

C1.x Instruction Manual Supplement for Model 32 and 40

Submenus for Screens 6, 8, and 9

If screen 6, 8, or 9 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.

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 Zones “Off” temperature to be more than 10.5 degrees above the Set Temperature.

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

CURRENT FEED CLOCK		Day	1	Curve	ON
ON at	OFF at	ON at	OFF at		
1.	10:00p	2:00a	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

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

BP	1	LIGHT	CLOCK	CURVE	Day	001
	Min%	Max%	ON at	OFF at	ON at	OFF at
1.	12:00a	11:59p	5.	---	---	
2.	---	---	6.	---	---	
3.	---	---	7.	---	---	

Light Clock with optional Light Dimmer Control

An “On At” and an “Off At” 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.

Light Clock-The light clock can be set to control a remote light dimmer. This requires that an IARM board be installed in the control. The light level can be changed at the bend points on the Light Clock Curve. There is also a Sunrise and Sunset time that can be set in Screen 12.

Daily History Screens-Screen 6.1, 6.2, 6.3

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, Daily total water consumed, Individual Water Meter Usage, Total Feed consumed and Individual Feed Scale usage 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.	Meter1	Feed	Scale1
7	12345	12345	12345	12345	12345
6	12345	12345	12345	12345	12345
5	12345	12345	12345	12345	12345
4	12345	12345	12345	12345	12345
3	12345	12345	12345	12345	12345
2	12345	12345	12345	12345	12345
1	12345	12345	12345	12345	12345
00	12345	12345	12345	12345	12345
99	etc.				
98	etc.				
.....					

Daily management history

Alarm settings-Screen 7

Alarm system	Enabled
Tunnel Mode	
Max relative to set temp	+10.0 (82.0)
Min relative to set temp	-10.0 (62.0)
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
Max feed run time (min)	60

Alarms Screen

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

Max Feed Run time alarm-An optional Maximum Feeder Run time alarm can be set to activate the alarm if the feed system has run longer than the set amount of time entered. This option requires that the second I/O board be installed.

Mortality-Screen 9.1

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

Management	
Cumulative water (drinker)	1234567
Cumulative feed	1234567
Water per (animal/1000 birds)	123.4
Feed per (animal/1000 birds)	123.4
Bin Inventory	123456
Feed delivered	123456
Agreed	Yes
Last Delivered	123456
Water:Feed relation	1.23 : 1
Estimate Feed conversion	12.34
Estimate weight	123.45

Management Screen

The Management screen is a submenu of screen 9. This screen will only appear if a water meter and/or a feed scale is connected to the control. The screen can show Cumulative drinking water and feed consumed and the cumulative amount of feed and water consumed per 1000 birds or per animal. If a feed scale has been connected to the control, Bin inventory can be monitored. The control will also calculate a water to feed relationship. The user can also enter an estimated weight of the animals to receive an estimated feed conversion number if the Mortality option is used. The feed conversion calculation is meant to be an estimate only. The Management screen data can be reset.

Static Pressure

Current static pressure			.05
Current SP limits:	High	.06	Low .04
	POWER		TUNNEL
	First	Second	
High control limit	.06	.06	.00
Low control limit	.04	.04	.00
Fixed inlet anticipation (sec)			25
Wind delay(sec)	12		

Static Pressure Screen with Fixed Anticipation Feature

Fixed Anticipation- An optional fixed anticipation feature is available. This feature allows the inlets to open the same amount of time every time before the fans assigned to Min Vent timer turn on. The control will not automatically calculate the anticipation time needed when this feature is used. When fixed anticipation is selected, the Min Vent timer's minimum "On" time becomes 5 seconds. If fixed anticipation is not selected the Min Vent timer's minimum "On" time is 30 seconds.

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. This will occur with both fixed and calculated anticipation.

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:	
Fixed inlet anticipation	YES
Tun inlet SP assist in power	YES
Second static pressure	YES
Select sensor	1-----
LOW STAT PRES ALARM:	
In power mode	YES
In tunnel mode	NO

Screen 12-Static Pressure section

Tunnel inlet assist in Power-If tunnel inlet assist in power mode is desired then this feature should be set to "Yes" in Screen 12

Flush Feedback Option

If the PDS drinker control is being used to automatically flush water lines, the control will ignore the pulses coming from the Water meter(s) while the lines are being flushed. The water usage will be estimated during the flush time by using the average water usage for the hour previous to flushing. This option requires that the second I/O board be installed.

Water Meter(s)/Feed Scale(s)

WATER METER			
Meter	Gal/pulse	Function	Today
1	1.00	-	12345
2	1.00	drinker	12345
3	1.00	non drinker	12345

Screen 12-Water Meters

When a water meter(s) or Feed scale(s) are used the function of each meter must be chosen in Screen 12. If a water meter is being used to monitor water consumption in the house, then “Drinker” should be chosen in the Function column for that meter. If a water meter is not being used to monitor consumption (for example a water meter attached to the evaporative cooling system) then “Non-Drinker” should be chosen in the Function column for that meter. For the Feed Scale, either “Feed” or “Non-Feed” must be chosen in the Function column of each scale.

The second I/O board is required in order to use the feed scale option. Multiple water meters and/or feed scales require that the IDM board be installed.

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/Cool Pad Relay addition

Cool 4	2	T	---4-----
	3		
	-		
	-		
Cool pad	4	T	---4-----
	5		
	-		
	-		

Each Cool output and the Cool Pad 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.

Cool Pad Function Addition

COOL PAD SETTINGS	
Water pre fill time	8 sec
Water incr/decr time	5 sec
Repetition rate (mm:ss)	5:00
Temp check every	3 repetition rates
Full on at water on time	40 sec
Actual water on time	- sec
Max. water on allowed	300 sec
Flush cool pad at	---:-- for ---:--

The line “Max water on allowed” has been added to the Cool Pad settings in Screen 12. This will allow the user to keep the cool pad from running continuously. The default setting is the amount of time of the Repetition rate in seconds.

Tunnel Fan in Natural mode

A tunnel fan can now be allowed to run in the Natural mode if desired.

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 40 C1.0
Content setup key:                    MODEL 40 C1.0
```

- 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.

Additional Hardware

Second I/O board

- Temperature Sensors 7,8,9
- Air Speed Sensor
- Flush Feedback (must use with PDS drinker control)
- Max Run time alarm input
- Feed Scale input

IARM Board

- Used to control a remote light dimmer with a 0-10 volt control input.

IDM Board

- Used to record multiple water meters and/or feed scales (total of 9 each).