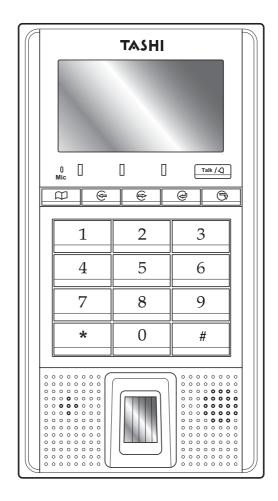
A Versatile Multi-Function Terminal





400664G Version 3.0

unitech

Preface

About This Manual

This manual explains how to install, operate and maintain MT180 IP-based Access Control Terminal.

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Unitech TASHI Website: http://www.unitech-sbd.com

Unitech Global Website: http://www.unitech-adc.com

Regulatory Compliance Statements

FCC Warning Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

Canadian Compliance Statement

Industry Canada Notice Operation is subject to the following two conditions: (1) This device may not cause interference and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

European Conformity Statement

Declaration of Conformity with Regard to the R&TTE 1999/5/EC and EMC 89/336/ EEC directives.

RoHS Statement



This device conforms to RoHS (Restriction of Hazardous Substances) European Union regulations that set maximum concentration limits on hazardous materials used in electrical and electronic equipment.

Taiwan NCC Warning Statement

根據 NCC 低功率電波輻射性電機管理辦法 規定:

- 第十二條 經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變 更頻率、加大功率或變更原設計之特性及功能。
- 第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時, 應立即停用,並改善至無干擾時方得繼續使用。

前項合法通信,指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。



Warranty

Under Unitech limited Warranty, the following items are covered:

- MT180 IP-based Access Control Terminal 1-year limited warranty.
- Cables three month limited warranty.

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Chapter 1

Getting Started

Introducing MT180

MT180 is a TASHI (Time & Attendance, Access Control, Security, Home Automation and Intercom) terminal. It communicates with a central host security and T&A system through a standard Ethernet network. The built-in proximity and fingerprint readers provide strict access control to a secure area. Thanks for purchasing one of the most compact and cost-efficient access control and time and attendance management solutions on the market.

Features

Powerful System

- 72 Mhz ARM7TDMI-S.
- System Memory
 - 8 MB Flash ROM.

Display

- COG/FSTN LCD with White Backlight.
- 128 x 64 Pixel Resolution.

User Interface

- 18 Hard Keys.
- LED Indicators (3).

Fingerprint Reader

Fingerprint Capacity: 7,000.

Proximity Reader

- Card Capacity: 40,960.
- Supports reader types:
 - EM, 125kHz.
 - HID, 125kHz.
 - MiFare, 13.56MHz.

Communication

- Ethernet 10/100M.
- RS485.
- Digital Inputs (3).
- Relay (2).
- DECT Voice (Optional).

I/O Expansion

- RS232 Drive (Secondary Reader).
- Digital Inputs (3).
- Digital Outputs (3).

Software Tools

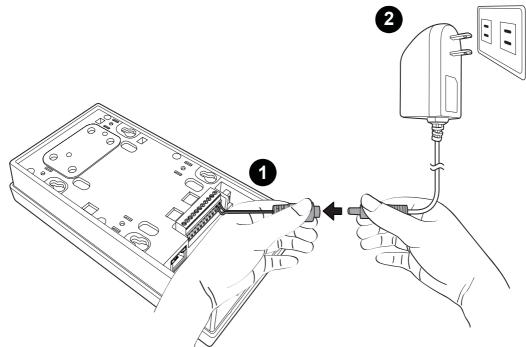
- JanitorLite.
- MTTool.
- Communication Software Development Kit.

Setting up MT180

Connecting Power

Connect power to MT180 through the following:

1. Connect the AC Adapter into MT180's DC Connector Port (1). Plug the AC Adapter into an electrical outlet (2).



- 2. MT180 automatically starts when the AC Adapter connects to an external power source. The welcome screen appears before MT180 runs the module checking process.
- **NOTE:** MT180 comes with an antitheft sensor inside the back panel. To setup MT180 before installation, disable the alarm buzzer through one of the following:
 - 1. Attach a magnet behind the sensor on the back panel.

2. Disable the antitheft function in the MT180 firmware (See *Advanced Setting* on page 15).

3. Open the case and short circuit pin2 and pin3 of the J5 connector.

NOTE: When MT180 is installed or used, be sure that you set the backup battery switch to the left to power ON MT180; if you do not use MT180 over a long period of time, please right switch OFF the battery switch located above the terminal block to save the backup battery power.

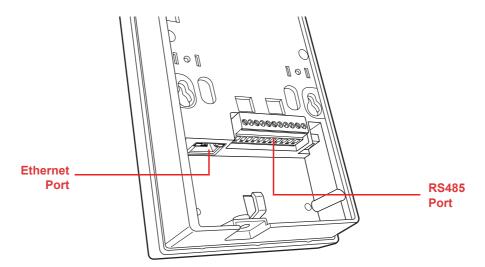
Identifying LED Indicator Lights

MT180 contains three LED indicators. For detailed descriptions, refer to the following:

| Indicator Light | Description |
|-----------------|---------------------------------------------------------------------------------------|
| Blinking Yellow | CPU normal operation. |
| Solid Yellow | Terminal crash. |
| Solid Green | Operation success. For example: Swipe card success and enter the password success. |
| Solid Red | Error occurred during operation. For example: Invalid card. |

Establishing Terminal-PC Connection

Configure MT180 system settings after connecting power through an external power source. MT180 enables users to link to a host computer via Ethernet or RS485 interfaces for data communication. MT180 can setup through MTTool or JanitorLite.



Unitech MTTool is a development program designed to help technical engineers customize access control, attendance control and manage function modules in a specified terminal (i.e. MT180). Connect MTTool to MT180 through the following:

- 1. Connect MT180 and a computer to the network.
- 2. MT180's default IP address is **192.168.2.127**. Set the computer on the same subnet with MT180.

For example, IP Address 192.168.2.100; Network Mask 255.255.255.0.

- 3. Make sure the TCP port **10002** is not occupied. If yJanitorLite is installed, stop the Unitech MT Service in the Control Panel.
- 4. Disable any firewalls and execute MTTool.
- In MTTool, on the computer screen, under the SysSet1 tab, select WinSocket. In the IP/Name field, input MT180's default IP address 192.168.2.127 and in the Port field, input the default port 10002.
- Click Connect. The status bar at the bottom of MTTool displays Connection succeed, which means MTTool has successfully cononected to MT180.

| WinSocket IP/Name 192.168.2.127 Port 100 | Firmware Info | Time/ Date | |
|--------------------------------------------------|------------------------------------|-----------------------|-------------------------|
| | Version: Serial No: | 2007 Year 12 Month 12 | |
| | | 12 Hour 12 Minute 12 | Adjust (0037) |
| | Get (0133) | Get (0136) Set (0037) | Adjust (0037) |
| erminal Setting | Set1 Set2 | | |
| RS485 BaudRale 9600bps Get (0134) Set (0 |) Terminal Position Display (16 B) | | Get (0131) Set (0031) |
| Terminal ID (1B) Get (0130) Set (0 |) Company Name Display | | Get (0132) Set (0032) |
| Terminal Serial No (4B) | Delay Time to Open Door (Hex 48) |) Sec | Get (0144) Set (0044) |
| Old Password New Password DES KEY(16B) Set (0 | Door Position Senso | Disable 💌 | Get (0145) Set (0045) |
| SysLogin Password (8B) Set (0 | Handing Door failed to Close | None 💽 Sec | Get (0148) Set (004B) |
| Long Open the Day Disable 💌 Get (0119) Set (0 | DI Delay Time (Hex 48) |) 0 💌 Msec | Get (0146) Set (0046) |
| Operation Mode Access Get (0140) Set (0 | DO Delay Time (Hex 4B) |) 0 💽 Sec | Get (0147) Set (0047) |
| Reader Internal Read Get (0141) Set (01 | Security Alarm Notification | None 💽 Msec | Get (0149) Set (004C) |
| Backlight Always On Get (0142) Set (0 | Force Door Remotely | / Close 💽 | Sec Set (0048) |
| Subst Clock-in Times Get (014B) Set (0 | Retrieve Remote Door C | Iontrol | Set (0049) |
| Default Substitute Clock-in Times Set (0 | Bemote Security Alarm | n Disable 💽 | Set (004A) |
| Same Card Delay Time Sec Get (014C) Set (0 | Card Type | SISO14443 TYPE A | Get (0143) Set (003E) |
| | | | |

Setting Date and Time

Correct MT180 date and time in MTTool through the following:

- In MTTool and under the SysSet1 tab, locate the Time / Date field.
- Input the current date and time.
- Click Set.

NOTE: Click **Adjust** to synchronize MT180's time with the computer's time.

| onnection Setting | | Firmware Info | Time/ Date | |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------|-----------------------|
| ☞ WinSocket IP/Name 192.168.2.127 | Port 10002 | Version: | 2007 Year 12 Month | 12 Date |
| C RS232 ComPort | Baud Rate | Serial No: | 12 Hour 12 Minute | 12 Second Monday |
| Termid (| Connect Disconnect | Get (0133) | Get (0136) Set (0037 |) Adjust (0037) |
| erminal Setting | () | Seti Set2 | | |
| RS485 BaudRale 9600bps 💌 Get | (0134) Set (0034) | Terminal Position Display (16 B) | | Get (0131) Set (0031 |
| Terminal ID (1B) Get | (0130) Set (0030) | Company Name Display | | Get (0132) Set (0032 |
| Terminal Serial No (4B) | Set (0033) | Delay Time to Open Door (Hex 4B) | Sec | Get (0144) Set (0044 |
| Old Password New Pa | A REAL PROPERTY AND A REAL | Door Position Sensor | | Get (0145) Set (0045) |
| DES KEY(16B) | Set (0036) | | | |
| SysLogin Password (8B) | Set (0035) | Handing Door failed to Close | None 💽 Sec | Get (0148) Set (004B |
| Long Open the Day Disable 💌 Get | (0119) Set (0013) | DI Delay Time (Hex 4B) | 0 💽 Mse | Get (0146) Set (0046 |
| Operation Mode Access 💽 Get | (0140) Set (0040) | DO Delay Time (Hex 4B) |) 💽 Sec | Get (0147) Set (0047 |
| Reader Internal Read - Get | (0141) Set (0041) | Security Alarm Notification | None 💌 Msex | Get (0149) Set (004C |
| | (0142) Set (0042) | Force Door Remotely | Close 💽 | Sec Set (0048 |
| Subst Clock-in Times Get | (014B) Set (004E) | Retrieve Remote Door Co | lorate | Set (0049 |
| Default Substitute Clock | | Remote Security ALarm | Disable 💽 | Set (004A |
| Same Card Delay Time Sec Get | | Card Type | ISO14443 TYPE A | Get (0143) Set (003E |
| Same card Deay Time | (014C) Set (004P) | | | |

Utilizing Software

JanitorLite allows end users to apply a wide range of applications in the TASHI network. Learn about the main differences between MTTool and JanitorLite through the following:

| Software | MTTool (Free) | JanitorLite (Optional) |
|---------------------|------------------------------------|-----------------------------------------------------------------|
| Target | Computer/Software Engineering. | End User. |
| Operation System | Windows on Computer (PC/ Notebook) | Windows on the Computer (PC/Notebook). Windows CE for MT380. |
| Network | Standalone Terminal. | Terminals/Controllers (As A Server). |
| Function | Setting/Debugging/Maintenance. | Setting/Managing Small to Large Scale TASHI Networks. |
| Model | MT180/MT380. | MT180/MT380. |

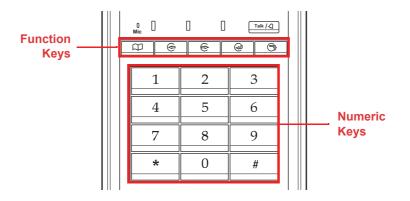
Please contact a Unitech representative to acquire MTTool. For more details please refer to the MTTool User's Manual or the JanitorLite User's Manual.

Chapter 2

Using the Hardware

Using the Keypad

MT180 contains five function keys and 12 numeric keys.



MT180's key functions are described in the following:

| Кеу | Main Function |
|----------|-------------------------------------------------|
| | Menu. |
| | [F1]: Open menu options. |
| (A) | Clock in. |
| Ŀ | [F2]: Move upward through menu items. |
| (F) | Clock out. |
| e | [F3]: Move downward through menu items. |
| A | Break in. |
| | [F4]: Returns to the previous menu item. |
| | Break out. |
| | [F5]: Enters a menu item or confirms a setting. |

After powering on MT180, the standby screen displays the company name, system time and date, which are configurable by pressing **F1** button to enter the menu options.

While in standby status, press **#** during the password access period, and then follow the onscreen prompt to input 2-digit group number and a 4-digit group access password to open the door.

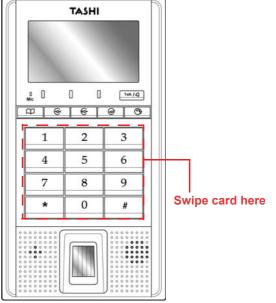
In Access+Attendance Mode, press F2 or F3 to switch into Attendance Mode. Press F2 or F3 to choose the work shift and swipe an ID card to clock in. To use the substitute clock in, press any key and follow the onscreen prompt to input a user clock in number.

Using Proximity Reader

MT180 features a standard proximity reader, which is compatible with all 125kHz EM, 125kHz HID, and 13.56MHz MiFare cards.

Utilize MTTool to add a card through the following:

- 1. Connect MT180 to a computer network. See *Establishing Terminal-PC Connection* on page 3.
- 2. Execute MTTool on the computer.
- 3. Enter the correct IP address and port number. Click **Connect**.
- Follow MT180 onscreen instructions to enter the Card Info Query option. See *General Settings* on page 12.
 Swipe the card over the Proximity Reader. MT180 beeps three times. The screen displays **Invalid Card** with the card number.



- 5. In MTTool, under the **SysSet2 tab**, in the **Card Setting** box input the card number, user name, group number, password and etc.
- 6. Click Add a Card No. The status bar at the bottom of the MTTool screen displays **Successful** terminal response informing that MTTool has successfully send the card to MT180.

| d Setting | | Delete all | APB Setting | | |
|-------------------------------------|----------------------------------------|----------------------|------------------------|---------------------|--|
| Card No (88) | Group No (1B) | | a | - | |
| User Name (12B) | Password (4B) | | Card No(8B) | Get a Card (014D) | |
| User No (58) | Subst Times (1B) | | Anti-pass Back Disable | Set a Card (0051) | |
| Fingerprint Index (68) | Card No Query (0103) | [| | Set All Cards (0052 | |
| Add a Card No (0009) | Delete a Card No (0010) | Delete (0011) | | | |
| gerprint | | | | | |
| Card Serial | | ndex | | | |
| Fingerprint 0: Get (0164) | Enroll Finger (0061) | 1 | | | |
| Fingerprint 1: Get (0164) | Enroll Finger (0061) | | | | |
| Fingerprint 2: Get (0164) | Enrol Finger (0051) | | | | |
| Get | t Amount | | Amount Used | Max Amount | |
| Set Vacant Fingerprint Index (0165) | | | Get (0166) | | |
| Ind | Jex | | Card Amount | Max Card Capaci | |
| Get Fingerprint (0167) | | Get | Card Amount (0160) | | |
| Delete Fingerprint (0052) | | Get Unread Log Am | ount (0161) | - | |
| Concise I inder print (0006) | | | | | |
| 't Setting | | | - Ci Austi | tute Clock-in Mode | |
| | n C On Evening C On Overtime C Out for | Bus C On Night C O | n Midnight Get (0117) | ade clock-in mode | |
| | | | | 2 | |
| Off Duty C Off Morning C Off Noor | n Coff Evening Coff Overtime Back fr | om Bu: COff Night CO | ff Midnight Set (0008) | (014A) Set (004D | |
| Select ALL Clear All | | | | .(014) Sec (004D | |
| | | | | | |

NOTE: When adding a card, it is necessary to at least fill in the card number, user name, group number and password. Otherwise, a prompt appears to ask for this specific information.

Utilize JanitorLite to add a card through the following:

- 1. Connect MT180 to a computer network. See *Establishing Terminal-PC Connection* on page 3.
- 2. Enable Unitech MT Service in the Control Panel.
- 3. Click start \rightarrow All Programs \rightarrow JanitorLite \rightarrow JanitorLite.

4. Click User \rightarrow User Management.

Right-click **All group**. Select **Append** \rightarrow **Group**. The UserGroup Setting window appears. Enter a group name (for example, **DEMO**). Click **Apply** \rightarrow **OK**.

| UserGroup | 9 Setting | | | |
|-----------|-------------------|---|-------------------|-------|
| Group Inf | ·o | | | |
| \$ | GroupID 000001 | | GroupName DEMO | |
| Remark | k . | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Send | | 0 | Cancel | Apply |

Right-click DEMO. Select Append → Entity. The User setting window appears.
 Enter a user name (for example, DEMOUSER). In the CardNo. field, click +. The Card setting window appears.

| er Info | | |
|-----------|------------|---------------|
| P UserID | UserName | |
| 000000001 | DEMOUSER | Male O Female |
| CardNo | CardKey | |
| | - 12345678 | |
| GroupID | GroupName | |
| 000001 | + DEMO | |
| ID No. | EMail | |
| Mobile | Telephone | |
| | | |

NOTE: Make sure the card type is compatible with the reader.

- Follow MT180's onscreen instructions to enter the Card Info Query. See *General Settings* on page 12. Swipe the card over the Proximity Reader. MT180 beeps three times. The screen displays **Invalid Card** with the card number.
- 7. Input the card number in the **Card No**.
- Click Apply → OK to return to the User setting window.
- 9. Click **Apply** \rightarrow **OK**.
- **NOTE:** The card will not immediately be to MT180, but it will be sent periodically via Unitech MT Service. The default value is five minutes. It is optional to modify the interval setting in the MT Service Tool.



Using Fingerprint Reader

MT180 has an optional integrated Fingerprint reader that enrolls and verifies and verify fingerprints. The reader can store up to 7,000 fingerprint templates. Each user is allowed to have a maximum of three fingerprints.

NOTE: Make sure the card is valid.

Enroll a fingerprint through the following:

- 1. Press F1.
- 2. Select General \rightarrow Add Finger.
- 3. Swipe the card.
- 4. Place a finger in the Fingerprint Reader and adjust the finger placement according to the onscreen instructions.

The screen may inform that the finger is too high, too low, too left, too right, too small or no finger. Remove and place the finger on the fingerprint reader three times.



- 5. Press **F3** to enroll another fingerprint when the screen displays **Collect finger OK**. **Continue?**. Press **F5** to stop.
- 6. After enrolling the finger on the fingerprint Reader three times, the screen displays **CollectFinger OK** and return to the standby screen.

Utilize MTTool to collect fingerprints through the following:

- 1. Connect MT180 to a computer network. See Establishing Terminal-PC Connection on page 3.
- 2. Execute MTTool on the computer.
- 3. Enter the correct IP address and port number. Click **Connect**.

In the **Card Serial No** field, input the card number and click **Get**. Now fingerprint data can extract from this card.

| Card No (88) | Group No (1B) | Delete al | APB Setting | | |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------|----------------------------|---------------------|--|
| User Name (128) | Password (4B) | | Card No(88) | Get a Card (014D) | |
| User No (58) | Subst Times (1B) | | Anti-pass Back Disable 💌 | Set a Card (0051) | |
| ingerprint Index (68) | Card No Query (0103) | 1 | | Set All Cards (0052 | |
| Add a Card No (0009) | Delete a Card No (0010) | Delete (0011) | | | |
| gerprint | | | | | |
| Card Serial No Fingerprint 0 Get (0164) | Type Enroll Finger (0061) | Index | | | |
| Fingerprint 1 Get (0164) | Enrol Finger (0061) | | | | |
| Fingerprint 2 Get (0164) | | | | | |
| Get An | Enrol Finger (0061) | | Amount Used | Max Amount | |
| et Vacant Fingerprint Index (0165) | iounic | | Get (0166) | | |
| Index | - | | Card Amount | Max Card Capac | |
| Get Fingerprint (0167) | 1 | Get 0 | Card Amount (0160) | | |
| Delete Fingerprint (0062) | 1 | Get Unread Log Am | ount (0161) | | |
| | | | | | |
| : Setting On Duty IT On Morning IT On Noon I | Con Busing I On Quarting I Out fo | | n Midnight Get (0117) | ute Clock-in Mode | |
| | and a second | | | | |
| Off Duty IT Off Morning IT Off Noon I Select ALL Clear AI | Off Evening Off Overtime Back f | rom But Off Night I Of | ff Midnight Set (0008) Get | (014A) Set (004D | |
| Select ALL Clear All | | | | | |

5. To enroll the first fingerprint for this card, input **0000** in the **Index** field and click **Enroll Finger** (1). Input **000000000000** in the **Fingerprint Index** field and click **Add a Card No** (2).

| I Setting | | | | Delete all | APB Setting | APB Setting | | |
|-------------------------------------|-----------|--------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------|----------------|--------------------|--|
| Card No (8B) | | Group No (1B) Password (4B) | | | Card No(88) | | Get a Card (014D) | |
| User Name (12B) | _ | | | | | | | |
| User No (58) | | Subst T | imes (1B) | | Anti-pass Back | Anti-pass Back | | |
| ingerprint Index (68) | | Ca | d No Query (0103) | | | | Set Al Cards (0052 | |
| Add a Card No (0009) | | Delete | a Card No (0010) | Delete (0011) | | | | |
| erprint | | | 1 | | | | | |
| Card S Fingerprint 0: Get (0164) | erial No | Туре | | Index | | | | |
| Fingerprint 1: Get (0164) | | | Enroll Finger (0061) | 1 | | | | |
| | | | Enroll Finger (0061) | | | | | |
| Fingerprint 2: Get (0164) | | | Enroll Finger (0061) | | | And and the d | | |
| et Vacant Fingerprint Index (0.165) | Get Amoun | t | | | Get (0166) | Amount Used | Max Amount | |
| | Index | | | | 000 (0100) | Card Amount | Max Card Capac | |
| Get Fingerprint (0167) | | | | G | et Card Amount (016 | | | |
| | 1 | | | Get Unread Log | A | | | |
| Delete Fingerprint (0062) | J., | | | Get Unread Log | Amoune (0101) | | | |
| Setting | | | | | | - A horiz | ute Clock-in Mode | |
| On Duty FOn Morning FOn № | Noon 🗖 C | n Evening | C On Overtime C Out fo | r Bus On Night | On Midnight Ge | t (0117) | | |
| Off Duty IT Off Morning IT Off I | | 0.07.1.550.0 7 . | | eren en de la contra | | t (0008) | | |
| | woon I C | in Evening i | On Overdine 1 back i | rom but On regrit 1 | Off Midnight | | (014A) Set (004D | |
| Select ALL Clear All | | | | | | | | |

Utilize JanitorLite to collect fingerprints through the following:

- 1. Connect MT180 to a computer network. See *Establishing Terminal-PC Connection* on page 3.
- 2. Enable Unitech MT Service in the Control Panel.
- 3. On the computer screen, click start \rightarrow All Programs \rightarrow JanitorLite \rightarrow JanitorLite.
- Click System → SysParams Setting. The SetParams window appears. Specify the IP address and port number of the fingerprint reader. Click OK.

| arams Info | |
|-------------------------|--------------------------|
| SvrIP | SvrPort |
| 127.0.0.1 | 10002 |
| AutoLogout | Waiting loging time(Min) |
| Permit to input card NO | 1 |
| CardKey | CardLength |
| 12345678 | 16 |
| SQLCommandTimeOut(S) | ReaderPort |
| 30 | Com1 💌 |
| ReaderCode | CardVaildTime(Year) |
| 00000000 | 1 |
| ReadFingerIP | ReadFingerPort |
| 192.168.2.127 | 10002 |

5. Click User \rightarrow User Management.

Double-click **DEMOUSER**. The User setting window appears. Click **FingerPrint**. The FingerPrint window appears.

| er Info | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------|
| Contraction Contra | UserName | |
| 000000000000000000000000000000000000000 | DEMOUSER | Male ○ Female |
| CardNo | CardKey | |
| • | 12345678 | |
| GroupID | GroupName | |
| 000001 💽 | DEMO | |
| ID No. | EMail | |
| Mobile | Telephone | |
| Address | | Account |
| Remark | | |
| | | |
| | | |
| | | |

6. To collect fingerprint data from MT180, click **Read**. The value **Not set** changes into **Already Setting**, if the fingerprint reading is successful. Click **Apply**.

| Not set | Read | Clear |
|---------|------|-------|
| Not set | Read | Clear |
| Not set | Read | Clear |

7. Click **Apply**, and then **OK**.

Using DECT Phone (Optional)

MT180 has an optional DECT module that can make intercom calls. The procedures for registering MT180 to DECT base stations may vary between phone service providers. MT180 can register up to four base stations.

Register MT180 to an AWTEK base station through the following:

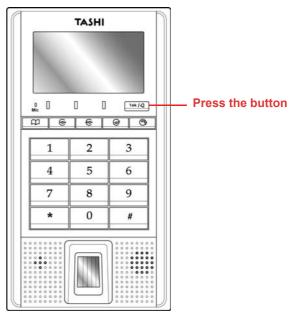
NOTE: Before registration, make sure the voice module is properly installed while MT180 powers on through the running module checking process.

- 1. Press and hold (***) on the back panel of the base station for 15 20 seconds. The LED indicator on the front panel flashes.
- 2. Press F1 to enter the terminal menu.
- 3. Press **F3** to select the **Advanced** option.
- 4. Press **F5** to enter the **Advanced** option.
- 5. Enter the system login password (12345678, by default) and press F5 to confirm.
- 6. Enter the **Voice Park** option. The screen displays **Voice Module Parking OK** when registration is completed.

Make an intercom call by using an AWTEK DECT phone through the following:

- Press Talk/Doorbell. MT180 connects to the DECT phone while the screen displays Connect... Please wait!. The LED indicator on the DECT phone flashes and the phone rings with the MT180's HS number (HS1, by default) shown onscreen.
- Press answer receive the call. MT180 beeps while the screen displays Calling..., the duration of this call is shown on the DECT phone screen.
- 3. Press ***** on the DECT phone, to trigger the door open.

NOTE: Ensure the relay wiring is ready.



Cancel registration by using a registered handset.

Cancel MT180's registration on an AWTEK DECT phone handset through the following:

- 1. Press $\overline{\bigcirc}$ to enter the main menu.
- 2. Press (a) or (v) to select the **BS setting** option. Press (v) to confirm. The screen displays **Waiting...**.
- 3. Follow the onscreen prompt to input the base station's Master PIN (**0000**, by default) and press is to confirm. A confirmation sound beeps, and the sub menu opens.
- 4. Press ♠ or ♥ to select the **Remove HS** option. Press ♥ to confirm. The screen displays **Remove HS1/2/3/4/5?**.
- 5. Follow the onscreen prompt to input MT180's HS number (**1/2/3/4/5**, by default) or press c to cancel.
- 1. Press *I* to confirm. A confirmation sound beeps, and the screen displays **Not sub** when this setting is done.

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Chapter 3

Onscreen Setting

This chapter introduces MT180's general and advanced settings.

General Settings

Press F1 to enter the terminal menu.
Press F5 to enter the General option.
Five options are available:

SysInfoQuery.

- CardInfoQuery.
- AddFinger.
- ModifyCardPIN.
- LongTimeDoor.

>**OperationSel**< >>General X Advanced

Enter the **SysInfoQuery** option to get the terminal information. The five options are described through the following:

| Sys Info Query | Description |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Location | Displays the terminal location (#Controller 01 , by default). |
| Version&SNR | Displays the terminal firmware version and serial number. |
| WorkMode | Displays current operation mode (Access Mode, by default). |
| ModuleStatus | Displays the modules status of Flash1, Flash2, Finger, Reader1, Reader2, Voice and Network. If the module operates normally, the screen displays ok ; if not, the screen displays error . |
| Card&Finger | Displays the maximum card/fingerprint capacity and current card/finger- print count. |

Enter the **CardInfoQuery** option. Follow the onscreen prompt to swipe a card. The screen displays the card number, user name, user number and group number preset in JanitorLite or MTTool.

Enter the **AddFinger** option. Follow the onscreen prompt to swipe a card. The screen displays an Operation Notice. Follow the operation notice and place a finger on the fingerprint reader. Each card allows to enroll a maximum of three fingerprints.

Enter the **ModifyCardPIN** option. Follow the onscreen prompt to swipe a card. The screen displays **Input old PIN**. Using the numeric keypad to enter the card password and press **F5** to confirm. The screen displays **Input new PIN**. And **Input again**. The screen displays **Modify Card PIN Success** upon successful modification.

Enter the **LongTimeDoor** option. It is possible to enable/disable the open door function for a select period of time. Follow the onscreen prompt to swipe the card before this setting is activated (Whether **Turn on** or **Turn off** is selected) and the screen displays **Auto-OpeningDoorTurn on/off**.

Advanced Settings

Press F1 to enter the terminal menu.

Press F3 to select the Advanced option.

Press F5 to enter the Advanced option.

Using the numeric keypad to enter the default system login password **12345678**, and press **F5** to confirm. Ten options are available:

- Set Device ID.
- SetBaudrate.
- SetLanguage.
- SetBacklight.
- SetNetwork.
- VoicePark.
- Reboot.
- ResumeDefault.
- Anti-thief.
- Exit.

Enter the Set Device ID option. Specify the terminal ID (001, by default).

Enter the **SetBaudrate** option. Select a baud rate (**115200 bps**, by default) to match the computer. Available rates are **9600**, **19200**, **38400** and **115200** bps. The larger number equates to a faster connection speed.

Enter the **SetLanguage** option to switch the terminal language. Current supported languages are English, Simplified Chinese and Traditional Chinese.

Enter the **SetBacklight** option to set the backlight behavior. Select **AlwaysTurnOn**, to have the backlight to stay on all the time. Select **AlwaysTurnOff**, to have the backlight turn off all the time. Select **TurnOnOnwork**, to have the backlight turn on when a button is pressed.

Enter the SetNetwork option to configure the network settings.

| Set Network | Description |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Set Net Password | Enter the network password. |
| Set IP Address | Enter the IP address (192.168.2.127 , by default). |
| Set Net Mask | Enter the network mask (255.255.255.0, by default). |
| Set Gateway | Configure the network gateway. |
| Set Port Number | Specify a local port number (10002 , by default). The maximum valid port number is 65535 . |
| Set Baud Rate | Select a serial port baud rate (115200 bps , by default). Available rates are 9600 , 19200 , 38400 , 57600 and 115200 bps . The larger number equates to a faster connection speed. |
| Confirm Setting | Select Yes to confirm the network settings. The screen displays Modify network success! . Select No to go back to SetNetwork options. |

>OperationSel< X General >> Advanced Enter the **VoicePark** option to detect the optional DECT function. If the DECT phone is properly installed, the screen displays **ParkOK**. If not, the screen displays **ParkError**. If the voice module is not installed or installed improperly, the screen displays **VoiceModuleParkingError**.

Enter the **Reboot** option. Select **Yes** to reboot the system. The screen displays **Device reboot**. **Please wait!** and the system reboots itself. Select **No** to go back to the **Advanced** options.

Enter the **ResumeDefault** option. Select **Yes** to reset the factory defaults. The screen displays **Resume default. Please wait!** and MT180 reboots itself. Select **No** to go back to the **Advanced** options.

Enter the **Anti-thief** option. Select **Yes** to enable the sensor and go back into the **Advanced** options. Select **No** to disable the sensor and go back to the **Advanced** options.

Enter the **Exit** option. Log out the system advanced settings and return to the standby screen.

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Chapter 4

Advanced Setting

This chapter introduces how to utilize MT180 configuration software for diverse applications.

Shift Attendance

Utilize MTTool to manage time and attendance through the following:

- 1. Set MT180 to a computer on the same subnet network.
- 2. Execute MTTool on the computer.
- In MTTool and under the SysSet1 tab, select WinSocket. Input the IP address (for example, 192.168.110.230). Click Connect.

| onnection setting | Firmware Info | Time | |
|--------------------------------------------------|-----------------------------|-------------------------|----------------------|
| WinSocket IP/Name 192.168.110.230 Port 10002 | Version: | 2007 Year 12 Month | 12 Date |
| O R5232 ComPort Baud Rate | Serial No: | 12 Hour 12 Minute | 12 Second Monday |
| Controller Index 0 | Get (0133) | Get (0136) Set (0037 | 7) Adjust (0037) |
| erminal Setting | Set1 Set2 | | |
| RS485 BaudRate 9600bps 🗸 Get (0134) Set (0034) | | | |
| Terminal ID (1B) Get (0130) Set (0030) | Terminal Position Display | (16B) | Get (0131) Set (0031 |
| Terminal Serial No (4B) Set (0033) | Company Name D | isplay | Get (0132) Set (0032 |
| Old Password New Password | Delay Time to Open Door (He | x 4B) Sec | Get (0144) Set (0044 |
| DES KEY(16B) Set (0036) | Door Position S | ensor Disable 💌 | Get (0145) Set (0045 |
| SysLogin Password (8B) Set (0035) | Handling Door failed to | Close None | Get (0148) Set (0048 |
| Long Open the Day Disable | DI Delay Time (He | x 4B) O V Msec | Get (0146) Set (0046 |
| Operation Mode Access Get (0140) Set (0040) | DO Delay Time (He | x 4B) 0 🔽 Sec | Get (0147) Set (0047 |
| Reader Internal Get (0141) Set (0041) | Security Alarm Notific | | Get (0149) Set (0040 |
| Backlight Always On 🛛 🖌 (Get (0142)) Set (0042) | Force Door Rem | notely Close | Sec Set (0048 |
| Subst Clock-in Times Get (014B) Set (004E) | Retrieve Remote Do | oor Control | Set (0049 |
| Default Substitute Clock-in Times Set (0050) | Remote Security A | ALarm Disable 🔽 | Set (004A |
| Same Card Delay Time Sec Get (014C) Set (004F) | RC632 type of reader mo | dules ISO14443 TYPE A 💌 | Get (0143) Set (003E |
| | | | |
| | | | |
| e Connection succeed | | | |

NOTE: See Advanced Settings on page 13 to set MT180's IP address.

| TOTAL STOCK & CO. | Holiday Type Holida | ay i able weet | kiyscheudie G | roupSet Blocks set Fireware Update | LOYQUERY ACCESSSIO | lus | | |
|-------------------------|-----------------------|-------------------|-----------------|------------------------------------|--------------------|-----------|-------------|----------|
| Connection Setting | | | _ | Firmware Info | Time | | | |
| 💿 WinSocket IP/Name 192 | 2.168.110.230 | Port 10002 | 2 | Version: 01.13 | 2009 Year 1 M | Ionth 8 | Date | |
| ORS232 ComPort | Bau | ud Rate | ~ | Serial No: 00000000 | 17 Hour 19 M | linute 46 | Second Thu | rsday |
| Controller Index 0 | Conr | Disco | nnect | Get (0133) | Get (0136) Set | (0037) | Adjust (003 | 7) |
| Terminal Setting | | | | Set1 Set2 | - | | | |
| RS485 BaudRate | 9600bps 💌 | Get (0134) | Set (0034) | Terminal Position Display (16B) | | 1 | Get (0131) | Set (003 |
| Terminal ID (1B) | | Get (0130) | Set (0030) | Company Name Display | | _ | Get (0132) | Set (003 |
| Terminal Serial No (4B) | | | Set (0033) | Delay Time to Open Door (Hex 4B) | Se | | | Set (004 |
| | | w Password | | | | sL. | Get (0144) | |
| DES KEY(16B) | | | Set (0036) | Door Position Sensor | | 1 | Get (0145) | Set (004 |
| SysLogin Password (8B) | | | Set (0035) | Handling Door failed to Close | None 🔽 | Sec | Get (0148) | Set (004 |
| Long Open the Day | Disable 💌 | Get (0119) | Set (0013) | DI Delay Time (Hex 4B) | 0 🗸 | Msec | Get (0146) | Set (004 |
| Operation Mode | Access 👻 | Get (0140) | Set (0040) | DO Delay Time (Hex 4B) | 0 🖌 | Sec | Get (0147) | Set (004 |
| Reader | Internal 🗸 | Get (0141) | Set (0041) | Security Alarm Notification | None 🖌 | Msec | Get (0149) | Set (004 |
| Backlight | Always On 👻 | Get (0142) | Set (0042) | Force Door Remotely | Close 🖌 | s | iec | Set (004 |
| Subst Clock-in Times | | Get (014B) | Set (004E) | Retrieve Remote Door Cor | ntrol | | | Set (004 |
| Default Subs | titute Clock-in Times | | Set (0050) | Remote Security ALarm | Disable 🔽 | | | Set (004 |
| Same Card Delay Time | Sec | Get (014C) | Set (004F) | RC632 type of reader modules | ISO14443 TYPE A 💌 | | Get (0143) | Set (003 |
| |) | بشنب | | | | | | |

- 5. Click **Get** to double check MT180's date and time settings.
- 6. In the **Terminal Setting** box, select **Attendance** from the **Operation Mode** drop down menu. Click **Set**.

| Connection Setting | | Firmware Info | Time | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WinSocket IP/Name 192.168.110.230 Port 10000 ORS232 ComPort Baud Rate Index Inde | 2 Minect | Version: 01.13 Serial No:0000000 Get (0133) | 2009 Year 1 Month 17 Hour 19 Minute Get (0136) Set (0037 | 46 Second Thursday |
| erminal Setting | | Set1 Set2 | | |
| RS485 BaudRate 9600bps V Get (0134) Terminal ID (1B) Get (0130) Terminal Serial No (4B) Old Password New Password DES KEY(16B) Syst.ogin Password (8B) Long Open the Day Disable V Get (0119) Operation Mode Attendance Get (0140) Readed Attendance Readed Attendance Get (0141) | Set (0034) Set (0030) Set (0033) Set (0036) Set (0035) Set (0033) Set (0036) Set (0036) Set (0037) Set (0038) Set (0040) Set (0041) | Terminal Position Display (16B) Company Name Display Delay Time to Open Door (Hex 4B) Door Position Sensor Handling Door failed to Close DI Delay Time (Hex 4B) DO Delay Time (Hex 4B) Security Alarm Notification | None V Sec 0 V Msec 0 V Sec None V Msec | Get (0131) Set (0031) Get (0132) Set (0032) Get (0144) Set (0044) Get (0145) Set (0045) Get (0148) Set (0046) Get (0148) Set (0046) Get (0147) Set (0046) Get (0147) Set (0047) Get (0149) Set (0047) Get (0149) Set (0047) |
| Backlight Always On 🖌 Get (0142) Subst Clock-in Times 🛛 Get (0148) | Set (0042) Set (004E) | Force Door Remotely Retrieve Remote Door Cor | ntrol | Sec Set (0048) Set (0049) |
| Default Substitute Clock-in Times | Set (0050) | Remote Security ALarm | Terror (| Set (004A) Get (0143) Set (003E) |
| Same Card Delay Time Sec Get (014C) | Set (004F) | RC632 type of reader modules | ISO14443 TYPE A 💟 | Get (0143) Set (003E) |

7. Under the **SysSet2** tab, in the **Shift Setting** box, check a desired work shift (for example, **On Morning**). Click **Set**.

| MTTool | | | | |
|------------------------------------------|--------------------------------------|-------------------------------|-------------------------|----------------------------|
| SysSet1 SysSet2 PeriodCode HolidayType | HolidayTable WeeklySchedule GroupSet | Blocks set Fireware Update | LogQuery AccessStatus | |
| Card Setting | | Delete all | APB Setting | |
| Card No (8B) | Group No (1B) | ~ | Card No(8B) | Get a Card (014D) |
| User Name (12B) | Password (4B) | | | |
| User No (5B) | Subst Times (1B) | | Anti-pass Back Disable | Set a Card (0051) |
| Fingerprint Index (6B) | Card No Query (0103) | Delete (0011) | | Set All Cards (0052) |
| Add a Card No (0009) | Delete a Card No (0010) | | | |
| Fingerprint | | | | |
| Card Serial Fingerprint 0: Get (0164) | No Type Enroll Finger (006 | Index | | |
| Fingerprint 1: Get (0164) | Enroll Finger (006 | | | |
| Fingerprint 2: Get (0164) | Enroll Finger (006 | | | |
| | : Amount | | Amo | unt Used Max Amount |
| Get Vacant Fingerprint Index (0165) | | | Get (0166) | |
| Ind | ex | | | d Amount Max Card Capacity |
| Get Fingerprint (0167) | | | Get Card Amount (0160) | |
| Delete Fingerprint (0062) | | Get Unr | ead Log Amount (0161) | |
| | | | | |
| Shift Setting | | | | Substitute Clock-in Mode |
| | | | On Midnight Get (0117) | × |
| | Off Evening Off Overtime Back | from Business 🛄 Off Night 🛛 [| Off Midnight Set (0008) | Get (014A) Set (004D) |
| Select ALL Clear All | | | | |
| State Connection succeed | | | | |
| | | | | |
| | | | | |

8. In the **Card Setting** field, input the card number, user name, user number, group number and etc. Click **Add a Card No**.

| rd Setting Card No (88) 00000000ACEA9P User Name (128) TAttendance User No (58) 0000000000000 ingerprint Index (68) Add a Card No (0009) | Password (4B) 12345678 | Delete (0011) | APB Setting Card No(8B) Anti-pass Back/Disable | Get a Card (014D) Set a Card (0051) Set All Cards (0052) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|
| ngerprint Card S | erial No Type | Index | | |
| Fingerprint 0: Get (0164) | Enroll Finge | er (0061) | | |
| Fingerprint 1: Get (0164) | Enroll Finge | er (0061) | | |
| Fingerprint 2: Get (0164) | Enroll Finge | er (0061) | | |
| | Get Amount | | | mount Used Max Amount |
| Get Vacant Fingerprint Index (0165) | | | Get (0166) | |
| Get Fingerprint (0167) | Index | | Get Card Amount (0160) | Card Amount Max Card Cap |
| Delete Fingerprint (0062) | | Get | Unread Log Amount (0161) | |
| ift Setting]On Duty | | Out for Business On Night Back from Business Off Night | On Midnight Get (0117) | |

NOTE: See *General Settings* on page 12 to acquire the card number.

9. Under the WeeklySchedule tab, in the Weekly Schedule Setting box, select Weekly Attendance Schedule.

| O Weekly Security Sc | hedule | O Weekly | Long Open Sc | hedule | OW | eekly Door Alar | m Disabling Schedule | Weekly Attendance Schedule |
|--------------------------|--------|-------------|---------------|----------|--------|-----------------|----------------------|----------------------------|
| Get S | et (| Display Per | iod Code Wind | ow | | | | |
| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | |
| On duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On morning shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off morning shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On noon shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off noon shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On overtime duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off evening shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On overtime duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off overtime duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Out for business | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Back from business | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On night shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off night shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On Night2 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off Night2 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| ouble-click the cell sel | | | 1 | | | | | |

- 10. Double-click a time code cell (for example, **On morning shift duty**). The Period Code window appears.
- 11. Click a desired time period (for example, **00002359**) to set for 24 hours of access during this weekday. Click **OK**.

| 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 |
|----------|---------|---------|---------|---------|---------|---------|----------|
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00002359 |

12. Select time period codes for this work shift in other weekdays. The period code **7F** displays on the shift row. Click **Set**.

| 🔵 Weekly Security Sch | nedule | O Weekly | Long Open Sc | hedule | O We | eekly Door Alar | m Disabling Schedule | e 💿 Weekly Attendance Schedule |
|--------------------------|--------|-------------|---------------|----------|--------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Get S | et (| Display Per | iod Code Wind | ow | | | | |
| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | |
| On duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On morning shift duty | 7F | 7F | 7F | 7F | 7F | 7F | 7F | |
| Off morning shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On noon shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off noon shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On overtime duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off evening shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On overtime duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off overtime duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Out for business | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Back from business | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On night shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off night shift duty | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| On Night2 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| Off Night2 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| ouble-click the cell sel | | 1 | | | | | - de la constante de la consta | |

13. In the GroupSet tab, select the desired group (for example, 0).

| k the left o leekly Acce | | | | | | | | | to er | iable fin | gerpr | int. | | | | Holiday Access Control | Access Control |
|-----------------------------|-----|------|----|-------|----|-----------|------|-------------|-------|-----------|-------|-------|-----|------|---|----------------------------------------|--------------------------|
| Period | Mor | nday | Tu | esday | We | dnesday | Thur | sday | Frida | iy | Satu | urday | Sur | iday | ^ | | Obeny |
|) | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | Access Password | |
| L. | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | 0 | ПΠ | | 1 3 | |
| 1 | 0 | ГГ | 0 | ГГ | 0 | | 0 | ПГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | 2. 4. | |
| 3 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | Anti-duress Password | |
| 4 | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | 1. 2. | |
| 5 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 1 | Security Mode Control | |
| 6 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 1 | Without Permission | |
| 7 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | CEnable Security Mode | |
| 8 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | O Disable Security Mode | |
| 9 | 0 | ГГ | 0 | | 0 | | 0 | $\Box\Box$ | 0 | ГГ | 0 | ГГ | 0 | ПΠ | | OEnable/ Disable Securit | / Mode |
| 10 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | $\Box \Box$ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | APB Setting | |
| 11 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | O Enable 💿 Disable | |
| 12 | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | | Attendance Mode Setting | Security Mode Setting |
| 13 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | | None | None |
| 14 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | 0 | ГГ | ~ | O Password | O Password |
| | | | - | | | enable pa | | | | | 245 | | | | | O Fingerprint | Fingerprint |

14. Double-click on a desired table cell (for example, **row 1** / **column Thursday**). The Period Code window appears.

15. Click a desired time period (for example, **00002359**) to set for 24 hours of access in this weekday. Click **OK**. The period code **7F** displays on the table cell.

| oup No : the left sekly Acc | checkbo | | ible p | password | d. Tic | - | ht che | eckbox | | iroup In iable fin | | | _ | | Holiday Access Control | Access Control |
|-------------------------------------|---------|------|--------|----------|--------|---------|--------|------------|-------|-----------------------|------|-------|-----|--------|----------------------------------------|--------------------------|
| eriod | Mor | nday | Tue | esday | We | dnesday | Thur: | sday | Frida | y | Satu | urday | Sur | iday 🔷 | | Coberty |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 7F | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Access Password | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 1 3 | |
| | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 2 4 | |
| | 0 | ГГ | 0 | ГГ | 0 | ГП | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Anti-duress Password | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 1. 2. | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Security Mode Control | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Without Permission | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГΓ | 0 | ГГ | 0 | ГГ | CEnable Security Mo | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | O Disable Security Mo | |
| | 0 | ГГ | 0 | | 0 | | 0 | $\Box\Box$ | 0 | ГГ | 0 | ГГ | 0 | ГГ | OEnable/ Disable Sec | urity Mode |
|) | 0 | ГГ | 0 | ГГ | 0 | | 0 | $\Box\Box$ | 0 | ГГ | 0 | ГГ | 0 | | APB Setting | |
| 1 | 0 | ГГ | 0 | ГГ | 0 | ГП | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | ○Enable | ale |
| 2 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Attendance Mode Setting | Security Mode Setting |
| 3 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | None | None |
| 4 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | O Password | OPassword |
| er Period is | | | | | | | | | | | | | | | Fingerprint | Fingerprint |

16. In the Attendance Mode Setting box, select None.

| | theckbox t ess Schedu | | | | | | | box t | to enable | finge | rprint. | | | Holiday Access Control Hol Table O Y O Deny |
|--------------|--------------------------|----|-----|-------|------|--------|---------|-------|-----------|-------|---------|-----|------|------------------------------------------------|
| riod | Monda | эу | Tue | esday | Wedr | nesday | Thursda | y | Friday | s | aturday | Sur | nday | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 7F 🖵 | Г | 0 [| - 0 | ГГ | 0 | ГГ | Access Password |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 [| П | 0 [| - 0 | ГГ | 0 | ГГ | 1 3 |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 [| Г | 0 [| - 0 | ГГ | 0 | ГГ | 2. 4. |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 Г | Г | 0 [| - 0 | ГГ | 0 | ГГ | Anti-duress Password |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 Г | Г | 0 Г | - 0 | ГГ | 0 | ГГ | 1. 2. |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 Г | Г | 0 | - 0 | ГГ | 0 | ГГ | Security Mode Control |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 Г | Г | 0 [| - 0 | ГГ | 0 | ГГ | Without Permission |
| | 0 | ΓГ | 0 | ГГ | 0 | ГГ | 0 [| Г | 0 [| - 0 | ПП | 0 | ГГ | O Enable Security Mode |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 Г | Г | 0 | - 0 | ГГ | 0 | ГГ | O Disable Security Mode |
| | 0 | ГГ | 0 | | 0 | | 0 Г | П | 0 [| - 0 | | 0 | ГГ | O Enable/ Disable Security Mode |
| 0 | 0 | ГГ | 0 | ГГ | 0 | | 0 [| Г | 0 [| - 0 | ГГ | 0 | ГГ | APB Setting |
| 1 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 Г | Г | 0 厂 | - 0 | ГГ | 0 | ГГ | Enable O Enable |
| 2 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 🔽 | Г | 0 [| - 0 | ГГ | 0 | ГГ | -Attendance Mode Setting |
| 3 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 Г | Г | 0 Г | - 0 | ГГ | 0 | ГГ | None None |
| .4 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 Г | Г | 0 Г | - 0 | ГГ | 0 | ГГ | OPassword OPassword |
| er Period is | | | | | | | | | | | | | | Fingerprint Fingerprint Fingerprint |

17. Click Set Group Info, on the top center of the screen.

Utilize JanitorLite to manage time and attendance through the following:

1. Set MT180 to a computer on the same subnet network.

NOTE: Switch the controller operation mode to **Attendance**, and synchronize the date and time in MTTool.

- 2. On the computer screen click start \rightarrow All Programs \rightarrow JanitorLite \rightarrow JanitorLite.
- 3. Click Controller \rightarrow Controller Management.

- 4. Right-click **All Groups**, and click **Append** → **Group** to add a new controller group. The Controller Group Management window appears.
- 5. Enter the controller group name (for example, **DEMO**). Click **Apply**, and then **OK** to return to the Controller Group Management window.

| ControllerGr | oup Management | | ٥ |
|--------------|----------------------|----------------|---------------|
| Groups Info | Security Weekly Plan | LongTimeOpen | UnClose alarm |
| | GroupID 000001 | GroupN Demo | ame |
| | | | |
| Remark | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | |] |
| Send |) Ок | Cancel | Apply |

- 6. Right-click the desired group (for example, **DEMO**), and click **Append** → **Entity** to add a new controller. The Controller Management screen appears.
- 7. Enter the controller name (for example, **No.1**) in the **ContorllerName** field.
- 8. Input MT180's IP address (for example, 192.168.110.230) in the IPHost field. Click Apply.

| ControllerID | ControllerName No.1 | GroupID 000001 + |
|-----------------|------------------------|-------------------------|
| ControllerType | CardLength | RepBarcodeMode |
| 180 | 16 | Monthly substitute mode |
| RepBarcodeCount | PHost | ControllerIndex |
| 5 | 192.168.110.230 | 1 |
| IPPort | ChannelType | ComPort |
| 10002 | Net(TCP) | 2 |
| Remark | | |
| | | |
| | | |
| | | |

- Click Reset to reset data in this controller. A window appears, asking to reset. Click Yes. MT180 screen displays messages Please wait! EraseFingerInfo., Please wait! Erase Log... and Please wait! EraseCardInfo. MT180 returns to the standby screen when the reset process is complete.
- **NOTE:** Alternatively, reset data under the **SysSet2** tab in MTTool. In the **Delete all** field, select to delete all cards, logs, fingerprints, and click **Delete**. In the **Shift Setting** field, click **Clear All** and then **Set**.
- 10. Click **OK** to return to the Controller Group Management window.
- 11. Click User(\underline{U}) \rightarrow User Management.
- 12. Right-click **All Groups**, and click **Append** → **Group** to add a new user group. The User Group Setting window appears.

13. Enter the user group name (for example, **DEMO**). Click **Apply**, and then **OK** to return to the User Group Setting window.

| Setting | | | 3 |
|---------|------------------------|-------------------|---------------------------|
| 0 | | | |
| GroupID | | GroupName | |
| 000001 | | Demo | |
| < | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | 0 | K Cancel | Apply |
| | o GroupID 000001 | GroupID 000001 | GroupID 000001 Demo |

- 14. Right-click the desired group (for example, **DEMO**), and click **Append** → **Entity** to add a new user. The User setting window appears.
- 15. Enter the user name (for example, **TAttendance**) in the **UserName** field.

| A UserID | UserName | |
|-----------|-------------|-------------------|
| 000000001 | TAttendance | 💿 Male 🛛 🔿 Female |
| ardNo | CardKey | |
| | 12345678 | |
| iroupID | GroupName | |
| 000001 💽 | Demo | |
| D No. | EMail | |
| Iobile | Telephone | |
| Address | | Account |
| temark | | |
| | | |
| | | |
| | | |

16. Inside the CardNo field, click +. The Card Setting window appears.

22

17. Input the card number in the **Card No.** field. Click **Apply**, and then **OK** to return to the User setting window.

| Card No. | CreateTime |
|--------------------|------------|
| 00000000ACEA9F9E 💽 | 2009/01/15 |
| Card Type | Creator |
| Proximity card 🛛 💟 | root |
| VaildTime | ExpireTime |
| 2009/01/15 | 2010/01/15 |

- **NOTE:** See *General Settings* on page 12 to acquire the card number.
- 18. Click **OK** to return to the User Group Setting window.
- 19. Click Permit(<u>P</u>) \rightarrow Permit Management.
- 20. Select the desired user group (for example, **DEMO**), and click **Setting** on the toolbar. The Selected Controllers window appears.
- 21. Select the desired controllers (for example, **No.1 DEMO**), and click **OK** to return to the Janitor-Lite - [Permit Management] window.

| 🛜 Selected Controllers | |
|----------------------------------------------------|-------------------|
| Please select the needful item and check to return | |
| E ♥ ∰ ALL Groups E-♥ ∰ Demo ♥ ∰ No.1 | |
| | |
| | |
| | |
| Reset Expand All | OK Cancel Refresh |

22. Click Attendance \rightarrow Duty Management.

| 23. | Under the Usable Shift tab, | select a desired work shift | (for example, On Morning). |
|-----|-----------------------------|-----------------------------|------------------------------------|
|-----|-----------------------------|-----------------------------|------------------------------------|

| | Enabled | DutyName | ^ |
|---|---------|------------------|-----------------------------------------------------------------------------------------------------------------|
| + | Enableu | On duty | <u> </u> |
| | | Off duty | |
| (| | On morning | |
| ~ | | Off morning | |
| | | On afternoon | |
| | | Off afternoon | |
| | | On night | |
| | | Off night | |
| | | On overtime | |
| | | Off overtime | |
| | | Evection | |
| | | Back to evection | |
| | | Swing shift | |
| | | Off swing shift | |
| | | On graveyard | |
| | | Off graveyard | 1 million 1 |

- 24. Under the **Shift Info** tab, select a desired weekday from the drop down menu (for example, **Thursday**).
- 25. Double-click + inside the **PeriodID** field. The Selected periods window appears.
- 26. Click a desired time period (for example, PeriodID **127**) to set for 24 hours of access in this weekday. Click **OK** to return to the Duty Management window.

| Selected periods | | | |
|-------------------|--------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Please select the | needful item and c | heck to return | and the second s |
| PeriodID | StartTime | EndTime | ~ |
| 0 | 00:00 | 00:00 | |
| 127 | 00:00 | 23:59 | |
| | ОК | Cancel | Refresh |
| | | | Kerresh |

27. Click **Apply** → **Send** to immediately send the command to the controller. A window appears with the message **Setting Successfully**.

| | DutyID | DutyName | PeriodID | StartTime | EndTime |
|---|--------|------------------|----------|-----------|---------|
| | 0 | On duty | 0 + | 0000 | 0000 |
| | 1 | Off duty | 0 + | 0000 | 0000 |
| I | 2 | On morning | 127 + | 0000 | 2359 |
| | 3 | Off morning | 0 + | 0000 | 0000 |
| | 4 | On afternoon | 0 + | 0000 | 0000 |
| | 5 | Off afternoon | 0 + | 0000 | 0000 |
| | 6 | On night | 0 + | 0000 | 0000 |
| | 7 | Off night | 0 + | 0000 | 0000 |
| | 8 | On overtime | 0 + | 0000 | 0000 |
| | 9 | Off overtime | 0 + | 0000 | 0000 |
| | 10 | Evection | 0 + | 0000 | 0000 |
| | 11 | Back to evection | 0 + | 0000 | 0000 |
| | 12 | Swing shift | 0 + | 0000 | 0000 |

28. Click OK to exit.

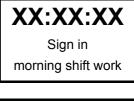
Scenario I - Swipe Card to Clock In

Swipe a card on the Proximity Reader while the standby screen on MT180 displays the desired work shift name (for example, **morning shift work**).

The user name (for example, **TAttendance**) and the clock in time display onscreen.

In MTTool, under the **LogQuery** tab, click **Get Latest Log**. Find the attendance record.

| Log No Log Time Card No User Name Shift Source State 0 1/8/2009 3:45:15 PM 00000000ACEA9F9E TAttendance On morning shift duty Internal reader Swipe card to sign in 1 1/8/2009 3:45:10 PM 00000000ACEA9F9E TAttendance On morning shift duty Internal reader Swipe card to sign in 2 1/8/2009 3:45:10 PM 00000000ACEA9F9E TAttendance On morning shift duty Internal reader Swipe card to sign in | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | |



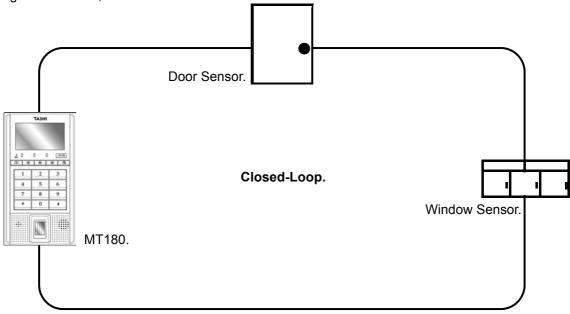


In JanitorLite, click **Report** \rightarrow **Attendance Report**. Under the **Conditions** tab, filter the user, controller, and date, and click **OK**. The attendance record displays under the **Preview** tab.

| System(S) | Setting(B) | User(U) Cont | oller(C) | Permit(P) Attendance | (A) Watch(W |) Report(<u>R</u>) | Tools(T) | Helper(H) |) | | |
|-----------|--------------|----------------|----------|----------------------|-------------|----------------------|----------|-----------|------------------|-------|---------|
| Field | 🥞 Print 🧕 | Preview 📙 S | ave As | Close | | | | | | | |
| onditions | Preview | | | | | | | | | | |
| LogDate | ControllerID | ControllerName | GroupID | CardNo | UserID | UserName | GroupID | DutyID | DutyName | State | StateDe |
| 20090115 | 000001 | No.1 | 000001 | 00000000ACEA9F9E | 0000000001 | TAttendance | 000001 | 2 | On morning shift | 1 | Sign in |
| 20090115 | | No.1 | 000001 | 00000000ACEA9F9E | 0000000001 | TAttendance | 000001 | 2 | On morning shift | 1 | Sign in |
| 20090115 | 000001 | No.1 | 000001 | 00000000ACEA9F9E | 0000000001 | TAttendance | 000001 | 2 | On morning shift | 1 | Sign in |
| 20090115 | 000001 | No.1 | 000001 | 00000000ACEA9F9E | 0000000001 | TAttendance | 000001 | 2 | On morning shift | 1 | Sign in |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Security Operation

To prevent unauthorized access, MT180 can setup a secure area which is enclosed by the terminal and surrounding senors. The following security system architecture demonstrates a closed-loop connection through the terminal, door sensor and window sensor.

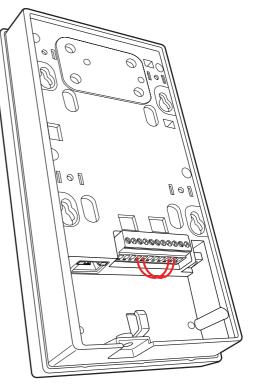


Door Sensor. Door Sensor. Doen-Loop. Window Sensor. Window Sensor.

The following security system architecture demonstrates an open-loop system, which disconnects the door sensor and triggers MT180's security alarm.

It is possible to place or lift security bans by the same proximity card used for access control or time attendance mode. Utilize MTTool to optimize security settings through the following:

- 1. Connect Pin 4 (CHECK) to Pin 9 (GND).
- 2. Connect Pin 5 (SAFE) to Pin 10 (GND).



- 3. Set MT180 and the computer on the same subnet network.
- 4. Execute MTTool on the computer.

5. In MTTool, under the **SysSet1** tab, select **WinSocket** and input the IP address (for example, **192.168.110.230**). Click **Connect**.

| WinSocket IP/Name 192.166.110.230 Port 10002 RS232 ComPort Baud Rate M Controller Index M Connect Disconnect | Firmware Info Time Version: 2007 Year 12 Month 12 Date Serial No: 12 Hour 12 Month 12 Second Monday Get (0133) Get (0136) Set (0037) Adjust (0037) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| rminal Setting | Set1 Set2 |
| RS485 BaudRate 9600bps Get (0134) Set (0034) Terminal ID (1B) Get (0130) Set (0030) Terminal Serial No (4B) Set (0033) Set (0033) Old Password New Password Set (0035) DES KEY (16B) Set (0035) Set (0035) SysLogin Password (8B) Set (0035) Long Open the Day Disable Get (0119) Set (0037) Operation Mode Access Get (0140) Set (0040) Reader Internal Get (0141) Set (0041) Backlight Always On Get (0142) Set (0042) | Terminal Position Display (16B) Get (0131) Get (0031) Company Name Display Get (0132) Set (0032) Delay Time to Open Door (Hex 4B) Get (0144) Set (0044) Door Position Sensor Disable Get (0145) Set (0045) Handling Door failed to Close None Sec Get (0146) Set (0046) DI Delay Time (Hex 4B) O Mesc Get (0146) Set (0046) DO Delay Time (Hex 4B) O Sec Get (0147) Get (0047) Security Alarm Notification None Mesc Get (0149) Set (0047) Force Door Remotely Close Sec Set (0049) |
| Subst Clock-in Times Get (014B) Set (004E) | Retrieve Remote Door Control Set (0049) |
| Default Substitute Clock-in Times Set (0050) | Remote Security ALarm Disable Set (004A |
| Same Card Delay Time Sec Get (014C) Set (004F) | RC632 type of reader modules ISO14443 TYPE A Get (0143) Set (003E |

NOTE: See Advanced Settings on page 13 to set MT180's IP address.

6. Click Adjust to synchronize the system time with the computer.

| Image: Connection Setting Image: OwnSocket Image: OwnSocket | Firmware Info Time Version: 01.13 2009 Year 1 Month 8 Date Serial No:00000000 17 Hour 19 Minute 46 Second Thursday Get (0133) Get (0136) Set (0037) Adjust (0037) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| erminal Setting | Set1 Set2 |
| RS485 BaudRate 9600bps Get (0134) Set (0034) Terminal ID (1B) Get (0130) Set (0030) Terminal Serial No (4B) Set (0033) Set (0033) | Terminal Position Display (16B) Get (0131) Set (0031) Company Name Display Get (0122) Set (0032) Delay Time to Open Door (Hex 4B) Sec Get (0144) |
| DES KEY(16B) Set (0036) | Door Position Sensor Disable 🗸 (0145) Set (0045) |
| SysLogin Password (8B) Set (0035) | Handling Door failed to Close None Sec Get (0148) Set (0048) |
| Long Open the Day Disable Get (0119) Set (0013) | DI Delay Time (Hex 4B) 0 Msec Get (0146) Set (0046) |
| Operation Mode Access Get (0140) Set (0040) | DO Delay Time (Hex 4B) 0 Sec Get (0147) Set (0047) |
| Reader Internal Get (0141) Set (0041) | Security Alarm Notification None Msec Get (0149) Set (0040 |
| Backlight Always On Get (0142) Set (0042) | Force Door Remotely Close Sec Sec Set (0048 |
| Subst Clock-in Times Get (014B) Set (004E) | Retrieve Remote Door Control Set (0049 |
| Default Substitute Clock-in Times Set (0050) | Remote Security ALarm Disable Set (004A |
| Same Card Delay Time Sec Get (014C) Set (004F) | RC632 type of reader modules ISO14443 TYPE A Get (0143) Set (003E |

7. Click Get to double check the date and time set on MT180.

8. In the **Set1** tab, select **Buzzer** from the **System Alarm Notification** drop down menu. Click **Set**.

| iysSet1 SysSet2 PeriodCode Ho | olidayType Holida | yTable Weel | dySchedule G | iroupSet Blocks set Fireware Update | LogQuery AccessStatus | |
|--------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connection Setting WinSocket IP/Name 192.10 ORS232 ComPart Controller Index 0 | | Port 10002 d Rate | ~ | Firmware Info Version: 01.13 Serial No:00000000 Get (0133) | Time 2009 Year 1 Month 17 Hour 19 Minute Get (0136) Set (003: | 46 Second Thursday |
| Terminal Setting | | | | Set1 Set2 | | |
| DES KEY(16B) SysLogin Password (8B) Long Open the Day Dr Operation Mode At Reader In | d Password Ne | Get (0134) Get (0130) w Password Get (0119) Get (0140) Get (0141) Get (0142) | Set (0034) Set (0030) Set (0033) Set (0036) Set (0035) Set (0013) Set (0040) Set (0041) Set (0042) | Terminal Position Display (168) Company Name Display Delay Time to Open Door (Hex 4B) Door Position Sensor Handling Door failed to Close DI Delay Time (Hex 4B) DO Delay Time (Hex 4B) Security Alarm Notification Force Door Remotely | None V Sec 0 V Msec 0 V Sec Buzzer V Msec | Get (0131) Set (0031) Get (0132) Set (0032) Get (0142) Set (0044) Get (0145) Set (0045) Get (0146) Set (0046) Get (0147) Set (0046) Get (0147) Set (0047) Get (0149) Set (0047) Get (0149) Set (0047) Get (0149) Set (0047) |
| Backlight Al Subst Clock-in Times | ways On 💌 | Get (0142) Get (014B) | Set (0042) Set (004E) | Retrieve Remote Door Co | Relay Buzzer+Relay | Set (0049) |
| Default Substitu Same Card Delay Time | ute Clock-in Times | Get (014C) | Set (0050) Set (004F) | Remote Security ALarm RC632 type of reader modules | No. 1 | Set (004A) Get (0143) Set (003E) |

9. Under the **SysSet2** tab in the **Card Setting** box, input the card number, user name, user number, group number and etc. Click **Add a Card No**.

| ard Setting Card No (88)00000000ACEA9 | 9F9E Group No (18 |)0 | Delete all | APB Setting | | | |
|--------------------------------------------------------------|-----------------------|-----------------------|-------------------------|-----------------------------|-------------|--------------------|--|
| User Name (12B) Security | Password (48 | | ~ | Card No(8B) | Get | a Card (014D) | |
| User No (5B) 000000000000 | 1001 Subst Times (1B |)5 | | Anti-pass Back Disable | 🖌 🖉 Set | a Card (0051) | |
| Fingerprint Index (6B) | Card No Qu | ery (0103) | Delete (0011) | | Set / | All Cards (0052) | |
| Add a Card No (0009) | Delete a Card N | o (0010) | | | | | |
| ingerprint | | | | | | | |
| Card Fingerprint 0: Get (0164) | Serial No Type | Enroll Finger (006: | Index | | | | |
| Engerprint 1 Get (0164) Enroll Finger (0061) | | | | | | | |
| Fingerprint 2: Get (0164) | | | | | | | |
| | | Enroll Finger (006: | | | Amount Lise | d Max Amount | |
| Get Vacant Fingerprint Index (0165) | Get Amount | | | Get (0166) | | | |
| | Index | | | | Card Amour | nt Max Card Capa | |
| Get Fingerprint (0167) | | | | Get Card Amount (0 | 160) | | |
| Delete Fingerprint (0062) | | | G | et Unread Log Amount (0161) | | | |
| | | | | | | | |
| hift Setting | | | | | Substit | tute Clock-in Mode | |
| On Duty On Morning On No | on 🔲 On Evening 🛄 Or | n Overtime 🔲 Out fo | or Business 🗌 On Nigh | t 🗌 On Midnight 🛛 Get (| 0117) | ~ | |
| Off Duty Off Morning Off No | on 🔲 Off Evening 🔲 Of | f Overtime 🛛 🔲 Back f | rom Business 🗌 Off Nigh | t 🔲 Off Midnight Set (I | (8000 | | |
| Select ALL Clear All | | | | | Get (0 | 114A) Set (004D | |
| | | | | | 23 | | |

10. Under the WeeklySchedule tab, select Weekly Security Schedule.

|)w | ekly Schedule eekly Securit | | 🔿 Weekh | Long Oper | n Schedule | OW | eekly Door Alam | Disabling Schedule | O Weekly Attendance Schedule |
|----|--------------------------------|-----------------|------------|-------------|------------|----------|-----------------|--------------------|------------------------------|
| (| Get | Set | Display Pe | riod Code V | Vindow | | | | |
| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | ^ | |
|) | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 1 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 2 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 3 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 4 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 5 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 5 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 7 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 3 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 9 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 10 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 11 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 12 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 13 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 14 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| 15 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | | |
| | - | al selection ti | | | | | | | |

- 11. Double-click on a desired table cell (for example, **row 1** / **column Thursday**). The Period Code window appears.
- 12. Click a desired time period (for example, **00002359**) to set for 24 hours in this weekday. Click **OK**.

| | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 |
|----|----------|---------|---------|---------|---------|---------|---------|----------|
| 2 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 1 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 2 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 3 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 4 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 |
| 5 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 |
| 5 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 |
| 7 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| 3 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 |
| 9 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 |
| a, | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 |
| 3 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 |
| ŝ | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 |
| 2 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 |
| 5 | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00000000 |
| - | 00000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 0000000 | 00002359 |

30

13. The period code **7F** displays on the table cell. Click **Set**.

| Set | Display Pe | eriod Code V | Vindow | | | | |
|-----------|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| v Tuesdav | | _ | | | | | |
| | Wednesday | | Friday | Saturday | Sunday | ^ | |
| 00 | 00 | 7F | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| 00 | 00 | 00 | 00 | 00 | 00 | | |
| | | | | | 00 | | |
| | 00 00 00 00 00 00 00 00 00 00 00 00 00 | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 | noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi noi | ool ool <td>00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00<</td> <td>00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00</td> | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00< | 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 |

14. Under the **GroupSet** tab, select the desired group (**0**).

| the left | | | | | | - | | | to en | iable fin | gerpr | int. | | | Holiday Access Control Hol Table | / |
|-----------|-----|------|-----|-------|----|---------|--------|-----|-------|-----------|-------|-------|-----|----|---------------------------------------------|-----------------|
| riod | Mor | nday | Tue | esday | We | dnesday | Thurso | lay | Frida | iy | Satu | urday | Sur | | | |
| | 0 | | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Access Password | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГП | 1 3 | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ПП | 0 | ГГ | 0 | ГГ | 0 | ГГ | 2. 4. | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Anti-duress Password | |
| | 0 | ГГ | 0 | | 0 | | 0 | пп | 0 | ГГ | 0 | ГГ | 0 | ГГ | 1. 2. | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГП | Security Mode Control | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ПП | 0 | ГГ | 0 | ГГ | 0 | ГГ | Without Permission | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | C Enable Security Mode | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГП | 0 | ГГ | 0 | ГГ | 0 | ГГ | O Disable Security Mode | |
| | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГΓ | 0 | ГГ | 0 | ГГ | 0 | ГГ | OEnable/ Disable Security Mode | |
| í. | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГΓ | 0 | ГГ | 0 | ГГ | 0 | ГГ | APB Setting | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | O Enable 💿 Disable | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | Attendance Mode Setting Securi | ty Mode Setting |
| 1 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | e |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | OPassword OPass | |
| Period is | | | | | | | | | | | | | | | Fingerprint Fingerprint Fingerprint | erprint |

15. Double-click on a desired table cell (**row 1** / **column Thursday**). The Period Code window appears.

16. Click a desired time period (for example, **00002359**) to set for 24 hours in this weekday. Click **OK**. The period code **7F** displays on the table cell.

| up No 0 the left ch ekly Acces | | | | | | | | | to er | nable fin | gerp | rint. | | | Holiday Access Control | Access Control Access Control Allow Deny |
|--------------------------------------|-----|------|-----|-------|----|---------|-----|--------|-------|-----------|------|-------|-----|--------|----------------------------------------|--------------------------------------------------------------------------------|
| iod | Mor | iday | Tue | esday | We | dnesday | Thu | irsday | Frida | ау | Sat | urday | Sur | iday 🗠 | | Oberty |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 7F | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Access Password | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | 1 3 | |
| | 0 | ГГ | 0 | | 0 | | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 2. 4. | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Anti-duress Password | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 1. 2. | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Security Mode Control | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Without Permission | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | CEnable Security Mod | le |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | O Disable Security Mod | |
| | 0 | ГГ | 0 | ΠП | 0 | | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | O Enable/ Disable Sec | urity Mode |
| | 0 | ГГ | 0 | | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | 0 | | APB Setting | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | O Enable 💿 Disal | Jle |
| | 0 | ГΓ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Attendance Mode Setting | Security Mode Setting |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | None | None |
| | 0 | | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | O Password | OPassword |
| Period is ty | | | | | | | | | | | | | | | Fingerprint | Fingerprint |

17. In the Security Mode Control box, select Enable/ Disable Security Mode.

| the left c ekly Acce | | | | | | - | | | to er | hable fin | igerpri | int. | | | Holiday Access Control Hol Table 0 |
|-------------------------|-----|-----|-----|------|-----|---------|-----|-------|-------|-----------|---------|-------|-----|-------------------|---------------------------------------------|
| eriod | Mon | day | Tue | sday | Wed | dnesday | Thu | rsday | Frida | ay | Satu | irday | Sun | day | O Deny |
|) | 00 | ГГ | 00 | ГГ | 00 | ГГ | 7F | | 00 | ГГ | 00 | ГГ | 00 | ГГ | Access Password |
| | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 1 3 |
| 2 | 00 | ГГ | 00 | ГГ | 00 | ПП | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 2. 4. |
| 3 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | Anti-duress Password |
| ł | 00 | ГГ | 00 | ГГ | 00 | ПΠ | 00 | ГГ | 00 | ГГ | 00 | ПП | 00 | ГГ | 1. 2. |
| 5 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | Security Mode Control |
| 5 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | O Without Permission |
| 7 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | C Enable Security Mode |
| 3 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | O Disable Security Mode |
| 9 | 00 | ГГ | 00 | ГГ | 00 | ПΠ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ΓГ | Enable/ Disable Security Mode |
| 10 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | APB Setting |
| 11 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | ○Enable |
| 12 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | Attendance Mode Setting Security Mode Setti |
| 13 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГΓ | None None |
| 14 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | OPassword OPassword |
| er Period is | | | | | | | | | | | | | | 5 16 ⁻ | Fingerprint Fingerprint |

- 18. Click Set Group Info.
- 19. Under the AccessStatus tab, click Get Latest Status.
- 20. Check the Byte0 box values, Security Mode highlights Enable in blue.

21. Check the **Byte1** box values, **Door** highlights **Close** in blue, and **Security Trigger** highlights **Close** in blue.

| Get Latest Status (0100) | | | | | |
|---------------------------|--------|-----------|----------------------------|-----------|---------------|
| ByteO | 1 | 0 | Byte2 | 1 | 0 |
| b0: New Log(s) | Yes | No | b0: DO1 | 1 | o |
| b1: Security Mode | Enable | Disable | b1: DO2 | 1 | 0 |
| b2: Unclosed Door Alarm | Action | No Action | b2: | 1 | 0 |
| b3: Security Alarm | Action | No Action | b3: | 1 | 0 |
| b4: Anti-theft Alarm | Action | No Action | b4: | 1 | 0 |
| b5: Remote Door Control | Enable | Disable | b5: | 1 | 0 |
| b6: Remote Relay2 Control | Enable | Disable | b6: | 1 | 0 |
| b7: | 1 | 0 | b7: | 1 | O |
| Byte1 | | | Byte3 | | |
| | 1 | 0 | | 1 | 0 |
| b0: Door | Open | Close | b0: | 1 | 0 |
| b1: Security Trigger | Open | Close | b1: Buffer1 Data Available | Available | Not Available |
| b2: Anti-theft Sensor | Open | Close | b2: Buffer2 Data Available | Available | Not Available |
| b3: Door Button | Open | Close | b3: Buffer3 Data Available | Available | Not Available |
| b4: DIO Status | Signal | No Signal | b4: | 1 | 0 |
| b5: DI1 Status | Signal | No Signal | b5: | 1 | o |
| b6: DI2 Status | Signal | No Signal | b6: | 1 | 0 |
| b7: DOO Status | 1 | 0 | b7: | 1 | o |
| b7: DO0 Status | 1 | 0 | b7: | 1 | 0 |

Scenario I - Place Security Ban

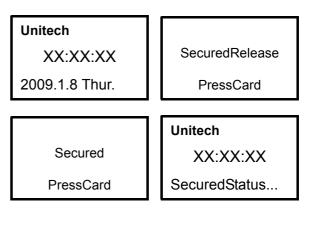
Press ***** to enter the security setting screen, while in standby status. The current security status, **SecuredRelease** displays onscreen.

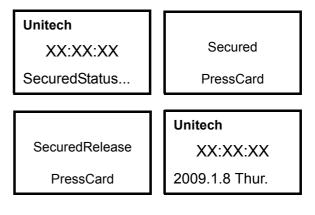
Swipe the card on the Proximity Reader, and the security status switches to **Secured**. **SecuredStatus** displays on the standby screen indicating a security ban.

Scenario II - Lift Security Ban

Press ***** to enter the security setting screen while in standby status and **SecuredStatus** displays onscreen. The current security status, **Secured** displays onscreen.

Swipe the card on the Proximity Reader, and the security status switches to **SecuredRelease**. **SecuredStatus** disappears on the standby screen indicating the security ban is lifted.



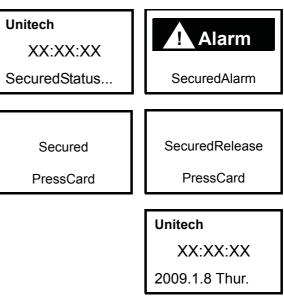


Scenario III - Trigger Security Alarm

Disconnect Pin 5 (SAFE) to Pin 10 (GND) to loosen the loop while the security ban is set. The loosened loop triggers the security alarm, and **SecuredAlarm** displays on the standby screen.

Press ***** to enter the security setting screen. Th current security status, **Secured** displays onscreen. Swipe the card on the Proximity Reader, the security status switches to **SecuredRelease** indicating that the security ban is lifted.

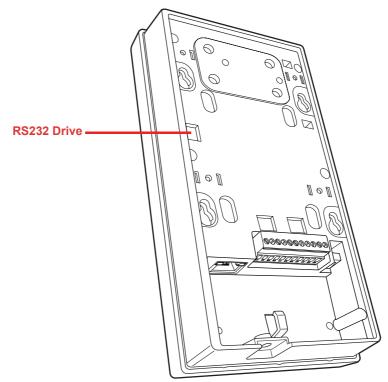
SecuredAlarm disappears on the standby screen. Check the loop and reconnect Pin 5 (SAFE) to Pin 10 (GND).



Anti-Pass Back Setting

Enforce Anti-Pass Back to control the entrance/exit behavior and prevent unauthorized access. Utilize MTTool to prohibit same card reentry and re-exit through the same door.

1. Connect a secondary reader to MT180 via RS232 Drive.



- **NOTE:** While MT180 serves as an internal reader, the secondary reader is the external reader. Ensure the card type is compatible with the internal/external reader.
- 2. Set MT180 and the computer on the same subnet network.
- 3. Execute MTTool on the computer.

4. In MTTool, under the **SysSet1** tab, select **WinSocket** and input the IP address (for example, **192.168.110.230**). Click **Connect**.

| inection secting | -Firmware Info |
|---------------------------------------------------|---------------------------------------------------------------------|
| WinSocket IP/Name 192.168.110.230 Port 10002 | Version: 2007 Year 12 Month 12 Date |
| RS232 ComPort Baud Rate | 12 Hour 12 Minute 12 Second Monday |
| Controller Index 0 Connect Disconnect | Get (0133) Get (0136) Set (0037) Adjust (0037) |
| minal Setting | Set1 Set2 |
| RS485 BaudRate 9600bps V Get (0134) Set (0034) | Terminal Position Display (16B) Get (0131) Set (003: |
| Terminal ID (18) Get (0130) Set (0030) | Company Name Display Get (0132) Set (0032 |
| Terminal Serial No (4B) Set (0033) | Delay Time to Open Door (Hex 4B) Sec Get (0144) Set (0044 |
| Old Password New Password DES KEY(16B) Set (0036) | Door Position Sensor Disable V Get (0145) Set (0045 |
| SysLagin Password (8B) Set (0035) | Handling Door failed to Close None 🖌 Sec Get (0148) Set (0048 |
| Long Open the Day Disable | DI Delay Time (Hex 4B) 0 V Msec Get (0146) Set (0046 |
| Operation Mode Access Get (0140) Set (0040) | DO Delay Time (Hex 4B) 0 Sec Get (0147) Set (0047 |
| Reader Internal 🛛 🖌 (Get (0141)) Set (0041) | Security Alarm Notification None Msec Get (0149) Set (0040 |
| Backlight Always On Get (0142) Set (0042) | Force Door Remotely Close Sec Set (0048 |
| Subst Clock-in Times Get (014B) Set (004E) | Retrieve Remote Door Control Set (0049 |
| Default Substitute Clock-in Times Set (0050) | Remote Security ALarm Disable Set (0044 |
| Same Card Delay Time Sec Get (014C) Set (004F) | RC632 type of reader modules ISO14443 TYPE A V Get (0143) Set (0038 |
| |] |

NOTE: See Advanced Settings on page 13 to set MT180's IP address.

5. Click Adjust to synchronize the system time with the computer.

| WinSocket IP/Name 192.168.110.230 | Port 1000 | 2 | Firmware Info | Time 2009 Year 1 | Month 8 | Date |
|---------------------------------------------|----------------|--------------------------|----------------------------------|---------------------|------------|---------------------|
| | Baud Rate | ~ | Serial No: 00000000 | 17 Hour 19 | Minute 46 | Second Thursday |
| Controller Index 0 | Disco | onnect | Get (0133) | Get (0136) | Set (0037) | Adjust (0037) |
| rminal Setting | | | Set1 Set2 | | | |
| RS485 BaudRate 9600bps | | Set (0034) | Terminal Position Display (16B) | | | Get (0131) Set (003 |
| Terminal ID (1B) Terminal Serial No (4B) | Get (0130) | Set (0030) Set (0033) | Company Name Display | | | Get (0132) Set (003 |
| | New Password | 000007 | Delay Time to Open Door (Hex 4B) | | Sec | Get (0144) Set (004 |
| DES KEY(16B) | | Set (0036) | Door Position Sensor | Disable 🛩 | | Get (0145) Set (004 |
| SysLogin Password (8B) | | Set (0035) | Handling Door failed to Close | None 🔽 | Sec | Get (0148) Set (004 |
| Long Open the Day Disable | ✓ Get (0119) | Set (0013) | DI Delay Time (Hex 4B) | 0 🗸 | Msec | Get (0146) Set (004 |
| Operation Mode Access | ✓ Get (0140) | Set (0040) | DO Delay Time (Hex 4B) | 0 🖌 | Sec | Get (0147) Set (004 |
| Reader Internal | ✔ Get (0141) | Set (0041) | Security Alarm Notification | None 🖌 | Msec | Get (0149) Set (004 |
| Backlight Always On | ✓ Get (0142) | Set (0042) | Force Door Remotely | Close 💌 | S | iec Set (004 |
| Subst Clock-in Times | Get (014B) | Set (004E) | Retrieve Remote Door Co | ntrol | | Set (004 |
| Default Substitute Clock-in Tim | nes | Set (0050) | Remote Security ALarm | Disable 🛛 🔽 | | Set (004 |
| Same Card Delay Time | Sec Get (014C) | Set (004F) | RC632 type of reader modules | ISO14443 TYPE A | ~ | Get (0143) Set (003 |
| | | | L | | | |

6. Click **Get** to double check the date and time set on MT180.

7. In the **Terminal Setting** box, select **Internal+External** from the **Reader** drop-down menu. Click **Set**.

| nnection Setting | Firmware Info | Time | |
|----------------------------------------------------------|------------------------------------------|---------------------|-----------------------|
| WinSocket IP/Name 192.168.110.230 Port 10002 | Version: 01.13 Serial No:0000000 | 2009 Year 1 Month | |
| OR5232 ComPort Baud Rate | | 17 Hour 19 Minute | |
| Controller Index 0 Connect Disconnect | Get (0133) | Get (0136) Set (003 | 7) Adjust (0037) |
| rminal Setting | Set1 Set2 | | |
| RS485 BaudRate 9600bps V Get (0134) Set | (0034) Terminal Position Display (16E |) | Get (0131) Set (0031) |
| | (0030) Company Name Displa | y | Get (0132) Set (0032) |
| | Delay Time to Open Door (Hex 4E |) Sec | Get (0144) Set (0044) |
| Old Password New Password DES KEY(16B) Set | (0036) Door Position Senso | r Disable 💙 | Get (0145) Set (0045) |
| SysLogin Password (8B) | (0035) Handling Door failed to Clos | e None 🔽 Sec | Get (0148) Set (0048) |
| Long Open the Day Disable | (0013) DI Delay Time (Hex 4E |) 0 💌 Msec | Get (0146) Set (0046) |
| Operation Mode Attendance V Get (0140) Set | (0040) DO Delay Time (Hex 48 |) 0 🖌 Sec | Get (0147) Set (0047) |
| Reader nternal+External 🗸 Get (0141) Set | (0041) Security Alarm Notificatio | n Buzzer 🔽 Msec | Get (0149) Set (004C) |
| | (0042) Force Door Remote | y Close 🖌 | Sec Set (0048) |
| Internal+External Subst Clock-in Times Get (014B) Set | (004E) Retrieve Remote Door (| iontrol | Set (0049) |
| Default Substitute Clock-in Times Set | (0050) Remote Security ALarr | n Disable 🔽 | Set (004A) |
| Same Card Delay Time Sec Get (014C) Set | (004F) RC632 type of reader module | s ISO14443 TYPE A 💌 | Get (0143) Set (003E) |
| | | | |

8. Under the **SysSet2** tab, in the **Card Setting** box, input the card number, user name, user number, group number and etc. Click **Add a Card No**.

| d Setting | | Delete all | APB Setting | |
|----------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------|----------------------------|----------------------------------------------------------|
| Card No (88) 00000000ACEA9F User Name (128) APB User No (58) 0000000000000 ngerprint Index (68) Add a Card No (0009) | Password (4B) 12345670 | 3 Delete (0011) | Card No(8B) | Get a Card (014D) Set a Card (0051) Set All Cards (0052) |
| gerprint | | | | |
| | erial No Type | Index | | |
| Fingerprint 0: Get (0164) | Enroll F | Finger (0061) | | |
| Fingerprint 1: Get (0164) | Enroll F | Finger (0061) | | |
| Fingerprint 2: Get (0164) | Enroll F | Finger (0061) | | |
| | Get Amount | | Ar | nount Used Max Amount |
| Get Vacant Fingerprint Index (0165) | | | Get (0166) | |
| | Index | | | ard Amount Max Card Cap |
| Get Fingerprint (0167) | | | Get Card Amount (0160) | |
| Delete Fingerprint (0062) | | Get | t Unread Log Amount (0161) | |
| ft Setting On Duty On Marning On Noar Off Duty Off Marning Off Naar Select ALL Clear All | | Out for Business On Night | | Substitute Clock-in Mod |

9. Under the **GroupSet** tab, select the desired group (**0**).

| oup No 0 the left ch eekly Acces | | | able p | | l. Tick | the rig | ht che | ckbox | | roup In able fin | | | | | Holiday Access Control Hol Table 0 |
|----------------------------------------|-----|-----|--------|-------|---------|---------|--------|-------------|-------|---------------------|------|-------|-----|------|-----------------------------------------------|
| eriod | Mon | day | Tue | esday | Wed | Inesday | Thurs | sday | Frida | y | Sati | urday | Sur | iday | O Deny |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Access Password |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 1 3 |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 2. 4. |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Anti-duress Password |
| ł. | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 1. 2. |
| - | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Security Mode Control |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Without Permission |
| , | 0 | ГГ | 0 | ГГ | 0 | ГΓ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | C Enable Security Mode |
| 3 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | O Disable Security Mode |
| i | 0 | ГГ | 0 | | 0 | ГΓ | 0 | $\Box \Box$ | 0 | ГГ | 0 | ГГ | 0 | ГГ | O Enable/ Disable Security Mode |
| .0 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | $\Box \Box$ | 0 | ГГ | 0 | ГГ | 0 | ГГ | APB Setting |
| 11 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | ○ Enable |
| 12 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | Attendance Mode Setting Security Mode Setting |
| 13 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | None None |
| 14 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | OPassword OPassword |
| er Period is t | | | | | | | | | | | | | | | Fingerprint Fingerprint Fingerprint |

- 10. Double-click on a desired table cell (**row 1** / **column Thursday**). The Period Code window appears.
- 11. Click a desired time period (for example, **00002359**) to set for 24 hours of access in this weekday. Click **OK**. The period code **7F** displays on the table cell.

| roup No 0 k the left ch eekly Access | eckbo | | ble p | | I. Tic | k the rig | ht ch | eckbox | | aroup In Nable fin | | | | | | Holiday Access Control- | | Access Control |
|--------------------------------------------|--------|----------|-------|------------|--------|-----------|-------|----------|--------|-----------------------|-------|---------|------|-------------|--------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| eriod | Mor | nday | Tue | esday | We | dnesday | Thu | rsday | Frida | ay | Satu | urday 🛛 | Sun | day | ^ | | | Openy |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 7F | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | Access Password | and the second s | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ПП | 0 | ГГ | 0 | ГГ | 0 | ГГ | | 1. | 3. | |
| | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | 2. | 4. | |
| 3 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | Anti-duress Password | | |
| 1 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГГ | | 1. | 2. | |
| 5 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | Security Mode Control | | |
| 5 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | Without Pe | ermission | |
| 7 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | O Enable Sec | urity Mode | |
| 3 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | O Disable Sec | 1999 C. | |
| Ð | 0 | ГГ | 0 | ΠП | 0 | ΓГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | O Enable/ Dis | able Securit | :y Mode |
| 10 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ПΠ | 0 | ГГ | 0 | ГГ | 0 | ГГ | ſ | APB Setting | | |
| 11 | 0 | ГГ | 0 | ГГ | 0 | ГП | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | | ○ Enable | Disable | |
| 12 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | | 0 | ГГ | 0 | ГГ | n | Attendance Mode Sett | ing | Security Mode Setting |
| 13 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГΓ | 0 | None | | None |
| 14 | 0 | ГГ | 0 | ГГ | 0 | ГГ | 0 | ГΓ | 0 | ГГ | 0 | ГГ | 0 | EE | | O Password | | O Password |
| er Period is to | wo che | eck hoxe | sle | ft side is | for e | enable na | asswr | rd Right | t side | is for e | nahle | fingern | rint | _ | | O Fingerprint | | Fingerprint |
| uble-click the | | | | | | | | | | | | | | sal, the fo | rmat f | for 00 to 02 | | |

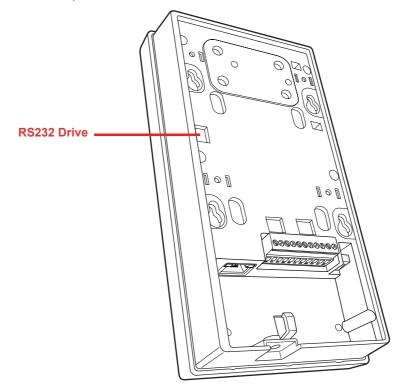
12. In the APB Setting box, select Enable.

| roup No [0 k the left o /eekly Acce | :heckbo: | - | able p | assword | I. Ticł | - | ht ch | eckbox | | roup In able fin | | | J | | Holiday Access Control |
|-------------------------------------------|----------|-----|--------|---------|---------|---------|-------|--------|-------|---------------------|------|-------|-----|--------------|-----------------------------------------------|
| eriod | Mon | day | Tue | sday | We | dnesday | Thur | sday | Frida | у | Satu | irday | Sun | day 🖌 | O Deny |
| | 00 | ГГ | 00 | ГГ | 00 | ГГ | 7F | | 00 | ГГ | 00 | ГГ | 00 | ГГ | Access Password |
| 6 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | | 1 3 |
| | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 2. 4. |
| | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | Anti-duress Password |
| | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 1. 2. |
| | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | Security Mode Control |
| | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | Without Permission |
| | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ПГ | 00 | ГГ | CEnable Security Mode |
| | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | O Disable Security Mode |
| | 00 | ГГ | 00 | ГГ | 00 | ΓГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | Enable/ Disable Security Mode |
| 0 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | APB Setting |
| 1 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | Enable O Disable |
| 2 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | Attendance Mode Setting Security Mode Setting |
| 3 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | None None |
| 4 | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ | 00 | ГГ . | Password Password |
| er Period is Ible-click th | | | | | | | | | | | | | | sal, the for | Crissing Fingerprint Fingerprint |

13. Click Set Group Info.

Utilize JanitorLite to prohibit same card reentry and re-exit through the same door.

1. Connect a secondary reader to MT180 via Drive RS232.



- **NOTE:** While MT180 serves as an internal reader, the secondary reader is the external reader. Ensure the card type is compatible with the internal/external reader.
- 2. Set MT180 and the computer on the same subnet network.
- **NOTE:** Switch the controller operation mode to be Access, and synchronize the date and time in MTTool.

- 3. Execute JanitorLite on the computer.
- 4. Click Controller(\underline{C}) \rightarrow Controller Management.
- 5. Right-click **All Groups**, and click **Append** → **Group** to add a new controller group. The Controller Group Management window appears.
- 6. Enter the controller group name (for example, **Demo**). Click **Apply** → **OK** to return to the Controller Group Management window.

| ControllerGr | oup Management | | | | |
|--------------|----------------------|---------|-----------------|---------------|------|
| Groups Info | Security Weekly Plan | LongTim | neOpen | UnClose alarm | |
| | GroupID 000001 | | GroupNa Demo | ame | |
| Remark | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | Ок | | Cancel | | |
| Send | | | Cancel | App | iy J |

- 7. Right-click the desired group (**Demo**), and click **Append** → **Entity** to add a new controller. The Controller Management window appears.
- 8. In the **ControllerName** field, enter the controller name (for example, **MT180**).
- 9. In the IPHost field, input the controller's IP address (192.168.110.230). Click Apply.

| ControllerID 000001 | ControllerName MT180 | GroupID 000001 |
|------------------------|-------------------------|-------------------------|
| ControllerType | CardLength | RepBarcodeMode |
| 180 | 16 | Monthly substitute mode |
| RepBarcodeCount | IPHost | ControllerIndex |
| 5 | 192.168.110.230 | 2 |
| IPPort | ChannelType | ComPort |
| 10002 | Net(TCP) | 5 |
| Remark | | |

- Click Reset to reset data in this controller. A window appears, asking to reset. Click Yes. MT180 screen displays messages Please wait! EraseFingerInfo., Please wait! Erase Log... and Please wait! EraseCardInfo. MT180 returns to the standby status when complete.
- NOTE: Alternatively, reset data under the SysSet2 tab in MTTool. In the Delete all field, select to delete all cards, logs, fingerprints, and click Delete. In the Shift Setting field, click Clear All → Set.
- 11. Click **OK** to return to the Controller Group Management window.
- 12. Click User(\underline{U}) \rightarrow User Management.

- 13. Right-click **All Groups**, and click **Append** → **Group** to add a new user group. The UserGroup Setting window appears.
- In the GroupName field, enter the user group name (Demo). Click Apply → OK to return to the JanitorLite - [Users Management] window.

| UserGroup | Setting | - | | |
|------------|---------|----|-----------|-------|
| Group Info | 0 | | | |
| | GroupID | | GroupName | |
| | 000001 | | Demo | |
| Remark | | | | |
| | 2 | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Send | | ОК | Cancel | Apply |
| | | | | |

- 15. Right-click the desired group (**Demo**), and click **Append** → **Entity** to add a new user. The User Setting window appears.
- 16. In the UserName field, enter the user name (for example, APB).

| PUSerID | UserName | |
|--------------------|-----------|-------------------|
| 3 000000001 | APB | 💿 Male 🛛 🔿 Female |
| IardNo | CardKey | |
| | 12345678 | |
| FroupID | GroupName | |
| 000001 + | | |
| D No. | EMail | |
| . 14 | - 1 1 | |
| 1obile | Telephone | |
| Address | | Account |
| Remark | | |
| | | |
| | | |
| | | |
| | | |

17. Inside the **CardNo** field, click +. The Card setting window appears.

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Input the card number in the Card No. field. Click Apply → OK to return to the User setting window.

| - | Card No. | CreateTime |
|---|--------------------|------------|
| 2 | 00000000ACEA9F9E + | 2009/01/15 |
| | | |
| | Card Type | Creator |
| | Proximity card | root |
| | VaildTime | ExpireTime |
| | 2009/01/15 | 2010/01/15 |

NOTE: See *General Settings* on page 12 to acquire the card number.

- 19. Click **OK** to return to the JanitorLite [Users Management] window.
- 20. Click Permit(<u>P</u>) \rightarrow Permit Management.
- 21. Select the desired user group (**Demo**), and click **Setting** on the toolbar. The Selected Controllers window appears.
- 22. Select the desired controllers (**MT180** and **Demo**), and click **OK** to return to the JanitorLite [Permit Management] window.

| 🛜 Selected Controllers | |
|----------------------------------------------------|-------------------|
| Please select the needful item and check to return | V |
| ALL Groups ALL Groups MT180 | |
| Reset Expand All | OK Cancel Refresh |

23. Double-click the desired user group (Demo). The UserGroup Setting window appears.

24. Under the **Permit Setting** tab, check **Anti-back**. Click **Apply** → **Send** to immediately send this command to the controller. A window appears with the message **Setting Successfully**.

| Permit setting | Entrance guard weekly p | lan Password / | Access weekly schedu | Jle | |
|--------------------------|-------------------------|----------------|----------------------|--------|--|
| Security limit | s | CardGrou | pID | | |
| None | | | 0 🗹 Anti | i-back | |
| Only Turr | n On | Holiday R | ef | IY . | |
| | | Attendan | ce Mode | | |
| Only Turr | n Off | none | | ~ | |
| OBoth | OBoth | | Security Mode | | |
| | | none | | ~ | |
| Password se | tting | | Safe Key setting | | |
| DoorKey0 | DoorKey1 | | SafeKey1 | - | |
| DoorKey2 | DoorKey2 DoorKey3 | | SafeKey2 | | |
| 2 | | | - | - | |
| | | | <u>.</u> | Y | |

- 25. Under the **Entrance guard weekly plan** tab, select a desired weekday from the drop down menu.
- 26. Inside the PeriodID field, double-click +. The Selected periods window appears.
- 27. Click a desired time period (for example, PeriodID **127**) to set for 24 hours of access in this weekday, and click **OK**.

| PeriodID | StartTime | EndTime | |
|----------|----------------|----------------|---|
| | 00:00 00:00 | 00:00 23:59 | - |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

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| eri | mit setting En | trance guard v | | assword Acce: | ss weekly schedu | lle |
|-----|----------------|----------------|------------|---------------|------------------|---------|
| M | onday [| ~ | Handle Out | Forbidden | V | ietting |
| I | PeriodIndex | PeriodID | StartTime | EndTime | NeedCardKey | Starl 🔨 |
| I | 0 | 127 + | 0000 | 2359 | | |
| | 1 | 0 + | 0000 | 0000 | | |
| | 2 | 0 + | 0000 | 0000 | | |
| | 3 | 0 + | 0000 | 0000 | | |
| | 4 | 0 + | 0000 | 0000 | | |
| 1 | 5 | 0 + | 0000 | 0000 | | |
| 1 | 6 | 0 + | 0000 | 0000 | | |
| Q | 7 | 0 + | 0000 | 0000 | | |
| | 8 | 0 + | 0000 | 0000 | | |
| 4 | 9 | 0 + | 0000 | 0000 | | |
| Ĩ. | 10 | 0 + | 0000 | 0000 | | |
| 0 | 11 | 0 + | 0000 | 0000 | | |
| | | | | | | × |
| | | | | | | > |

28. Click **Apply** \rightarrow **Send** to send the command to the controller immediately.

29. Click OK to return to the JanitorLite - [Permit Management] window.

Scenario I - Normal Entrance and Exit

Swipe the card on the internal reader, while in standby status. **Entrance** with the user name **APB** displays on the standby screen indicating that reentry is not allowed.

Swipe the card on the external reader, **Exit** with the user name **APB** displays on the standby screen indicating that re-exiting is not allowed.

Scenario II - Re-Entering

Swipe the card on the internal reader, **Entrance** with the user name **APB** displays on the standby screen.

Swipe the card again on the internal reader, **Re-Entering** with the user name **APB** displays on the standby screen indicating that reentry occurred.

Scenario III - Re-Exiting

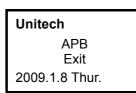
Swipe the card on the external reader, **Exit** with the user name **APB** displays on the standby screen.

Unitech APB Entrance 2009.1.8 Thur.

Unitech APB Exit 2009.1.8 Thur.

Unitech APB Entrance 2009.1.8 Thur.

Unitech APB Re-Entering 2009.1.8 Thur.



Swipe the card again on the external reader, **Re-Exiting** with the user name **APB** displays on the standby screen indicating that re-exiting occured.

Unitech

APB Re-Exiting 2009.1.8 Thur.

If utilizing JanitorLite, Click **Report**($\underline{\mathbf{R}}$) \rightarrow **Access Report**. Under the **Conditions** tab, filter the user, controller, and date, and click **OK**. The access record displays under the Preview tab.

| LogDate | ControllerID | ControllerName | GroupID | UserID | UserName | GroupID | CardNo | AccessTime / | StateDescription |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|---------|------------|----------|---------|------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COLUMN DATE OF THE OWNER OWNER OF THE OWNER OWNE | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | | 1/19/2009 2:12:49 PM | Entry check |
| 20090119 | | MT180 | 000001 | 0000000001 | APB | 000001 | | 1/19/2009 2:12:51 PM | And a second sec |
| 20090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 2:12:53 PM | Entry check |
| 20090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | | 1/19/2009 2:12:53 PM | |
| 20090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 2:12:55 PM | Egress check |
| 20090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 2:12:56 PM | Re-go out |
| 20090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 2:13:12 PM | Entry check |
| 20090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 2:13:13 PM | Egress check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 2:13:29 PM | Entry check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:03 PM | Entry check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:11 PM | Re-enter |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:17 PM | Egress check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:19 PM | Re-go out |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:23 PM | Entry check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:24 PM | Egress check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:25 PM | Re-go out |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:26 PM | Entry check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:27 PM | Egress check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:33 PM | Entry check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:34 PM | Egress check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:35 PM | Entry check |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:36 PM | Re-enter |
| 0090119 | 000001 | MT180 | 000001 | 0000000001 | APB | 000001 | 00000000ACEA9F9E | 1/19/2009 4:10:37 PM | Egress check |

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Appendix A

System Specification

| Processing/Memory | CPU | ARM7TDMI-S | | | |
|-------------------|------------------------------------|------------------------------------------------------------|--|--|--|
| | Memory | 8MB External Flash | | | |
| Display | 128 × 64 Pixel COG/FST | N LCD with White Backlight | | | |
| Keypad | 18-key, Including Talk Key | /, Function Key and Numeric Key | | | |
| Communication | Ethernet10/100M, RS485 | and Optional DECT Voice | | | |
| I/O | Digital Inputs (3): Door Op | pen, Door Position and Security Trigger | | | |
| | Relay (2): Electrical Door | Lock and Alarm | | | |
| I/O Expansion | RS232 Drive (1) - Secondary Reader | | | | |
| | Digital Inputs (3) | | | | |
| | Digital Outputs (3) | | | | |
| Proximity Reader | EM, 125kHz | | | | |
| (Optional) | HID, 125kHz | | | | |
| | MiFare, 13.56MHz (ISO 1 | 4443A/B, ISO 15693) | | | |
| Power Supply | DC 12V, 2.0A | | | | |
| Enclosure | Weight | 410 g. (14.46 oz.) | | | |
| | Dimension | 188.09mmL X 38.67mmH X 99.94mmW (7.4"L X 1.5"H X 3.9"W) | | | |
| Environmental | Operating Temperature | -10°C - 50°C (14°F - 122°F) | | | |
| | Storage Temperature | -20°C - 60°C (-4°F - 140°F) | | | |
| | Relative Humidity | 35% - 95% | | | |
| Certification | CE, FCC, NCC, CCC, Ro | HS compliant | | | |
| Software | JanitorLite, MTTool, Comr | munication SDK | | | |
| Accessories | On Wall Mounting Kit | | | | |

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Appendix B

Worldwide Support

| Region | Website |
|-------------------------------|-------------------------|
| Global Operation Center | www.unitech-adc.com |
| Unitech Asia Pacific & Middle | www.unitech-utp.com.tw |
| Greater China Division | www.unitech-sbd.com |
| Unitech Japan | www.unitech-japan.co.jp |
| Unitech America | www.ute.com |
| Unitech Latin America | www.latin.ute.com |
| Unitech Europe | www.unitech-europe.nl |