

Configuration Guide



Version 1.2

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Table of Contents

1	Device Desc	rintion	1		
1. 2	Operating M	Indes			
2. 3	Function Ke	av Description	0		
З. Л	I ED Indicators and Buzzer Sound				
- 1 . 5	Bluetooth Connection				
5.	5.1 Spec	ifications			
	5.1. Spec	Transfer via Bluetooth Under Batch Mode			
	5.2. Data 5.3 SPD	Communication			
	531	Data Format of SPP Mode			
	5.3.2	Host Commands of SPP Mode			
	5.4. HID	Communication			
6.	USB Conne	ction			
	6.1. Spec	ifications			
	6.2. USB	Data Transfer Mode			
	6.3. Data	Format of USB Connection			
7.	Using CYCl	LOPS-Scanner			
8.	Configuring	CYCLOPS-Scanner錯誤!	尚未定義書籤。		
	8.1. Bate	h Mode Settings			
	8.1.1.	Data Transfer via USB Connection			
	8.1.2.	Data Transfer via SPP Master Mode			
		Data Italister via STT Waster Widde			
	8.1.3.	Data Transfer via SPP Slave Mode			
	8.1.3. 8.2. Real	Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode			
	8.1.3. 8.2. Real 8.3. Real	Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode -Time Mode Settings under SPP Mode			
	8.1.3. 8.2. Real 8.3. Real 8.3.1.	Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode			
	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2.	Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode			
	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2. 8.4. Hybr	Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode id Mode Settings under SPP Mode			
	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2. 8.4. Hybr 8.4.1.	Data Transfer via SFF Master Mode Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode tid Mode Settings under SPP Mode			
	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2. 8.4. Hybr 8.4.1. 8.4.2.	Data Transfer via SPP Slave Mode Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode tid Mode Settings under SPP Mode Hybrid Mode Settings under SPP Master Mode			
9.	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2. 8.4. Hybr 8.4.1. 8.4.2. System Deta	Data Transfer via SPP Slave Mode Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode id Mode Settings under SPP Mode Hybrid Mode Settings under SPP Master Mode Hybrid Mode Settings under SPP Slave Mode Hybrid Mode Settings under SPP Slave Mode			
9.	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2. 8.4. Hybr 8.4.1. 8.4.2. System Deta 9.1. Factor	Data Transfer via SPP Slave Mode Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode tid Mode Settings under SPP Mode Hybrid Mode Settings under SPP Master Mode Hybrid Mode Settings under SPP Slave Mode iil Configurations			
9.	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2. 8.4. Hybr 8.4.1. 8.4.2. System Deta 9.1. Facto 9.2. System	Data Transfer via SPP Slave Mode Data Transfer via SPP Slave Mode -Time Mode Settings under HID Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode tid Mode Settings under SPP Mode Hybrid Mode Settings under SPP Master Mode Hybrid Mode Settings under SPP Slave Mode iil Configurations ory Default Settings			
9.	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2. 8.4. Hybr 8.4.1. 8.4.2. System Deta 9.1. Facto 9.2. Syste 9.2.1.	Data Transfer via SPP Slave Mode Data Transfer via SPP Slave Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode Real-Time Mode Settings under SPP Mode Hybrid Mode Settings under SPP Mode Hybrid Mode Settings under SPP Master Mode Hybrid Mode Settings under SPP Slave Mode System Mode Settings			
9.	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2. 8.4. Hybr 8.4.1. 8.4.2. System Deta 9.1. Facto 9.2. Syste 9.2.1. 9.2.2.	Data Transfer via SPP Slave Mode Data Transfer via SPP Slave Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode Real-Time Mode Settings under SPP Mode rid Mode Settings under SPP Mode Hybrid Mode Settings under SPP Master Mode Hybrid Mode Settings under SPP Slave Mode UI Configurations Dry Default Settings Em Configuration Barcodes System Mode Settings			
9.	8.1.3. 8.2. Real 8.3. Real 8.3.1. 8.3.2. 8.4. Hybr 8.4.1. 8.4.2. System Deta 9.1. Facto 9.2. Syste 9.2.1. 9.2.2. 9.2.3.	Data Transfer via SPP Slave Mode Data Transfer via SPP Slave Mode -Time Mode Settings under SPP Mode Real-Time Mode Settings under SPP Master Mode Real-Time Mode Settings under Spp Slave Mode Real-Time Mode Settings under SPP Master Mode tid Mode Settings under SPP Mode Hybrid Mode Settings under SPP Master Mode Hybrid Mode Settings under SPP Slave Mode til Configurations ory Default Settings em Configuration Barcodes System Mode Settings HID Mode Settings SPP Mode Settings			

	9.2.5.	Barcode Reading and Scanner Settings	52
	9.2.6.	Setting Barcodes for Alpha-Numeric Entries	69
10.	Appendix	: 1	74
11.	Appendix	s 2	75

1. Device Descriptions



Item	Description
Scan Window	Reading light will be emitted through this window.
Charging LED	Battery Status
	Green ON : Charging Finish
	Green OFF : Battery Low
	Red ON : Charging
	Red OFF : Battery fail
Scan LED	Barcode Reading Status
	Green : Successful barcode reading
	Red : Barcode reading fail (time out)

Item	Description
Communication LED	Bluetooth Communication Status
	Blue QUICK-FLASH : Bluetooth is not connected
	Blue SLOW-FLASH : Bluetooth is Connected
	USB Connection Status
	Green ON : USB connected
	Green SLOW-FLASH : Transmission in process
SCAN Key	Press and hold more than 3 seconds : Power ON
	Press: Scan a Barcode
FUNCTION Key	In difference operating modes, it will have difference
	functions
	Please refer to < 3. Function Key Descriptions >.
USB Port	Plug in AC Adapter for charging or, plug in USB cable for
	data transfer.
RESET Button	Press the button, the device will be OFF
Strap Holes	To tie the wrist strap on

2. Operating Modes

This device have three Operating Modes, the factory default is Real-Time Mode.

Operating Modes can be changed by scanning configuration barcodes. As a security measure, Operating Modes can't be changed if there is any data record in the data file (data.txt) hasn't been uploaded .

Operating Mode	Descriptions					
Real-Time Mode	The scanned data will be transferred via Bluetooth connection and					
	the scanned data will not be transferred or saved in data file when					
	Bluetooth is disconnected.					
	HID Mode supports connection-error handshaking.					
	Application utility is needed to handle communication-error					
	handshaking and data receive / send in SPP Mode.					
Batch Mode	Scanned data will be saved in the device as < data.txt > file.					
	There are two different ways to retrieve the scanned data:					
	\diamond via Bluetooth communication : stored data can be retrieved via					
	Bluetooth SPP Mode connection.					
	\diamond via USB port : stored data file can be retrieved via USB cable					
	connection.					
	Stored data can be deleted in two different ways:					
	♦ Scan "Factory Default " configuration barcode;					
	\diamond Delete the data file on host PC after USB connection.					
Hybrid Mode	Scanned data will be transferred via Bluetooth connection and, if					
	Bluetooth is disconnected, the scanned data will be saved in the data					
	file. After Bluetooth been reconnected, records stored in the data file					
	will be transferred to host device in SPP Mode. After file transfer					
	been completed, records in the data file will be deleted automatically.					
	An application utility is needed to handle the handshaking protocol in					
	SPP Mode.					

* Customer can choose the most suitable Operating Mode based on the actual application environment.

3. Function Key Descriptions

The follow table gives the description of actions of the FUNCTION key in various Operating Modes.

	Actions						
	Power	Batch	Real-Time Mode		Hybrid Mode		
		Mode	HID	SPP	Disconnect	SPP	Disconnect
SCAN Key	Power						
(press more	ON^1	—			-		—
then 3							
seconds)							
SCAN Key		Data file					
+		transfer via					
FUNCTION		Bluetooth			-		—
Key		(WAIT					
		state ²)					
SCAN Key				Bar	code Scanning		
FUNCTION		DELETE	SEND	SEND	RECONNECT	SEND	RECONNECT
Key		one recode	key	key		Key	
		in data file ³	code ⁴	code ⁵		code	
RESET					RESET ⁶		
Button							

¹ CYCLOPS-I will auto Power off.

- ³ The "DELETE " function can be ENABLED or DISABLED based on your settings. Scanned data will be saved in the data file of Flash-ROM. You can delete the records in the data file. Datas records will be deleted one at a time so no multiple records will be deleted at the same " DELETE " action. DELETE will be executed in " Last In, First Out " (LIFO) manner.
- ⁴ The software keyboard of iPhone or iPad can be called by pressing FUNCTION key Via Bluetooth, Different Key Codes can be ENABLED or DISABLED for data transmission.
- ⁵ Different Key Codes can be ENABLED or DISABLED for data transmission.
- ⁶ CYCLOPS-I will be powered OFF after RESET.

Press SCAN key and hold more then 3 seconds, CYCLOPS-I will be ON and load the system configuration parameters.

 ² When in Bluetooth Data Transfer Mode, CYCLOPS-I will wait for host command from host devices like: smart phone, tablet device, or PC .

4.LED Indicators and Buzzer Sound

The follow table gives the description of LED indicators and buzzer sound on different events.

Device Status	SCAN LED	Charging LED	Bluetooth LED	Sound
Successful Scan	Green (50ms)			Bi
Scan Failed (5-sec	Red (300ms)			Bi, Bi, Bi
decoding time out)				
Successful	Green			Bi~, Bi
Configuration Scan	(100ms)			
Failed Configuration	Red(300ms)			Bu, Bu, Bu
Scan (5-sec time out)				
"SPP Slave Mode"				Bu, Bu
Set				
"SPP Master Mode"				Bi, Bi
Set				
"HID Mode" Set				Bu, Bi
"Real-Time Mode	Green			
Power-Up"				
"Batch Mode	Red			
Power-Up"				
"DO NOT RESET	Orange Flash			Bu~,Bu~,Bu
RTC" when	On : 300 ms			~
Power-Up (Batch	Off: 500 ms			(WARNING
Mode)	3 Times			sound)
"Data Record Found	Green Flash			
in Data File" When	On : 300 ms			
Power-Up	Off: 500ms			
	3 Times			
Memory Full	Red Flash			Bu~, Bu~
	On : 300 ms			(WARNING
	Off: 500ms			sound)
	3 Times			
"DELETE One	Orange			Bi, Bi,
Record in Data File"				
Successful				

CYCLOPS-I BT Scanner Configuration Guide

"Record Not Found				Bu, Bu, Bu
in Data File" When				(ERROR
press FUNCTION				Sound)
key to delete in				
Batch Mode.				
"Record Format of	Red(300ms)			Bu, Bu, Bu
Data File Been				(ALERT
Changed"				Sound)
"Battery Charging"		Red		
"Battery Charging		Red Flash		
Fail"		On : 100 ms		
		Off: 100ms		
"Charging		Green		
Completed"				
"Battery Low"		Red Flash		
		On : 200 ms		
		Off: 800ms		
"Bluetooth Pairing			Quickly Blue	
in Process"			Flash	
"Waiting for PIN			Quickly Blue	Bi~ ~ ~ ~
Code" when			Flash	(until pairing
Bluetooth Pairing				completed or
(time-out)
(60-sec time-out)				,
(60-sec time-out) "Bluetooth Paring			Quickly Blue	Bu~,Bu~,Bu
(60-sec time-out) "Bluetooth Paring Fail"			Quickly Blue Flash	Bu~,Bu~,Bu ~ (ERROR
(60-sec time-out) "Bluetooth Paring Fail"			Quickly Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound)
(60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth			Quickly Blue Flash Quickly Blue	Bu~,Bu~,Bu ~ (ERROR Sound)
 (60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" 			Quickly Blue Flash Quickly Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound)
 (60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" "Bluetooth 			Quickly BlueFlashQuickly BlueFlashSlow Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound) Bi, Bi
 (60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" "Bluetooth Connection 			Quickly BlueFlashQuickly BlueFlashSlow Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound) Bi, Bi
 (60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" "Bluetooth Connection Successful" 			Quickly BlueFlashQuickly BlueFlashSlow Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound) Bi, Bi
 (60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" "Bluetooth Connection Successful" "Bluetooth 			Quickly Blue FlashQuickly Blue FlashSlow Blue FlashSlow Blue FlashSlow Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound) Bi, Bi
(60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" "Bluetooth Connection Successful" "Bluetooth Connected"			Quickly Blue FlashQuickly Blue FlashSlow Blue FlashSlow Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound) Bi, Bi
 (60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" "Bluetooth Connection Successful" "Bluetooth Connected" "Bluetooth 			Quickly Blue FlashQuickly Blue FlashSlow Blue FlashSlow Blue FlashQuickly Blue	Bu~,Bu~,Bu ~ (ERROR Sound) Bi, Bi Bu, Bu
(60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" "Bluetooth Connection Successful" "Bluetooth Connected" "Bluetooth Disconnected or			Quickly Blue Flash Quickly Blue Flash Slow Blue Flash Slow Blue Flash Quickly Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound) Bi, Bi Bu, Bu
(60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" "Bluetooth Connection Successful" "Bluetooth Connected" "Bluetooth Disconnected or Connection Fail"			Quickly Blue FlashQuickly Blue FlashSlow Blue FlashSlow Blue FlashQuickly Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound) Bi, Bi Bu, Bu
(60-sec time-out) "Bluetooth Paring Fail" "No Bluetooth Connection" "Bluetooth Connection Successful" "Bluetooth Connected" "Bluetooth Disconnected or Connection Fail" "Bluetooth	Red		Quickly Blue FlashQuickly Blue FlashSlow Blue FlashSlow Blue FlashQuickly Blue FlashQuickly Blue FlashSlow Blue Flash	Bu~,Bu~,Bu ~ (ERROR Sound) Bi, Bi Bu, Bu

CYCLOPS-I BT Scanner Configuration Guide

Data File Has Been			
Transmitted Under			
Batch Mode"			
"Bluetooth	Red(when	Slow Blue Flash	
Reconnected and	data file is		
Data File Is Being	transmitting)		
Transmitted Under			
Hybrid Mode"			
USB Connected		Blue ON	
"USB Data Being		Quick Blue	
Transmitted"		Flash	
Press FUNCTION		Blue ON	
Key and Wait 6-sec			
While Bluetooth			
Being Reconnected			
"Firmware Is Being	Orange Flash		
Updated"			
"Firmware Update	Orange		
Finished"			

• Tone

Bi∶ short 、 High tone Bu∶ short 、 Low tone Bi∼ ∶ Long 、 High tone Bu∼ ∶ Long 、 Low tone

5. Bluetooth Connection

5.1. Specifications

CYCLOPS-I is a wireless interface device. It follows Bluetooth ver2.1+EDI Class II specification, including the SPP(Serial Port Profile) and HID(Human Interface Device Profile) on this device, The same profile must be available on the device (ex. iPhone, iPad or PC) to be paired for successful Bluetooth connections.

Items	Description			
Intensity of the	Class II			
Radio Power	Maximum transmission distance is 10-meter. Transmission distance			
	will differ in various application site conditions.			
Pairing	One CYCLOPS-I can only be paired with one host device. It can't be			
	paired with more then one host device at the same time.			
Communication	SPP : It is a Serial Port Profile communication for SPP Slave Mode			
	or SPP Master Mode.			
	HID: It is Human Interface Device communication.			
Authentication &	Authentication :			
Encryption	Default PIN Code is "0000". It can be changed by scanning			
	configuration barcodes.			
	Encryption :			
	The data can be encrypted by Bluetooth communication. Default			
	status is with no encryption. It can be ENABLED / DISABLED			
	by scanning configuration barcodes.			

* To connect CYCLOPS-I with iPhone and iPad of Apple products, the version of iOS must be 5.0 or beyond.

- * To connect CYCLOPS-I with Android-OS products like smart phone, the version of Android OS must be 4.0 or beyond.
- * To connect CYCLOPS-I with BT dongle of PC or laptop, the version of dongle must be 2.0 or beyond.

5.2. Data Transfer via Bluetooth Under Batch Mode

Scanned data saved in data file memory under Batch Mode can be retrieved via Bluetooth. CYCLOPS-I has to be changed to Bluetooth Data Transfer Mode. Please refer to < **5.3 SPP Communication** >.

Item	Description		
Data File	Two different ways to retrieve Data File via Bluetooth:		
Transferred via	$\Rightarrow \text{Press} \ (\text{ SCAN Key} + \text{FUNCTION Key})$		
Bluetooth	♦ Scan the "BT Data Transmission Mode Change" configuration		
	barcode (A033)		

5.3.SPP Communication

CYCLOPS-I will execute handshaking process with host device (ex. PC, iPhone, iPad, or Android smart devices) based on the setting of CYCLOPS-I configuration under SPP communication mode. So, a special application program has to be installed on the host device to handle the communication handshaking process with CYCLOPS-I.

Table below is for application setting reference.

Master Mode	CYCLOPS-I sends pairing request to host device.
	Please refer to <the about="" address="" b="" barcode="" bluetooth<="" of="" physical="" setting=""></the>
	module>.
	Bluetooth physical address of host device can only be 12-digital.
Slave Mode	Host device sends pairing request to CYCLOPS-I.
	Please refer to <the about="" b="" barcode="" device="" name="" of<="" setting=""></the>
	CYCLOPS-I>
	BT manger application of host device selects device name for CYCLOPS-I.

※ If CYCLOPS-I wants to be connected with BT dongle of PC or laptop, version of the dongle must be 2.0 or beyond.

5.3.1. Data Format of SPP Mode

Bluetooth communication of SPP mode is simulating the communication of virtual serial Port. Application software must be installed and executed at host device to handle the handshaking process with CYCLOPS-I.

[Prefix][Data Length][Data][Checksum][Suffix]				
Item	Byte Count	Value	Description	
Prefix	1	STX(0x02)	Start bit of SPP communication.	
Data Length	1		Length of Data	
Data			Scanned Data	
Check-Sum	2		Check-sum of Scanned Data	
Suffix	1	ETX(0x03)	Stop bit of SPP communication.	

Data format of SPP data transfer of CYCLOPS-I is as the following:

5.3.2. Host Commands

Under SPP Communication Mode, host device (including Android smart phone, PC) can send Host Command to CYCLOPS-I to control it's behavior. CYCLOPS-I will return the result to host device after executing the host command.

Data format of Host Command is shown as the following.

[Start][Command][Option][End]

Field	Format	Description
Start	!	Starting character of Host
		Command
Command	1~8	Host Command from 1 to 8, you
		can refer to <host b="" command<=""></host>
		function list table>
Option	YYYMMDDHHMM	Date & time of host device
End	CRLF(0x0D0A)	Stop character of Host Command

Data format of the result return sent by CYCLOPS-I to host device after executing host command is shown as the following.

Field	Format	Description
Start	RE	Starting character of response after executing
		host command
Command	1 ~ 8	Response after executing host command
		(among 1 to 8)
,		Separation
Response	ОК	Result after executing host command (among 1
	NG	to 8)
	YYMMDDHHMM	Date & time of CYCLOPS-I for host command
		3
	F	Battery status of CYCLOPS-I for host command
	Μ	4
	L	
	****	Record count of data file for host command 8
End	CRLF(0x0D0A)	Stop character of response after executing host
		command

[Start][Command][,][Response][End]

Details of host command and response return value, please refer to **<Host command function list>** table as follow.

Command 5 ~ 8 is used while CYCLOPS-I is in waiting state of **<Bluetooth Data Transmit** Mode>.

Host Command function list table

No	Function	Host Sends	Host Receives	Notes	
1	SCAN	!1 <crlf></crlf>	RE1,OK <crlf> and</crlf>	CYCLOPS-I will scan when	
			<data></data>	this host command be	
			RE1,NG <crlf></crlf>	executed, CYCLOPS-I will	
				return scan result and scanned	
				data according to SPP data	
				transfer format.	
2	Set Date and	!2YYYYMMDDHH	RE2,OK <crlf></crlf>	Date & Time of CYCLOPS-I	
	Time to	MM <crlf></crlf>	RE2,NG <crlf></crlf>	will be set according to this	
	CYCLOPS-I			command.	

No	Function	Host Sends	Host Receives	Notes
3	Read Date &	!3 <crlf></crlf>	RE3,	CYCLOPS-I will return Date &
	Time of		YYYYMMDDHHMM	Time according to this
	CYCLOPS-I		<crlf></crlf>	command to host device.
4	Power status	!4 <crlf></crlf>	RE4,F <crlf></crlf>	CYCLOPS-I will return battery
			RE4,M <crlf></crlf>	status to host device.
			RE4,L< CRLF>	F: battery is Full
				M: battery is half-full
				L: battery is Low
5	Send the	!5 <crlf></crlf>	None	CYCLOPS-I will send all
	Scanned Data			records of the <data.txt> in the</data.txt>
	File of			memory to host device.
	CYCLOPS-I			
6	Delete the	!6 <crlf></crlf>	RE6,OK <crlf></crlf>	CYCLOPS-I will delete the
	Scanned Data		RE6,NG <crlf></crlf>	<data.txt> file in the memory</data.txt>
	File of			
	CYCLOPS-I			
7	Communication	!7 <crlf></crlf>	RE7,OK <crlf></crlf>	CYCLOPS-I will wait for the
	"Wait" status		RE7,NG <crlf></crlf>	next coming host command.
				Scanning function of
				CYCLOPS-I, during this
				waiting period, will not work.
8	Recode Count	!8 <crlf></crlf>	RE8, XXXX <crlf></crlf>	CYCLOPS-I will return the
	of Data File			Record Count of <data.txt></data.txt>
				to host device.

5.4. HID Communication

CYCLOPS-I is pairing with iPhone, iPad (Apple products), or Android smart devices (various smart phones) via HID Communication Mode. CYCLOPS-I will be regarded as keyboard data entry device of these host devices. HID Mode is the default mode of CYCLOPS-I. Apple products or Android smart devices can be easily paired and connected with CYCLOPS-I without further configuration settings. As to how to connect with these host devices, please refer to the Bluetooth Menu of those host devices. By pressing FUNCTION key, CYCLOPS-I can call or hide the software keyboard on iPhone or iPad after CYCLOPS-I has been completed the Bluetooth connections with these host devices.

- X To connect CYCLOPS-I with iPhone or iPad, version of the iOS must be 5.0 or beyond.
- * To connect CYCLOPS-I with Android-based smart devices, version of Android OS must be 4.0 or beyond.
- * To connect CYCLOPS-I with BT dongle of PC or laptop, version of the BT dongle must be 2.0 or beyond.

Note :

If you want CYCLOPS-I be the keyboard data entry interface of iPhone or iPad, please select iPhone or iPad "language setting" as "**English**" first. If iPhone or iPad are not set as "**English**", barcode data scanned might be displayed in other language, unknown character, or scrambled manner.

6.1. Specifications

CYCLOPS-I has an USB port. It supports charging function when been connected through USB cable with host device USB port.

Item	Descriptions			
Communication	USB 2.0 Full speed			
Specification	USB Mass Storage Device			
Connector	Micro-USB, type B			
Charging	DC5V			
	Please charge CYCLOPS-I with AC adapter provided by Bitatek or			
	authorized distributors/resellers. CYCLOPS-I can also be charged using			
	the optional USB interface cable via host system USB port directly.			
	Charging CYCLOPS-I using unauthorized AC adapter might lead to			
	damaging CYCLOPS-I due to improper voltage or current ratings. Failed			
	to fully charge CYCLOPS-I is also possible if improper charging tool			
	been used.			
	Notes:			
	\diamond USB cable: please use standard CYCLOPS-I USB cable provided			
	by BITATEK or authorized distributor/reseller.			
	\diamond USB HUB might not be able to charge CYCLOPS-I due to not been			
	designed as standard USB power source.			
	\diamond Please pay special attention on abnormal charging time (extended			
	lengthy charging time or extremely short charging time) while			
	charging CYCLOPS-I via AC adapter or host device USB port.			
	\diamond Bluetooth communication and barcode scanning functions are			
	normal and operational on CYCLOPS-I while been charged by AC			
	adapter.			
	\diamond Bluetooth communication and barcode scanning functions will be			
	disabled on CYCLOPS-I while been charged via USB port.			

6.2. USB Data Transfer Mode

Under Batch Mode, the scanned data will be saved into the <data.txt> file of CYCLOPS-I memory. These scanned data can be retrieved via the optional CYCLOPS-I USB cable.

Items	Description
Transfer	Connected with PC:
	When CYCLOPS-I is connected with host device via USB cable,
	CYCLOPS-I memory will be regarded as a USB disk (Mass Storage
	Device)
	*Please use the optional USB cable provided by Bitatek or Bitatek
	authorized distributor/reseller.
USB Memory	Under Batch Mode, maximum records of <data.txt> are 8000 records</data.txt>
Function	which includes two files in the memory of CYCLOPS-I:
	1. Data.txt: Under Batch Mode, the scanned data will be saved into
	this file. If connecting CYCLOPS-I using USB cable
	with host device, this file can be read or deleted.
	2. System.cfg: This is the configuration file of CYCLOPS-I. When
	this file been modified or changed then reloaded into
	CYCLOPS-I, after rebooting, CYCLOPS-I's behavior
	will be changed accordingly.
Notes	Under USB Data Transfer Mode, the following functions will be
	limited:
	 Bluetooth communication will be disabled;
	Barcode scanning and other operations will be disabled.

6.3. Data Format of Data File

The recode size is 128-Byte/record in <data.txt>. Scanned data will be saved into this data file according to details as described in <**9.2.4 Batch Mode Settings**>. Data format of <data.txt> is described as in the following.

Field	Bytes	Default Value	Description	
Mark	1		Special Mark	
			+: Added	
			—: Deleted	
			# : Send-Out OK	
Check-sum	4		Check-sum:	
			2-digital of ASCII Code	
Delimiter	1		"Separator" mark	
Time Stamp	19	YYYY/MM/DD,hh:mm:ss	Date & Time:	
			"Separator" of Date & Time is	
			the same as "Delimiter" field.	
Delimiter	1		"Separator" mark	
Scanned	100		Scanned data:	
Data			For scanned data length shorter	
			than 100-Byte, system of	
			CYCLOPS-I will fill blanks	
			behind the scanned data to fill all	
			100-Byte.	
Record	2	CRLF(0x0D0A)	"Terminator" of each record.	
Termination				

[Mark][Checksum][Delimiter][Timestamp][Delimiter][Data][Termination]

7. Using CYCLOPS-scanner

The user can follow the follow chart to select the best mode for use.



CYCLOPS-I BT Scanner Configuration Guide

8. Configuring CYCLOPS-Scanner

To choose the most suitable Mode to use CYCLOPS-I in your application, please refer to <**7**. Using CYCLOPS-I Scanner>.

8.1. Batch Mode Setting

If the application needs to scan barcode data and store the scanned data into the memory of CYCLOPS-I, Batch Mode will be the mode suitable for this application.

Scanned data stored in the CYCLOPS-I memory can be retrieved in two different ways:

1. via USB connection: please refer to <6. USB Connection>

2. via Bluetooth connection: It will need an application be installed and running on the host device like Android smart phone > PC. please refer to <**5. Bluetooth Connection**>.

8.1.1. Data Transfer via USB Connection

Function	Parameter	Setting Barcode	Code ID
Commu.	SPP Slave		A002A
Setting	Mode		
Operat.	Batch Mode		A014A2
Mode			
Setting			

X CYCLOPS-I must be set in SPP Slaver Mode even if the data will be transferred via USB cable.

8.1.2. Data Transfer via SPP Master Mode

Function	Parameter	Setting Barcode	Code ID
Enter	Input		B001A
Physical			
Address of			
BT Module			
Commu.	Enter SPP		A001B
Start	Master		
	Mode		
Operat.	Batch Mode		A014A2
Mode			
Setting			
Wait Host	Start Data		A033A
Command	Transfer		
under	via		
Bluetooth	Bluetooth		
Commu.	Commu.		

%Please refer to **<Setting Barcode About Bluetooth Device Name of CYCLOPS-I**> of

<9.2.1 System Mode Setting>

8.1.3. Data transfer via SPP Slave Mode

Function	Parameter	Setting Barcode	Code ID
Commu. Setting	SPP Slave Mode		A002A

Function	Parameter	Setting Barcode	Code ID
Operat. Mode	Batch		A014A2
Setting	Mode		
Wait Host	Start Data		A033A
Command	Transfer		
Under	via		
Bluetooth	Bluetooth		
Commu.	Commu.		

8.2. Real-Time Mode Setting Under HID Mode

CYCLOPS-I, when been paired with iPhone, iPad of Apple product, or other host devices like Android smart phone, tablet, or PC and CYCLOPS-I acts like a keyboard input of these host devices. Please use Real-Time Mode under HID Mode.

Real-Time Mode and HID Mode are factory default status of CYCLOPS-I. These host devices can be quickly paired with CYCLOPS-I.

- X If CYCLOPS-I wants to be connected with iPhone, iPad of Apple products, version of the iOS must be 5.0 or beyond.
- If CYCLOPS-I wants to be connected with smart phone of Android products, version of Android OS must be 4.0 or beyond.
- If CYCLOPS-I wants to be connected with BT dongle of a PC or laptop, version of the BT dongle must be 2.0 or beyond.

Function	Parameter	Setting Barcode	Code ID
Operat. Mode	Real-Time		A014A1
Setting	Mode		
Commu. Setting	HID Mode		A003A

8.3. Real-Time Mode Setting Under SPP Mode

If fault-proof of Bluetooth data transmission is among all critical requirements, Real-Time Mode under SPP Mode should be chosen for this task.

Real-Time Mode under SPP Mode is a virtual serial port data communication between CYCLOPS-I and host device. Related communication protocols can be configured to prevent data error (been lost or altered).

A dedicated application utility installed on the host device (like Android smart phone, PC, --etc) will be needed. Please refer to **<5. Bluetooth Connection>**.

8.3.1. Real-Time Mode Setting Under SPP Master

Function	Parameter	Setting Barcode	Code
			ID
Enter	Input		B001A
physical			
Address of			
BT			
Module			
Commu.	Enter SPP		A001B
Start	Master		
	Mode		
Operat.	Real-Time		A014A1
Mode	Mode		
Setting			

Mode

please refer to **<Setting Barcodes About Bluetooth Device Name of CYCLOPS-I>** of **<9.2.1 System Mode Setting>**.

8.3.2. Real-Time Mode Setting Under SPP Slave Mode

Function	Parameter	Setting Barcode	Code ID
Commu.	SPP Slave		A002A
Setting	Mode		
Operat.	Real-Time		A014A1
Mode	Mode		
Setting			

8.4. Hybrid Mode Setting Under SPP Mode

Due to out of range or other reasons, Bluetooth might be disconnected sometimes while CYCLOPS-I is in use. In order to avoid data loss, CYCLOPS-I system will save the scanned data into the data file of memory of CYCLOPS-I in Hybrid Mode. After the Bluetooth been reconnected, CYCLOPS-I system will transmit the stored data back to host device in a "First In, First Out " (FIFO) manner.

An application utility needs to be installed and running on the host device (like Android smart phone, PC). Please refer to **<5. Bluetooth Connection>**.

8.4.1. Hybrid Mode Setting Under SPP Master Mode

Function	Parameter	Setting Barcode	Code ID
Enter the	Input		B001A
Physical			
Address of			
BT			
Module			

Function	Parameter	Setting Barcode	Code ID
Commu.	Enter SPP		A001B
Start	Master		
	Mode		
Operat.	Hybrid		A014A3
Mode	Mode		
Setting			

8.4.2. Hybrid Mode Setting under SPP Slave Mode

Function	Parameter	Setting Barcode	Code ID
Commu.	SPP Slave		A002A
Setting	Mode		
Operat.	Hybrid		A014A3
Mode	Mode		
Setting			

9. System Detail Configurations

9.1. Factory Default Settings

CYCLOPS-I Factory Default Parameters are shown as in the following table.

Item	Default
CYCLOPS-I Operating Mode	Real-Time Mode
Communication Mode	HID Mode
Device Name	BTS600 + last 4-digital of BT MAC Address
Authentication	Disable
Encryption	Disable
PIN Code	"0000"
Auto Power-OFF Time-Out	3-minute
Beep on Reconnect/Disconnect	Enable
Beep on Failed Scan	Enable
Buzzer Sound Volume	High

Default Parameters of Real-Time Mode under HID Mode are shown as in the table below.

Item	Default
Record Termination Character	Carriage Return(Enter)
Function Key Code	Eject Key 🔆
Delay Time Before Data Transmission	None
Delay Time Between Characters	None

* Press FUNCTION Key will call soft keyboard of iPad or iPhone display / hide, The FUNCTION key can be enable/disable by setting.

Under SPP Mode, the Real-Time Mode, Batch Mode (Bluetooth data transfer mode), and Hybrid Mode settings are shown as in the following table.

Item	Default
Master Mode Reconnection Interval	30 seconds
SPP Data Transfer Format	STX[Digit][Data][CheckSum]ETX
ACK/NAK Handling of SPP Mode	Enable ACK/NAK handling
	*

* Under Real-Time Mode and Batch Mode, the "ACK/NAK Handling of SPP Mode " can be set enable / disable, In Hybrid Mode, this has to be "enable", can not be changed to "disable".

Default Parameters of Batch Mode are shown as in the following table.

These settings will not affect Real-Time Mode initialization.

Item	Default
Time Stamp Format	YYYY/MM/DD,hh:mm:ss
Record Termination Character	CRLF
Termination Character	,
Data Transfer Sequence	Unsent Data Only
Memory Initialization Setting After Data	Disable (data file will not be deleted)
Transmission	

Default Parameters of CYCLOPS-I scanner are listed as in the following table.

Item	Default
Trigger Mode	Level
Codabar, MSI, Discrete 20f5,	Level 4
Interleave 20f5	
Inverse Barcode	Regular
Code ID character	Disable
UPC-A	Enable
UPE-E	Enable
UPE-E1	Enable
EAN-8	Enable
EAN-13	Enable
Bookland EAN	Disable
Bookland ISBN Format	ISBN-10
UPC/EAN supplemental (Add On)	None

Item	Default
UPC/EAN/JAN supplemental	Combined
AIM Code ID format	
UPC-A check-digit	Enable
UPC-E check-digit	Enable
UPC-E1 check-digit	Enable
UPC-A preamble	System
UPC-E preamble	System
UPC-E1 preamble	System
UPC-E convert to UPC-A	Disable
UPC-E1 convert to UPC-A	Disable
EAN-8 convert to EAN-13	Disable
UPC/EAN security level	Level 3
UCC coupon expend code	Disable
Coupon Report	Both Coupon
ISS EAN	Disable
Code 128	Enable
GS1-128	Enable
ISBT-128	Enable
ISBT- connect	Disable
ISBT table check	Enable
Code 39	Enable
Trioptic Code 39	Disable
Code39 convert to Code32	Disable
Code32 prefix	Disable
Code39 check-digit verify	Disable
Code39 check-digit transfer	Disable
Code39 full ASCII transfer	Disable
Code 93	Disable
Code 11	Disable
Code 11 check-digit verify	Disable
Code 11 check-digit transfer	Disable
I 2 of 5(Interleave 2 of 5)	Enable
I 2 of 5 check-digit verify	Disable
I2 of 5 check-digit transfer	Disable

Item	Default
I2 of 5 convert to EAN13	Disable
Discrete 2 of 5	Disable
Chinese 2 of 5	Disable
Matrix 2 of 5	Disable
Matrix 2 of 5 Redundancy	Disable
Matrix 2 of 5 check-digit verify	Disable
Matrix 2 of 5 check-digit transfer	Disable
Codabar(NW7)	Enable
CLSI	Disable
NOTIS	Disable
MSI	Disable
MSI check-digit	One
MSI check-digit transfer	Disable
MSI check-digit algorithm	MOD 10 /mod 10
GS1 Databar omni-directional	Enable
GS1 DataBar Limited	Enable
GS1 DataBar Expanded	Enable
GS1 DataBar	Disable

9.2. System Configuration Barcodes

CYCLOPS-I was configured and shipped with all functions and parameters following Factory Default values. Please refer to <**9.1 Factory Default Settings**> for all details. , To change related settings, the configuration barcodes provided hereinafter are for you to further tailor CYCLOPS-I fit in your applications better.

9.2.1. System Mode Settings

The Setting barcode of action mode and Bluetooth communication as follow..

Real-Time Mode:

When CYCLOPS-I is in Batch Mode or Hybrid Mode, if there is any record remained in <data.txt> file in the memory, CYCLOPS-I will not be allowed to be switched to Real-Time Mode. Records in <data.txt> file has to be deleted first before changing CYCLOPS-I to Real-Time Mode.

Function	Parameter	Setting Barcode	Code ID
Real-Time Mode	SPP Master Mode		A001B
			A014A1
	SPP Slave		A002A
	Mode		
			A014A1
	HID Mode		A014A1
			A003A

* Please enter the physical address of BT module of the Host Device first, when use SPP Master Mode.

Please refer to<Setting Barcodes of Alpha-Numeric Entries>.

Batch Mode:

Function	Parameter	Setting Barcode	Code ID
Batch Mode	USB Data Transfer Mode		A002A
			A014A2
	Data Transfer Mode under SPP Master		A001B
	Mode		A014A2
	Data transfer Mode under SPP Slave		A002A
	Mode		A014A2

When using USB Data Transfer Mode, CYCLOPS-I needs to be set to SPP Slave Mode.

Hybrid Mode:

Function	Parameter	Setting Barcode	Code ID
Hybrid	SPP Master		A001B
Mode	Communica		
	tion mode		
			A014A3
	SPP Slave		A002A
	communicat		
	ion mode		
			A014A3

Please enter the physical address of BT module of the Host Device first, when using SPP Master Mode.

Please refer to<Setting Barcode of Alpha-Numeric Entries>

Setting Barcodes of Physical Address of Bluetooth Module

Factory Default setting of CYCLOPS-I is in SPP Master Mode. This will make CYCLOPS-I can be connected with host device easily.

Physical address of Bluetooth module is 12-digit contains only 0~9, A~F. Please use barcodes listed in <**9.2.6 Setting Barcodes of Alpha-Numeric Entries**> to enter the physical address of Bluetooth module.

Function	Parameter	Setting Barcode	Code ID
Enter	Input		B001A
Physical			
Address of			
BT Module			

Setting Barcodes for Device Name of CYCLOPS-I

CYCLOPS-I device name, as Factory Default, is "BTS600" + "last 4-digit of physical address of BT module".

You can change the device name of CYCLOPS-I using the following setting barcodes.

You can enter maximum 31-character for device name, you can and only enter 0~9, A~Z, a~z. Please use barcodes in <**9.2.6 Setting Barcodes of Alpha-Numeric Entries**> to enter device

name.

Function	Parameter	Setting Barcode	Code ID
Device Name Setting	Input		B011A

Setting Barcode of Bluetooth Authentication

Function	Parameter	Setting Barcode	Code ID
Bluetooth	Enable		A008A
Authentica.			
Setting			
	Disable		A008B

Setting Barcode of Bluetooth Encryption

Function	Parameter	Setting Barcode	Code ID
Bluetooth	Enable		A009A
Encryption			
Setting			
	Disable		A009B

Setting Barcodes of PIN Code

You can enter 16-character for PIN Code, you can and only enter 0~9, A~Z, a~z.

Please use barcodes in **<9.2.6 Setting Barcodes of Alpha-Numeric Entries**> to enter the PIN code.

Function	Parameter	Setting Barcode	Code ID
PIN Code Setting	Input		B018A

Setting Barcode of Default PIN Code

Factory default PIN code of CYCLOPS-I is"0000".

Setting	Setting Barcode	Code ID
Return to Default PIN		A017A
Code		

Function	Parameter	Setting Barcode	Code ID
Power-OFF Time-Out Setting.	1-minute		A004A1
	3-minute		A004A2
	5-minute		A004A3
	10-minute		A004A4
	15-minute		A004A5
	30-minute		A004A6
	45 minutes		A004A7
	60-minute		A004A8

Setting Barcode of Power-OFF Time-Out Value
Function	Parameter	Setting Barcode	Code ID
Beep on	Enable		A005A
Reconnect /			
Disconnect			
Setting			
	Disable		A005B

Setting Barcodes of Buzzer Indication on Reconnect/Disconnect

Setting Barcodes of Buzzer Indication on Failed Scan

Function	Parameter	Setting Barcode	Code ID
Beep on	Enable		A006A
Failed Scan			
Setting			
	Disable		A006B

Function	Parameter	Setting Barcode	Code ID
Buzzer Sound Volume Setting	Off		A010A0
	Low		A010A1
	Middle		A010A2
	High		A010A3

Setting Barcode of Buzzer Sound Volume

Setting Barcode of Restore Factory Default

Setting	Setting Barcode	Code ID
Restore Factory Default Setting		A012A

9.2.2. HID Communication Settings

Function	Parameter	Setting Barcode	Code ID
HID	0x28		A021A
Termination			
-Character			
Setting			

HID Termination-Character Setting

You can utilize the following barcodes to add "Additional Termination-Characters" to the scanned data, including Combination Keys (such as "Shift", "Alt", "Ctrl").

Alpha-Numeric character setting must be entered in 2-digit word (Hex format) and the word can only be $0 \sim 9$, A ~ F. For example, to set "#" as the termination character, you have to scan the barcode ID" B019B" first, then, "2", "0", "EOC".

Please use barcodes listed in **<9.2.6 Setting Barcodes of Alpha-Numeric Entries** > to enter additional characters.

Function	Parameter	Setting Barcode	Code ID
Normal Key Setting	Input		B021A
Additional Characters +"Shift" Key Setting	Input		B021B
Additional characters +"Alt" Key Setting	Input		B021C
Additional Characters +"Ctrl" Key Setting	Input		B021D

HID Termination Character Setting

You can utilize the following barcode to transfer Function Key codes, including Combination Keys (such as "Shift", "Alt", "Ctrl").

Alpha-Numeric character setting must be entered in 2-digit word (Hex format) and the word can only be $0 \sim 9$, A ~ F. For example, to set "#" as the termination character, you have to scan the barcode ID" B019B" first, then, "2"," 0"," EOC".

Please use barcodes of **<9.2.6 Setting Barcodes of Alpha-Numeric Entries**> to enter key codes accordingly.

Function	Parameter	Setting Barcode	Code ID
Transfer Key	Disable		A022A
Code of			
Function Key			
	Enable		A022B

Setting Barcodes for Transfer Key Codes of Function Key

Setting Barcodes for Combination Keys Associated With Function Key

Function	Parameter	Setting Barcode	Code ID
Function Key Code Setting under HID Real-Time Mode	Input		B022A
Function Key Code +" Shift" Key under HID Real-Time Mode	Input		B022B
Function Key Code + "Alt" Key code under HID Real-Time Mode	Input		B022C
Function Key Code +" Ctrl" Key code under HID Real-Time Mode	Input		B022D

CYCLOPS-I BT Scanner Configuration Guide

Function	Parameter	Setting Barcode	Code ID
Delay Time	None		A023A0
Before			
Sending			
Data of			
Each	100 ms		A023A1
Record			
	200 ms		A023A2
	300 ms		A023A3
	500 ms		A023A4

Setting Barcodes for Delay Time Before Data Transmission under BT Communication

Function	Parameter	Setting Barcode	Code ID
Delay	none		A024A0
Time			
Between			
Characters			
of Each	10 ms		A024A1
Data Sent			
	20 ms		A024A2
	30 ms		A024A3

Setting Barcodes for Delay Time Between Characters under BT Communication

9.2.3. SPP Mode Setting

This section is detailed settings about Real-Time Mode, Batch mode (Bluetooth data transfer mode), and Hybrid Mode under SPP Mode.

Function	Parameter	Setting Barcode	Code ID
SPP Master Mode Reconnecting Time Interval	None		A007A0
	15 sec		A007A1
	30 sec		A007A2
	45 sec		A007A3
	1 min		A007A4
	5 min		A007A5
	10 min		A007A6
	15 min		A007A7

Setting Barcodes for SPP Master Mode Reconnecting Time Interval



Data Transfer Format Setting under SPP Mode

When CYCLOPS-I is configured in Batch Mode or Hybrid Mode, if there is any records remained (not uploaded, not deleted) in <data.txt> file in the memory, the following configuration change can not be allowed.

Setting Barcodes of Prefix

Prefix setting must be 2-digit word, and the word can only be $0\sim9$, A ~ F. For example, to set "," as Prefix, you have to scan the barcode ID "B019A" first, then, "3", "3", and "EOC".

Please use barcodes listed in **<9.2.6 Setting Barcodes of Alpha-Numeric Entries**> to set up the Prefix needed for scanned data.

Function	Parameter	Setting Barcode	Code ID
Prefix	STX(0x02)		_
Setting	Input		B019A

Function	Parameter	Setting Barcode	Code ID
Digit	Digit Exist		A019A
Setting			
	No Digit		A019B

Function	Parameter	Setting Barcode	Code ID
Check-Sum	Check-Sum		A019C
Setting	Exist		
	No Check-Sum		A019D

Setting Barcodes of Suffix

Suffix setting must be 2-digit word, and the word can only be $0\sim9$, A ~ F. For example, to set "," as Suffix, you have to scan the barcode ID "B019A" first, then, "3", "3", and "EOC".

Please use barcodes listed in **<9.2.6 Setting Barcodes of Alpha-Numeric Entries**> to set up the Suffix needed for scanned data.

Function	Parameter	Setting Barcode	Code ID
Suffix	ETX(0x03)		
Setting	Input		B019B

Setting Barcodes for the Handshaking of SPP Mode

When CYCLOPS-I is in Batch Mode or Real-Time Mode, based on the application scenario, CYCLOPS-I can be either Enabled or Disabled for the handshaking protocol, "ACK/NAC of SPP communication"

SPP communication".

If CYCLOPS-I is in Hybrid Mode, the handshaking protocol, "ACK/NAC of SPP communication", has to be Enabled and can not be changed into Disabled.

Function	Parameter	Setting Barcode	Code ID
ACK /NAK	Enable		A020A
of SPP			
Commu.			
Setting			
	Disable		A020B

Setting Barcodes about ACK/NAK of SPP Communication

Setting Barcodes for Time-Out of ACK/NAK of SPP Communication

Function	Parameter	Setting Barcode	Code ID
Time-Out of ACK /NAK of SPP Commu.	100 ms		A020C1
Setting	200 ms		A020C2
	300 ms		A020C3
	500 ms		A020C4
	1 seconds		A020C5
	2 seconds		A020C6

CYCLOPS-I BT Scanner Configuration Guide

3 seconds	A020C7
5 seconds	A020C8

Setting Barcodes for Retry-Cycle of ACK/NAK of SPP Communication

Function	Parameter	Setting Barcode	Code ID
Retry-Cycle	None		A020D0
of ACK			
/NAK of			
SPP			
Commu.	1 cycle		A020D1
Setting			
	2 cycles		A020D2
	3 cycles		A020D3

Setting Barcodes for Key Code Sent When Press FUNCTION Key

The Key code setting must 2 digital word, and the word can only 0~9, A ~ F. For example, Scan the barcode Id^{\lceil} B019A $_{ }$ first, then $\lceil 3], \lceil 3], \lceil EOC]$, Key code is $\lceil ,]$ Please use barcode of **[9.2.6 Alpha-Numerical Setting barcode]** to enter the Key code \circ Please reference key code on **Append 2**

Function	Parameter	Setting Barcode	Code ID
Key Code	None		_
Sent When	(Default)		
Press			
FUNCTION			
Key			
Key Code	Input		B019C
Sent When			
Press			
FUNCTION			
Key			

9.2.4. Batch Mode Settings

Function	Parameter	Setting Barcode	Code ID
Time Stamp	Disable		-
Setting	(#		
)		
	≫_ is		
	space		
	Enable		A027A1
	(YYYY/		
	MM/DD#		
	hh:mm:ss)		

Setting Barcodes for Time Stamp

"#" is a Termination Character. Please refer to <**Termination Character Setting**> in the following table.

Function	Parameter	Setting Barcode	Code ID
Termination	;		A028A1
Character			
Setting			
	Space		A028A2
	Tab		A028A3

Function	Parameter	Setting Barcode	Code ID
Record Termination Character Setting	None		A026A0
	,		A026A1
	Space		A026A2
	CR		A026A3
	LF		A026A4

CRLF	A026A5
Tab	A026A6

Setting Barcodes for RTC Time Clock

Function	Parameter	Setting Barcode	Code ID
Read RTC Date	Start		A034A

Year: please use 4-digit, in AD.

Month: please use 2-digit.

Date : please use 2-digit.

Please use barcodes listed in **<9.2.6 Barcodes for Alpha-Numeric Entries**> to enter Date.

Function	Parameter	Setting Barcode	Code ID
Set RTC Date	Input		B035A

Hour: please use 2-digit.

Minutes: please use2-digit.

Please use barcodes listed in **<9.2.6 Barcodes for Alpha-Numeric Entries>** to enter Time.

Function	Parameter	Setting Barcode	Code ID
Set RTC time setting	input		B036A

Setting	Barcodes	of Bluetooth	Data	Transfer
	201200000			

Function	Parameter	Setting Barcode	Code ID
BT Data	Batch Mode		A033A
Transmission			
Mode	BT		
Change	Data		
	Transmission		
	Mode		

* This is the same as pressing SCAN + FUNCTION Key

Function	Parameter	Setting Barcode	Code ID
Data Transfer Sequence Setting	From Top		A038A1
	Unsent Data Only		A038A2

Function	Parameter	Setting Barcode	Code ID
Memory	Enable		A030A
Initialization			
Setting After			
Data			
Transmission	Disable		A030B
Setting			

Setting Barcode of FUNCTION Key

Function	Parameter	Setting Barcode	Code ID
FUNCTION.	Enable		A037A
Key Setting			
	Disable		A037B

Setting Barcode for USB Memory Initialization

The data file will be deleted on the USB memory include Data.txt and system.cfg

Function	Setting Barcode	Code ID
Memory Initialization		A029A

9.2.5. Barcode Reading and Scanner Setting

Function	Parameter	Setting Barcode	Code ID
Trigger	Level		A040A0
Mode			
	Continuous		A040A1
Linear Code	Level 1		A041A1
Туре			
Security			
Level			

For Codabar MSI Discrete 2	Level 2	A041A2
of 5 Interleaved 2 of 5	Level 3	A041A3
	Level 4	A041A4
Inverse 1D Barcode	Regular	A098A0
	Only Inverse Barcode	A098A1
	Auto	A098A2
Code ID	None	A112A0

	AIM Code ID	A112A1
	Symbol Code ID	A112A2
UPC-A	Disable	A042A0
	Enable	A042A1
UPE-E	Disable	A043A0
	Enable	A043A1
UPE-E1	Disable	A044A0
	Enable	A044A1
EAN-8	Disable	A045A0

	Enable	A045A1
EAN-13	Disable	A046A0
	Enable	A046A1
Bookland EAN	Disable	A047A0
	Enable	A047A1
Bookland ISBN Format	ISBN-10	A048A0
	ISBN-13	A048A1
Decode UPC/EAN Supplement	Ignore supplement	A049A0
	Decode with supplement	A049A1

	Auto-Discr. UPC/EAN Supplement	A049A2
	Enable Smart Supplement Mode	A049A3
	Enable 378/379 Supplement Mode	A049A4
	Enable 978/979 Supplement Mode	A049A5
	Enable 414/419/434 /439 Supplement Mode	A049A6
	Enable 977 Supplement Mode	A049A7
	Enable 491 Supplement Mode	A049A8
UPC/EAN/ JAN AIM Code ID Format	Separate	A051A0
	Combined	A051A1

	Separate Transmi.	A051A2
UPC-A Check- Digit Transfer	Disable	A052A0
	Enable	A052A1
UPC-E Check- digit Transfer	Disable	A053A0
	Enable	A053A1
UPC-E1 Check- digit Transfer	Disable	A054A0
	Enable	A054A1
UPC-A Preamble	None	A055A0
	System	A055A1

	Country Code	A055A2
UPC-E Preamble	None	A056A0
	System	A056A1
	Country Code	A056A2
UPC-E1 Preamble	None	A057A0
	System	A057A1
	Country code	A057A2
UPC-E Convert to UPC-A	Disable	A058A0
	Enable	A058A1

UPC-E1 Convert to UPC-A	Disable	A059A0
	Enable	A059A1
EAN-8 Convert to EAN-13	Disable	A060A0
	Enable	A060A1
UPC/EAN Security Level	Level 0	A061A0
	Level 1	A061A1
	Level 2	A061A2
	Level 3	A061A3
UPC Coupon Extend Code	Disable	A062A0

	Enable	A062A1
Coupon Report	Old Coupon Report	A063A0
	New Coupon Report	A063A1
	Both Coupon	A063A2
ISSN EAN	Disable	A064A0
	Enable	A064A1
Code128	Disable	A065A0
	Enable	A065A1
GS1-128	Disable	A067A0

	Enable	A067A1
ISBT 128	Disable	A068A0
	Enable	A068A1
ISBT Concaten.	Disable	A069A0
	Enable	A069A1
	Auto	A069A2
Check ISBT Table	Disable	A070A0
	Enable	A070A1
Code 39	Disable	A071A0

	Enable	A071A1
Trioptic Code 39	Disable	A072A0
	Enable	A072A1
Convert Code39 to Code32	Disable	A073A0
	Enable	A073A1
Code32 Prefix	Disable	A074A0
	Enable	A074A1
Code39 Check-Digit Verification	Disable	A076A0
	Enable	A076A1

Transmit Code39 Check-Digit	Disable	A077A0
	Enable	A077A1
Code39 Full ASCII	Disable	A078A0
	Enable	A078A1
Code 93	Disable	A079A0
	Enable	A079A1
Code 11	Disable	A081A0
	Enable	A081A1
Code11 Check-Digit Verification	Disable	A083A0

	One Digital	A083A1
	Two Digital	A083A2
Transmit Code11 Check-Digit	Disable	A084A0
	Enable	A084A1
Interleaved 2 of 5	Disable	A085A0
	Enable	A085A1
I 2 of 5 Check-Digit Verification	Disable	A087A0
	USS check digit	A087A1
	OPCC check digit	A087A2

Transmit I 2	Disable	A088A0
Digit		
	Enable	A088A1
Convert I 2 of 5 to EAN-13	Disable	A089A0
	Enable	A089A1
Discrete 2 of 5	Disable	A090A0
	Enable	A090A1
Chinese 2 of 5	Disable	A092A0
	Enable	A092A1
Matrix 2 of 5	Disable	A093A0

	Enable	A093A1
Matrix 2 of 5 Redundancy	Disable	A095A0
	Enable	A095A1
Matrix Check-Digit Verification	Disable	A096A0
	Enable	A096A1
Transmit Matrix Check-Digit	Disable	A097A0
	Enable	A097A1
Codabar (NW7)	Disable	A099A0
	Enable	A099A1

CLSI Editing	Disable	A101A0
	Enable	A101A1
NOTIS Editing	Disable	A102A0
	Enable	A102A1
MSI	Disable	A103A0
	Enable	A103A1
MSI Check- Digit	Disable	A105A0
	Enable	A105A1
Transmit MSI Check- Digit	Disable	A106A0

	Enable	A106A1
MSI Check- Digit Algorithm	Disable	A107A0
	Enable	A107A1
GS1-DataB ar	Disable	A108A0
	Enable	A108A1
GS1 DataBar Limited	Disable	A109A0
	Enable	A109A1
GS1 DataBar Expanded	Disable	A110A0
	Enable	A110A1

Convert GS1 DataBar to UPC/EAN	Disable	A111A0
	Enable	A111A1

9.2.6. Barcodes for Alpha-Numeric Entries

Function	Setting Barcode	Code ID
Stop Input		EOC
Cancel		CL

This table is for Alpha-Numeric character entries.

Function	Setting Barcode	Code ID	Setting Barcode	Code ID
Numeric (Include Hex)		0		1
		2		3
		4		5
		6		7
		8		9
		A		В
		C		D
		E		F

Function Setting Barcode C	Code ID	Setting Barcode	Code ID
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Alphabetic Letter	A	В
	С	D
	Ε	F
	G	Н
	Ι	J
	K	L
	Μ	Ν
	0	Р
	Q	R

	S	Т
	U	V
	W	Х
	Y	Z
	a	b
	с	d
	e	f
	g	h
	i	j
	k	1
--	---	---
	m	n
	Ο	р
	q	r
	S	t
	u	v
	W	Х
	у	Z

10. Appendix 1

How to make the setting Code

Code type of the configuration and setting barcodes for CYCLOPS-I is Code128 You can make the setting barcodes of BT Driver Address and BT Device Name by yourself.

Example: How to make the setting barcode of Bluetooth Driver Address

Start Code	Setting ID	Address (Alpha-Numeric)
FNC4	A001A	0 ~ 9 , A~ F

Ex. 0011223388AF	



* The barcode muse has a "space" between FNC4 and A001A.

Example . How to make the setting barcode of Bluetooth Device Name

Start Code	Setting ID	Address (Alpha-Numeric)
FNC4	A011A	0 ~ 9 , A~ Z, a ~z

Ex. DatatCollector1	<pre><fnc4> A011ADataCollector1</fnc4></pre>
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* The barcode muse has a "space" between FNC4 and A001A.

11. Appendix 2

About Key Code

Function key is pressed during Real-Time Mode under HID connection. Function Key code Setting will set up the key code when press FUNCTION key on the Real-Time Mode under HID connection.

Key Code(Hex)	Normal	+Shift
1E	1	!
1F	2	@
20	3	#
21	4	\$
22	5	%
23	6	^
24	7	&
25	8	*
26	9	(
27	0)
28	Return (Enter)	
2B	Tab	
2C	Space	
2D		_
2E	=	+
2F	[{
30	〕	}
31	\	\$
33	;	:
34		
36	,	<
37	•	>
38		?

Kye codes for host device (Android, iPhone, iPad) are listed as in the following table.