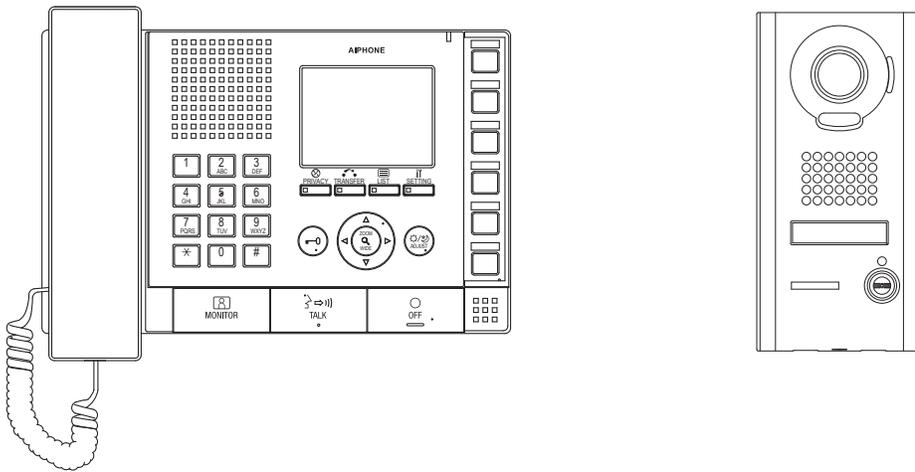


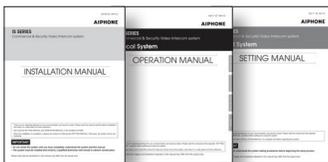
IS SERIES

IP Network Direct System

QuikStart Programming Guide



Programming Videos



ATTENTION:

This is an abbreviated programming manual, addressing basic program settings for an IS-IP Network Direct System. A complete set of instructions (*IS-IP Network Direct Installation Manual / IS-IP Network Direct Operation Manual / IS-IP Network Direct Settings Manual*) can be found on the CD provided with the IS-IPMV or IS-SOFT.

Terminology

| | |
|------------------|--|
| Area | An Area defines a location description to a common group of stations. Example: “High School,” “Front Office,” or “Warehouse.” |
| Site | A Site in an IS system is a LAN which contains a single Host and up to 31 Clients. While the IS system can have up to 32 Sites, this guide only covers a single Site system. |
| Host | A Host is the unit in an IS Site containing a configuration file used to control how each device in the Site behaves. Any IS-IPDV, IS-IPDVF, IS-IPMV, or IS-IPC (not covered in this guide) can be a Host. |
| Client | A Client is a unit in an IS Site that does not contain a complete configuration file, and relies on the Host for operational instructions. Any IS-IPDV, IS-IPDVF, IS-IPMV, IS-SOFT, or IS-IPC can be a Client. |
| DHCP | DHCP (Dynamic Host Configuration Protocol) allows all DHCP configured devices to ask for an IP address when it powers on. In the context of an IS system, Clients may be DHCP, but a Host should always be Static. DHCP with a reservation configured by the DHCP server is possible, but not recommended. |
| LAN | A LAN (Local Area Network) is typically managed by a DHCP enabled router. Anything connected to the WAN port of the router is considered outside the Local Area Network. While there are numerous ways of connecting multiple LANs together, the only supported network layout for this guide is a LAN or a VPN. |
| VPN | A VPN (Virtual Private Network) is a method of allowing two isolated LANs to communicate with each other through a public network without losing privacy. For the purposes of the IS system, it can be considered a single LAN. |
| IGMP | IGMP (Internet Group Management Protocol) is the protocol used by Multicasting systems, including the IS system. This protocol must be supported by and enabled on the networking hardware. |
| Multicast | Multicasting is a method of communicating a single stream of information, such as video or paging announcements, from a single host to many hosts. This saves bandwidth compared with sending the same packets to each recipient one at a time. The IS system uses Multicast for video during the call-in, but not when a master monitors the door (since it is the single recipient when the MONITOR button is used). |

General Precautions

HOW TO USE THIS GUIDE

This guide is intended to be used for a single site IS-IP system running on a IPV4 network that includes IS-IP door stations, IS-IPMV master stations, and IS-SOFT PC master stations.

Note: Refer to the IS-IP Standard Setting Manual when using a IPV6 network, the IS-IPC, or when multiple sites are required.

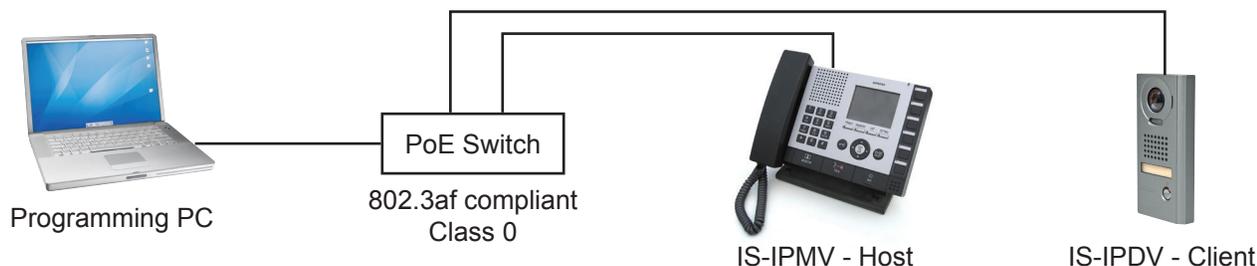
IMPORTANT:

When changes are made while programming, click **Temporarily stored** to save data prior to leaving each screen. The saved data will be applied to the system when the system is updated.

Step 1: System Layout

Choose an IS-IPDV, IS-IPDVF, or IS-IPMV to be the **Host**. All other devices will be set as **Clients**. The final network needs to be a LAN or a VPN that supports Multicast. To program, use a network switch and CAT-5e cable to connect the PC to each device one at a time. When using a PoE switch, an 802.3af compliant PoE Class 0 switch is required.

Wiring Example:



Step 2: Configure PC's IP Address

The default IP address for each IS-IP device is https://192.168.0.40. The PC will need to be set in the same subnet in order to connect to the IS-IP devices.

- A. Open **Control Panel**
 - Windows XP® (classic view) → **Network Connections** → Double click **Local Area Connection** to open **Connection Status** window.
 - Windows 7® (Category View) → **Network and Internet** → **View network status and tasks** → Click **Local Area Connection** to open the **Local Area Connection Status** window.
- B. Click the **Properties** button to open **Local Area Connection Properties** window.
- C. Scroll down and click **Internet Protocol Version 4 (TCP/IPv4)** then click the **Properties** button to open **Internet Protocol Properties** window.
- D. Select the **Use the following IP address** radio button. Type in the IP address 192.168.0.100 (the last number can be any valid host address except 40) and change the subnet mask to 255.255.255.0. Click [OK].
- E. Click [OK] in the **Connection Properties** window to accept these changes.

Step 3: Install and Configure IS-SOFT Application (OPTIONAL)

Note: *IS-SOFT is not required to program the system.* If using IS-SOFT, the application requires a PC with speakers  and a microphone , or a headset  in order to communicate with the stations in the system.

A USB style microphone / headset is recommended.



- A. Click the **Setting** button and click the **Network** tab.
- B. Enter the Host's IP address, the Connection password "aiphone" and choose the Network Interface Card from the drop down list. Enter the license key provided in the CD case (limit one per PC).
- C. Click **Save**.

IMPORTANT:

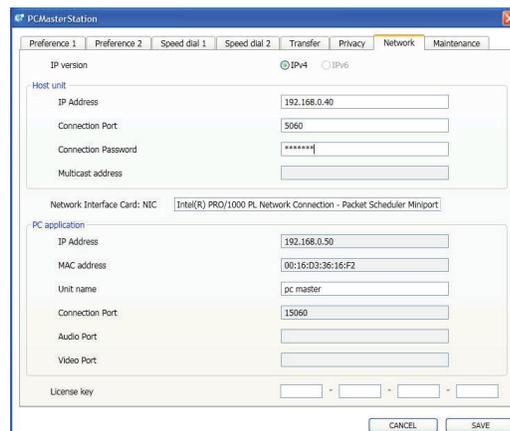
The software will attempt to make contact with the Host, but will give an error message because the Host isn't set up yet. Ignore this error and proceed to **Step 4: Log in to IS-IP Device.**

Figure 3.1: IS-SOFT



Note: Please register the IS-SOFT. See Step 12.

Figure 3.2: Network Tab



Step 4: Log in to IS-IP Device (IS-IPMV, IS-IPDV, IS-IPDVF)

IMPORTANT:

If connecting the IS-IP devices to a DHCP network, use the IS_IPSEARCH program found on the CD to identify the IP addresses of the stations. When not tied to a DHCP network, the units will have the default address of 192.168.0.40. By default, all units have the same address, making it important to hook up and program each station one at a time.

- Open a web browser and point the address bar to **https://192.168.0.40**. If using DHCP, enter the unit's IP address discovered with the IS_IPSEARCH program and hit [Enter].
Note: ensure that https (for security) is being used in the address bar.
- A security certificate error message will appear. Click "Continue to this website."
- Choose preferred language (see **Figure 4.1**).
- Log in to the unit using the default administrator ID "aiphone," and default password "aiphone" (see **Figure 4.2**).

Figure 4.1: Select Language

| |
|------------|
| English |
| Français |
| Deutsch |
| Español |
| Nederlands |
| Italiano |
| 日本語 |

Figure 4.2: ID and Password

Enter the administrator ID and password.

| | |
|--------------------------------------|--------------------------|
| ID | <input type="text"/> |
| Password | <input type="password"/> |
| <input type="button" value="Login"/> | |

Step 5: Set Up Client Devices

How-To



- Select **Network setting** from the menu on the left.
- Click the **Client unit** radio button.
- Enter the **Host unit IP address** (This will be the Static IP address assigned to the host unit in Step 6).
- DHCP is utilized by default. Aiphone recommends assigning a static IP address by clicking the **Static IP Address** radio button and entering a unique IP address and Subnet Mask. (see **Figure 5.1**)
- Enter a **Unit name** for the device (This is used for identifying the unit in programming only).
- Enter the **Connection port** and the **Connection password** for the system.
- Click **Temporarily stored** to save changes.
- Select **Updating the system** from the menu on the left.
- Repeat Steps 4 & 5 for all client devices, then do Step 4 to log in to the host.

Figure 5.1: Network Setting - Client

| | |
|------------------------------------|---|
| Temporarily stored | |
| Network setting: Individual | |
| IP version | IPv4 |
| Host unit setting | |
| ○ Host unit | |
| ○ Client unit | |
| Host unit IP address | 192.168.0.40 *Required |
| System name | <input type="text"/> (1-24 Alphanumeric characters) |
| ○ DHCP | |
| ○ Static IP Address | 192.168.0.41 *Required |
| Subnet Mask | 255.255.255.0 *Required |
| Default Gateway | <input type="text"/> |
| Primary DNS Server | <input type="text"/> |
| Secondary DNS Server | <input type="text"/> |
| MAC address | 00:0B:AA:0C:08:0D |
| Unit name | IS-IPDVF (0-24 Alphanumeric characters) |
| Web port | 443 |
| Connection port | 5060 *Required 1024-65535 |
| Connection Password | aiphone *Required (1-16 Alphanumeric characters) |
| Temporarily stored | |

Step 6: Set Up Host Device



- Select **Network setting** from the menu on the left.
- Click the **Host unit** radio button.
- Enter the **System name** (max. 24 alphanumeric characters).
- DHCP is utilized by default. Aiphone recommends assigning a static IP address by clicking the **Static IP Address** radio button and entering a unique IP address and Subnet mask (see **Figure 6.1**).
- Enter a **Unit name** for the device (This is used for identifying the unit in programming only).
- Enter the **Connection port** and the **Connection password** for the system.
- Click **Temporarily stored** to save changes.

Figure 6.1: Network Setting - Host

Step 7: IP Unit Registration - Host



- Select **IP unit registration** from the menu on the left.
- Scroll down and click **IP unit search** in the lower right (see **Figure 7.1**).
- Check the station(s) needing to be added to the **Imported IP units list**. Click **Add to the imported IP units list** to add them.
Any units not appearing can be manually entered (see **Figure 7.2**).

Figure 7.1: IP Unit Registration - IP Unit Search

| Station type | MAC address | Unit name | Port number |
|---------------------|-------------------|-----------|---------------|
| 1 IP master station | 00:0B:AA:0B:01:15 | IS-IPMV | 50900 - 50902 |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |

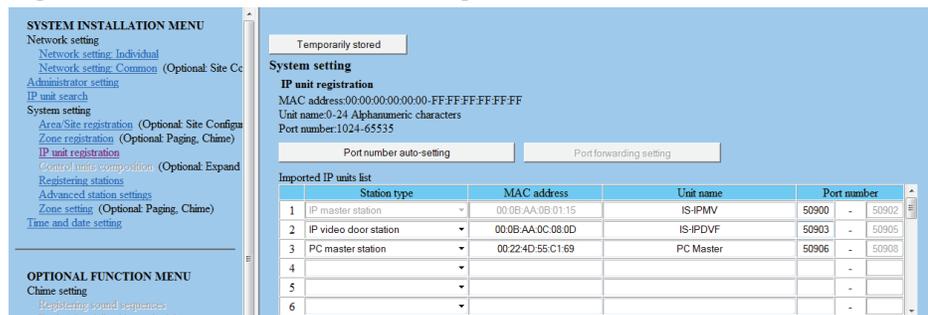
Figure 7.2: Manual Entry

| Imported IP units list | Station type | MAC address | Unit name |
|------------------------|-----------------------|-------------------|-----------|
| 1 | IP master station | 00:0B:AA:0B:01:15 | IS-IPMV |
| 2 | IP video door station | 00:0B:AA:0C:08:0D | IS-IPDVF |
| 3 | PC master station | 00:22:4D:55:C1:69 | PC Master |
| 4 | IP control unit | | |
| 5 | IP master station | | |
| 6 | IP video door station | | |
| 6 | PC master station | | |

Step 7: IP Unit Registration - Host (cont.)

- D. Click **Port number auto-setting** to assign the required ports to all stations that need to communicate (see **Figure 7.3**).

Figure 7.3: Port Number Auto-setting



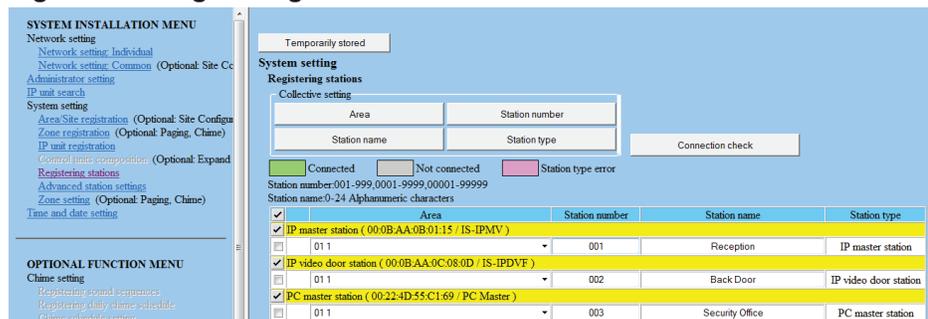
- E. Click **Temporarily stored** to save changes.

Step 8: Registering Stations

- A. Select **Registering stations** from the menu on the left.
- B. The **Registering stations** table will be populated based on the settings made in **Step 7**. Enter a **Station number** and **Station name** for each door/master unit (see **Figure 8.1**). (Station number must be between 3 and 5 digits and is required)
- C. Click **Temporarily stored** to save changes.



Figure 8.1: Registering Stations



Step 9: Advanced Station Settings

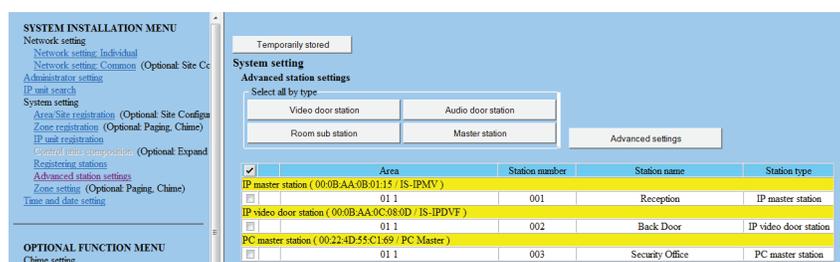
IMPORTANT:

Advanced station settings is a required step to complete the programming process.



- A. Select **Advanced station settings** from the menu on the left.
- B. The **Advanced station settings** table is populated based on the stations registered in **Step 8** (see **Figure 9.1**).
- C. To program a door station(s), check the corresponding box and click **Advanced settings**. A new window will open.

Figure 9.1: Advanced Station Settings



Step 9: Advanced Station Settings (cont.)

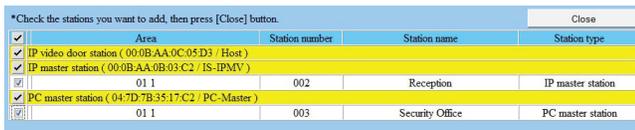
- D. Click **Called stations** (see **Figure 9.2**). A new window will open.

Figure 9.2: Advanced Settings - Video Door Station



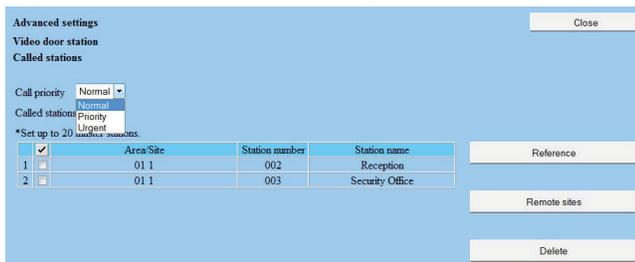
- E. Click **Reference** to open a new window and select the masters to be called by checking the box beside each unit (see **Figure 9.3**). Once the masters have been selected, click **Close**.

Figure 9.3: Called Stations



- F. Select the **Call priority** level for this door station from the drop-down list. The **Advanced settings** window will display the master(s) that will be called (see **Figure 9.4**). If a master was selected in error, check the box next to that master and click **Delete** to remove from the list.

Figure 9.4: Advanced Settings



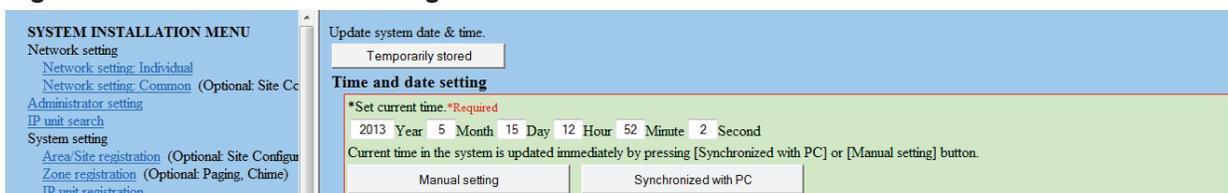
- G. Click **Close** to go back to the main **Advanced station settings** window.
H. Repeat Steps C through G for all video door stations.
I. Click **Temporarily stored** to save changes.

Step 10: Time and Date Setting

- A. Click the **Time and date setting** from the menu on the left.
B. If the PC's date and time is correct, click **Synchronized with PC**.
If not, set it manually (see **Figure 10.1**).
C. Click **Temporarily stored** to save changes.



Figure 10.1: Time and Date Setting



Step 11: Updating the System

- A. Click **Updating the system** from the menu on the left.
- B. Click **Update** to update the unit with all stored data. The system will reboot and return to the language selection screen when complete.

Depending on the amount of data and changes, the reboot could take as long as **5-10 minutes**.

Step 12: Register Products (Recommended)

We recommend that the IS-IP hardware and IS-SOFT be registered. This will enable Aiphone to send alerts to the end user of firmware and software updates. Registering the software will also enable Aiphone to easily retrieve the License Key for the IS-SOFT should it ever be misplaced. Please use the following website to register all products in the installation. **Register the products using the end user's contact information.**

www.aiphone.com/IS_Sys_Reg.htm

Troubleshooting

| Problem | Possible Cause | Solution |
|--|---------------------------------------|--|
| Can't access IS IP device | Secure address prefix | Make sure you are typing "https://" and then the unit's IP address in the address bar of your browser. |
| | IP range not the same | Make sure your PC and the devices are in the same IP range (step 2 in this guide). |
| IS_IPSearch not working | Multicast not enabled | IS_IPSearch utilizes multicast to search for and retrieve the IS-IP device's IP and MAC address. Enable multicast address 239.197.40.41 on your network. |
| | IP range not the same | The IS_IPSearch program will search within the PC's domain, then filters results via MAC Address. If IS_IPSearch does not find the IS-IP devices, ensure that the PC is set to the same IP range as the IS-IP devices (default range is 192.168.0.xxx). |
| No video from door station when calling | Multi-cast address issue | In the event the IS-IPDV/F is able to call in and establish an audio connection to the IS-IPMV or IS-SOFT master stations, but fails to establish video, this is a sign that the video multicast address is not being broadcast*. The specific multicast address used for video broadcast from the door to master is 239.0.1.4 (Network Settings: Common) . This address must be managed on the switches and routers for the system to work correctly. <i>* Note: When a master calls a door station, video most likely will be present. This is because master to door calls utilize unicast.</i> |
| IS-SOFT: Setting file cannot be acquired | Invalid Host IP address | Ensure that the Host IP address is set correctly in the IS-SOFT network tab (see Step 3). |
| | IS-SOFT not registered to Host Device | Ensure that the PC with IS-SOFT is registered as a client in the host device (see Step 7). |
| | Connection password invalid | Retype the connection password in the network tab of IS-SOFT (default is aiphone). |
| IS-SOFT: Invalid License Key | License Key entered incorrectly | The License key for IS-SOFT is case sensitive. Make sure it is entered as shown on the license key document. |
| Door station LED indication | Steady Amber | Standby mode |
| | Flashing Amber | Applying setting changes after programming |
| | Steady Red | Network connection issue |
| | Flashing Red when call button pushed | Door station has a network connection but is not programmed to call a master (step 9) |
| | Solid Green | Active Communication |