

Jetway

J-403TG Green VLB

Version 2.0

User's Guide

by computerguy08

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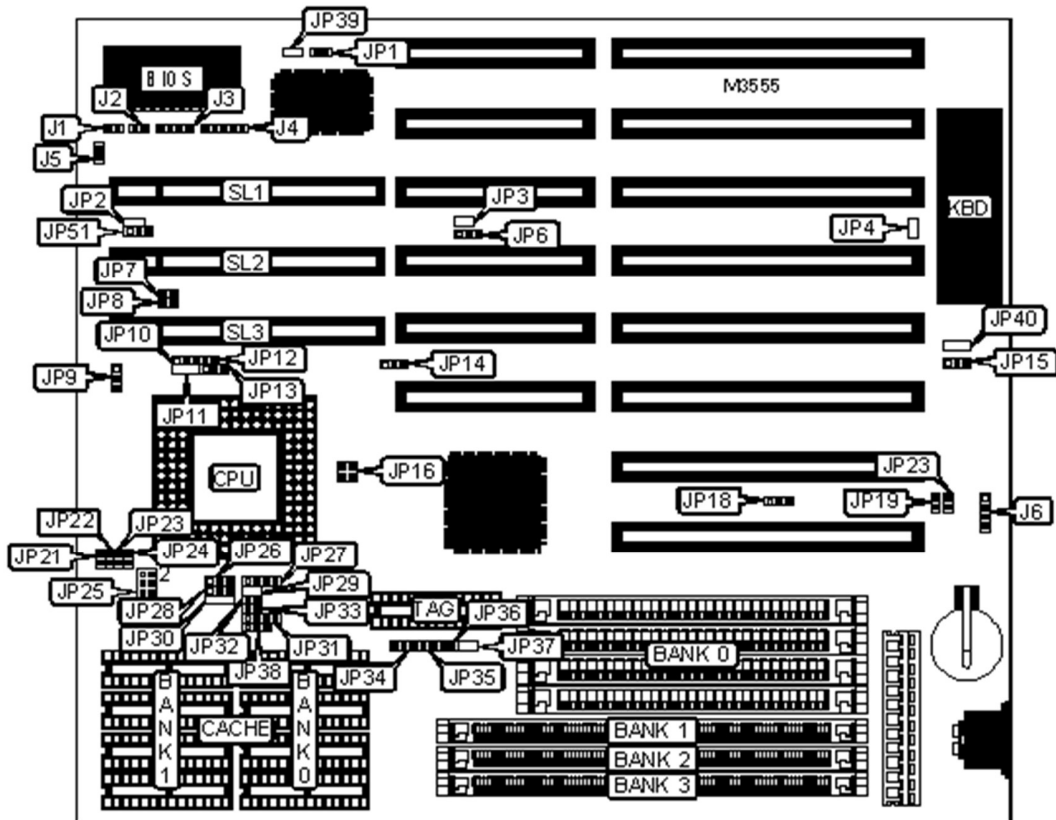
Chapter 1: Overview and specs

Chapter 1.1: Specifications

The J-403TG has the following features:

- Platform: Baby AT form factor (254mm x 218mm)
- CPU type: Socket 3 for Intel or AMD 486SX/DX/DX2/DX4, as well as AMD 5x86 and Cyrix M7
- CPU speeds: 25/33/40/50(internal)/66(internal)/100(internal)MHz
- Chipset: OPTi 82C895
- Memory: Four 30-pin SIMM and three 72-pin SIMM sockets, with support for up to 128MB
- Cache: 8 DIP sockets, with support for 64/128/256KB configurations
- BIOS: AMI BIOS, Award BIOS
- Slots: six (6) 16-bit ISA slots, two (2) 8-bit ISA slots, three (3) VESA local bus slots

Chapter 1.2: Mainboard Overview



| Function | Jumper |
|-------------------------------|----------------------------|
| TURBO switch | J1 |
| RESET switch | J2 |
| SPEAKER connector | J3 |
| KEYLOCK / POWER LED connector | J4 |
| TURBO LED connector | J5 |
| External battery connector | J6 |
| CPU jumpers | JP1, JP9->JP13, JP21->JP33 |
| Cache jumpers | JP34, JP35, JP36, JP38 |
| Memory Jumpers | JP18 |
| VL BUS jumpers | JP7, JP8 |
| CMOS clear jumper | JP15 |
| GREEN PC hotkey | JP16 |
| GREEN Monitor power control | JP19 |
| GREEN PC LED connector | JP20 |

Other jumper locations are unknown and/or should not be tampered with.

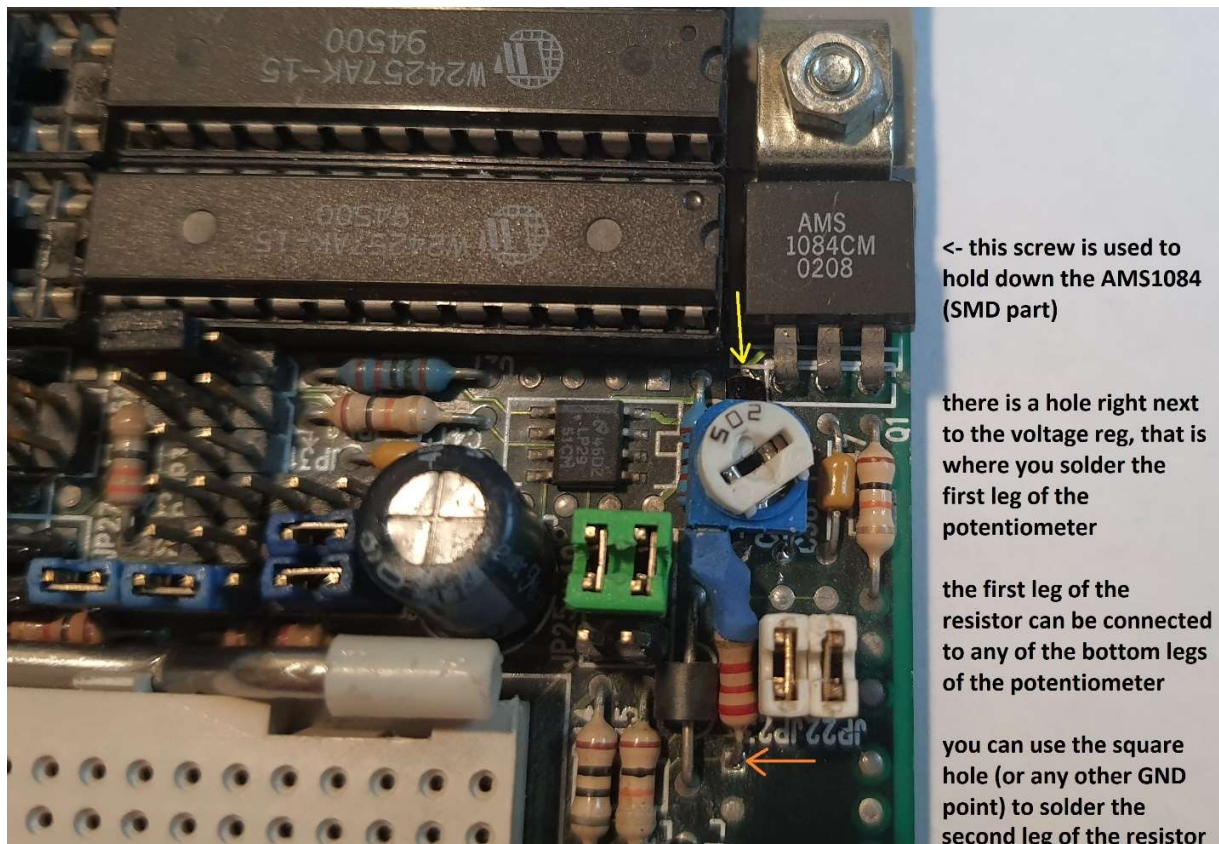
Chapter 2: Hardware configuration

Chapter 2.1: CPU configuration

| CPU name | CPU type selector | | | | | | | | | |
|----------------|-------------------|------|------|------|------|----------|------|------|------|------|
| | JP1 | JP10 | JP12 | JP13 | JP26 | JP27 | JP28 | JP31 | JP32 | JP33 |
| 486SX | OP | OP | OP | OP | OP | 2-3 | 1-2 | OP | OP | OP |
| 486SX (SL) | CL | OP | OP | OP | OP | 2-3 | 1-2 | 1-2 | CL | CL |
| 486DX/DX2 | OP | OP | OP | OP | 1-2 | 1-2, 3-4 | 1-2 | OP | OP | OP |
| 486DX/DX2 (SL) | CL | OP | OP | OP | 1-2 | 1-2, 3-4 | 1-2 | 1-2 | CL | CL |
| 486DX4 | CL | OP | OP | 1-2 | 1-2 | 1-2, 3-4 | 1-2 | 1-2 | CL | CL |
| CYRIX M7/M72 | OP | 1-2 | OP | 2-3 | 1-2 | 1-2, 3-4 | 2-3 | 2-3 | OP | OP |

| | |
|-------------|---------|
| CPU voltage | JP25 |
| 5 Volts | 1-3,2-4 |
| Adjustable* | 3-5,4-6 |

*requires soldering an AMS1084 (or equivalent) voltage regulator and a 5kΩ potentiometer in series with a 2.2kΩ resistor as shown in the figure below:



There are 2 kinds of clock chips for this motherboard:

| CPU clock (AV-9107) | JP9 | JP21 | JP22 | JP23 | JP24 |
|---------------------|-----|------|------|------|------|
| 25 MHz | 1-2 | OP | CL | OP | CL |
| 33 MHz | 1-2 | OP | CL | CL | OP |
| 40 MHz | 1-2 | OP | OP | OP | CL |

| CPU clock (SC468) | JP22 | JP23 |
|-------------------|------|------|
| 25 MHz | OP | OP |
| 33 MHz | CL | CL |
| 40 MHz | OP | CL |
| 50 MHz | CL | OP |

Chapter 2.2: Cache configuration

This motherboard can be equipped with up to 256KB of cache memory using the following settings:

| Cache size | Jumper settings | | | | TAG RAM (U20) | BANK 0 | BANK 1 |
|------------|-----------------|------|------|------|---------------|---------|---------|
| | JP34 | JP35 | JP36 | JP38 | | | |
| 64K | 1-2 | OP | OP | 2-3 | 8K x 8 | 8K x 8 | 8K x 8 |
| 128K | 1-2 | CL | OP | 1-2 | 8K x 8 | 32K x 8 | x |
| 256K(A) | 1-2 | CL | CL | 2-3 | 32K x 8 | 32K x 8 | 32K x 8 |
| 256K(B) | 2-3 | CL | CL | 2-3 | 16K x 8 | 32K x 8 | 32K x 8 |

Chapter 2.3: VL BUS configuration

| CPU clock | JP7 |
|-----------|-----|
| <=33 MHz | OP |
| > 33 MHz | CL |

| Wait state | JP8 |
|------------|-----|
| 0 ws | OP |
| 1 ws | CL |

Chapter 2.4: Memory configuration

This motherboard can be equipped with both 30-pin SIMM memory modules, as well as Fast Page 72-pin SIMM memory modules. It has a total of four memory banks (the four 30-pin SIMM slots are considered as a bank).

| RAM size | SIM 1->4 (30p) | SIM 5 (72p) | SIM 6 (72p) | SIM 7 (72p) | JP18 |
|----------|----------------|--------------|-------------|-------------|------|
| 2MB | 256K x 4pcs | 1M x 1pcs | x | x | 1-2 |
| 2MB | x | 2M x 1pcs | x | x | 2-3 |
| 4MB | 1M x 4pcs | X | x | x | 1-2 |
| 4MB | x | 4M x 1pcs | x | x | 2-3 |
| 4MB | 256K x 4pcs | 1M x 1pcs | 1M x 1pcs | 1M x 1pcs | 1-2 |
| 4MB | x | 2M x 1pcs | 2M x 1pcs | x | 2-3 |
| 5MB | 256K x 4pcs | 4M x 1pcs | x | x | 1-2 |
| 6MB | 256K x 4pcs | 1M x 1pcs | 4M x 1pcs | x | 1-2 |
| 6MB | x | 2M x 1pcs | 4M x 1pcs | x | 2-3 |
| 8MB | 1M x 4pcs | 4M x 1pcs | x | x | 1-2 |
| 8MB | x | 8M x 1pcs | x | x | 2-3 |
| 8MB | x | 4M x 1pcs | 4M x 1pcs | x | 2-3 |
| 10MB | 256K x 4pcs | 1M x 1pcs | 8M x 1pcs | x | 1-2 |
| 10MB | 256K x 4pcs | 1M x 1pcs | 4M x 1pcs | 4M x 1pcs | 1-2 |
| 10MB | x | 2M x 1pcs | 8M x 1pcs | x | 2-3 |
| 10MB | x | 2M x 1pcs | 4M x 1pcs | 4M x 1pcs | 2-3 |
| 12MB | 1M x 4pcs | x | 8M x 1pcs | x | 1-2 |
| 12MB | x | 4M x 1pcs | 4M x 1pcs | 4M x 1pcs | 2-3 |
| 12MB | 1M x 4pcs | x | 4M x 1pcs | 4M x 1pcs | 1-2 |
| 16MB | 4M x 4pcs | x | x | x | 1-2 |
| 16MB | x | 16MB x 1pcs | x | x | 2-3 |
| 16MB | 1M x 4pcs | 4M x 1pcs | 4M x 1pcs | 4M x 1pcs | 1-2 |
| 16MB | x | 8MB x 1pcs | 8MB x 1pcs | x | 2-3 |
| 17MB | 256K x 4pcs | 16MB x 1pcs | x | x | 1-2 |
| 20MB | 1M x 4pcs | 16MB x 1pcs | x | x | 1-2 |
| 20MB | 1M x 4pcs | x | 16MB x 1pcs | x | 1-2 |
| 20MB | x | 4MB x 1pcs | 16MB x 1pcs | x | 2-3 |
| 32MB | 4M x 4pcs | 16MB x 1pcs | x | x | 1-2 |
| 32MB | x | 32MB x 1pcs | x | x | 2-3 |
| 32MB | 4M x 4pcs | x | 16MB x 1pcs | x | 1-2 |
| 32MB | x | 16MB x 1pcs | 16MB x 1pcs | x | 2-3 |
| 64MB | 16M x 4pcs | x | x | x | 1-2 |
| 64MB | x | 64MB x 1pcs | x | x | 2-3 |
| 64MB | 4M x 4pcs | 16MB x 1pcs | 16MB x 1pcs | 16MB x 1pcs | 1-2 |
| 64MB | x | 32MB x 1pcs | 32MB x 1pcs | x | 2-3 |
| 128MB | 16M x 4pcs | 64MB x 1pcs | x | x | 1-2 |
| 128MB | x | 128MB x 1pcs | x | x | 2-3 |
| 128MB | 16M x 4pcs | x | 64MB x 1pcs | x | 1-2 |
| 128MB | x | 64MB x 1pcs | 64MB x 1pcs | x | 2-3 |

Chapter 2.5: Other features

CMOS clear jumper:

| | |
|------------------|------|
| CMOS state | JP15 |
| Normal operation | 2-3 |
| Clear | 1-2 |

GREEN PC hotkey connector: JP16

Attach a power saving switch (hotkey) to this connector. When the hotkey is pressed, the system goes immediately into power saving mode. Press the hotkey again and the system wakes up, returning to normal.

Note: if the system's Power Saving Mode is set to Disabled, the hotkey button will not work.

GREEN monitor power control connector: JP19

The J-403TG motherboard provides Green Monitor Power ON/OFF control functions. Shutting the monitor power off as the system goes into power saving mode greatly reduces the amount of power consumed.

To use the Green monitor power functions:

1. Your system's PSU must support the Active Low signal, during which the PSU shuts off the monitor power.
2. Your monitor's power cord must be plugged into the PSU.

GREEN PC LED connector: JP20

You can attach an LED to this connector, to let you know when the system is in power saving mode.

When the system's power saving mode is set to Enabled, the LED connected to JP20 flashes when the system enters power saving mode, and it shuts off when the system leaves the power saving mode.

If power saving mode is Disabled, the LED is always OFF when running in Turbo mode and it's always ON when in normal mode.