REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE PER ECO ITG10324		
	.		

REV																											
SHEET	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	47	48	49	50	51	52
REV STATUS OF SHEETS	REV				A	A	A	A	A																			
	SHEET				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

EXCEPT AS NOTED
DIM ARE IN INCHES
PER ANSI Y14.5

.XX +/-.01 .XXX +/-.005 ANGLES +/-1°

MATERIAL:

FINISH:

DO NOT SCALE DRAWING

APPROVALS	DATE
DRW: ANDRESKY	11/29/00
CHK: C. SHEA	062501
APVD: R. OKUDA	071401
APVD: R. GREEN	071301

HID IRVINE, CALIFORNIA

DWG DESCRIPTION

MANUAL, INSTALL, HID MIFARE® READER

SIZE	CAGE CODE	DWG NUMBER	REV
A		6055-914	A.0

SCALE: N/A

SHEET: 0 of 4

Install Manual – 6055-914 Rev A
6055C HID MIFARE® Reader

1 Parts List

PARTS LIST (Included)	Quantity
- HID MIFARE Reader with snap-on cover and 18in.	1
- #6-32 x 1" self-tapping panhead screw	2
- Installation manual	1

PARTS LIST (Not-Included)	Quantity
- Wire splice	9
- DC Power supply 12 VDC	1

2 Mounting Instructions

- Determine an appropriate mounting location. The reader may be mounted to any surface, including metal.
- Drill two (2) 3/32-inch (2.5mm) holes approximately 1 inch deep for mounting the reader.
- Drill a 5/8-inch (16mm) hole for the cable.
- A single-gang (2S) electrical junction box may also be used; reader fits US hole pattern, and the 6-32 screws work with the J-box.
- Remove the snap-on cover from the reader and secure the reader to the mounting surface.
- Route the cable from the reader and/or power supply to the host. A linear type power supply is recommended. Check all electrical codes for proper cable installation.
- For the cable connection to the panel - use Alpha #1299C or equivalent.
- Test the operation of the reader (Section 4). After completion of the test, replace the snap-on cover.
- See Figure 1 for product and mounting dimensions.
- For proper regulatory compliance, the drain wire should be disconnected at the power supply end of the cable.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- The Reader is intended to be powered from a limited power source output of a previously certified power supply.

3 Connecting the Reader

- Connect the reader to the host according to the wiring table below and the host installation guide.

Signal	Color	DB9F	DB25F
9-14 VDC	Red	-	-
GND	Black	Pin 5	Pin 7
D0	Green	-	-
D1	White	-	-
GRN LED	Orange	-	-
RED LED	Brown	-	-
Beeper	Yellow	-	-
HOLD	Blue	Pin 1	Pin 8
DSR	Violet	-	-
RX	Pink	Pin 2	Pin 3
DTR	Gray	Pin 4	Pin 20
TX	Tan	Pin 3	Pin 2
SHLD GND	Drain	-	-

4 Testing and Operation

- When power is applied to the reader the beeper will beep and flash the LED green three times.
- Present an ID card to the reader. The LED will momentarily turn green while the beeper beeps once, indicating that the card was read successfully.
- Please note that typical read range for MIFARE® cards is .75 to 1.5" (20 – 37 mm).

Important Product Specifications	
Power supply	Linear type
Absolute Maximum Voltage	16 VDC
Maximum Current at 12V	94mA
Operating Voltage Range	9.0 – 14.0 VDC
Maximum cable distance To host	50 ft RS-232 500 ft Wiegand
Operating temperature range	-30 to 65°C

FCC Compliance Statement: This device complies with part 15 of the FCC rules. Operation 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.

5 Card Compatibility

- In the default configuration, the HID MIFARE® Reader reads HID-encoded OEM Card Data (Wiegand data) from these cards:
  - HID MIFARE® Card, Model 1430
  - HID MIFARE®/Prox, Model 1431 (dual technology)
  - Any Philips compatible MIFARE® Standard contactless smart card.
- The HID MIFARE® reader will not read 125 kHz HID Proximity cards.
- The reader will only output HID-encoded OEM Wiegand data from cards encoded with matching proprietary HID keys. Cards can either be encoded at the factory, or by using an available HID MIFARE® Field Programmer.
- The reader will read the MIFARE® Card Serial Number only from MIFARE® Lite and MIFARE® Pro cards. These cards are not available with Factory-encoded HID Card Data.

6 Reader Operation

- There are two basic modes of reader operation: Security Mode (the default mode) and Transaction Mode.

Security Mode

- Security Mode is for use in Access Control and parking applications. In security mode, the reader looks for two types of data on the card:
  - HID Factory encoded OEM format card data
  - Mifare Card Serial Number (CSN)
- The reader may be configured in one of the following Card Read Modes:
  - HID Card Data Only (**default mode**)
  - Mifare CSN Only
  - HID Card Data first, then look for CSN
- In HID-Only Mode, when a card is presented, the HID MIFARE® Reader will look for HID-Encoded OEM card data in Sector 1 as well as the MIFARE® Application Directory. Data is output in standard Wiegand format, exactly as it is encoded on the Mifare card, and it is also output on the serial port. The reader can also be field-configured to look for HID-encoded OEM card data in a specific sector other than Sector 1.
- In CSN Only mode, the reader reads the 32-bit MIFARE® random card serial number (CSN or UID) from any MIFARE® card, including MIFARE® Lite, MIFARE® Standard and MIFARE® Pro, outputting that data in a Wiegand format. MIFARE® CSN Data is output via the Wiegand port per the reader's configuration to one of the following CSN Output Modes:
  - 32-bit Philips standard, MSB first **(default)**
  - 32-bit Reverse Order (6055A compatible)
  - 26-bit format (32-bit, truncated to 16 LSB, 8-bit FC defaulted to 1, B/E parity) - FC may be user-configured)
  - 34-bit, Philips Standard + B/E parity
  - 40-bit format - 32-bit CSN + 8 bit checksum
- In HID+CSN mode, the reader first checks all possible locations for HID OEM data, and if no HID data is found, it outputs the CSN.
- Card Read Mode and CSN Output Mode can be ordered pre-configured at the factory, or may be field-configured with Command Cards.
- Consult HID Technical Support for information on obtaining Command cards or for additional details on configuration options.

Transaction Mode

- The reader can also communicate via the serial port for non-access control applications, including read-write capability. When in transaction mode, the reader asserts the DTR line to alert the Host that a card ID is outputting, and it will continue to output repeatedly until acknowledged by the host controller. Configuration to Transaction Mode is accomplished by a command from the Host via the serial port. No command card is required, and no special factory configuration is required.
- A Software Development Kit is available – please contact your dealer for details.

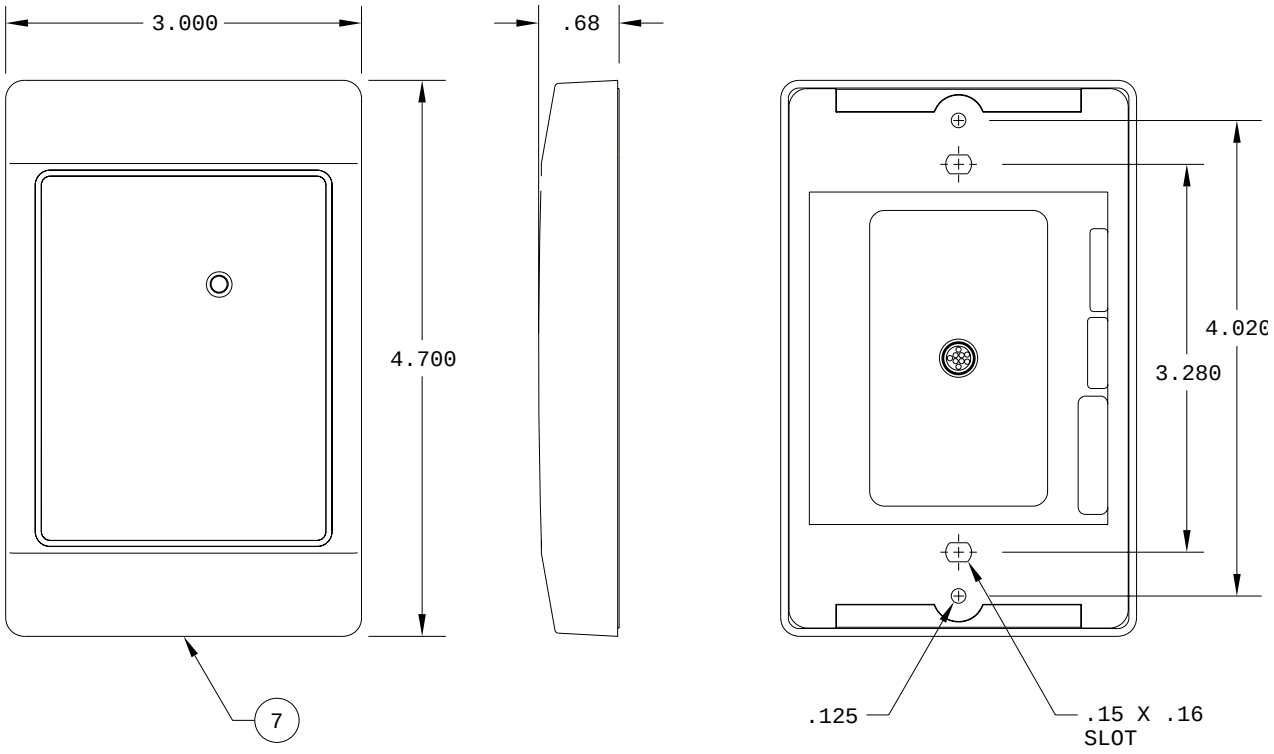

Figure 1 Front, Side and Back Views