

# **BioStation**

## **Firmware Revision Notes**

**Version 1.9**



## Revision Notes

### **Firmware Version 1.9**

**Build Number V1.9\_110224**

2011-02-24

- Support Interlock Zone.
  - It is possible to configure two doors as an interlock zone.
- Support Mifare Plus Card.
  - Support CSN reading.
  - Read data saved in each sectors of Mifare Plus Card.
  - Write data to each sectors of Mifare Plus Card.
- Support Mifare Desfire and Ultralight card
  - Support CSN reading only.
- Upgrade Fingerprint algorithm
  - Extracting algorithm is improved.
  - Matching algorithm is improved.
- Support ANSI378 fingerprint template format.
- The following bugs are fixed.
  - Using HID card, there was no validation about card data length.
  - Using Unlock Time, forced open event does not occur.

### **Firmware Version 1.8**

**Build Number V1.8\_091214**

2009-12-14

- Support extended alarm zone operation.
  - It is possible to configure any input port of BioStation as an external sensor input for extended alarm zone.
  - It is possible to configure any input port of BioStation as an external arm/disarm input for extended alarm zone.
  - It is possible to configure any output port of BioStation as an arm/disarm status

output for extended alarm zone.

- Support arm/disarm initiation on alarm zone by pre-defined keypad.
- Support a turnstile-type door.
  - It is possible to configure BioStation to close door upon sensing door status input within door open time.

**Firmware Version 1.72**                      **Build Number V1.72\_091130**                      2009-11-30

- For OC versions, there were cases when the optical sensor failed to scan fingerprints due to improper initialization. This symptom occurs randomly when the device's operation mode – identification, menu invocation, etc – is changed. Most devices do not suffer this anomaly during normal operation, as the failing mode is device dependent and the probability of the failure is low.

**Firmware Version 1.71**                      **Build Number V1.71\_091008**                      2009-10-08

- Following bugs are fixed
  - When the BioStar Access Zone configuration have been changed, a member BioStation of the Access Zone try to synchronize users with the master device, although the user information of the other devices was not changed.

**Firmware Version 1.7**                      **Build Number V1.7\_090821**                      2009-08-21

- Maximum number of user is extended to 200,000 in HW Version 05.( In previous HW Version, maximum number of user is still 25,000.)
- Maximum number of template is extended to 400,000 in HW Version 05.( In previous HW Version, maximum number of template is still 50,000.).
- Fast ID Matching is supported. Fast ID Matching means that identify is processed in users whose id is started with the inserted id.
- USB Virtual Terminal which is exported form F/W version V1.7 can not be supported in BioAdmin.(We recommend to use BioStar )

- Sending configuration to BioStation by USB Connection can be failed in BioAdmin .  
(We recommend to use BioStar )

**Firmware Version 1.6**

**Build Number V1.6\_090604**

2009-06-04

- Wiegand Extend Mode is added.
- Changing Card Id Format to save and display is added.
- The card reader to be connected with the fingerprint reader through Wiegand Extend Mode can be included in BioStar Zones .
- The card reader to be connected with the fingerprint reader through Wiegand Extend Mode can be included in BioStar Doors .
- Auto Changing To Local Matching, when the disconnection with PC occur in using server matching, is added.
- Following bugs are fixed
  - The TCP/IP connection between BioStation and PC is disconnected by Session Time Out of firewall .
  - When TCP/IP connection of BioStation to PC need over 3 seconds, BioStation can't connect to PC.

**Firmware Version 1.51**

**Build Number V1.5\_081210**

2008-12-10

- Log Cache Size is changed to 128 from 64.
- When the synchronization with SIO has succeeded , BioStatoin plays the success sound.
- Server matching by Wiegand Card Input is added.
- Arm/Disarm by Wiegand Card Input is added.
- Following bugs are fixed
  - When enrolling to the module has failed, the log has remained as success.
  - When an error occurs in enrolling to the internal module, the log remains as the success.

- When the auth mode is 'ID/CARD + FINGER +PIN', the server identification log does not remain.
- When the auth mode is 'ID/CARD + FINGER +PIN', the server identification is not restricted by auth limit conditions.
- After placing a card is canceled, the verify success log always remains as 'CARD+FINGER'.

**Firmware Version 1.5****Build Number V1.5\_081005**

2008-10-05

- Support BioStar, a new access control software of Suprema.
  - Key differences of BioStar over BioAdmin in terms of BioStation firmware are as follows:
    - Door configuration
      - ◆ One device can control only one door, i.e., 'two door' mode is not supported. Activating an additional relay is possible, though.
      - ◆ "Door relay" can be set as the device's own relay, other device's relays or SIO's relays in the same RS485 network. (SIO means Secure I/O)
      - ◆ "RTE" or "Door sensor" can be set as the device's own input of SIO's input in the same RS485 network. (SIO means Secure I/O)
    - RS485 network
      - ◆ In a RS485 network, a host device should be unique and the number of slave devices is up to 7, among which 4 SIOs can be included by maximum.
      - ◆ If a host device is connected to PC by LAN, it is possible to access data of RS485-networked slave devices from PC. It means, LAN connection is not necessary between PC and slave devices.
      - ◆ Except "Door configuration", it is not possible to control or monitor other device's relay or input ports in a RS485 network.
    - Zone configuration

- ◆ Access Zone, Alarm Zone and Fire Alarm Zone are newly supported.
- ◆ In Access Zone, user data, logs and time information can be synchronized among a master and member devices.
- ◆ In Alarm Zone, any device can be set as a Arm or Disarm device and monitor any 'intrusive' action by specified input ports, and make alarming actions on that occasion.
- ◆ In Fire Alarm Zone, the devices monitor a specified input sensor and forcibly open all doors or do alarming action in case of fire alarm.
- ◆ Four zones can be configured at the same time.
- BioStation can connect to BioStar server without SSL.
- BioStation can be searched by UDP. IP configuration can be modified by UDP as well.
- In 1:1 authentication , 'ID/CARD + FINGER +PIN' mode is added.
- A bug is fixed so that BioStation shall retry the connection to the server when it fails to connect.

**Firmware Version 1.42**

**Build Number V1.42\_080521**

2008-05-21

- 'Enhanced Privacy Option' is added. With this option set, fingerprint templates are encrypted and user agreement step is added before enrolling fingerprints.
- Added an option to detect a fake fingerprint. This option enhances security level by detecting fake fingerprint input but does not guarantee 100% detection.
- Added an option to use ISO template format. Users can select template format between Suprema's own format(default) and ISO19794-2 standard format.
- Added an option to control a detailed wiegand output timing.
- Mifare Card is supported. (BioStation Mifare versions)
  - A fingerprint template can be saved on a mifare card instead of internal memory of BioStation CSN(Card Serial Number) of a mifare card can be used as an ID to

verify a user for 1 to 1 match.

- 1KB and 4KB cards are supported.
- An icon is added to display the connection status between biostation and PC.
- When using T&A Auto Change, T&A Manual Change or T&A Fixed, the current T&A mode is displayed.
- The Following bugs are fixed.
  - When enrolling a user, the last(second) fingerprint image is not displayed.
  - When trying APB via RS-485, the admin authentication is checked by the APB rule.
  - When enrolling over 9720 fingerprint templates, the free scan is enabled on an entering admin menu dialog.

**Firmware Version 1.4****Build Number V1.4\_071105**

2007-11-05

- Added a function to reset the master password of BioStation. using BioAdmin.
- A process of receiving IP address is changed to run background.
- A status of TCP/IP connection is indicated by a graphical icon on LCD.
- Some options of T&A mode setting are added.
  - Auto Change – T&A mode is changed by a selected time schedule automatically.
  - Manual Change - T&A mode is changed and kept as the last T&A key input.
  - Fixed – T&A mode is fixed by a selected mode. Changed manually by menu.
- Added an option to check duplicated fingers in enrollment.
- Added an option to change maximum identification time. Default is 3 seconds.
- Added a function to calibrate TC sensor.
- Added an option of changing 1:1 and 1:N authentication mode automatically by



schedule.

- Added entrance limit functions like setting authentication interval or limiting number of entrance in a time period.
- Zone configuration is supported where a group of devices in a zone share user and log data for synchronization and support global anti-passback and entrance limit functions in a zone.
  - One of the devices in a group set as a master device gathers data such as user information, log information and time.
  - Sub zones can be set for anti pass back or entrance limit functions.
  - A zone can have maximum 32 devices(BioStation, BioEntryPlus) and 16 subzone.
- The I/O functions can be extended through RS485 network.
  - For increased security, external Secure I/O or another BioStation can be used for door relay by an encrypted RS485 communication.
  - Up to 2 devices (BioStation/BioEntry Plus) and 4 Secure I/Os can be connected in a single RS485 loop.
  - Local anti pass back function is supported among devices in a RS485 network.

**Firmware Version 1.3**

**Build Number V1.3\_070618**

2007-06-18

- Individual verification display function is supported. In verifications success, photos of the individual or a message to him/her can be displayed in the LCD of BioStation.
- T&A function key is effective in 'Bypass' RF card and 'Card Only' option which was not possible in earlier versions.
- Setting the expiration date of the specified user is supported. When the current date is over the expiration date the authentication of the user is limited.
- Sound items are extended. 'Finger Only', 'PIN Only', 'Card Only', 'Finger or PIN', 'Finger or Card', 'F1', 'F2', 'F3', 'F4' items is added.

- The following functions are changed.
  - The displayed date format is configurable, 'DD/MM' or 'MM/DD'.
  - In a log save, the authentication method (card, fingerprint, PIN) is also recorded.
  - 'Auto' item is added on 'Fingerprint'-'Fast Mode' menu. It is recommended to use this Automatic Fast Mode because it maintains the same level of identification speed irrespective of the size of the enrolled fingerprints.
  - "1:N delay" setting menu is added. It is a delay time between each fingerprint identification.
  - In 'Door Relay' menu, configuration menu about whether or not the door relay is driven by authentication is added on.
  - In a wiegand setting of 'I/O', one can now select 'Wiegand Card ID' or 'Wiegand User ID'. Wiegand Card ID means the usual wiegand code of a card while the Wiegand User ID means the wiegand code generated by the user ID.
- The following bugs are fixed.
  - The RS232 connection gets unstable when changing the baudrate configuration in BioStation.
  - WLAN does not work when not using an encryption in wireless connection.

**Firmware Version 1.21**                      **Build Number V1.21\_070222**                      2007-02-22

- The following bugs are fixed.
  - Lock System function does not work when the tamper switch is on.
  - The system might reset when displaying user names longer than 30 characters.

**Firmware Version 1.2**                      **Build Number V1.2\_070124**                      2007-01-24

- RF card is supported.\*
  - 1:1 verification can be processed with RF card. "Card ID" field is added in the user information.

- “Card only” mode is also added in 1:1 verification.
  - Bypass card is supported.
- Communication with BioAdminServer through Ethernet is supported.
  - Secure communication is supported using SSL.
  - Realtime storing of log records at BioAdminServer is supported.
  - Automatic time synchronization is supported.
- Access control functions are enhanced.
  - Timed anti-passback is supported.
  - Limitation on the number of daily access is supported.
  - User disable function is supported.
- The following functions are changed.
  - Timeout for popup message is configurable. (0.5 ~ 5sec)
  - Timeout for ID/Password window is added.
  - In resetting to factory default, resource files are not changed.
  - Fingerprint enrollment process is changed to support retrial of finger touch at the failure of enrollment.
  - In enrollment, warning of ID duplication is supported.
  - Accuracy of time is improved.
- The following bugs are fixed.
  - In importing from a USB memory stick, some resource files are not copied.
  - Abnormal termination of resetting to factory default process might cause system boot failure.

*\* These features are available only if the hardware revision is V02 or later.*

<b>Firmware Version 1.11</b>	<b>Build Number V1.11_061025</b>	2006-10-25
<b>Firmware Version 1.11W</b>	<b>Build Number V1.11W_061025</b>	2006-10-25

- Multiple clients can connect to a BIOSTATION terminal through Ethernet/WLAN.

Maximum connection can be specified in TCP/IP menu.

- The following bugs are fixed
  - In some cases, the last character in the T&A greeting message is overlapped with window border.
  - After resetting to factory default, the Fingerprint options remain unchanged.
  - **Wireless 1.11W** The blue LED might not be turned on after system reset.

<b>Firmware Version 1.1</b>	<b>Build Number V1.1_060922</b>	2006-09-22
<b>Firmware Version 1.1W</b>	<b>Build Number V1.1W_060922</b>	2006-09-22

- USB memory stick can be used for transferring data between the host PC and BIOSTATION terminals.
- Wiegand I/O is supported. Up to 64 bit Wiegand formats can be defined. The only constraint is that each field is limited to 32 bits.
- RS485 communication is supported.
- Intercom is supported.\*
- The template capacity is increased to 50,000 for 1:1 matching and 9,720 for 1:N matching.\*
- The socket type is changed to TCP from UDP. As a result, BioAdmin V3.0 cannot connect to BIOSTATION with firmware V1.1 through Ethernet. You should use BioAdmin V3.1 or later.
- Template encryption is supported. When this option is on, all the fingerprint templates are transferred and saved in encrypted form.
- Locking/unlocking communication channels is supported. To unlock communication channels, users should provide 16 byte master password.
- Log filtering is supported.
- Time can be set in Display setup menu.

*\* These features are available only if the hardware revision is V01 or later. These are not supported if the hardware revision is Rev. E or Rev. F.*