IntelliStripe 320
MOTORIZED READER
TECHNICAL REFERENCE MANUAL

Manual Part Number: 99875167 Rev 17

OCTOBER 2012

MAGTEK®
REGISTERED TO ISO 9001:2008
1710 Apollo Court
Seal Beach, CA 90740
Phone: (562) 546-6400
FAX: (562) 546-6301
Technical Support: (651) 415-6800
www.magtek.com

REVISIONS

Rev Number	Date	Notes
1	12 May 00	Initial Release
2	23 Aug 00	Section 1, Added Front Gate caution; all U.S. dimensions, weights, and temp listed first and metric last and in ( ), editorial. Sec 3, Fig 3-1, Changed capacitor wire from 5.1672 in to 79 in.
3	18 Oct 00	Sec 1: Electrical Spec Change: from 1 Amp max to 1.5 A, and from 100 Ma to 170 Ma typical. Changed specs to *SI Metric System*.
4	6 Dec 00	Editorial throughout. Section 1, Specifications: Changed length from 5.60" to 5.85" to add dimension of flex cable extension. Section 2: Changed Figure 2-3 to reflect flex cable extension. Changed Figure 2-7 to add Red and Green callouts to LED. Changed Figure 2-8, 7-pin connector to reflect pin numbers and locking tabs.
5	22 Feb 01	Sec 1: Deleted P/N 16050327,added P/Ns 16050330, 16050337. Accessories: Changed 2-disk set to 4-disk set. Specifications, Dimensions: Changed width from 3.26" to 3.27"; Height from 2.17" to 2.18"; Weight from 15.33 oz to 15.4 oz and Bezels Wts. From 1.37 to 1.40 oz. Sec 2: Changed Figure 2-1 to Bezel Options. Changed Fig 2-2 Bezel Width from 3.264" to 3.27" and height from 2.17" to 2.18". Fig 2-3 Bezel width from .98" to 1.00". Sec 3: Changed "Section 3" to "Appendix A". Changed dwg (Fig A-1) to include polarity pin (+).
6	26 Apr 01	Changed illustrations throughout for clarity and added "D" Bezel. Front Matter: Changed warranty Address to 20801 S. Annalee. Added EMVCo statement. Editorial corrections Sec 1: To configurations added P/N 16050329 "D" Bezel. Specifications: Added "B", "C", and "D" bezel dimensions and weights.
7	16 Aug 01	Section 2, Fig 2-8, Corrected dimensions on D inner panel opening: Changed 4.00" to 3.745" and Changed 2.00" to 1.873".
8	2 May 02	Section 1: Added JIS to Specifications
9	09 May 03	Front Matter: Added ISO line to logo, changed Tech Support phone number, added new warranty statement; Sec 2: Changed converted values in Figures 2-3, 2-4, 2-5, 2-6 and 2-8; Appendix A, Changed converted value in Figure A-3.
10	17 Feb 04	Options: Added paragraph: "In the special case where the card eject capacitor is being used…"
11	23 Jun 04	Editorial throughout. Sec 1, Added USB Power Cable, CDs for drivers, and Internet P/Ns for downloads. Added USB description and use.
12	1 Sep 06	Removed old models and added new models with USB interface (16050307, -08, -09, -10); removed references to "B" bezel
13	3 Mar 07	Added RoHS information. Included information about the OTI Contactless reader module; added 16050314 & -15.
14	26 Mar 07	Clarified FCC statement; changed the EMV version from 3.1.1 to 4.1
15	20 Aug 09	Updated Warranty and Agency information; added 16050316, -17 & -19; added accessories for contactless support
16	19 Aug 10	Changed minimum temperature from -40°C to -20°C
17	18 Oct 12	Update figures to be more readable

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FCC WARNING STATEMENT

This equipment has been tested and was found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC COMPLIANCE STATEMENT

This device complies with Part 15 of the FCC Rules. Operation of this device is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CANADIAN DOC STATEMENT

This digital apparatus does not exceed the Class A limits for radio noise from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Réglement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numériqué de la classe A est conformé à la norme NMB-003 du Canada.

CE STANDARDS

Testing for compliance with CE requirements was performed by an independent laboratory. The unit under test was found compliant with standards established for Class A devices.

UL/CSA

This product is recognized per Underwriter Laboratories and Canadian Underwriter Laboratories 1950.

RoHS STATEMENT

When ordered as RoHS compliant, this product meets the Electrical and Electronic Equipment (EEE) Reduction of Hazardous Substances (RoHS) European Directive 2002/95/EC. The marking is clearly recognizable, either as written words like "Pb-free", "lead-free", or as another clear symbol (Pb).

EMVCo APPROVAL STATEMENT

EMVCo approval of the interface module (IFM) contained in this Terminal shall mean only that the IFM has been tested in accordance with the EMV Level 1 Specifications, Version 4.1, as of the date of testing. EMVCo approval does not under any circumstances include any endorsement or warranty regarding the completeness of the approval process or the functionality, quality or performance of any particular product or service. EMVCo does not warrant any products or services provided by third parties. EMVCo approval does not under any circumstances include or imply any product warranties from EMVCo, including, without limitation, any implied warranties of **merchantability, fitness for purpose,** or **non-infringement,** all of which are expressly disclaimed by EMVCo. All rights and remedies regarding products and services which have received EMVCo approval shall be provided by the party providing such products or services, and not by EMVCo.

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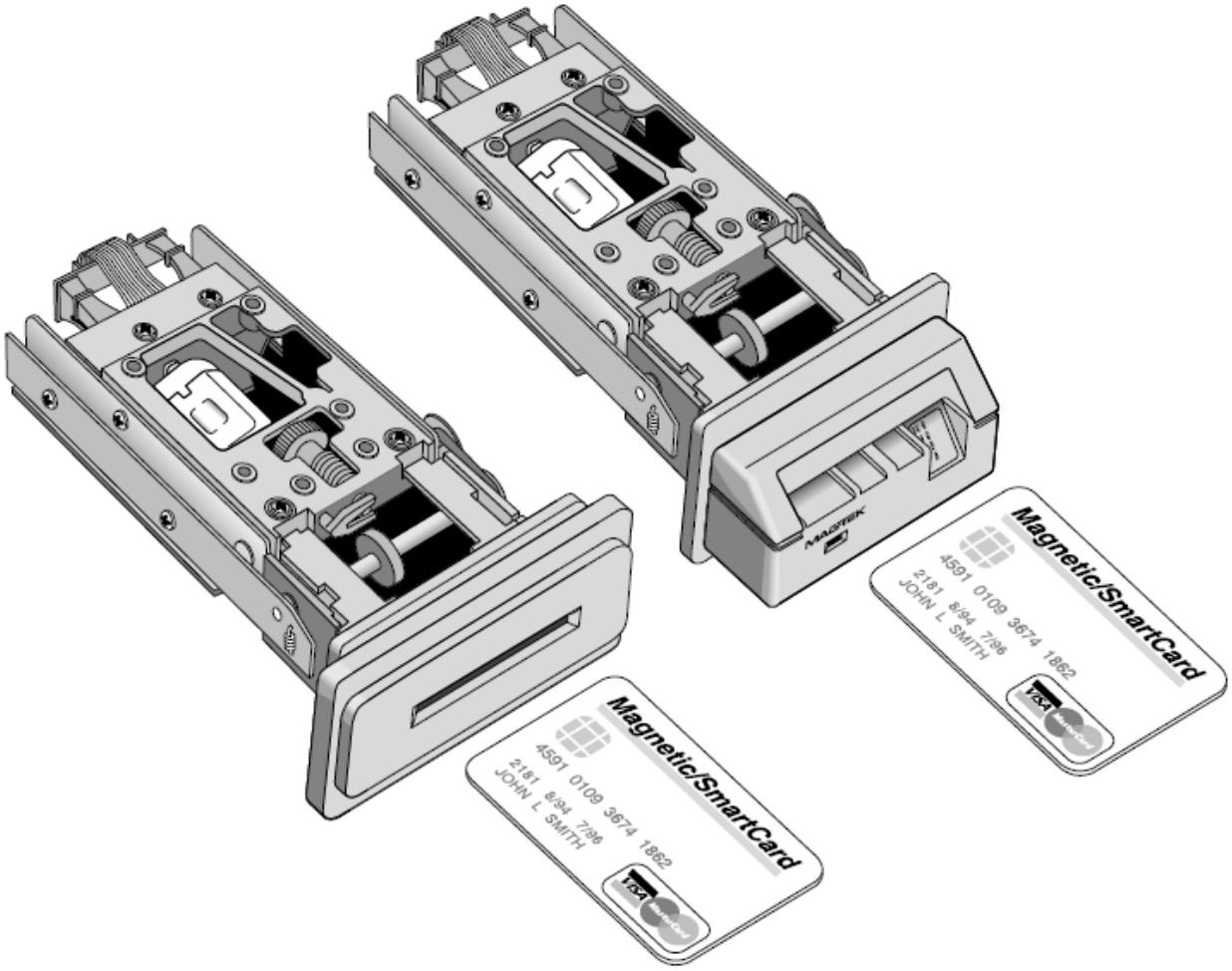

Figure 1. IntelliStripe 320 with “D” and “C” Bezels

SECTION 1. FEATURES AND SPECIFICATIONS

The IntelliStripe 320 is a hybrid, motorized reader that supports both magnetic stripe cards and smartcard technologies simultaneously. The IntelliStripe 320 Reader can be used in environments such as self-service kiosks, vending machines, and POS terminals.

The Reader can be used as a smartcard device only, which will provide an intelligent read/write interface to the user smartcard and can provide read/write access to optional SAMs (Security Access Modules).

The IntelliStripe 320 can also perform functions related to a "reload station". In this environment, financial accounts will be accessed by magnetic-stripe cards or financial cards, and then the monetary value will subsequently be loaded onto a secondary smartcard.

CONFIGURATIONS

Part Number	Description
16050307	IntelliStripe 320, 3Trk, RS-232/USB with C Bezel, Stripe down
16050308	IntelliStripe 320, 3Trk, RS-232/USB with D Bezel
16050309	IntelliStripe 320, 3Trk, RS-232/USB with C Bezel, Stripe down, Contactless Ready*
16050310	IntelliStripe 320, 3Trk, RS-232/USB with D Bezel, Contactless Ready
16050314	IntelliStripe 320, 3Trk, RS-232/USB with A Bezel
16050315	IntelliStripe 320, 3Trk, RS-232/USB with A Bezel, Contactless Ready
16050316	IntelliStripe 320, 3Trk, RS-232/USB with C-Bezel, Stripe down, Contactless Full*
16050317	IntelliStripe 320, 3Trk, RS-232/USB with D-Bezel, Contactless Full
16050319	IntelliStripe 320, 3Trk, RS-232/USB with A-Bezel (Special)

* Contactless Ready implies that the contactless module can be installed at a later date
Contactless Full indicates that the contactless module is included with the reader

STANDARD FEATURES

Standard features of the IntelliStripe 320 are as follows:

- Motorized transport
- RS232 and USB interfaces
- On board intelligence for transporting large blocks of data using a defined protocol and command set
- Flash upgradeable
- 8 Smart Card Contacts for reading ISO contact locations
- On board SAM (Security Access Module)
- Supports all magnetic stripe 3-track combinations
- Front Card Gate prevents coins, dust, moisture, and debris, from entering the unit – gate resists opening except when ISO-size card enters the unit
- Power failure card ejection system (requires optional external capacitor)
- Test LED
- External Bezel LED
- Multiple communication protocols (MCP and simple ASCII)
- Optional support for Contactless Smart Cards
- Non-volatile property configuration

ACCESSORIES

Other part numbers that may be shipped with the unit are as follows:

Part Number	Description
16051408	RS232 / Power cable–6 foot IntelliStripe 320 host port to 9 pin D female RS232 and 2.5mm power jack
16051433	USB-A to USB mini-B cable, 6 foot, gray
30037472 or 99510015	IntelliStripe Picture Demo Software (CD or on line at www.MagTek.com)
30037473 or 99510016	MCP Drivers (CD or on line at www.MagTek.com)
51300004	OTI Contactless communication module (mounts on “Contactless Ready” models
51300005	OTI Contactless antenna with LEDs (must be mounted away from IntelliStripe 65 bezel)
51300006	OTI coax antenna cable – 30cm (does not support LEDs)
51300007	OTI ribbon antenna cable – 19cm (supports LEDs)
51300012	Same as 51300004 but with SAM socket
64300080	Power Supply–Autoranging 100V-250V, regulated, 12VDC, 1.5A, 2.5mm plug
64300104	Power Supply–Autoranging 100V-250V, regulated, 12VDC, 2.5A, 2.5mm plug – required if Contactless Smart Card option is included
71100001	A/C Adapter/Power Cord for North American applications

RELATED DOCUMENTS

The following MagTek documents are relevant to this product:

99875163	MCP, Serial Transport Protocol, Reference Manual
99875164	Communication Protocol, Driver Reference Manual
99875168	IntelliStripe 320, Command Reference Manual

MOTORIZED TRANSPORT

The Reader has a command-driven motorized transport. The transport keeps the card from the user during a transaction but returns the card when the transaction is completed.

RS-232 INTERFACE

The device can communicate to the host through an RS-232 interface. Once the host communicates to the device on this interface the device will no longer be able to communicate on any other interface until it is power cycled or reset. The device uses 8 data bits, 1 stop bit, even parity. The device can automatically sync to baud rates 9600, 14400, 19200, 28800, 38400, 57600 and 115200. See MCP Driver Reference Manual, Part Number 99875164, MCP Serial Transport Protocol Reference Manual, Part Number 99875163 and IntelliStripe 320 Command Reference Manual, part number 99875168, for more details.

USB INTERFACE

The device can communicate to the host through a USB interface. It is compliant with the USB 2.0 full-speed device specification and is compatible with any host that is compliant with USB 1, 2 or 3.

Once the host communicates to the device on this interface the device will no longer be able to communicate on any other interface until it is power cycled or reset. The device uses vendor identifier 0x0801 and product identifier 0x000B. The device contains a manufacturer string descriptor with a value of “MagTek”. The device contains a product string descriptor with a value of “IntelliStripe 320”. The device contains a programmable serial number string descriptor. The device does not get its power from the USB port; it needs to be self powered. When using the USB port, power must be applied directly to the PCB via the power connector or the host connector. See MCP Driver Reference Manual, Part Number 99875164, MCP Serial Transport Protocol Reference Manual, Part Number 99875163 and IntelliStripe 320 Command Reference Manual, part number 99875168, for more details.

TEST LED

A Test LED, designated D5 will blink green when the unit is powered up. This indicates that the unit is in its standard operating mode and is fully operational. This feature allows field technicians to quickly verify that the device is operational.

EXTERNAL BEZEL LED

The External bezel LED is shown in Section 2, Figure 9. The LED can be set to red, green or off. See IntelliStripe 320 Command Reference Manual, Part Number 99875168, for more details.

FLASH UPGRADEABLE

The unit's firmware is in-system Flash Upgradeable. This allows the unit's firmware to be upgraded in a field environment. This may be required in cases when new smartcard specifications reach the marketplace.

SMARTCARD INTERFACE

The reader provides connections to all 8 ICC contacts as defined by ISO 7816 specifications. The Reader supports ISO7816 T=0 and T=1 cards not requiring V_{PP}, with a speed range of 9600 bps (baud per second) to 115200 bps. It also supports a variety of common memory card types. See IntelliStripe 320 Command Reference Manual, Part Number 99875168, for more details.

ONBOARD SAM INTERFACE

The Reader provides a socket for one on board SAM. The SAMs comply to ISO 7816-3 (1997) electrical requirements and do not require $V_{PP.}$ T=0 and T=1 are fully supported with a speed range from 9600 bps to 115200 bps. See IntelliStripe 320 Command Reference Manual, Part Number 99875168, for more details.

MAGNETIC STRIPE READER

The Reader can read up to three tracks of magnetic stripe card data. See IntelliStripe 320 Command Reference Manual, Part Number 99875168, for more details.

POWER FAILURE CARD EJECTION SYSTEM

The Reader has a power-failure card-ejection system. This system will automatically eject a card when a power failure occurs. To enable this system, an optional external capacitor needs to be connected to the reader. See Appendix A for more details.

FRONT GATE

The Front Card Gate prevents coins, dust, moisture, and debris, from entering the unit. The gate resists opening except when ISO-size card enters the unit

Note

If the front-gate option is installed, the IntelliStripe 320 Reader will be incapable of reliably reading mag-stripe cards during the

card-ejection cycle. (Reliable mag-stripe reading will only be possible during the card-insertion cycle). If mag-stripe reading is required during the card-ejection cycle, then the product must be ordered without the front-gate option.

CARD POSITION SENSORS

The reader contains three card position sensors: front card present sensor, middle card present sensor, and rear card present sensor.

Front Card Present Sensor

An optical sensor that indicates whether a card is present at the front (insertion) end of the card transport. See IntelliStripe 320 Command Reference Manual, Part Number 99875168, for more details.

Middle Card Present Sensor

An optical sensor that indicates whether a card is present in the middle of the card transport. See IntelliStripe 320 Command Reference Manual, Part Number 99875168, for more details.

Rear Card Present Sensor

An optical sensor that indicates whether a card is present at the rear (smart card contacts) end of the card transport. See IntelliStripe 320 Command Reference Manual, Part Number 99875168, for more details.

MULTIPLE COMMUNICATION PROTOCOLS

This device supports both the binary MCP and simple ASCII hex protocols. See the host application protocol property section of the command reference manual for more details.

NON-VOLATILE PROPERTY CONFIGURATION

This device supports configurable power up/reset values for some properties by using non-volatile memory. See the generic save property command section of the command reference manual for more details. The section that explains each property in the command reference manual will also indicate if the particular property has this support. Placing a jumper across pins 3 and 4 of jumper block J5 on the device prior to power up/reset will cause the device to use the default values instead of non-volatile memory for all property values.

SPECIFICATIONS

Specifications for the Reader are listed in Table 1-1.

Table 1-1. Specifications

DATA FORMAT SPECIFICATIONS	
Reader Configuration	**Data Format Specifications***
Mag-Stripe Functions Track 1,2,3 only	ISO/AAMVA/JIS formats ISO 7810, 7811, JIS x 6302 Type 2
Smartcard Functions	ISO 7816 T=0 and T=1 protocols, many popular memory cards EMVCo Level 1 Approval
Contactless Smart Cards	ISO 14443A/B; Mifare
* ISO (International Standards Organization), AAMVA, (American Association of Motor Vehicle Administrators), JIS (Japanese Industrial Standard)	
OPERATIONAL	
Card Speed	10 IPS (25.4 cm/sec) typical
Recording Method	Two-frequency coherent phase (F2F)
MTBF	Electronics: 125,000 hours Head: 1,000,000 passes (500,000 Insertion Cycles) SC contacts: 1,000,000 passes
ELECTRICAL	
Input Voltage	12.0 VDC $\pm$ 5%
Current	1.5A max (2A with contactless smartcard option) 60mA when idle (310mA with contactless smartcard option)
Optional Auxiliary Power-Fail Card-Eject Capacitor	Recommended capacitor value: 68000 μF rated at 16 volts.

MECHANICAL	
Chassis Mounting Options	With “A” and “C” Bezel, screws mounted from above unit, magstripe down and to the right
	With “A” Bezel only, screws mounted from above or under unit.
	With “D” Bezel, screws mounted from above or under unit.
Dimensions (Core Chassis) Length (with “A” Bezel) Width (with “A” Bezel) Height (with “A” Bezel) Length (with “C” Bezel) Width (with “C” Bezel) Height (with “C” Bezel) Length (with “D” Bezel) Width (with “D” Bezel) Height (with “D” Bezel) Cable Length (16051408) A/C Adapter Cable Length (71100001)	 5.85” (148.59 mm) (includes flex cable connector overhang) 3.26” (82.91 mm) 2.17” (55.12 mm) 6.83” (173.48 mm) 3.26” (82.91 mm) 2.17” (55.12 mm) 6.26” (159.00 mm) 4.00” (101.60 mm) 2.17” (55.12 mm) 6’ ± 0.1’ (1.83 m ±0.03 m) 6.25’ (1.91 m)
Weight: Reader with “A” Bezel “C” Bezel w/screws “D” Bezel w/screws Reader Cable A/C Adapter Regulator with Power Cord	 15.40oz. (436.58 g.) 1.40 oz. (39.69 g.) 1.08 oz. (30.58 g.) 4.15 oz. (117.76 g.) 11.87 oz. (336.60 g.)
ENVIRONMENTAL	
Temperature Operating Storage	 32 ^{o}F to 122 ^{o}F (0 ^{o}C to 50 ^{o}C) -4 ^{o}F to 158 ^{o}F (-20 ^{o}C to 70 ^{o}C)
Humidity Operating Storage	 10% to 90% noncondensing 10% to 90% noncondensing
Altitude Operating Storage	 0-10,000 ft. (0-3,048 m.) 0-50,000 ft. (0-15,240 m.)

SECTION 2. INSTALLATION

The installation of the IntelliStripe 320 Motorized Reader includes mechanical and electrical connections.

MECHANICAL MOUNTING

The "A" Bezel is always shipped with the unit. The "C," or "D" Bezels may also be shipped with the unit, depending on requirements for card orientation. Figure 2 shows the configurations for mounting and card orientation:

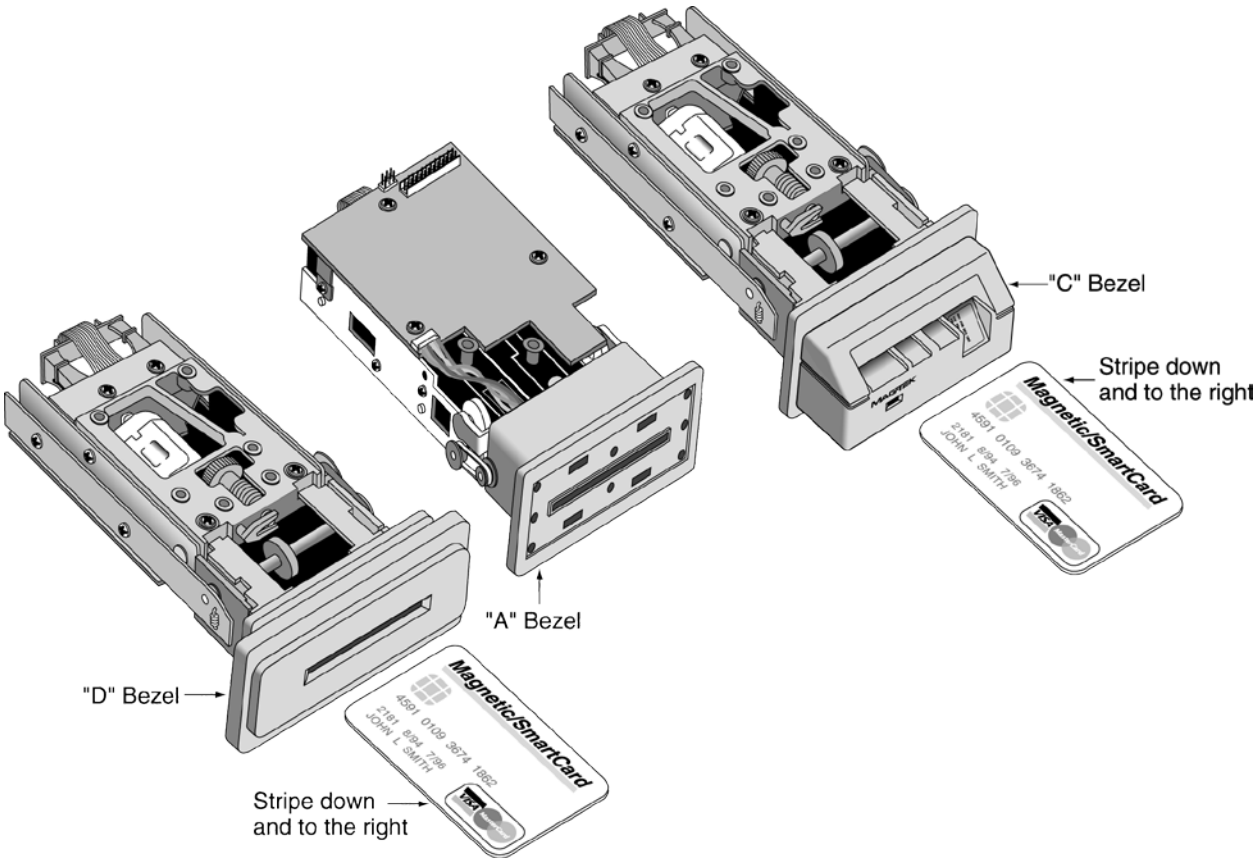

Figure 2. Bezel Options

BEZELS

Dimensions and details of the bezels are shown in Figure 3. The "A" Bezel will always be shipped with the unit ("A" bezel dimensions are shown in Appendix B.) Also, the "C," or "D" Bezel may be shipped with the unit. The user may also design a bezel from dimensions in this section.

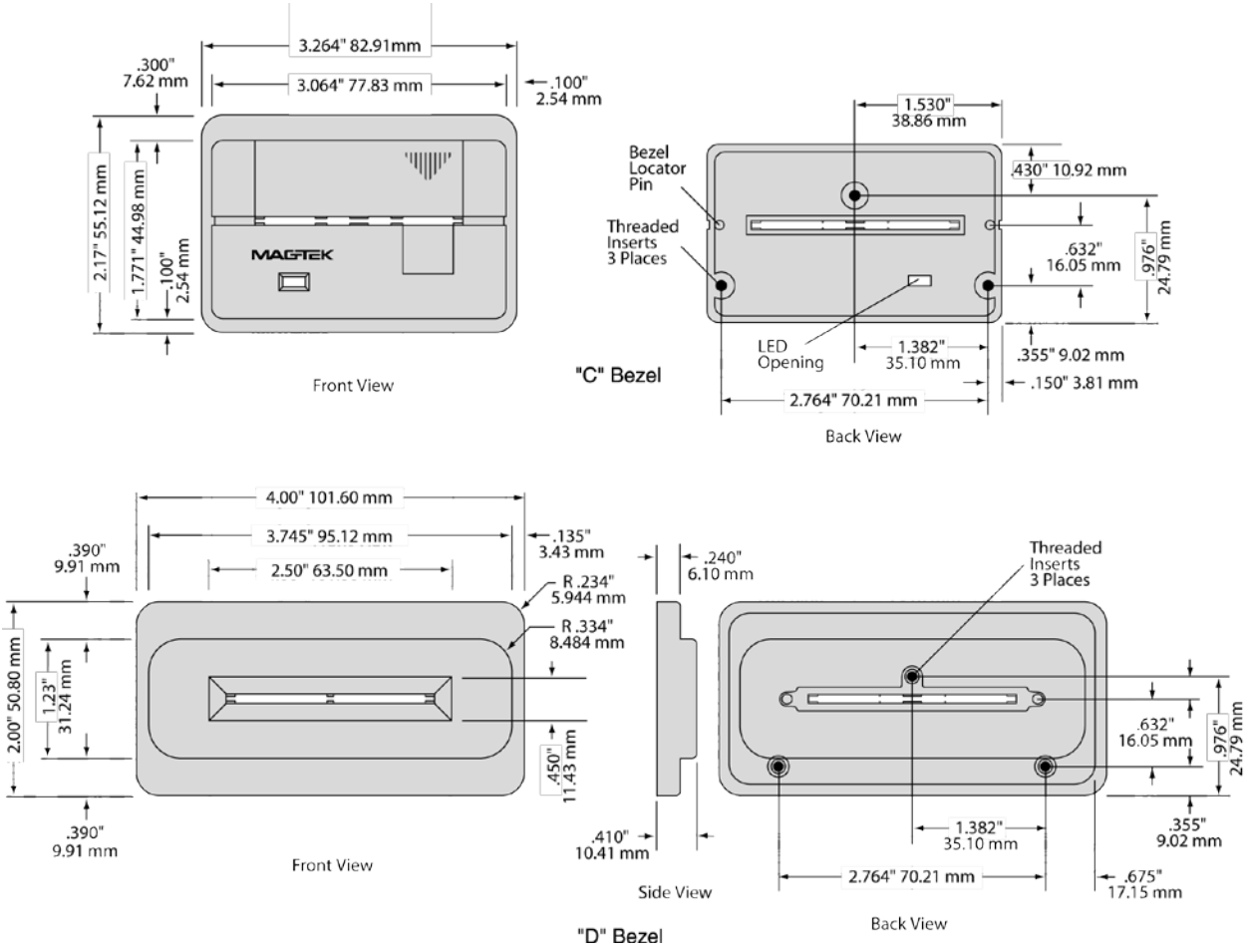

Figure 3. Bezel Mounting Dimensions

Figure 4 shows the position for mounting the IntelliStripe 320 with the “C” Bezel attached. The mounting holes are shown in the top view. The “A” Bezel is attached to the unit by the “A” Bezel retaining screws also shown in the top view.

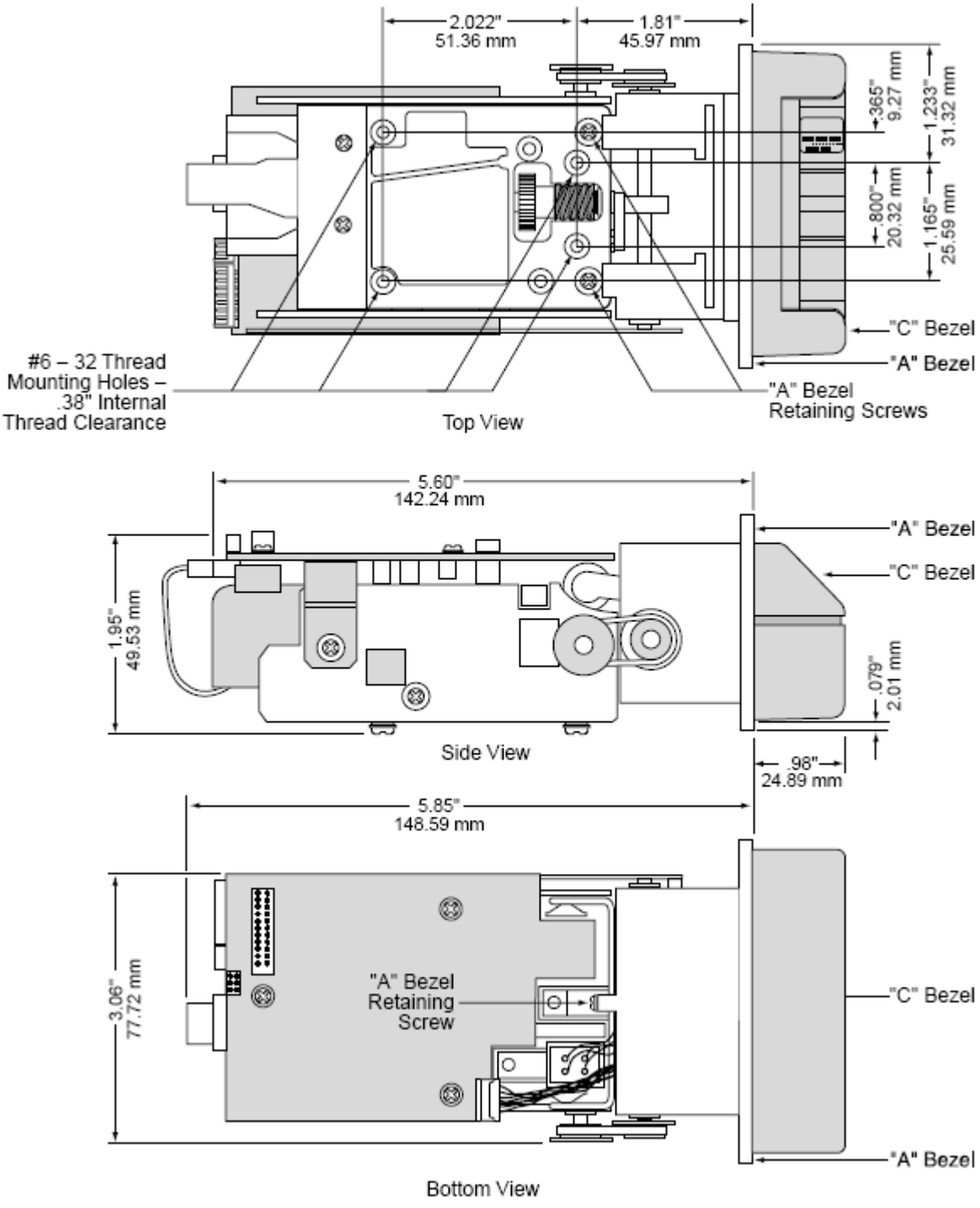

Figure 4. “C” Bezel Mounting – Top, Side, and Bottom Views

Figure 5 shows the position for mounting the IntelliStripe 320 with the "D" Bezel attached. The mounting holes are shown in the bottom view. The "A" Bezel is attached to the unit by the "A" Bezel retaining screws also shown in the bottom view. Because the "D" Bezel is symmetrical, the unit may be mounted from the top or bottom, depending on the desired card orientation. (Note that no LED is used with the "D" Bezel configuration.)

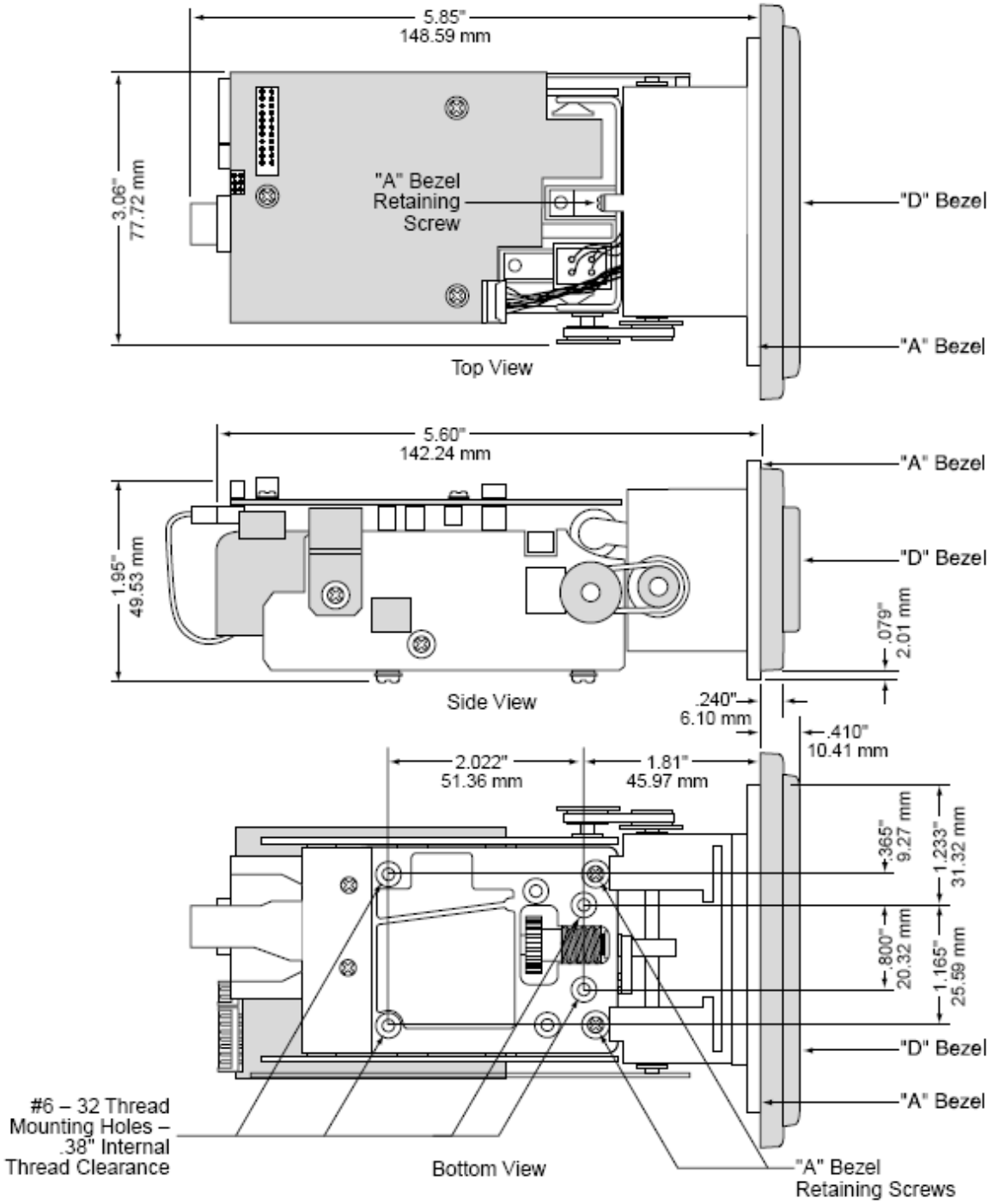

Figure 5. "D" Bezel Mounting – Top, Side, and Bottom Views

For “C” bezel configuration, the dimensions in Figure 6 are for the unit mounted from the back side of the panel. These dimensions include the dimensions from the centerline of the card slot to other areas for mounting the unit from the backside of the panel. Note the dimension from the *bottom* of the panel opening to the centerline.

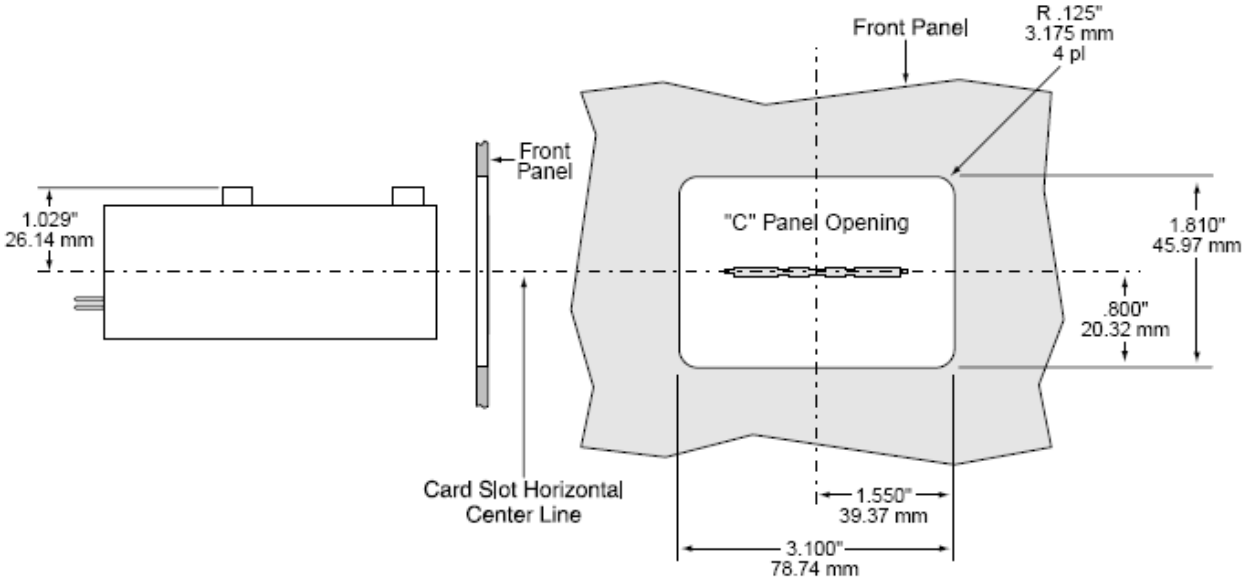

Figure 6. Panel Opening for Mounting “C” Bezel

It is not necessary to remove the Bezels when mounting the unit. The “C” Bezel protrudes from the opening, and the “A” Bezel is positioned against the inside of the panel opening. The bracket should retain the unit so the “A” Bezel is held firmly against the inside of the panel.

For “D” bezel configuration, the two sets of dimensions in Figure 7 are for units to be mounted from the back side of the panel. The cutouts are for mounting the outer or inner panel openings.

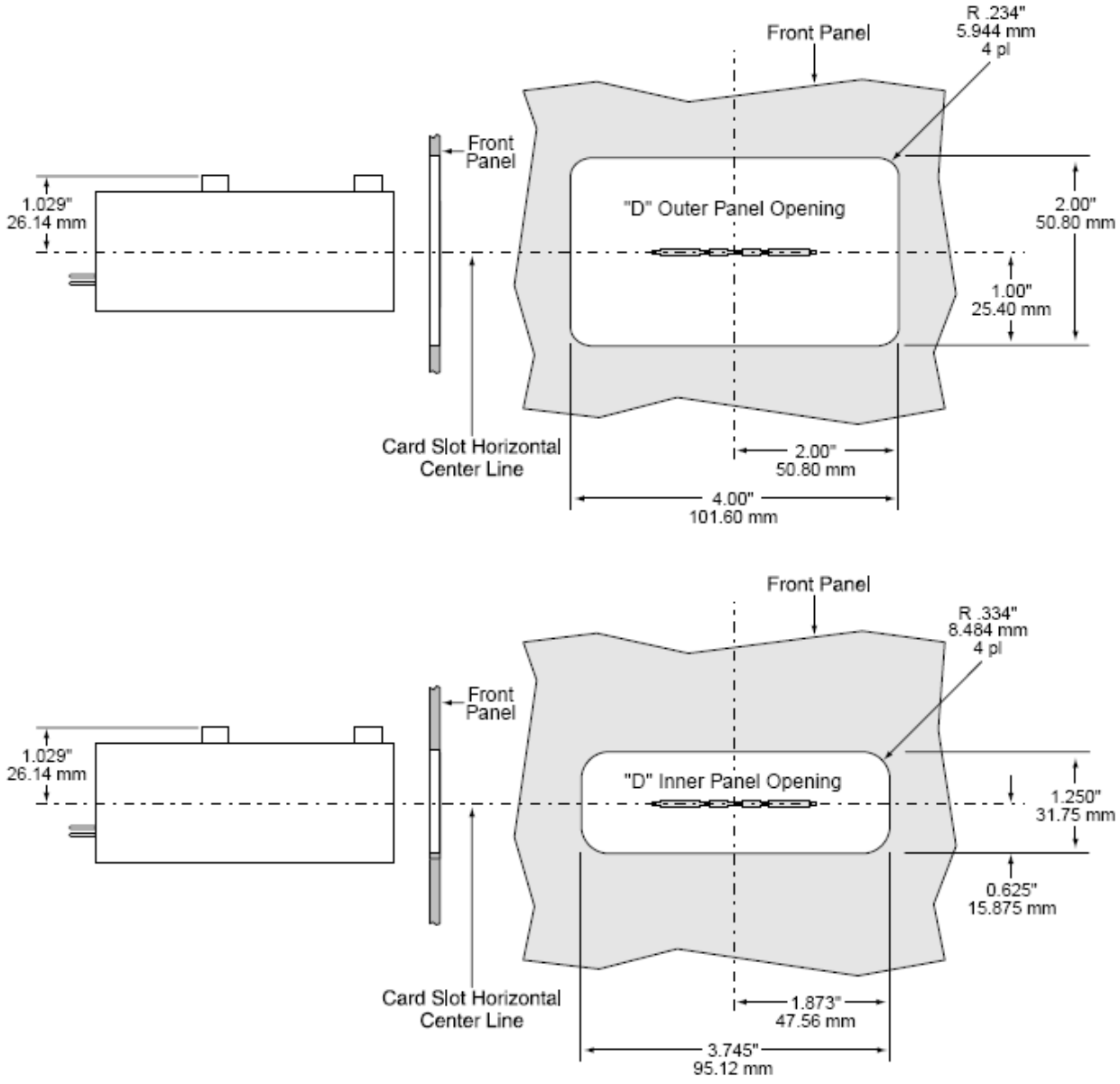

Figure 7. Panel Openings for Mounting “D” Bezel

Four #6-32 mounting screws, with 0.38 inch internal thread clearance, attach the bottom of the IntelliStripe 320 to a fixed position as indicated in Figure 8. If the “C” bezel is used, the IntelliStripe 320 is inverted, and the mounting screws are inserted from above the IntelliStripe 320.

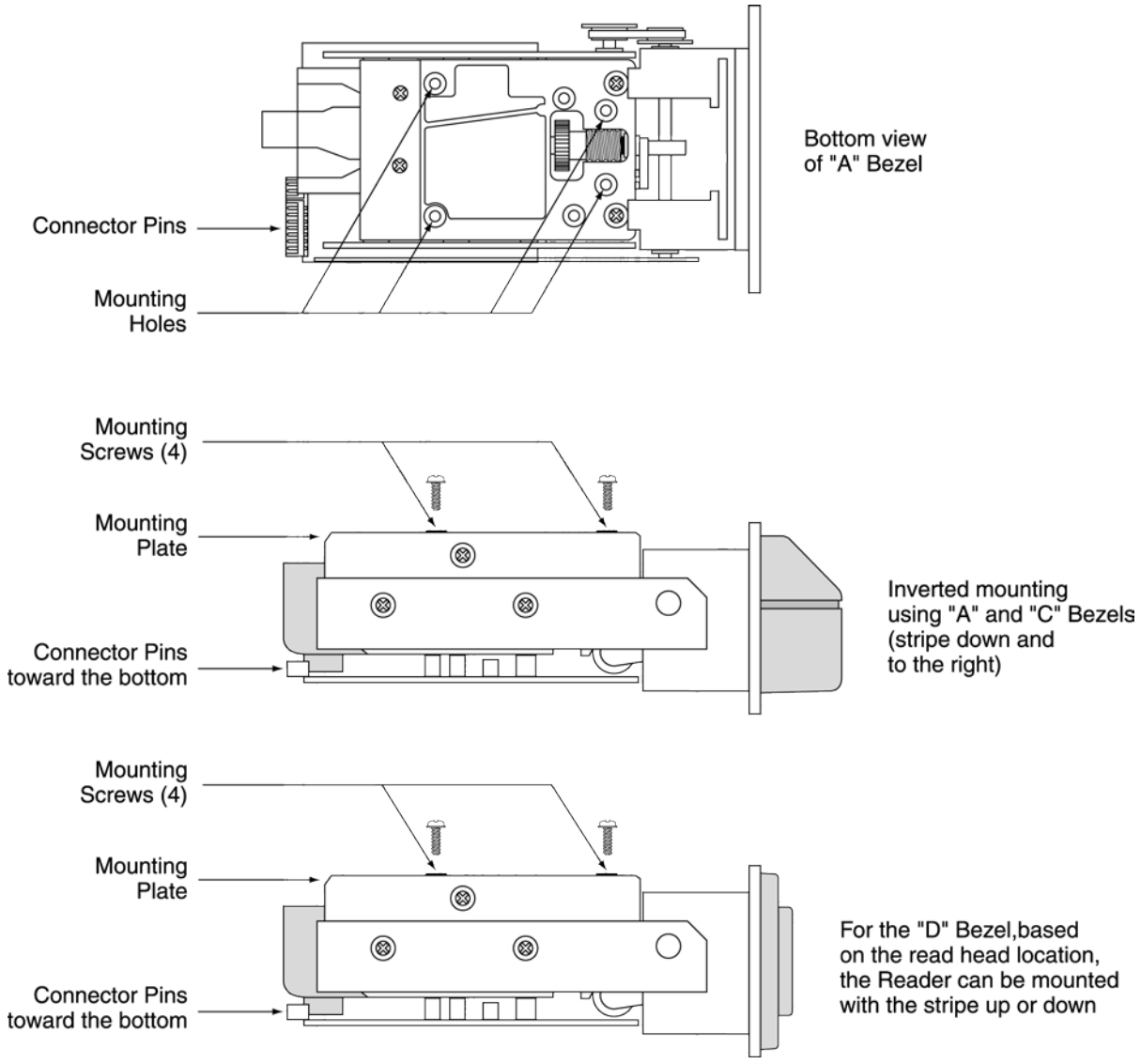

Figure 8. Mounting Configurations

ELECTRICAL CONNECTIONS

Connector Locations

Figure 9 shows the positions of the connectors for the SAM socket, power-fail capacitor, and I/O.

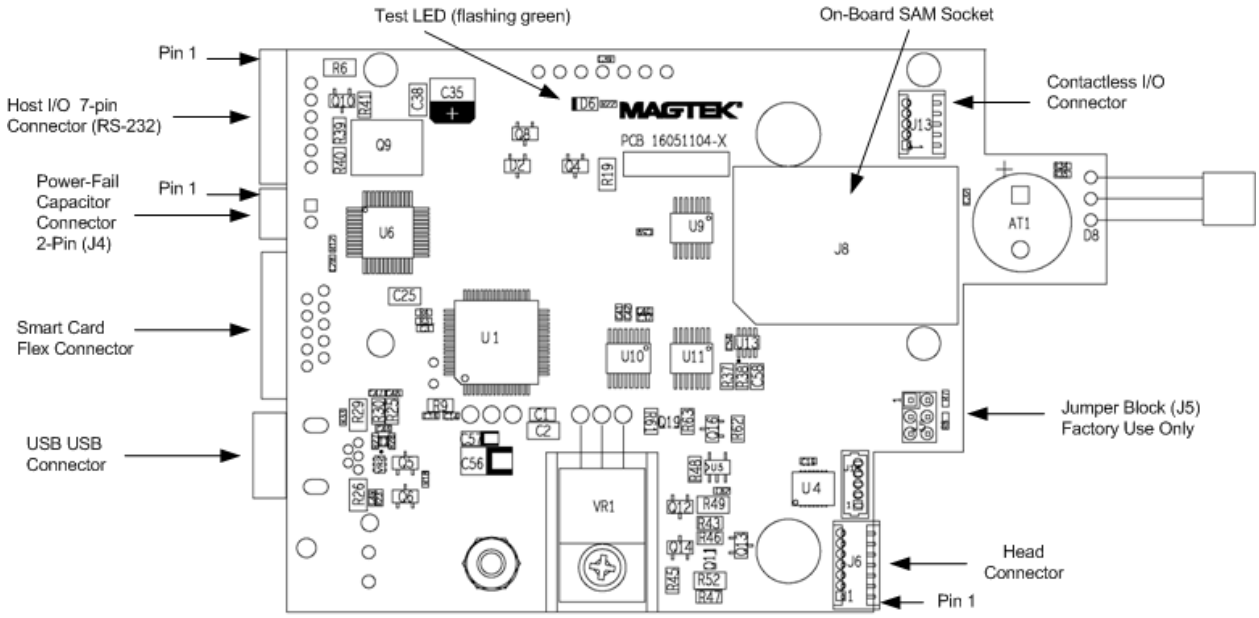

Figure 9. Connector locations

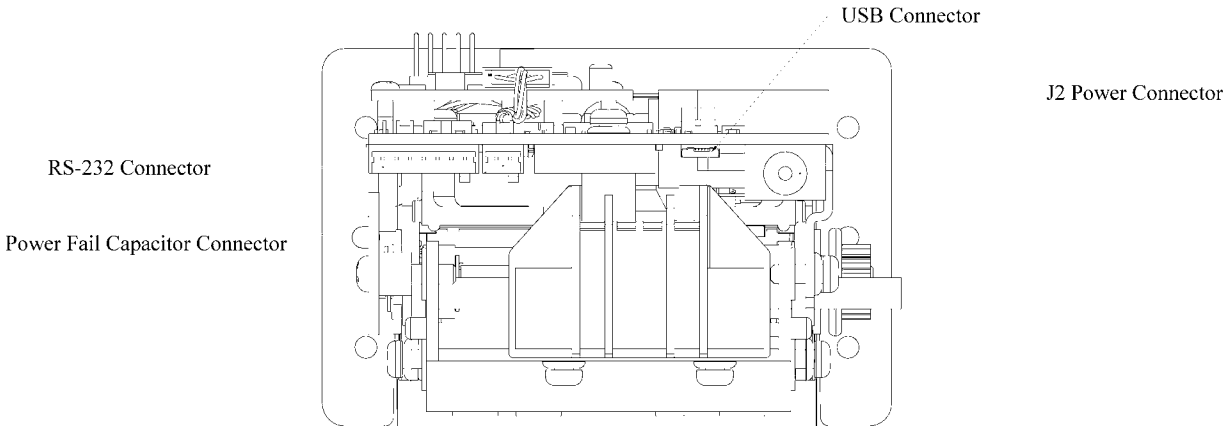

Figure 10. Power and Communication Connections

Contactless Installation

Some models of the IntelliStripe 320 include the ability to add a contactless smart card module. The contactless module and its interface cable can be ordered separately from MagTek. Figure 11 shows how the cable and module are attached to the IntelliStripe 320 circuit board. Figure 12 shows the module fully installed.

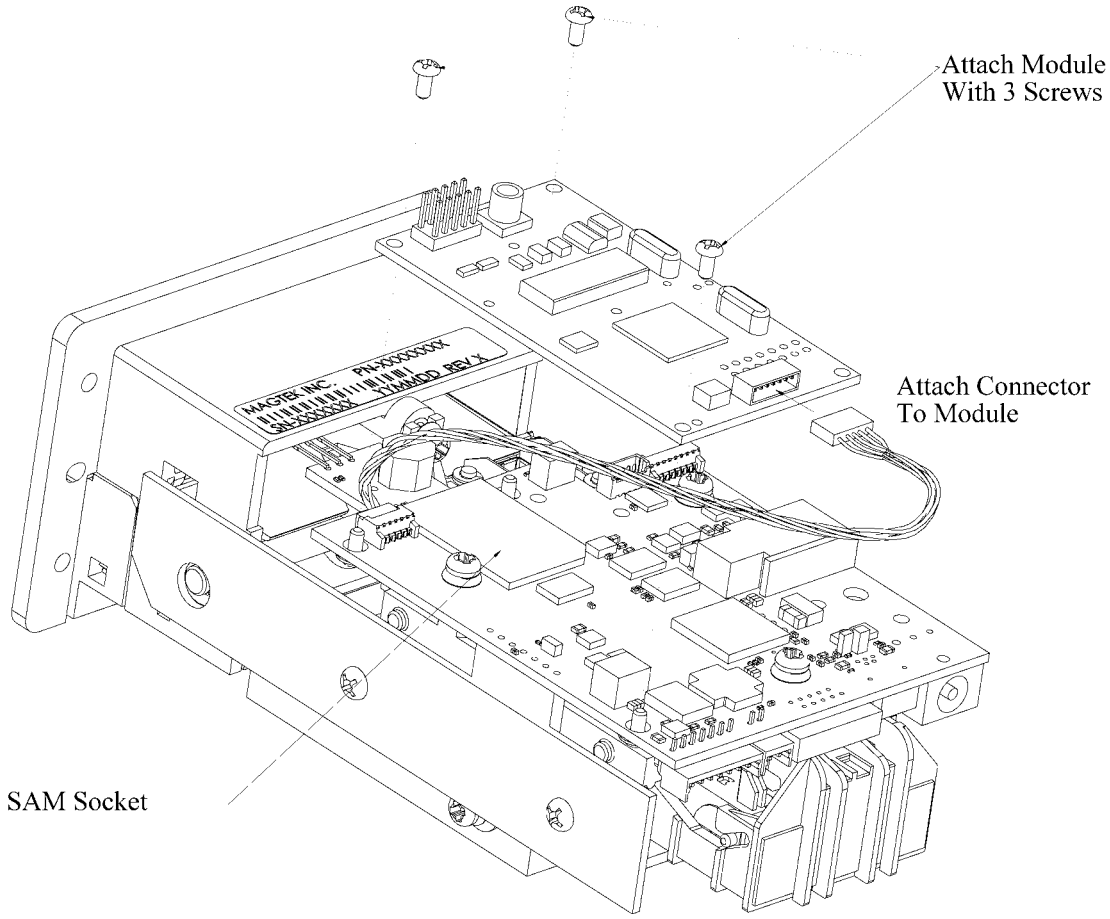

Figure 11. Installing Contactless Module on Contactless Ready Model

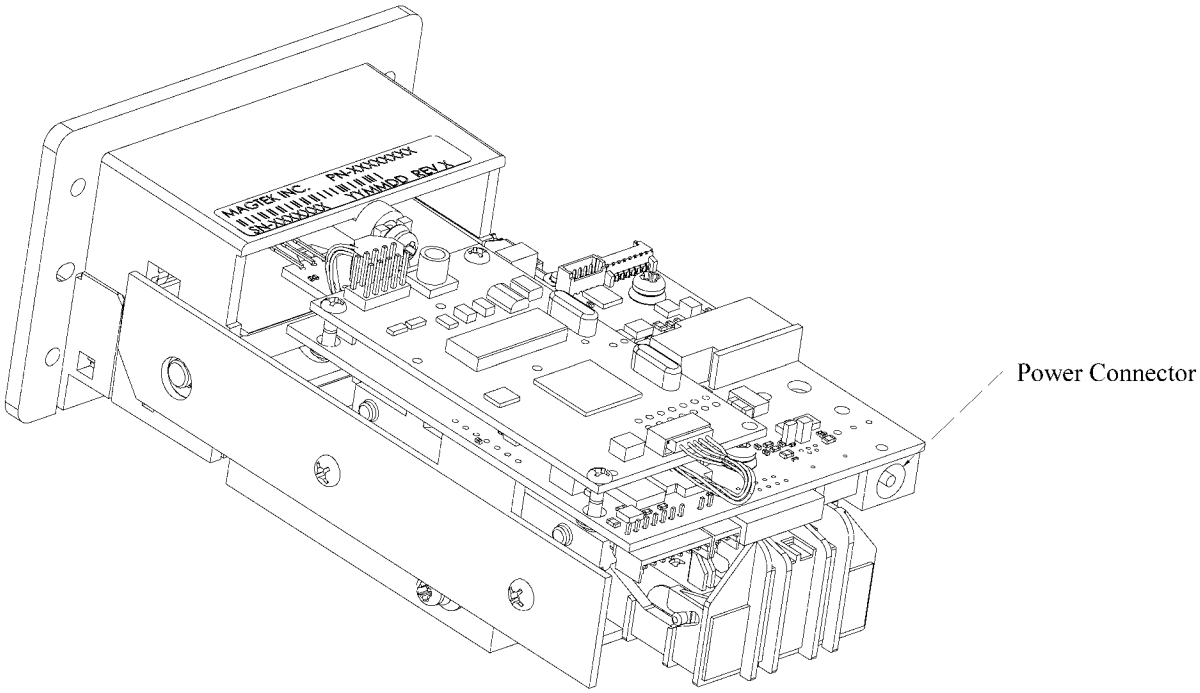

Figure 12. Contactless Module Installed

Antenna Installation

The antenna is a separate item that can be installed outside of the IntelliStripe 320. The antenna module and the interface cable are supplied separately from the reader. Two types of cables are offered:

- Flat Ribbon Cable – this cable is only 7.5" (19cm) but all 4 of the LEDs are supported (see Figure 13)
- Coax Cable – this 12" (30cm) cable offers a slightly greater range of antenna placement but it does not operate the LEDs on the antenna module (see Figure 14)

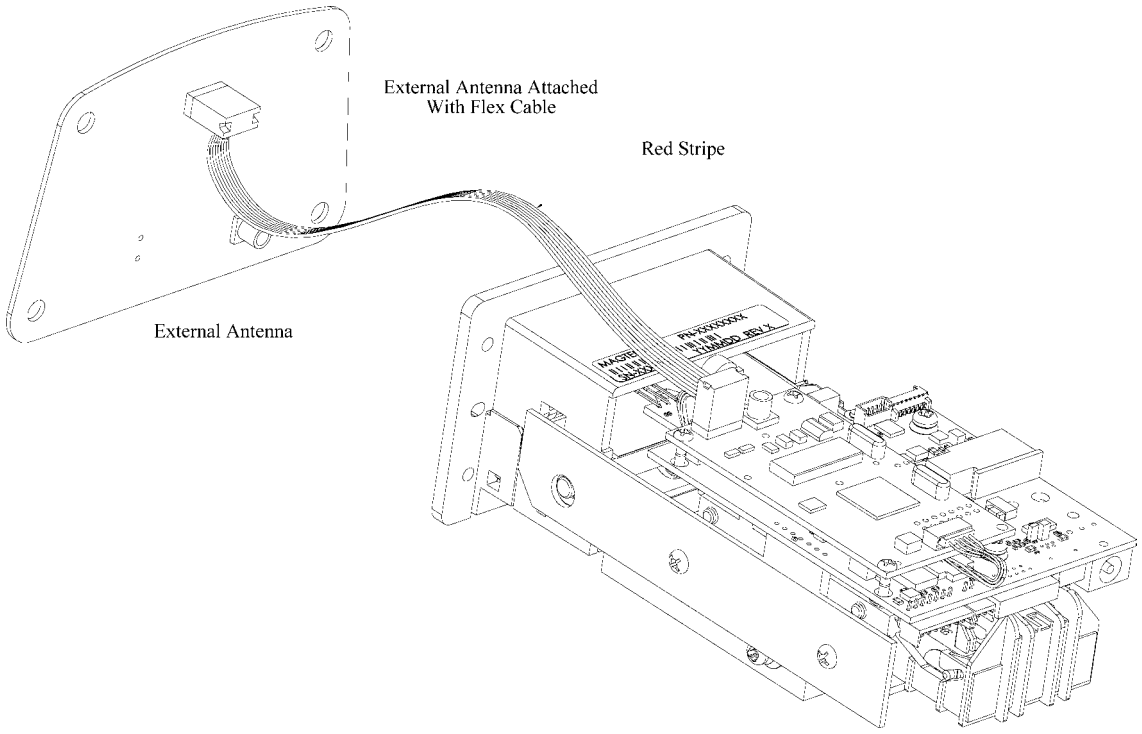

Figure 13. Using External Antenna with LED's (Ribbon Cable)

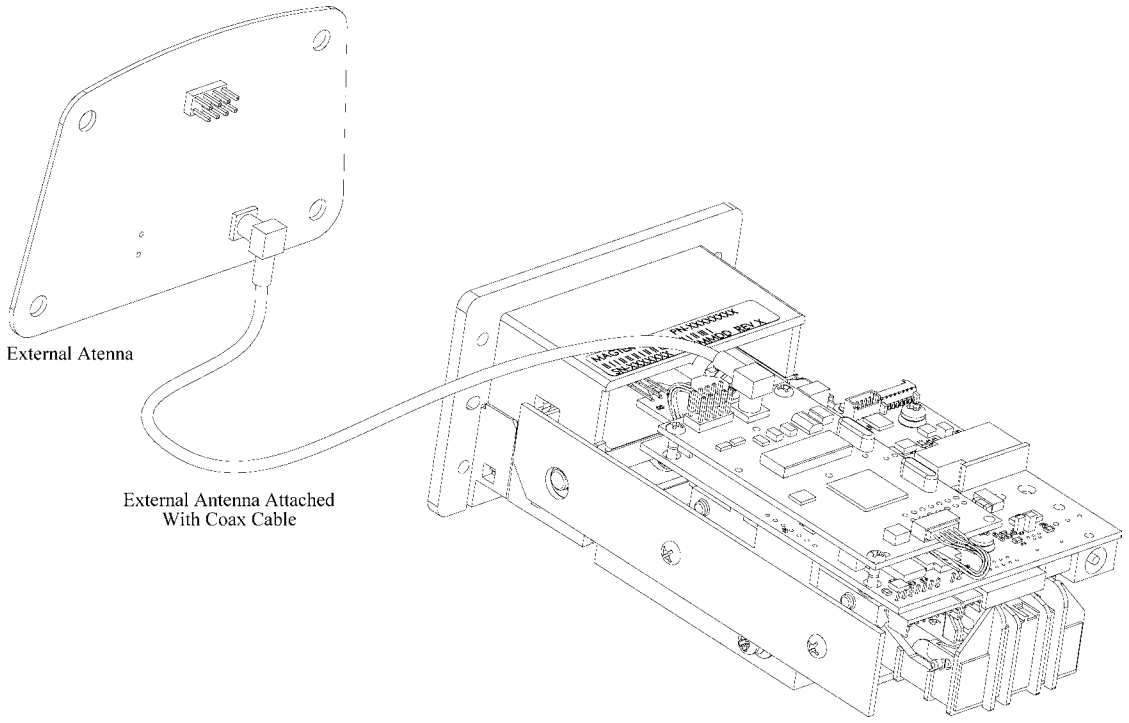

Figure 14. Using External Antenna without LED's (Coax Cable)

Accessing SAM Module

If the contactless module is installed, it must be removed temporarily in order to access the SAM module. The two screws holding the contactless module onto the IntelliStripe 320 circuit board will have to be removed in order to reach the SAM module which is located under the contactless module (see Figure 15).

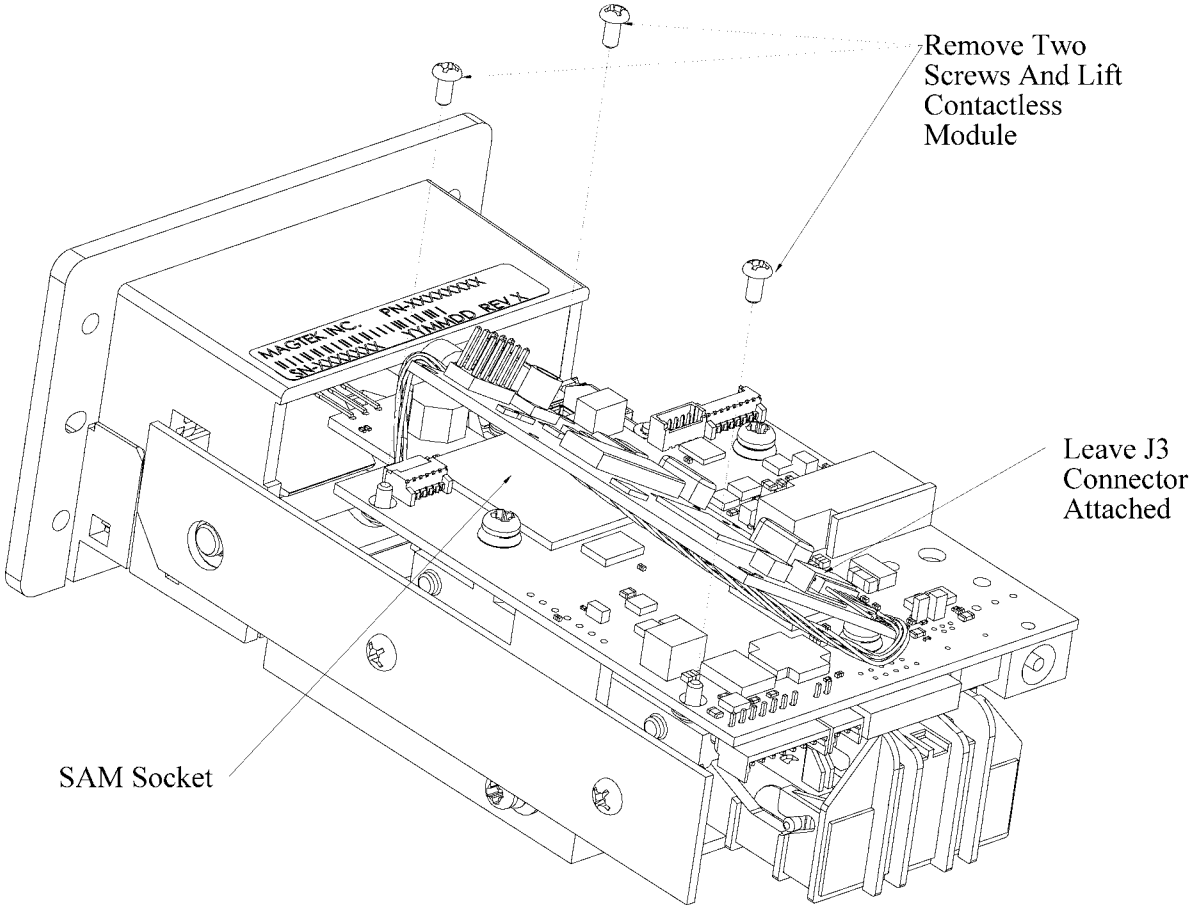

Figure 15. Removing Contactless Module to Access SAM Socket

RS-232 Cable

Figure 16 shows the cable that connects the IntelliStripe 320 (7-pin connector) to the host (9-pin connector), P/N 16051408. The standard length of the cable is 6'.

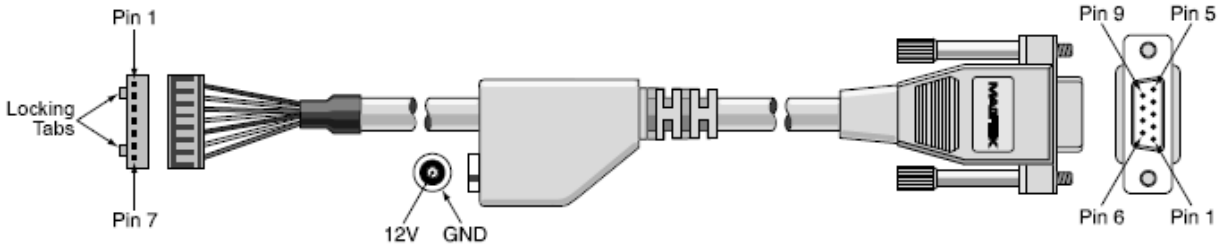

Figure 16. RS-232 Cable

Table 2-1 lists the Connector Pin Numbers and Signal Names.

Table 2-1. Pin List for RS-232 IntelliStripe 320 Connectors

Molex 7 Pin (51065-0700)		DE-9 Female		2.5mm Power Jack	
Pin Number	**Signal Name**	**Pin Number**	**Signal Name**		
1	TXD	2	RXD		
2	+12V			CENTER PIN	+12V
3	PWR GND			SHELL	GND
4	RXD	3	TXD		
5	RTS	8	CTS		
6	CTS	7	RTS		
7	SIGNAL GND	5	GND		
		6 ┐	DSR		
		4 ┘	DTR		

USB Cable

MagTek provides a USB cable (P/N 16051430) that connects the Host (USB A plug) to the IntelliStripe 320 (USB B plug). The overall length of the cable is 6'. Any standard USB A-to-B cable can be used.

Power Supply

The Power Supply, P/N 64300080, 100V–240V regulated, 12VDC @ 1.5 Amps, with special 2.5 mm plug is shown in Figure 17. If the Contactless Smart Card option is implemented, the DC supply must be increased to about 2.5 Amps (P/N 64300104). The AC power cord, P/N 71100001, is for use in North America. Other users must supply their own cord (requires an IEC-320-C13 connector at the power supply).

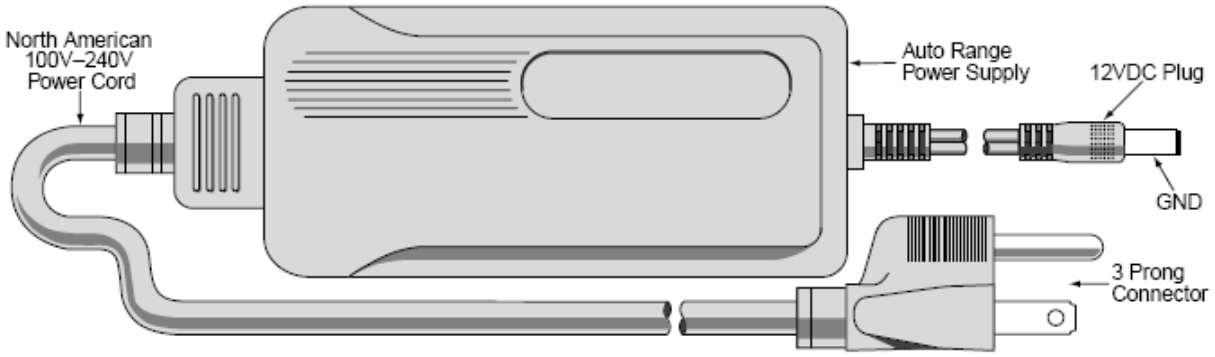

Figure 17. Power Supply

Power-Fail Capacitor Connector, 2-Pin

The Power-Fail Capacitor connector, J7, connects to an optional external capacitor that is used to eject the card during a power failure. Pin 1 connects to the positive side of the capacitor and pin 2 connects to the negative side.

APPENDIX A. OPTIONS

Options include a capacitor for the Power-Failure Card-Eject System.

POWER FAILURE CARD EJECT SYSTEM

The externally mounted power-fail capacitor is shown in Figure A- 1.

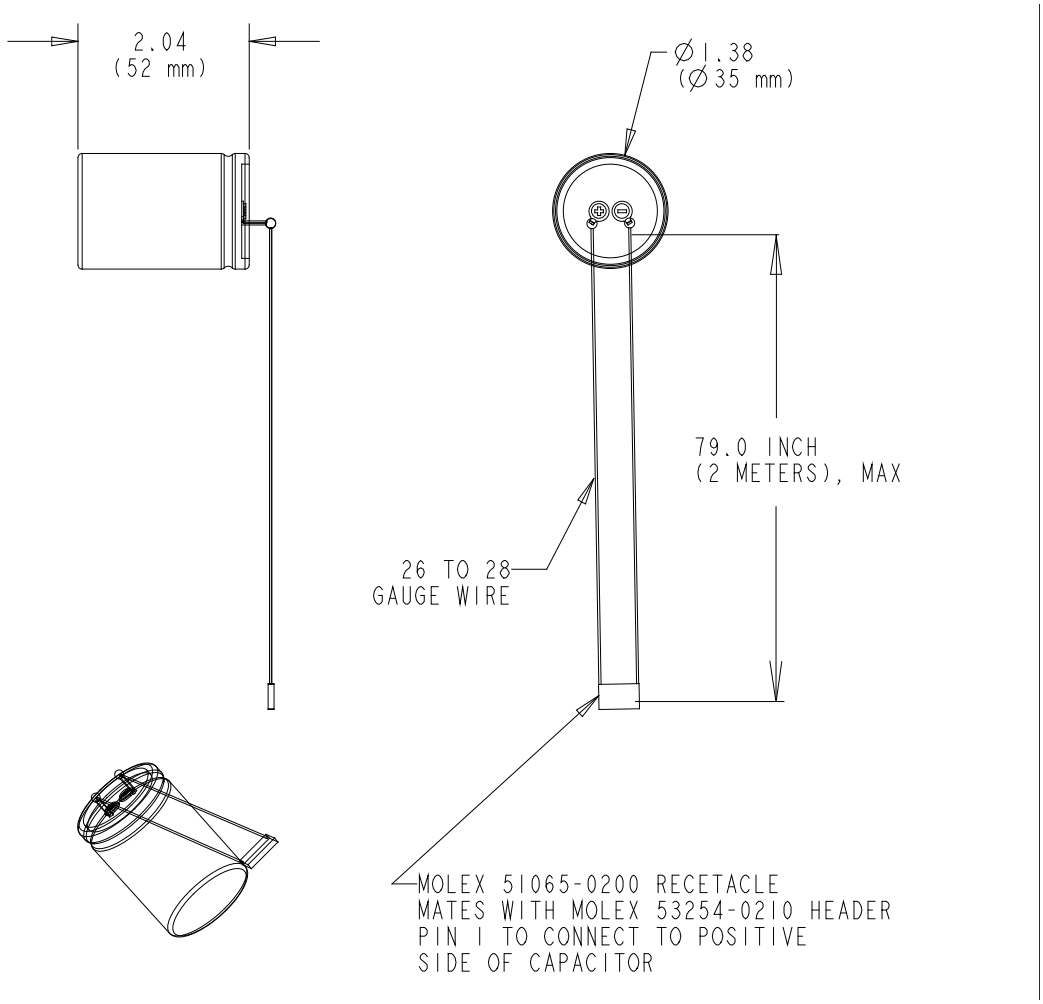

Figure A- 1. Card Eject Capacitor

The power-failure card-eject system ejects a card during a power failure. Card ejection is triggered when the power to the reader fails. An external backup capacitor is required for this option to function. This capacitor can be connected to the reader through a header on the board. In case of power failure, the capacitor automatically ejects the card. The user must determine the wire length required for their specific application. The recommended capacitor value is 68000uF rated at 16 volts.

In the special case where the card eject capacitor is being used and the 12 volt supply to the IntelliStripe 320 is being shared with another device in the system, a diode needs to be connected in series with the 12 volt supply line to the IntelliStripe 320. This is required to prevent the card eject capacitor from discharging into the external device when a power failure occurs. If the card eject capacitor discharges into a external device, the capacitor may not have enough power left to eject a card. This diode should be a low voltage drop (.3 volt) type in order to make the IntelliStripe 320 input voltage still meet the specified 12 volts +- 5%. Using a high voltage drop (.6 volt) type may cause false power failure detections in the IntelliStripe 320. This diode should be rated at 1.5 amps or higher.

APPENDIX B. BEZEL A DIMENSIONS

The IntelliStripe 320 is not offered with just Bezel A but it may be useful to have the dimensions in order to simplify mounting behind a panel. The “A” Bezel dimensions are shown in Figure B-1.

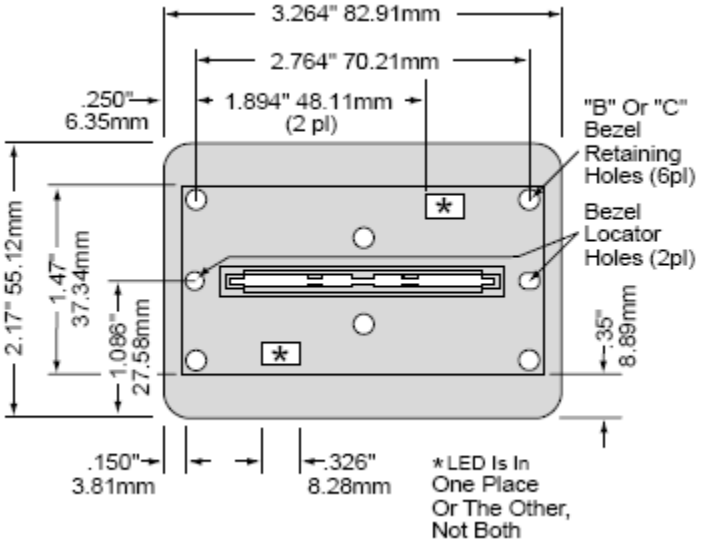

Figure B-1. Bezel “A” Dimensions