

CoolMaster Programmings Reference Manual (PRM)



CoolMaster Interface Adapter

for VRV, VRF
Air Conditioning Systems



Cool Master 1000D
Cool Master 2000S
Cool Master 3000T
Cool Master 4000M
Cool Master 6000L
Cool Master 7000F
Cool Master 8000I(MH)
Cool Master 9000H
Cool Master G

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1 Revisions History

Document revision 4.06 Wednesday, January 07, 2015

- 4.06
 - set ignore r
 - CoolMaster 4000M wh support
 - CoolMaster 1000D lock support
- 4.05
 - CoolMaster G
- 4.04
 - lock
- 4.03
 - CoolMaster 4000M F/C support
 - CoolMaster 4000M VAM support
 - CoolMaster 7000F swing support
- 4.02
 - CoolMaster 6000L vam support
- 4.01
 - stat4
- 3.12
 - query h
 - temp XX[X].x[x]
- 3.11
 - CoolMaster 6000L
- 3.10
 - query
- 3.9
 - set baud
 - set slink
- 3.8
 - CoolMaster 1000D Fahrenheit support
 - 20 groups limit
 - CoolMaster 8000I(MH)
- 3.7
 - PAC-YG66, PAC-YG63 support for CoolMaster 4000M
- 3.6
 - Centralized Address for 200S,3000T
- 3.5
 - CoolMaster 7000F
- 3.4
 - fixed compatibility notes
 - auto command, AutC, Auth
 - fspeed: t - top, m for CoolMaster 1000D
 - VAM and Auto modes in stat
- 3.3
 - added **vam** command

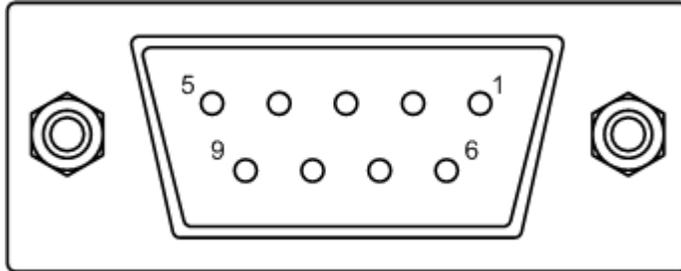


2 RS232 Interface

2.1 Mechanical and Electrical Specification

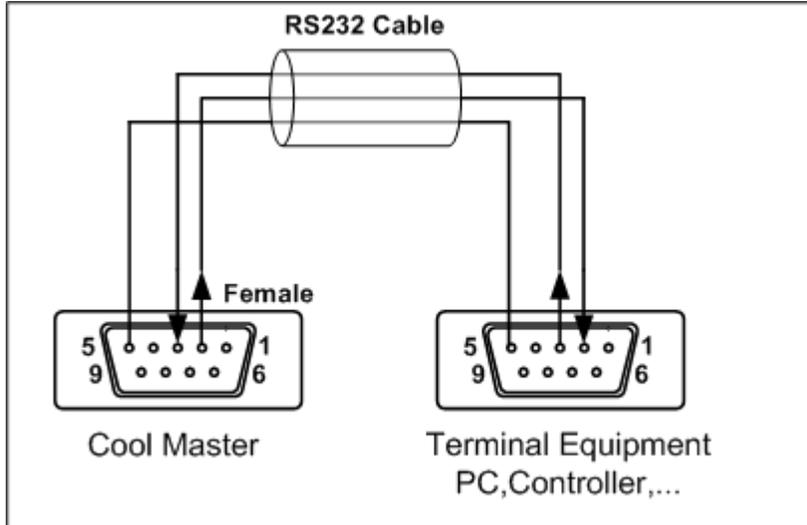
RS232 Interface connector used in Cool Master is D-Type 9-pin DB9 female connector.

Cool Master DB9 Connector front view



DB9 Pin	Signal Level	Description
2	±12V	TxD (Data from Cool Master)
3	±12V	RxD (Data to Cool Master)
5	GND	Ground

Connecting Cool Master to Home Automation Equipment



In the picture above it is assumed that Terminal Equipment DB9 connector has RxD line on pin 2 and TxD line on pin 3. (This is a standard for PC). If a Terminal Equipment (Home Automation Controller) has a reversed pin out (RxD on pin 3 and TxD on pin 2), the crossed RS232 cable must be used to connect TxD to RxD and RxD to TxD.

According to RS232 specification cable length should not exceed 25m. RS232 Cable supplied with Cool Master is 1.5m length suitable for direct connection to PC RS232 serial port.

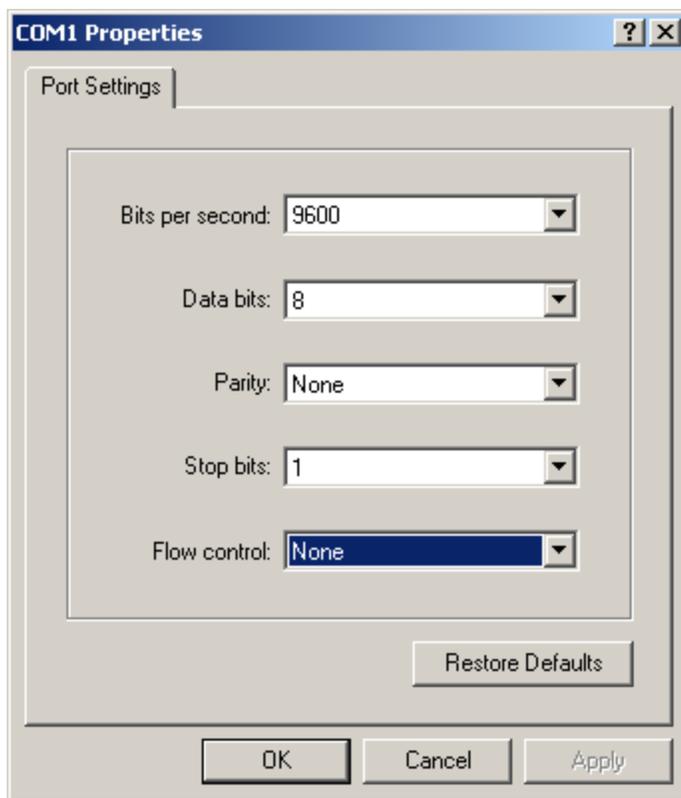


2.2 Port Settings

For proper communication with Cool Master RS232 Port should be configured with following parameters

Baud Rate	9600
Data Bits	8
Parity Control	None
Stop Bits	1
Flow Control	None

Below is an example of COM port setup in HyperTerminal application



CoolMaster RS232 Port baud rate (bits per second) can be changed with [set](#) baud command.



3 General Protocol Definitions

3.1 Message format

Communication between PC or Home Automation Controller and CoolMaster via RS232 interface is based on text messages. Communication example is shown below

>stat 101	command	PC to CoolMaster
101 ON 27C 00,00C Auto Dry OK	response	CoolMaster to PC
OK	exit code	
>	prompt	

Command message sent to CoolMaster must be terminated by CR (carriage return 0x0D) LF (line feed 0x0A) sequence or a single CR character. Messages from CoolMaster (except prompt character) are terminated by CR LF. Commands are case sensitive and should not contain leading or trailing spaces. The only separator between command name and command parameter(s) is space character.

In case of wrong command CoolMaster response can be one of the following strings:

Unknown command	Unrecognized command name
Bad parameters	Command has missing or wrong parameters

If command was executed CoolMaster will return optional response and exit code. Detailed information is provided in topics describing specific commands.

3.2 Indoor Unit Addressing

To address specific indoor unit the UID parameter is used in CoolMaster commands. UID format is three characters. First character is hexadecimal digit in range 0-9 or A-F to represent system numbers 0-9, 10-15 correspondingly or Z to specify centralized address mode.

UID Format:

1	2	3
System Number 0-9, A-F	Unit Number in System 00-99 or FF	

- For CoolMaster 4000M System Number must be 0, Unit Number must be 01-50
- For CoolMaster 1000D System Number must be in range 1-4
- For CoolMaster 2000S, 3000T, 7000F,8000I(MH), 9000H System Number should not be 0
- For CoolMaster 6000L System Number must be 0, Unit Number must be 00-FF
- For CoolMaster G Unit Number must be in range 01-16

UID reflects the indoor unit address. For proper operation of CoolMaster all indoor units have to be given addresses (depending on specific AC system type this can be done automatically by system or has to be done manually by integrator). You should refer to specific AC system manuals to find out how to set and acquire indoor unit addresses.

Below are examples of accepted UID's.

<u>UID</u>	<u>Indoor Address</u>
100	1-00



101 1-01
201 2-01
310 3-10
F99 15-99

UID format for Centralized Address mode:

1	2	3
Centralized Address Sign Z	Centralized Address 00-99	

Example:

<u>UID</u>	<u>Centralized Address</u>
Z01	01
Z22	22

Centralized Address mode is currently supported for CoolMaster 2000S and 3000T.

Note: For backward compatibility Unit number in System can be represented by hexadecimal numbers couple in range 00-0F equal to decimal 00-15. For example 10A represents Centralized Address 1-15. We recommend not to use this option in future designs.



4 Commands Reference

4.1 Cool Master Commands

[alloff](#)
[allon](#)
[boot](#)
[cool](#)
[dry](#)
[heat](#)
[auto](#)
[fan](#)
[filt](#)
[fspeed](#)
[off](#)
[on](#)
[set](#)
[simul](#)
[stat](#)
[stat2](#)
[stat3](#)
[query](#)
[swing](#)
[temp](#)
[group](#)
[vam](#)
[lock](#)
[wh](#)

4.1.1 alloff

SYNOPSIS

alloff

DESCRIPTION

Turn off all indoor units

EXAMPLE

```
>alloff  
OK
```

EXIT CODE

OK Request Successfully Executed

4.1.2 allon

SYNOPSIS

allon

**DESCRIPTION**

Turn on all indoor units.

EXAMPLE

```
>allon  
OK
```

EXIT CODE

OK Request Successfully Executed

4.1.3 boot**SYNOPSIS**

boot

DESCRIPTION

Switch CoolMaster to bootloader mode. Bootloader mode is used for Firmware Update. For details please see the [Firmware Update](#) section.

EXAMPLE

```
>boot  
reboot...
```

4.1.4 cool**SYNOPSIS**

cool <UID>

DESCRIPTION

Set indoor unit UID mode to COOL.

EXAMPLE

```
>cool 102  
OK
```

EXIT CODE

OK Request Successfully Executed
ERROR:1 Unit with specified UID not found

4.1.5 dry**SYNOPSIS**

dry <UID>

**DESCRIPTION**

Set indoor unit UID mode to DRY.

EXAMPLE

```
>dry 102  
OK
```

EXIT CODE

OK Request Successfully Executed
ERROR:1 Unit with specified UID not found

4.1.6 heat**SYNOPSIS**

heat <UID>

DESCRIPTION

Set indoor unit UID mode to HEAT.

EXAMPLE

```
>heat 102  
OK
```

EXIT CODE

OK Request Successfully Executed
ERROR:1 Unit with specified UID not found

4.1.7 auto**SYNOPSIS**

auto <UID>

DESCRIPTION

Set indoor unit UID mode to AUTO. Status report for the Indoor Unit in Auto mode can be

- Auto - Auto Mode
- AutC - Auto Mode Cooling
- Auth - Auto Mode Heating

EXAMPLE

```
>auto 102  
OK
```

EXIT CODE

OK Request Successfully Executed
ERROR:1 Unit with specified UID not found

**COMPATIBILITY**

CoolMaster 1000D	v 2.5.1
CoolMaster 2000S	v 2.8.6
CoolMaster 3000T	v 2.8.6.
CoolMaster 4000M	2.5.7
CoolMaster 6000L	any
CoolMaster 7000F	2.6.4
CoolMaster 8000I(MH)	2.7.3
CoolMaster 9000H	2.7.7
CoolMaster G	N.A.

4.1.8 fan**SYNOPSIS**

fan <UID>

DESCRIPTION

Set indoor unit UID mode to FAN.

EXAMPLE

```
>fan 102  
OK
```

EXIT CODE

OK	Request Successfully Executed
ERROR:1	Unit with specified UID not found

4.1.9 filt**SYNOPSIS**

filt <UID>

DESCRIPTION

Reset filter sign on indoor unit UID.

EXAMPLE

```
>filt 102  
OK
```

EXIT CODE

OK	Request Successfully Executed
ERROR:1	Unit with specified UID not found

COMPATIBILITY

CoolMaster 1000D	v 0.3.1
CoolMaster 2000S	v 2.0.9



CoolMaster 3000T	any
CoolMaster 4000M	any
CoolMaster 6000L	N.A.
CoolMaster 7000F	N.A.
CoolMaster 8000I(MH)	any
CoolMaster 9000H	N.A.
CoolMaster G	N.A.

4.1.10 fspeed

SYNOPSIS

fspeed <UID> <l|m|h|a|t>

DESCRIPTION

Set indoor unit UID fan speed to low, medium, high, auto, top.

EXAMPLE

```
>fspeed 101 l      Set unit 1-01 fan speed to low
OK
>fspeed 101 m      Set unit 1-01 fan speed to medium
OK
>fspeed 101 h      Set unit 1-01 fan speed to high
OK
>fspeed 101 a      Set unit 1-01 fan speed to auto
OK
>fspeed 101 t      Set unit 1-01 fan speed to top
OK
```

EXIT CODE

OK Request Successfully Executed
 ERROR:1 Unit with specified UID not found

COMPATIBILITY

CoolMaster 1000D	any	Supported: l h
	2.5.1	Supported: l m h
CoolMaster 2000S	any	Supported: l m h a
CoolMaster 3000T	any	Supported: l m h a
CoolMaster 4000M	any	Supported: l m h a t
CoolMaster 6000L	any	Supported: l m h a t
CoolMaster 7000F	any	Supported: l m h a
CoolMaster 8000I(MH)	any	Supported: l m h t
CoolMaster 9000H	any	Supported: l m h
CoolMaster G	any	Supported: l m h a

4.1.11 off

SYNOPSIS

off <UID>

DESCRIPTION

Turn off indoor unit UID.

EXAMPLE



```
>off 102
OK
```

EXIT CODE

OK	Request Successfully Executed
ERROR:1	Unit with specified UID not found

EXTENSIONS

CoolMaster 4000M PAC-YG Support

In CoolMaster 4000M v2.5.6 or higher to control PAC-YG66 digital I/O device following **off** command format is used

off <UID> [N]

N is digital output number 1..6

```
>off 012 2
OK
>off 012 6
OK
```

4.1.12 on

SYNOPSIS

on <UID>

DESCRIPTION

Turn on indoor unit UID.

EXAMPLE

```
>on 102
OK
```

EXIT CODE

OK	Request Successfully Executed
ERROR:1	Unit with specified UID not found

EXTENSIONS

CoolMaster 4000M PAC-YG Support

In CoolMaster 4000M v2.5.6 or higher to control PAC-YG66 digital I/O device following **on** command format is used

on <UID> [N]

N is digital output number 1..6



```
>on 012 2
OK
>on 012 6
OK
```

4.1.13 set

SYNOPSIS

set [<option> <value>]

DESCRIPTION

Query or set CoolMaster configuration. Without parameters set command will list all supported configuration options and their values. To change option use format with option and value. Some options are read only and can not be changed.

Configuration Option	Access Mode	Description
S/N	Read	CoolMaster Unit Serial Number
myid	R/W	CoolMaster Unit own Centralized Address
version	Read	Firmware Version
echo	R/W	0-Disable 1-Enable Commands echo
baud	R/W	RS232 Port baud rate. Can be 1200, 2400, 4800, 9600, 18200, 38400, 57600, 115200. Default is 9600
deg C/F	R/W	Temperature scale: C-Celsius, F-Fahrenheit. Set command is <code>set deg C</code> or <code>set deg F</code>
slink	R/W	A/C line link type for CoolMaster 8000I(MH). Can be O (for Old) or N (for New)
master	R/W	1-Master 0-Slave. For CoolMaster 6000L/1000D
lcd	R/W	LCD size
simul	R/W	Number of Indoor units permanently simulated. If simul is not zero CoolMaster will simulate given number of units after reset.
CS count	Read	Check Sum errors counter
TO count	Read	Timeout errors counter
Collisio	Read	Collision Counter
NA Count	Read	NAK Counter
MB CRC	Read	Modbus bad CRC counter (Coolgate Only)
modaddr	R/W	Modbus Address (Coolgate Only)
ignore	R/W	Ignore flags: r - Ignore modbus Illegal Data Address (Coolgate Only)

Notes:

- baud change takes effect only after power reset.
- ignore flag 'r' allows reading of the consecutive Indoor status holding and input registers (address range:0x1001-0xF640) even if there are non-existent Indoor Units in between. Non-existent Indoor registers are filled with 0xFFFF.

EXAMPLE

```
S/N      : 0041      Query configuration
myid     : 0A
version  : 2.1.4
echo     : 1
baud 232: 9600
```



```
lcd      : 8
simul    : 0
CS count: 0
TO count: 0
Collisio: 0
NA Count: 0
MB CRC   : 0
modaddr  : 80
ignore   : r
OK

>set echo 0          Set echo option (disable echo)
OK
```

EXIT CODE

OK Request Successfully Executed

COMPATIBILITY

deg C/F	v 2.5.6 CoolMaster 1000D v 2.8.3 CoolMaster 4000M
baud	v 2.5.8
slink	v 2.5.7 CoolMaster 8000I(MH) only
master	CoolMaster 6000L/1000D
ignore r	v 2.8.9 CoolGate only

4.1.14 simul

SYNOPSIS

simul <N>

DESCRIPTION

Simulate N indoor units. Simulation mode can be used to debug Home Automation Controller software without connecting CoolMaster to Air Conditioning system line. To exit simulation mode set N to zero or restart CoolMaster.

EXAMPLE

```
>simul 20          Simulate 20 Indoor Units
OK
>simul 0           Terminate simulation mode
OK
```

EXIT CODE

OK Request Successfully Executed

4.1.15 stat

SYNOPSIS

stat [UID]

**DESCRIPTION**

Get Indoor unit(s) status. Specific indoor unit can be addressed by UID. If no UID provided in request, response will contain information about all units

EXAMPLE

```
>stat
100 ON 12C 12,41C High Cool OK
101 OFF 32C 04,93C Low Dry OK
102 ON 07C 08,27C High Dry OK
103 OFF 01C 26,84C Med Dry OK
104 ON 04C 24,08C High Dry OK
105 OFF 11C 07,23C Low Dry OK
106 ON 11C 14,91C Auto Dry OK
107 ON 27C 12,94C Med Cool OK
OK
>stat 101
101 OFF 32C 04,93C Low Dry OK
OK
```

RESPONSE

<u>Position in String</u>	<u>Example Format</u>	<u>Description</u>
0-2	109 NNN	Indoor unit Centralized Address
4-6	ON ON or OFF	On/Off Status
8-10	23C NNC***	Set Temperature °C
12-17	24,08C NN,NNC***	Room Temperature °C
19-22	Auto Low,Med,High,Auto,Top Cool,Heat,Fan,Dry,Auto	Fan Speed
24-27	Cool Auto,Bps,HExc* AutC,AutH,Norm**	Operation Mode
29-32	OK OK or Xn, Xnn, nnnn	OK or Failure code

* - See [vam](#) command

** - See [auto](#) command

*** - In Fahrenheit mode Temperature is printed as NNNF, see example below:

```
101 ON 101F 057F Low Cool OK
```

EXIT CODE

OK Request Successfully Executed
ERROR:1 Unit with specified UID not found

COMPATIBILITY

This command is obsolete and is supported only for backward compatibility.

EXTENSIONS

CoolMaster 4000M PAC-YG Support

In CoolMaster 4000M v2.5.6 or higher for PAC-YG66 (digital I/O extender) and PAC-YG63 (analog I/O extender), stat,stat2,stat3 commands output format will differ from the mentioned above.

- PAC-YG66. CoolMaster 4000M v2.5.6

```
>stat 012
012 DIG IN:001111 OUT:000001 OK
```

**OK**

<u>Position in String</u>	<u>Example</u>	<u>Format</u>	<u>Description</u>
0-2	012	NNN	PAC-YG66 Centralized Address
4-6	DIG	DIG	PAC-YG66 Identification
8-16	IN:001111	IN:XXXXXX	6 Digital inputs 1-6 status. X can be 0 or 1
18-27	OUT:0000001	OUT:XXXXXXX	6 Digital outputs 1-6 status. X can be 0 or 1
29-30	OK	OK or nnnn	OK or Failure code

- PAC-YG63. CoolMaster 4000M v2.5.6

```
>stat 011
011 ANA 007.5 278.8 OK
OK
```

<u>Position in String</u>	<u>Example</u>	<u>Format</u>	<u>Description</u>
0-2	011	NNN	PAC-YG63 Centralized Address
4-6	ANA	ANA	PAC-YG63 Identification
8-12	007.5	NNN.n	Analog input 1 value
13-17	278.8	NNN.n	Analog input 2 value
19-20	OK	OK or nnnn	OK or Failure code

4.1.16 stat2

SYNOPSIS

stat2 [UID]

DESCRIPTION

Get Indoor unit(s) status. Specific indoor unit can be addressed by UID. If no UID provided in request, response will contain information about all units. stat2 compared to stat1 has additional Filter Reset Sign indication

EXAMPLE

```
>stat2
100 ON 12C 12,41C High Cool OK 0
101 OFF 32C 04,93C Low Dry OK 1
102 ON 07C 08,27C High Dry OK 0
103 OFF 01C 26,84C Med Dry OK 0
104 ON 04C 24,08C High Dry OK 0
105 OFF 11C 07,23C Low Dry OK 0
106 ON 11C 14,91C Auto Dry OK 0
107 ON 27C 12,94C Med Cool OK 1
OK
>stat2 101
101 OFF 32C 04,93C Low Dry OK 0
OK
```

RESPONSE

<u>Position in String</u>	<u>Example</u>	<u>Format</u>	<u>Description</u>
0-2	109	NNN	Indoor unit Centralized Address
4-6	ON	ON or OFF	On/Off Status
8-10	23C	NNC***	Set Temperature °C



12-17	24,08C	NN,NNC***	Room Temperature °C
20-23	Auto	Low,Med,High,Auto,Top Cool,Heat,Fan,Dry,Auto	Fan Speed
25-28	Cool	Auto,Bps,HExc AutC,Auth	Operation Mode
30-31/32/33	OK	OK or Xn, Xnn, nnnn	OK or Failure code
33/34/35	0	0 or 1	Filter Reset Sign present

* - See [vam](#) command

** - See [auto](#) command

*** - In Fahrenheit mode Temperature is printed as NNNF, see example below:

```
101 ON 101F 057F Low Cool OK 0
```

EXIT CODE

OK Request Successfully Executed
ERROR:1 Unit with specified UID not found

COMPATIBILITY

CoolMaster 1000D	v 0.3.1
CoolMaster 2000S	any
CoolMaster 3000T	any
CoolMaster 4000M	any
CoolMaster 6000L	any
CoolMaster 7000F	any
CoolMaster 8000I(MH)	any
CoolMaster 9000H	any
CoolMaster G	any

SEE ALSO

CoolMaster 4000M [PAC-YG Support](#)

4.1.17 stat3,stat4

SYNOPSIS

```
stat3 [UID]
stat4 [UID]
```

DESCRIPTION

Get Indoor unit(s) status. Specific indoor unit can be addressed by UID. If no UID provided in request, response will contain information about all units. stat3 compared to stat2 has no fractional part in the room temperature presentation. stat4 compared to stat3 has additional THERMOSTAT_ON column.

EXAMPLE

```
>stat3
100 ON 12C 12C High Cool OK 0
101 OFF 32C 04C Low Dry OK 1
102 ON 07C 08C High Dry OK 0
OK
>stat4
100 OFF 01C 26C Med Dry OK 0 0
101 ON 04C 24C High Dry OK 0 1
102 OFF 11C 07C Low Dry OK 0 0
OK
>stat3 101
```



```
101 OFF 32C 04C Low Dry OK 0
OK
```

RESPONSE

Position in String	Example	Format	Description
0-2	109	NNN	Indoor unit Centralized Address
4-6	ON	ON or OFF	On/Off Status
8-10	23C	NNC****	Set Temperature °C
12-14	24C	NNC****	Room Temperature °C
16-19	Auto	Low,Med,High,Auto,Top Cool,Heat,Fan,Dry,Auto	Fan Speed
21-24	Cool	Auto,Bps,HExc AutC,AutH	Operation Mode
26-27/28/29	OK	OK or Xn, Xnn, nnnn <u>stat3</u>	OK or Failure code
***	0	0 or 1	Filter Reset Sign present
***	0	0 or 1	<u>stat4</u> THERMOSTAT_ON (1-On, 0-Off)

* - See [vam](#) command

** - See [auto](#) command

*** - Depends on Failure code format

**** - In Fahrenheit mode Temperature is printed as NNNF, see example below:

```
101 ON 101F 057F Low Cool OK 0
```

EXIT CODE

OK Request Successfully Executed
ERROR:1 Unit with specified UID not found

COMPATIBILITY

stat3

CoolMaster 1000D	v 2.0.9
CoolMaster 2000S	v 2.0.9
CoolMaster 3000T	v 2.0.9
CoolMaster 4000M	v 2.4.5
CoolMaster 6000L	any
CoolMaster 7000F	any
CoolMaster 8000I(MH)	any
CoolMaster 9000H	any
CoolMaster G	any

stat4

CoolMaster 1000D	v 2.7.8
CoolMaster 2000S	N.A.
CoolMaster 3000T	N.A.
CoolMaster 4000M	N.A.
CoolMaster 6000L	N.A.
CoolMaster 7000F	N.A.
CoolMaster 8000I(MH)	N.A.
CoolMaster 9000H	N.A.
CoolMaster G	N.A.

SEE ALSO

CoolMaster 4000M [PAC-YG Support](#)



4.1.18 query

SYNOPSIS

query <UID> <o|m|f|t|e|a|h>

DESCRIPTION

Query on/off, operation mode, fan speed, set temperature, failure code or ambient temperature for unit UID. Query result is provided in numeric or alpha-numeric (for failure code) format.

Letter	Parameter	Result
o	on/off	0 - off 1 - on
m	mode	0 - Cool 1 - Heat 2 - Auto 3 - Dry 4 - Haux 5 - Fan
f	fan speed	0 - Low 1 - Medium 2 - High 3 - Auto 4 - Top
t	set temperature	
e	failure code	0-OK, else failure code same as in stat2 command
a	ambient temperature	
h	set temperature with 0.01 precision	
s	swing	0 - No Swing a - auto h - horizontal 3 - 30° 4 - 45° 6 - 60° v - vertical

This command is intended for systems with low parsing capabilities.

EXAMPLE

```
>query 100 o
1
OK
>query 100 m
0
OK
>query 100 t
25
OK
>query 100 a
27
```



```
OK
>query 100 f
2
OK
>query 100 e
U4
>query 101 e
0
OK
>query 101 h
20.50
OK
```

EXIT CODE

OK Request Successfully Executed
ERROR:1 Unit with specified UID not found

COMPATIBILITY

CoolMaster	v 2.6.1
query h	Only CoolMaster 1000D v 2.6.9
query s	v 2.8.4

4.1.19 swing

SYNOPSIS

swing <UID> <a|h|3|4|6|v>

DESCRIPTION

Set indoor unit <UID> swing to auto, horizontal, 30°, 45°, 60° or vertical. Not all indoor unit types support swing.

EXAMPLE

```
>swing 101 a      Set unit 1-01 swing to auto
OK
>swing 101 h      Set unit 1-01 swing to horizontal
OK
>swing 101 3      Set unit 1-01 swing to 30°
OK
>swing 101 4      Set unit 1-01 swing to 45°
OK
>swing 101 6      Set unit 1-01 swing to 60°
OK
>swing 101 v      Set unit 1-01 swing to vertical
OK
```

EXIT CODE

OK Request Successfully Executed
ERROR:1 Unit with specified UID not found

**COMPATIBILITY**

CoolMaster 1000D	v2.5.1
CoolMaster 2000S	v2.3.1
CoolMaster 3000T	v2.3.1
CoolMaster 4000M	v2.3.1
CoolMaster 6000L	any
CoolMaster 7000F	v2.8.4
CoolMaster 8000I(MH)	any
CoolMaster 9000M	any
CoolMaster G	Supported: a,h

4.1.20 temp**SYNOPSIS**

```
temp <UID> [±]<TEMPERATURE>
temp <UID> <XX.xx>
```

DESCRIPTION

Set indoor unit set point temperature.

- In **temp <UID> [±]<TEMPERATURE>** form:
<TEMPERATURE> parameter must be decimal number. Command can work in relative or absolute manner. If plus '+' or minus '-' sign precede <TEMPERATURE> parameter it's value will be used as requested delta. It means the set temperature will be increased (+) or decreased (-) to that delta. Otherwise temperature will be set to the given value.
- In **temp <UID> <XX.xx>** form:
Temperature parameter can be fractal number with 0.01 precision. In this case preceding +/- are not supported.

EXAMPLE

```
>temp 101 20      Set unit 1-01 temperature to 20°C
OK
>temp 101 -1      Decrease unit 1-01 temperature by 1°C
OK
>temp 101 +3      Increase unit 1-01 temperature by 3°C
OK
>temp 101 20.5    Set unit 1-01 temperature to 20.5°C
OK
```

EXIT CODE

```
OK          Request Successfully Executed
ERROR:1     Unit with specified UID not found
```

COMPATIBILITY

```
temp <UID> <XX.xx> support:
Only CoolMaster 1000D    v 2.6.9
```

4.1.21 group**SYNOPSIS**

```
group [<UID_MASTER> <UID>] | delall
```

**DESCRIPTION**

Without parameters group command will list current groups. With delall parameter command will delete all groups. In format with two UID's command will group two units. First unit is a master, second unit will follow all settings of the master unit. **Grouping will take effect only after power reset of CoolMaster.**

EXAMPLE

```
>group 101 102      Group units 1-01 and 1-02. Unit 1-02 will
OK                  follow all settings of the 1-01 unit.
>group              List groups
101-->101
102-->102
OK
group delall        Delete all groups
```

EXIT CODE

OK Request Successfully Executed
 ERROR:1 Unit with specified UID not found

COMPATIBILITY

CoolMaster 1000D	v 2.4.4
CoolMaster 2000S	v 2.4.4
CoolMaster 3000D	v 2.4.4
CoolMaster 4000M	v 2.4.4
CoolMaster 6000L	N.A.
CoolMaster 7000F	N.A.
CoolMaster 8000I(MH)	N.A.
CoolMaster 9000H	N.A.
CoolMaster G	any

Before v2.5.6 number of groups is limited to 4. Beginning from v2.5.6 number of groups is limited to 20.

4.1.22 vam**SYNOPSIS**

vam <UID> a|b|x||L|h|H|s|A

DESCRIPTION

This command controls VAM (Ventilation) HRV unit mode and fan speed.

Letter	Compatibility		
	1000D(DK)	4000M(ME)	6000L(LG)
a - Auto Mode	✓	✓	✓
b - Bypass (Bps) Mode	✓	✓	
x - Heat Exchange (HExc) Mode	✓	✓	✓
n - Normal Mode			✓
l - Low Fan	✓	✓	✓
L - Low Fan with Fresh-Up	✓		
h - High Fan	✓	✓	✓
H - high Fan with Fresh-Up	✓		
s - Super High Fan		✓	✓



A - Auto Fan		✓	✓
--------------	--	---	---

On/off control for VAM units is performed with regular [on off](#) commands.

EXAMPLE

```
>vam 101 a          VAM unit 101 auto mode
OK
>vam 101 L          VAM unit 101 low fan speed with fresh-up
OK
>vam 101 h          VAM unit 101 high fan speed
OK
```

EXIT CODE

OK Request Successfully Executed
 ERROR:1 Unit with specified UID not found

COMPATIBILITY

CoolMaster 1000D v 2.4.7
 CoolMaster 4000M v 2.8.4
 CoolMaster 6000L v 2.8.0

4.1.23 lock

SYNOPSIS

```
lock <UID>
lock <UID> +
lock <UID> -
lock <UID> [+][o|m|s] ...
```

DESCRIPTION

This command controls Locking (Prohibit) of the Wall Controller (Thermostat) operation for unit <UID>. Following operations can be Locked/UnLocked:

- o - On/Off
- m - Mode change
- s - Set Temperature change
- n - On (CoolMaster 1000D Only)

- **lock <UID>**

Query current Lock settings

- **lock <UID> +**

Lock ALL

- **lock <UID> -**

UnLock ALL

- **lock <UID> <+|-><o|m|t> ...**

Lock (+) or UnLock (-) specific operation(s).

EXAMPLE

```
>lock 101          Query Lock settings for unit 101
+o -m -s          OnOff Locked
```



```

OK
>lock 101 +          Lock ALL for unit 101
OK
>lock 101 -          UnLock ALL for unit 101
OK
>lock 101 +o -m     Lock On/Off operation and UnLock Mode
OK                  change for unit 101

```

EXIT CODE

```

OK          Request Successfully Executed
ERROR:1     Unit with specified UID not found

```

COMPATIBILITY

```

CoolMaster 2000S      v 2.8.4
CoolMaster 3000T      v 2.8.4
CoolMaster 1000D      v 2.8.8

```

4.1.24 wh**SYNOPSIS**

```
wh <UID> <h|e|w|a>
```

DESCRIPTION

This command controls Water Heating unit mode.

Letter	4000M(ME)
h - Heating Mode	✓
e - ECO Mode	✓
w - Hot Water Mode	✓
a - Anti-freeze Mode	✓

On/off control for Water Heating units is performed with regular [on off](#) commands.

EXAMPLE

```

>wh 101 h          set Water Heating unit 101 to Heating
OK                Mode
>wh 101 a          set Water Heating unit 101 to Anti-freeze
OK                Mode

```

EXIT CODE

```

OK          Request Successfully Executed
ERROR:1     Unit with specified UID not found

```

COMPATIBILITY

```
CoolMaster 4000M      v 2.8.9
```

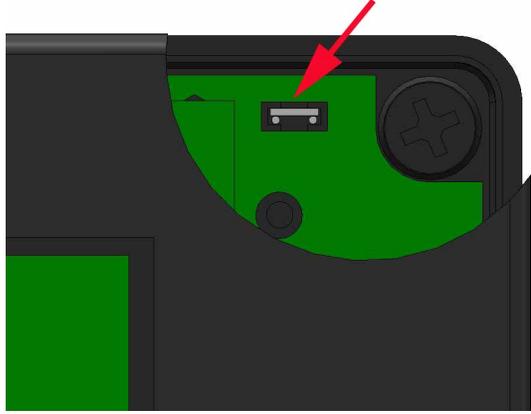


5 Firmware Update

5.1 Entering bootloader mode

The process of updating CoolMaster's firmware is very simple and straightforward. First of all CoolMaster has to be switched into bootloader mode. In order to do so, please connect your PC (Laptop) to the RS232 port of the CoolMaster. Next open the Hyper Terminal program and run [boot](#) command. This process is described in "User Manual" document. At this point "BOOT" message should appear on the LCD screen of the CoolMaster. Now it is ready for firmware uploading. Please close Hyper Terminal program and follow to the next step - [Firmware Download](#).

If for some reason CoolMaster is not responding to boot command or preceding firmware update has failed and CoolMaster is not functioning at all, follow the next steps in order to enter bootloader mode.

Step1	Disconnect power supply from the CoolMaster	
Step2	Open CoolMaster top cover	
Step3	Open BOOT jumper shown on the diagram	
Step4	Connect power supply to CoolMaster	

For CoolMaster 7000F firmware update process is described in separate document. For details please contact CoolAutomation support.

5.2 Firmware Download

Firmware update is supplied as a set of BAT file(s) and firmware image(s). BAT file can be for example `progp-DAIKIN.bat` and corresponding image file `DAIKIN.INC`. Make sure that BAT file and the image file are located in same directory. In order to start the process, please simply run the BAT file.

After running BAT file, the ComPort selection prompt will appear and the correct port number should be entered in order to proceed.



```
xol@work /home/xol/work/D3net/gen2/rel/2.3.8
work xol <~/work/D3net/gen2/rel/2.3.8>
<> ./progp-DAIKIN-COOLGATE.bat
ComPort: 1

c:\XOL\D3net\gen2\rel\2.3.8>mode COM1 BAUD=9600 DATA=8 STOP=1 PARITY=n to=off xo
n=off odsr=off octs=off dtr=off rts=off idsr=off

Status for device COM1:
-----
Baud:          9600
Parity:        None
Data Bits:     8
Stop Bits:     1
Timeout:       OFF
XON/XOFF:      OFF
CTS handshaking: OFF
DSR handshaking: OFF
DSR sensitivity: OFF
DTR circuit:   OFF
RTS circuit:   OFF

c:\XOL\D3net\gen2\rel\2.3.8>type DAIKIN-COOLGATE.INC 1>COM1
-
```

CoolMaster will react with running address counter on its LCD screen. The whole process may take about a few minutes, and it ends with "EOF" and shortly afterwards "READY" messages on the LCD screen.

5.3 Reboot

After firmware downloading has being finished you need to power reset CoolMaster. If it was entered bootloader mode with BOOT jumper, please make sure to close BOOT jumper back before power reset.