

Texas Broiler Symposium

Poultry House Controller Q&A
 Chore-Time Representative
Stan Williams
 Product Specialist Controls

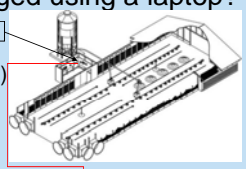
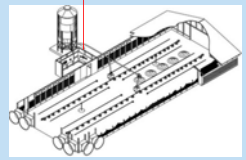



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Can the controller be changed using a laptop?

Yes. C-Central® pro (phone lines)

1. With C-Central pro installed on a laptop you can connect Local on the farm using a SLT interface box using a USB or 9 pin cable.
2. With C-Central pro installed on a laptop you can connect Remotely using a SLT interface box with a phone/fax modem.



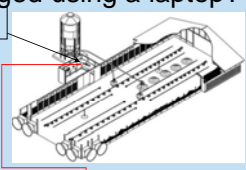
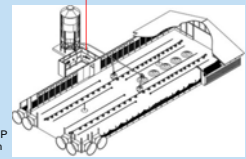
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Can the controller be changed using a laptop?

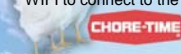
Yes. WebLink box (ELT) Local

The Weblink box generates a webpage of the Controller.

1. With a ELT (Ethernet local talk) interface Box installed on the farm you can either connect directly to the ELT using Ethernet cable or if you have the ELT connected to a wireless access point, then you can use WIFI to connect to the controllers.

Note:
 1. The ELT communicates using TCP/IP
 2. C-Central pro can communicate with the ELT.



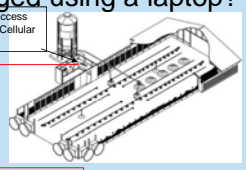
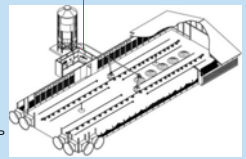
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Can the controller be changed using a laptop?


Yes. WebLink box (ELT) Remote

The Weblink box generates a Webpage of the Controller.

2. With a ELT (Ethernet local talk) interface Box installed on the farm and a Internet Connection on the farm. You can connect to the controls remotely via the Internet.

Note:
 1. The ELT communicates using TCP/IP
 2. C-Central pro can communicate with the ELT.



WebLink Box

Current Conditions

22 Sep 2009 10:00:00 AM

Set Temperature: 81.4 Sensor Avg: 83.4

*Sensor 1: 83.2 *Sensor 2: 84.1
 *Sensor 3: 83.5 Sensor 4: 82.2
 Sensor 5: 81.7

SP: 000 Rev: 775 Outside: 79.2

History - Water Filter

Day	Disinfect	Total
11	850	850
12	867	867
13	726	726
14	715	715
15	676	676
16	650	650
17	562	562
18	483	483
19	400	400
20	386	386
21	278	278
22	275	275

Navigation Menu:

- 1 CUR COND
- 2 AUX DATA
- 3 SET TEMP
- 4 TEMPS
- 5 CLOCKS
- 6 HIS PRD
- 7 HIS ENV
- 8 ALARMS
- 9 CURVE
- 10 MANAGEM
- 11 SP
- 12 PROGRAMS
- 13 SETUP-G
- 14 SETUP-C

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- **What is the best way to recalibrate in house probes?**
- The Scientific way to calibrate a temperature sensor, is to place the sensor in a container of ice water, stirring the ice water continuously. You should read 32° F.
- **Temperature Sensor calibration**
- To re-calibrate the Temperature Sensors, first obtain a digital thermometer that has a readout of at least .1°.
- **Do not use a temperature gun.** A temperature gun takes object temperatures, not air temperatures.



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Temperature Sensors recalibrate continued

- The settings should be reset to factory whenever you recalibrate a Temp. Sensor. To return to factory settings change the number under the correction column by one digit. This will cause the correction to automatically zero out and return to factory setting.
- Place the digital thermometer next to the Temperature Sensor that is being re-calibrated.
- Take the reading from the digital thermometer and enter that number under the temperature column.
- The temperature sensors used in all Chore-Tronic® controls are calibrated at +/- 1.5° F.



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- **Give recommended guidelines in setting up the backup thermostats.**
- If the backup control opens the tunnel curtain for its the only air inlet in backup.
- The first thermostat setting has to be set just over the temperature where the control goes into Tunnel or the backup will run the house.
- The other thermostats have to be set just over the temperature of the fans that they correspond to in the control.



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- Give recommended guidelines in setting up the backup thermostats continued.
- For backup boxes that open either the Side wall or the Tunnel curtains.
- The Side wall inlet only setting should only be used if you are in brood or cold winter conditions and you have set the control for Tunnel Not allowed. **(Always leave your Tunnel open/close switches in auto)**
- Since there are so many different conditions to consider there is no way to have predetermined guidelines. So it is up to the farm manager where to set the backup thermostats.

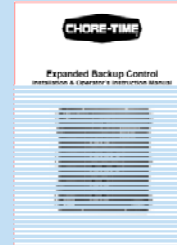
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Back Ups

Standard Back Up – 3 Levels



Expanded Back Up – 5 Levels



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Discuss the “toggle switch” that allows the controller to go to backup.

1. Why is this toggle switch even there?
2. Why is there a choice of (on, off, or automatic)?

Continued on the next slide



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- **Backup switch continued**
- The Backup toggle switch on the control relay box does not enable or disable the Backup from operating by the backup thermostats or from the first stage coming on due to a loss of 24 vdc from the control.
- The toggle switch is used incase the brains of the control go out. It removes the 24 vdc from a relay in the backup box that turns on the first stage of backup regardless of the first stage thermostat setting.

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- **Backup switch continued**
- **Switch positions:**
- **Off:** The first stage of backup is turned on regardless of the first stage thermostat setting and all the other backup thermostats are still enabled.
- **On:** The backup thermostats still are enabled, loss of the 24vdc from the is still enabled.
- **Auto:** Monitors the controls brain. The backup thermostats still are enabled, loss of the 24vdc from the is still enabled.
- Using one of the relays in the control relay box allow you to choose how you want to wire the control.



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- Explain how the Cool Pad Feature operates.

Continued on the next few slides.



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CT2

House 1 Setup - Output Ventilation Controls	
Water pre fill time (sec)	8
Water incr/decr time (sec)	5
Time to wet dry Pad (sec)	90
Actual water on time (sec)	-
Max water on allowed (sec)	300
Repetition rate (mm:ss)	5:00
Temp. check every	4 repetition rates
Extra aggressive if	5.0 deg above
Extra aggressive if	5.0 deg below
Flush Cool Pad at	--:-- for --:--
Cool Pad disabled above RH	100
Allow Cool Pad from	12:00a to 12:00a
Do not allow Coolpad to go below	80.0

Input:

CT1

COOL PAD SETTINGS

Water pre fill time (sec)

Water incr/decr time (sec)

Repetition rate (mm:ss)

Temp check every repetition rates

Time to wet dry pad (sec)

Actual water on time (sec)

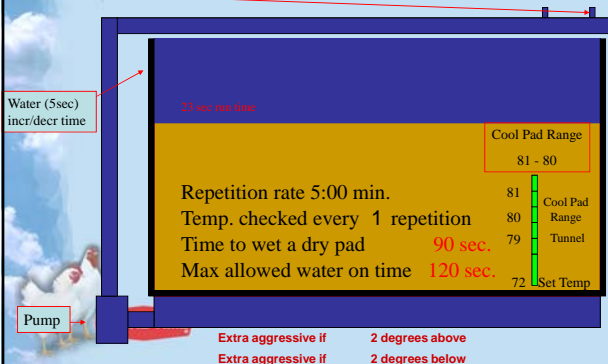
Max water on allowed (sec)

Flush cool pad at for



Cool Pad

Water Pre Fill Time 8 sec.



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- Will the sensors assigned to individual fans override the Mode sensor (s)
- Yes
- The Mode sensor (s) are used for mode transition only.
- One of the questions you are asked in the CT1 and CT2 setup is the Minimum Number of Tunnel fans in Tunnel Mode. These fans stay on until you come out of Tunnel. All the other fans are controlled by there assigned sensor and mode to operate in.



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- Static Pressure Alarms and what happens when you get a High, Low or Failed SP alarm.
- The High and low Static pressure alarms are set in the Alarm screen.

House 1 Alarm Settings	
Tunnel Mode	
Max Relative to Set Temp	10.0 (72.0)
Min Relative to Set Temp	-10.0 (52.0)
Sensors Monitored	123-----
Power Mode	
Max Relative to Set Temp	10.0 (72.0)
Min Relative to Set Temp	-10.0 (52.0)
Sensors Monitored	123-----
Static Pressure	
High static pressure alarm	.13
Low static pressure alarm	.02
Overview Settings History	



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- Static Pressure Alarms
- The SP safety limit can be set by the user (default is .20). When the limit is raised above .20 (maximum .27) the High Control limit can be set higher than .15. Maximum allowed High Control setting is now .22.

House 1 Setup - Input Controls	
Static Pressure:	
Current SP Safety Limit:	.26
Fixed inlet anticipation	NO
Tun inlet SP assist in power	YES
No Heat Zones while Tun assist	YES
Second static pressure	YES
Select Sensor	123-----
Low Stat Pres Alarm	
In power mode	YES
In tunnel mode	YES
RH Influences:	
Input	Outp.Ventl Curtain Other Calibrate



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- **Static Pressure Safety limits**
- When the static pressure stays above 0.20 for a continuous minute, the Tunnel Curtain (if in Power Mode) and the Inlets (if in Tunnel Mode) will open until the static pressure reduces below 0.20.
- Once the problem is fixed and the static pressure reduces below 0.18, the Control returns to normal operation.
- This situation will always result in a High Pressure Alarm.



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- **Static Pressure Alarm limits**
- Static pressure levels, above and below the alarm limits, that will cause an alarm when the static pressure stays continuously outside these limits for 1minute and a Fan is running.
- To get a Static Pressure Alarm, High or Low you must have setting other than zero.
- Example: If you have the settings for Tunnel set at High 0 and Low 0.

Static pressure				
Current Static Pressure .00				
Current SP Limit	High	.09	Low	.06
		Power		Tunnel
		First	Second	
High Control Limit	.09	.07	.00	
Low Control Limit	.06	.04	.00	
Wind Delay (sec)	12			



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- **Wind delay**
- The wind delay is the amount of time the static pressure has to be continuously outside of the control limits before the appropriate open or close Relay will be energized to bring the static pressure back within the control limits.
- The wind delay is bypassed if a Fan(s) turning on or off is what causes the static pressure to move outside the Static Pressure Control limits.
- The Wind delay is set in the Static Pressure screen.

Static pressure				
Current Static Pressure .00				
Current SP Limit	High	.09	Low	.06
		Power		Tunnel
		First	Second	
High Control Limit	.09	.07	.00	
Low Control Limit	.06	.04	.00	
Wind Delay (sec)	12			



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- **Failed Static Pressure Sensor**
- A Static Pressure Sensor is considered to be failed if the Sensor indicates that the static pressure is less than -.05 or greater than .40 continuously for 1 minute.
- **The Limp Mode is:** If the Control is in the Power Mode, the Inlets will be given a continuous open signal and the Tunnel Curtain will be given a continuous close signal. If the Control is in the Tunnel Mode when the Static Pressure Sensor fails, the Tunnel Curtain is given a continuous open signal, while the inlets are given a continuous close signal. A Failed Pressure Sensor alarm is also given.



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- **Is it possible to upgrade older Chore-Tronic controls to included separate Temperature alarms for all the Modes.**
- **Yes**
- CT1 (D level software and above) the current software level is E. You can order a Chip from your local Chore-Time Distributor.
- CT2 (C level software and above) CT2 A and B level software can be upgraded to the current software level D. The current software for CT2 can be down loaded @ <http://www.choretimepoultry.com> click on Controls and Software.



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Is there, or can there be, a toll free number that the grower or service tech can call from the chicken house to ask questions about the controller?

Weekdays

Dial 1-866-658-5175 then press 2 for Technical Service.

Weekends

Please call your local Chore-Time distributor



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Thank You

Stan Williams

Product Specialist Controls
Chore-Time EPS Milford In.



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