



Horizon

BINDERY CONTROL SYSTEM

Installation Manual

iCE LiNK

Important Information

This manual is designed to help you install this software, whether this is your first time or you have already installed this software in the past. Please read it carefully and follow the instructions closely. Also refer to this manual when you are unsure how to install certain components or when something has gone wrong.

- All rights are reserved. No part of this manual may be photocopied, reproduced or translated into another language without the prior written consent of Horizon International Inc.
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- Horizon International Inc. shall not be liable for incidental or consequential damages resulting from: improper or inadequate maintenance by the customer, unauthorized modification or misuse, or operation outside of the environmental specifications for the product.

Safety Precautions

For your safety, use the device only in the way it was intended and perform maintenance on a regular basis. Read the safety precautions carefully before installing the device.

The safety features and operation procedures described in this manual only work when you use the device in the way it was intended. Use of the device in any other way or for unintended purposes is done at your own risk.

The warning labels in this manual are divided into two categories: "Warning" and "Caution".

 WARNING	The term WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	The term CAUTION indicates a potentially hazardous situation which, if not avoided, could result in damage to the device.

Icons








This icon indicates additional information for "Warning" and "Caution".



This icon indicates a forbidden action.



This icon indicates important information you should know when installing this device.

 Important	This will help you to avoid an incorrect operation which may cause problems with the device, or make it necessary to go back to a previous step.
 Attention	This explains functional limitations and restrictions on the operation of the device.
 Point	This indicates a helpful hint.
 Additional Information	This indicates additional information which will help you to operate the device efficiently.
	This explains what the device will do after you operate it as instructed.

Basic Safety Precautions

⚠ CAUTIONS for Installation



Be sure to lay the cables in areas where you won't trip over them. Protect them from any damage.

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1 Preparation

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1 - 1 Things to Prepare Before The iCE LiNK Installation

Things To Be Prepared by The User

- Edge Computer (not required if the devices will be connected to the iCE LiNK via pXnet adapter):
 - The main function of this computer is to upload data from each device to the cloud (iCE server).
 - This requires installation of Edge Services to use.
 - See page 8 for specifications.
 - Your Internet connection should be set up at this point.
- Client Terminal (computer, tablet, etc.):
 - Make sure they have an established Internet connection and a compatible browser installed.
 - See page 8 for compatible browsers.
- LAN Cables and HUBS:
 - These are used for communication between the Edge Server and other devices. A category 6 noise-resistant STP is recommended. Depending on your layout, you might need to prepare a HUB and router.
- Other:
 - The serial numbers of the devices you wish to connect
 - The static IP addresses for the devices and Edge Server
 - Whether or not a proxy is used
 - (if used, the information such as address and port of the proxy)

Things To Be Prepared by The Person in Charge of Installation

- License Registration Completion E-Mail:

Once the user's license is registered by the manufacturer, this e-mail is sent to the person in charge of your company.

The e-mail contains the activation ID required to install the iCE LiNK.



Depending on your models, the following are also required.

- **PX-IF:**
Non-iCE LiNK models require the PX-IF Interface Module. Select the appropriate module from among the following to match your model:
PX-IF-A/-B/-C/-D/-E/-F/-G/-H/-I/-J/-K/-L/-M/-N
The dongle boards and cables are supplied if they are needed. See page 5 for more details about the PX-IF modules.
- **Barcode Reader:**
Depending on your system, you might need the PX-BR Barcode Reader.
The cables differ depending on the generation of the touch panel (USB or serial connectors).
Select either PX-BR-U or PX-BR-S, depending on your model.
- **LCD Power Board:**
For the models listed below, the LCD power board needs to be replaced with the latest one in order to install the dongle board to the device. Please order the latest LCD power board.

Model	Serial Number	Confirmed LCD Power Board
CRA-36	S/N019999 and below	
CRF-362	S/N050999 and below	QPW-942/QPD-106
RD-4055	S/N037999 and below	
AF-406F	S/N027999 and below	
AF-406S	S/N017999 and below	
APC-480	S/N021999 and below	
APC-610	S/N021999 and below	
APC-660	S/N013999 and below	
BQ-280PUR	S/N027999 and below	QPW-935
BQ-480	S/N002999 and below	
HT-1000V	S/N041999 and below	
SB-09V/VF	S/N015999 and below	
SMSL-100	S/N009999 and below	
VP-66A	S/N009999 and below	

1 -2 Computer Specifications

■ Edge Computer Specifications:

- Processor Intel Core i3 Processor or above is recommended.
- Operating System Windows 10 Pro Version 1512 or above
.NET Framework Version 4.7.2 or above
- RAM at least 4 GB (8 GB is recommended.)
- HDD at least 120 GB
- Monitor 1,280 x 1,024 pixel or higher

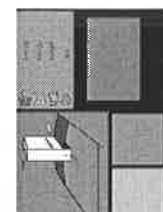
■ Client Terminal Specifications

- Terminals Windows computers, Macs, and tablets that can use one of the following browsers
 - Compatible Browsers Google Chrome: V. 83 or above
Microsoft Edge: V. 44 or above
 - Monitor 1,920 x 1,080 pixels or higher
-

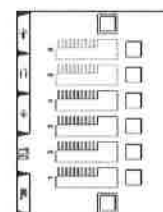
1 - 3 iCE LiNK Models

Model	Dimensions (mm)	Power (Watt)	LAN	OT	WIFI	IP	Panel
			Connectivity	Support	Support	Support	Support
IP-400P-400S	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700	✓	≥ 1.00	✓			PoE-IP	Single Board
IP-700-200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-1000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-1200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-1400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-1600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-1800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-2000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-2200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-2400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-2600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-2800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-3000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-3200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-3400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-3600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-3800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-4000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-4200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-4400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-4600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-4800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-5000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-5200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-5400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-5600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-5800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-6000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-6200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-6400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-6600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-6800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-7000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-7200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-7400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-7600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-7800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-8000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-8200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-8400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-8600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-8800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-9000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-9200	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-9400	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-9600	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-9800	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi
IP-700-10000	✓	≥ 1.00	✓			PoE-IP	Single Board+WiFi

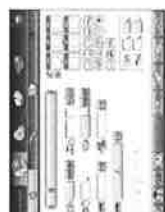
The discontinued devices and table-top devices cannot be connected to the iCE LiNK. The modification to be done depends on the generation of the touch panel. The panels' control boards for the 4th generation or later have the LAN port. The IP boards are not required. Generally, the models (such as IPF-400) sold since 2012 have the panel of the 4th generation.



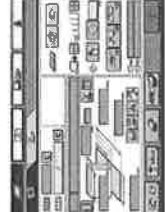
Gen 2
2000: Color Screen



Gen 1
199X: Black and White Screen



Gen 4
2012: 65000 Colors Screen



Gen 3
2004: 256 Colors Screen



Gen 5
2022: ???



Gen 4.1
2016: Flat Design Screen

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2 Installation

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2-1 Wirings of PX-IF / LAN Cable

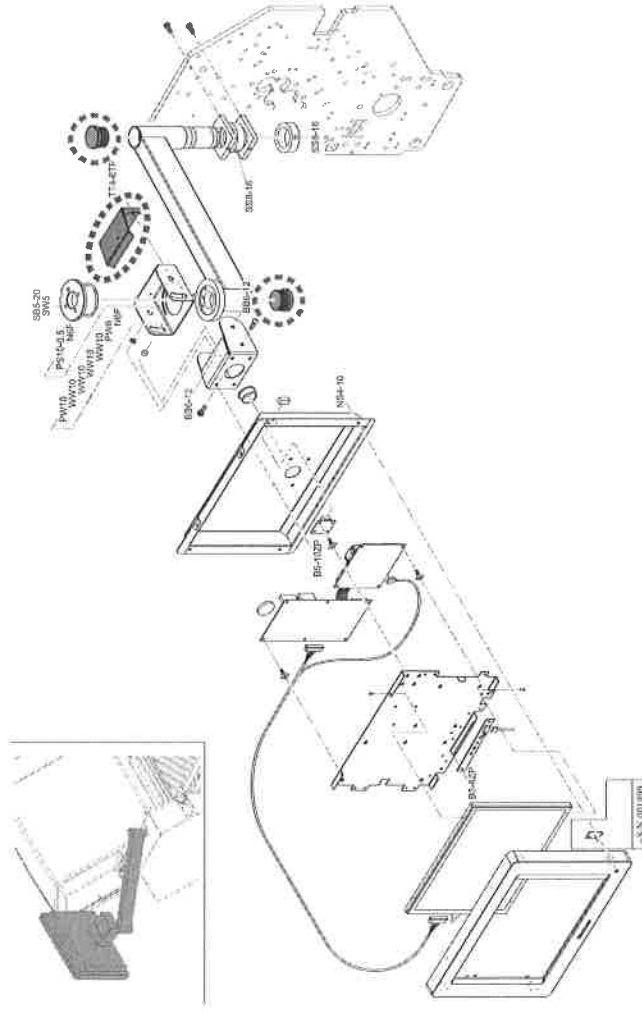
Some models but the ones for the iCE LINK (such as the HT-300, BQ-500, and so on) have to be installed the PX-IF (interface module). Install the modules (PX-IF-A/-B/-C/-D/-E/-F/-G/-H/-I/-J/-K/-L/-M/-N) to match to the models.

2-1-1	AF-406F/S Connection Procedure	13
2-1-2	AFC-56XX Connection Procedure	17
2-1-3	AFC-74XXS/D Connection Procedure	21
2-1-4	AFC-746F Connection Procedure	23
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2-1-6	APC-610 Connection Procedure	30
2-1-7	BQ-270V Connection Procedure	33
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2-1-12	CRF-362/CRA-36 Connection Procedure	47
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2-1-14	HT-30C Connection Procedure	55
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2-1-20	SB-09S/17 Connection Procedure	72
2-1-21	SB-09V Connection Procedure	74
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2 - 1 - 1 AF-406F/S Connection Procedure

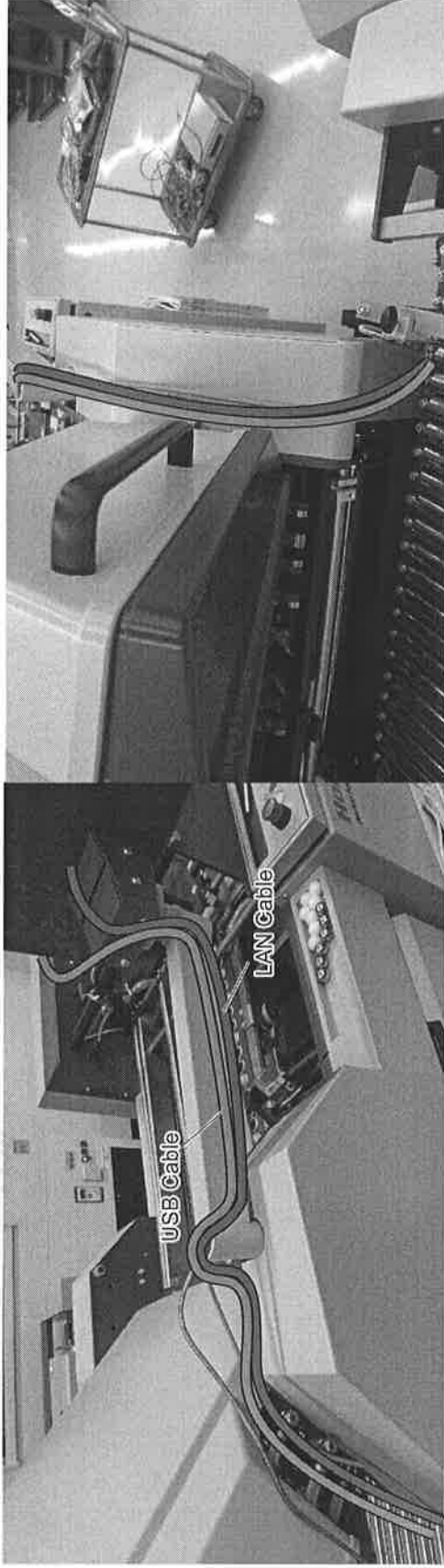
The dedicated module PX-IF-I and the barcode reader PX-BR-U are required for this modification.

- 1 Open the cover and plugs (Parts Book Fig. 27-17 and 21) colored in the drawing below.

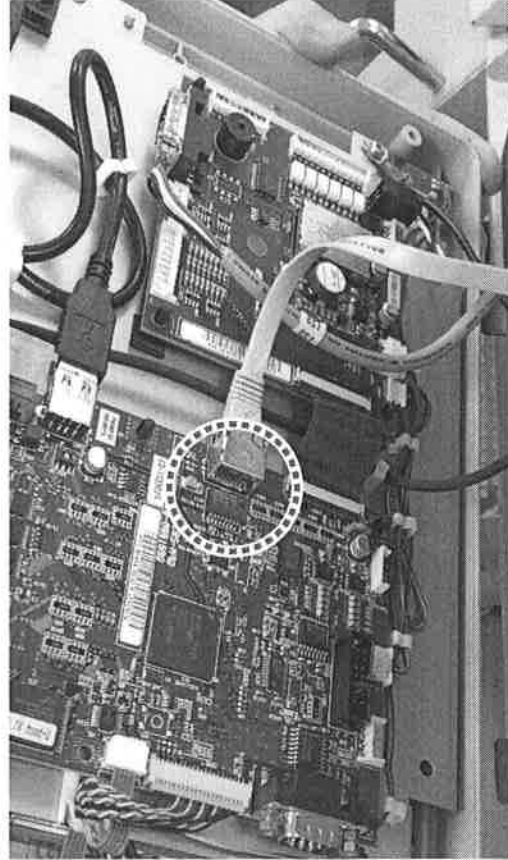


2 Installation

2 Thread the LAN and USB cables as shown in the drawing below.

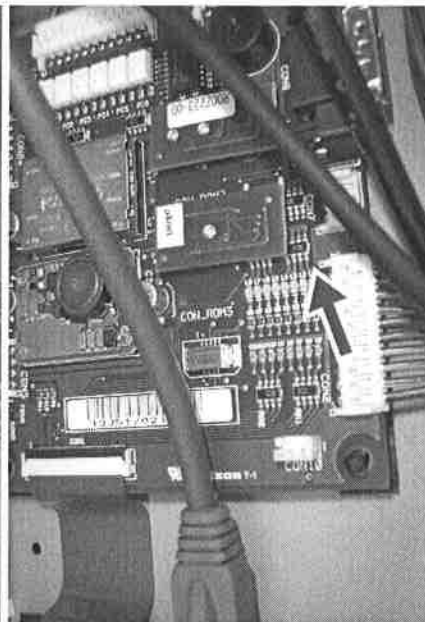
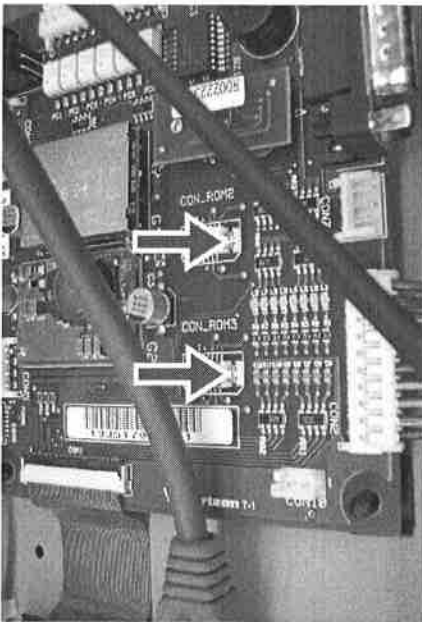


3 Connect the LAN cable to the connector on the touch panel board.



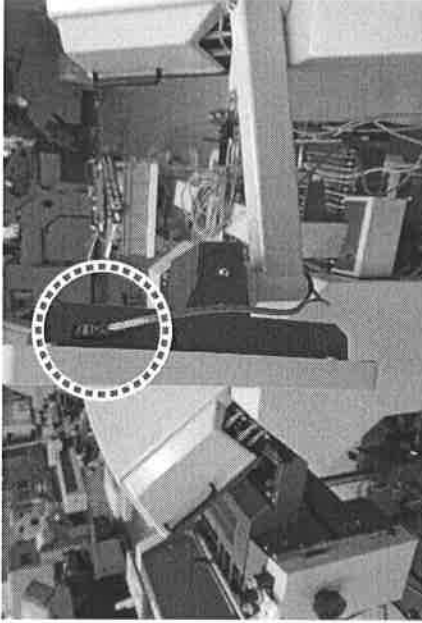
4 Install the QPD-107 dongle board.

- Insert the supplied dongle board to one of the CON_ROM1 through 3 on the QPW-935 LCD power board.



- AF-406F: For the AF-406F with S/N027999 or below, replace the QPW-935 LCD power board.
- AF-406S: For the AF-406F with S/N017999 or below, replace the QPW-935 LCD power board.

5 Connect the USB cable to the touch panel.



6 Connect the barcode reader with the USB cable.

7 Upgrade the panel control software and each necessary ROM to the version which supports the iCE LINK.