

# Bennett Distributor's Quick Reference Guide for 3000 Error Codes

For Pumps under warranty, contact Bennett's Technical Support Group (800-423-6638).

All Errors can be reset by removing and replacing a nozzle or by entering and exiting Manager's Mode.

For Pumps out of warranty, contact your Bennett Distributor.

View history of errors in Diagnostic Mode 02. RAM Clear will zero the history.

Error Code	Electronics	Description of Error
OFF 01	210, 531, 1028	Wrong Microprocessor in Use
OFF 03	210, 531	Defective Pulser
OFF 05	210, 531	Reverse Pulser
OFF 08	210, 531	Disconnected Pulser
OFF 13	1028	Defective Pulser 1 - Same State Transition Limit Exceeded
OFF 14	1028	Defective Pulser 1 - Next State Transition Limit Exceeded
OFF 15	1028	Reverse Pulser 1
OFF 16	1028	Defective Pulser 1 - Lead Channel Failed
OFF 17	1028	Defective Pulser 1 - Lag Channel Failed
OFF 18	1028	Disconnected Pulser - 1
OFF 23	1028	Defective Pulser 2 - Same State Transition Limit Exceeded
OFF 24	1028	Defective Pulser 2 - Next State Transition Limit Exceeded
OFF 25	1028	Reverse Pulser 2
OFF 26	1028	Defective Pulser 2 - Lead Channel Failed
OFF 27	1028	Defective Pulser 2 - Lag Channel Failed
OFF 28	1028	Disconnected Pulser - 2
OFF A2	210, 1028	Electronic Calibration Switch in Program Mode
OFF A5	210, 531, 1028	Dispenser Armed and Communication Lost for 60 seconds
OFF CA	210, 531, 1028	Calibration Error
OFF DS	210, 1028	Door Sensor - Dispenser Door was opened
OFF E1	210, 531, 1028	EEPROM Failure - Signature Not Found
OFF E2	210, 531, 1028	EEPROM Failure - Scram Pointer Invalid
OFF E3	210, 531, 1028	EEPROM Failure - Checksum Mismatch
OFF E4	210, 531, 1028	EEPROM Failure - During Flow
OFF E5	531	EEPROM Failure - Data Cleared - Totals and Calibration Saved
OFF E6	531	EEPROM Failure - Data Cleared - Calibration Saved
OFF E7	210, 531, 1028	EEPROM Failure - Reached half-life and Unreliable

531 JP1 Jumper Settings

Mode	Description	Settings
1 - 4	Address	(see "531 addressing chart")
5	Communication	In - Mechanical Out - Stand Alone
6	Motor Delay	In - 2 Seconds Delay Out - No Delay
7	Pre-Charge Time	In - 9 Second Delay Out - 2 Second Delay
8 - 9	Measurement	In, Out - Imperial Gallons Out, Out - Gallons Out, In - Liters

531 Addressing Chart

1	All Out	9	4 - In
2	1 - In	10	1, 4 - In
3	2 - In	11	2, 4 - In
4	1, 2 - In	12	1, 2, 4 - In
5	3 - In	13	3, 4 - In
6	1, 3 - In	14	1, 3, 4 - In
7	2, 3 - In	15	2, 3, 4 - In
8	1, 2, 3 - In	16	1, 2, 3, 4 - In

# Bennett Distributor's Quick Reference Guide for 3000 Manager's Mode

Make sure ALL nozzles are hung up!

Modes 04 and 11 will be overwritten by the Point of Sale!

A Cold Start (Mode 83) will reset Prices and the Access Code (Mode 03)!

210 & 1028 Programming Modes

Mode	Mode Description	Settings
00	Diagnostics Mode	0 - Software ID (view only) 1 - Display Segment Test (view only) 2 - Error History (view only) 5 - Pump Handle Test (view only) 6 - Counters (view only)
01	Electronic Totals	Money Totals, Volume Totals, Counters and Resettable Totals (view only).
02	View Meter Totals	Totals entered in Mode 05. (view only)
03	Access Code	Enter 4-Digit Access Code.
04	Prices	Enter Price Per Volume.
05	Enter Meter Totals	Enter Value for meter.
08	Decimal Location	Change Decimal Point Location.
09	No Flow Time Out	Set a Time for the Dispenser to Turn Off after Flow Stops.
10	Slow Flow Amount	Control the slow down time on a Prepay Sale.
11	Volume Allocation	Control Maximum Volume of a Single Sale.
12	Pre-Charge Time	Set the Submerged Pump Pre-Charge Time.
13	Beeper Tone	Set Beeper Response.
14	Price Display	Set the Way Price Displays Operate.
15	Fleet Mode	Fleet System Interface Compatibility.
17	Local Preset	Local Preset Type.
18	Motor Delay	Delays the Motor for when it turns on (suction pump).
19	Slow Flow Range	Changes range from .200 - .900 to 2.00 - 9.00 (for liters only).
21	Communication	Current Loop, Stand Alone, RS485 Fleet, RS485 Retail.
22	Dispenser Address	Address the Dispenser. (RS485 or Dresser Loop only)
24	Preset Digit Point	Automatically Enters 0s for Preset.
27	Calibration	Electronically Calibrate Meters. (calibration switch must be on)
28	Recall Switch	Does the dispenser have a Recall Switch?
31	01 & 02 Access	Forces Passcode (Mode 03) to be entered prior to viewing.
83	Cold Start	Performs a Cold Start
99	Unit of Measure	Gallons, Liters or British Imperial (view only unless calibration switch is on).

Form 126635 Rev A 10-27-14

Pulse Output Board JP1 Jumper Settings

Mode	Description	Settings
1 - 2	Pulse Ratio	Out, Out - 1000:1 In, Out - 100:1 Out, In - 10:1 In, In - 1:1

Pulse Output Board JP1 Jumper Settings

Mode	Description	Settings
3 - 5	Pulse Width	Out, Out, Out - .5ms In, Out, Out - 1ms Out, In, Out - 2ms In, In, Out - 4ms Out, Out, In - 8ms In, Out, In - 16ms Out, In, In - 32ms In, In, In - 64ms

# Bennett Distributor's Quick Reference Guide for SSP

**NOTE: If the location is experiencing a lot of printer jams then shorten the receipt in Mode 12!**

**NOTE: Make sure to test both Magnetic Strips while in Mode 04 (Card Reader Test)!**

**NOTE: The only way to see what Software Version is installed is by going into Mode 08!**

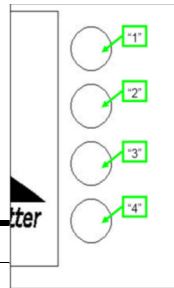
Connector	Description	Connector	Description
J1	Programming Header	J11	Encrypted Pin Pad
J4	Audio Transducer	J12	Alpha Numeric / Credit Only Pin Pad
J5	Power / Data Link	J13	Left Side Soft Keys
J6	Card Reader	J14	Right Side Soft Keys
J7	Receipt Printer Power	J17	Fan Assembly
J8	Receipt Printer Data	J19	Display Data
J9	Auxiliary (Natural Gas Comm. Hub Board)	J20	Display Backlight
J10	SSP 3.1 Encrypted Pin Pad	J22	Amulet Chip Programming Interface

## Gaining Access to Manager's Mode:

The right Soft Keys are the only keys required to enter into Manager's Mode.

Assuming that the top Soft Key is "1" and the bottom Soft Key is "4" (see figure A) enter the code "122114" to enter into Manager's Mode.

Figure A - Right Soft Keys



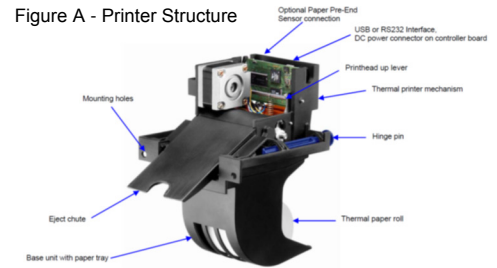
Mode	Mode Description	Settings
01	Address	Set the Address
02	Real Time Clock	(diagnostics) Used for System to Track Different Audit Events
03	Audit Trail Report	(diagnostics) Report Used to Print Date and Time of Audit Events
04	Card Reader	(diagnostics) Test the Card Reader
05	Printer	(diagnostics) Test the Printer
06	Pin Pad	(diagnostics) Test the Pin Pad's Key Response
07	Peripheral Power Resets	(diagnostics) Counts the Card Reader, Pin Pad or Printer Power Cycles
08	Software Version	(diagnostics) Resets the Software
09	Software Reset	(diagnostics) Reset the Software
10	Maximum Queues	(diagnostics) (for development purposes) Counts Maximum Queues
11	Debit Key Injection	(diagnostics) (debit only) Tests and Verifies Pin Pad Encryption
12	Receipt Length	Set the Length of the Receipts
13	Keypad Type	Set the type of keypad (EPP, 5x8, 4x4)
14	Receipt Delay	Delays receipt data (used for unstable communication)
15	Loop Detection	Used for Networks that Force Automatic fueling messages. Sets number of messages forced.
16	Image Erase	Erase Loaded Images used for Advertising
94	Display Line Shift	Shifts Top Line to Second Line
96	Communication	(diagnostics) Displays the Percentage of Communication from SSP to POS
97	EPP Timing	Synchronizes Pin Entry Prompt with Pin Pad Activation
99	Logos	Loads Preloaded Logos on the Bottom Right Corner of the Screen

# Bennett Distributor's Quick Reference Guide for Hengstler Printer Jams

Printers are frequently considered "defective" because of a high volume of Paper Jams. Before coming to this conclusion make sure that you have checked or inspected the following:

Item	Suggestion	Reason
Paper Type	We suggest that paper is purchased from "Specialty Roll Products, Inc. (800-647-6267).	Paper quality could cause paper to curl or tear incorrectly.
Paper Specifications	Make sure that the paper is within range: Width = 58mm - 60mm, Diameter = maximum 100mm.	If the paper isn't the right size then the paper will naturally slide back and forth in the paper chute.
Paper Center Core	Make sure that the paper's center core is not too small.	If the center core is too small then the paper will naturally curl when the paper gets low.
Receipt Length	Make sure that the Receipt isn't too long.	If the receipt is too long then the customer will naturally want to pull the receipt to the left or to the right. This will increase the risk of a paper jam because the paper can "bunch up" at the tear bar easily.
Clean Paper Chute	Make sure that there is nothing obstructing the Paper Chute.	Remove the Paper Chute from the dispenser and disassemble it complete to check for bugs or paper debris.
Tear Bar	Make sure that the Tear Bar is in place and not rusty.	A worn out Tear Bar will cut paper un-even and cause a lot of paper jams. There are also two plastic clips that hold the Tear Bar in place. Make sure that the Tear Bar is snapped completely in place.

Figure A - Printer Structure



In order to clear a paper jam, detach the document that is already present in the eject chute and retract the remaining paper manually. Paper scraps remaining in the area between the print mechanism and eject chute can be removed after the printer is tilted open.

In case there is still paper between the printhead and the platen, remove the friction between head and platen by pressing down the lever and then pull the paper back by hand (see figure B)

**! DANGER: Never actuate this lever during the printing operation or else the printhead will overheat!**

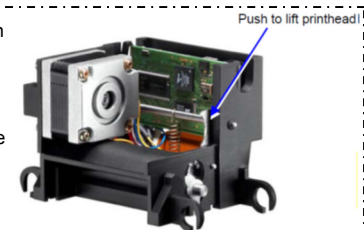


Figure B - Remove Jams

If a partly printed document remains in the printer mechanism, e.g. in the event of a paper end signal due to a tear, and it does not appear in the eject chute, the printer mechanism will have to be tilted open and the document be taken out by hand. Note that additional care must be taken concerning wire routing because of the chute sensor or hardware paper-low sensor.

(See Figure C)

1. Pull the hinge pin back into its tilt position.
2. Then tilt the printer open as illustrated. Now, the partially printed document will be visible and can be pulled out over the eject chute.
3. Eject the document by twisting the motor pinion gear clockwise until the document leaves the friction area of the platen.
4. Remove the partially printed document. Then again tilt the printer mechanism back into its operating position and secure it by snapping the hinge pin into its operating position.

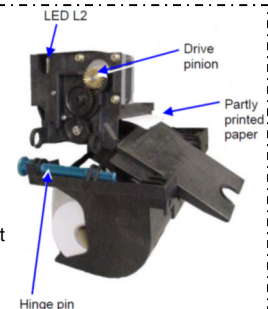


Figure C - Remove Jams