



THE ULTIMATE FORCE

TROOPER B85

THERMAL RADAR CORE GUIDE

ASUS[®]
IN SEARCH OF INCREDIBLE

Thermal Radar Core

ASUS Thermal Radar Core offers you an efficient thermal management system to monitor CPU temperature and voltages, control overclocking settings, and adjust fan speeds and voltages manually or automatically.

ASUS Thermal Core includes these three main management screens: **Fan Control**, **Recorder**, and **DIGI+ VRM**.

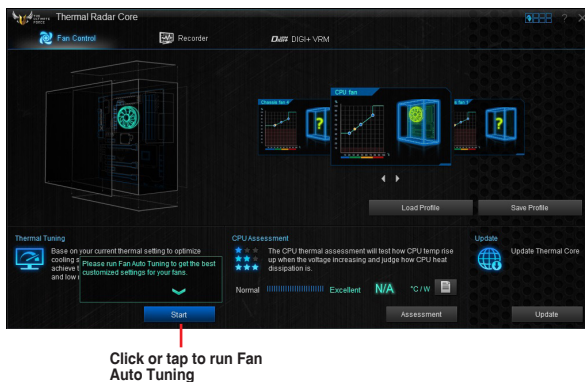
Fan Control screen

The Fan Control screen includes these utilities: **Thermal Tuning**, **Fan Control**, **CPU Assessment**, and **Live Update**.



Thermal Tuning

The Thermal Tuning utility allows you to automatically optimize your system's cooling solution such as the CPU fan, and chassis fans in just one click. It provides you with the Fan Auto Tuning function, allowing you to get the best customized settings for your fans.



Fan Control

The Fan Control utility provides easy-to-use preset fan profiles that automatically tweak the fan speed. It also allows you to customize the speed of each fan and save it as a fan profile.

You can customize your fan's speed using the Smart Mode and RPM (rotations per minute) Mode.

Smart Mode

Smart Mode allows you to customize the fan's rotation speed for a certain temperature.

Drag these points to set the fan's rotation speed and temperature

Drag these sliders to adjust the fan's response time

Click or tap to undo the changes

Click or tap to apply the changes

Click or tap to view the fan information

Click or tap to switch between CPU and chassis fan screens

| Fan Power | Fan Speed |
|-----------|-----------|
| 100 % | 2033 rpm |
| 95 % | 1826 rpm |
| 90 % | 1724 rpm |
| 75 % | 1624 rpm |
| 55 % | 1527 rpm |
| 45 % | 1430 rpm |
| 35 % | 1327 rpm |
| 25 % | 1224 rpm |
| 15 % | 1043 rpm |
| 5 % | 1002 rpm |

RPM Mode

The RPM mode allows you to set the fan speed when the temperature is below 75°C.

Drag the slider up or down to adjust the fan speed

Click or tap to go back to main screen

Click or tap to switch between CPU and chassis fan screens

| Fan Power | Fan Speed |
|-----------|-----------|
| 100 % | 2033 rpm |
| 95 % | 1826 rpm |
| 90 % | 1724 rpm |
| 75 % | 1624 rpm |
| 55 % | 1527 rpm |
| 45 % | 1430 rpm |
| 35 % | 1327 rpm |
| 25 % | 1224 rpm |
| 15 % | 1043 rpm |
| 5 % | 1002 rpm |

CPU Assessment

The CPU Assessment utility allows you to get an assessment of the CPU's temperature during system load.



Click or tap to get CPU Assessment

Live Update

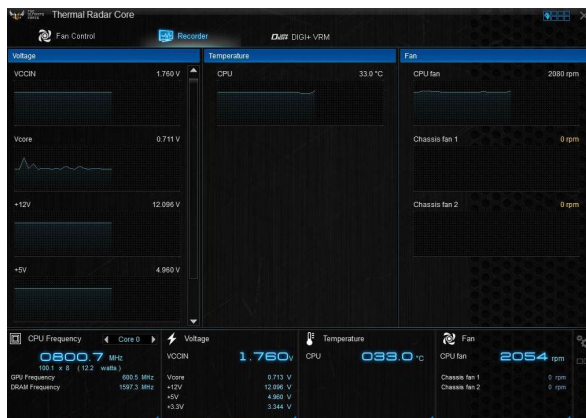
The Live Update utility allows you to get the latest firmware updates.



Click or tap to get live updates

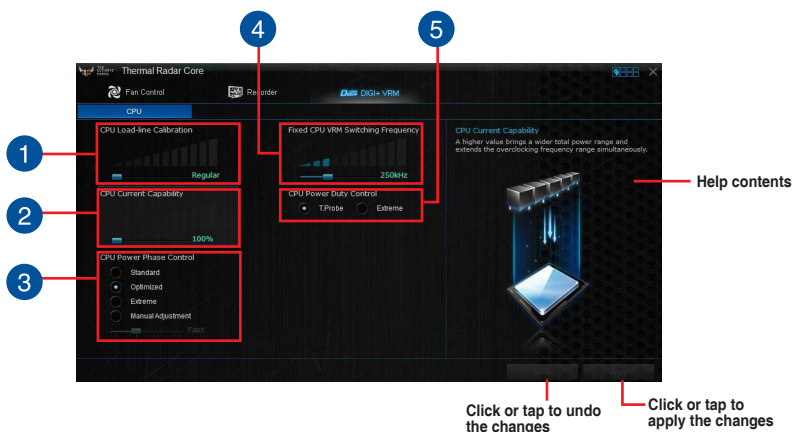
Recorder screen

The Recorder screen provides you with graphs of the changes in the system voltage, temperature, and fan speeds. To view a History Record, move your mouse on a graph line's specific point to display the date and value of that specific point.



DIGI+ VRM

DIGI+ VRM allows you to adjust VRM voltage and frequency modulation to enhance reliability and stability. It also provides the highest power efficiency, generating less heat to extend component lifespan and minimize power loss.



1

CPU Load-line Calibration

CPU Load-line Calibration adjusts the voltage range and controls the system temperature. Higher load-line calibration could get higher voltage and good overclocking performance but increases the CPU and VRM thermal conditions.

2

CPU Current Capability

CPU Current Capability provides wider total power range for overclocking. A higher value setting gets higher VRM power consumption delivery.

3

CPU Power Phase Control

CPU Power Phase Control allows you to get more transient and better thermal performance by increasing the phase number under heavy system load. To increase VRM efficiency, reduce the phase number under light system load.

4

Fixed CPU VRM Switching Frequency

CPU Voltage Frequency affects the VRM transient response and thermal components. Higher VRM frequency gets quicker transient response.

5

CPU Power Duty Control

CPU Power Duty Control allows to balance the CPU load based on the temperature or on the current system load.

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Where to find more information

Visit the ASUS website (www.asus.com) for additional information and product updates.

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