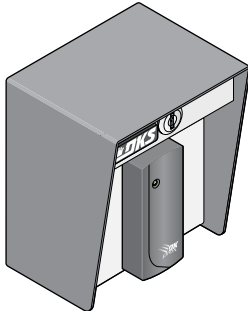
DK Prox Reader
P/N 1520-084

HID Reader
P/N 1520-082

AWID Reader
P/N 1520-080

1520 Controller
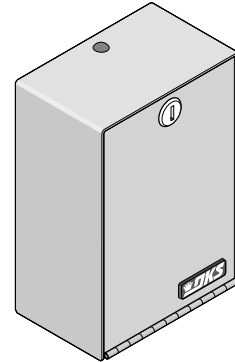
P/N 1520-081

Features

- Memory size: 1000 card (device) codes.
- Built-in keypad for easy programming.
- Transaction buffer stores up to 3656 events.
- Input power is 16 VAC (supplied) **OR** 12-24 VDC, 125 ma.
- RS-232 port for connection of a serial printer. Transactions can be printed in **real time mode OR** stored and printed at a **later time**.
- Clock and transaction buffer will maintain data in the event of a power failure for **up to three days**.
- FOUR time zones for controlling access.
- FOUR hold-open time zones.
- Timed anti-pass back: 1-59 minutes.
- Card Readers have a pre-wired 26-Bit wiegand card reader
- Controller can connect to almost any 26-Bit wiegand device (keypads, card readers, RF receivers, etc.).

Important Information

- Prior to starting the installation, become familiar with the instructions, illustrations and wiring diagrams in this manual.
- Never mount this device to a moving gate or gate panel, or next to a gate that causes vibration to the fence, such as a spring-loaded pedestrian gate. Continuous vibration from moving or slamming gates can cause damage to the unit in time.
- **If this system is used to activate an automatic vehicular gate operator, it must be mounted in such a way that the user cannot come into contact with the gate or the gate operator when the device is used. We recommend that the unit be installed a minimum of 10 feet away from the gate and gate operator.**
- Always disconnect power when performing service on the system.
- If the unit is mounted outdoors, be sure that the wiring to the unit is designed for direct underground burial, even if the wire is run inside a conduit.
- Surge suppression is recommended on the low voltage input power line.
- Instruct the end user on the safe and proper operation of this device.
- **Instruct the end user to read and follow these instructions. Instruct the end user to never let children play with or operate any access control device. This Owner's Manual is the property of the end user and must be left with them when installation is complete.**

SPECIFICATIONS

1520 Card Readers

P/N 1520-084 DK Prox Reader shown.

Back   **Side**   **Front**   **Inside Enclosure**

Mounting Holes

1/2" Knock-out

6.5"

4.5"

5.25"

Mounting Note:
Can be mounted on a DoorKing gooseneck mounting post.

1520 Controller

P/N 1520-081

Back   **Side**   **Front**   **Inside Enclosure**

Mounting Holes

7.15"

4.75"

5.25"

3/4" Knock-outs

Bottom
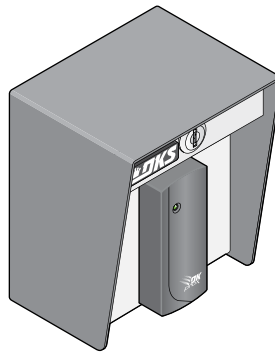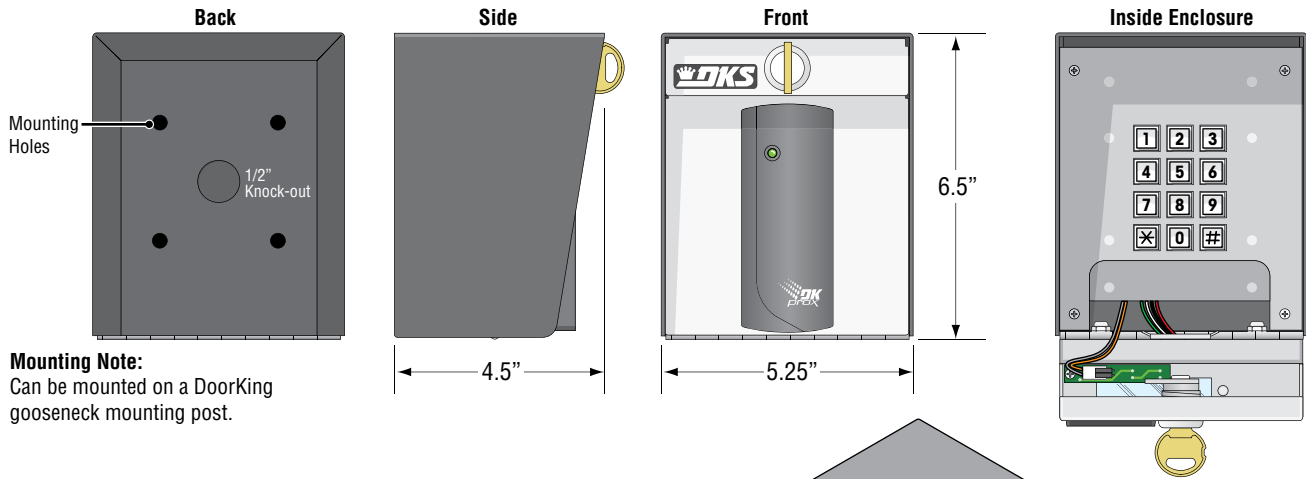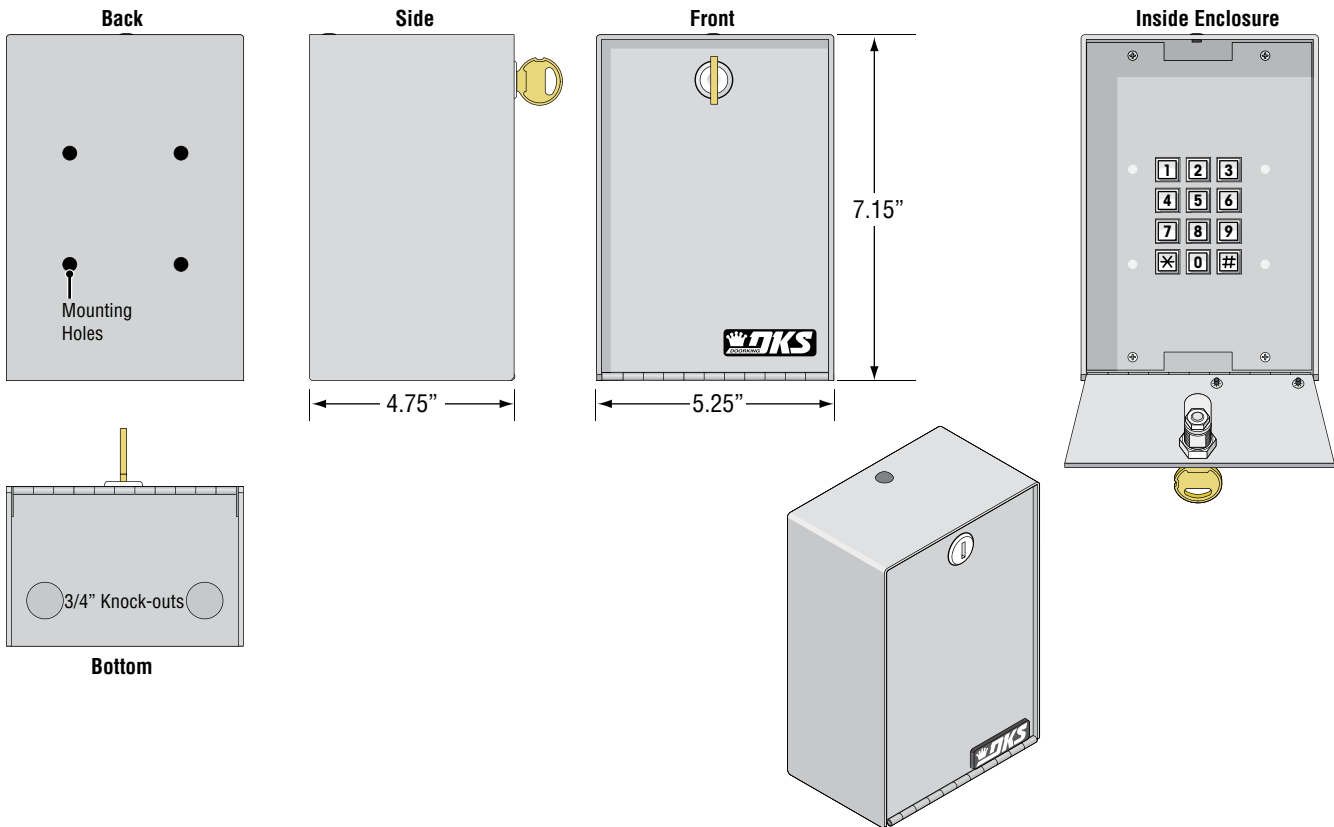
SECTION 1 - INSTALLATION

Do not mount the 1520 card reader to a moving gate, or immediately next to a gate panel or pedestrian gate. Continuous vibration from slamming gates and vibration can cause damage to the system over time.

WARNING! **If the card reader is used to activate a vehicular gate operator, it must be mounted a minimum of 6 feet away from the gate and gate operator, or in such a way that the user cannot come into contact with the gate or gate operator while using the device.**

1.1 Remove Components from Cabinet

1. Open housing with key.

2. Remove four (4) 6-32 x ¼ screws from the corners of the keypad mounting plate. Remove faceplate from Card Reader with 2 locknuts and remove and store components (still wired to circuit board) in a safe place.

6-32 x ¼ screw · 6-32 x ¼ screw
Keypad Mounting Plate

1520 Card Readers
AWID Reader P/N 1520-080
HID P/N 1520-082
DK Prox Reader P/N 1520-084

6-32 x ¼ screw · 6-32 x ¼ screw
Faceplate Locknut · Faceplate Locknut
Faceplate

6-32 x ¼ screw · 6-32 x ¼ screw
Keypad Mounting Plate

1520 Controller
P/N 1520-081

6-32 x ¼ screw · 6-32 x ¼ screw
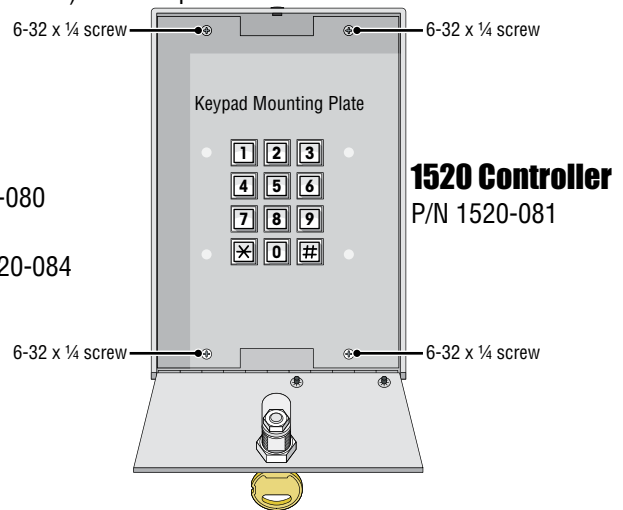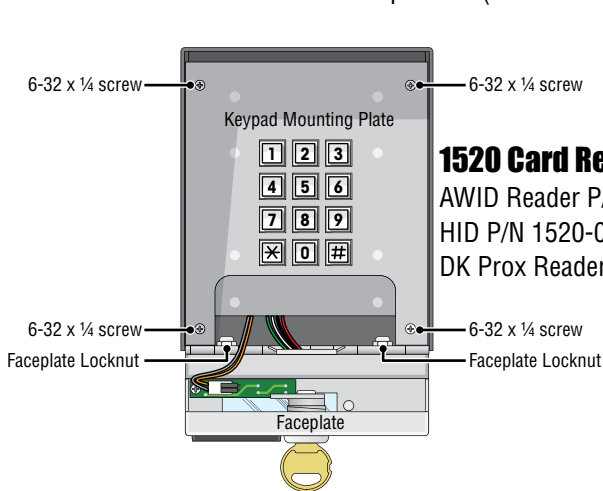
1.2 Mount Cabinet

Card Reader on a Mounting Post

Use existing 4 holes in cabinet box to bolt the surface or wall mount models on a DoorKing mounting post. Use the hardware that is supplied with the mounting post.

Either model 1520 can be mounted directly to a wall or pilaster. The card reader can be post mounted using a DoorKing mounting post (there are several different styles available). Be sure card reader is securely mounted and is not subject to continuous vibration from closing doors or gates.

Run ALL wires that will be needed during the cabinet installation and connect to 18-pin terminal. See Section 1.4 1520 Wiring.

Note: A gooseneck mounting post anchored in concrete does not make a good ground.

Use the 4 existing holes in the cabinet. Run conduit inside of wall or pilaster. Use appropriate hardware to mount the cabinet (Not supplied). Be sure that the mounting hardware **does not protrude into the cabinet** where it could cause a short.

Card Reader Mounted Directly to a Wall or Pilaster

Plastic screw anchors for masonry if required. (Not supplied)
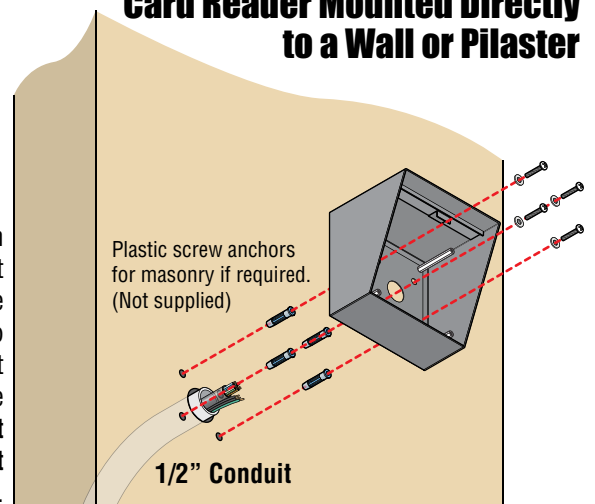
1/2" Conduit

1.2 Mount Cabinet Continued

Controller Mounted Directly to a Wall or Pilaster

Use the 4 existing holes in the cabinet. Run conduit outside of wall or pilaster. Use appropriate hardware to mount the cabinet (Not supplied). Be sure that the mounting hardware **does not protrude into the cabinet** where it could cause a short.

Run ALL wires that will be needed during the cabinet installation and connect to 18-pin terminal. See Section 1.4 1520 Wiring.

Plastic screw anchors for masonry if required. (Not supplied)

3/4" Conduit
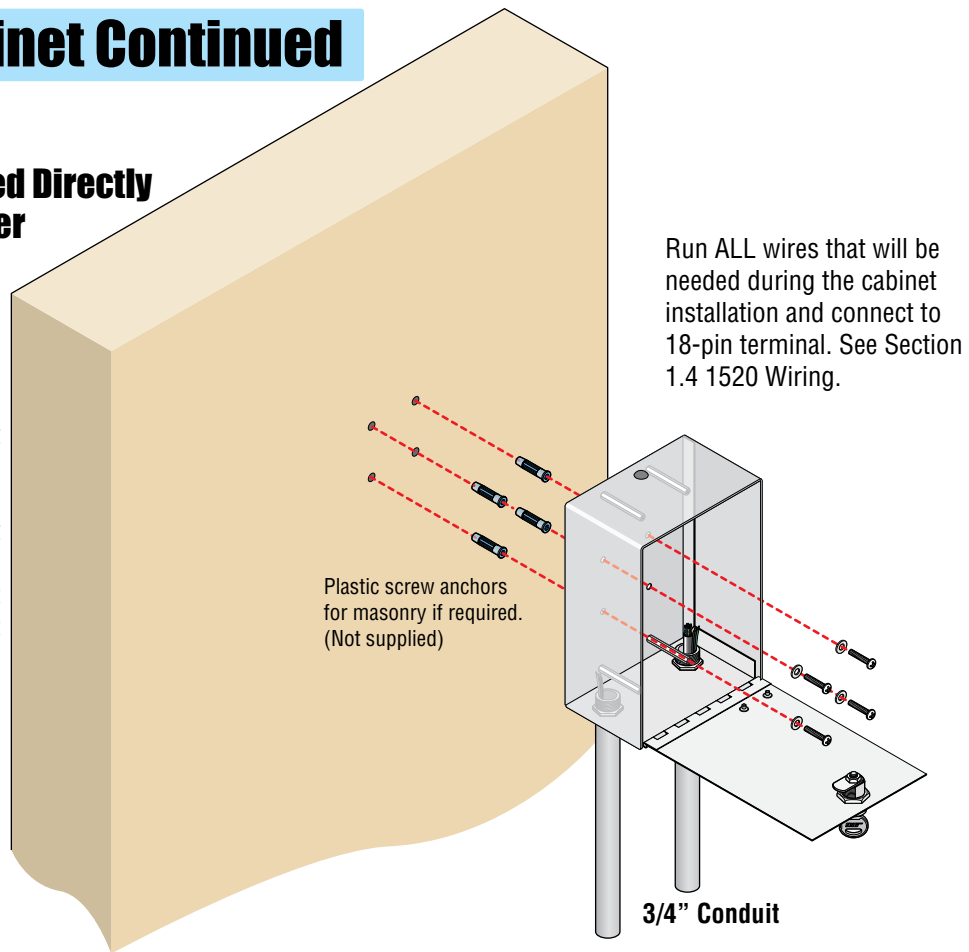
1.3 Re-install Components into Cabinet

IMPORTANT: Be sure to clean out the cabinet of any debris that can cause a short.
All necessary wiring should be connected to the 18-pin terminal. See Section 1.4 1520 Wiring.

1520 Controller: Re-install four (4) 6-32 x ¼ screws into the corners of the keypad mounting plate.

1520 Card Reader: Re-install Card Reader faceplate with the 2 locknuts. Re-install four (4) 6-32 x ¼ screws into the corners of the keypad mounting plate. See page 13 for wiring schematics.

Master Code Note: The default **MASTER CODE is 9999**. If you would like to change the master code, refer to Section 2.1 to re-program the master code **prior** to re-installing the keypad mounting plate. 1520 must have power to re-program master code.

18-Pin Terminal

MASTER CODE

Master Code Push Button
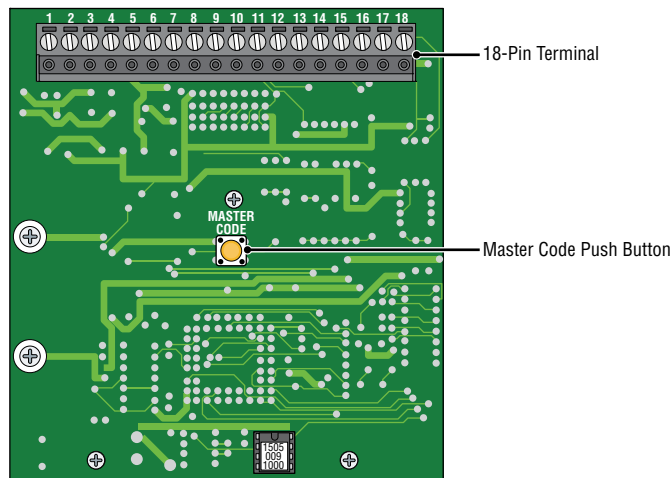
1.4 1520 Wiring

DoorKing Printer Adapter
P/N 1587-010
(Sold Separately)

500 ft MAX

- Use any SERIAL printer with an RS-232 interface.
- Set the printer for 9600 baud, 1 start bit, 8 data bits, 1 stop bit. Information on setting these parameters should be in your printer manual.
- Maximum wire run for the printer interface is 500 feet using Belden 9418 wire, or equivalent.

Attach a separate 12 AWG wire to # 3 (earth ground). Attach the other end of this wire to a good earth ground. This can be a properly grounded metal conduit, a cold water pipe, or a grounding rod driven at least 10 feet into the soil. A gooseneck post anchored or mounted on concrete does not make a good ground. Avoid any splices in wiring. If a splice is made, it must be soldered and sealed in a watertight junction box.

Earth Ground

Supplied Transformer
16.5 VAC
20 VA
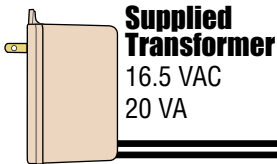
Relay Input

Power Input

Wire Size	MAX Distance
22 AWG	100 Ft.
20 AWG	200 Ft.
18 AWG	250 Ft.
16 AWG	500 Ft.

Keep power wiring as short as possible.

Note: 12-24 VDC may also be used to power the 1520.
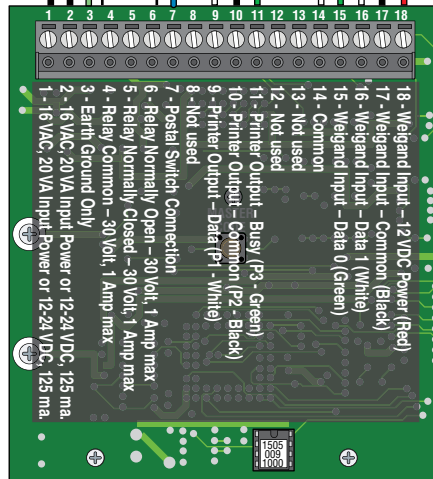
Switch Input
Postal lock connection. A switch closure across terminals #7 and #14 activates **Relay** for its programmed strike time. See Section 2.2 Relay Strike Time.

Com

NC

Postal Lock

Green
White
Black
Red

500 ft MAX

18-Pin Terminal

1 - 16 VAC, 20 VA Input Power or 12-24 VDC, 125 ma.
2 - 16 VAC, 20 VA Input Power or 12-24 VDC, 125 ma.
3 - Earth Ground Only
4 - Not used
5 - Relay Common - 30 Volt, 1 Amp max
6 - Relay Normally Closed - 30 Volt, 1 Amp max
7 - Postal Switch Connection
8 - Not used
9 - Printer Output - Data (P1 - White)
10 - Printer Output - Common (P2 - Black)
11 - Printer Output - Busy (P3 - Green)
12 - Not used
13 - Not used
14 - Common
15 - Weigand Input - Data 0 (Green)
16 - Weigand Input - Data 1 (White)
17 - Weigand Input - Common (Black)
18 - Weigand Input - 12 VDC Power (Red)

Wiegand Device

Controller: Almost any **26-bit** weigand control device (keypads, card readers, RF receivers, etc.) can be connected to the 1520 Controller P/N 1520-081.
Note: Power for a device's external lighting must be provided from a **separate** source when using the 1520 Controller. **DO NOT** connect external lighting wires to terminals #1 and #2 of the 1520 Controller.

Card Reader: 1520 **26-bit** Card Readers are factory wired.
Note: 1520 Card Reader **has** external lighting that uses the power transformer supplied.

Relay Input Options

Basic Gate Control Components

1520 Card Reader

Gate Operator

Gate Operator is wired to Normally Open (NO) relay #6 input.

Basic Door Control Components

1520 Card Reader

Door Lock

Lock Power UL listed

Door Locks

Electric strike is wired to Normally Open (NO) relay #6 input.

Magnetic lock is wired to the Normally Closed (NC) relay #5 input.

Power for electric strike or magnetic lock is **NOT provided** by the 1520. Use separate UL listed power supply.

SECTION 2 - PROGRAMMING

Before You Start Programming: IMPORTANT! Make sure the 1520 has power and we suggest that you become familiar with programming instructions before beginning any programming.

2.1 Re-Programming the Master Code

The Master Code has been pre-programmed at the factory to 9999. This programming sequence re-programs the **MASTER CODE** if desired. The master code is the four-digit number required to gain access to the system memory. You **MUST** know the master code before programming **ANY** features.

Important Note: After re-programming the master code, write it down and keep it in a safe place. **There is no way of retrieving the master code after it has been programmed in.** If you forget it, you will have to program in a new one but all other previously programmed information will remain intact.

Step 1. Remove the keypad mounting plate (see section 1.3) to access the Master Code push button.
(1520 must have power) Press the Master Code push button **ONCE**. Master Code Push Button

Step 2. Enter a four-digit master code using the keypad, then press "∗" (A short beep will be heard).

<p align="center">any four numbers</p>
Actual keystrokes used on keypad: [?] [?] [?] [?] Then press [✴] **"BEEP"**

Same keystrokes as written in this manual: **[_ _ _ _ ∗ (beep)]**

Step 3. Re-install the keypad mounting plate. **Write down master code and keep it in a secure place.**

2.2 Relay Strike Time

The relay strike time sets the amount of time that the relay in the 1520 remains activated after a valid card (device) code is received. Relay strike times can be programmed from 1/4 second - enter **0 0** ∗ in step 2, up to 99 seconds - enter **9 9** ∗ in step 2. **Factory setting for Relay is 01 (1 Second).**

1. Press ∗ 0 3 and enter the MASTER CODE. **[∗ 0 3 _ _ _ _ (beep)]**

2. Enter the two-digit strike time (00-99), then press ∗. **[_ _ ∗(beep)]**

3. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.3 Date and Time

Set the time of the day with a four-digit number (hr/min). For example, 8:30 is entered as **0830**; 11:45 is entered as **1145**. When entering the **MONTH**, January = 01 and December = 12. The day of the month is always entered as a two-digit number; 1st day of the month is entered as 01, the 20th day is entered as 20, etc.
The **YEAR** is entered with the last two digits of the current year; 2014 = 14, 2015 = 15, etc.
The **DAY OF THE WEEK** is entered as a single digit; Sunday = 1, Monday = 2 ....Saturday = 7.
Note: The time and date must be programmed to allow transactions, real time printing and anti-pass back to work correctly.

1. Press ∗ 3 3 and enter the MASTER CODE. **[∗ 3 3 _ _ _ _ (beep)]**

2. Enter the **four-digit** time of day (Hr/Min), then press ∗. **[_ _ _ _ ∗(beep)]**

3. Enter 0 ∗ for AM **OR** enter 1 ∗ for PM. **[_ ∗(beep)]**

4. Enter the **two-digit** month (01 to 12), then press ∗. **[_ _ ∗(beep)]**

5. Enter the **two-digit** day of the month (01 to 31), then press ∗. **[_ _ ∗(beep)]**

6. Enter the **two-digit** year (14,15... etc), then press ∗. **[_ _ ∗(beep)]**

7. Enter the day of the week (1-7), then press ∗. **[_ ∗(Long beeeep)]**
   Sun =1, Mon = 2, Tue = 3, Wed = 4, Thu = 5, Fri = 6, Sat = 7.

Programming sequence automatically finished after "Long beep".

2.4 Time Zones

There are two types of time zones that can be used with the 1520; **CARD** time zones and **HOLD** time zones.
CARD time zones are applied to the **individual card codes** programmed into the system.
HOLD time zones activate and deactivate the **relay** in the 1520 at predetermined times.
There are **SIX CARD time zones** - referenced as time zones **0** through **5**. Only time zones **2** through **5** are programmable.
Time zone **0** will always **DENY** a card entry.
Time zone **1** will always **GRANT** a card entry.
The **FOUR HOLD time zones** - referenced as time zones **6** through **9.** They are programmable.
Time zone beginning and ending times must be entered in a four-digit 12-hour format (hr/min).
Example: 8:30 is entered as **0830**; 11:45 is entered as **1145**.
You need to program what **days of the week** the time zone will be active. All days of the week **MUST** be entered as a **seven digit number**; Sunday = 1, Monday = 2 ...... Saturday = 7. If you want to skip a day (not active), enter **#** for those days to be skipped.
Note: All active days are entered first, then skipped days when programming the seven digit number.
Examples:
If a time zone is to be active **Monday through Friday only**, you need to enter: **2 3 4 5 6 # #** in the programming sequence.
If a time zone is to be active on the **Weekend only** (Saturday, Sunday), you would enter **1 7 # # # # #** in the programming sequence.

2.4.1 Programming CARD Time Zones

1. Press * 3 8 and enter the MASTER CODE. **[* 3 8 _ _ _ _ (beep)]**
2. Enter a **single-digit** time zone number (0 - 5), then press *. **[_ *(beep)]**
   Note: Only **2-5** are programmable, Time zone 0 will always DENY entry, Time zone 1 will always GRANT entry.
3. Enter the **four-digit** time zone **START** time (Hr/Min), then press *. **[_ _ _ _ *(beep)]**
4. Enter 0 * for AM **OR** enter 1 * for PM. **[_ *(beep)]**
5. Enter the **four-digit** time zone **END** time (Hr/Min), then press *. **[_ _ _ _ *(beep)]**
6. Enter 0 * for AM **OR** enter 1 * for PM. **[_ *(beep)]**
7. Enter the **seven-digit** days of the week that the time zone is active and skipped, then press *. **[_ _ _ _ _ _ _ *(beep)]**
   Note: All active days are entered **first**, then skipped days (**#**). ALL seven digits **MUST** be entered.
       Sun =1, Mon = 2, Tue = 3, Wed = 4, Thu = 5, Fri = 6, Sat = 7, Skipped Day = **#**.
8. Repeat steps 2 - 7 to enter additional time zones.
9. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.4.2 Programming HOLD Time Zones

1. Press * 3 8 and enter the MASTER CODE. **[* 3 8 _ _ _ _ (beep)]**
2. Enter a **single-digit** time zone number (6 - 9), then press *. **[_ *(beep)]**
3. Enter the **four-digit** time zone **START** hold time (Hr/Min), then press *. **[_ _ _ _ *(beep)]**
4. Enter 0 * for AM **OR** enter 1 * for PM. **[_ *(beep)]**
5. Enter the **four-digit** time zone **END** hold time (Hr/Min), then press *. **[_ _ _ _ *(beep)]**
6. Enter 0 * for AM **OR** enter 1 * for PM. **[_ *(beep)]**
7. Enter the **seven-digit** days of the week that the hold time zone is active and skipped, then press *. **[_ _ _ _ _ _ _ *(beep)]**
   Note: All active days are entered **first**, then skipped days (**#**). ALL seven digits **MUST** be entered.
       Sun =1, Mon = 2, Tue = 3, Wed = 4, Thu = 5, Fri = 6, Sat = 7, Skipped Day = **#**.
8. Repeat steps 2 - 7 to enter additional hold time zones.
9. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.4.3 Delete Time Zones, one at a Time

1. Press * 3 9 and enter the MASTER CODE. **[* 3 9 _ _ _ _ (beep)]**
2. Enter a **single-digit** time zone number to be deleted (2 - 9), then press *. **[_ *(beep)] (**This cannot be **UNDONE)**
3. Repeat step 2 to delete additional time zones.
4. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.5 Card Code Programming

In the following programming sequence, the term "card code" is also used to reference **any 26-bit wiegand device code** that is being used with the 1520. For example, digital entry codes or RF transmitter codes are also referred to as "**Card Codes**". Card codes are always five-digits in length. Valid codes are **00000** – **65405**.

Card codes can be programmed as a block of sequential codes or can be entered individually. When programming a single card code, the beginning and ending card codes are the same. When entering a block of card codes, the 1520 will "beep" every few seconds while the card codes are being programmed. When programming is complete, the system will emit a long beep. The 1520 will take about 1 minute to program 200 card codes. If different time zones will be assigned to different blocks of cards, then these blocks will need to be programmed separately so that the correct time zones are applied. For example, if cards 01000 through 01010 are to be assigned time zone 1 (always GRANT entry), and cards 01011 through 01100 are assigned time zone 2, then these blocks have to be entered individually.

Each card code can be assigned **two time zones**. If using a single time zone, enter the time zone number twice in the two-digit time zone field. For example, if using time zone 1 (always GRANT entry), enter 11 in step 4.

If you enter time zones that conflict with each other, the system evaluates each time zone individually starting with the first one. For example, if 01 is entered in step 4, time zone 0 tells the unit to DENY entry while time zone 1 tells the system to always GRANT entry. In this case, the system will **first** look at time zone 0, deny entry and **then** will look at time zone 1. Access will then be **GRANTED**.

2.5.1 Programming a Single Card Code

1. Press ✳ 1 7 and enter the MASTER CODE. [✳ **1 7** _ _ _ _ (beep)]

2. Enter the **five-digit** card number, then press ✳. [_ _ _ _ _ ✳(beep)]

3. Enter the **five-digit** card number **AGAIN**, then press ✳. [_ _ _ _ _ ✳(beep)]

4. Enter the **two-digit** time zone number, then press ✳. [_ _ ✳(beep) followed by Long Beeeep - programming ends]
   Note: Two different time zones can be applied by entering **two different numbers** in the two-digit time zone field.
   If ONLY using a single time zone (0 - 9), enter the **time zone number twice** in the two-digit time zone field.
   Time zone 0 will always DENY entry.
   Time zone 1 will always GRANT entry.
   Time zone 2 - 5 are CARD programmable, see section 2.4.1.

5. Repeat steps 1 - 4 to enter additional card codes, one at a time.

Note: Card codes not programmed in the 1520 will not print or be stored in the transaction buffer. If you want a transaction of denied card codes (for example - a lost card), then assign time zone 00 (always deny entry) in step 4.

2.5.2 Programming a Block of Card Codes

1. Press ✳ 1 7 and enter the MASTER CODE. [✳ **1 7** _ _ _ _ (beep)]

2. Enter the **five-digit BEGINNING** card number, then press ✳. [_ _ _ _ _ ✳(beep)]

3. Enter the **five-digit ENDING** card number, then press ✳. [_ _ _ _ _ ✳(beep)]

4. Enter the **two-digit** time zone number for these cards, then press ✳. [_ _ ✳(beep)]
   Note: Two different time zones can be applied by entering **two different numbers** in the two-digit time zone field.
   If ONLY using a single time zone (0 - 9), enter the **time zone number twice** in the two-digit time zone field.
   Time zone 0 will always DENY entry.
   Time zone 1 will always GRANT entry.
   Time zone 2 - 5 are CARD programmable, see section 2.4.1.

5. The system will emit a short beep every few seconds while programming the card codes.
   When the short beeps stop, wait approximately 20 seconds for a long beep - programming is complete.

2.5.3 Delete a Single Card Code

This programming sequence deletes a **single card code** and takes it completely out of memory to free up space for other card codes. Card codes not programmed in the 1520 will not print or be stored in the transaction buffer. If you want a transaction of denied card codes (for example - a lost card), then assign time zone 00 (always deny entry) in card programming 2.5.1.

1. Press ✱ 1 8 and enter the MASTER CODE. **[✱ 1 8 _ _ _ _ (beep)]**

2. Enter a **five-digit** card code to be deleted, then press ✱. **[_ ✱(beep)]**

3. Repeat step 2 to erase additional card codes, one at a time.

4. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.5.4 Delete ALL Card Codes

CAUTION: This programming sequence will delete **ALL** card codes that have been **previously** programmed into the 1520. This cannot be **UNDONE**.

1. Press ✱ 1 3 and enter the MASTER CODE. **[✱ 1 3 _ _ _ _ (beep)]**

2. Enter **9 9 9 9**, then press ✱. **[9 9 9 9 ✱(beep)]**

3. A long beep after approximately 1-2 seconds indicates that all card codes are deleted and programming ends.

2.6 Facility Codes

Facility codes can be used to prevent the same card code from working at a **different** site or facility.
The 1520 allows you to enter up to **10 different facility codes** and allows you to decide whether to use facility codes or not. Facility codes are **three-digits** in length. Valid facility codes are **000 – 255**. Simply entering a facility code does not turn this feature on. It is programmed to turn ON or OFF in section 2.6.2.

2.6.1 Programming Facility Codes

1. Press ✱ 0 5 and enter the MASTER CODE. **[✱ 0 5 _ _ _ _ (beep)]**

2. Enter a **single-digit** facility code number (0 - 9), then press ✱. **[_ ✱(beep)]**
    1= FC 1, 2= FC 2, etc. Use 0 for FC 10

3. Enter the **three-digit** facility code number (000 - 255), then press ✱. **[_ _ _✱(beep)]**

4. Repeat steps 2 - 3 to enter additional facility codes.

5. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.6.2 Turning Facility Codes ON / OFF

Factory setting for this feature is OFF (0).

1. Press ✱ 2 8 and enter the MASTER CODE. **[✱ 2 8 _ _ _ _ (beep)]**

2. Enter **0** to turn facility codes **OFF** or enter **1** to turn facility codes **ON**, then press ✱. **[_ ✱(beep)]**

3. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.7 Timed Anti-Pass Back

The 1520 has a timed anti-pass back feature that will prevent a card code from being used within a period on time from the last use of the card code. To use the anti-pass back feature, you must set the time and date (section 2.3), set the pass back time (1 to 59 minutes) and turn the anti-pass back feature ON. **Factory default is OFF.**

2.7.1 Anti-Pass Back ON/OFF

Factory setting for this feature is OFF (0).

1. Press ＊ 2 5 and enter the MASTER CODE. **[＊ 2 5 _ _ _ _ (beep)]**
2. Enter **0** to turn ant-pass back **OFF** or enter **1** to turn ant-pass back **ON**, then press ＊. **[_ ＊(beep)]**
3. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.7.2 Anti-Pass Back Time

1. Press ＊ 2 6 and enter the MASTER CODE. **[＊ 2 6 _ _ _ _ (beep)]**
2. Enter **two-digit** anti-pass back time in minutes (01 – 59), then press ＊. **[_ _＊(beep)]**
3. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.8 Clear Transaction Memory

CAUTION: This programming sequence will clear the transaction memory buffer. This cannot be **UNDONE**.

1. Press ＊ 3 6 and enter the MASTER CODE. **[＊ 3 6 _ _ _ _ (beep)]**
2. Enter **9 9 9 9**, then press ＊. **[9 9 9 9 ＊(beep)]**
3. A long beep after approximately 5 seconds indicates that the transaction memory buffer is cleared.

Note: Transaction buffer stores up to 3656 events.

2.9 Real-Time Print Mode

These programming steps allow you to turn the real time print feature of the 1520 ON or OFF. When turned ON, the printer will print the transaction as it occurs and store it in the transaction buffer. When turned OFF, the transaction is stored in the transaction buffer for printing at a later time. See Section 1.4 1520 Wiring for printer connection.
Factory default is OFF.

1. Press ＊ 3 5 and enter the MASTER CODE. **[＊ 3 5 _ _ _ _ (beep)]**
2. Enter **0** to turn real time print **OFF** or enter **1** to turn real time print **ON**, then press ＊. **[_ ＊(beep)]**
3. Press 0 # TOGETHER to end. **[0 # (beeeeeep)]**

2.10 Card Reader Test Mode

The test mode allows you to determine if a card reader or other wiegand device connected to the 1520 is functioning or not. When the 1520 is in the test mode, any card presented to the reader will have its facility code and card number printed.

1. Press ＊ 2 3 and enter the MASTER CODE. **[＊ 2 3 _ _ _ _ (beep)]**
2. The controller is now in test mode.
3. Press 0 # TOGETHER to end the test mode and return to normal operation. **[0 # (beeeeeep)]**

SECTION 3 - PRINT FUNCTIONS

The table list the many different print functions that the 1520 can perform. After each function is complete, a long beep will sound.
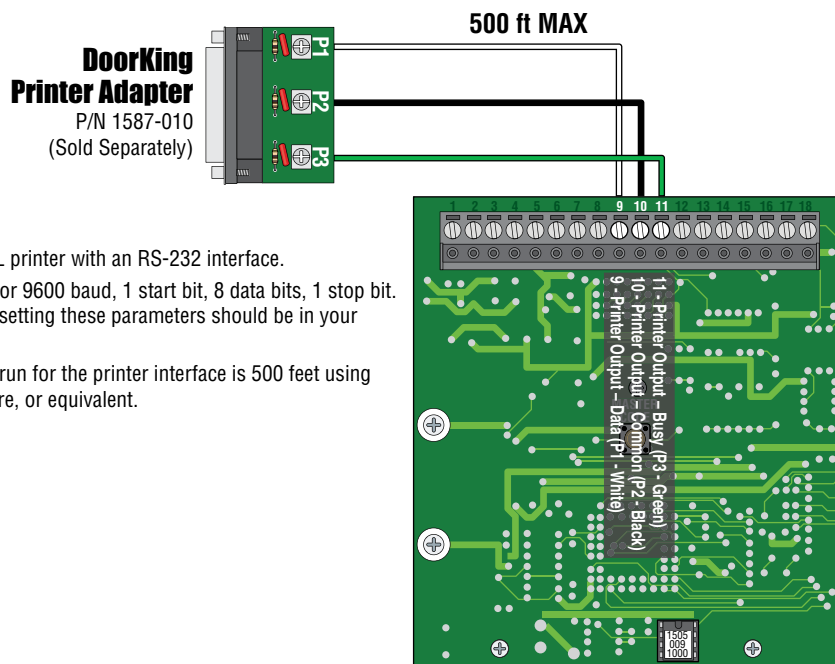
Keypad Entry	Function
* 2 2 + master code	Prints all card codes currently stored in the system memory.
* 0 6 + master code	Prints all facility codes currently stored in the system memory.
* 4 0 + master code	Prints time zone information currently stored in the system memory.
* 3 2 + master code	Prints the current date and time.
* 0 2 + master code	Prints the programmed relay strike time.
* 2 7 + master code	Prints the status of timed anti-pass back (On or Off).
* 5 5 + master code	Prints the size of the memory chip currently installed in the 1520 (1000).
* 3 7 + master code	Prints the transactions currently stored in the transaction buffer.
* 3 1 + master code	Prints the status of the real time print mode (On or Off).

3.1 Selective Transaction Print

In addition to the above print functions, the following programming sequence will print transactions for a selected **month** and a selected **day** of the month.

1. Press * 3 4 and enter the MASTER CODE. [* 3 4 _ _ _ _ (beep)]
2. Enter the **two-digit** month (01 = January, 12 = December), then press *. [_ _ *(beep)]
3. Enter the **two-digit** day of the month, then press *. [_ _ *(beep)]
4. The printer will start to print the transactions stored for the selected month and day. When complete, a long beep will sound.

Printer Connection

DoorKing Printer Adapter
P/N 1587-010
(Sold Separately)

500 ft MAX

11 - Printer Output – Busy (P3 - Green)
10 - Printer Output – Common (P2 - Black)
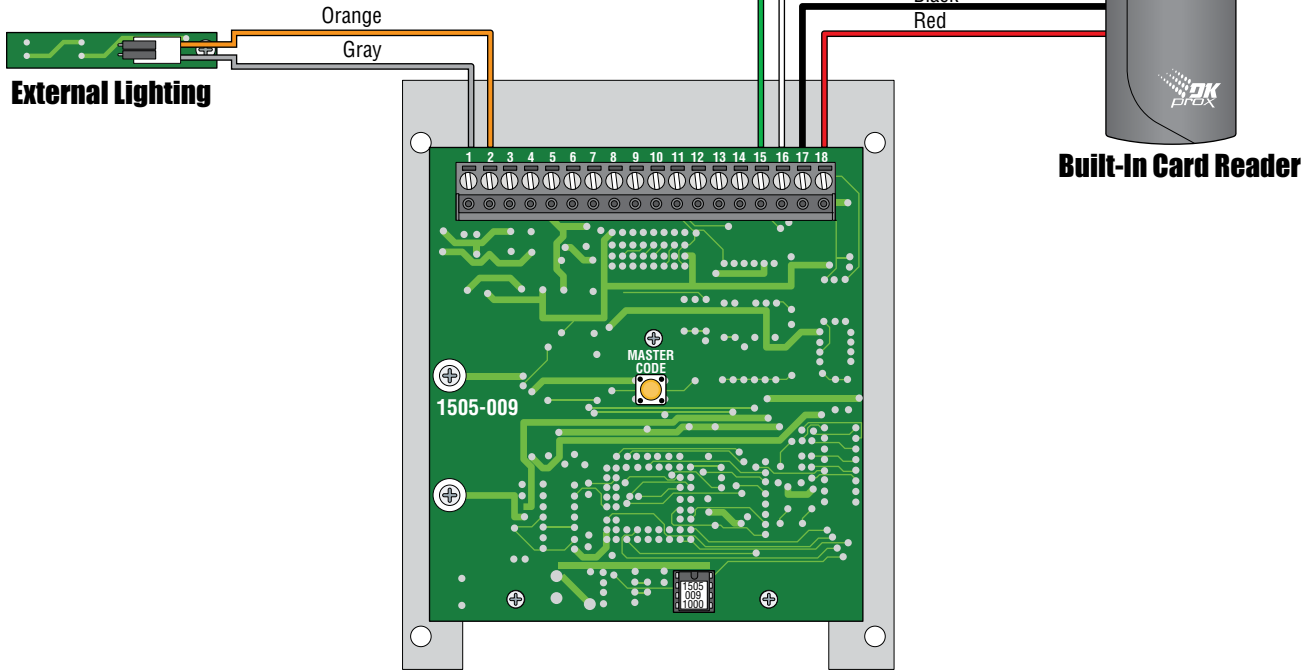9 - Printer Output – Data (P1 - White)

- Use any SERIAL printer with an RS-232 interface.
- Set the printer for 9600 baud, 1 start bit, 8 data bits, 1 stop bit. Information on setting these parameters should be in your printer manual.
- Maximum wire run for the printer interface is 500 feet using Belden 9418 wire, or equivalent.
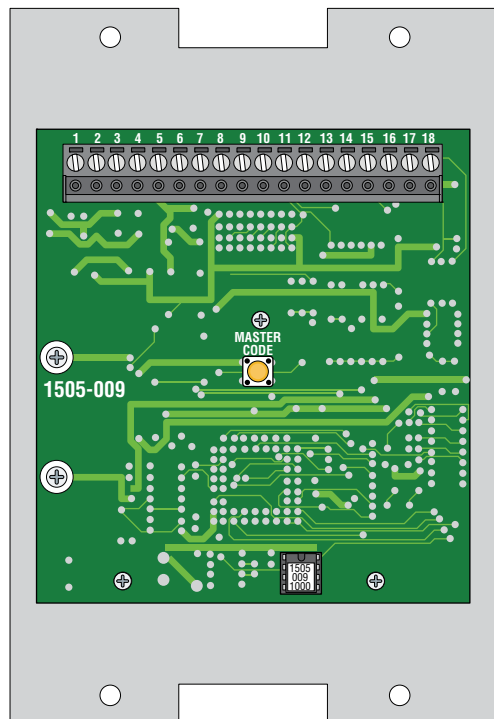
3.2 Series 1520 Wiring Schematics

1520 Card Readers

P/N 1520-084 DK Prox Reader shown.

Green
White
Black
Red

Orange
Gray

External Lighting

Built-In Card Reader

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

MASTER
CODE

1505-009

1520 Controller

P/N 1520-081

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

MASTER
CODE

1505-009

Installation/Owner's Manual

Series 1520

Stand Alone Card Readers or Controller

Use this manual for circuit board 1505-009 Revision E or higher.

1520-065-F-4-17

26-Bit Wiegand Compatible, Time Zone Programmable, Transaction Buffer, Controls One Access Point