

MIST SYSTEM

CONFIGURATION AND
PROGRAMMING INSTRUCTIONS



MIST SYSTEM

CONFIGURATION AND PROGRAMMING INSTRUCTIONS

PLEASE READ THESE INSTRUCTIONS
CAREFULLY AND COMPLETELY
BEFORE OPERATING.

Published by:
CONVIRON
590 Berry Street
Winnipeg, Manitoba
Canada R3H 0R9
www.conviron.com

November 2017

©2017 Controlled Environments Limited.

Conviron is a registered trademark of Controlled Environments Limited. All other trademarks are the property of their respective owners. Information subject to change without written notice.

CONVIRON SERVICE AND TECHNICAL SUPPORT

For additional support, please contact us directly.

Head office

Technical Services
Conviron
590 Berry St.
Winnipeg, Manitoba,
Canada R3H 0R9

Conviron Technical Services

	North America	Europe
Toll free	+1.800.363.6451	+44.(0).800.032.6422
Telephone	+1.204.786.6451	+44.(0).1638.781.731
Fax	+1.204.786.7736	+44.1638.741.112
Email	info@conviron.com	service@conviron.eu

1.0 Precautions

These precautions should be read and understood before proceeding with configuration.



- Accessing the 700-HX Key Protection switch may require access to the main electrical Control Panel. The Control Panel contains high voltage equipment, and should only be accessed by persons with appropriate electrical knowledge.

2.0 Misting Timer Configuration and Programming Instructions

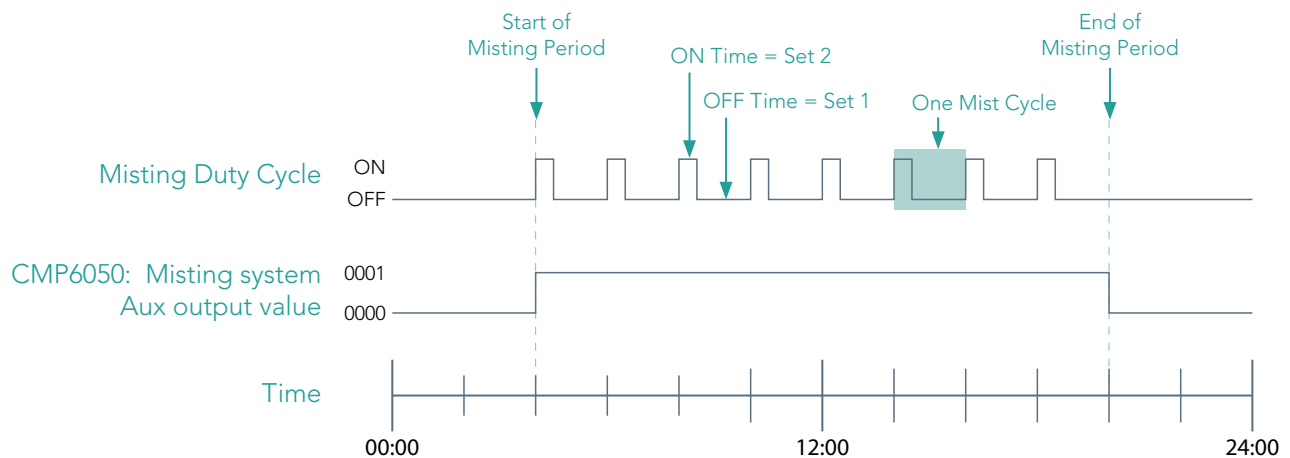
The 700-HX Relay Timer is used in conjunction with the CMP6050 to control timing for misting events. Its operation is controlled by misting system Aux output set points entered into programs in the CMP6050 controller. When configured as indicated in these instructions, it provides two settable timers:

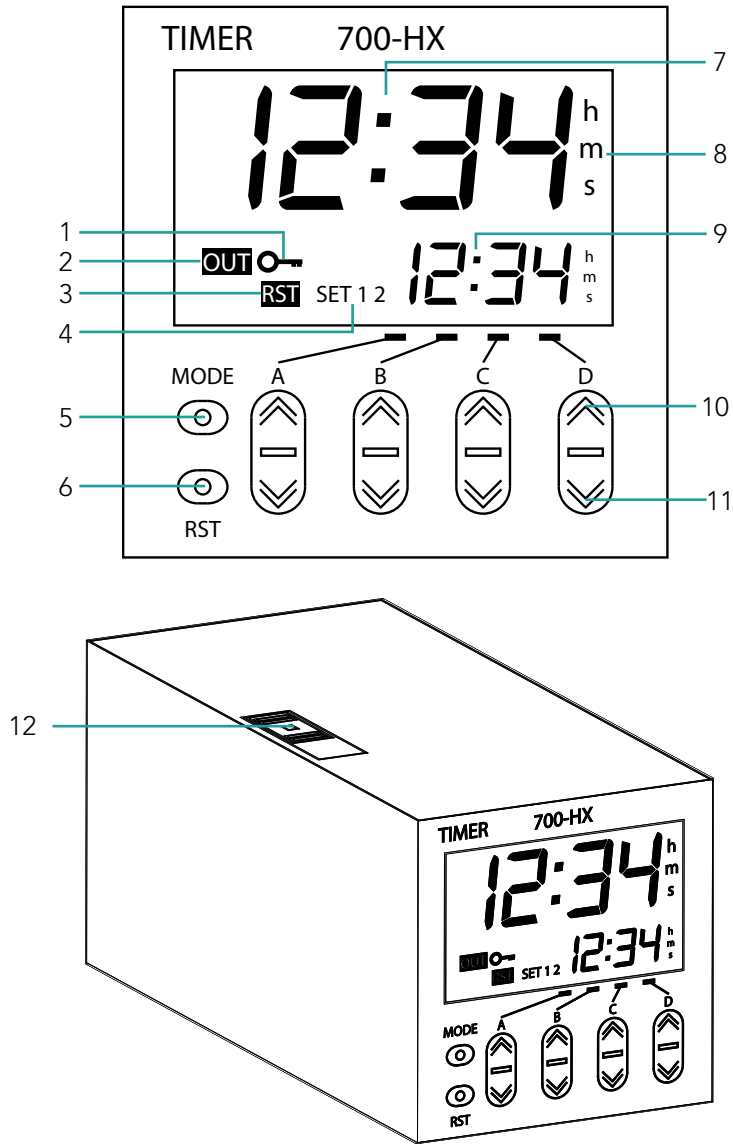
- One timer to indicate the amount of time per cycle for the misting system to be **on (Set 2)** during the misting period
- One timer to indicate the amount of time per cycle for the misting system to be **off (Set 1)** during the misting period

When the CMP6050 Aux output corresponding to the misting system is 0001 (on), it will trigger the 700-HX to begin counting down on and off timers in a continuous loop until the end of the misting period, which occurs when the misting system Aux output set point is 0000 (off).

2.1 Misting Cycle Timing Diagram

Below is an example timing diagram indicating how the misting system functions. The misting period begins at 4:00 and ends at 20:00. Misting on time is 1800s (30min) and off time is 5400s (90min).





- | | | |
|------------------------------|----------------------------------|-----------------------------|
| 1 - Key Protection Indicator | 5 - Mode Key | 9 - Set Value (Sub) Display |
| 2 - Control Output Indicator | 6 - Reset Key | 10 - Up Keys A-D |
| 3 - Reset Indicator | 7 - Present Value (Main) Display | 11 - Down Keys A-D |
| 4 - Set Value 1, 2 Indicator | 8 - Time Unit Indicators | 12 - Key Protection Switch |

2.3 Factory Settings Only: Configuring the Timer for Operation

1. **Ensure Key Protection switch is in the OFF position.** Switch is located on top of the timer relay. Access to control panel may be required.
2. **Set timer as Twin Timer.** Switch to Function Mode (press and hold the Mode and the Up portion of the D key for one second, release both keys when Mode changes). Function mode will show a FUnC in red on the top section of the display and in green on the lower right section of the screen either twN, for the twin timer mode or tim, for the regular timing mode. Use the D key to set the timer to twN. Press and hold Mode and the Up portion of the D key to return to Run Mode.
3. **Set parameters for the twin timer in Function Setting Mode.** To switch to Function Setting Mode from Run Mode, press and hold the Mode key for three seconds and oFtr should appear in red on the upper section of the display. This indicates Function Setting Mode is active.
4. **Set Off Time Range (oFtr).** This is the amount of time the misting system will be off. Use the D key to select ----s. This allows the user to set each timer over a range of 1-9999 seconds. Other ranges can be chosen by user if needed. Press the Mode key to move to the next configurable parameter.
5. **Set On Time Range (ontr).** This is the amount of time the misting system will be on. Use the D key to select ----s. This allows the user to set each timer over a range of 1-9999 seconds. Other ranges can be chosen by user if needed. Press the Mode key to move to the next configurable parameter.
6. **Set Timer Mode (timm).** Down = timer will count down remaining time. Up = timer will count elapsed time. Use the D key to select down. This will ensure a user can always determine the remaining time for the active timer. Press the Mode key to continue to the next configurable parameter.
7. **Set Timer Output Mode (totm).** Indicates whether counting will begin with the off or on timer. Use the D key to select ton. This will ensure each misting period begins with the misting system on. Press the Mode key to continue to the next configurable parameter.
8. **Set Input Signal Width (iFLt).** Use the D key to select to select "20nS". Press the Mode key to continue to the next configurable parameter.
9. **Set upper limit for Set 1 (SL1H) and Set 2 (SL2H) timers.** This sets the maximum value for Set 1 or Set 2 timers. Using the A-D Up/Down keys, set the values for SL1H and SL2H to 9999.
10. **Set Key Protect Level (kYPt).** This allows the user to disable certain keys on the front panel of the timer. Use the D key to select KP-2. This will allow a user to modify the time for both on and off timers, but will lock all other buttons to avoid unwanted changes.
11. **Set On Count Alarm to 0 (on-A).** On Count Alarm (on-A) and on On Count Alarm Monitor (on-C) functionality are not used.
12. **Press and hold the Mode key for three seconds.** This will exit Function Setting Mode and return to Run Mode.
13. **Slide Key Protection Switch to ON.** The 700-HX Timer relay is now ready for operation.

2.4 Client Settings: Programming the Misting System

Once the timer is configured for operation, values for Set 2 (misting on time) and Set 1 (misting off time) can be entered at the timer, and timelines defining the beginning and end of the misting period can be programmed in the CMP6050 controller.

- 1. Set misting system on time (Set 2).** Press the Mode key to toggle between Set 1 and Set 2. Use the A-D Up and Down keys to input misting on time.
- 2. Set misting system off time (Set 1).** Press the Mode key to toggle between Set 1 and Set 2. Use the A-D Up and Down keys to input misting off time.
- 3. Create or open an existing program.** At the CMP6050 interface, navigate to or create a program in which you want misting to occur (See the CMP6050 Operator's Manual for more information on creating and editing programs).
- 4. Create a timeline and input the desired misting system start time.** In the misting system Aux output column for that timeline, input 0001 as the set point (see below).
- 5. Create a timeline and input the desired misting system stop time.** In the misting system Aux output column for that timeline, input 0000 as the set point.
- 6. Save changes to the program.**

Mist system Aux output
Aux number may change depending on chamber configuration

Row	hh:mm	Aux 1 0000 - 0001	Aux 2 0000 - 0001
01	04 : 00	0001	0000
02	20 : 00	0000	0000
03			

Mist system ON → 01 → 04 : 00 → 0001

Mist system OFF → 02 → 20 : 00 → 0000



Conviron - Head Office

Winnipeg, Canada
conviron.com

Conviron - US

Pembina, USA
conviron.com

Conviron Europe Ltd.

Cambridgeshire, UK
conviron.co.uk

Conviron GmbH

Berlin, Germany
conviron.de

Conviron - China

Shanghai, China
conviron.cn

Conviron - Australia

Melbourne, Australia
conviron.com.au

www.conviron.com

info@conviron.com



Management System Certified to ISO 9001

261134R01 | Nov 2017

©2016 Controlled Environments Limited. Conviron is a registered trademark of Controlled Environments Limited.
All other trademarks are the property of their respective owners. Information subject to change without written notice.