Defender Smart Alarm Webserver (DSAW)

A device that allow user to check the home status and control the alarm system functionality though a webpage via Ethernet.

1.0 Hardware – Default Factory Setting

MAC Address	- C8:1E:8E:00:00:00
IP Address	- 169.254.1.1
Gateway	- 169.254.1.1
Subnet Mask	- 255.255.0.0
Primary DNS	- 169.254.1.1
Secondary DNS	- 0.0.0.0
Port	- 8088

2.0 Communication between DSAW and home user Router

a. Home user Router will automatically assign a Dynamic IP address to DSAW (figure 2.0). Example: TP-LINK ROUTER (TD-W8901G) with DSAW.

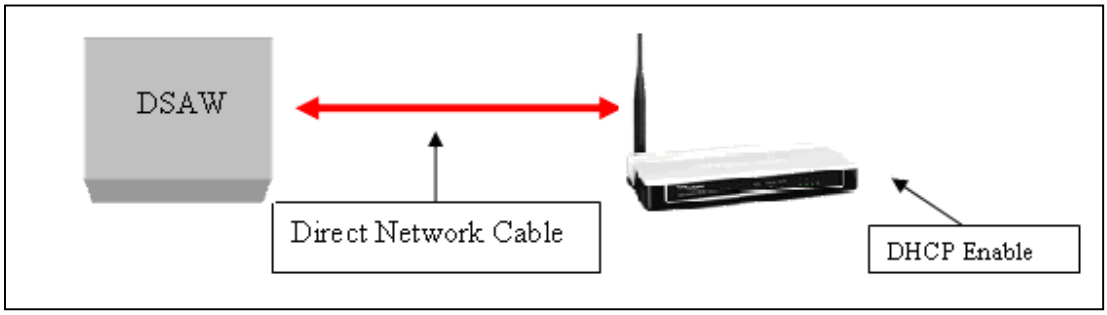

Figure 1.0 Connection between DSAW and Router

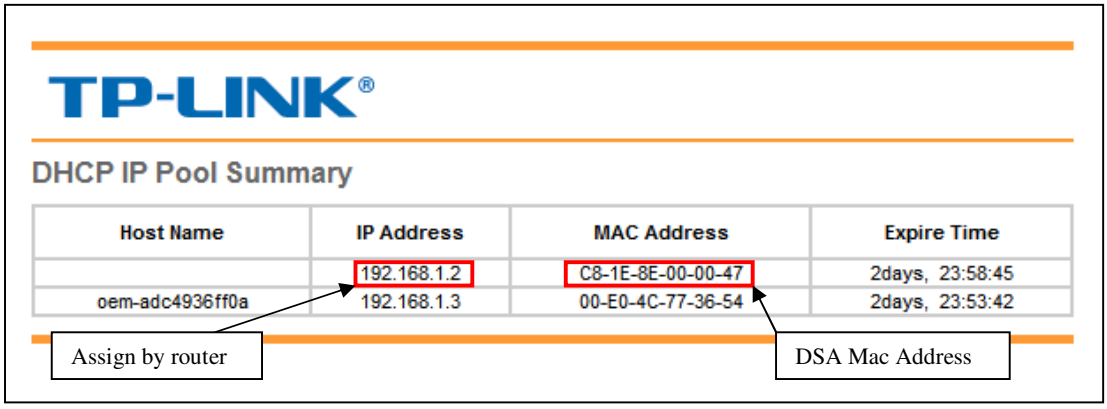

Figure 2.0: DSAW's IP address assigned by TP-link router as 192.168.1.2

b. Open the browser login to DSAW. Key in **http://defender:8088**. Login page will show as below (Figure 3.0).

Figure 3.0 Login Page

3.0 Register for Username

a. To register username, please enter the IP address as **http://defender:8088/protect/register.htm**. Figure 3.1.

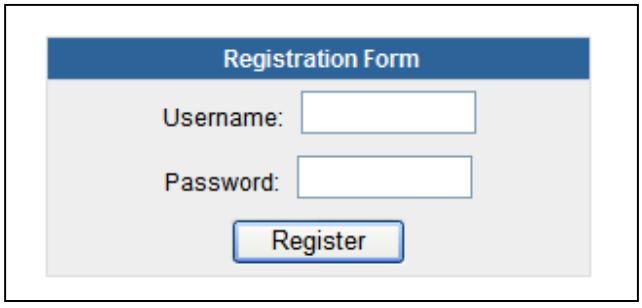

Figure 3.1

b. Username has to register with **8 characters**.

c. Username can be register as alphanumeric with uppercase or lowercase.

d. Password has to same as alarm panel's master password to register.

e. If 5 times wrong password to register, it will no allow registering within 5 minutes (figure 3.2).

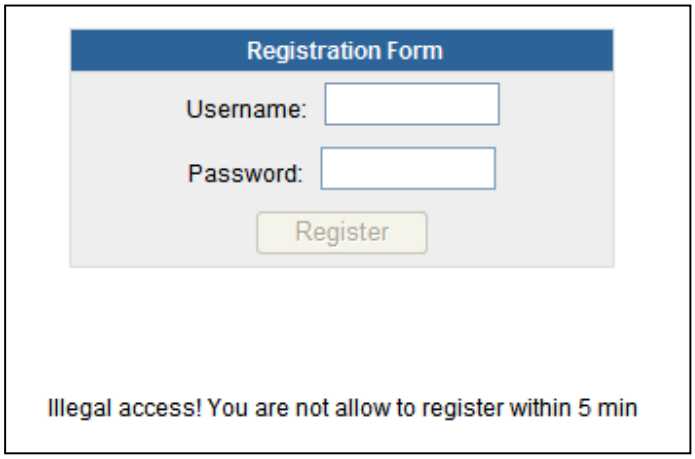

Figure 3.2

f. After successfully registered username, it will automatically link to login page (figure 3.0).

g. If users forget the username, users might register again the username in the same web page. (**http://defender:8088/protect/register.htm**)

h. If the username has been registered before, below the Registration Form table will appear another new table which is reset username table (figure 3.3).

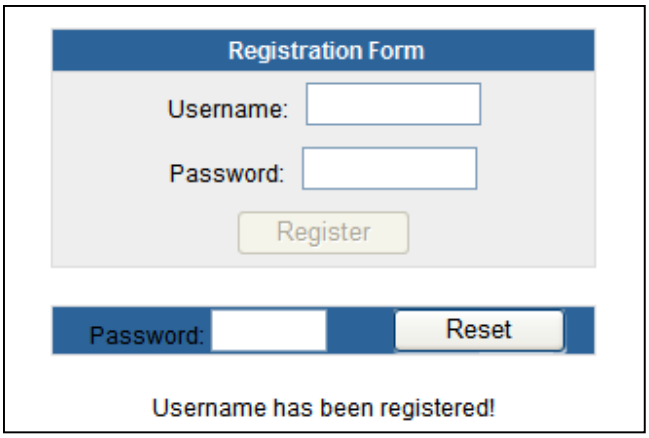

Figure 3.3

i. The password to reset the username same as alarm panel's master password.

j. If wrong password key in, it will immediately stop to reset the username within 5 minutes.

k. If key in the correct password, the reset username table will disappear and the Registration Form table will enable to register new username (figure 3.1).

l. After successfully registered username, it will automatically link to login page (figure 3.0).

4.0 8 zones alarm panel status

a. The status of 8 zones home alarm panel status will shown as below after login (figure 4.0).

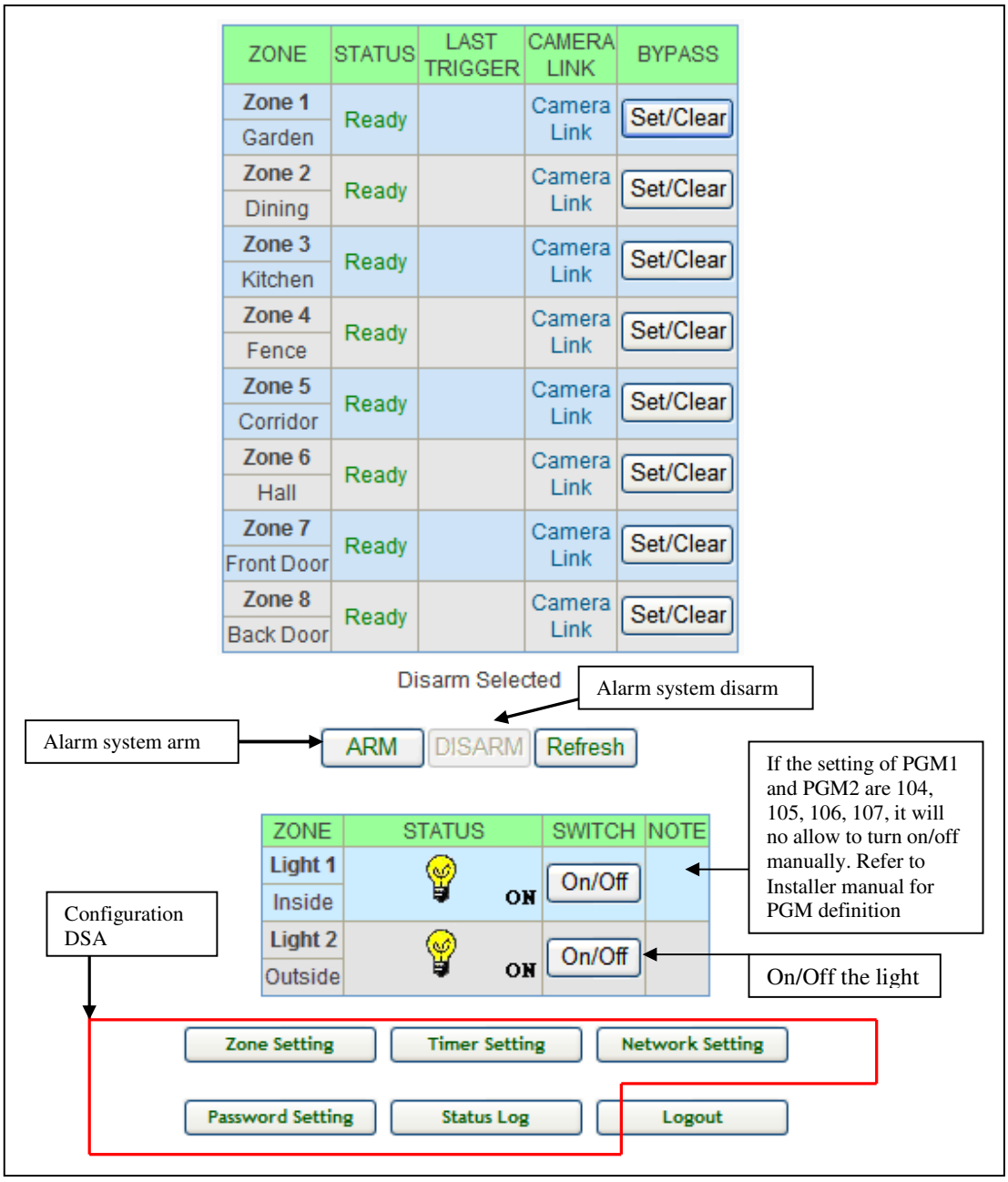

Figure 4.0 Defender 8 zone alarm panel status

b. Refer to figure 4.0.
    - Status – condition for each zone in Arm, Trigger, Ready, Open or Bypass status.
    - Last Trigger – indicate which zone was triggered after disarm.
    - Camera Link – IP camera link for each zone.
    - Bypass – indicate which zones have been bypass.

c. Functionality of DSAW.
    - ARM – to arm the alarm system
    - DISARM – to disarm the alarm system
    - BYPASS – to set or clear the zone bypass

d. Configuration of DSAW (only master authenticate)
    - Zone Setting – to define zone location and IP Camera Link for each zone.
    - Timer Setting – auto arm or disarm the alarm system and auto turn on or off the light follow timer (24 hour format).
    - Network Setting – Configure DSAW's network setting in Dynamic (IP address assign by router) or Static (IP address assign by user) and Port number.
    - Password Setting – change the user's login password (only 4 digits acceptable).
    - Status Log – to indicate who and what activities done on DSAW.
    - Logout – logout the DSAW.

4.1 Configuration DSAW

a. Zone setting (figure 4.1)

- Location – name the location for each zone (max 10 characters).

- Camera Link – IP camera web link for each zone (max 40 characters).

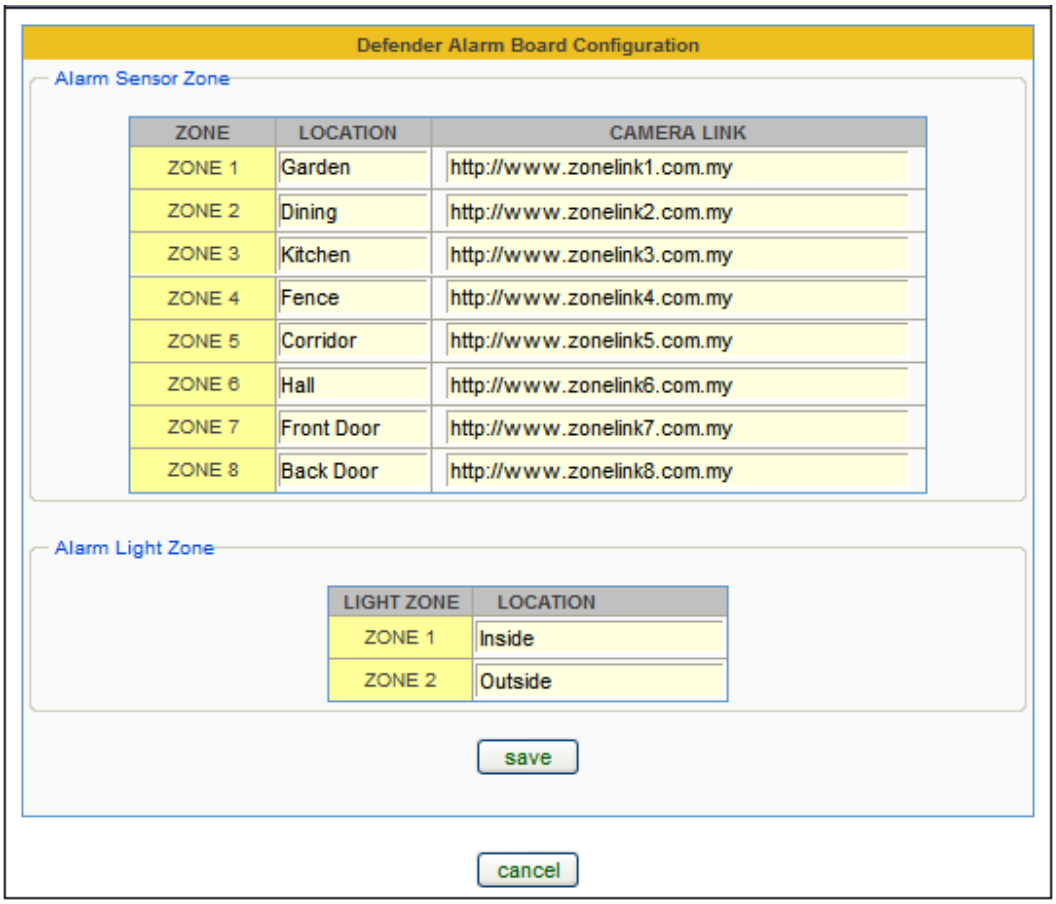

Figure 4.1 Zone setting

b. Timer setting (figure 4.2)

- Arm/Disarm Timer – set the time to auto arm or disarm the partition 1 or partition 2 of alarm systems (24 hour format).

- Lighting Timer – set the time to auto turn on or off light (24 hour format). If PGM settings are not 064, 065, or 066 (follow timer), the feature of auto timer function will disable. Refer to installer manual for PGM definition.

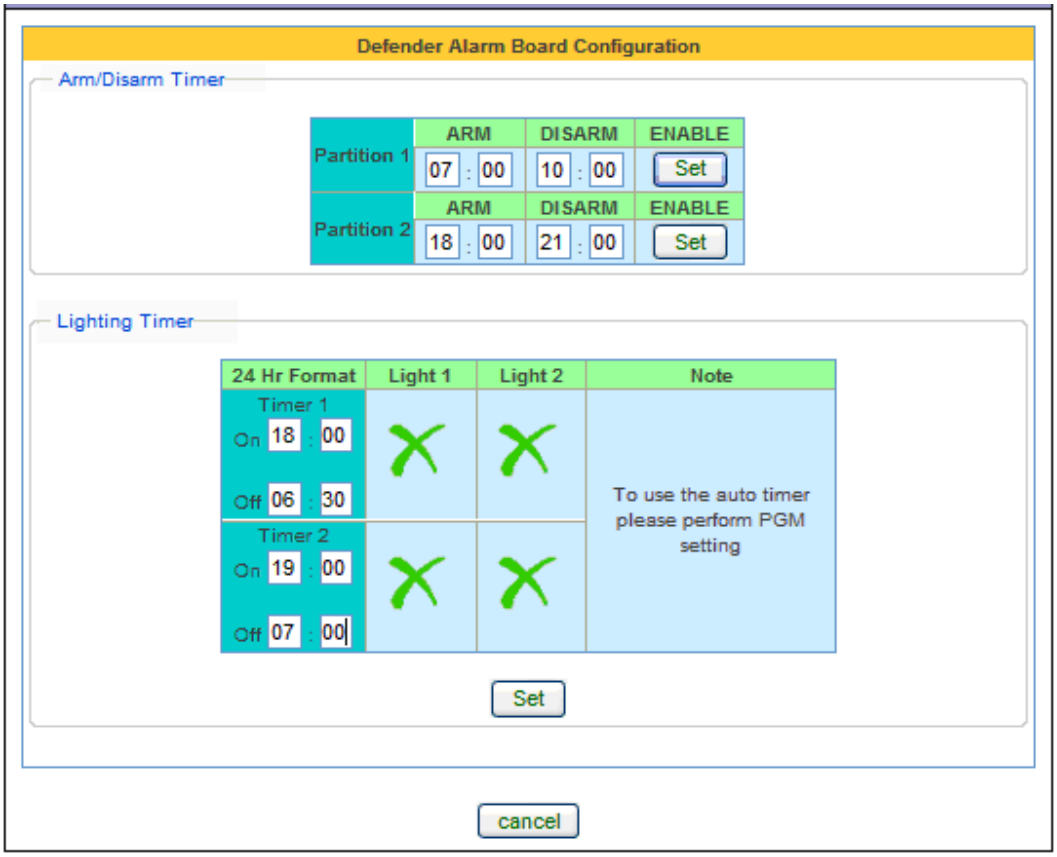

Figure 4.2 Timer setting

c. Network setting (figure 4.3)

- For Dynamic DHCP, tick the Enable DHCP. Default is DHCP enable and the port number is 8088.

- For Static refer to step 6.0 for more detail.

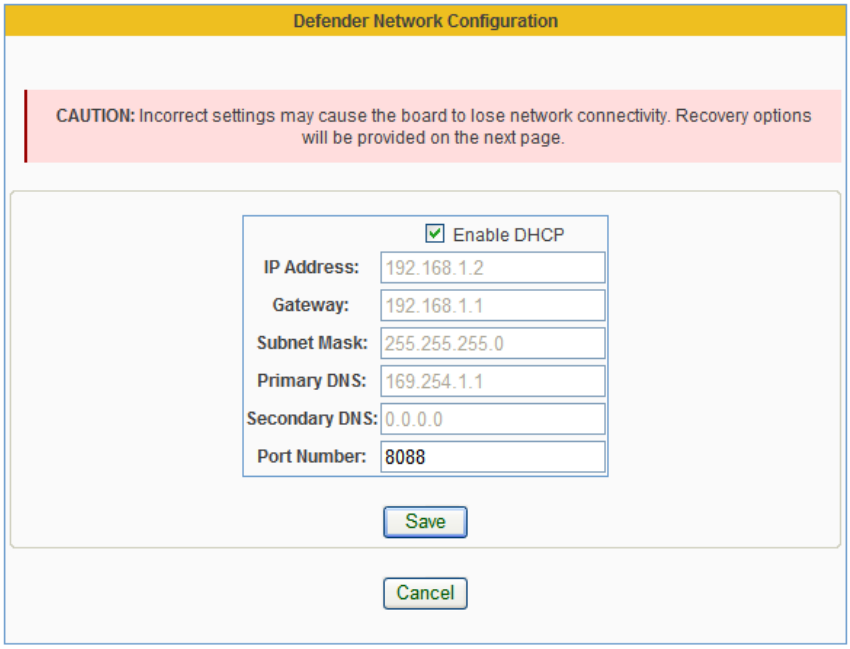

Figure 4.3 Network Setting

d. Password Setting (figure 4.4)

- Maximum 4 digits numeric

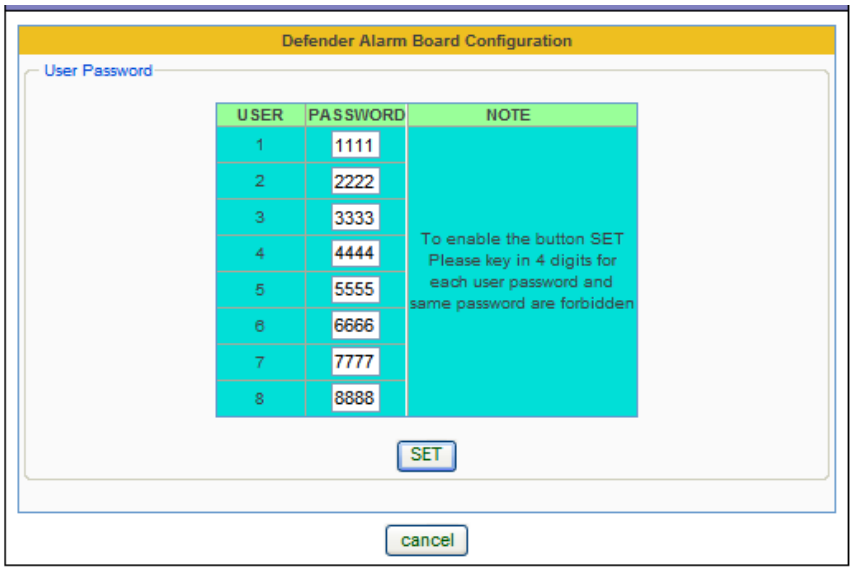

Figure 4.4 Password Setting

e. Status Log (Figure 4.5)

- Reload button - for reload the latest information. Maximum show 80 events, after 80 events, the next events will show at first location.

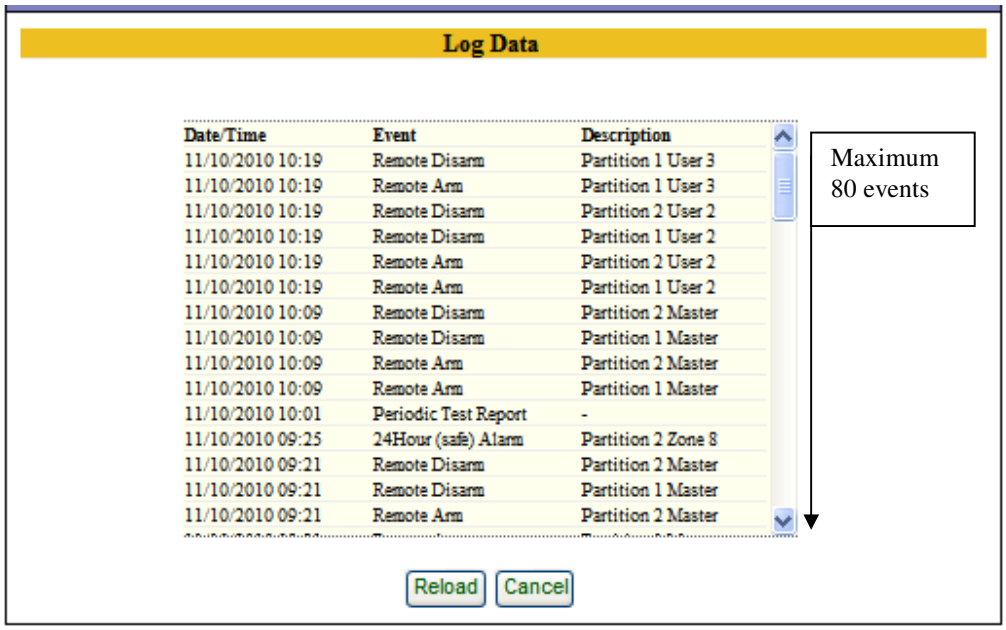

Figure 4.5 Status Log

5.0 20 zones alarm panel status (figure 5.0)

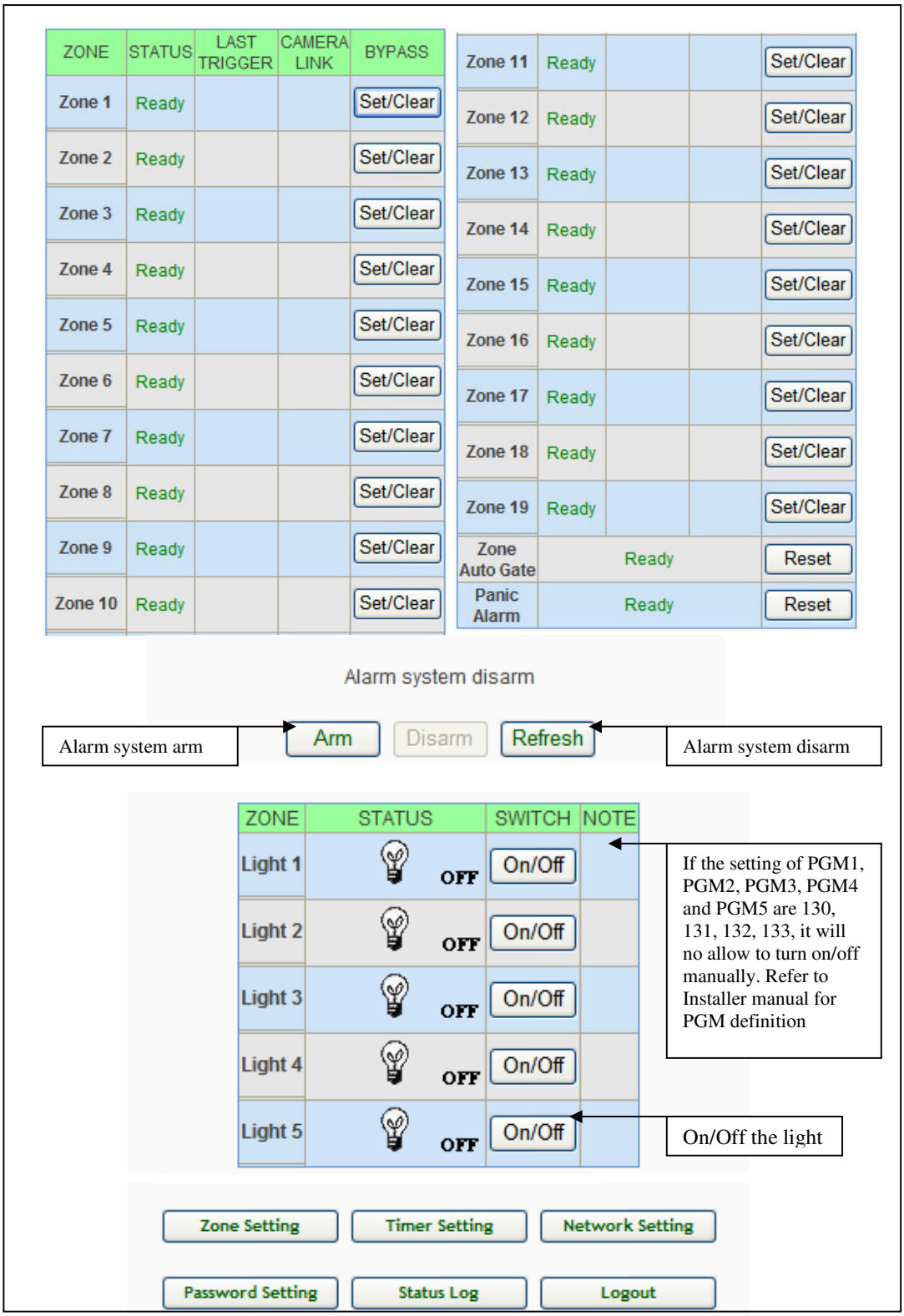

Figure 5.0 Defender 20 zone alarm panel status

a. Refer to figure 5.0.
   - Zone Auto Gate
     - Zone 20 was used to detect auto gate status. If auto gate no close within 1 min, the keypad / touchpad will beep. Figure 5.0.1 show the zone auto gate status open.
     - If users no close the auto gate or key in master password within 5 min, alarm panel will phone call out to users.
     - Users might switch off the alarm system phone call out and keypad / touchpad beep by press the Reset button through DSAW or phone.

   - Panic Alarm
     - To indicate the Panic status triggered by keypad / touchpad or remote control.
     - Users might switch off panic triggered by press the Reset button through DSAW or phone.

Figure 5.0.1

5.1 Configuration DSAW

a. Refer to figure 5.0, for Zone Setting, Network Setting, Password Setting, Status Log and Logout features please refer to 4.1.a, 4.1.c, 4.1.d, 4.1.e and 4.1.f.

b. Timer Setting (Figure 5.1).

   - Arm/Disarm Timer – set the time to auto arm or disarm the partition 1 or partition 2 of alarm systems (24 hour format).

   - Lighting Timer

     - Set the time to auto turn on or off light (24 hour format). If PGM settings are not 080, 081, 082, 083, or 084 (follow timer), the feature of auto timer function will disable. Refer to installer manual for PGM definition.

     - Night Mode Begin Time and Night Mode End Time features are auto turn on the light during night mode begin time and auto turn off during night mode end time.

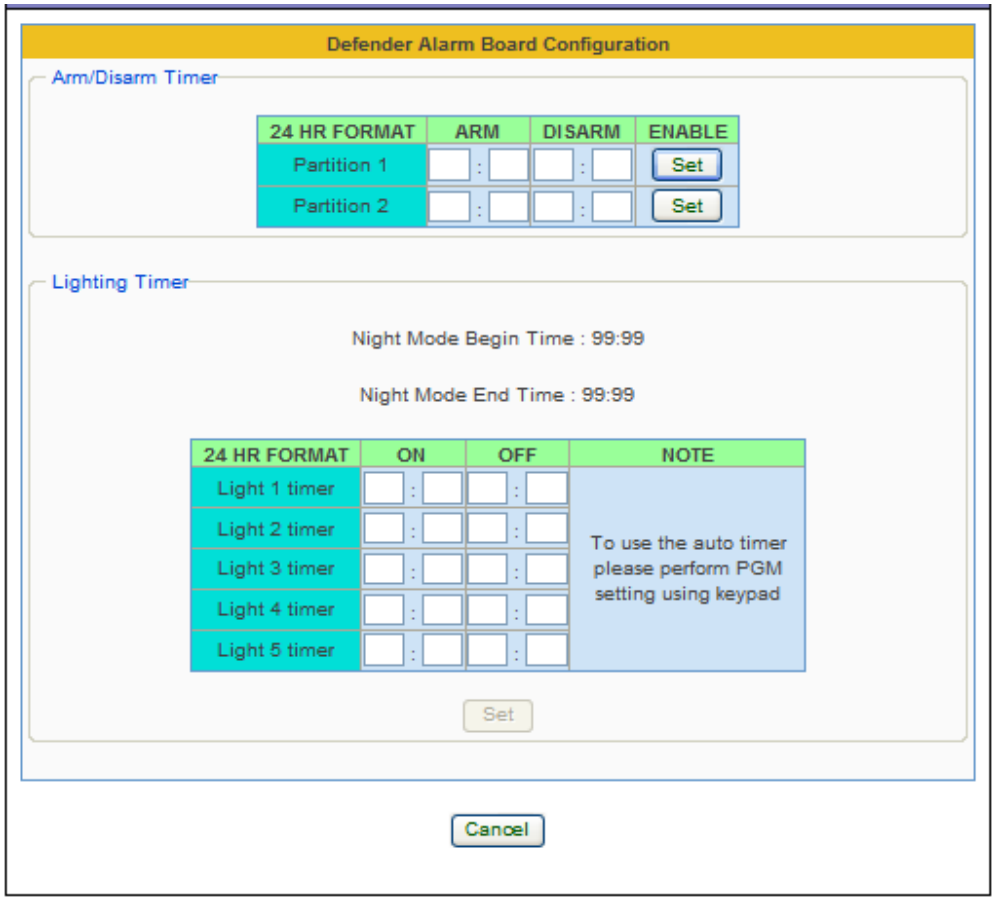

Figure 5.1 Timer setting

6.0 Instruction to configure DSAW as Static IP

a. Default DSAW's network setting assigned to DHCP.

b. Refer to figure 2.0, the DSAW's IP address was assigned by router as 192.168.1.2 in Dynamic DHCP. If users want to assign DSAW as static IP address, please follow below instructions:

i. Go to Network Setting, un-tick the ENABLE DHCP and assigned a new IP address (for example: 192.168.1.10) then click Save.

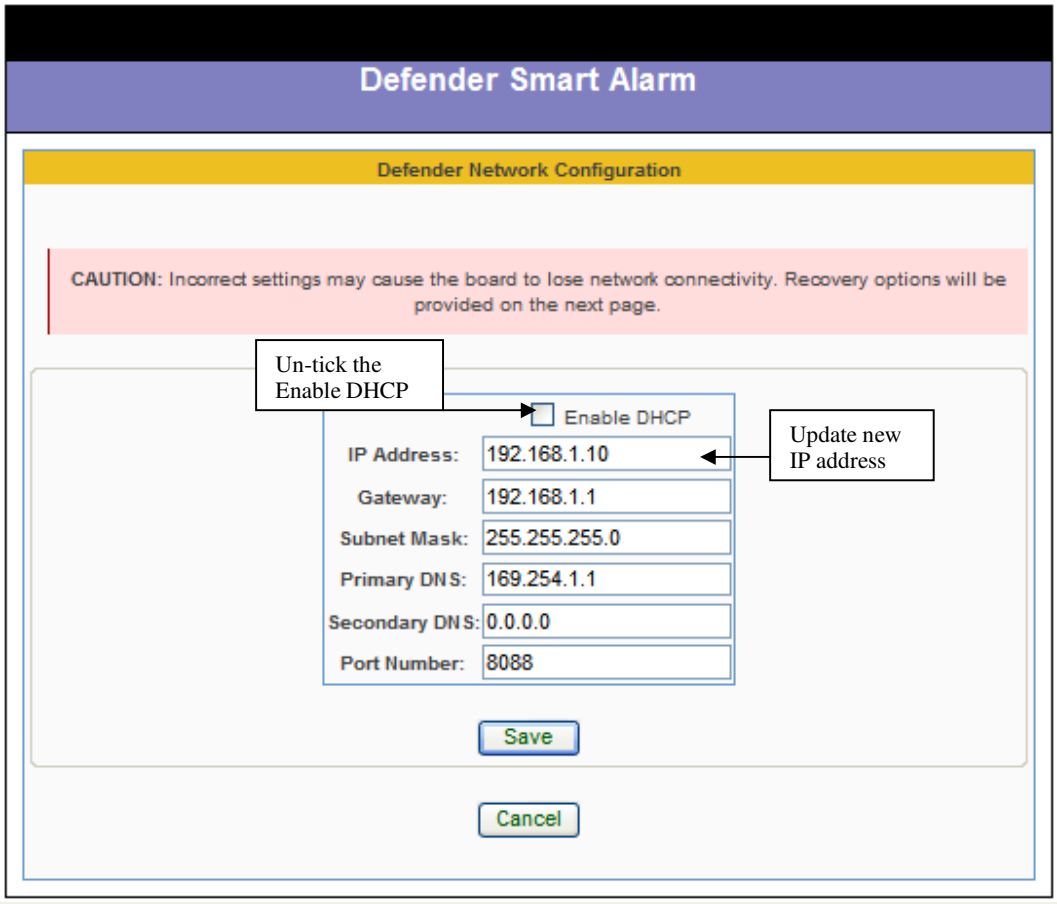

Figure 6.0 Network Setting

ii. The Reboot message was shown in the browser (figure 6.1).

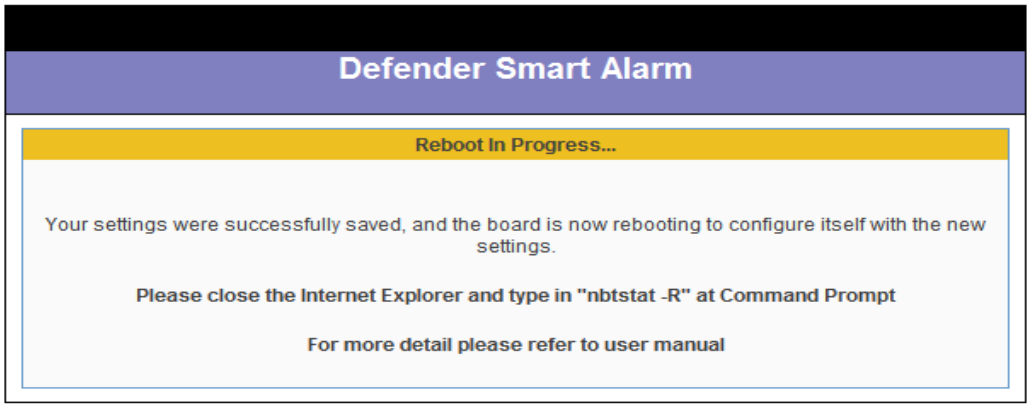

Figure 6.1 Reboot message

iii. Follow the reboot message, close the browser and open the command prompt. If users used window vista or window 7 (latest OS), please open the command prompt as "**run as administrator**".

iv. Key in "**nbtstat –R**" command. "Successful purge and preload of the NBT Remote Cache Name Table" message was shown at figure 6.2.

v. Key in "**ping defender**" command to ping DSAW. A successfully reply message was shown at figure 6.2 with new Static IP address (192.168.1.10).

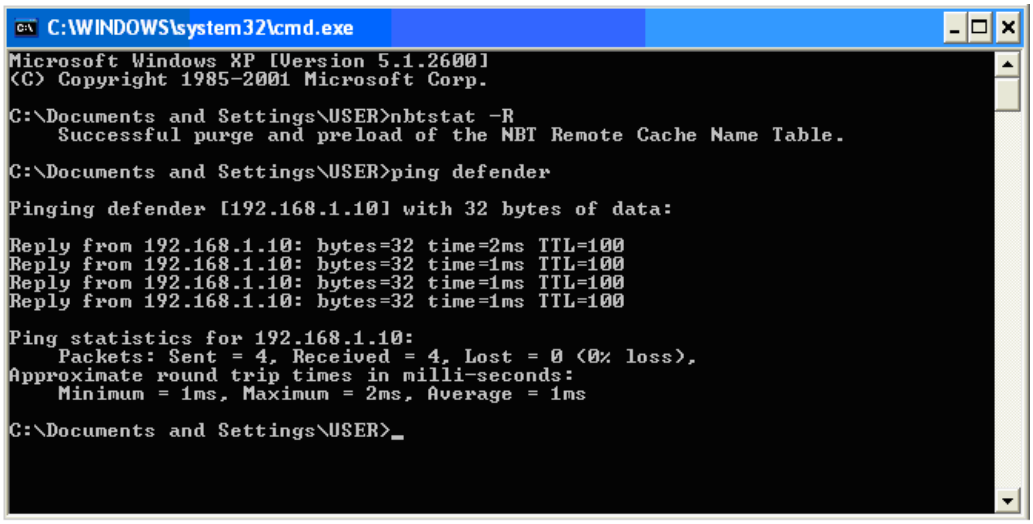

Figure 6.2 Command Prompt

vi. DSAW have been successfully configured to static IP address. Open the browser and login to DSAW by key in **http://defender:8088**. (Figure 3.0).

vii. Go to the Network setting, the updated information was shown at figure 6.3.

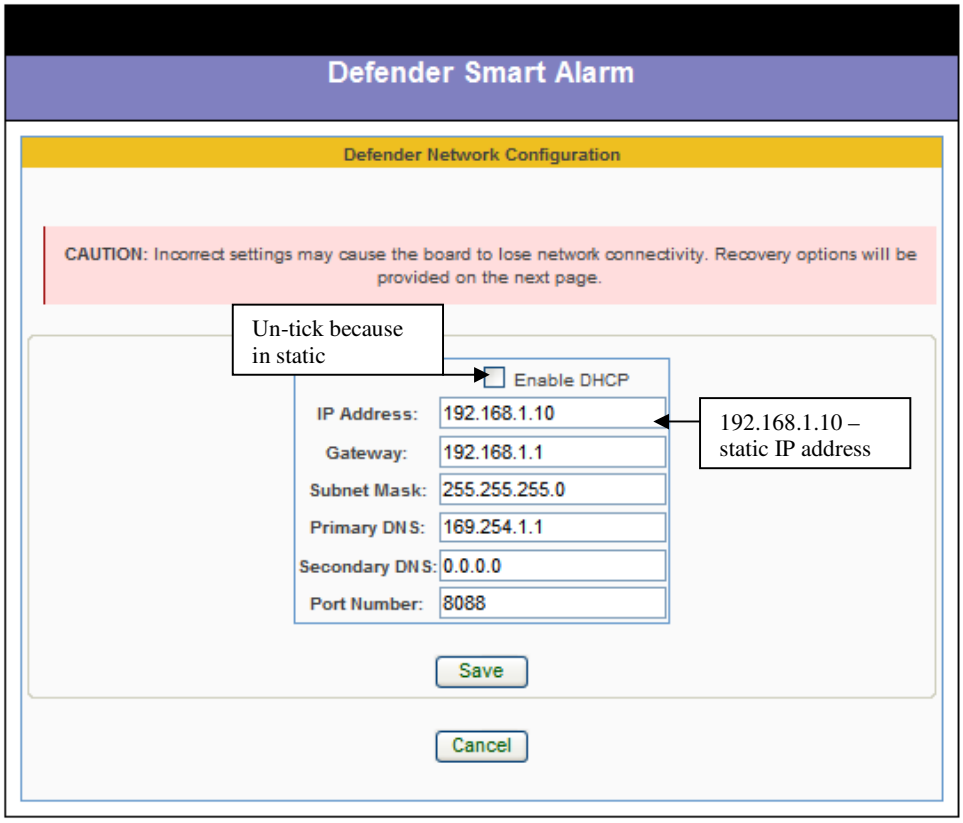

Figure 6.3 Network Setting

c. If users want to change back to Dynamic DHCP after Static, just tick the ENABLE DHCP at Network configuration then save.
    i. The Reboot message was shown in the browser (figure 6.1).

    ii. Then followed the step 6.0.b.iii to 6.0.b.vii. Successfully result was shown at figure 6.4 and figure 6.5.

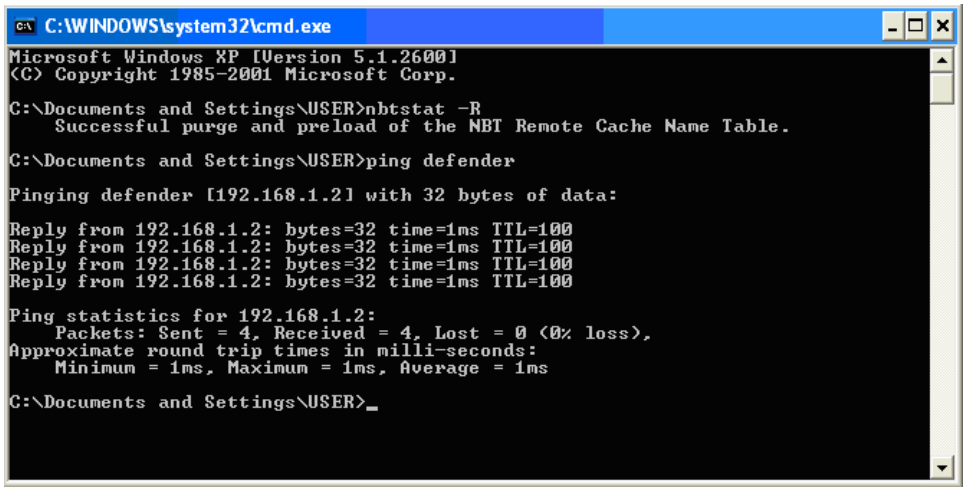

Figure 6.4 Command Prompt

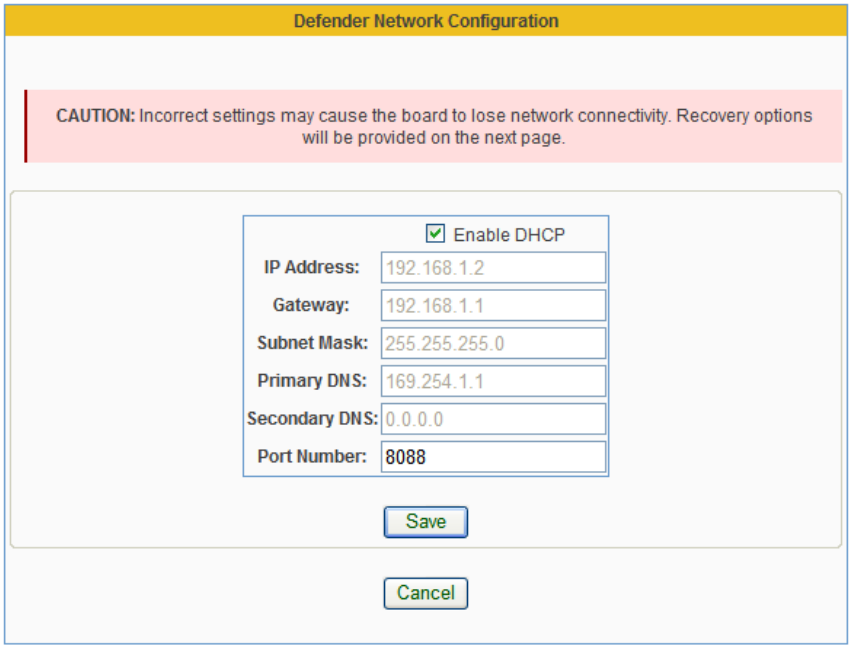

Figure 6.5 Network Setting

7.0 Configuration DSAW's Mac Address

a. MAC address of DSAW was shown at Router's DHCP table after connected (figure 7.0). For this example, DSAW's IP address assigned as **192.168.1.2** with MAC address **C8:1E:8E:00:00:47**.

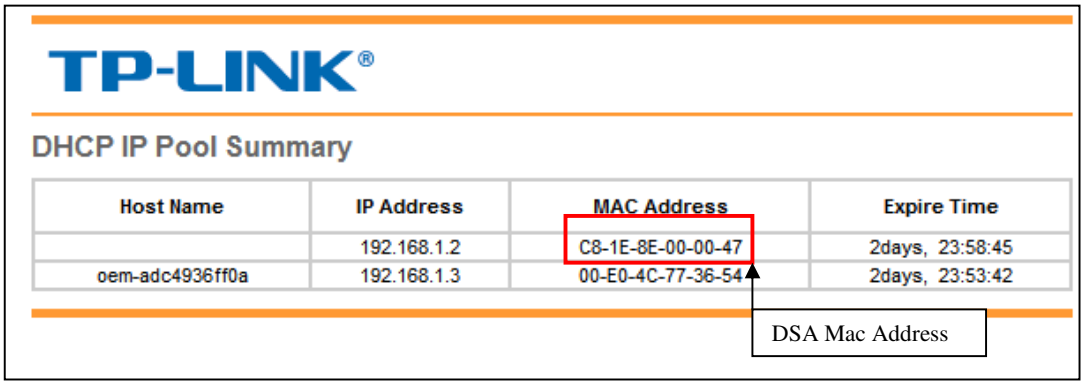

Figure 7.0 DHCP Table

b. To update the new MAC address, open the browser and key in "**http://defender:8088/protect/mac.htm**". MAC address web page was shown at figure 7.1. The numbers of MAC address only acceptable in numeric and the range from 0 to 16777215 (FF: FF: FF).

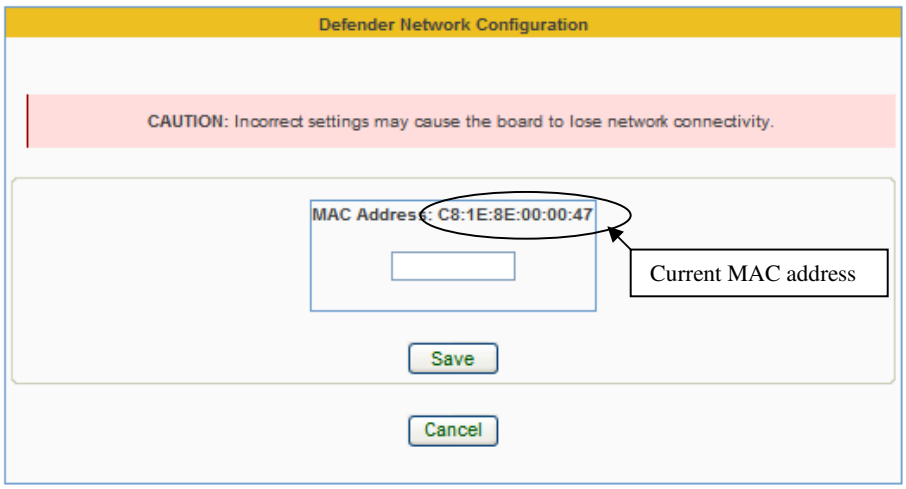

Figure 7.1 MAC Address Setting

c. For this example, value 100 was saving to update the MAC address (figure 7.2). A reboot message was shown at figure 7.3 after Save button was pressed.

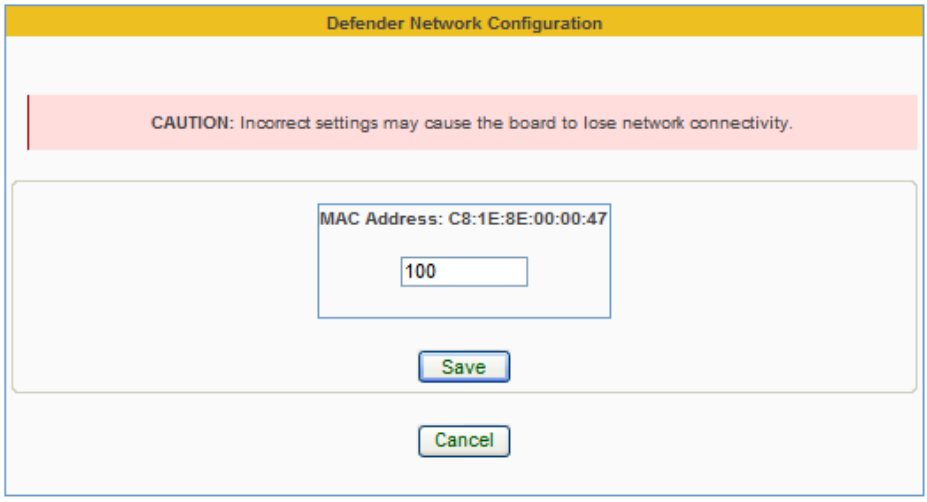

Figure 7.2 MAC address setting

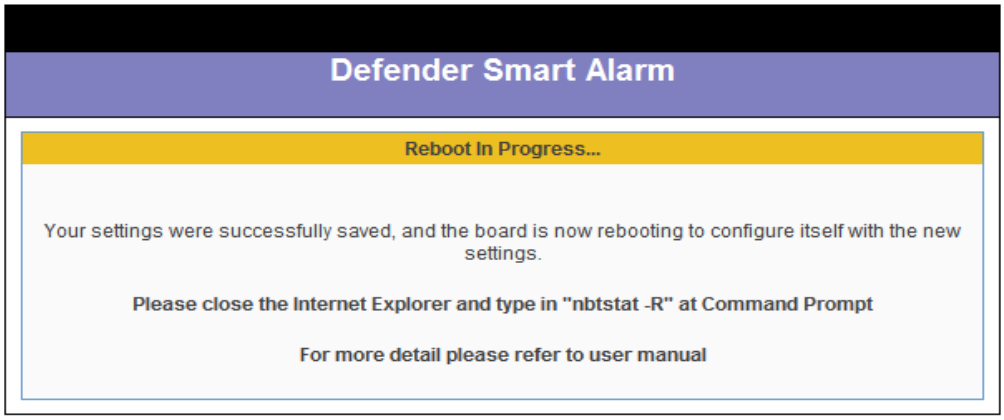

Figure 7.3 Reboot message

i. Follow the reboot message, close the browser and open the command prompt. If users used window vista or window 7 (latest OS), please open the command prompt as "**run as administrator**".

ii. Key in "**nbtstat –R**" command. "Successful purge and preload of the NBT Remote Cache Name Table" message was shown at figure7.4.

iii. Key in "**ping defender**" command to ping DSAW. A successfully reply message was shown at figure 7.4 with new IP address (192.168.1.4) assigned by router according the new MAC address.

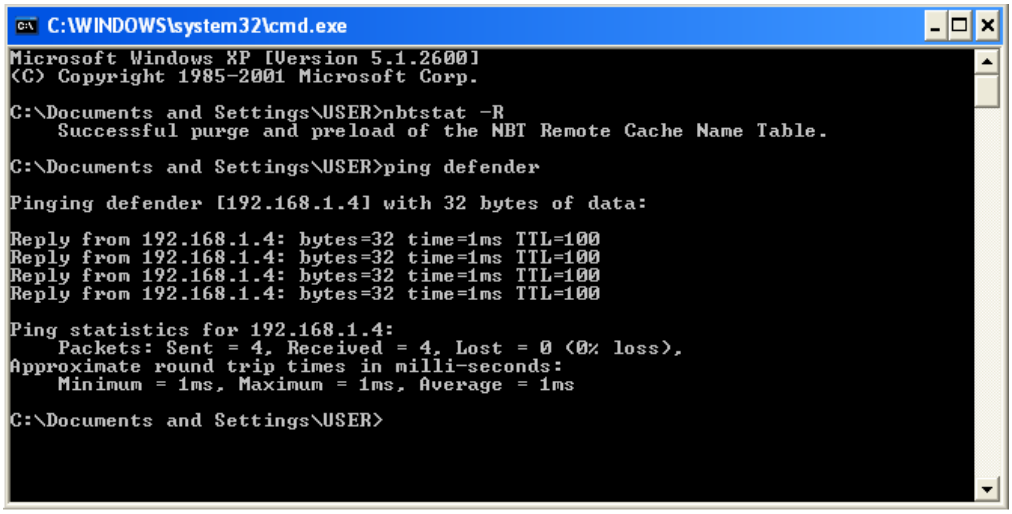

Figure 7.4 Command Prompt

iv. DSAW have been successfully updated the new MAC address with **C8:1E:8E:00:00:64** (figure 7.5).

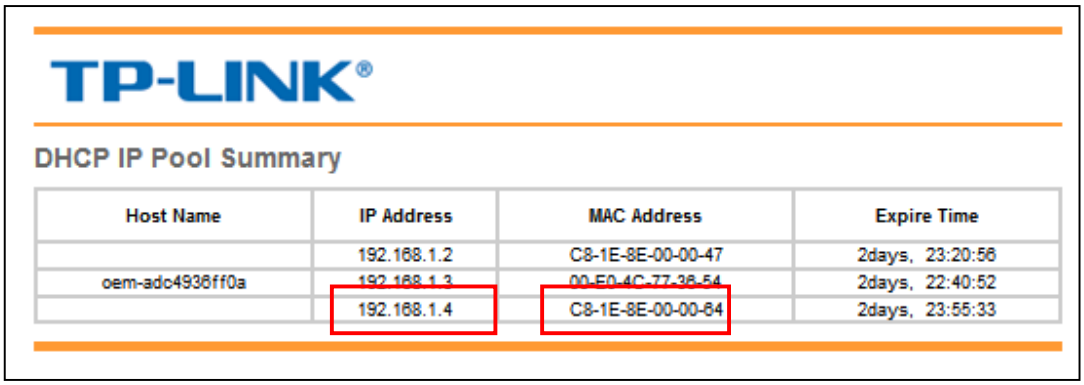

Figure 7.5 Router IP Pool List

v. Open the browser and key in "**http://defender:8088/protect/mac.htm**", the configuration of MAC address web page was shown at figure 7.6 with new MAC address **C8:1E:8E:00:00:64. (100 decimal = 64 hex)**

vi. Updated IP address **192.168.1.4** was shown at figure 7.7.

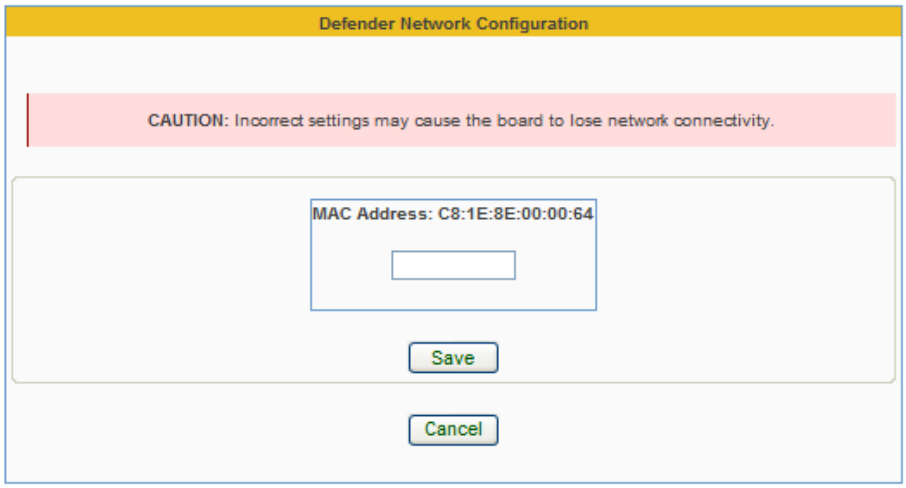

Figure 7.6 MAC address setting

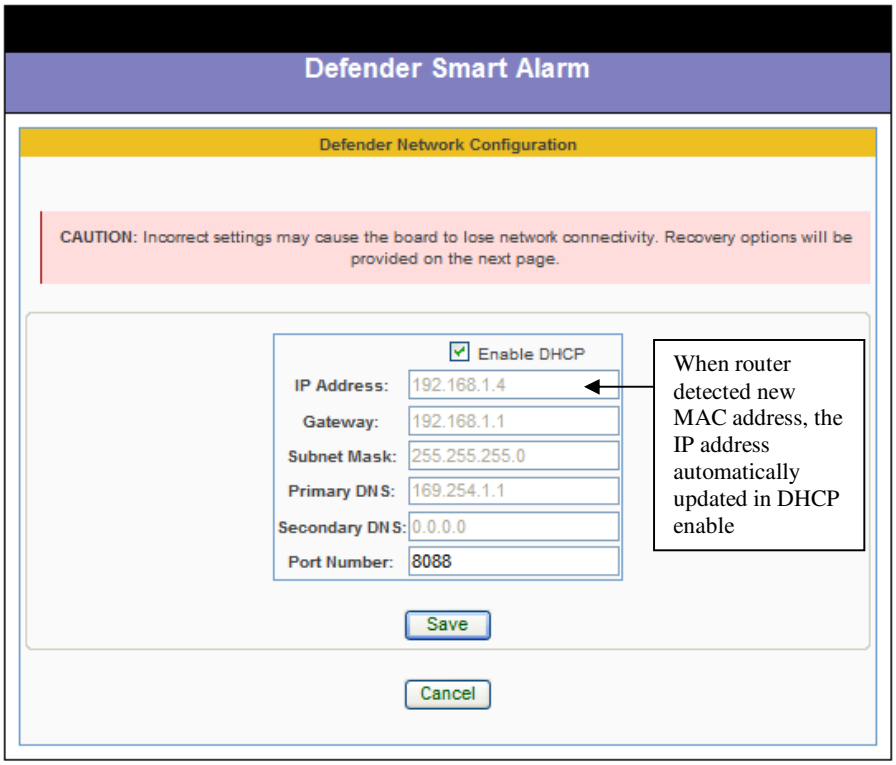

Figure 7.7 Network Setting

8.0 Configuration DSAW's Port number

a. Refer to figure 8.0, the default DSAW's port number was assigned as 8088.

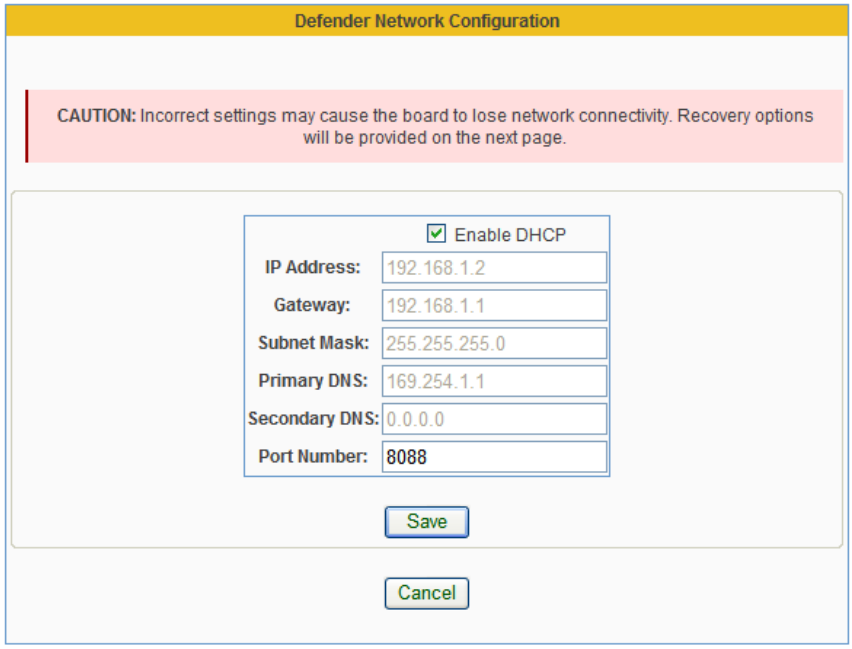

Figure 8.0 Network Setting

b. To update the new port number, just key in the new port number at Port Number text box (figure 8.1). A reboot message was shown at figure 7.3 after Save button was pressed.

   i. Follow the reboot message, close the browser and open the command prompt. If users used window vista or window 7 (latest OS), please open the command prompt as "**run as administrator**".

   ii. Key in "**nbtstat –R**" command. "Successful purge and preload of the NBT Remote Cache Name Table" message was shown at figure 8.2.

   iii. Key in "**ping defender**" command to ping DSAW. A successfully reply message was shown at figure 8.2.

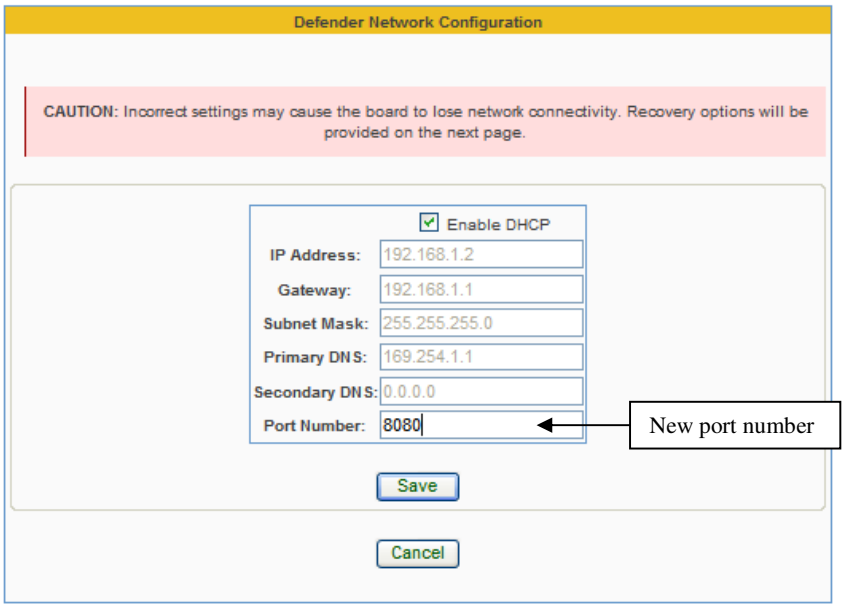

Figure 8.1 Network Setting

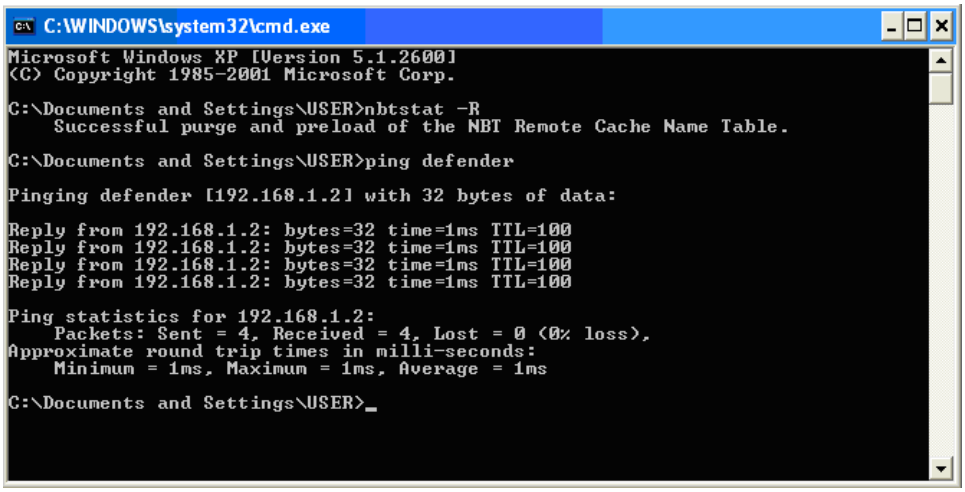

Figure 8.2 Command Prompt

c. Open the browser and key in **http://defender:8080**. Successfully accessed the login page was shown. Refer to figure 3.0.

9.0 Default factory setting

a. If any mistake cause the DSAW unable to connect, set to factory default setting is needed.

b. Off the DSAW power, press the reset button and on the power, continue holding the button until the LED flash then release the button.

c. After reset, the DSAW network setting was returned to default factory setting and the Username was reset.

10.0 Security of DSAW

a. For security purpose, the DSAW will auto logout to login page after some time when do some instructions.

b. If access the DSAW by illegal (without login the username and password), the information of defender smart alarm will hide or automatically return back to login page.

11.0 Hardware Connection

a. The hardware connection for DSAW with 8 zone alarm panel (figure 11.0).

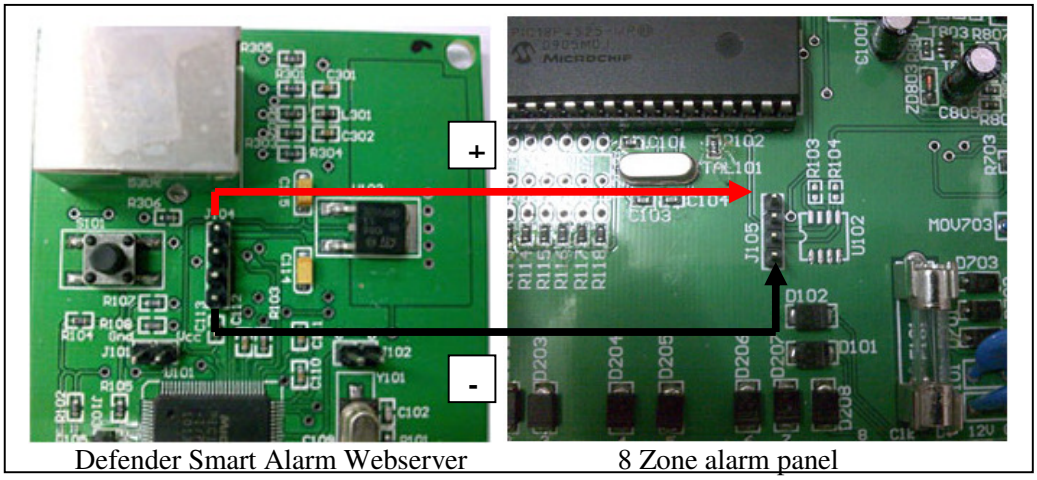

Figure 11.0 Connection between DSAW and 8 zone alarm panel

b. The hardware connection for DSAW with 20 zone alarm panel (figure 11.1).

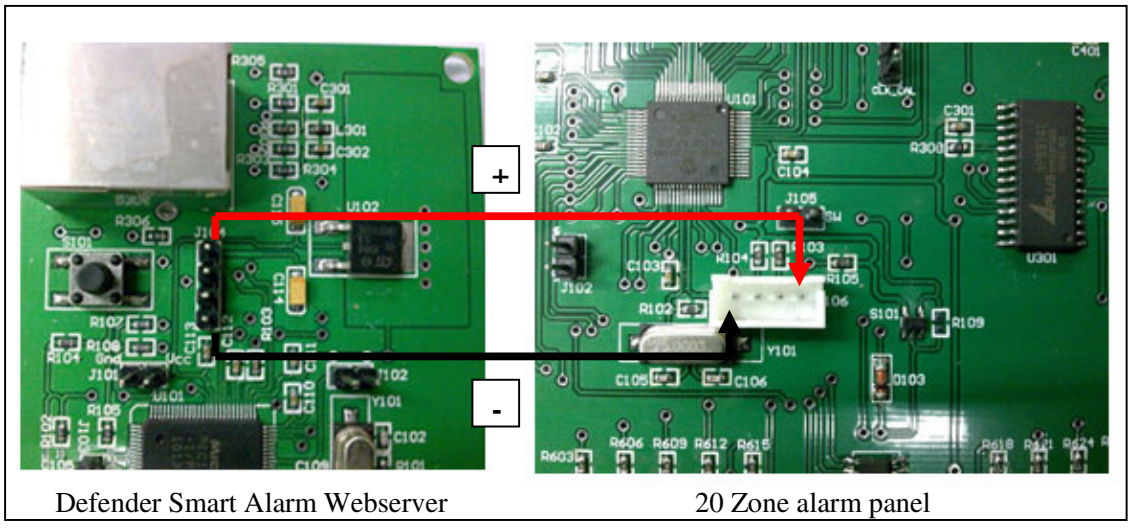

Figure 11.1 Connection between DSAW and 20 zone alarm panel

c. The hardware connection for arm or disarm and Panic the 20 zone alarm panel by Remote control (figure 11.2).

i. For Panic feature please follow the step below.

1. Refer to **ZONE PROGRAMMING** table address 14, remove the zone 8 as 24 Hour zone type.
    a. Enter Programming Menu,
    [*] [0] [Installer code] [Address] [Zone] – [*] [0] [1397] [14] [8]
2. Go to address 17 setting, assign zone 8 as Normally Open Zone type.
    a. Enter Programming Menu,
    [*] [0] [Installer code] [Address] [Zone] – [*] [0] [1397] [17] [8]
3. Then go back to address 14, assign back zone 8 as 24 Hour zone type.
    a. Enter Programming Menu,
    [*] [0] [Installer code] [Address] [Zone] – [*] [0] [1397] [14] [8]

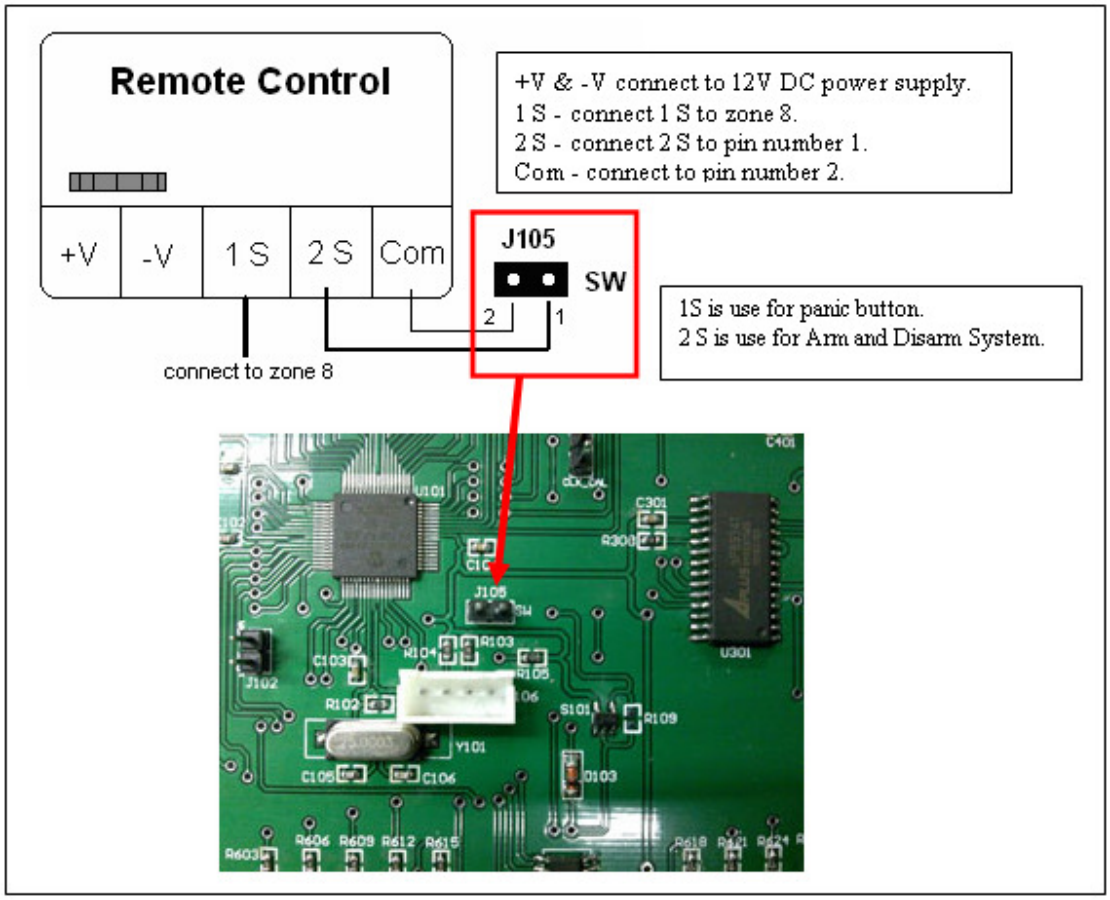

Figure 11.2 Connection between remote control and 20 zone alarm panel

d. The hardware connection for vibration sensor / magnet sensor with 20 zone alarm panel (figure 11.3).

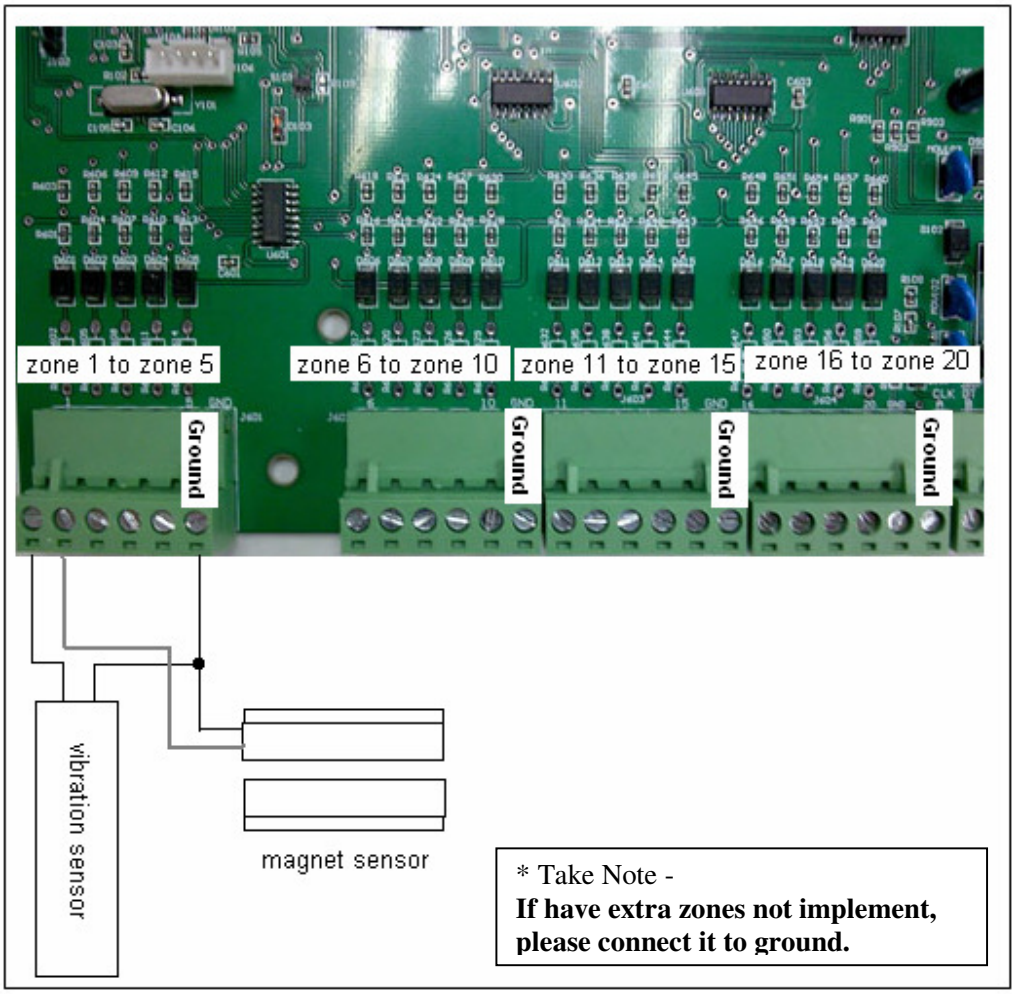

Figure 11.3 Connection between vibration / magnet sensor and 20 zone alarm panel

e. The hardware connection for touchpad with 20 zone alarm panel (figure 11.4).

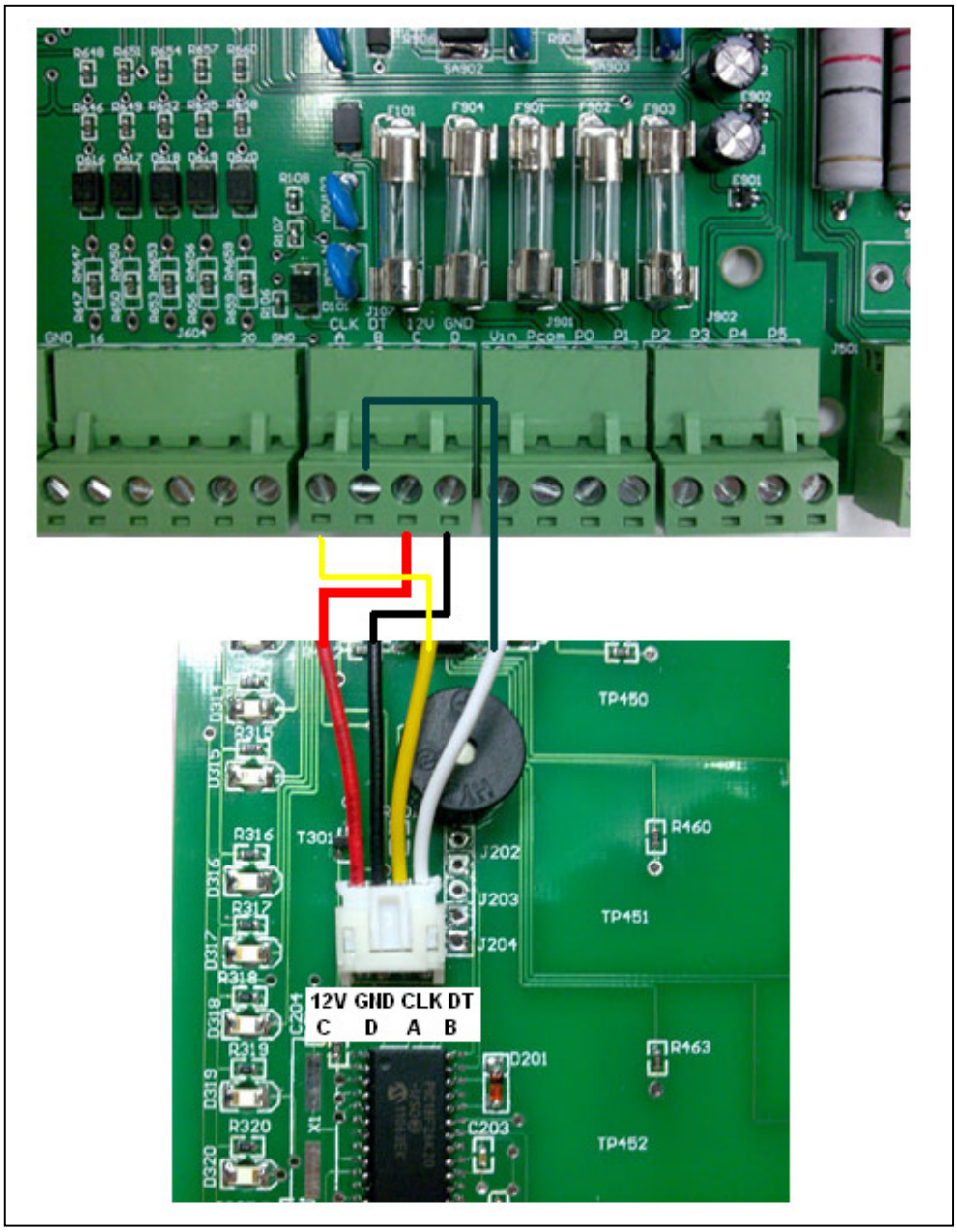

Figure 11.4 Connection touchpad and 20 zone alarm panel

f. The hardware connection for siren and strobe light with 20 zone alarm panel (figure 11.5).

   i. For PGM 1 as strobe light, turn on when zone trigger, please follow the steps below.
      1. Refer to **NUMBER PROGRAMMING** table address 51, define PGM1 as 133. (PGM definition: 133 = active when zone trigger, off after disarm.)

      2. Enter Programming Menu,
         a. [*] [0] [Installer code] [Address] [PGM Definition] – [*] [0] [1397] [51] [133]

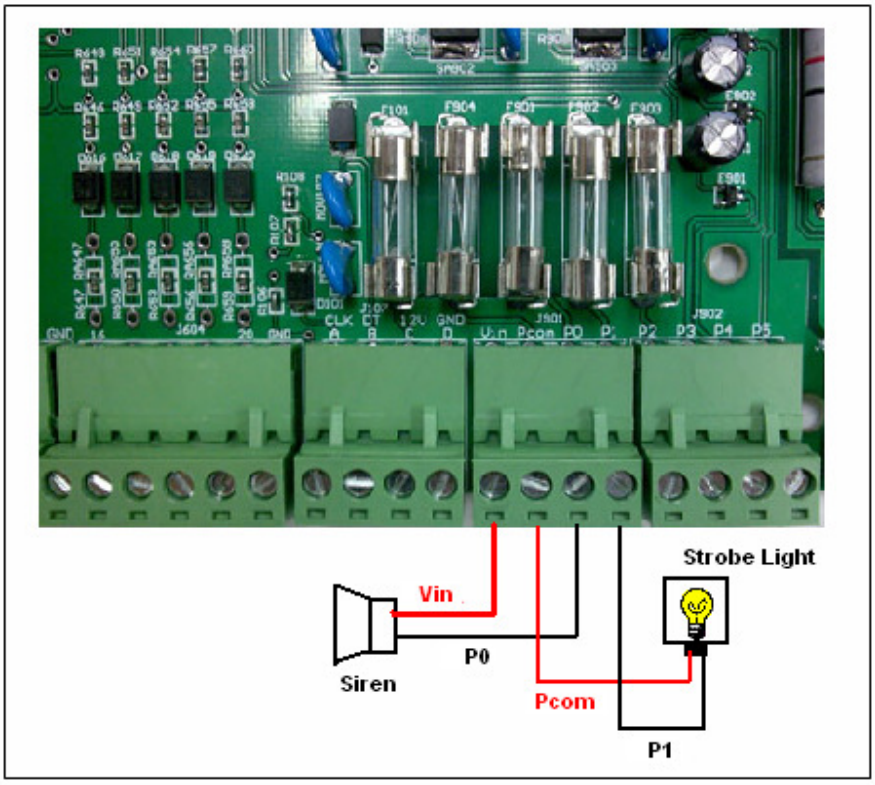

Figure 11.5 Connection between siren and strobe light with 20 zone alarm panel

g. The hardware connection for auto gate with 20 zone alarm panel (figure 11.6).

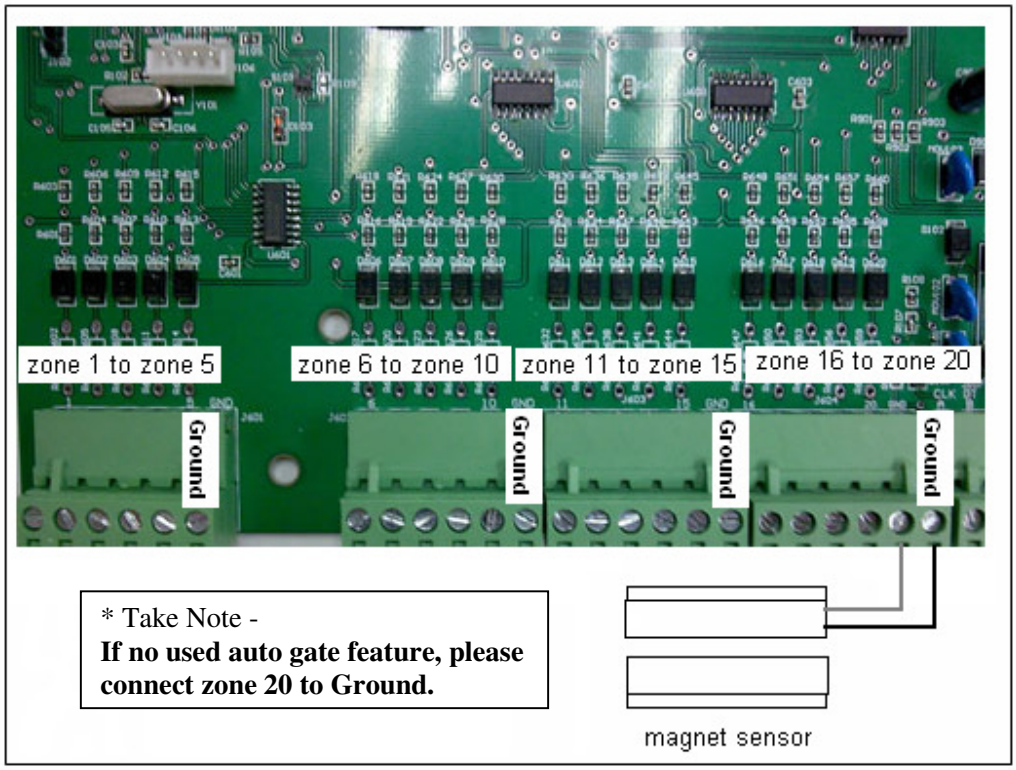

Figure 11.6 Connection between auto gate and 20 zone alarm panel