APEX 7000 Series

The Apex 7000 makes the best bill acceptor in the industry even better. The Apex 7000 harnesses the reliability of the Apex 5000 and adds customer driven improvements including dip switches for ease of use.

- Lighted arrows on bill entry mechanism capture interest and increase usage
- High security against fraudulent bills
- Flash updates using a PC
- Multiple interfaces available (see below)
- Pinouts compatible with other manufacturers
- Dual-stage optical anti-stringing technology
- 12VDC standard or optional 120VAC internal power supply
- Bills up to 72mm wide accepted
- Automatic self-calibration; no user calibration required

APEX 7000 Series - Specifications:

Operating Voltage	12 VDC (+/- 10%) standard, optional 120 VAC or 24 VAC supply available.
Operating Currents	Idle: 180 mA Accepting: 500 mA Stalled: 1.50 A.
Operating Temperature	0C – 60C, 90 % non-condensing humidity.
Acceptance Rate	Greater than 95%, including second time insertion of a rejected bill.
Acceptance Speed	Approx. 20 bills per minute.
Sensor Array	8 Optical Sensors, one Magnetic Head. Mag. Head is standard on $50, $100 acceptor only.
Bills Accepted	Up to 12 bills in all four directions.
Net Weight	Stackered Model……………………….. 2.3 lbs./1.04 kg.
	Stackerless Model……………………… 1.0 lbs./0.45 kg.
Warranty	2 years, parts and labor (see Warranty Section）

Model Number Chart

To order any Apex 7000 Series acceptor, use the following order information:

Series   Model   Type   Cashbox   P.S./Comm.   Country
APEX   - 7X0X-   X   X   X   -   XXX

Model
7200 - No Mag. Head ($1,$5 bills or 2 bills for foreign applications).
7400 - No Mag. Head ($1-$20 for US model and some foreign models)
7600 - Mag. Head ($1-$100 for US model, full note set for foreign model)

Bezels
7X00 - #0- Standard Bezel
7X01 - #1- "Coinco" Style Bezel
7X02 - #2- "VFM" Style Bezel

Type
S- Stackerless
U- Upstacker
D- Downstacker

Cashbox
N- None (Stackerless only)
2-   200 Bill Cassette
5-   500 Bill Cassette
7-   700 Bill Cassette
1- 1000 Bill Cassette
A-   200 Plastic Bill Cassette
C-   500 Plastic Bill Cassette
D-   500 Plastic Lockable Cassette

P.S./Comm. (Power Supply/Communication Options)
1- 12 VDC (No harness supplied)
3- 120 VAC high level operational supply (Ships with 9-pin AC harness.)
4- MDB Option (Ships with MDB harness)
6- IGT ID022 (Ships with IGT ID022 Harness)
7- Atronic Harness (Minor cabinet modification necessary)
8- 12VDC Rear Exit Harness (Used in tight side to side mounting for 12VDC unit only)
9- 24 VAC Version. (Ships with 9-pin 24 VAC harness)

Country Code
Follows ISO three (3) digit Country Code- Example USA = United States

APEX 7000 Series – Supported Interfaces:

RS-232 – Uses the RS-232 communication standard to operate. Communication is between a PC or host board and the acceptor. See our RS-232 documentation and API specification. This is sometimes referred to as USB when speaking of bill validators. Harnesses are available here. *Speed*= 9600 Baud – 2 line communication.

Serial – An interface that sends data(bytes) over a single wire. This is sometimes referred to as Pot 'o Gold (POG). *Speed* = 600 Baud – 1 direction of communication.

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ccTalk – An interface that sends data(bytes) over a 2 wires similar to RS-232. This interface has a large command set (example: reset BV, vend, disable the $1, etc..). *Speed* = 9600 Baud – 2 line communication.

MDB –Multi-Drop Bus – An interface that sends data(bytes) over a channel. It supports a whole set of specific commands (reset BV, vend, turn on, etc..) The connector is very specific. This interface was created in 1995 to try and standardize communication in vending machines. The most common user case would be in vending machines or change machines. See the specification *Speed* = 9600 Baud, Voltage = 24v

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Pulse – A simplistic communication interface that works by toggling a pulse line. Every time the line is pulled high (toggled high), this counts is called a pulse. The number of pulses is how information is conveyed, example 1 pulse = $1, then 5 pulses = $5. The pulse can be through a relay contact on the 120v model or a transistor on the 12v model. There are two different types, Always Enabled and Standard Pulse. *Always Enabled – Example*: for an amusement game application that always wants to keep the validator on to accept money. *Standard Pulse* (has an enable line) – *Example*: the BV is disabled after a specific item in a column is out of stock or the changer is out of coins. Operators would not want to continue to accept money when there is no product left to vend or change to give.

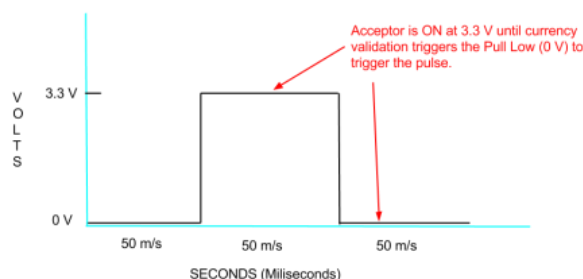|	
Standard Pulse	50 m/s ON —— 50 m/s OFF
Always Enabled	Always ON (for use in amusement type applications where they are not giving an material "thing" that they could run out of.
Parallel	Has designated lines for particular denominations ($1 line, $5 line, $10 line, $20 line)

APEX 7000 Series – Currencies Accepted:

ISO Code	Country	Denominations	Currency Unit
AFG	Afganistan	50, 100, 500, 1000	Afghanis
ARG	Argentina	2, 5, 10, 20, 50, 100	Pesos
ABW	Aruba	10, 25	Florin
AUS	Australia	5, 10, 20, 50, 100	Dollars
BHS	Bahamas	1, 5, 10, 20, 50	Dollars
BRB	Barbados	2, 5, 10, 20, 50, 100	Dollars
BMU	Bermuda	2, 5, 10, 20, 50	Dollars
BRA	Brazil	2, 5, 10, 20, 50, 100	Real
CAN	Canada	5, 10, 20, 50, 100	Dollars
CYM	Cayman Islands	1, 5, 10	Dollars
CHL	Chile	1000, 2000, 5000, 10000, 20000	Pesos
CHN	China	1, 5, 10, 20, 50	Yuan (Renminbi)
COL	Colombia	1000, 2000, 5000, 10000, 20000, 50000	Pesos
CRI	Costa Rica	1000, 2000, 5000, 10000, 20000	Colones
ANT	Curacao and St Maarten / Netherlands Antilles	10, 25, 50, 100	Gulden
DOM	Dominican Republic	10, 20, 50, 100, 500, 1000, 2000	Pesos
XCP	Eastern Caribbean	5, 10, 20, 50, 100	Dollars
EUR	European Union	5, 10, 20	Euro
GHA	Ghana	1, 5, 10	Cedi
GTM	Guatemala	1, 5, 10, 20, 50, 100	Quetzales
HTI	Haiti	100, 250, 500,1000	Gourde
HND	Honduras	1, 2, 5, 10, 20, 50, 100	Lempiras
IDN	Indonesia	1000, 5000, 10000, 20000, 50000, 100000	Rupiah
JAM	Jamaica	50, 100, 500, 1000	Dollars
KAZ	Kazakhstan	200, 500	Tenge
KWT	Kuwait	1/4, 1/2, 1, 5, 10, 20	Dinar
MEX	Mexico	20, 50, 100, 200	Pesos
NIC	Nicaragua	10, 20, 50, 100, 200, 500	Cordobas

PHL	Philippines	20, 50, 100, 200, 500, 1000	Piso
SAU	Saudi Arabia	1, 5, 10, 20, 50, 100	Riyals
SGP	Singapore	2, 5, 10	Dollars
ZAF	South Africa	10, 20, 50, 100, 200	Rand
THA	Thailand	20, 50, 100, 500	Baht
TJK	Tajikistan	1, 3, 5, 5, 10, 10, 20, 50, 100, 200	Somoni
TTO	Trinidad and Tobago	1, 5, 10, 20, 50, 100	Dollars
TUR	Turkey	5, 10, 20	Lira
ARE	United Arab Emirates	5, 10, 20, 50, 100	Dirhams
USA	United States	1, 5, 10, 20, 50, 100	Dollars
VEN	Venezuela	2, 5, 10, 20, 50, 100	Bolivares Fuertes
VNM	Viet Nam	1000, 2000	Dong
BHS/USA	Bahamas and United States (mixed)	BHS 1, 5, 10, 20 / USA 1, 5, 10, 20	Dollars/Dollars
EUR/USA	Euro and United States (mixed)	EUR 5, 10, 20 / USA 1, 5, 10, 20	Euro/Dollars

APEX 7000 Series - Dimensions:

PTI APEX STACKERLESS

PTI APEX STACKERED

APEX 7000 SERIES
Patented

PYRAMID TECHNOLOGIES, INC.
www.pyramidacceptors.com

MODEL NUMBER SELECTION

TYPE
U - Upstacker
D - Downstacker
S - Stackerless

CASHBOX
N - None (Stackerless)
2 - 200 Bill Cassette
5 - 500 Bill Cassette
7 - 700 Bill Cassette
1 - 1000 Bill Cassette
D - Lockable 500 Bill

COUNTRY CODE
ISO 3-character country code
Example: USA for United States

APEX - 7X00 - X X X - XXX

MODEL
7200 - No Mag. Head ($1 - $5 USA)
7400 - No Mag. Head ($1 - $20 for USA)
7600 - With Mag. Head ($1 - $100 USA)

POWER SUPPLY / COMMUNICATIONS
1 - 12 VDC
2 - Standard 120VAC supply
3 - Optional high-level 120VAC supply
4 - MDB Option
5 - True RS-232 Option, 12VDC operation
9 - 24 VAC

APEX SPECIFICATIONS

OPERATING VOLTAGE: 12VDC standard, 120VAC supply optional.
OPERATING CURRENT: 180mA idle; 500mA operating; 1.50A stalled.
OPERATING TEMP.: 0C to 60C, 90% non-condensing humidity.
ACCEPTANCE RATE: Greater than 95% (including second-time insertion of a rejected bill).
ACCEPTANCE SPEED: Approx. 20 bills per minute.
SENSOR ARRAY: (8) Optical Sensors; (1) Magnetic Head standard on $50, $100 version.
NET WEIGHT: Stackered: 2.3 lbs / 1.04 kg.
WARRANTY: 2 years, parts and labor.