

# iOS TSPL Program Manual

## Bluetooth

### 1. Defined in the TSCBLEManager Class

#### 1.1 sharedInstance

Singleton.

- (void) sharedInstance

#### 1.2 startScan

Search for bluetooth printers.

- (void) startScan

#### 1.3 stopScan

Stop searching for bluetooth printers.

-(void) stopScan

#### 1.4 connectDevice

Connect a Printer.

-(void)connectDevice:(CBPeripheral \*)peripheral

[Parameter]

-peripheral: Device.

#### 1.5 disconnectRootPeripheral

Disconnect a Printer.

- (void) disconnectRootPeripheral

#### 1.6 writeCommandWithData

Data printing.

- (void) writeCommandWithData: (NSData \*) data

[Parameter]

- data: Data to print.

## TSCBLEManagerDelegte

### ★ TSCbleUpdatePeripheralList

Discover peripherals.

- (void) TSCbleUpdatePeripheralList: (NSArray \*) peripherals RSSIList:

(NSArray \*) rssiList

[Parameter]

- peripherals: Peripheral List.

- rssiList: Rssi List.

### ★ TSCbleConnectPeripheral

Peripheral connected succeeded.

- (void) TSCbleConnectPeripheral: (CBPeripheral \*) peripheral

[Parameter]

- peripheral: Device.

### ★ TSCbleFailToConnectPeripheral

Peripheral connected failed.

- (void) TSCbleFailToConnectPeripheral: (CBPeripheral \*) peripheral  
error: (NSError \*)error

[Parameter]

- peripheral: Device.

- error: Connect error.

### ★ TSCbleDisconnectPeripheral

Peripheral disconnected.

- (void) TSCbleDisconnectPeripheral: (CBPeripheral \*) peripheral

[Parameter]

- peripheral: Device.

## ★ TSCbleWriteValueForCharacteristic

Send data succeeded.

- (void) TSCbleWriteValueForCharacteristic: (CBCharacteristic \*) character error: (NSError \*) error

[Parameter]

- character: Device attributes.

- error: Send error.

## ★ TSCbleReceiveValueForCharacteristic

Receive data from printer.

- (void) TSCbleReceiveValueForCharacteristic: (CBCharacteristic \*) character error: (NSError \*) error

[Parameter]

- character: Device attributes.

- error: Receive error.

# WiFi

## 2. Defined in the TSCWIFIManager Class

### 2.1 sharedInstance

Singleton.

- (void) sharedInstance

### 2.2 connectWithHost

Connect a Printer.

- (void) connectWithHost: (NSString \*) hostStr port: (UInt16 \*) port

[Parameter]

- hostStr: Connect printer ip address.

- port: Port Number.

## 2.3 disconnect

Disconnect a Printer.

- (void) disconnect

## 2.4 writeCommandWithData

Data printing.

- (void)writeCommandWithData: (NSData \*) data

[Parameter]

- data: Data to print.

## TSCWIFIManagerDelegate

### ★ TSCwifiConnectedToHost

Connected a Printer.

- (void) TSCwifiConnectedToHost: (NSString \*) host port: (UInt16) port

[Parameter]

- host: IP Address.

- port: Port Number.

### ★ TSCwifiDisconnectWithError

Disconnected a Printer.

- (void) TSCwifiDisconnectWithError: (NSError \*) error

[Parameter]

- error: error.

### ★ TSCwifiWriteValueWithTag

Print successful.

- (void) TSCwifiWriteValueWithTag:(long)tag

### ★ TSCwifiReceiveValueForData

Receive data from printer.

- (void) TSCwifiReceiveValueForData:(NSData \*)data
- [Parameter]
- data: Printer data.

## TSPL

### 3. Defined in the TSCCommand Class

#### 3.1 sizeBymmWithWidth

Defines the label width and height.

- (NSData \*) sizeBymmWithWidth: (double) m andHeight: (double) n

[Parameter]

- m: label width

- n: label height

[Return value]

- NSData \*: Send data.

#### 3.2 sizeByinchWithWidth

Defines the label width and height.

- (NSData \*) sizeByinchWithWidth: (double) m andHeight: (double) n

[Parameter]

- m: label width

- n: label height

[Return value]

- NSData \*: Send data.

#### 3.3 gapBymmWithWidth

Defines the gap distance between to labels.

- (NSData \*) gapBymmWithWidth: (double) m andHeight: (double) n

[Parameter]

- m: the gap distance between two labels
- n: the offset distance of the gap

[Return value]

- NSData \*: Send data.

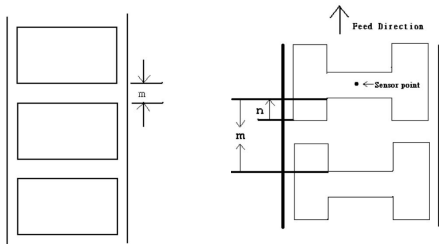
### 3.4 gapByinchWithWidth

Defines the gap distance between to labels.

- (NSData \*) gapByinchWithWidth: (double) m andHeight: (double) n

[Parameter]

- m: the gap distance between two labels
- n: the offset distance of the gap



[Return value]

- NSData \*: Send data.

### 3.5 blineBymmWithM

Sets the height of the black line and the user-defined extra label feeding length each from feed takes.

- (NSData \*) blineBymmWithM: (double) m andN: (double) n

[Parameter]

- m: the height of black line. 2.54 ~ 25.4mm
- n: the extra label feeding length. 0 ~ label length

[Return value]

- NSData \*: Send data.

### 3.6 blineByinchWithM

Sets the height of the black line and the user-defined extra label feeding length each from feed takes.

- (NSData \*) blineByinchWithM: (double) m andN: (double) n

[Parameter]

- m: the height of black line. 0.1 ~ 1 inch

- n: the extra label feeding length. 0 ~ label length

[Return value]

- NSData \*: Send data.

### 3.7 offSetByymmWithM

Sets the position of label under the pee-off mode.

- (NSData \*) offSetByymmWithM: (double) m

[Parameter]

- m: the offset distance

[Return value]

- NSData \*: Send data.

### 3.8 offSetByinchWithM

Sets the position of label under the pee-off mode.

- (NSData \*) offSetByinchWithM: (double) m

[Parameter]

- m: the offset distance

[Return value]

- NSData \*: Send data.

### 3.9 speed

Defines the print speed.

- (NSData \*) speed: (double) n

[Parameter]

- n: Printing speed in inch per second

[Return value]

- NSData \*: Send data.

### 3.10 density

Sets the printing darkness.

- (NSData \*) density: (int) n

[Parameter]

- n: 0 ~ 15

[Return value]

- NSData \*: Send data.

### 3.11 direction

Defines the print direction

- (NSData \*) density: (int) n

[Parameter]

- n: 0: forward 1: reverse

[Return value]

- NSData \*: Send data.

### 3.12 cls

Clears the cache buffer

- (NSData \*) cls

[Return value]

- NSData \*: Send data.

### 3.13 feed

Feeds label with the specified length

- (NSData \*) feed: (int) n

[Parameter]

- n: the length label feeds. 1 ~ 9999 by dot.

[Return value]



- NSData \*: Send data.

### 3.14 backFeed

Feeds label in reverse.

- (NSData \*) backFeed: (int) n

[Parameter]

- n: the length label feeds in reverse. 1 ~ 9999 by dot.

[Return value]

- NSData \*: Send data.

### 3.15 formFeed

Feeds label to the beginning of next label

- (NSData \*) formFeed

[Return value]

- NSData \*: Send data.

### 3.16 limitFeedBymm

Use to stop feeding paper while feed paper wrong

- (NSData \*) limitFeedBymm: (double) n

[Parameter]

- n: the limit length of wrong.

[Return value]

- NSData \*: Send data.

### 3.17 limitFeedByinch

Use to stop feeding paper while feed paper wrong

- (NSData \*) limitFeedByinch: (double) n

[Parameter]

- n: the limit length of wrong.

[Return value]

- NSData \*: Send data.

### 3.18 home

Feeds label until the sensor has determined origin

- (NSData \*) home

[Return value]

- NSData \*: Send data.

### 3.19 referenceWithX

Defines the reference point the of the label

- (NSData \*) referenceWithX: (int) x andY: (int) y

[Parameter]

- x: Horizontal coordinate.

- y: Vertical coordinate.

[Return value]

- NSData \*: Send data.

### 3.20 codePage

Set international coding

- (NSData \*) codePage: (NSString \*) str

[Parameter]

- str:

Variable	Describe
437	United States
850	Multilingual
852	Slavic
860	Portuguese
863	Canadian / French
865	Nordic
1250	Central Europe
1252	Latin I
1253	Greek

Variable	Describe
1254	Turkish

[Return value]

- NSData \*: Send data.

### 3.21 print

Prints the label format currently stored in the image buffer.

- (NSData \*) print: (int) m

[Parameter]

- m: print count.

[Return value]

- NSData \*: Send data.

### 3.22 cut

Cuts the labels.

- (NSData \*) cut

[Return value]

- NSData \*: Send data.

### 3.23 soundWithLevel

Sets the sound frequency of the beeper.

- (NSData \*) soundWithLevel: (int) level andInterval: (int) interval

[Parameter]

- level: sound level 0 ~ 9.

- interval: sound interval 1 ~ 4095. by ms

[Return value]

- NSData \*: Send data.

### 3.24 selfTest

The printer will print out the printer information.

- (NSData \*) selfTest

[Return value]

- NSData \*: Send data.

### 3.25 initialPrinter

Restore printer settings to default.

- (NSData \*) initialPrinter

[Return value]

- NSData \*: Send data.

### 3.26 barWithX

Draws a bar on the label format

- (NSData \*) barWithX: (int) x andY: (int) y andWidth:(int) w andHeight:  
(int) h

[Parameter]

- x: the upper left corner x-coordinate.

- y: the upper left corner y-coordinate.

- w: bar width.

- h: bar height.

[Return value]

- NSData \*: Send data.

### 3.27 barcodeWithX

Prints 1D barcodes

- (NSData \*) barcodeWithX: (int) x andY: (int) y andCodeType: (NSString  
) codetype andHeight: (int) height andHunabReadable: (int) readable  
andRotation: (int) rotation andNarrow: (int) narrow andWide: (int) wide  
andContent: (NSString \*) content usStrEnCoding: (NSStringEncoding)  
strEnCoding

[Parameter]

- x: the x-coordinate.

- y: the y-coordinate.

- codetype:

Variable	Describe
128	Code 128, switching code subset automatically
128M	Code 128, switching code subset manually
EAN128	EAN 128, switching code subset automatically
25	Interleaved 2 of 5
25C	Interleaved 2 of 5 with check digit
39	Code 39
39C	Code 39 with check digit
93	Code 93
EAN13	EAN 13
EAN13+2	EAN 13 with 2 digits add-on
EAN13+5	EAN 13 with 5 digits add-on
EAN8	EAN 8
EAN8+2	EAN 8 with 2 digits add-on
EAN8+5	EAN 8 with 5 digits add-on
CODA	Codabar
POST	Postnet
UPCA	UPC-A
UPCA+2	UPC-A with 2 digits add-on
UPA+5	UPC-A with 5 digits add-on
UPCE	UPC-E
UPCE+2	UPC-E with 2 digits add-on
UPE+5	UPC-E with 5 digits add-on
CPOST	China post
MSI	MSI
MSIC	MSI with check digit
PLESSEY	PLESSEY
ITF14	ITF14
EAN14	EAN14
11	Code 11
TELEPEN	Telepen

Variable	Describe
TELEPENN	Telepen number
PLANET	Planet
CODE49	Code 49
DPI	Deutsche Post Identcode
DPL	Deutsche Post Leitcode

- height: bar height. by dot.
- readable: HRI readable, 0 ~ 3.

Variable	Describe
0	NONE
1	LEFT
2	MIDDLE
3	RIGHT

- rotation: 0, 90, 180, 270
- narrow: space of uint by dot. default: 2.
- wide: width of uint by dot. default: 2.
- content: barcode's content.
- strEnCoding: content's encoding.

[Return value]

- NSData \*: Send data.

### 3.28 bitmapWithX

Draws bitmap images.

- (NSData \*) bitmapWithX: (int) x andY: (int) y andMode: (int) mode  
andImage: (UIImage \*) image

[Parameter]

- x: the x-coordinate.
- y: the y-coordinate.

- mode

Variable	Describe
0	OVERWRITE
1	OR
2	XOR

- image: bitmap data.

[Return value]

- NSData \*: Send data.

### 3.29 boxWithX

Draws rectangles on the label.

- (NSData \*) boxWithX: (int) x andY: (int) y andEndX: (int) x\_end  
andEndY: (int) y\_end andThickness: (int) thickness

[Parameter]

- x: the x-coordinate of upper left corner.
- y: the y-coordinate of upper left corner.
- x\_end: the x-coordinate of lower right corner.
- y\_end: the y-coordinate of lower right corner.
- thickness: the line width.

[Return value]

- NSData \*: Send data.

### 3.30 ellipseWithX

Draws ellipse on the label.

- (NSData \*) ellipseWithX: (int) x andY: (int) y andWidth: (int) width  
andHeight: (int) height andThickness: (int) thickness

[Parameter]

- x: the x-coordinate of upper left corner(in dots).
- y: the y-coordinate of upper left corner(in dots).

- width: specify the width of the ellipse(in dots).
- height: specify the height of the ellipse(in dots).
- thickness: the line width(in dots).

[Return value]

- NSData \*: Send data.

### 3.31 eraseWithX

Clears the specified region.

- (NSData \*) eraseWithX: (int) x andY: (int) y andWidth: (int) width andHeight: (int) height

[Parameter]

- x: the x-coordinate of starting point.
- y: the y-coordinate of starting point.
- width: the region width.
- height: the region height.

[Return value]

- NSData \*: Send data.

### 3.32 qrCodeWithX

Prints qr code.

- (NSData \*) qrCodeWithX: (int) x andY: (int) y andEccLevel: (NSString \*) ecclevel andCellWidth: (int) cellwidth andMode:(NSString \*) mode andRotation: (int) rotation andContent: (NSString \*) content usStrEnCoding: (NSStringEncoding) strEnCoding

[Parameter]

- x: the x-coordinate.
- y: the y-coordinate.
- ecclevel:

Variable	Describe
L	7%



Variable	Describe
M	15%
Q	25%
H	30%

- cellwidth: 1 ~ 10.

- mode:

Variable	Describe
A	Auto-generated coding
M	Manual-generated coding

- rotation: 0, 90, 180, 270

- content: qr data.

- strEnCoding: content's coding.

[Return value]

- NSData \*: Send data.

### 3.33 reverseWithX

Reverses a region.

- (NSData \*) reverseWithX: (int) x andY: (int) y andWidth: (int) width  
andHeight: (int) height

[Parameter]

- x: the x-coordinate of starting point.

- y: the y-coordinate of starting point.

- width: the region width.

- height: the region height.

[Return value]

- NSData \*: Send data.

### 3.34 textWithX

Prints text on label.

- (NSData \*) textWithX: (int) x andY: (int) y andFont: (NSString \*) font  
andRotation: (int) rotation andX\_mul: (int) x\_mul andY\_mul: (int) y\_mul  
andContent: (NSString \*) content usStrEnCoding: (NSStringEncoding)  
strEnCoding

[Parameter]

- x: the x-coordinate of starting point.
- y: the y-coordinate of starting point.
- font:

Variable	Describe
0	Monotype CG Triumvirate Bold Condensed, font width and height is stretchable
1	8 * 12 fixed pitch dot font
2	12 * 20 fixed pitch dot font
3	16 * 24 fixed pitch dot font
4	24 * 32 fixed pitch dot font
5	32 * 48 fixed pitch dot font
6	14 * 19 fixed pitch dot font
7	21 * 27 fixed pitch dot font
8	14 * 25 fixed pitch dot font

- rotation: 0, 90, 180, 270
- x\_mul: horizontal multiplication, up to 10x.
- y\_mul: vertical multiplication, up to 10x.
- content: text string.
- strEnCoding: content's encoding.

[Return value]

- NSData \*: Send data.

### 3.35 setAutoResponse

Set printer automatic return information

+ (NSData \*)setAutoResponse:(AutoResponse)response

Variable	Describe
OFF	Turn off the printer automatic return information function
ON	Turn on the printer automatic return information function
BATCH	Turn on the printer's automatic return information function to return information after the completion of the whole batch of tasks

[Return value]

- NSData \*: Send data.