

E1.x Instruction Manual Supplement for Model 8 and Model 4

Installation Note:

When a hub is used with conduit connections to the panel, they are to be connected to the conduit before the hub is connected to the enclosure.

Submenus for Screens 6, 8, and 9

If screen 6, 8, or 9 (screen 4 and screen 6 in the Model 4) is selected a submenu listing of choices will appear (see example figure below).

```
(use ► to open choice, ◀ to return)
Mortality
Management
Reset data
```

Screen 9 Submenu listing

Use the Up Arrow or the Down Arrow to highlight the desired submenu choice. Then press the Right Arrow key to enter the desired submenu screen. To return back to the submenu list, make sure the control is out of the edit mode, then press the Left Arrow to return to the submenu list.

Back-up Thermostat Reminder

```
Adjust your backup settings
because of temperature change

Press any key
```

Adjust Backup settings reminder pop-up screen

A pop up window will appear every time the set temperature is changed by more than 2 degrees reminding the user to adjust the back-up thermostats in the house. This window will appear whether the set temperature is changed manually or by the set temperature curve. To clear the window press any key.

Natural Mode Parameters:

```
ON      OFF      OUTPUT      TIMER
76.0    Natural ALLOWED
73.5    70.5 Main curtain range
74.0    Exh Fan 2      Min Vent
73.0    Exh Fan 1      Min Vent
72.0    Set temperature
71.0    71.5 Ht Zone 1      ( 0:00)
```

Screen 3: Main Curtain range

The standard functionality of the Natural Mode has not changed from previous software levels (see the Control Operation Overview, Standard Mode Functionality section of the Chore-Tronics® control manual). However, many of the Natural Mode parameters that

in the past were not editable can now be defined by the user. These parameters are described below.

Main Curtain Range (Screen 3)

The Main curtain range is defined in screen 3 and has a default setting of + or – 1.5 degrees F of the set temperature. Once the control has made the full transition from Power to Natural mode (or Tunnel to Natural), each main curtain’s control sensor will either open or close the main curtain(s) to try to keep the sensor’s temperature within the Main curtain range. If the curtain’s control sensor temperature goes above the range then the curtain will open. If the curtain’s control sensor temperature goes below the range then the curtain will close. The amount the curtain moves is based upon how far the curtain’s control sensor(s) is from the AVERAGE of the Main curtain range. If the curtain’s control sensor(s) goes more than 8 degrees F ABOVE the AVERAGE of the Main curtain range, the curtains will be given a continuous open signal until the temperature returns to within the Main curtain range. If the curtain’s control sensor(s) goes more than 8 degrees F BELOW the AVERAGE of the Main curtain range the curtains will be given a continuous close signal until the temperature returns to within the Main curtain range or until the control returns to Power Mode. The control returns to power mode when the main curtain(s) reach the first opening position (see Natural to Power Mode transition in the Chore-Tronics manual).

Time Between Curtain Movements (Screen 12 Model 8; Screen 8 Model 4):

WHILE IN NATURAL MODE:	
Main 1 curtain sensor	12----
Main 2 curtain sensor	--34--
Time between crtn mvmts	2:00 (m:ss)
Rate of crtn mvmt	1.2" /deg

Screen 12: Time between curtain movements and Rate of curtain movement

The Time between curtain movements is the amount of time the control will wait after an opening or closing the curtain before checking the temperature again and doing another open or close movement. The default time between curtain movements is 2 minutes. The amount time between curtain movements can be set anywhere between 1 minute and 5 minutes.

Rate of Curtain Movement (screen 12 Model 8; Screen 8 Model 4)

The Rate of Curtain Movement is the amount the control will either open or close the curtain(s) during a curtain movement. The actual amount of curtain movement is calculated by taking the Rate of curtain movement and multiplying by the number of degrees the curtains control sensor is from the AVERAGE of the Main Curtain Range. For example, if the Rate of curtain movement is 1.2 inches per degree F, the AVERAGE

of the Main Curtain Range is 74.0 degrees F and the curtains control sensor is reading 76.0 degrees F then the control will open the curtain 2.4 inches (1.2 x [76-74]). The default Rate of Curtain Movement is 1.2 inches per degree F and can be set between 1 in and 4 inches per degree F.

Heat Zone Off Temperatures-Screen 3

ON	OFF	OUTPUT	TIMER
72.0		Set temperature	
71.0	71.5	Ht Zone 1	(0:00)
71.0	71.5	Ht Zone 2	(12:15)
71.0		Ht Zone 3	(0:34)

Each Heat Zone can have its own “Off” temp up to 10.5 degrees above set temperature. If no temperature is entered into the “Off” temperature column, then the Heat Zone will shut off at .5 degrees above the “On” temperature. To remove an “Off” temperature from a Heat Zone, raise the Heat Zone’s “Off” temperature to be more than 10.5 degrees above the Set Temperature.

Feed, Light and Spare Clock(s)-Screens4,5-Model 8 Only

CURRENT FEED CLOCK		Day 1	Curve ON
ON at	OFF at	ON at	OFF at
1. 12:00a	11:59p	5. ---:--	---:--
2. ---:--	---:--	6. ---:--	---:--
3. ---:--	---:--	7. ---:--	---:--
4. ---:--	---:--	8. ---:--	---:--

BP 1	FEED	CLOCK	CURVE	Day 001
ON at	OFF at	ON at	OFF at	
1. 12:00a	11:59p	5. ---:--	---:--	
2. ---:--	---:--	6. ---:--	---:--	
3. ---:--	---:--	7. ---:--	---:--	
4. ---:--	---:--	8. ---:--	---:--	

Feed Clock using “On At”, “Off At” format

CURRENT FEED CLOCK		Events = 4
START	RUN FOR	
1. 12:00a	11:59:00	
2. ---:--	---:--:--	
3. ---:--	---:--:--	
4. ---:--	---:--:--	

Feed Clock using “Runtime” format

An “On At” and an “Off At” event may now be entered to go past Midnight (for example “On At” 10:00p, “Off At” 2:00a) in all clocks. If the clock is to be on continuously (24 hours per day) then the “On At” and “Off At” times must match (“On At” 12:00a, “Off At” 12:00a).

Feed Clock- The Feed clock can be set up to have “On At” and “Off At” format, or a “Start” and “Run for” (Runtime) format (see screens below). The “On At”, “Off At” format will still have a curve available. The “Start”, “Run for” format will not have a curve available, but can have a maximum of 24 programmable events.

Daily History Screens-Screen 6.1, 6.2, 6.3 (Screen 4.1, 4.2, 4.4 Model 4)

Daily Temperature/Heater History (Screen 6.1)-This screen shows the Maximum and Minimum temperatures and the runtime of each of the Heat Zone outputs for the last 99 days plus today.

Daily Management History(Screen 6.2)-This screen shows the Daily total Mortality, and Daily Water Meter Usage (Model 8 only) for the last 99 days plus today.

Reset Daily History(Screen 6.3)-This is where the data in the Screen 6.1 and 6.2 is reset for the next batch.

Daily temperature / heater history					
DAY	MAX TEMP	MIN TEMP	HTZONE1		
7	71.1	10:33p	62.4	4:13a	0:00
6	71.1	10:33p	62.4	4:13a	0:00
5	71.1	10:33p	62.4	4:13a	0:00
4	71.1	10:33p	62.4	4:13a	0:00
3	71.1	10:33p	62.4	4:13a	0:00
2	71.1	10:33p	62.4	4:13a	0:00
1	71.1	10:33p	62.4	4:13a	0:00
00	71.1	10:33p	62.4	4:13a	0:00
99	etc.				
98	etc.				
.....					

Daily temperature/heater history

Daily management history		
Day	Mort.	Drink.
7	12345	12345
6	12345	12345
5	12345	12345
4	12345	12345
3	12345	12345
2	12345	12345
1	12345	12345
00	12345	12345
99	etc.	
98	etc.	
.....		

Daily management history

Alarm settings-Screen 7

Alarm system	Enabled
Natural Mode	
Max relative to set temp	+10.0 (82.0)
Min relative to set temp	-10.0 (62.0)
Power Mode	
Max relative to set temp	+10.0 (82.0)
Min relative to set temp	-10.0 (62.0)
High static pressure alarm	.13
Low static pressure alarm	.02

Alarms Screen

Maximum/Minimum temperature alarms for Power and, Natural Modes-
 Maximum and Minimum temperature alarms can now be set individually for Power and, Natural Modes

No Sensor Available Alarm-When a temperature sensor and its assigned back up sensor fail then a “No Sensor Available” loud alarm will be given. This alarm will not recover by itself and must be cleared by the user.

Mortality-Screen 9.1 (Screen 4.3 Model 4)

Mortality			
	Dead	Culled	Total
Picked Up	5	0	5
Agreed?	NO		
Today	4	2	6
Accum	180	20	200
%Mort	1.0	0.0	1.0
Curr Housed			24800
Init Housed			25000
Partially taken out			0

Mortality Screen

The Mortality screen is a submenu of Screen 9 (Mortality/Management). The number of dead and culled animals collected is entered on the Picked Up line. When agreed is changed to YES the number(s) entered in the picked up line will be added to the Today and the Accum lines. The %Mort and the Curr (Current) Housed will be recalculated. The total daily mortality will also appear in the Daily History (Screen 6) screen. The Mortality data can be reset by choosing Reset Data in the Screen 9 submenu listing.

Management-Screen 9.2-Model 8 Only

Management	
Cumulative water (drinker)	1234567
Water per (animal/1000 birds)	123.4

Management Screen

The Management screen is a submenu of screen 9. This screen will only appear if a water meter is connected to the control. The screen can show Cumulative drinking water consumed and the cumulative amount of water consumed per 1000 birds or per animal. The Management screen data can be reset in screen 9.3.

Static Pressure

Current static pressure			.05
Current SP limits:	High	.06	Low .04
	POWER		
	First	Second	
High control limit	.06	.06	
Low control limit	.04	.04	
Wind delay(sec)	12		

Static Pressure Screen with Fixed Anticipation Feature

The control will anticipate when the fans assigned to Min Vent timer come on due to the timer or due to the fans “On” temperature being reached.

Current Static Pressure Limits- This is the High and Low static pressure limits currently being used by the control to operate the inlets and/or the tunnel curtain.

STATIC PRESSURE:	
Current SP safety limit	.20
Second static pressure	YES
Select sensor	1-----

Screen 12

Current SP safety limit-This setting allows the safety limit to be changed to maximum of .28 inches of water column. This allows for higher static pressure control settings in screen 10. **Caution:** When the SP safety limit is raised, the higher the static pressure must be before the tunnel curtain will open as a safety measure (not tunnel inlet assist). Higher SP alarm settings can be set as well.

Two Inlet Machine Relay Assignments

Inlet OP	22	24
Inlet CL	23	25

Two Open and Two Close relays can now be assigned to operate two inlet machines simultaneously.

Cool Relay addition

Cool 3	2	N	---4-----
	3		
	-		
	-		
Cool 4	4	N	---4-----
	5		
	-		
	-		

Screen 12-Cool/Cool Pad Relay additions

Each Cool output can have a maximum of 4 relays assigned to each output. The first relay must be assigned before the other 3 relay assignment positions will appear below it.

The Setup Key-Optional Device

The Setup Key can be used to transfer the settings of one control to another similarly wired control. To use the Setup Key use the following procedure.

- 1.) First remove power to the control.
- 2.) Remove I/O to MS cable from the I/O board.
- 3.) Plug the Setup Key into the I/O board where the flat cable was connected.
- 4.) Restore power to the control. Press any key when Prompted
- 5.) After pressing any key, a Setup Key menu will appear asking whether to transfer from the control to the key or transfer from the key to the control.

```
The setup key menu
Transfer FROM control TO setup key    NO
Transfer FROM setup key TO control    NO
Current control:      MODEL 8  D1.0
Content setup key:    MODEL 8  D1.0
```

- 6.) Make desired selection. Answer "Yes" to the question "Are you Sure"
- 7.) When download is complete press any key when prompted.
- 8.) Remove power to the control.
- 9.) Remove Key.
- 10.) Replace I/O to MS cable.
- 11.) Restore power to control.