IntelliStripe 65
RS-232 INSERTION READER
TECHNICAL REFERENCE MANUAL

Manual Part Number: 99875141 Rev 18

JUNE 2004

MAGTEK®

REGISTERED TO ISO 9001:2000

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REVISIONS

Rev Number	Date	Notes
1	10 Feb 00	Initial Release
2	06 Mar 00	Section 1, RS-232 Interface, to baud rates add: 28800.
3	24 Mar 00	Section 1, edited and added material to first paragraph. Added configurations and part numbers .
4	12 May 00	Added description to Section 1, Configurations. Also, Accessories, added AC Autoranging Regulator P/N 64300080 and deleted P/Ns 64300077 and 6430079. Added Appendix B. Bezel.
5	23 Aug 00	Section 1, Specifications, all dimensions, weights, and temp changed, to listing US first and metric last and in ( ); editorial. Appendix A, changed capacitor wire from 72 in. to 79 in.
6	29 Nov 00	Changed fonts in Figures A-1, A-2, A-4, and A-5 in order to convert from the Word document to an Acrobat 4.0 PDF document. The font worked in Acrobat 3.0 but does not work in Acrobat 4.0.
7	18 Dec 00	Section 2: Changed 7-pin connector to reflect pin numbers and locking tabs; Appendix B: changed panel opening in Figure B-2 to reflect new values for proper fit of unit.
8	01 Jan 01	Front Matter: Changed copyright date; Changed Warranty from 90 days to one year; Added EMVCo Approval Statement to agency statements.
9	03 May 01	Editorial changes throughout. Front Matter: Changed RMA address in Warranty to 20801, changed Agency Statement to Class B, and EMVCO to Level 1. Appendix B. Added Small-cutout Drawings. Changed bezel names to International and North American.
10	22 Jun 01	Section 2: Added International Metal Bezel description. Appendix B: Added LED cutout in North American Bezel. Added drawings of Metal Bezel. Added drawings of North American Bezel with cutout.
11	27 Jul 01	Front Matter, Agency page: Editorial changes to CE and UL, CUL.
12	2 May 02	Section 1: Added JIS to Specifications.
13	24 Jun 02	Removed all References to Fraud Detect.

REVISIONS (Continued)

14	07 Aug 02	Sec 1: Added statement for custom configuration, added ISO to reference documents; Sec 2, added IEC connector for pwr

		supply.
15	15 Nov 02	Appendix B: Added compatibility for International Metal Bezel.
16	16 May 03	Front Matter: added ISO line to logo, changed Tech Support phone number, added new warranty statement.
17	21 Apr 04	Appendix B, International Metal Bezel Mounting: added description of Phillips or Torx®.
18	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. Appendix B, Added Fig B-11.

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This equipment has been tested and found to comply with the limits for Class B 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 residential 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 to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

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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 B limits for radio noise for 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 las classe B prescrites dans le Réglement sur le brouillage radioélectrique édicté par les ministère des Communications du Canada.

CE STANDARDS

Testing for compliance to CE was performed by an independent laboratory. The unit under test was found compliant to Class B.

UL/CSA

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

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 3.1.1, 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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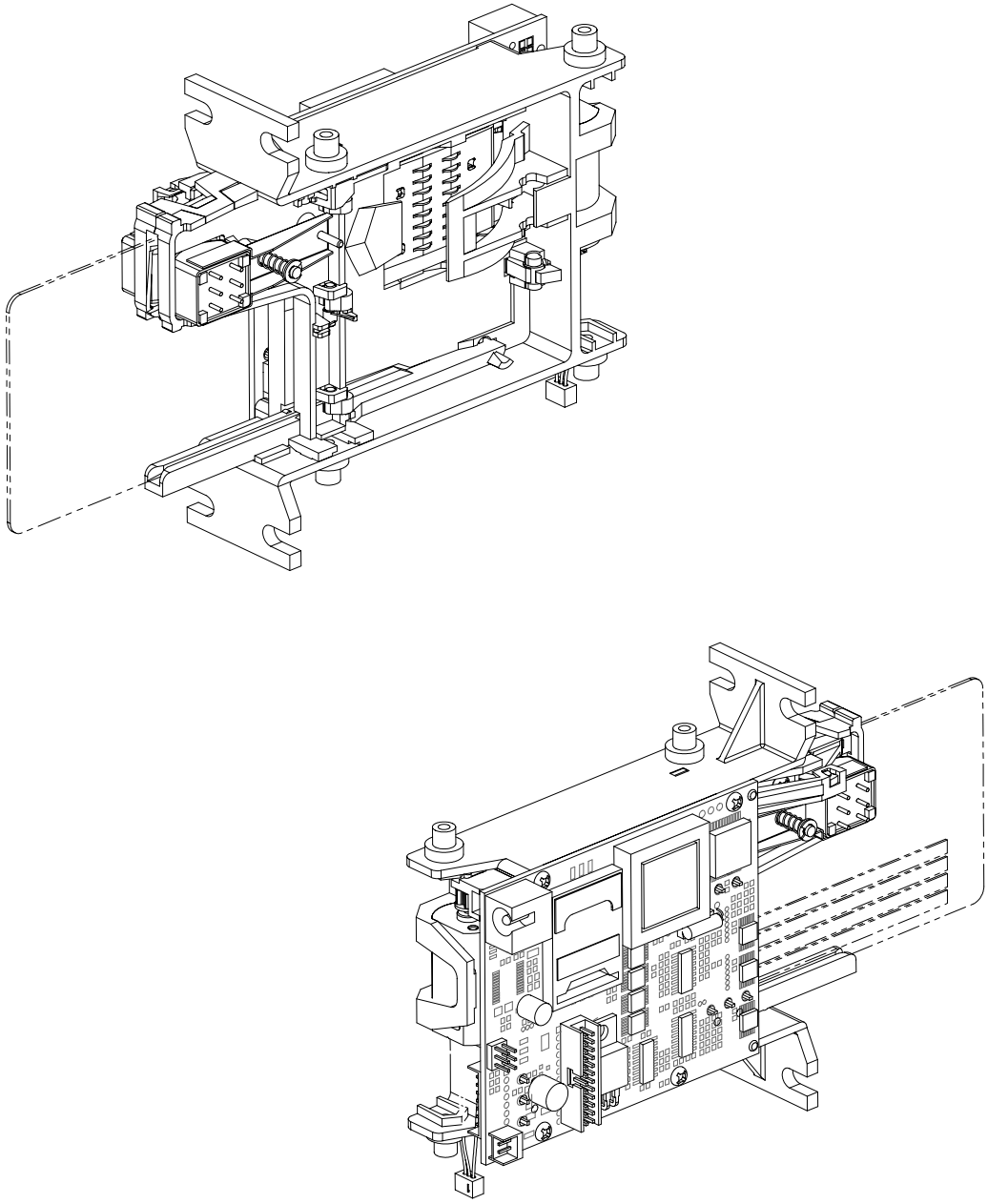


Figure 1-1. IntelliStripe 65, Front and Rear Views

SECTION 1. FEATURES AND SPECIFICATIONS

The IntelliStripe 65™ Insertion Reader, shown in Figure 1-1, performs the following major functions:

- Reads magnetic stripe cards
- Communicates with ISO smart cards and many popular memory cards
- Supports one on-board SAM (Security Access Module)
- Supports up to six optional external SAMs in a "SAM Ranch" configuration.

The Reader communicates to a host using an RS-232 or USB interface with a defined protocol and command set. The Reader has an industry standard mechanical footprint. The IntelliStripe 65 is designed for self-service applications such as pay telephones, vending machines, kiosks, and fuel pumps.

CONFIGURATIONS

Part numbers for the basic configurations are as follows:

21165003	Single Head Unit, Mag Head position opposite Smart Card Contacts
21165004	Dual Head Unit, Mag Head positions both sides

Both configurations have the following options: Chassis Mount Front/Side, 8 Smart Card Contacts, Gate Assembly, Card Latch with Release, 3 Tracks on the Mag-Stripe, Plastic Bezel, Card Present Switch.

For custom configurations, see Appendix A, Options, or contact your MagTek sales rep or the factory.

ACCESSORIES

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

- RS232 / Power cable – 6 foot, IntelliStripe 65 host port to 9-pin D female RS232 and 2.5mm power jack, part number 16051408
- USB / Power cable – 6 foot, IntelliStripe 65 host port to USB-A and 2.5 mm power jack, part number 16051425
- Power Supply – Autoranging 100V-250V, regulated, 12VDC, 2.5mm plug, part number 64300080. Requires adapter to mate with power outlet; use Adapter/Power Cord part number 71100001 for North American applications.
- Power Outlet Adapter/Cord, part number 71100001, for North American applications (must be used with part number 64300080)

- Drivers, MCP, CD, part number 30037473 (or 99510016 from MagTek.com)
- Demo Software, IntelliStripe Picture Demo, CD, part number 30037472 (or 99510015 from MagTek.com)
- Communications Software, MCP3 Program, 2-disk set, part number 30037442
- SAM Ranch–for adding up to 6 additional SAMs, part number 16055501
- SAM Ranch Cable–for connecting the SAM Ranch, part number 16051409

RELATED DOCUMENTS

This document, P/N 99875141, is from a hardware perspective only. Other documents that cover the command set, communications protocol, and API (Application Program Interface) are as follows:

Part Number	Title
99875161	IntelliStripe 65, Command Reference Manual
99875163	MCP, Serial Transport Protocol Reference Manual
99875164	MagTek Communication Protocol, Driver Reference Manual

ISO Documents: 7810, 7811, 7816 are available from ANSI at:

Phone: 212-642-4900 or www.ansi.org

STANDARD FEATURES

Standard features of the IntelliStripe 65 are as follows:

- Three different Chassis styles and three different bezel styles allow for optimized mounting and integration
- Rugged–High impact plastic with read heads attached to beam mounts
- Vandal Resistant–Open chassis design provides superior debris clearing; half-card drop-out allows half-size credit cards and coins to be cleared from insert channel
- RS232 or USB interface
- On board intelligence for transporting large blocks of data using a defined protocol and command set
- Test LED
- External LED port
- Optional Cutout in Bezel for LED
- Flash upgradable

OPTIONS

Any or none of the options listed may be selected:

- Smart Card Contacts (8 or 16) for reading both ISO and CP8/AFNOR contact locations
- Mag-stripe can be configured to support all popular track combinations
- Single or Dual Heads for mag-stripe reading – Optimizes card orientation for easier customer use
- Front Card Gate prevents coins, dust, moisture, and debris, from entering the unit–opens only when ISO-size card enters the unit
- Card Latch physically latches the card inside the Reader ensuring optimum conditions for a smart card interface session
- Power-Fail Latch Release Mechanism–In case of a power failure, the latch releases the card automatically (requires external capacitor)
- On board SAM (Security Access Module)
- External SAM port for optionally adding up to six external SAMs
- Drivers available for Windows 95, 98, and NT

SMART CARD INTERFACE

The Reader can provide connections to all 16 ICC contacts as defined by ISO and CP8/AFNOR specifications. The Reader supports ISO7816 T=0 and T=1 cards not requiring V_{PP}, with a speed range of 9600 bps to 115200 bps. It also supports a variety of common memory card types. See IntelliStripe 65 Command Reference Manual, Part Number 99875161, for more details.

MAGNETIC STRIPE READER

The Reader can read up to three tracks of magnetic stripe card data. The Mag-stripe can be configured to support all popular track combinations. Single or Dual Heads for mag-stripe reading optimizes card orientation for easier customer use. See IntelliStripe 65 Command Reference Manual, Part Number 99875161, for more details.

LATCH

The Reader contains a latch that can be used to prevent the user from withdrawing the card prematurely. See IntelliStripe 65 Command Reference Manual, Part Number 99875161, for more details.

The power fail unlatch option disengages the latch during a power failure. This option 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.

ON BOARD 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 65 Command Reference Manual, Part Number 99875161, for more details.

EXTERNAL SAM INTERFACE

The Reader provides an interface for adding up to six additional SAMs. 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 Appendix A and IntelliStripe 65 Command Reference Manual, Part Number 99875161, for more details.

SENSING SWITCHES

The Reader contains three sensing switches, card present, card seated, and card latch.

Card Present Switch

A snap-action switch operates by the spring-loaded card guide at the entrance of the Reader. The switch is actuated when the card is inserted into the card slot. See IntelliStripe 65 Command Reference Manual, Part Number 99875161, for more details.

Card Seated Switch

A snap-action switch is operated when a card is fully inserted into the Reader (card is at the fully rearward position). See IntelliStripe 65 Command Reference Manual, Part Number 99875161, for more details.

Card Latch Switch

A snap-action switch is operated by the latch mechanism. See IntelliStripe 65 Command Reference Manual, Part Number 99875161, for more details.

TEST LED

The Test LED is shown in Section 2, Figure 2-3. When the unit is powered up, the Test LED will blink green. This indicates that the unit is in its standard operating mode.

EXTERNAL LED PORT

The External LED Port is shown in Section 2, Figure 2-3. This port is provided so that a bicolor LED can be added to the bezel or elsewhere on the unit. This LED is shown as red/green but can be any color. The port provides two anode signals and a common cathode signal. The LED is biased with 5 volts and current limited in each anode with 470ohm resistors. See IntelliStripe 65, Command Reference Manual, Part Number 99875161, for more details.

FLASH UPGRADABLE

The unit's firmware is in-system Flash Upgradable. This allows the unit to be upgraded to new smart card specifications.

RS-232 INTERFACE

The unit communicates to the host through an RS-232 interface. The device uses 8 data bits, 1 stop bit, even parity. The unit can automatically sync to baud rates 9600, 14400, 19200, 28800 38400, and 57600. See MCP Driver Reference Manual, Part Number 99875164, and MCP Serial Transport Protocol Reference Manual, Part Number 99875163, for more details.

USB INTERFACE

The IntelliStripe 65 can communicate with a PC via a USB connection by using the MagTek USB conversion cable (P/N 16051425). When this cable is attached to the PC, the corresponding MagTek USB driver will be required. This driver can be obtained from www.magtek.com in the *Support* | *Software* | *Programming Tools* section. Copy these files to a location on your hard disk. When the IntelliStripe 65 cable is attached, follow the prompts on the screen to browse to the location where the USB driver files have been copied.

After installation, the IntelliStripe 65 will be available as a virtual COM port. The actual COM port number can be obtained by opening the Windows *Device Manager* and clicking on the plus (+) sign next to ***Ports (COM & LPT)***. When using the MCP driver, you will define an instance referring to this port. See MCP Driver Reference Manual, Part Number 99875164, and MCP Serial Transport Protocol Reference Manual, Part Number 99875163, for more details.

SPECIFICATIONS

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

Table 1-1. Specifications

DATA FORMAT SPECIFICATION	
Reader Configuration	Data Format Specification*
Mag-Stripe Functions: Track 1,2,3 only	ISO/AAMVA/CDL/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
* ISO (International Standards Organization), AAMVA, (American Association of Motor Vehicle Administrators), CDL (California Drivers License), JIS (Japanese Industrial Standard)	
OPERATIONAL	
Card Speed:	3 IPS (7,62 cm/sec) to 50 IPS (127, cm/sec)
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 insertions
ELECTRICAL	
Input Voltage:	12.0VDC ± 5%
Current:	500mA max 100mA typical
MECHANICAL	
Chassis Mounting Options	
Front Flange:	See Section 2, Figures 2-1 and 2-2
Side Mounting Studs:	See Section 2, Figures 2-1 and 2-2
Side Mounting Holes:	See Section 2, Figures 2-1 and 2-2
Dimensions (Core Chassis) Overall Length: Mounting Depth: Height: Width:	 4.70" (119,4mm) 3.80" (96,5mm) when mounted with front flanges 1.40" (35,6mm) 2.60" (66,0mm) without mounting bosses or flanges
Weight: Reader: SAM Ranch: SAM Ranch Cable:	 5.02oz (142.2gr) 2.16oz (61.1gr) 1.13oz (33.3gr)
ENVIRONMENTAL	
Temperature Operating: Storage:	 32°F to 122°F (0° C to 50°C) -40°F to 158°F (-40°C to 70°C)
Humidity Operating: Storage:	 0% to 90% noncondensing 0% 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 65 Insertion Reader includes mechanical and electrical connections.

BEZELS

There are three types of Bezels for this product: the North American Plastic Bezel, the International Plastic Bezel, and the International Metal Bezel. The type of bezel used is relevant to the mounting options described below. Appendix B contains illustrations and engineering drawings describing the three bezels.

International Plastic Bezel

The International Plastic Bezel is larger than the other two bezels and requires a larger panel opening. This bezel uses and is attached by metric screws. International Bezels are mounted to the Reader Chassis by the Front Flange only. The dimensions of the recommended panel opening for mounting are shown in Appendix B.

International Metal Bezel

The International Metal Bezel is slightly smaller than the International Plastic bezel but requires the same size panel opening as the International Plastic Bezel. This bezel uses and is attached by metric screws. International Bezels are mounted to the Reader Chassis by the Front Flange only. The dimensions of the recommended panel opening for mounting are shown in Appendix B.

North American Plastic Bezel

The North American Bezel is smaller than both International Bezels and requires a smaller panel cutout. This bezel follows the industry-standard footprint of MagTek the MT215 Insertion Reader. This bezel uses and is attached by imperial screws. North American Bezels are mounted to the Reader Chassis by the Side Mounting Studs only. The dimensions of the recommended panel opening for mounting are shown in Appendix B.

MECHANICAL MOUNTING AND BEZELS

Mounting options for the Reader are as follows:

Front Flanges only (for International Bezels)
Side Mounting Studs only (for North American Bezels)
Side Mounting Holes only
Front Flanges and Side Mounting Studs together

Chassis mounting features are shown in Figure 2-1. Mounting dimensions are shown in Figure 2-2. Descriptions of the mounting options are as follows:

Front Flange

Two molded flanges toward the front of the chassis connect the Reader by four threaded studs, nuts, and washers as shown in Figures 2-1 and 2-2. The International Bezel is used with the Front Flange.

Side Mounting Studs

There are four molded studs. Two are located on each side of the chassis. The North American Bezel is used with side mounting studs. Optional threaded inserts can be inserted in both ends of the studs and used with imperial screws, as indicated in Figures 2-1 and 2-2.

Side Mounting Holes

Four molded holes are available when studs are not provided. Holes are positioned inline with the centerline of the stud with molded nut retaining features, as shown in Figures 2-1 and 2-2.

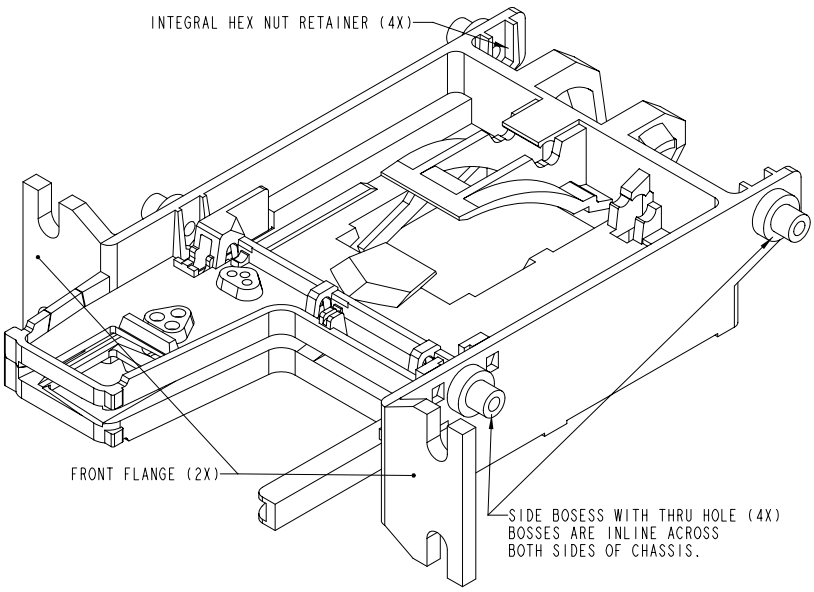


Figure 2-1. Chassis Mounting Features

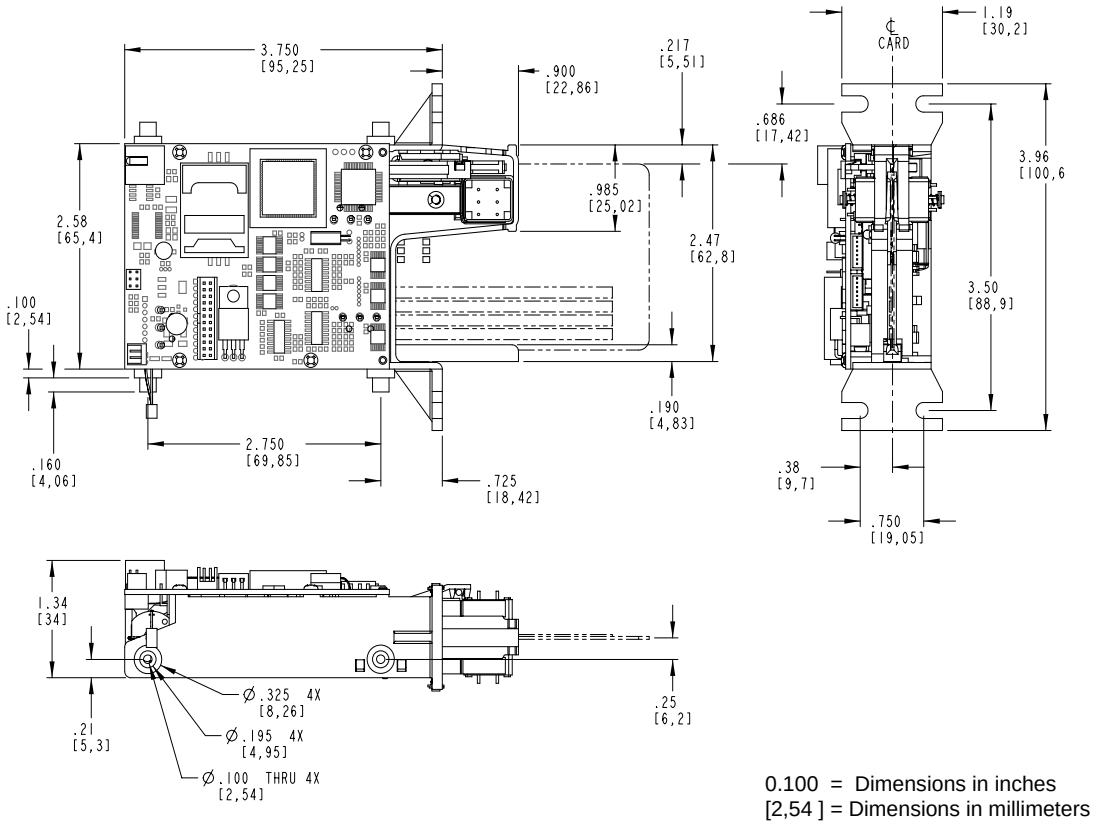


Figure 2-2. Dimensions For Mounting

ELECTRICAL CONNECTIONS

Connectors and LEDs

Figure 2-3 shows the positions of the connectors for the SAM socket and SAM Ranch, the power-fail capacitor and LEDs.

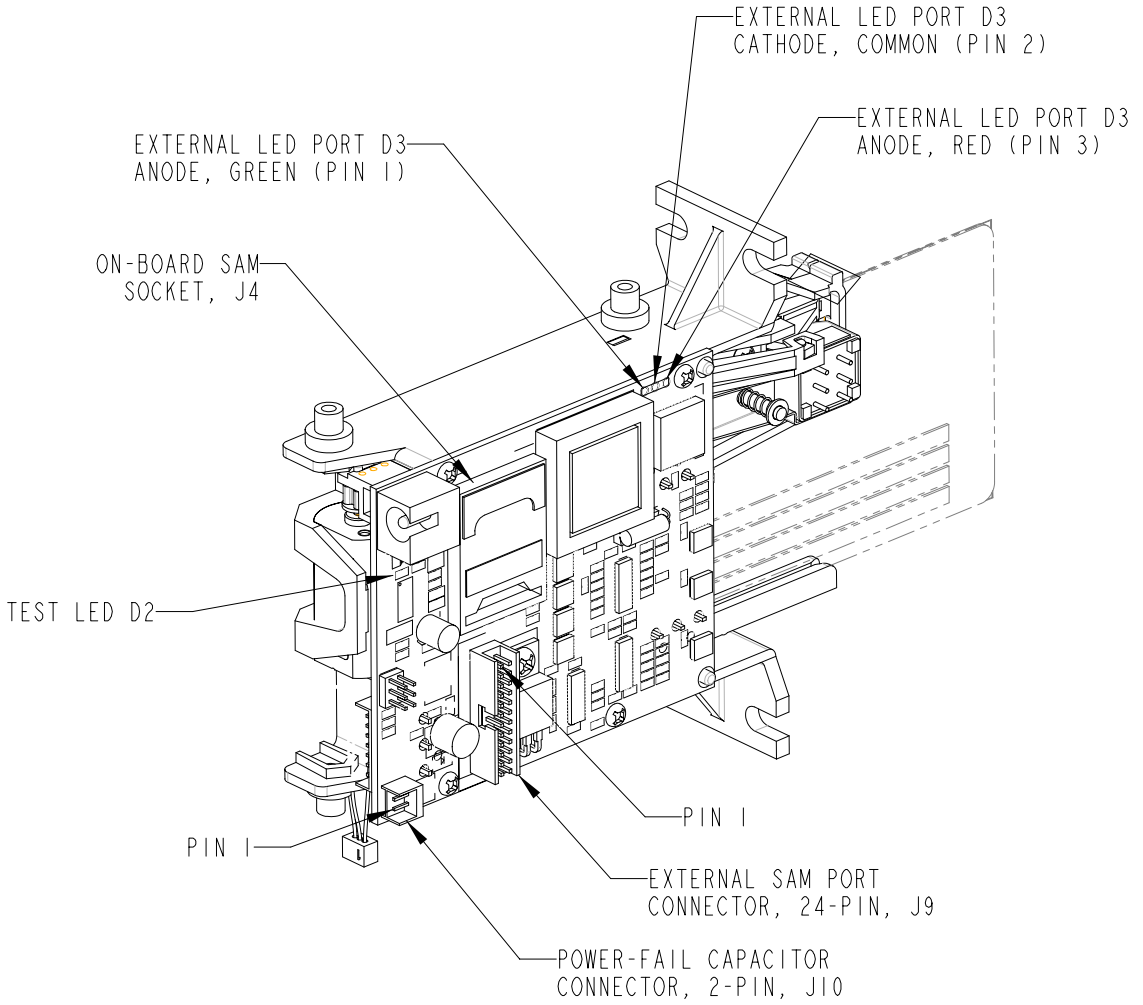


Figure 2-3. Connector and LED Locations

RS-232 Cable

Figure 2-4 shows the cable that connects the IntelliStripe 65 (7-Pin Connector) to the host (9-pin Connector), P/N 16051408. The standard length of the cable is 6'.

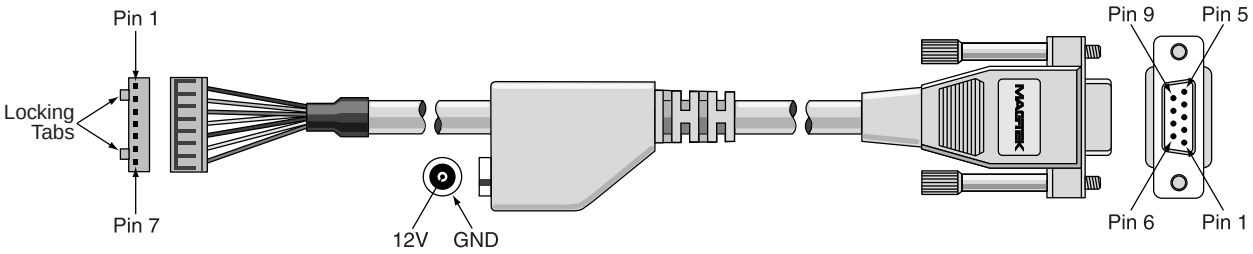


Figure 2-4. RS-232 Cable, P/N 16051408

Table 2-1 lists the connector pin numbers and signal names.

Table 2-1. Pin List for RS-232 IntelliStripe 65 Cable

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

Figure 2-5 shows the cable that connects the IntelliStripe 65 (7-Pin Connector) to the USB Port, P/N 16051425. The standard length of the cable is 6'.

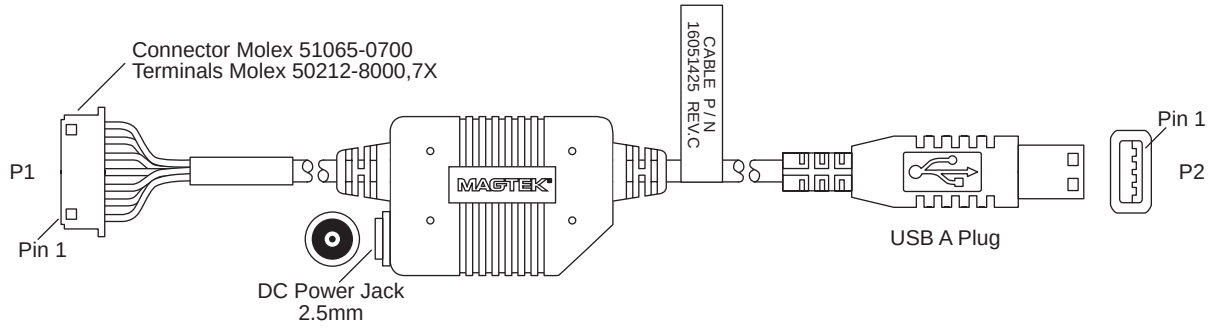


Figure 2-5. USB Cable, P/N 16051425

Table 2-2 lists the connector pin numbers and signal names.

Table 2-2. Pin List for USB IntelliStripe 65 Connectors, P/N 16051425

Molex 7 Pin (51065-0700)		DC Jack		USB-A	
Pin Number	**Signal Name**			**Pin Number**	**Signal Name**
1	TXD			1	VBUS
2	+12V	CENTER PIN	+12V	2	D-
3	PWR GND	SHELL	GND	3	D+
4	RXD			4	GND
5	RTS				
6	CTS				
7	SIGNAL GND				

Power Supply

Figure 2-6 shows the Power Supply, P/N 64300080, 100-240V, regulated, 12VDC @ 1.5 Amps, 2.5 mm power jack. 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).

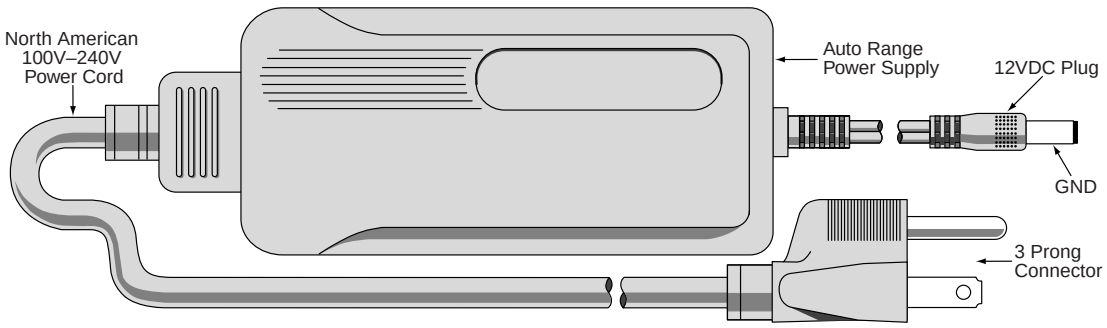


Figure 2-6. Power Supply

Host Connector, 7-Pin

The host connector, J7, connects to the host's power and RS232 signals. Figure 2-6 shows the location of the 7-pin Host Connector. Table 2-1 (or 2-2 if USB)lists the pin numbers of the connector.

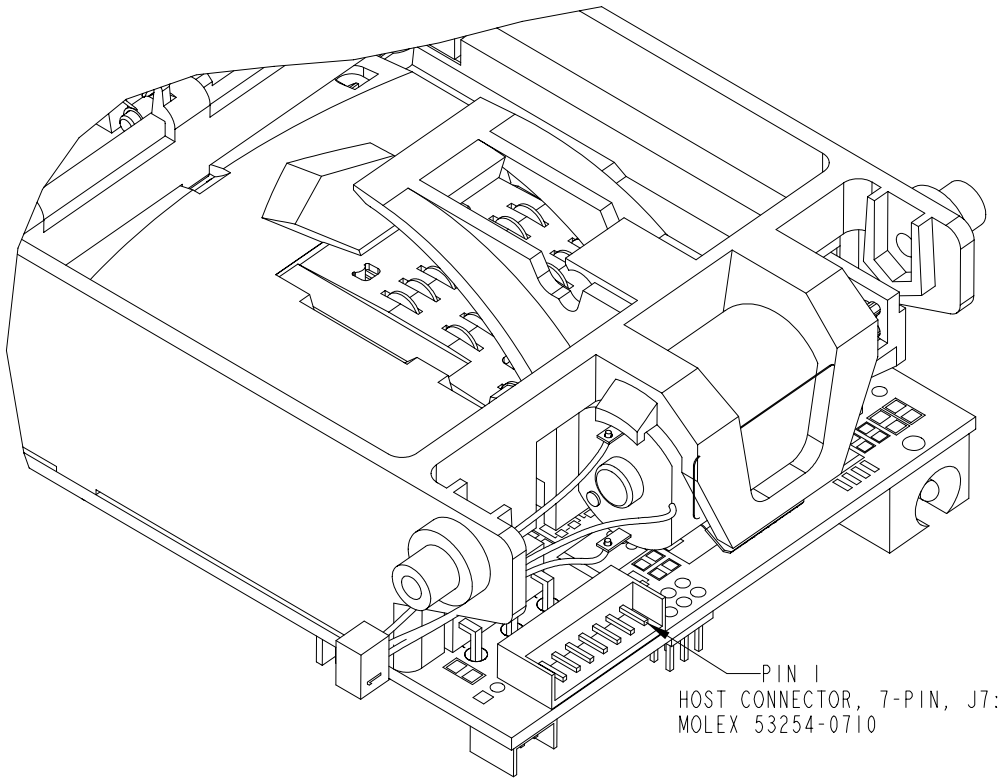


Figure 2-6. Host connector Location and Pin Numbers

Power-Fail Capacitor Connector, 2-Pin

The Power-Fail Capacitor connector, J10, connects to an optional external capacitor that is used to unlatch the card during a power failure. Pin 1 connects to the positive side of the capacitor and pin 2 connects to the negative side.

External SAM Port Connector, 24-Pin

The external SAM port connector, J9, connects to an optional SAM ranch board through a 24-conductor cable. Up to six additional SAMs can be connected through this port.

APPENDIX A. OPTIONS

SMART CARD OPTION

The location and parts of the Landing Contact Assembly are shown in Figure A-1.

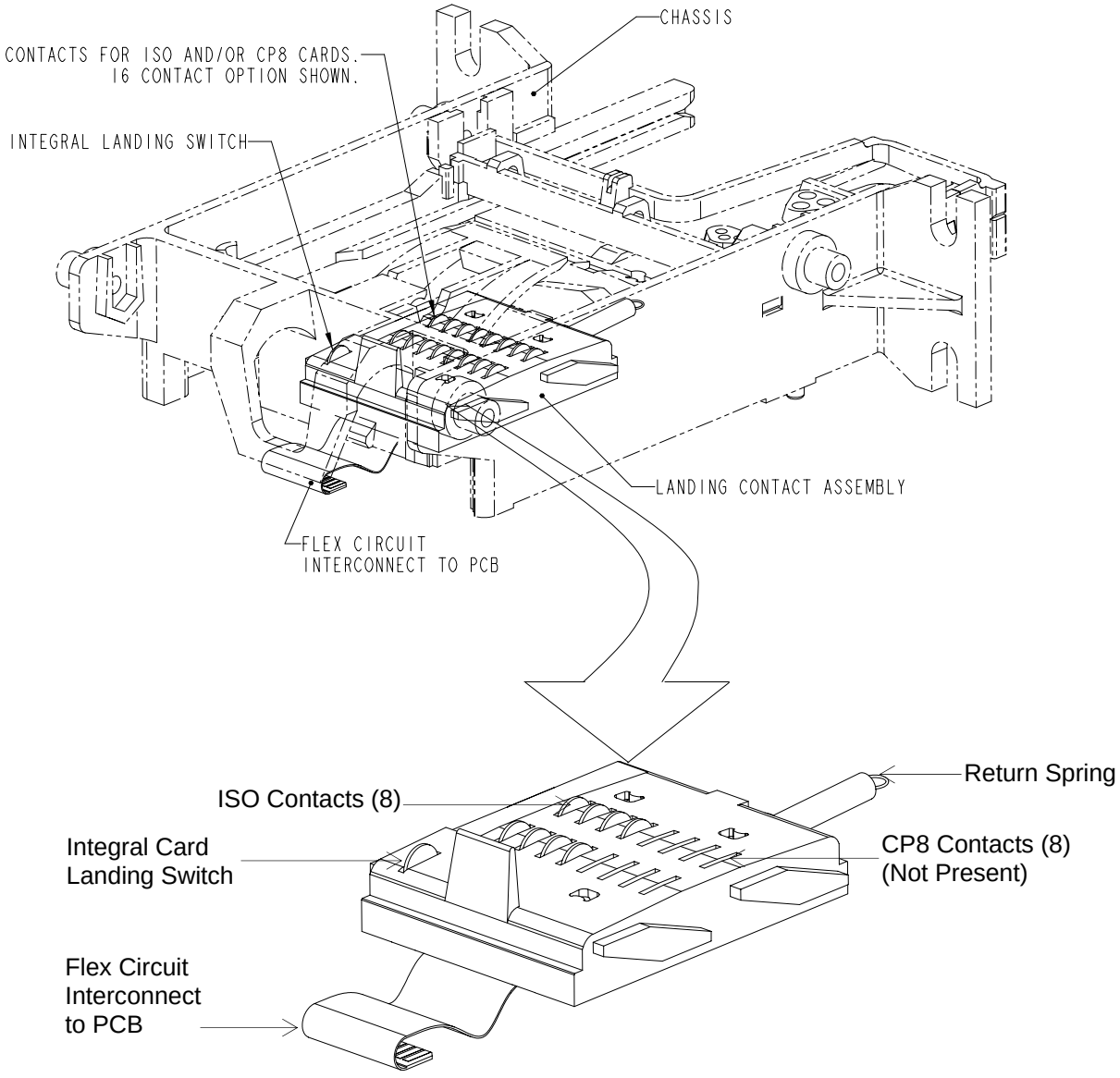


Figure A-1. Smart Card Landing Contact Assembly

CARD LATCH OPTION

The location and parts of the Card Latch Assembly are shown in Figure A-2.

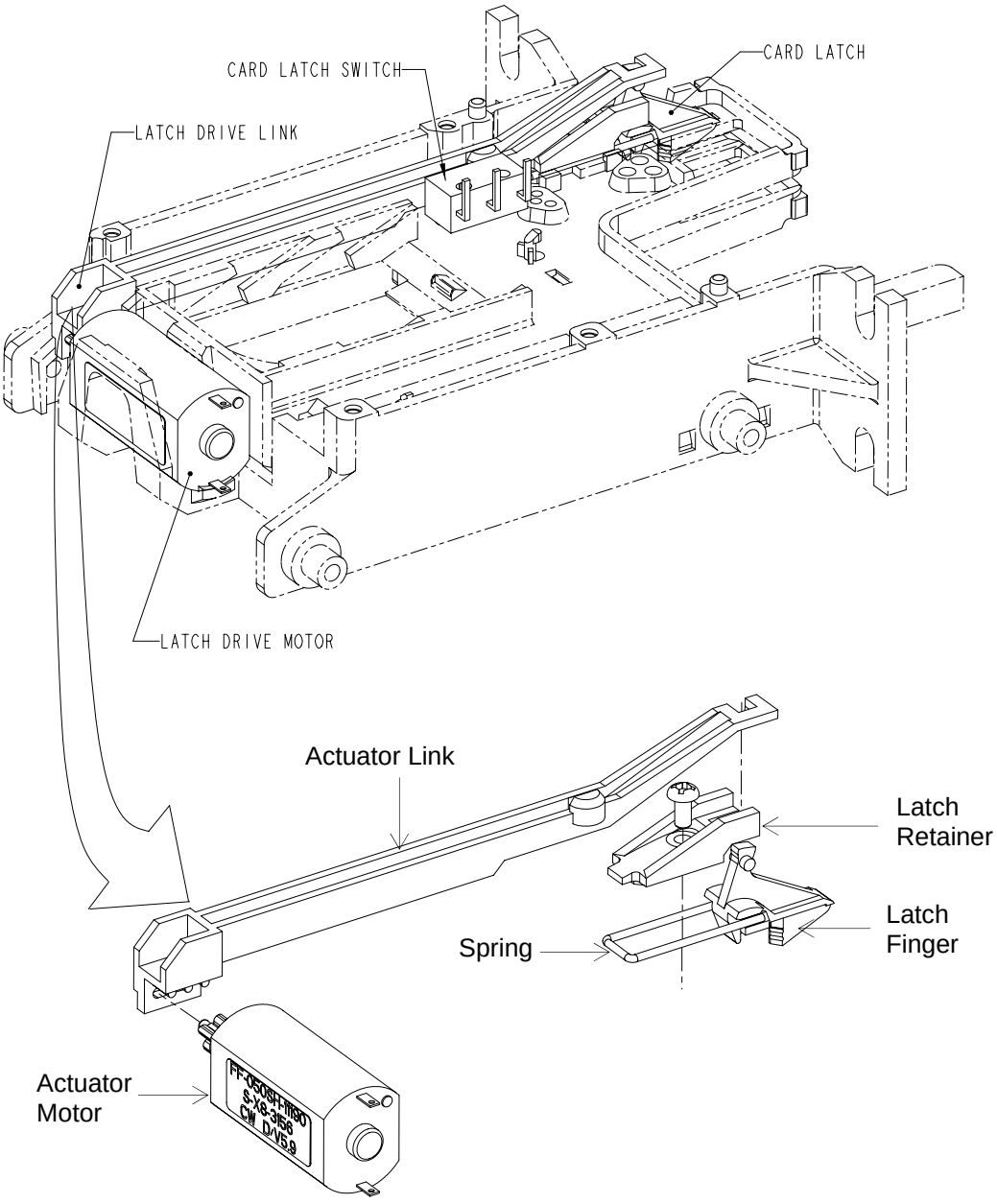


Figure A-2. Card Latch Assembly

POWER-FAIL LATCH RELEASE OPTION

The externally mounted power-fail capacitor is shown in Figure A-3.

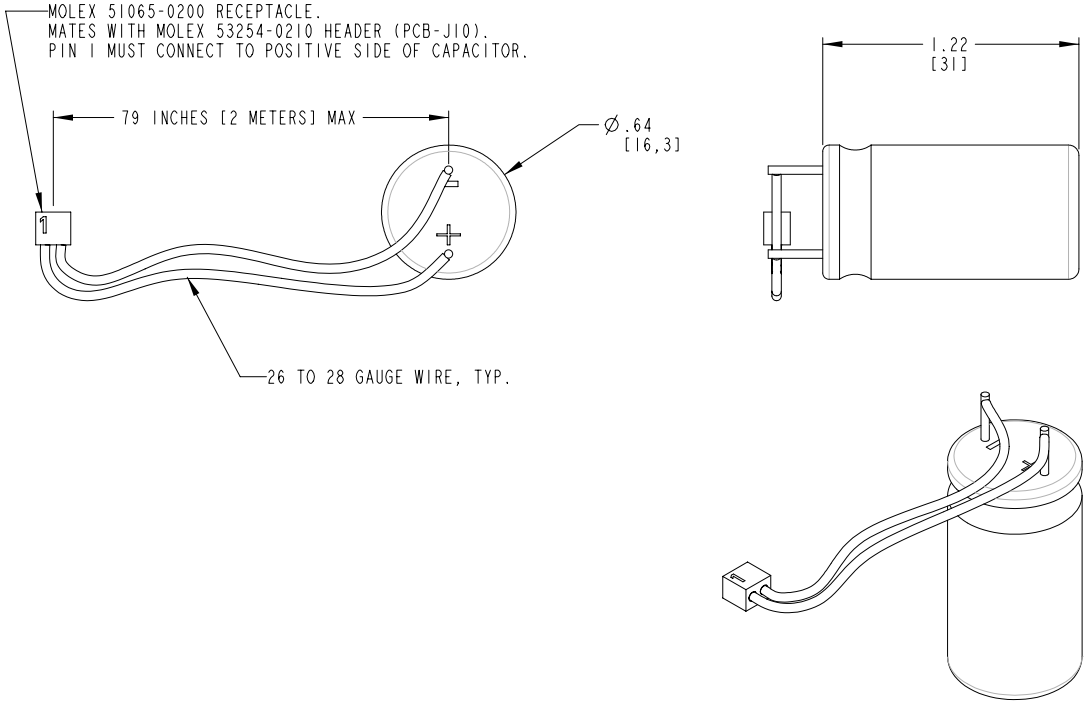


Figure A-3. Latch Release Capacitor

The power fail unlatch option disengages the latch during a power failure event. This option is triggered when the main input 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 the case of power failure, the capacitor automatically opens the latch, which releases the card. The users must determine the wire length required for their specific application. The power fail capacitor range is 3300uF to 15000uF with a rated voltage greater than the applied reader input voltage.

GATE OPTION

The location and parts of the Gate Assembly are shown in Figure A-4.

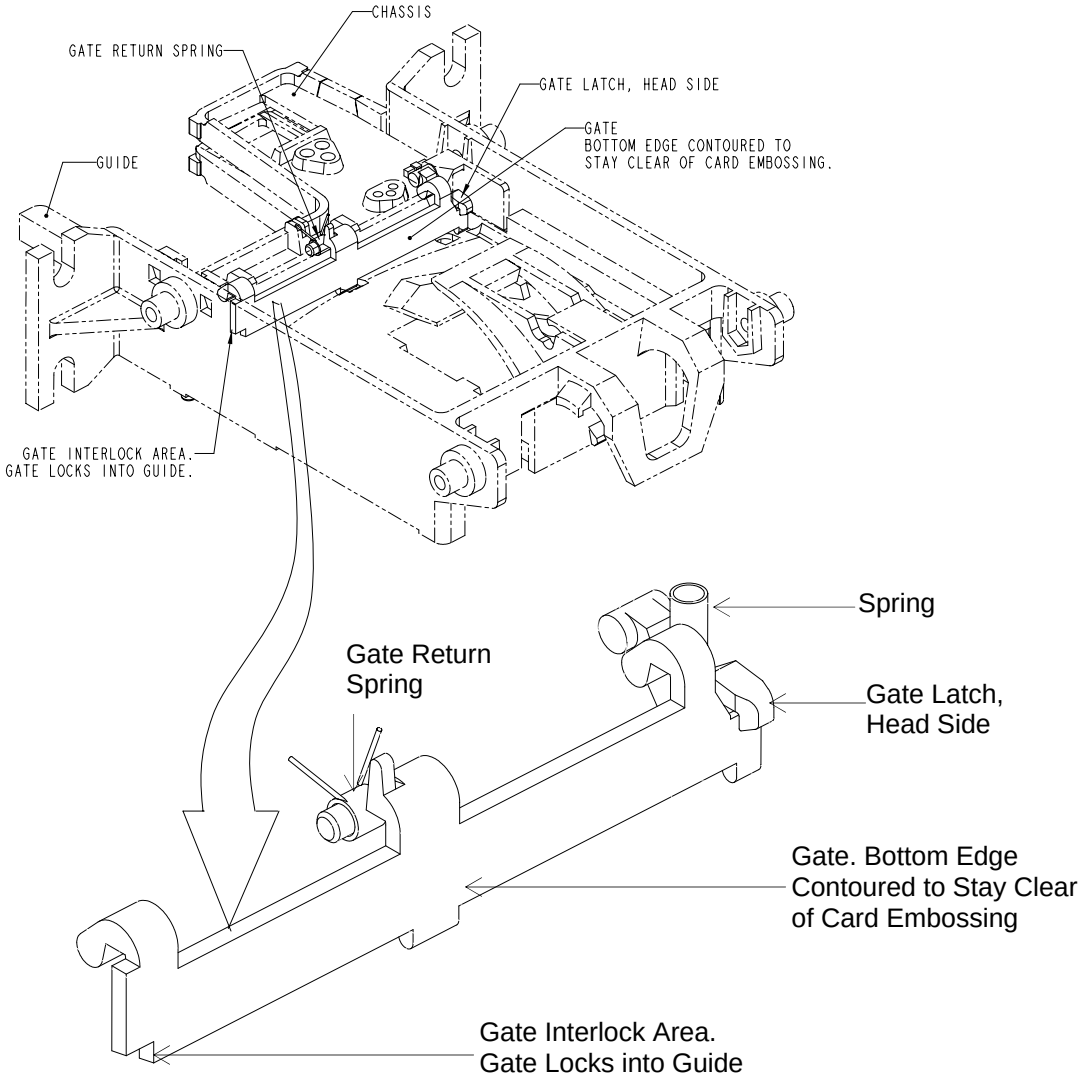


Figure A-4. Gate Assembly

SAM RANCH

The SAM (Security Access Module) Ranch is shown in Figure A-5. SAMs are inserted into specific sockets. To connect a SAM, proceed as follows:

1. Slide the metal latch away from the hinge.
2. Flip open the hinged lid.
3. Slide the SAM into the lid.
4. Close the lid.
5. Slide the metal latch toward the hinge. The SAM will click into place.

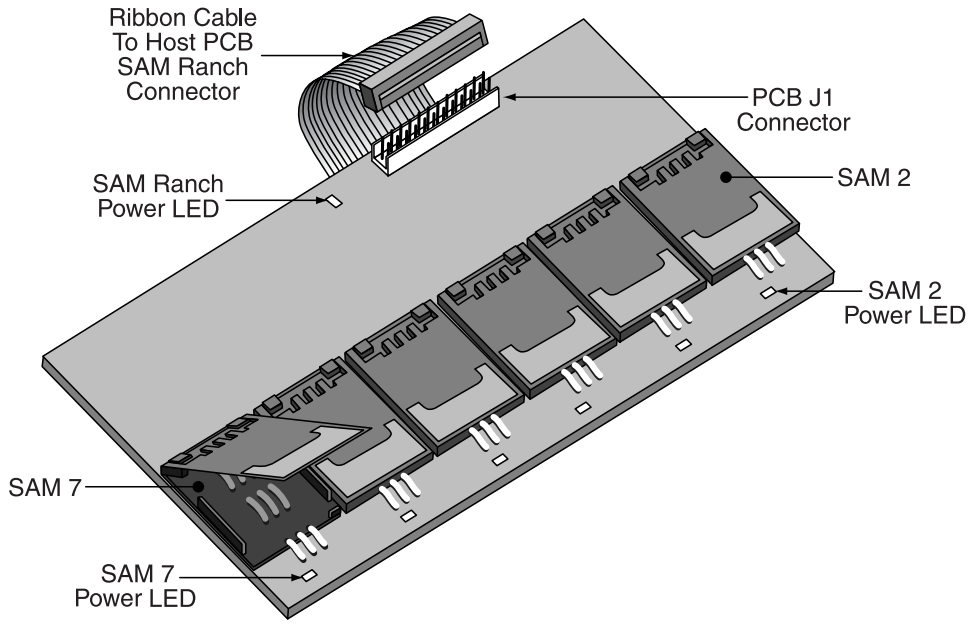


Figure A-5. SAM Ranch

The Dimensions of the SAM Ranch are shown in Figure A-6.

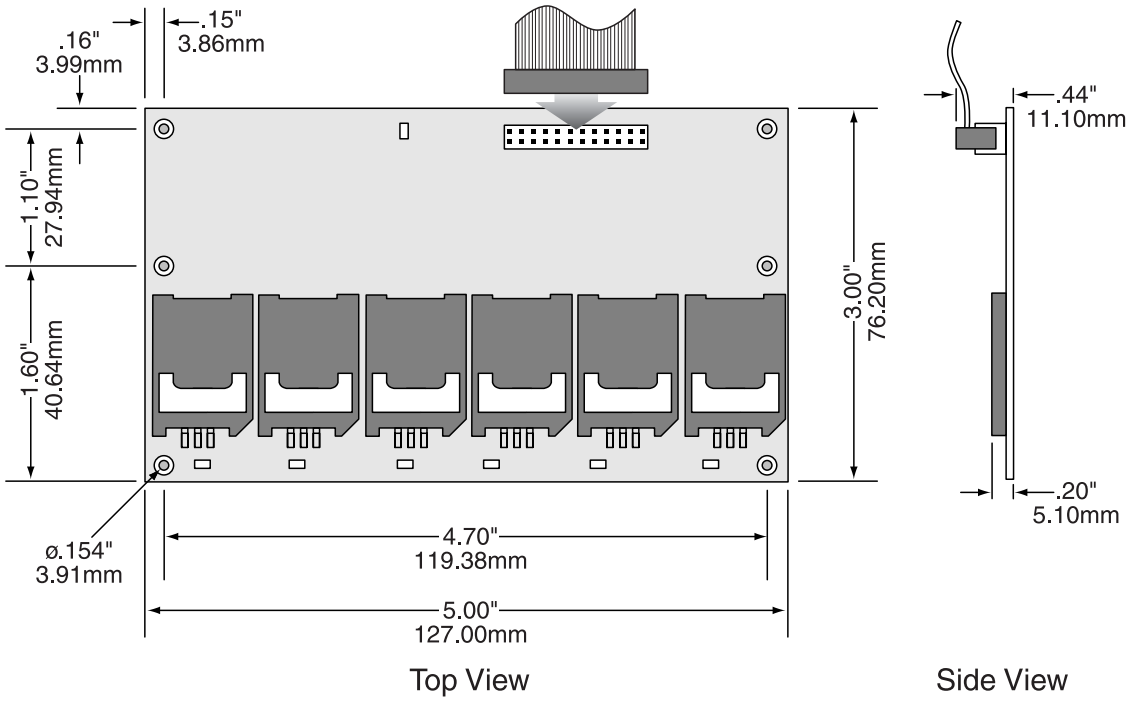


Figure A-6. SAM Ranch Dimensions

APPENDIX B. BEZEL CONFIGURATION AND MOUNTING

Three bezel configurations are described in this appendix: the International and the North American Plastic Bezels and the International Metal Bezel. The International Bezels are slightly larger than the North American Bezel and require a larger panel opening for installation. The International Bezels are suited to applications requiring metric screws and the North American Bezel to imperial screws. From the drawings in this section, the user may design a bezel for different requirements.

INTERNATIONAL PLASTIC BEZEL MOUNTING

The International Plastic Bezel (P/N 21161202) is attached to the unit by four screws (Mounting inserts M3.5 x 5 Minimum Deep). The four screws are inserted into the front flange slots to retain the unit to the bezel. Figure B-1 shows the position and the dimensions of the flanges.

Figure B-2 shows the orientation and dimensions of the bezel and recommended dimensions for the panel opening. Four screws that mount the Bezel to the panel are also M3.5. The length of the screws depends on the panel thickness, washers, and spacers used in mounting the panel.

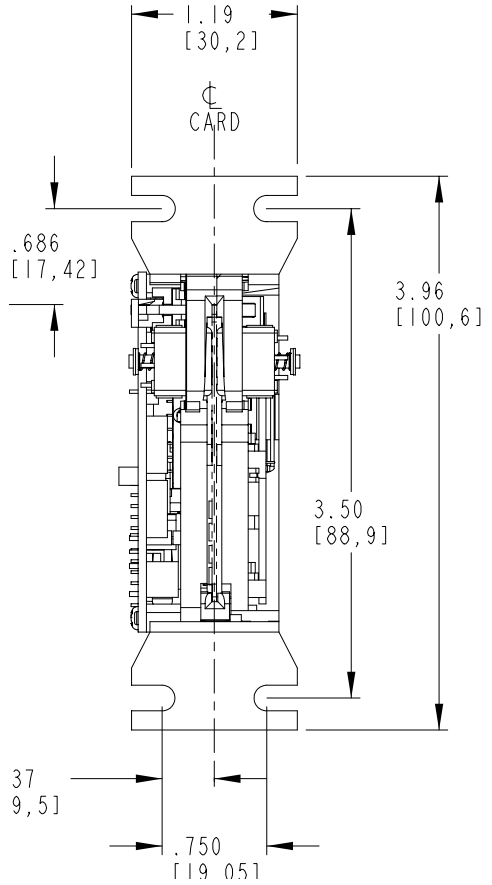


Figure B-1. Flanges for International Bezel Mounting

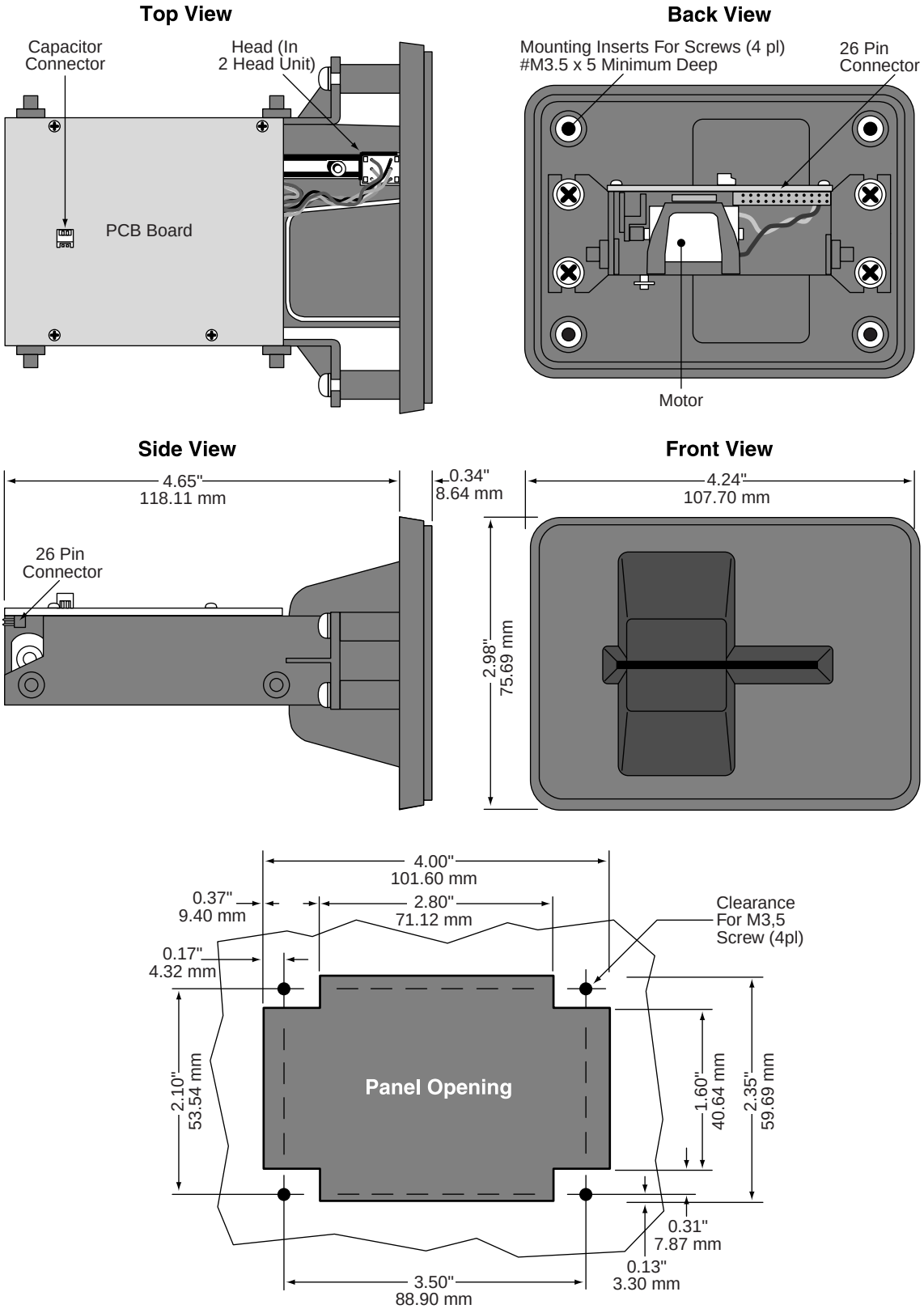


Figure B-2. International Plastic Bezel Mounting

INTERNATIONAL METAL BEZEL MOUNTING

The International Metal Bezel (P/N 21161204) is shown and described in Figure B-3. The Bezel also requires the front flanges for attaching the Bezel to the unit (see Figure B-1). Four screws are inserted into the front flange slots to retain the unit to the bezel. These screws are thread cutting and may be either Phillips head or T10 Torx®.

Figure B-3 also shows the orientation and dimensions of the bezel and recommended dimensions for the panel opening. Four screws that mount the Bezel to the panel are also M3.5. The length of the screws depends on the panel thickness, washers, and spacers used in mounting the panel.

Compatibility

The Metal Bezel is not compatible with some units. The units compatible with the Metal Bezel are 1) front mount and 2) front and side mount together (M1 and M3). The units not compatible with the Metal Bezel are 1) side mount and 2) no mount (M2 and M4). Table B1 lists examples of units compatible with the Metal Bezel. Table B2 lists examples of units not compatible with the Metal Bezel.

Table B1. Examples of Configurations Compatible with the Metal Bezel

Part Number	Model	Mounting	Description
21161130	IntelliStripe 60	M1 – Front Mounted	I60 with flanges only
21161129	IntelliStripe 60	M3 – Front and Side Mounted	I60 with flanges and bosses
21160058	IntelliStripe 60	M3 – Front and Side Mounted	I60 with flanges and bosses
21165003	IntelliStripe 65	M3 – Front and Side Mounted	I60 with flanges and bosses

Table B2. Examples of Configurations Not Compatible with the Metal Bezel

Part Number	Model	Mounting	Description
21161131	IntelliStripe 60	M2 – Side Mounted	I60 with bosses only
21161132	IntelliStripe 60	M4 – No Mount	I60 No flanges/bosses
21165013	IntelliStripe 65	M2 – Side Mounted	I60 with bosses only
21165014	IntelliStripe 65	M2 – Side Mounted	I60 with bosses only
21165017	IntelliStripe 65	M2 – Side Mounted	I60 with bosses only

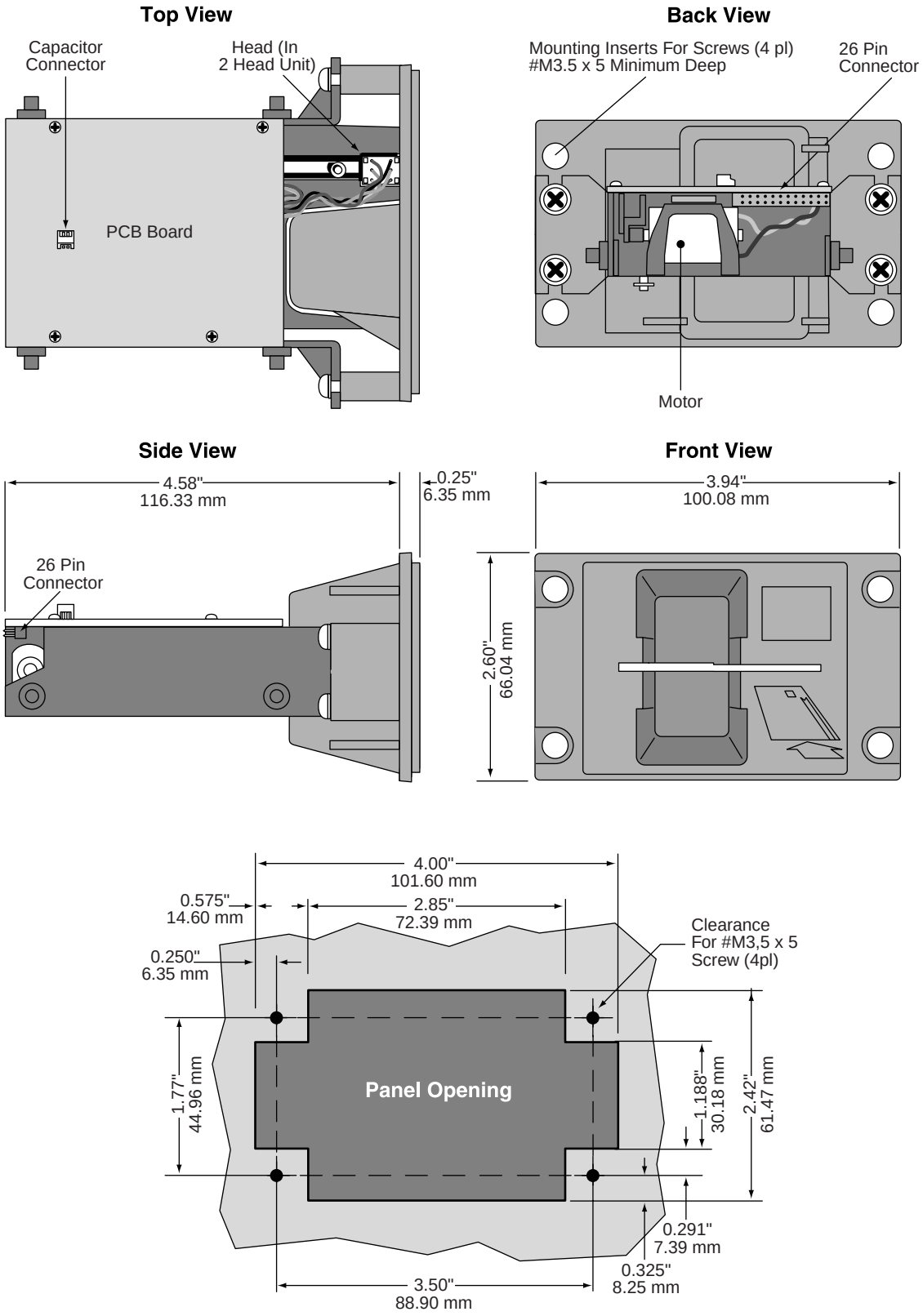


Figure B-3. International Metal Bezel Mounting

NORTH AMERICAN PLASTIC BEZEL MOUNTING

The North American Plastic Bezel, P/N 21161206, is shown and described on Figures B-4, B-5, B-6 and B7. The Bezel with the optional cutout for the LED, P/N 21161207, is shown and described on Figures B-4, B-9, and B-10. The North American Bezel is smaller than the International Bezels and requires a smaller panel opening for installation. The North American Bezel is suited to applications requiring imperial screws. From the drawings in this section, the user may design a bezel for different requirements.

Figure B-3 shows the orientation and dimensions of the bezel and recommended dimensions for the panel opening. Four screws that mount the Bezel to the panel are size 6-32. The length of the screws depends on the panel thickness, washers, and spacers used in mounting the panel. Figures B-4 and B-5 show the dimensions of the bezel in case a different bezel is required. Figures B-6 and B-7 show the brackets that are mounted on the side of the unit.

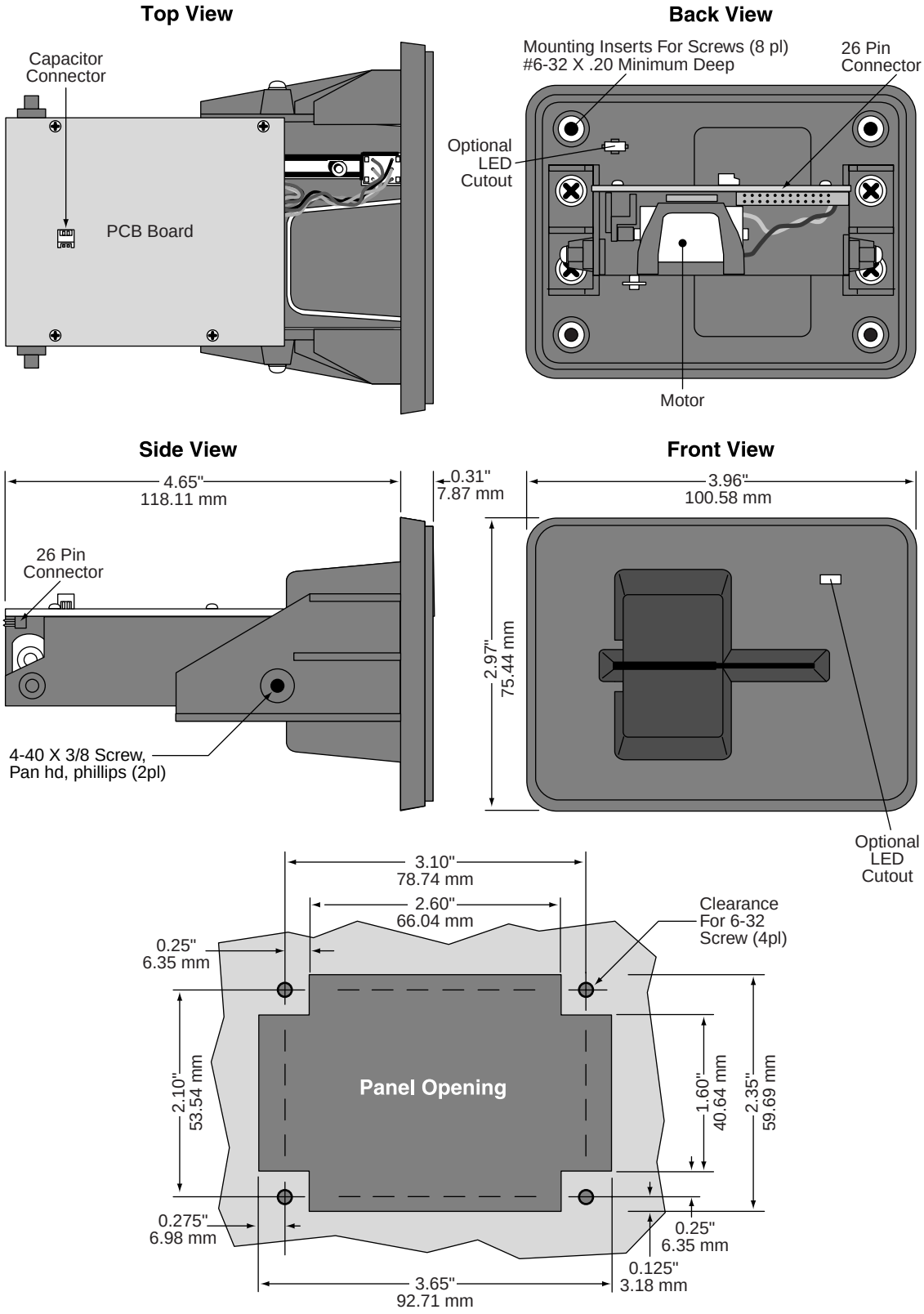


Figure B-4. North American Plastic Bezel Mounting

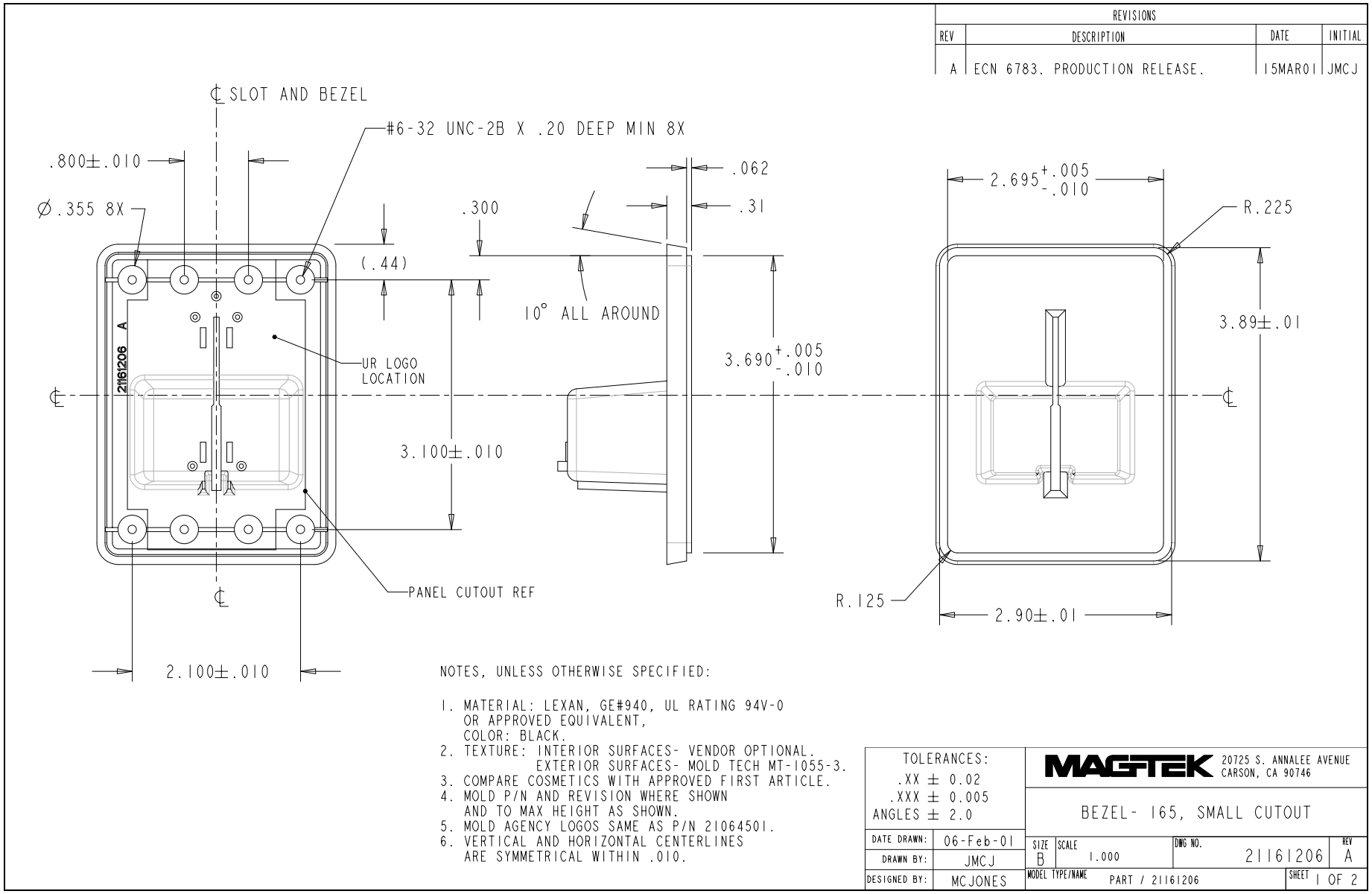


Figure B-5. North American Plastic Bezel Dimensions (1)

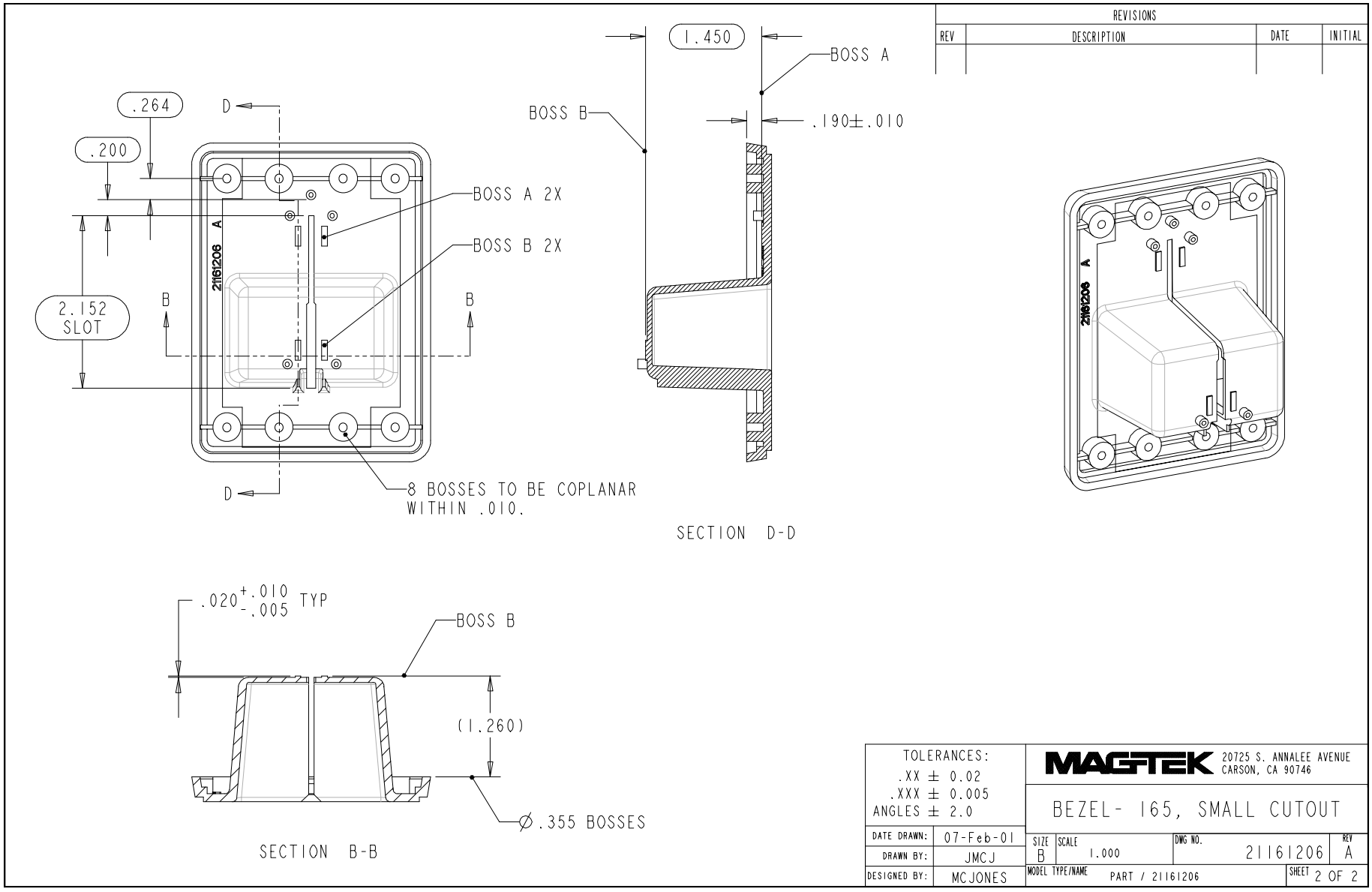


Figure B-6. North American Plastic Bezel Dimensions (2)

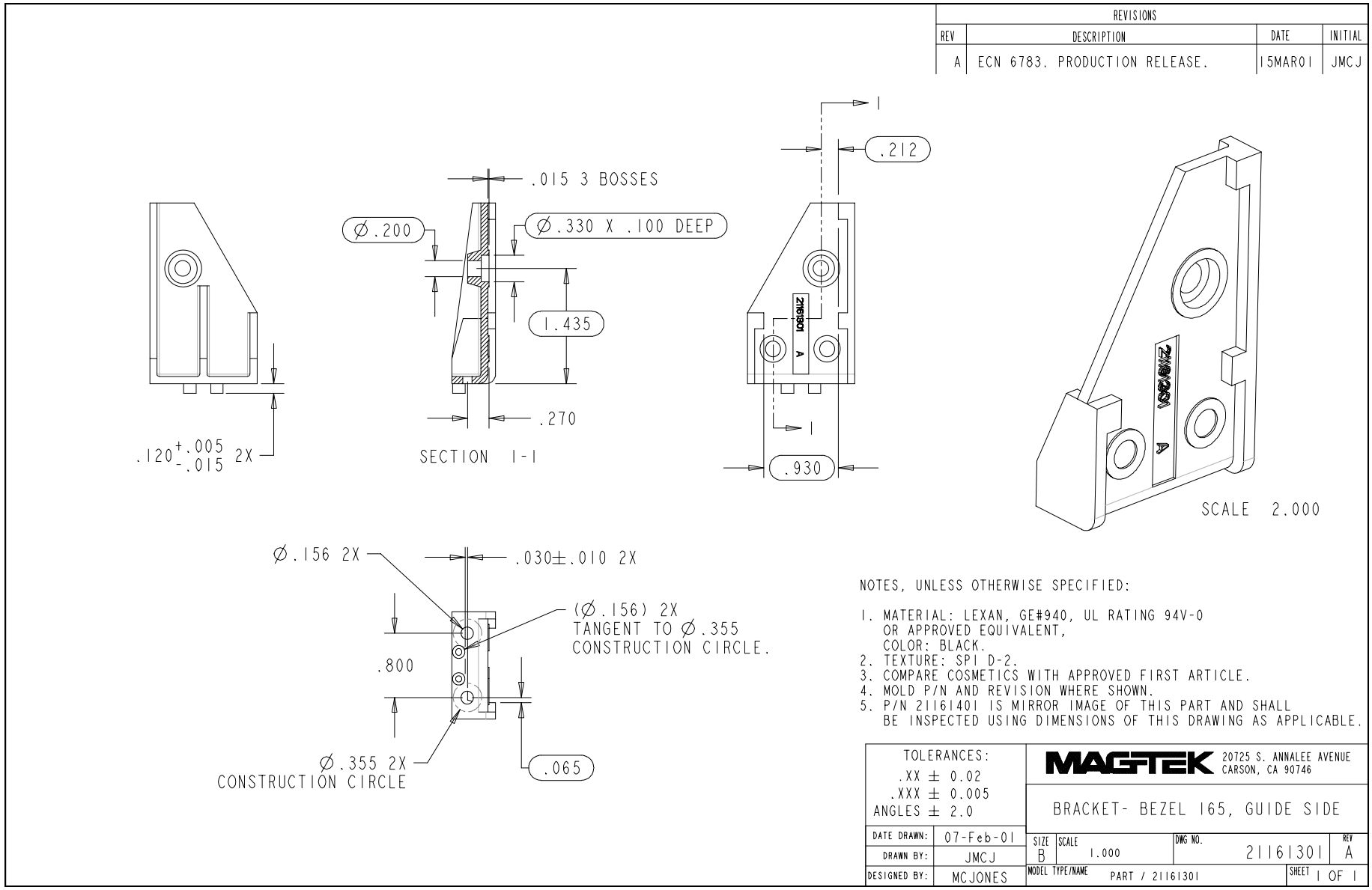
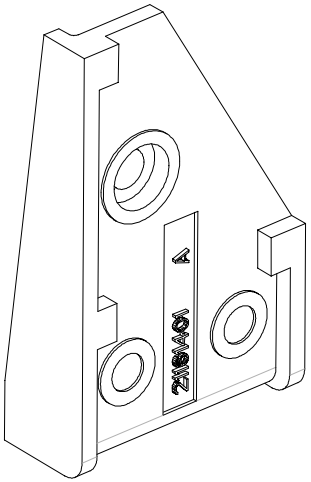


Figure B-7. Guide-Side Bezel Bracket

REVISIONS			
REV	DESCRIPTION	DATE	INITIAL
A	ECN 6783. PRODUCTION RELEASE.	15MAR01	JMCJ



NOTES, UNLESS OTHERWISE SPECIFIED:

1. MATERIAL: LEXAN, GE#940, UL RATING 94V-0
   OR APPROVED EQUIVALENT,
   COLOR: BLACK.
2. TEXTURE: SPI D-2.
3. COMPARE COSMETICS WITH APPROVED FIRST ARTICLE.
4. MOLD P/N AND REVISION WHERE SHOWN.
5. P/N 21161301 IS MIRROR IMAGE OF THIS PART AND SHALL
   BE USED FOR DIMENSIONS OF THIS DRAWING AS APPLICABLE.

TOLERANCES: .XX ± 0.01 .XXX ± 0.005 ANGLES ± 0.5		MAGTEK 20725 S. ANNALEE AVENUE CARSON, CA 90746		
		BRACKET- BEZEL 165, HEAD SIDE		
DATE DRAWN:	09-Feb-01	SIZE B	SCALE 2.000	DWG NO. 21161401 REV A
DRAWN BY:	JMCJ			
DESIGNED BY:	MCJONES	MODEL TYPE/NAME PART / 21161401		SHEET 1 OF 1

Figure B-8. Head-Side Bezel Bracket

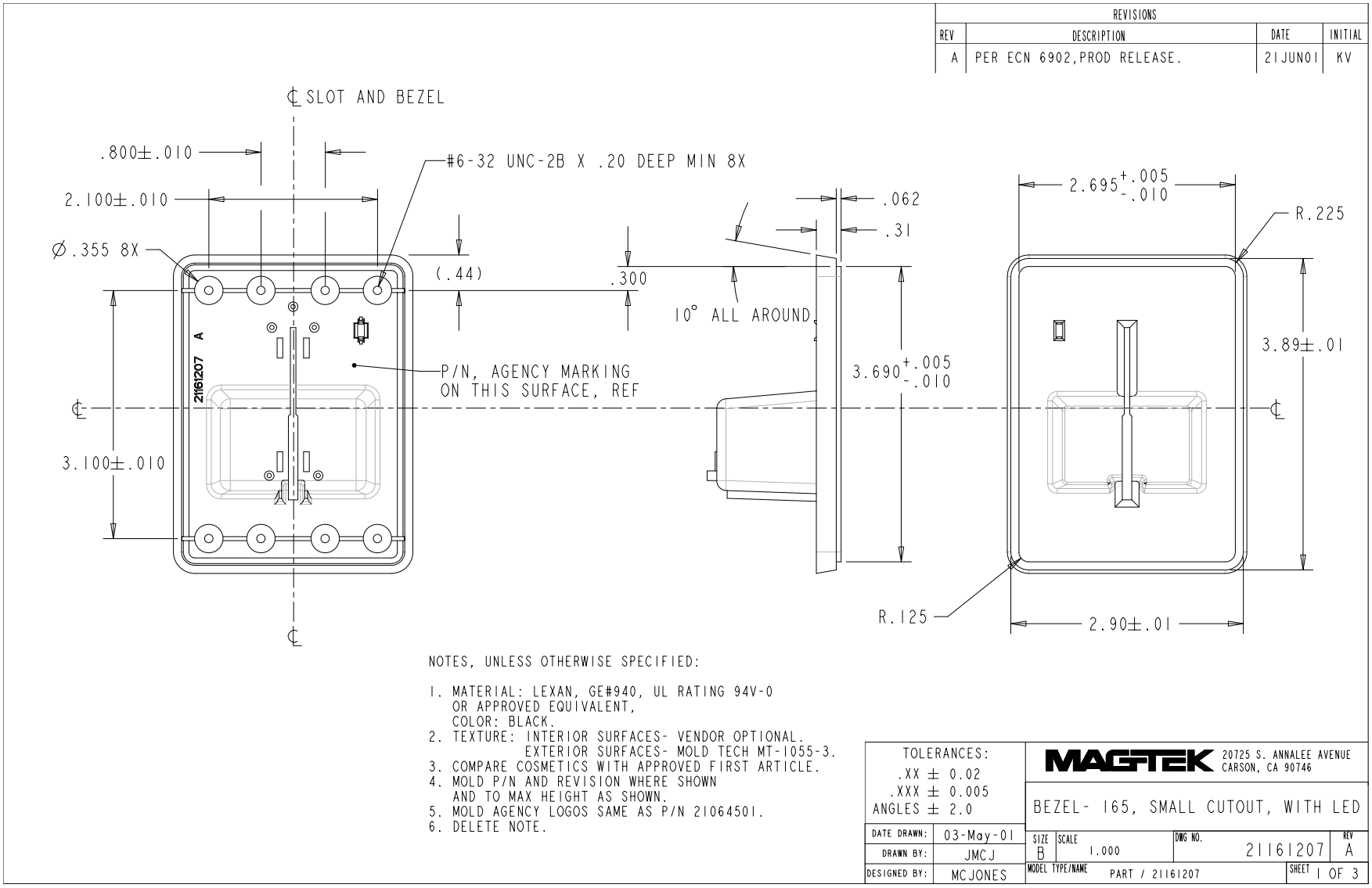


Figure B-9. North American Plastic Bezel with LED Cutout (1)

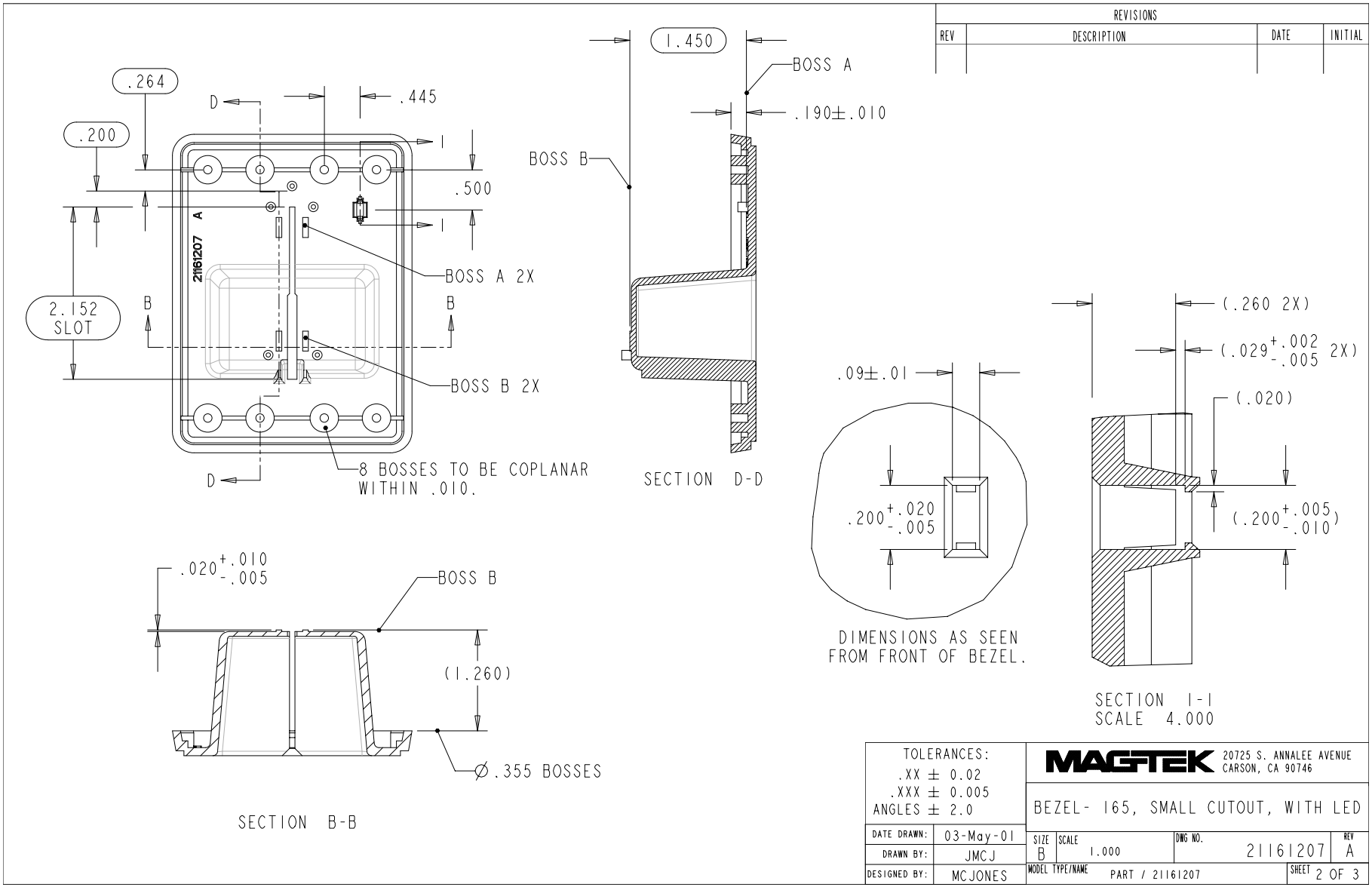


Figure B-10. North American Plastic Bezel with LED Cutout (2)

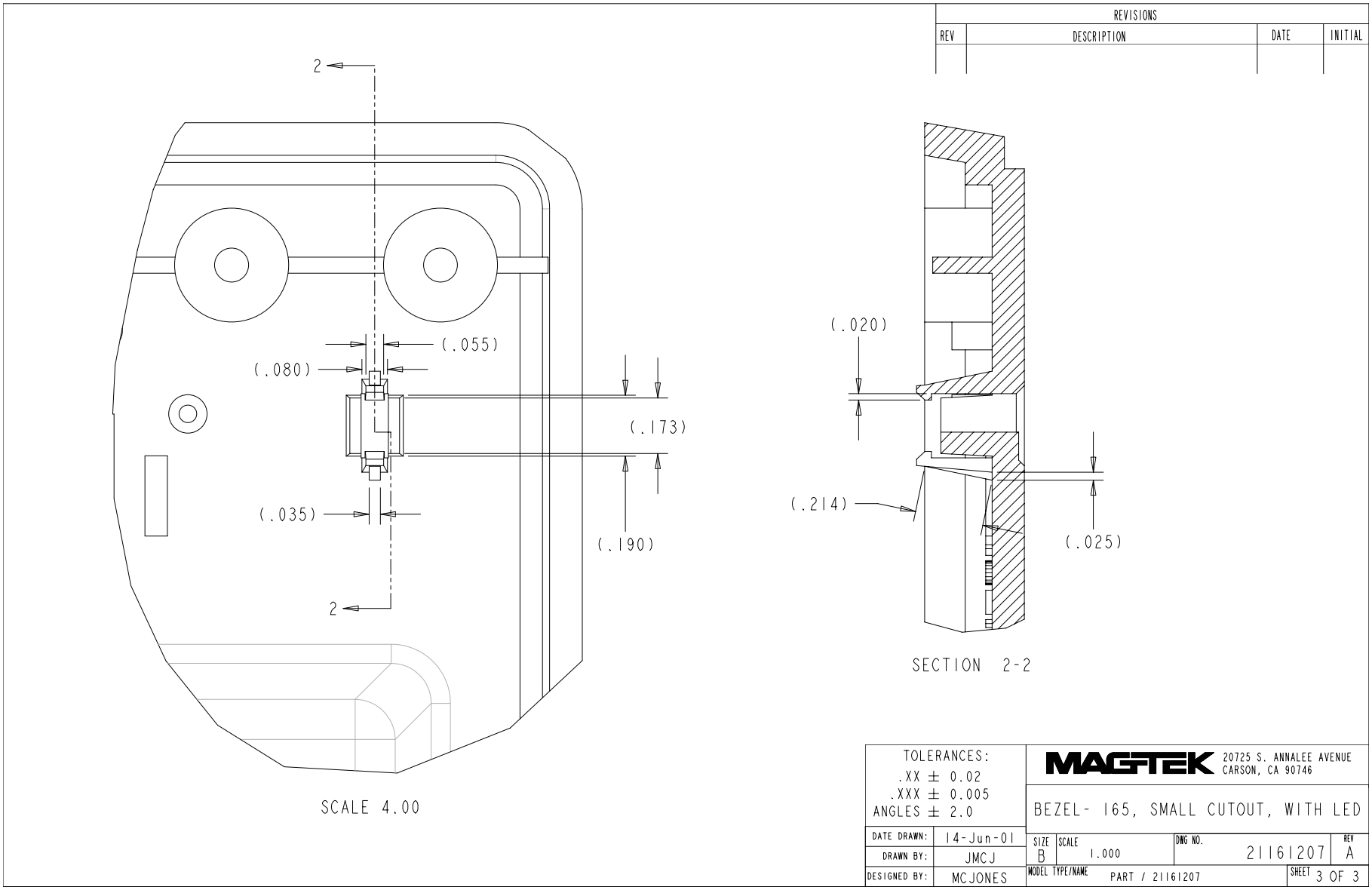


Figure B-11. North American Plastic Bezel with LED Cutout (3)