1. Check Environment
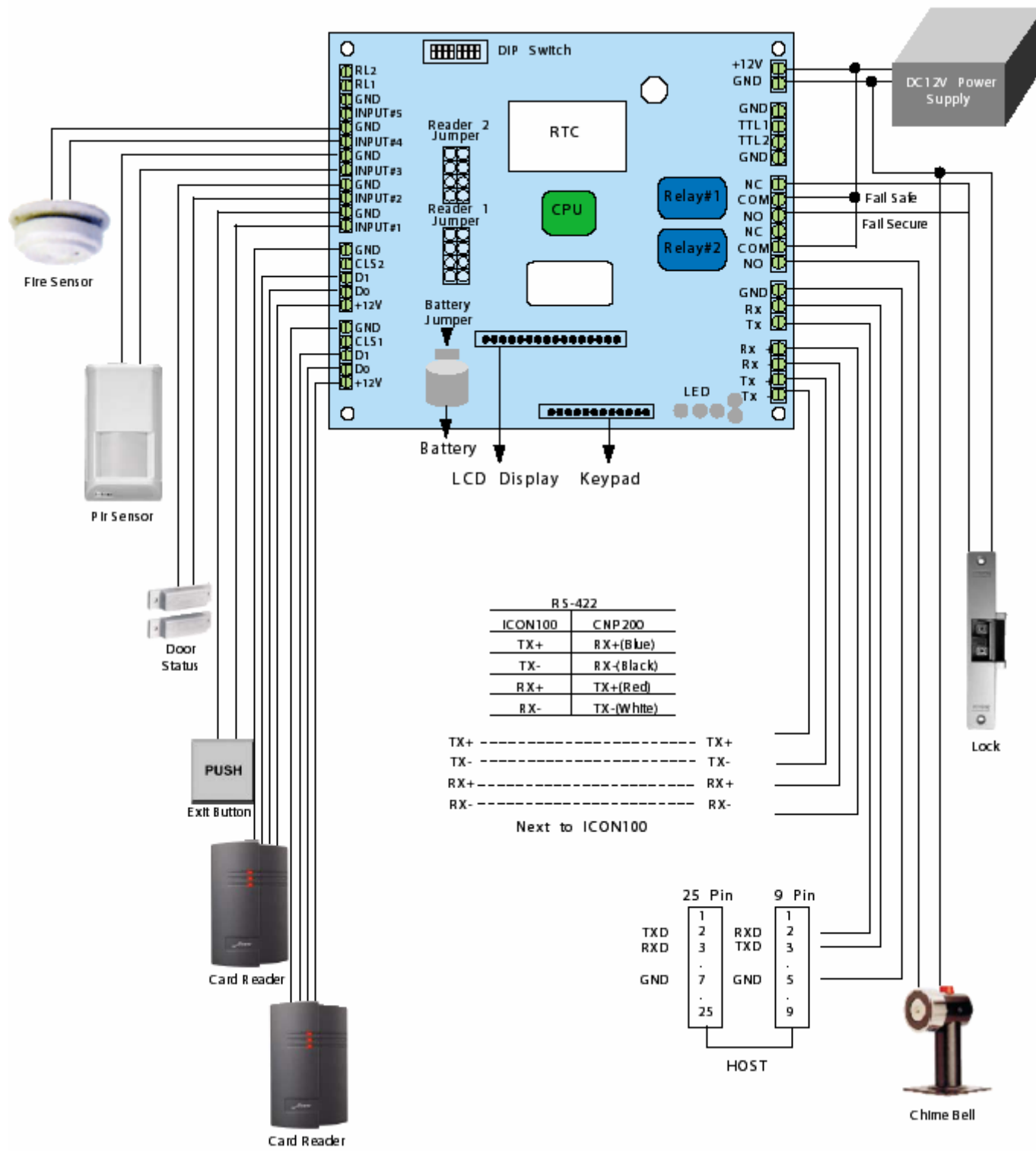
1.1 Check the power source

Before wiring, please check the voltage/current (DC12V/350mA) that will be input to the iCON100.

1.2 Connection Diagram

RS-422	
ICON100	CNP200
TX+	RX+(Blue)
TX-	RX-(Black)
RX+	TX+(Red)
RX-	TX-(White)

TX+ ------------------------ TX+
TX- ------------------------ TX-
RX+ ------------------------ RX+
RX- ------------------------ RX-

Next to ICON100

2. Setup Hardware

2.1 Backup Battery setup and Hardware Initialization

2.1.1 It explains how to operate the switch for connecting the backup battery in order to keep the memory data.

For normal use, the switch should be connected as the picture below so that there is no any data loss.
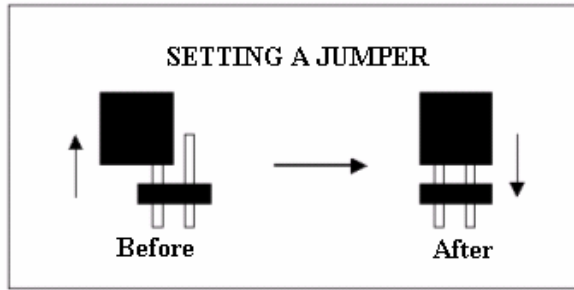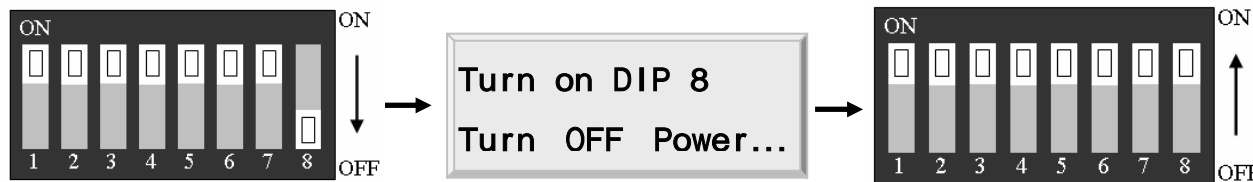

Figure: JUMPER SETTING Figure: Jumper location

2.1.2 Toggle the DIP switch '8' "OFF" while the power is ON.

2.1.3 The message "Turn on DIP 8 Turn OFF Power…" will be shown on the LCD.

2.1.4 Toggle the DIP switch '8' "ON" and turn the power off.

2.1.5 There is 8-bit DIP Switch for address setting and it turns to 5-bit binary code as below. Each bit has fixed address value and the address is calculated by the sum of the value of each bit set to "1" position.
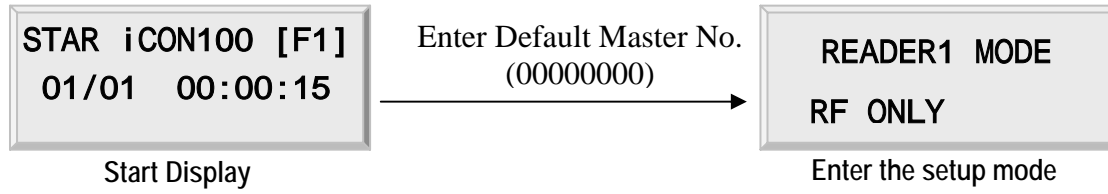
Example

= ADDRESS 0
00000000

= ADDRESS 17
10001000 1+16

ADDRESS VALUE

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
2	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF
3	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF
4	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
5	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
6	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
7	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
8	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON

Table 1 : The relation between Setting and DIP switch
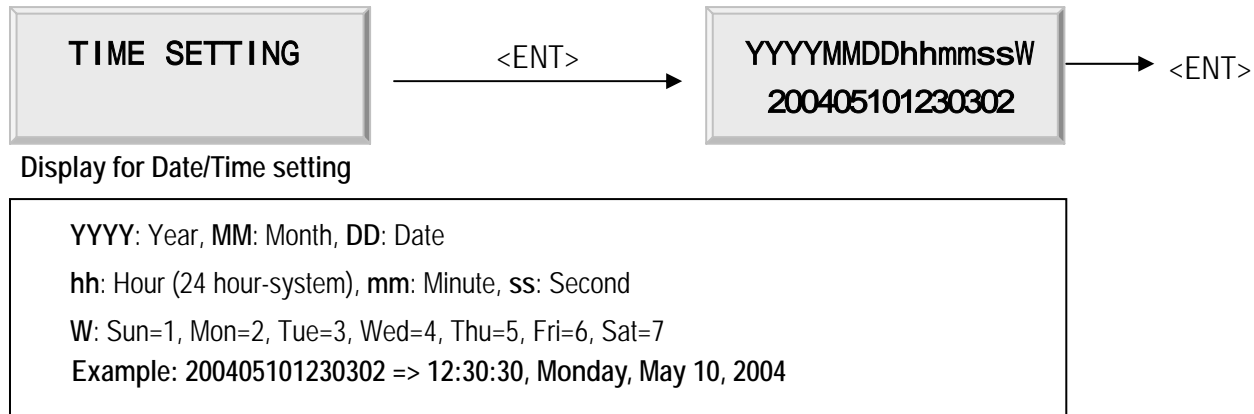
3. Setup Controller parameter

```
STAR iCON100 [F1]
01/01   00:00:15
```
Start Display

Enter Default Master No.
(00000000)
→

```
READER1 MODE
RF ONLY
```
Enter the setup mode

> **Key '4' or '6'**: Left/Right
> **Key '2' or '8'**: Up/Down
> **ENT**: Change or Enter
> **ESC**: Cancel
>
> In the case of **iCON100SR**, Press <0> key (**Default setting "0000000000"**) 10 times
>
> to enter the **SETUP MENU**.
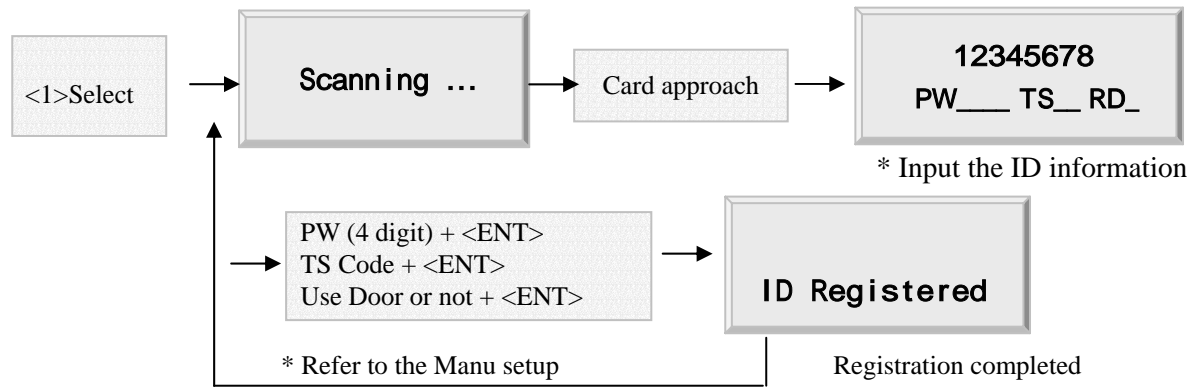
3.1 Mode setting (F1 Menu)

```
READER1 MODE
RF ONLY
```
Display for Mode Selection

<ENT>
→

```
READER1 MODE
-> RF ONLY
```
* Change the mode by the key left/right (4 or 6).

→ <ENT>

> RF Only: Card
> RF + P/W: Card + Password
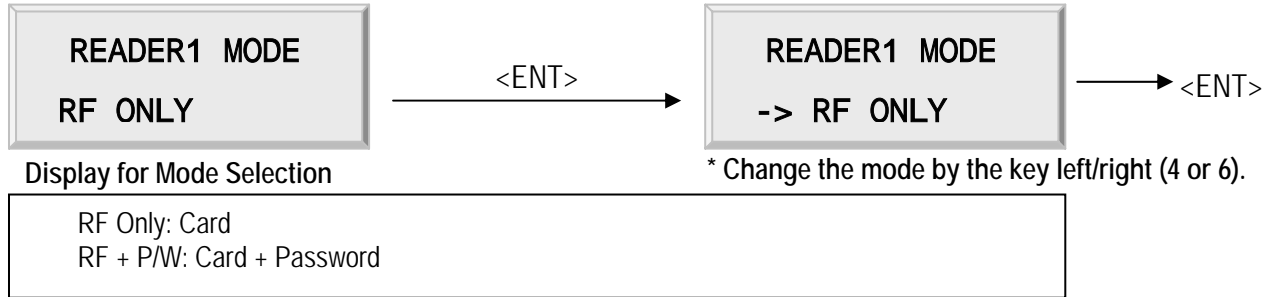
3.2 Date/Time setting (Select "TIME SETTING" Menu by the Key '4' or '6')

```
TIME SETTING
```
Display for Date/Time setting

<ENT>
→

```
YYYYMMDDhhmmssW
20040510123O302
```

→ <ENT>

> **YYYY**: Year, **MM**: Month, **DD**: Date
>
> **hh**: Hour (24 hour-system), **mm**: Minute, **ss**: Second
>
> **W**: Sun=1, Mon=2, Tue=3, Wed=4, Thu=5, Fri=6, Sat=7
> **Example: 200405101230302 => 12:30:30, Monday, May 10, 2004**

3.3 Card Registration (Enter F3)

```
STAR iCON100 [F1]
01/20   09:01:23
```

→ "Master No." + <ENT> →

┈┈► "00000000" + <ENT> ┈┈►

```
Select <F3>
[ID REGISTRATION]
selection
```
→

→
```
ID REGISTRATION
```
→ <ENT> →
```
ID REGISTRATION
1-CARD,  2-KEY
```
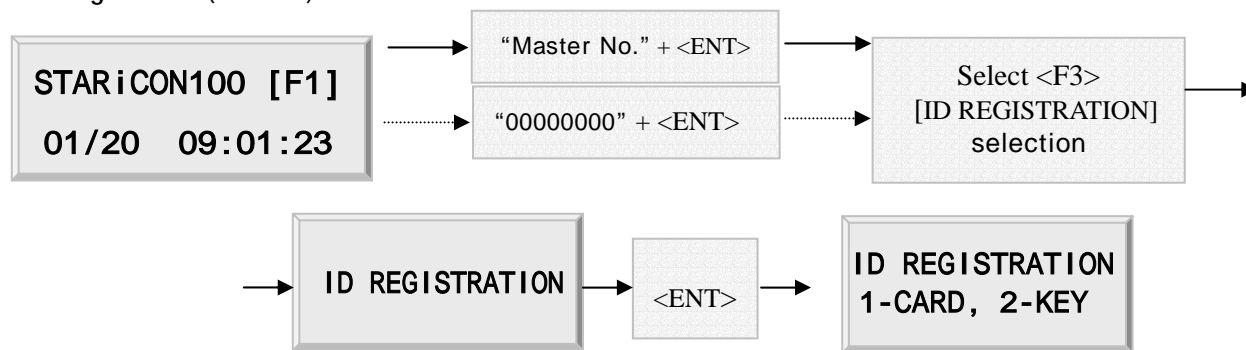
3.3.1. Registration with the Card

<1>Select → | Scanning … | → Card approach → | 12345678
 PW___ TS__ RD_ |

* Input the ID information

→ | PW (4 digit) + <ENT>
 TS Code + <ENT>
 Use Door or not + <ENT> | → | ID Registered |

* Refer to the Manu setup Registration completed

3.3.2. Registration with Keypad

<2>Select → | [_____]
 PW___ TS__ RD_ | → | ID(8 digit)
 + <ENT> | → | 12345678
 PW___ TS__ RD_ |

* Input the ID information

→ | PW (4 digit) + <ENT>
 TS Code+ <ENT>
 Use door or not + <ENT> | → | ID Registered |

Registration Completed
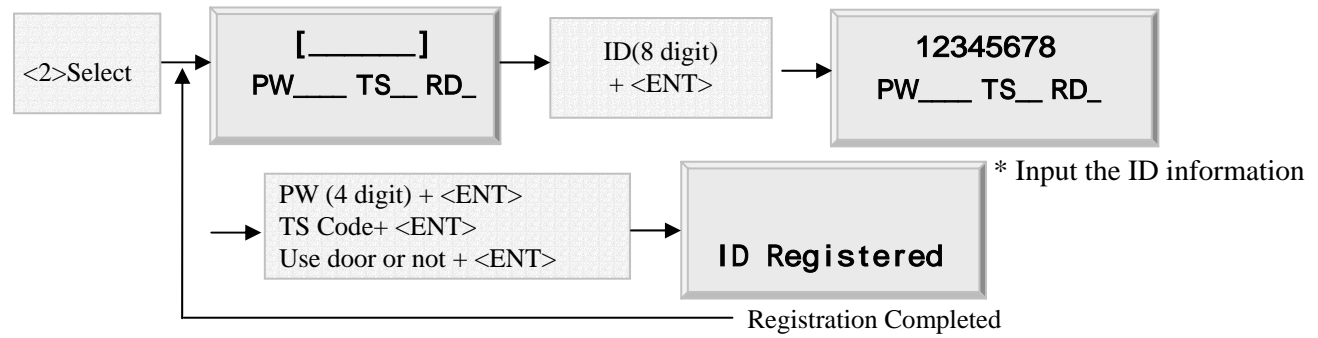
```
1. CARD: Card Reading
2. KEY: Enter 8-digit (iCON100SR: 10 digit) PIN
```

```
< INPUT THE ID INFORMATION >
    ID    : 8-digit (iCON100SR: 10 digit) card Number.
    TS    : Time Schedule code (Enter the default setting value "00")
         - Enter such code for applying T/S
    RD: Setup to use the reader or not (Enter the default setting value "3")
        1 – To be read only by the reader 1
        2 – To be read only by the reader 2
        3 – To be read by the both readers
```

3.4 Delete Card (Select "ID DELETE" Menu by the Key '4' or '6')

| ID DELETE | → <ENT> → | Enter Card No.
 ->_____ | → <ENT>

Display for ID Delete   Enter 8-digit (iCON100SR: 10 digit) card number to be deleted.
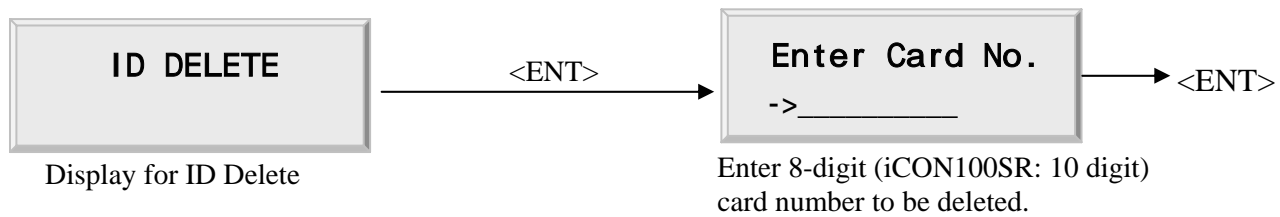
4. Normal Operation

4.1 Power ON

When the power is applied to **iCON100**, the **Red LED** (LED1) is turned on.

4.2 Registered card reading

When a registered card (or PIN) is read, the Door (Relay 1) will be opened for 3 seconds (Default) with the **Green LED** (LED2) light on.

4.3 Exit Button

The Exit Button or the Exit Reader should be installed inside.

When the Exit Button is pressed, the door will be opened for 3 seconds with the **Green LED** (LED2) light on.

4.4 Alarm (Unregistered ID/PW Error/TS Error/Door Error)

When an unregistered card is read, or any wrong password is input, or any error over the time schedule and the door access is occurred, the access is denied and the alarm will be activated for 3 seconds (Default) with the **Yellow LED** (LED 3) light on.

LED1: Power ON/OFF Status
LED2: Door Relay Status
LED3: Alarm Relay Status