

Model CM712

Manual and Installation Instructions

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General Description

The CM712 is an alert monitor with a built in temperature and humidity sensor. There is an option for adding two external temperature sensors, two door sensors and one water sensor.

The CM712 communicates via the cell network. Programming is done with cell phone text messages or email.

Installation

Select a location with access to power (12VDC or 120VAC if using provided power supply). If using the internal sensor only, mount the unit where you want to sense the temperature.

Connect any external temperature sensors, door sensors, or water sensors purchased from www.temperatureguard.com. See wiring diagram on page 13.

Remove cover and insert the SIM card. Push and hold the factory reset button, and turn the CM700-12 (referred to as monitor in the rest of the manual) on with the power switch. Continue to hold the factory reset button until the screen displays "Registered".

The monitor should now display temperature and humidity for all sensors attached.

Normal condition for door sensors is closed. A time delay of at least 1 minute must be used for a door sensor to be active. Zero minutes for a door sensor is disabled, therefore it will not alarm if opened

Programming with a Cell Phone

Programming can be done with a cell phone or by email. This section only covers programming with a cell phone.

It is recommended that you add the SIM number to your cell phone's address book.

It is recommended that you program the password last.

Programming is accomplished with commands. For example, if you want the 1st alert cell phone number to be 860-555-1212, then you would send a text message to the phone number of the SIM card. The text would read,

p1:8605551212

See table for complete set of commands. Commands are not case sensitive except for password programming.

All commands can be sent at once in a single text message as long as it does not exceed 160 characters.

CMD	Function	Example
U:	Sets monitor to Celsius or Fahrenheit	U:F
P1:	Sets 1st phone number	P1:8605551212
P2:	Sets 2nd phone number	P2:8605552424
P3:	Sets 3rd phone number	P3:8605553636
P4:	Sets 4th phone number	P4:8605554848
Id:	Names the monitor	ID:Mountain Cabin
Ut:	Upper temp limit of internal sensor	UT:85
Lt:	Lower temp limit of internal sensor	LT:35
Tt:	Time delay of internal temperature sensor	TT:2
Uh:	Upper limit of internal humidity sensor	UH:70
Lh:	Lower limit of internal humidity sensor	LH:0
Th:	Time delay of internal humidity sensor	TH:15
U1:	Upper limit of external sensor 1	U1:30
L1:	Lower limit of external sensor 1	L1:-10
T1:	Time delay of external sensor 1	T1:5
U2:	Upper limit of external sensor 2	U2:20
L2:	Lower limit of external sensor 2	L2:-15
T2:	Time delay of external sensor 2	T2:10
Tp:	<i>N/A</i>	
Tw:	<i>Water sensor time delay</i>	<i>TW:1</i>
D1:	Door sensor 1 time delay	D1:2
D2:	Door sensor 2 time delay	D2:2
Rt:	Text message reminder/repeat time	RT:120
?	Status of temperature, humidity, doors	?
phone	Programmed phone numbers	phone
limits	Programmed limits	limits
delays	Programmed delays	delays
PW:	Sets the password	PW:5964
CPW:	Clears the set password	CPW:5964

Commands Explained

- ◆ **U:** (U:C or U:F) Unit is shipped in Fahrenheit. There is no need to use this command if you want degrees displayed in Fahrenheit. Changing from Fahrenheit to Celsius does not automatically change the limits.
- ◆ **P1:-P4:** (P1:8605551212) You may program up to four cell phone numbers you wish to receive alerts when temperatures go out of limits for the programmed time delay. Phone numbers must be at least 10 digits.
- ◆ **ID:** (ID:Mountain Cabin) This command names the monitor. It will be displayed in the From portion of a text message sent by the monitor. This is very useful if you have more than one. **10 characters minimum, 20 max!**
- ◆ **UT:** (UT:85) This example sets the upper limit of the internal temperature sensor to 85 degrees. If the temperature were to exceed 85 degrees for more than the programmed time limit, a text message would be sent.
- ◆ **LT:** (LT:35) This example sets the lower limit of the internal temperature sensor to 35 degrees. If the temperature were to drop below 35 degrees for more than the programmed time limit, a text message would be sent.
- ◆ **TT:** (TT:2) This example sets the time delay of the internal temperature sensor to 2 minutes. This means that once the temperature went out of range, the monitor would wait 2 minutes before sending text alerts.
- ◆ **UH:** (UH:70) This example sets the upper humidity limit of the internal sensor to 70%.
- ◆ **LH:** (LH:0) This example sets the lower humidity limit of the internal sensor to 0%.
- ◆ **TH:** (TH:15) This example sets the time delay of the internal humidity sensor to 15 minutes. This means that once the humidity went out of range, the monitor would wait 15 minutes before sending text alerts.
- ◆ **U1:** (U1:30) This example sets the upper limit of the external temperature sensor 1 to 30 degrees. If the tempera-

ture were to exceed 30 degrees for more than the programmed time limit, a text message would be sent.

- ◆ **L1:** (L1:-10) This example sets the lower limit of the external temperature sensor 1 to –10 degrees. If the temperature were to drop below –10 degrees for more than the programmed time limit, a text message would be sent.
- ◆ **T1:** (T1:5) This example sets the time delay of the external temperature sensor 1 to 5 minutes. This means that once the temperature went out of range, the monitor would wait 5 minutes before sending text alerts.
- ◆ **U2:** (U2:20) This example sets the upper limit of the external temperature sensor 2 to 20 degrees. If the temperature were to exceed 20 degrees for more than the programmed time limit, a text message would be sent.
- ◆ **L2:** (L2:-15) This example sets the lower limit of the external temperature sensor 2 to –15 degrees. If the temperature were to drop below –10 degrees for more than the programmed time limit, a text message would be sent.
- ◆ **T2:** (T2:10) This example sets the time delay of the external temperature sensor 2 to 10 minutes. This means that once the temperature went out of range, the monitor would wait 10 minutes before sending text alerts.
- ◆ **TW:** (TW:1) This example in the table and parenthesis would set the time delay of the optional water sensor to 1 minute. This means that once the water sensor became wet a text would be sent one minute later.
- ◆ **D1:** (D1:2) This example in the table and parenthesis would set the time delay of the optional door sensor 1 to 2 minutes. This means that a text would be sent after the door was open for two minutes. To disable a door sensor, set the delay to zero. D1:0
- ◆ **D2:** (D2:2) This example in the table and parenthesis would set the time delay of the optional door sensor 2 to 2 minutes. This means that a text would be sent after the door was open for two minutes. To disable a door sensor, set the delay to zero. D2:0
- ◆ **RT:** (RT:120) This example in the table and parenthesis would set the reminder time to 2 hours. The monitor will

CMD	Default Setting	Allowable Range
U:	F	C or F
P1:	Empty	10 digit minimum
P2:	Empty	10 digit minimum
P3:	Empty	10 digit minimum
P4:	Empty	10 digit minimum
Id:	Empty	10-20 characters
Ut:	200	-20to 100
Lt:	-200	-20to 100
Tt:	0	0-900
Uh:	100	5-100%
Lh:	0	0-95%
Th:	0	0-900
U1:	200	
L1:	-200	
T1:	0	0-900
U2:	200	
L2:	-200	
T2:	0	0-900
Tw:	0	0-900 *
D1:	0	0-900 *
D2:	0	0-900 *
Rt:	0	0-900 *
?	N/A	N/A
phone	N/A	N/A
limits	N/A	N/A
delays	N/A	N/A
PW:	Empty	Any 4 digits or letters
CPW:	N/A	

* Zero is disabled.

continue to send text alerts every 2 hours as long as the condition remains in alarm. Zero is the default and is disabled when set to zero.

- ◆ **? (?)** Simply sending a text message with a ? to the monitor's cell number, a status message will be sent back to the phone it was sent from. Text will include readings from the external temperature sensors, internal sensor with humidity, door status, water status, and ID of the monitor.
- ◆ **PHONE** (phone) Sending a text message with the word phone to the monitor's cell number, a status message will be sent back to the phone it was sent from. Text will include all the programmed telephone numbers.
- ◆ **Limits** (limits) Sending a text message with the word limits to the monitor's cell number, a status message will be sent back to the phone it was sent from. Text will include the programmed temperature limits humidity limits and their respective time delays.
- ◆ **Delays** (delays) Sending a text message with the word delays to the monitor's cell number, a status message will be sent back to the phone it was sent from. Text will include the programmed time delays for door sensors, water sensor, and the reminder time delay.
- ◆ **PW:** (PW:5964) This example in the table and in parenthesis would set the password of the monitor to 5964. This means that any further texts or emails sent to the monitor should include on the first line the number 5964. It can be any 4 digits or letters. Letters are not case sensitive.
- ◆ **CPW:** (CPW:5964) This example in the table and in parenthesis would clear the password of the monitor which was set to 5964 in the previous example.
- ◆ **Warning: PW: and CPW: must be in all caps!** If you forget your password, the only way to clear it is to set the monitor back to factory defaults. That can only be done by turning the monitor off, pressing and holding the reset button, while turning it back on. It cannot be done remotely.

CMD	Default Setting	Your Settings
U:	F	
P1:	Empty	
P2:	Empty	
P3:	Empty	
P4:	Empty	
Id:	Empty	
Ut:	200	
Lt:	-200	
Tt:	0	
Uh:	100	
Lh:	0	
Th:	0	
U1:	200	
L1:	-200	
T1:	0	
U2:	200	
L2:	-200	
T2:	0	
Tw:	0	
D1:	0	
D2:	0	
Rt:	0	
?	N/A	N/A
phone	N/A	N/A
limits	N/A	N/A
delays	N/A	N/A
PW:	Empty	
CPW:	N/A	N/A

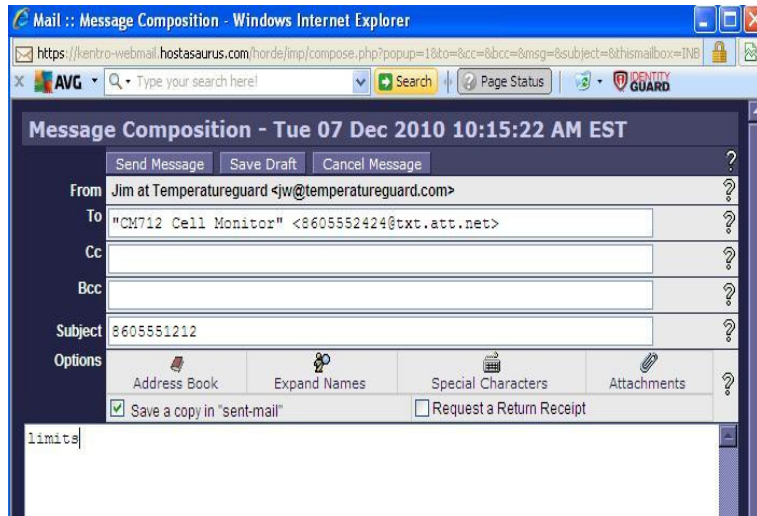
Programming with email

The monitor can be programmed with email in the same fashion as a text message with a few differences.

When sending an email delete your signature line and any other extra characters attached to a generic email. Remember 160 characters max.

Do not try to program every parameter in a single email. It won't work. Break it into 3 to 4 separate emails.

The subject line should contain the ten digit cellular telephone number you would like the monitor to respond to. The monitor will not reply to the computer.

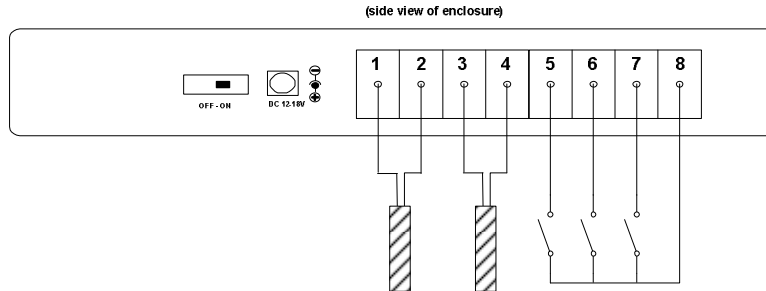


This example above shows the number of the monitor is 860-555-2424 and the cell phone it will respond to is 860-555-1212. When this email is sent, the limits of the monitor will be sent via text to the cell phone.

U1: 200F L1: -200F
T1: 0 min

U2: 200F L2: -200F
T2: 0 min

Wiring Diagram



Terminals

1 and 2	External Sensor 1
2 and 3	External Sensor 2
5 to 8	Door Input 1 (NC)
6 to 8	Door Input 2 (NC)
7 to 8	Water Sensor Input (NO)

UT: 200F LT: -200F
TT 0 min

UH: 100% LH: 0%
TH: 0 min

Sent from: Mountain Cabin

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