



NLS-BS80

Serial Programming Commands

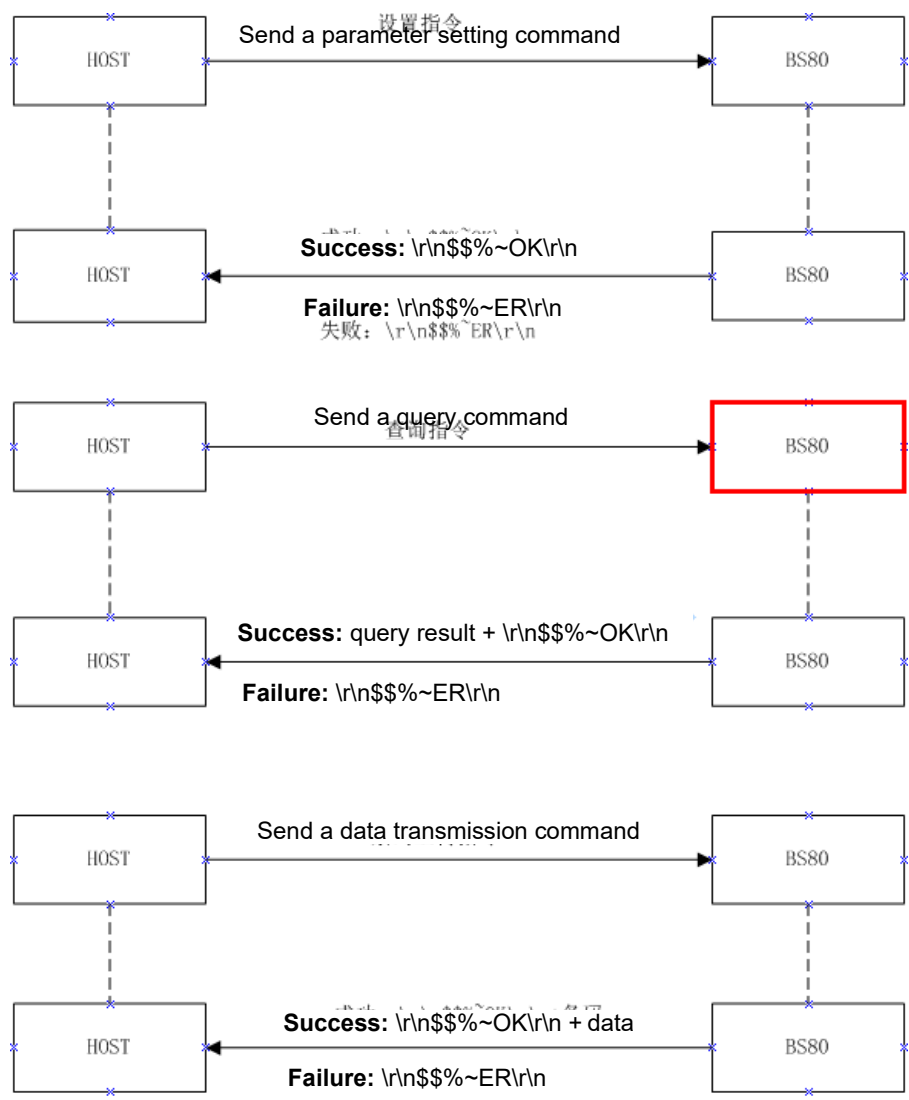
Revision History

Version	Description	Date
V1.0.0	Initial release.	Sept 27, 2016
V1.0.1	Added the serial command for setting the Inter-Character Delay for Bluetooth HID in the "Serial Programming Command Table".	Feb 7, 2017
V1.0.2	Added the serial commands for setting the Bluetooth Device Name, Barcode Separator, Packet Mode, ACK/NAK Retry Count, ACK/NAK Timeout and the features regarding Data Formatter, modified the options for Inter-Keystroke Delay for KBW, in the "Serial Programming Command Table".	Jun 23, 2017
V1.0.3	Added the serial commands for enabling/disabling Response for Invalid Host Data in the "Serial Programming Command Table".	Jan 4, 2019
V1.0.4	1, Updated command of Inter-Keystroke Delay for KBW and Auto Power Off Timer 2, Added command of Bluetooth Device Name Suffix, GS1 and related function, Disable Delete and Function Button, Prevent Same Barcode Storage and Query Bluetooth Version Information	Dec 31, 2020

The serial programming commands can be used to set NLS-BS80 barcode scanner, query parameters and transmit stored data from the scanner to host device. For the detailed descriptions of each serial programming command, refer to **Serial Programming Command Table** in this manual.

The scanner must be set to Bluetooth SPP/BLE or USB COM Port Emulation. The commands can be sent to the scanner via a PC COM port. CDC-Virtual COM Driver is required.

The following illustrates what reply the host device can expect to get from the scanner to indicate success or failure when a serial command is sent.



Serial Programming Command Table

Parameter Settings (** indicates default)		Serial Command
Factory Defaults	Restore Factory Defaults	\$\$%^1207
Manual Power-Off	Manual Power-Off	\$\$%^5300
Auto Power-Off Timer	Set the Auto Power-Off Timer e.g.: Set the Auto Power-Off Timer as 60 minutes, send command \$\$%^530460	\$\$%^5304
Operating Modes	**Bluetooth Mode	\$\$%^0100
	USB Mode	\$\$%^0101
	**Bluetooth HID or USB HID-KBW	\$\$%^0200
	Bluetooth SPP or USB COM Port Emulation	\$\$%^0201
	Bluetooth BLE	\$\$%^0202
	**Bluetooth Synchronous Transmission	\$\$%^0601
	Bluetooth Asynchronous Transmission	\$\$%^0600
	Bluetooth Batch Transmission	\$\$%^0207
	**USB Asynchronous Transmission	\$\$%^0209
	USB Batch Transmission	\$\$%^0208
	Verify Receipt of Data	\$\$%^1208
	**Do Not Verify Receipt of Data	\$\$%^1209
Inter-Character Delay for Bluetooth HID	Set the delay to 0 milliseconds	\$\$%^540108
	Set the delay to 5 milliseconds	\$\$%^540100
	**Set the Delay to 15 milliseconds	\$\$%^540101
	Set the Delay to 25 milliseconds	\$\$%^540102
	Set the Delay to 35 milliseconds	\$\$%^540103
	Set the Delay to 45 milliseconds	\$\$%^540104
	Set the Delay to 55 milliseconds	\$\$%^540105
	Set the Delay to 65 milliseconds	\$\$%^540106
Set the Delay to 75 milliseconds	\$\$%^540107	
Delete Bluetooth Pairing	Delete Bluetooth Pairing	\$\$%^5404
Time Stamp	Enable	\$\$%^0300
	**Disable	\$\$%^0301
Vibration Notifications	On	\$\$%^0400
	**Off	\$\$%^0401
Sound Notifications	**On	\$\$%^0500
	Off	\$\$%^0501

Date & Time	**Format 3: yyyy/mm/dd	\$\$\$^1000
	Format 2: dd/mm/yyyy	\$\$\$^1001
	Format 1: mm/dd/yyyy	\$\$\$^1002
	Set date & time (xxxx: the desired date & time in the format of YYYY-MM-DD,W;HH:MM:SS) W stands for day of week. e.g. \$\$\$^112016-09-23,5;15:15:03	\$\$\$^11[xxxx]
Serial Number	Enable	\$\$\$^1400
	**Disable	\$\$\$^1401
Delete Stored Data in Flash	Clear All Stored Data	\$\$\$^1200
AIM ID Prefix	Enable	\$\$\$^1300
	**Disable	\$\$\$^1301
Keyboard Types	**US English	\$\$\$^2201
	Belgium	\$\$\$^2202
	Brazil	\$\$\$^2203
	Canada	\$\$\$^2204
	Czech	\$\$\$^2205
	Danmark	\$\$\$^2206
	Finland	\$\$\$^2207
	France	\$\$\$^2208
	Germany, Austria	\$\$\$^2209
	Greece	\$\$\$^2210
	Hungary	\$\$\$^2211
	Israel	\$\$\$^2212
	Italy	\$\$\$^2213
	Latin America, South America	\$\$\$^2214
	Netherland	\$\$\$^2215
	Norway	\$\$\$^2216
	Poland	\$\$\$^2217
	Portugal	\$\$\$^2218
	Romania	\$\$\$^2219
	Russia	\$\$\$^2220
Slovakia	\$\$\$^2221	
Spain	\$\$\$^2222	
Sweden	\$\$\$^2223	
Switzerland	\$\$\$^2224	
Turkey_F	\$\$\$^2225	
Turkey_Q	\$\$\$^2226	
UK	\$\$\$^2227	

	Japan	\$\$%^2228
Character Encoding	**ISO-8859-1	\$\$%^2240
	UTF-8	\$\$%^2241
Convert Case	**No Case Conversion	\$\$%^2230
	Convert All to Upper Case	\$\$%^2231
	Convert All to Lower Case	\$\$%^2232
	Invert Upper and Lower Case Characters	\$\$%^2233
Emulate ALT+Keypad	**Disable	\$\$%^2244
	Mode 1	\$\$%^2245
	Mode 2	\$\$%^2246
	Mode 3	\$\$%^2247
Function Key Mapping	Enable	\$\$%^2251
	**Disable	\$\$%^2252
Emulate Numeric Keypad	Enable	\$\$%^2248
	**Disable	\$\$%^2249
Code Page	**Windows 1252 (Latin I)	\$\$%^2242
	Windows 1251 (Cyrillic)	\$\$%^2243
Inter-Keystroke Delay for KBW	Set Inter-Keystroke Delay e.g.: Set Inter-Keystroke delay as 50ms, set command \$\$%^225350	\$\$%^2253
Change Bluetooth Device Name	The Bluetooth device name for a BS80 scanner combines the model name with the last 4 characters of the MAC address xx: the hexadecimal value of each character contained in the desired model name, up to 20 characters e.g. To set the model name to "NLS1" (HEX: 0x4E, 0x4C, 0x53, 0x31), send \$\$%^54094E4C5331	\$\$%^5409xx
Bluetooth Device Name Suffix	**On	\$\$%^5412
	Off	\$\$%^5413
Response for Invalid Host Data	**Enable	\$\$%^7100
	Disable	\$\$%^7101
Barcode Separator	Enable	\$\$%^5600
	**Disable	\$\$%^5601
	Set barcode separator (xx: the hexadecimal value of each character contained in the desired separator, up to 10 characters) e.g. To set the barcode separator to "A" (HEX: 0x41), send \$\$%^560241	\$\$%^5602xx
	Query barcode separator	\$\$%^5603
Packet Mode	On	\$\$%^5500
	Off	\$\$%^5501

	Query Packet mode settings Returning "15" indicates Packet mode on; returning "15" indicates Packet mode off.	*
	Set NAK/ACK Retry Count (xx: the desired number of retries, 1-8 retries, default: 2 retries) e.g. set NAK/ACK retry count to 2, send \$\$\$%^55032	\$\$\$%^5503xx
	Set NAK/ACK Timeout (xx: the desired timeout, 1-15,000ms) e.g. set NAK/ACK timeout to 200ms, send \$\$\$%^5504200	\$\$\$%^5504xx
Add a Data Format	Add a data format (xx: See the "Programming with Serial Commands" section in the "BS80 User Guide" for the details) e.g. To program format_0 using formatter command type 6, Code 128 containing 10 characters applicable, send all characters followed by "A", send \$\$\$%^5917069990020010F141	\$\$\$%^5917xx 支持多指令, 可修改描述
Query Data Formats	Query Data Formats	\$\$\$%^5918
Clear All Data Formats	Clear All Data Formats	\$\$\$%^5919
Data Formatter	**Disable Data Formatter	\$\$\$%^5900
	Enable Data Formatter, Required, Keep Prefix/Suffix	\$\$\$%^5901
	Enable Data Formatter, Required, Drop Prefix/Suffix	\$\$\$%^5902
	Enable Data Formatter, Not Required, Keep Prefix/Suffix	\$\$\$%^5903
	Enable Data Formatter, Not Required, Drop Prefix/Suffix	\$\$\$%^5904
Enable Data Format	**Format_0	\$\$\$%^5905
	Format_1	\$\$\$%^5906
	Format_2	\$\$\$%^5907
	Format_3	\$\$\$%^5908
Change Data Format for a Single Scan	Single Scan – Format_0	\$\$\$%^5909
	Single Scan – Format_1	\$\$\$%^5910
	Single Scan – Format_2	\$\$\$%^5911
	Single Scan – Format_3	\$\$\$%^5912
Non-Match Error Beep	**On	\$\$\$%^5913
	Off	\$\$\$%^5914
Transmit GS1 Application Identifiers	**Enable	\$\$\$%^8102
	Disable	\$\$\$%^8103
GS1-128(UCC/EAN-13)	**Enable	\$\$\$%^8106
	Disabl	\$\$\$%^8107
GS1 Databar(RSS)	**Enable	\$\$\$%^8110
	Disable	\$\$\$%^8111
GS1 QR	**Enable	\$\$\$%^8114
	Disable	\$\$\$%^8115
	**Enable	\$\$\$%^8118

GS1 DM	Disable	\$\$\$^8119
Transmit GS1 Check Character	**Enable	\$\$\$^8104
	Disable	\$\$\$^8105
GS1-128 (UCC/EAN-13)	**Enable	\$\$\$^8108
	Disable	\$\$\$^8109
GS1 Databar (RSS)	**Enable	\$\$\$^8112
	Disable	\$\$\$^8113
GS1 QR	**Enable	\$\$\$^8116
	Disable	\$\$\$^8117
GS1 DM	**Enable	\$\$\$^8120
	Disable	\$\$\$^8121
Parentheses Surround GS1 Application Identifiers	**Enable	\$\$\$^8100
	Disable	\$\$\$^8101
Disable Delete and Function Button	Enable	\$\$\$^8001
	**Disable	\$\$\$^8000
Prevent Same Barcode Storage	Enable	\$\$\$^7701
	**Disable	\$\$\$^7700
Digits	0	\$\$\$^0000
	1	\$\$\$^0001
	2	\$\$\$^0002
	3	\$\$\$^0003
	4	\$\$\$^0004
	5	\$\$\$^0005
	6	\$\$\$^0006
	7	\$\$\$^0007

	8	\$\$\$^0010
	9	\$\$\$^0011
	A	\$\$\$^0012
	B	\$\$\$^0013
	C	\$\$\$^0014
	D	\$\$\$^0015
	E	\$\$\$^0016
	F	\$\$\$^0017

Query	Serial Command
Query the Firmware & Hardware Versions of Product	\$\$\$^5200
Query the Serial Number of Product	\$\$\$^5202
Query the Manufacture Date of Product	\$\$\$^5204
Query the Firmware Version of Embedded Scan Engine	\$\$\$^5206
Query the Firmware & Hardware Versions of Bluetooth Module	\$\$\$^5400
Query the signal strength of Bluetooth	\$\$\$^5407
Query the Auto Power-Off Timer	\$\$\$^5302
Query the Inter-Character Delay for Bluetooth HID	\$\$\$^5402
Query Current Date & Time	\$\$\$^1003
Query Date Format	\$\$\$^1004
Query the Number of Stored Barcodes	\$\$\$^1203
Query Bluetooth Version Information (available on Bluetooth Mode)	\$\$\$^5400

Data Transmission	Serial Command
Transmit Stored Data	\$\$\$^0206

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