

# **AirPrint Users Manual**



# **Revision 1.00**

Star Micronics Corporation Special Devices Division

# STAR MICRONICS CO., LTD.

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# 1 Introduction

AirPrint is a feature in Apple Inc.'s macOS and iOS operating systems such as iPhone, iPad and iPod touch for printing via a WLAN (Wireless LAN).

With AirPrint, it is easy to print photos and documents from your Mac, iPhone, iPad, or iPod touch without having to install additional software.

Also, you can control cash drawer or buzzer to be connected to the Star Micronics AirPrint printer via the DK-port.

Star Micronics AirPrint printer is designed for retail and hospitality environment.

#### 1.1 Support model

TSP654IIHIA

### 1.2 Support OS

iOS

Devices using the latest version of iOS as following:

- iPhone
- iPad
- iPod touch

#### Mac OS

macOS 10.12, Mac OS X 10.11, Mac OS X 10.10, Mac OS X 10.9 are supported by Mac OS X CUPS Driver. Please download Mac OS X CUPS Driver from below URL.

http://www.starmicronics.com/support/default.aspx?printerCode=CUPS\_for\_Mac

### 1.3 Trademarks

Apple, the Apple logo, iPad, iPhone, iPod, iPod touch, iTunes, Retina, Mac, Mac OS and OS X are trademarks of Apple Inc., registered in the U.S. and other countries.

# 2 Setting

### 2.1 AirPrint Overview

LINKSYS

WUSB6300

TSP654IIHIA supports 2 kinds of Ethernet connection. One is Wired LAN and another is Wireless LAN (WLAN). If you select Wired connection, please go to <u>2.2 How to setup Wired LAN</u>. If you select Wireless connection, please go to <u>2.3 How to setup WLAN</u>.

# 2.2 How to setup Wired LAN

# 2.3 How to setup WLAN



2.4GHz / 5GHz

### 2.2 How to setup Wired LAN

2.2.1 Connect Ethernet cable to Access Point or Switching Hub.



### 2.2.2 Self-Print

E

Turn ON the printer with FEED button pushing. You can find the IP Address (DHCP) on the bottom of 2nd page.

*** TSP650II Var3.0 -b1.0 ***	
Interface : 100/108ASE	
Dip Switch 1	
Sw 12345678	
0n *******	
Off	
- Dip Switch 1 Detail -	
1 = Emulation : Star Line/T	
6 = BUSY : All	
7 = ASB : Valid	
8 = NS8 : Valid	
and the state of the second	
	-
- /	

# Star IFBD-HI01X/02X

Firmware level Main: V1.2.0 Boot: V1.0.0 Application: V1.2.0\_AirPrint

Ethernet Configuration	
IP Assignment:	DHCP/BOOTP
RARP:	Enabled
Disconnect Message:	Auto
MAC Address:	00:11:62:00:51:67

Wireless LAN Configuration WLAN Adapter: None

#### SSL/TLS Security

https:	Disa
https web server port:	443
Certificate Type:	Self
Self-Signed Cart:	Not e
CA-Signed Cert:	Not e

bled -Signed exist exist

#### TCP/IP Settings and Services

TCP Keep-Alive:	Disabled
Port 9100 printing:	Single Session
Port 9100 timeout:	0 seconds

#### AirPrint AirPrint Service: Disabled Bonjour Server Name: Location: 5

IF80-HJ01X/02X Printer location (TBA

GEO Location (Latitude): GEO Location (Longitude):

USB Host Configuration Loading: Enabled

Star WebPRNT WebPRNT Service:

ID:

Star CloudPRNT CloudPRNT Service: Poll Interval:

Enabled 5 seconds

Enabled

Star Cloud Services Receipt Upload: Enabled Retailer: Device ID:

Interface Card DIP Switch SH 1: OFF (DHCP Timeout Enabled) SH 2: OFF (TFTP Recovery Disabled)

Security Notice

\* Default password should be changed.

#### \*

Ethernet Network: IP Address: 192.168.10.167 (DHCP) 255.255.255.0 Subnet Mask: Gateway: 192.168.10.1

### 2.2.3 Execute Browser, then Login

Execute Browser, then put IP Address which you got from Self-Print. And, click "Login".



# 2.2.4 IP Config Settings

If you need to change IP Address Static, please change them, then save the settings.

star s	tar Intelligent Network Util	ity
Configuration > IP Parameters	Device Model:IFBD-HI01X/02X Mac Address :00:11:62:0D:51:67	
<ul> <li>System Configuration</li> <li>Change Password</li> </ul>	IP Parameters	
<ul> <li>Star Cloud Services</li> <li>CloudPRNT</li> <li>WebPRNT</li> </ul>	• Static //Following addresses are used.	
> AirPrint > SSL/TLS	IP Address	
<ul> <li>&gt; WLAN IP Config</li> <li>&gt; Wireless Connection</li> </ul>	0.0.0.0	
Firmware Update     Set Default	Subnet Mask	
> Save	0.0.0.0	
Display Status	Default Gateway	
Network Card Info	0.0.0.0	
Device Info     Device Status     Wireless Status      System Access	<b>Dynamic</b> //Addresses are obtained from network.	
> Logout	DHCP/BOOTP ENABLE •	
Star Web Site	RARP ENABLE •	
	submit	cancel

#### **IP Parameters**

The following table shows the Static (fixed address) and Dynamic (dynamic address acquisition) items of the IP address that can be stored in the non-volatile memory.

Category	Setting Items	Input Range	Initial Value (Factory Default)
	IP Address	0.0.0.0 to 255.255.255.254	0.0.0.0
Static	Subnet Mask	0.0.0.0 to 255.255.255.255	0.0.0.0
	Default Gateway	0.0.0.0 to 255.255.255.255	0.0.0.0
Dunamia	DHCP/BOOTP ENABLE / DISABLE ENABLE	ENABLE	
Dynamic	RARP	ENABLE / DISABLE	ENABLE

Note: If setting Static to anything other than 0.0.0.0, set all Dynamic to DISABLE. If setting Dynamic to ENABLE, set all Static to 0.0.0.0.

After change the settings, please click "submit" and save the settings.

Dynamic address condition is accepted!	Save	
	$\circledast$ Save $\rightarrow$ Configuration printing $\rightarrow$ Restart dev	rice
DHCP:	Save → Restart device	
ENABLE		
RARP:	execute	cancel
ENABLE		
Please execut "Save" n enu if these settings are correct.		
Return to Previous page <ip parameters=""></ip>		
(Don't use "Back" button of browser to return.)		

## 2.2.5 AirPrint Settings

#### This is settings for AirPrint.

If you need to change below settings, please change them, then save the settings.

Configuration	Device Model:IFBD-HI01A/02A Mac Address :00:11:62:0D:51:67
IP Parameters     System Configuration     Change Password	AirPrint
Star Cloud Services     CloudPRNT     WebPRNT	AirPrint ENABLE •
AirPrint     SSL/TLS     WLAN IP Config     Wireless Connection	Bonjour Server Name StarMicronics-TSP654HIA
Wireless Connection     Firmware Update     Set Default     Save	Location Printer location (TBA)
Network Card Info     Network Status	GEO Location (Latitude)
<ul> <li>&gt; Device Info</li> <li>&gt; Device Status</li> <li>&gt; Wireless Status</li> </ul>	GEO Location (Longitude)
System Access	Get Browser Location
Contact us Star Web Site E-Mail	submit cance

#### [Example of setting list]

Item	Value	Notes
AirPrint	ENABLE (*1) or DISABLE	
Bonjour Server Name	StarMicronics-TSP654HIA (*1)	max 63 characters
Location	Printer location (TBA) (*1)	max 127 characters
GEO Location (Latitude)		(*2)
GEO Location (Longitude)		(*2)

(\*1) Default value

(\*2) If "Get Browser Location" button cannot work,

please see following examples or set "SSL" setting and open by "https".

### [Example of location]

Location	Star Micronics Japan	Star Micronics US	Star Micronics UK	Star Micronics Thailand
Latitude:	35.0144857	40.4846472	51.6199034	13.7269006
Longitude:	138.451635	-74.5119392	-0.7113674	100.5311396

# 2.2.6 Peripheral (DK Port) Settings

This is setting for Cash Drawer and Buzzer control for AirPrint, it can be changed at "System Configuration" on the menu list.

Refer to the below settings, then submit and save the settings.

🗅 Star Intelligent 🗙	0 - 0 ×	Pt Star Intelligent ×	θ -	-		×
← → C () 192.168.20.1	37	← → C ① 保護されていません   192.168.20.137		QI	11 白	2
	A	Line 2 (WLAN)				
Sta	r Intelligent Network Litility	NO HOST CONNECTION				
Star intelligent         Image: Star intelligent Network Util         Image: Star intelligent Network Utilities Star intelligent Network Star intelligent Network Star intelligent Network Star intelligent Network Utilities Star intelligent Network Intelligent Network Star intelligent Network Inteligent Network Intelligent Network Intelligent Network I	Intelligent Network Othery	Line 3 (WLAN)				
	Device Model:IFBD-HI01A/02A	*****************************				
onfiguration	Mac Address :00:11:62:0D:51:67	Line 4 (WLAN)				
System Configuration	System Configuration	Default Massane				
Star Cloud Services		a contra in contra in contra de				
CloudPRNT	Network	Poriphoral (DK Port) Mullipha with Michael			1	
See Intelligent X  See Intelligent I X  C 0 192.168.20.15  C 192.168.20.15  System Configuration System Configuration Sear Cloud Services CoudeNrt Nucleas Connection Service Second Services CoudeNrt Nucleas Connection Service Second Services CoudeNrt Nucleas Status Service Status Vireless Status Vireless Status Setem Access Filem Acces Filem Acces Filem Access Filem Access Filem	Web Refresh Interval Time (Sec.)	Peripheral Unit 1				
SSL/TLS	8		1			
WLAN IP Config	P	Type: CashDrawer ¥				
Wireless Connection	#9100/9101 port	CashDrawer 1:	Um •			
rmware Update		Pulse Width(msec): 200				
et Default	ENABLE *	Buzzer 1:				
iave	#0100 Multi Sassion	On Time(msec): 20				
- Inv Chatra	#9100 Multi 30300	Off Time(msec): 20				
play Status	DISABLE *	Repeat: 1				
vetwork Status	#9100 Data Timeout (Sec.)					
Device Info	0 •	Peripheral Unit 2				
levice Status		Type: CashDrawer V				
Vireless Status	LPR	Timing: No Use	•			
tem Access	DICADLE .	CashDrawer 2:				
and Access	DISABLE +	Pulse Width(msec): 200				
ogout	TCP Keep-Alive	Buzzer 2: On Time(mear): 20				
	DICADLE					
ntact us	DISABLE +	Of Time(msec): 20				
tar Web Site		Repeat:			J.	
-Mail				_		
	Disconnect Message (Ethernet)					
	AUTO 🔻	USB Host				
	Line 1 (Ethernet)					
	**************************************	USB Configuration Loading				
		ENABLE V				
	Line 2 (Ethernet)					
	NO HOST CONNECTION	Barcode Reader Device				
	Line 3 (Ethernet)	Type: None T				
	*	Albert Lance 1				

		Value	Default Value
	Туре:	Cash Drawer / Buzzer	CashDrawer
Pe	Timing:	No Use / Document Top / Page Top / Page Bottom / Document Bottom	Document Bottom
rip	Cash Drawer 1		
her	Pulse Width(msec.):	20 to 5100 msec.	200msec.
all	Buzzer 1		
Uni	On Time(msec.):	10 to 1270 msec.	20msec.
1	Off Time(msec.):	10 to 1270 msec.	20msec.
	Repeat:	1 to 20 times	1 time
	Туре:	Cash Drawer / Buzzer	CashDrawer
Pe	Timing:	No Use / Document Top / Page Top / Page Bottom / Document Bottom	No Use
rip	Cash Drawer 2		
her	Pulse Width(msec.):	200 msec. (Fix)	200msec.
all	Buzzer 2		
Uni	On Time(msec.):	10 to 1270 msec.	20msec.
12	Off Time(msec.):	10 to 1270 msec.	20msec.
	Repeat:	1 to 20 times	1 time

### 2.3 How to setup WLAN

### 2.3.1 Put WiFi Dongle onto USB Type A connector and Ethernet cable to Access Point.

-			
8			81
2.5	• •	100.1	

Brand	Model	Frequency
PLANEX	GW-USNANO2A	2.4GHz
EDIMAY	EW 7011LIN	
EDIMAX	EW-78IIUN	
D-Link	DWA-182 rev C1	2.4GHz / 5GHz
LINKSYS	WUSB6300	2.4GHz / 5GHz

### 2.3.2 Self-Print

#### Turn ON the printer with FEED button pushing. You can find the IP Address (DHCP) on the bottom of 2nd page.



# Star IFBD-HI01X/02X

Firmware level	
Main:	V1.2.0
Boot:	V1.0.0
Application:	V1.2.0_AirPrint

#### Ethernet Configuration IP

IP Assignment:	DHCP/BOOTP
RARP:	Enabled
Disconnect Message:	Auto
MAC Address:	00:11:62:00:51:67

Wireless LAN Configuration HLAN Adapter: None

#### SSL/TLS Security http

https:	Disa
https web server port:	443
Certificate Type:	Self
Self-Signed Cart:	Not
CA-Signed Cert:	Not

bled -Signed exist exist

Single Session

0 seconds

#### TCP/IP Settings and Services Disabled

TCP Keep-Alive: Port 9100 printing: Port 9100 timeout:

AirPrint AirPrint Service: Disabled Bonjour Server Name: Location:

IFBD-HJ01X/02X Printer location (TBA

GEO Location (Latitude): GEO Location (Longitude):

USB Host Configuration Loading: Enabled

Star WebPRMT WebPRNT Service: Enabled

Star CloudPRNT CloudPRWT Service: Poll Interval: ID:

Enabled 5 seconds

Star Cloud Services Enabled Receipt Upload: Retailer: Device ID:

Interface Card DIP Switch OFF (OHCP Timeout Enabled) SH 1: SH 2: OFF (TFTP Recovery Disabled)

Security Notice

\* Default password should be changed.

......

Ethernet	Network:
IP Address:	182.163.10.167 (DHCP)
Subnet Mask:	255.255.255.0
Gateway:	192.168.10.1

### 2.3.3 Execute Browser, then Login

Execute Browser, then put IP Address which you got from Self-Print. And, click "Login".



# 2.3.4 Wireless Connection Settings

There are two kinds of settings to connect to Access Point, one is Site Survey and another is Manual Connect.

C Star Intelligent ×	× ×	Site Survey		
- → C () 192.168.10.167	오 떼 ☆ :	SSID	Select	Encryption
Star Intelligen	t Network Utility	WRT160n-Sales-Bflets	Select	WPA/WPA2-TKIP/AES
		WRT54G-Sales-Bflets	Select	WEP
nfiguration Device Model:IFI Mac Address :00	BD-HI01X/02X 0:11:62:0D:51:67	SCS B-Flets 2 4GHz	Select	WPA2-AFS
IP Parameters System Configuration Wireless Co	onnection	Star/MahDRNIT	Select	WDA2 AES
Change Password	intection	StarwebPRINT	Select	WPA2-AES
Cloud Services CloudPRNT Site Survey		star-tech_fct070-g	Select	WPA2-AES
VebPRNT Enter		Again		Jack
SL/TLS Manual Connect	t	Agai		Jack
Vireless Connection Enter				
irmware Update				
ave				
play Status				
etwork Status		Connect Cottings		
evice Info evice Status	1	Johneet Settings		
lireless Status		SSID		
tem Access		WRT160n_Sales_Bflate		
Jour		WRT TOUT-Sales-Dilets		
tact us		Key		
tar Web Site				
-Mail				
		connec	t ca	ncel
IFBD-HI01X/02X Net rork C Copyright(C) 2016 Star ML ronics	Card Configuration Utility.			
IFBD-HI01X/02X Netv tork C Copyright(C) 2016 Star Mi ronks	Card Configuration Utility. : Co., Ltd. All Rights Reserved.			
IFBD-HI01X/02X Neth tork C Copyright(C) 2016 Star Mi ronics	Card Configuration Utility. Co., Ltd. All Rights Reserved.			
IFBD-HID1X/02X Neth ork C Copyright(C) 2016 Star Minnets anual Connect	Card Configuration Utility. (Co., Ltd. Al Rights Reserved.			
IFBD-HI01X/02X Neth ork C Copyright(C) 2016 Star Mi norics	Cor, Ltd. Al Rights Reserved.	bur t		
IFBD-H101X/02X Neth ork C CopyHgM(C) 2016 Star HI norks anual Connect	Co., Lud. Al Rights Reserved.	Wireless cont	figuratio	on is accepted.
IFBD-HU01X/02X Nethork C Copyright(C) 2016 Star Hi ronts anual Connect ISID VRT 160n-Sales-Bflets	Card Configuration Utility. Co., Lud. Al Rights Reserved.	Wireless cont	figuratio	on is accepted.
IFBD-HU01X/02X Nethork C Copyright(C) 2016 Star Hi ronis anual Connect ISID VRT 160n-Sales-Bflets	Cor, Lid. Al Rights Reserved.	Wireless cont	figuratio	on is accepted.
IFBD-HU01X/02X Net ork C Copyright(C) 2016 Star Hi ronis anual Connect SID VRT 160n-Sales-Bflets security	Cor, Lid. Al Rights Reserved.	Wireless cont	figuratio	on is accepted.
IFBD-H101X/02X Net orf C copyright(C) 2016 Star Hi rorics anual Connect SID VRT 160n-Sales-Bflets ecurity NPA2-PSK •	Zard Configuration Utility. Co., Ltd. All Rights Reserved.	Wireless cont ssid : wr160n-Sales-Bflets	figuratio	on is accepted.
IFBD-HU31X/02X Net orf C copyright(C) 2016 Star Hi ronks anual Connect SID VRT 160n-Sales-Biflets ecurity VPA2-PSK • (eyFormat	Zard Configuration Utility. I Co., Ltd. All Rights Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets	figuratio	on is accepted.
IFBD-HU31X/02X Net of C copyright(C) 2016 Sar Hi roncs anual Connect SID VRT 160n-Sales-Biflets ecurity WPA2-PSK • sey Format Passphrase (8~63 chars) •	Zard Configuration Utility. I Co., Ltd. All Rights Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security :	figuratio	on is accepted.
IFED-H01X/02X Net off C Copyright(C) 2016 Sur Hi roncs anual Connect SID VRT 160n-Sales-Bflets ecurity VPA2-PSK • eyFormat assphrase (8~63 chars) • ncryption	Co., Ld. Al Riphs Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES	figuratio	on is accepted.
IFED-H01X/02X Net off C Copyright(C) 2016 Star Hi roncs anual Connect SID VRT 160n-Sales-Bflets ecurity VPA2-PSK • eyFormat assphrase (8~63 chars) • ncryption KES •	Co., Ld. Al Riphs Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES	figuratio	on is accepted.
IFBD-H01X/02X Net of C Copyright(C) 2016 Sar Hi roncs anual Connect SID VRT 160n-Sales-Biflets ecurity VPA2-PSK • Sey Format assphrase (8~63 chars) • incryption AES •	2 Co., Ld. All Rights Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute 'S	figuratio	on is accepted.
IFED-H01X/02X Net of C Copyright(C) 2016 Sor Hi roncs anual Connect SID VRT 160n-Sales-Bflets ecurity VPA2-PSK • rey Format Passphrase (8~63 chars) • ncryption LES •	2 Co., Ld. Al Riphs Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute "S	figuratio	on is accepted.
IFBD-H01X/02X Net of C Copyright(C) 2016 Sor Hi roncs anual Connect SID VRT 160n-Sales-Bflets ecurity VPA2-PSK • Sey Format Passphrase (8~63 chars) • incryption AES •	2 Co., Ld. Al Riphs Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute 'S Return to Pr	figuratio	hese settings are correct.
IFED-HU01X/02X Neth ork C Copyright(C) 2016 Star Hi minis anual Connect SID WRT 160n-Sales-Bflets ecurity WPA2-PSK • SeyFormat Passphrase (8~63 chars) • Incryption AES • Sey	cancel	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute "S Return to Pr (Don't use "E	figuratio	hese settings are correct.
IFBD-HU01X/02X Net ork C Copyright(C) 2016 Star Hi mints anual Connect ISID VRT 160n-Sales-Bflets Geourity MPA2-PSK • CeyFormat Passphrase (8~63 chars) • Connect	Co. Ld. Al Rights Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute "S Return to Pr (Don't use "E	figuratio	hese settings are correct.
IFBD-HU01X/02X Net ork C Copyright(C) 2016 Star H minis anual Connect SID VRT 160n-Sales-Bflets ecurity MPA2-PSK • CeyFormat Passphrase (8~63 chars) • incryption AES • Connect	Co. Ld. Al Rights Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute "S Return to Pr (Don't use "E	figuratio	hese settings are correct.
IFBD-HU01X/02X Net or C Copyright(C) 2016 Sar M mores annual Connect SSID WRT 160n-Sales-Bflets Security MPA2-PSK • CeyFormat Passphrase (8~63 chars) • Encryption AES • Cey	co. Ld. Al Riphs Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute "S Return to Pr (Don't use "E	figuratio	hese settings are correct.
IFBD-HU01X/02X Net or C copyright(C) 2016 star H mores annual Connect SID VRT 160n-Sales-Bflets ecurity MPA2-PSK • SeyFormat Passphrase (8~63 chars) • incryption AES • sey	co. Ld. Al Riphs Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute "S Return to Pr (Don't use "E	figuratio	hese settings are correct.
IFBD-HU01X/02X Net of C Copyright(C) 2016 Star Hi roncs anual Connect SSID VRT 160n-Sales-Biflets Security APA2-PSK - (ey Format Passphrase (8-63 chars) - Encryption AES - (ey	Co. (Ld. Al Riph's Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute "S Return to Pr (Don't use "E	figuratio	hese settings are correct. WLAN IP Config> browser to return.)
IFBD-H101X/02X Net of C Copyright(C) 2016 Sar M mores anual Connect SSID ART 160n-Sales-Bflets Security WPA2-PSK • CeyFormat Passphrase (8-63 chars) • Encryption AES • Connect	Co., Lid. Al Rights Reserved.	Wireless conf SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute <sup>1</sup> S Return to Pr (Don't use <sup>1</sup> E Save Save → Configura	figuratio	hese settings are correct. WLAN IP Config> browser to return.)
IFBD-H01X/02X Net of C CopyrgN(C) 2016 Sor HI roncs anual Connect SID VRT 160n-Sales-Bflets security WPA2-PSK • KeyFormat Passphrase (8~63 chars) • incryption AES • Key	co, Ld. Al Riphs Reserved.	Wireless cont SSID : WRT160n-Sales-Bflets Security : WPA/WPA2-TKIP/AES Please execute <sup>IS</sup> Return to Pr (Don't use <sup>TE</sup> Save Save → Configura Save → Restart de	figuratio	on is accepted. hese settings are correct. WLAN IP Config> browser to return.) → Restart device

# 2.3.5 WLAN IP Config

If you need to change IP Address Static, please change them, then save the settings.

Device Model:IFBD-HI01X/02X Mac Address :00:11:62:0D:51:67	
WI AN TR Config	
WEAN IF COMING	
• Static //Following addresses are used.	
IP Address	
0.0.0.0	
Subnet Mask	
0.0.0.0	
Default Cateway	
Default Gateway	
0.0.0.0	
Dynamic	
//Addresses are obtained from networl	k.
submit	cancel
	Static //Following addresses are used. IP Address 0.0.0 Subnet Mask 0.0.0 Default Gateway 0.0.0 Default Gateway 0.0.0 Submit

#### **IP** Parameters

The following table shows the Static (fixed address) and Dynamic (dynamic address acquisition) items of the IP address that can be stored in the non-volatile memory.

Catogory	Satting Itams	Input Rango	Initial Value
Category	Setting items	mput Kange	(Factory Default)
	IP Address	0.0.0.0 to 255.255.255.254	0.0.0.0
Static	Subnet Mask	0.0.0.0 to 255.255.255.255	0.0.0.0
	Default Gateway	0.0.0.0 to 255.255.255.255	0.0.0.0
Dunamia	DHCP/BOOTP ENABLE / DISABLE	ENABLE / DISABLE	ENABLE
Dynamic	RARP	ENABLE / DISABLE	ENABLE

Note: If setting Static to anything other than 0.0.0.0, set all Dynamic to DISABLE. If setting Dynamic to ENABLE, set all Static to 0.0.0.0.

After change the settings, please click "submit" and save the settings.

Dynamic address condition is accepted!	Save	
	$\circledast$ Save $\rightarrow$ Configuration printing $\rightarrow$ Restart devi	ce
DHCP:	o Save → Restart device	
ENABLE		
RARP:	execute	cancel
ENABLE		
Please execut "Save" nenu if these settings are correct.		
Return to Previous page <ip parameters=""></ip>		
(Don't use "Back" button of browser to return.)		

# 2.3.6 AirPrint Settings

#### This is settings for AirPrint.

If you need to change below settings, please change them, then save the settings.

Configuration	Device Model:IFBD-HI01A/02A Mac Address :00:11:62:0D:51:67	
IP Parameters     System Configuration     Change Password	AirPrint	
Star Cloud Services     CloudPRNT     WebPRNT	AirPrint ENABLE •	
AirPrint     SSL/TLS     WLAN IP Config     Wireless Connection	Bonjour Server Name StarMicronics-TSP654HIA	
Firmware Update     Set Default     Save	Location Printer location (TBA)	
Display Status Network Card Info	GEO Location (Latitude)	
Device Info     Device Status     Wireless Status	GEO Location (Longitude)	
System Access	Get Browser Location	
Contact us	submit	cancel
> Star Web Site > E-Mail		

#### [Example of setting list]

Item	Value	Notes
AirPrint	ENABLE (*1) or DISABLE	
Bonjour Server Name	StarMicronics-TSP654HIA (*1)	max 63 characters
Location	Printer location (TBA) (*1)	max 127 characters
GEO Location (Latitude)		(*2)
GEO Location (Longitude)		(*2)

(\*1) Default value

(\*2) If "Get Browser Location" button cannot work,

please see following examples or set "SSL" setting and open by "https".

### [Example of location]

Location	SMJ (Japan)	SMJ SMA (Japan) (US)		SMSA (Thailand)
Latitude:	35.0144857	40.4846472	51.6199034	13.7269006
Longitude:	138.451635	-74.5119392	-0.7113674	100.5311396

# 2.3.7 Peripheral (DK Port) Settings

This is setting for Cash Drawer and Buzzer control for AirPrint, it can be changed at "System Configuration" on the menu list.

Refer to the below settings, then submit and save the settings.

← → C         ①         ①         ①	Star Intelligent X	0 - 0 ×	Pi Star Intelligent ×	θ	-		×
Star Intelligent Network Utility         Configuration         Sevent Addenses soon 11:62:00:51:62         Sevent Addenses soon 11:62:00:51:62         System Configuration         Network         Web Refresh Interval Time (Sec.)         System Configuration         Peripheral (DK Port)-Available with AirPort         Peripheral Unit 1         Type:         System Configuration         Peripheral Unit 2         System Configuration         System Configuration         System Configuration         Peripheral Unit 2         System Configuration         System Confife         System C	C (1) 192.168.20.1	37 🔍 💐 🕁 🗄	← → C ① 保護されていません   192.168.20.137		QI	目白	2
Star Intelligent Network Utility     Device Model:IFBD-HID1A/02A   Mac Address :00:11:62:00:51:67   System Configuration   Network   Device doubserves   Setring Harakation   Setring Hara		*	Line 2 (WLAN)				
Device Anderes: 00:11:67:00:51:67   Device Model:1FBD-HID1A/02A Mac Address: 00:15:670   System Configuration Notice for summer: Service Strates CoudeRxT   Service Strates CoudeRxT   Vertex Configuration Network   Network   Peripheral (DK Port)*-valuable with AirPrint Peripheral Unit 1   Service Strates   Service Strates   Service Strates   Peripheral Unit 1   Vertex Configuration   Peripheral Unit 1   Service Strates   Service Strates   Peripheral Unit 2   Vertex Strates   Peripheral Unit 2   Vertex Strates   Peripheral Unit 2   Vertex Strates   Device Info   Network Strates   Device Info   Disconnet Message (Ethernet)	Stal	r Intelligent Network Litility	NO HOST CONNECTION	N			
Definition Device Model:IFBD-H101A02A   Mack Address: 00:11:62:00:23:67   System Configuration   System Configuration   System Configuration   System Configuration   System Configuration   Network   Sear Coal Services   Outstants   Sear Coal Services   Sear Coal Info   Sear Vieb State   Sear Vieb State   Sear Vieb State   Sear Vieb State   DisABLE *   Sear Vieb State   DisABLE *   Sear Vieb State   DisABLE *   DisABLE *   Sear Vieb State   DisABLE *   DisABLE		Thengene Network Othrey	Line 3 (WLAN)				
onfiguration Mac Address :00:11:62:0D:51:67   VP-stem Configuration   VP-stem Configuration <td></td> <td>Device Model:IFBD-HI01A/02A</td> <td>******************</td> <td>********</td> <td></td> <td></td> <td></td>		Device Model:IFBD-HI01A/02A	******************	********			
System Configuration Ware submit Ser Could services CodeMNAT Weekers Interval Time (Sec.) Source Info Network Star Data Source Info Network Status Source Status Star Access Logout Martice U Star Let • Discouter I Source Info Network Status Discouter I Star Let • Discouter I Star Let • Discouter I Discouter I Star Let • Discouter I Discouter I Di Discouter I Di Discouter I Discouter I Di	iguration	Mac Address :00:11:62:0D:51:67	Line 4 (WLAN)				
Par Cod Stewords   CodudRNT   CodudRNT   WebRefresh Interval Time (Sec.)   Source   Source   Source   Pripheral (DK Port)*Available with AirProt   Peripheral (DK P	stem Configuration	System Configuration	Default Massane				
Clouderwit webRetrie Interval Time (Sec.)         AirPoint         Sign/TS         Sign/TS         WebRetrie Interval Time (Sec.)         With IP Config         #100/101 port         Finmase Update         Branch         Sind Kalk         Sind Kalk     <	r Cloud Services		errore meterale				
WebRitT       Web Refresh Interval Time (Sec.)         SRU/TS       >         SRU/TS       >         WALP Config       *         Windex Connection       #9100/9101 port         Finance Update       ENABLE •         Sar Undate       #9100 Multi Session         Splay Status       DISABLE •         Network Card Info       0 •         Veriess Status       DISABLE •         Device Status       DISABLE •         Disconnect Message (Ethernet)       No Use •         Autor •       Line 1 (Ethernet)         Long L       Disconnect Message (Ethernet)         Line 2 (Ethernet)       No HOST CONNECTION	UDPRNT	Network	Parinharal (DK Part	Augulable with AirDrint		٦.	
All mina   SUTUS   Set Outbulk   Parable Vidble   Store   Spial Status   DisAble V   Network Status   Device Status   DisAble V	6PRNT	Web Refresh Interval Time (Sec.)	Peripheral Usit 1	C) Available with AirPrint			
WLAN ID Config   # Disconnection   # # Disconnection   # # Disconnection   Sere   # # Disconnection   Sere   # # Disconnection   Disconnect Message (Ethernet)   Autro •   Disconnect Message (Ethernet)   Autro •   Une 2 (Ethernet)   No HOST CONNECTION	TIS		Peripheral Official				
wireless connection       #9100/9101 port         Firmware Update       ENABLE •         Save       #9100 /1011 Session         DiscallE •       0         Network Card Info       •         stem Access       DiscallE •         DiscallE •       0         Stem Access       DiscallE •         DiscallE •       No Use •         Item Stem Access       DiscallE •         DiscallE •       No Use •         Item 1:       20         Autro •       USB Addle •         Use 2 (Ethernet)       No HOST CONNECTION	AN IP Config	5	Type:	CashDrawer •			
Primmer update Private update   Browe #9100 Multi Session   Browe #9100 Multi Session   Browe #9100 Data Timeout (Sec.)   Device Info ©   Device Status #9100 Data Timeout (Sec.)   Device Status ©   Device Status ©   Device Info ©   Disconnect Message (Ethernet)   Autro ©   Autro ©   Line 2 (Ethernet)   No HOPT CONNECTION	reless Connection	#9100/9101 port	Timing: CashDrawer 1:	Document Bottom •			
at Default   reve	mware Update		Pulse Width(msec):	200			
pres     #9100 Multi Session       play Status     DISABLE •       etwork Status     #9100 Data Timeout (Sec.)       etwork Status     0 •       Ubstatus     0 •	t Default	ENABLE *	Buzzer 1:	200			
Image: Status       Off Trag(msec):       Do         Ipps Status       DISABLE ▼       Disable T         Iethon K Cod Info       Image: T       Disable T         Image: T       Disable T       Dis	19	#0100 Multi Fassian	On Time(msec):	20			
piny status priny		#9100 Mulu Session	Off Time(msec):	20			
etendrot classic   #9100 Data Timeout (Sec.)   weres info   weres finds   weres status   LPR   tetm Access   opuit   TCP Keep-Alive   DISABLE •   DISABLE •   DISABLE •   DISABLE •   DISABLE •   Unto •   Live 2 (Ethernet)   Live 2 (Ethernet)   No Host CONNECTION     Barcode Reader Device	lay Status	DISABLE *	Repeat:	1		н	
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Norves Status   Wrekes Status   LPR   IDIABLE •   TCP Keep-Alive   DISABLE •   TCP Keep-Alive   DISABLE •   Auto •   Live 1 (thernet)   Uve 2 (thernet)   Uve 2 (thernet)   Uve 2 (thernet)   No Hofst CONNECTION     Barcode Reader Device	vice Info		Peripheral Unit 2				
Unreases Status     LPR     No Use       tem Access opout     DISABLE     Iming::     No Use       TCP Keep-Alive     DISABLE     20       DISABLE     DISABLE     0       Auto     DISABLE     0       Auto     0     0       Live 2 (Ethernet)     USB Host       Live 2 (Ethernet)     USB Configuration Loading       No Host CONNECTION     Barcode Reader Device	vice Status		Type:	CashDrawer 🔻			
Attem Access opput       DISABLE •       Cashbrawer 2: Pulse Wuldrume()::       DISABLE •         tact us tart us ter: Web Site Mail       DISABLE •       DISABLE •       DISABLE •         Disconnect Message (Ethernet) Line 1 (Ethernet) Line 1 (Ethernet) NO HOST CONNECTIONH       DISConfiguration Loading ENABLE •       USB Configuration Loading ENABLE •         No HOST CONNECTIONH       Barcode Reader Device       Barcode Reader Device	reless Status	1PR	Timing:	No Use 🔹			
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TCP Keep-Alive     Disconnect Message (Ethernet)     Disconnect Message (Ethernet)     Disconnect Message (Ethernet)       Auto	em Access	DISABLE *	Pulse Width(msec):	200		н	
tact us tar Web Site -Mail Disconnet Message (Ethernet) AUTO • Live 2 (Ethernet) Uive 2 (Ethernet) Uive 2 (Ethernet) NO HOST CONNECTION NO HOST CONNECTION	lone	TCP Keep-Alive	Buzzer 2: On Time(msec):	20		н	
tact us Repet: USB Host USB Host USB Configuration Loading Evalue To the Configuration Loading Evalue		DISABLE	Off Time(mear):	20			
ter Web Site  Ter Web Site  Ter Web Site  Disconnect Message (Ethernet)  Live 1 (Ethernet)  Live 2 (Ethernet)  NO HOST CONNECTION  Disconnect Message (Ethernet)  Barcode Reader Device	act us		On rine(name).				
Disconnect Message (Ethernet)     USB Host       AUTO •     USB Configuration Loading       Line 1 (Ethernet)     USB Configuration Loading       Line 2 (Ethernet)     Ethernet       NO HOST CONNECTION     Barcode Reader Device	r Web Site		Repeat.	1 -			
Image: Automatic relations     USB Host       Usb 1 (Ethernet)     USB Configuration Loading       Live 2 (Ethernet)     ENABLE •       NO HOST CONNECTION     Barcode Reader Device	fail	Disconnect Message (Ethernet)					
AUTO     OSD HOSE       Line 1 (Ethernet)     USB Configuration Loading       Line 2 (Ethernet)     Ethernet       NO HOST CONNECTION     Barcode Reader Device		bisconnect Message (Ethernec)	USB Host				
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NO HOST CONNECTION Barcode Reader Device		Line 2 (Ethernet)	ENABLE V				
Barcode Reader Device		NO HOST CONNECTION					
			Barcode Reader Device				
Line 3 (Ethernet) Type: None 🔻		Line 3 (Ethernet)	Type: None	•			

		Value	Default Value
	Туре:	Cash Drawer / Buzzer	CashDrawer
Pe	Timing:	No Use / Document Top / Page Top / Page Bottom / Document Bottom	Document Bottom
rip	Cash Drawer 1		
her	Pulse Width(msec.):	20 to 5100 msec.	200msec.
all	Buzzer 1		
Uni	On Time(msec.):	10 to 1270 msec.	20msec.
t1	Off Time(msec.):	10 to 1270 msec.	20msec.
	Repeat:	1 to 20 times	1 time
	Туре:	Cash Drawer / Buzzer	CashDrawer
Pe	Timing:	No Use / Document Top / Page Top / Page Bottom / Document Bottom	No Use
rip	Cash Drawer 2		
her	Pulse Width(msec.):	200 msec. (Fix)	200msec.
al Unit 2	Buzzer 2		
	On Time(msec.):	10 to 1270 msec.	20msec.
	Off Time(msec.):	10 to 1270 msec.	20msec.
	Repeat:	1 to 20 times	1 time

# 3 Printing

- 3.1 How to Print \*In case of printing photos
- 3.1.1 Please select "Photos", then select picture(s)



3.1.2 Please select "Print".



#### 3.1.3 Please select "Printer".



3.1.4 Please select "StarMicronics-TSP654HIA".



3.1.5 Please click "**Print**", then you can get print out.



If set the Printable Area 72mm by MSW 4, 80 x 140mm is indicated.



If set the Printable Area 50.8mm by MSW 4, 58 x 140mm is indicated.

# 4 Trouble shooting

4.1 How to initialize Ethernet settings to factory default settings.

If you need the Ethernet settings to factory settings, please do the following operation.

While the TCP/IP is operating, if the *push switch* is continued to be held down, the LED display pattern will change according to the times shown below.



D1		LED Pattern		Constal Made	
Phase	Phase Sw Pressing Time	Color	Pattern	Special Mode	
1	1 second to less than 5 seconds	Yellow	Blinking	Reserved (Undefined)	
2	5 second to less than 9 seconds	Red	Blinking	NIC setting initialize mode (*2)	
3	9 second to less than 13 seconds	Green	Blinking	Reserved (Undefined)	
	over 13 seconds (*1)				

\*1 When Phase 3 is exceeded, press the switch for 1 second to return to Phase 1.

\*2 Execution procedures for the NIC setting initialize mode

- A) After entering this mode, press the push switch once and release it. The LED display will be "Extinguished" and the initializing of the NIC settings in the non-volatile memory will begin.
- B) If the initialization is successful, the printer will automatically be reset.

Do not turn off the power or apply a reset until this reset has been applied.

Also, if the NIC setting initialization fails, the LED display will be "Red Lit" and all operations will stop.

If so, turn the power off.

Note: When turning the power on, a different mode (automatic firmware update function using TFTP client) will startup that is different to the above functions, for the operations when turning the power on with the push switch pressed.



Star Micronics is a global leader in the manufacturing of small printers. We apply over 50 years of knowhow and innovation to provide elite printing solutions that are rich in stellar reliability and industry-respected features. Offering a diverse line of Thermal, Hybrid, Mobile, Kiosk and Impact Dot Matrix printers, we are obsessed with exceeding the demands of our valued customers every day.

We have a long history of implementations into Retail, Point of Sale, Hospitality, Restaurants and Kitchens, Kiosks and Digital Signage, Gaming and Lottery, ATMs, Ticketing, Labeling, Salons and Spas, Banking and Credit Unions, Medical, Law Enforcement, Payment Processing, and more!

High Quality POS Receipts, Interactive Coupons with Triggers, Logo Printing for Branding, Advanced Drivers for Windows, Mac and Linux, Complete SDK Packages, Android, iOS, Blackberry Printing Support, OPOS, JavaPOS, POS for .NET, Eco-Friendly Paper and Power Savings with Reporting Utility, ENERGY STAR, MSR Reading, *future*PRNT, StarPRNT... How can Star help you fulfill the needs of your application?

Don't just settle on hardware that won't work as hard as you do. Demand everything from your printer. Demand a Star!

#### Star Micronics Worldwide

Star Micronics Co., Ltd. 536 Nanatsushinya Shimizu-ku, Shizuoka 424-0066 Japan +81-54-347-2163 http://www.star-m.jp/eng/index.htm

Star Micronics America, Inc. 65 Clyde Road. Suite G Somerset, NJ 08873 USA +1-848-216-3300 http://www.starmicronics.com

#### **Star Micronics EMEA**

Star House Peregrine Business Park, Gomm Road High Wycombe, Buckinghamshire HP13 7DL UK +44-(0)-1494-471111 http://www.star-emea.com

# Star Micronics Southeast Asia Co., Ltd. Room 2902C. 29th Fl. United Center Bldg. 323 Silom Road, Silom Bangrak, Bangkok 10500 Thailand +66-2-631-1161 x 2 http://www.starmicronics.co.th/