

641AB-001A
DATA LINK KIT INSTRUCTIONS
for Version 2.2

SHIVERS
CompuDry Command Center

TIME MOIST TEMP AVE MACH TGT ACT

Data Link Version 2.2
Filename: HOME2012
OK
DRYER OPERATING PROPERLY
Time to No Data Alarm: 34:00
E-Mail Status: Idle
Modem Status: Disabled

Set-up Clear Screen
Set Alarm Parameters Load Screen
Modem Call Stop Exit

12/21/2012 12:52:47 PM
Output: C:\Documents and Settings\michaels\My Documents\Shivvers\HOME2012.txt



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P-12091-rA
1/30/2013

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INTRODUCTION

Data Link Kit, version 2.2, is a software program pre-installed on a Windows laptop computer that will read grain dryer information sent from a CompuDry Command Center. It will display the dryer information and store it on the laptop. The program can be configured for several different alarms. When there is an alarm, the program can send a text message or e-mail (internet service required) to alert someone. An optional phone modem can also be installed to dial a phone number if there is an alarm (telephone line required). Remote access to the Data Link laptop is possible with third party software and reliable internet service. It is now possible to access dryer information from almost anywhere, at any time.

The Data Link Kit comes with the laptop computer, a USB to RS-232 converter and a 25' serial cable for connecting from the Command Center to the personal computer. Maximum RS-232 cable length from the Command Center is approximately 100 feet. Other means of transmitting the serial signal over longer distances are available. Consult the factory for more information.

The Data Link computer must be installed in a clean, dry, temperature controlled (50°F to 80°F) environment.

For alarm messaging and remote access, a reliable internet connection is required. Our experience is that a hard wired internet connection provided by a landline ISP (Internet Service Provider) is the most reliable. Wi-Fi (wireless internet) can be fairly reliable if attention is paid to signal strength. Inexpensive USB cellular modems or mobile cellular hotspots are usually the least reliable and should be avoided. Cellular internet modems, if used, require separate high gain antennas.

Because of unforeseen and uncontrollable changes in Windows Operating Systems and computer hardware, these operating instructions may need to be modified slightly. Every effort is made to keep the instructions up to date, but if you have suggestions for improvements, please let us know.

SHIVVERS DATA LINK **LIMITED WARRANTY AND SUPPORT POLICY**

Two Year Pro-rated Limited Warranty:

Shivvers' Data Link software provided by Shivvers Manufacturing, Inc. is guaranteed under this limited warranty for the first season of harvest operation, regardless of purchase date, when installed in accordance with the applicable installation manuals and operated as directed in the Data Link Kit Instructions. Under this limited warranty, Shivvers will repair or replace such parts as are returned to us and found defective.

During the second season of harvest operation, Shivvers will repair or replace at 50% of the retail price, such parts which are returned to us and found defective.

If the PC is used for purposes other than intended, the Shivvers support becomes fee based.

The Personal Computer hardware warranty is provided by the PC manufacturer and is not covered by the Shivvers Warranty. The computer should be operated in a clean, dry, temperature controlled (50-80 degrees F) environment (not outside). Operating in other conditions will void the PC manufacturer's warranty.

Shivvers makes no Warranty of any kind, expressed or implied, except as stated herein and buyer assumes all risk and liability resulting from the use of products manufactured by Shivvers, whether used singly or in combination with other products.

For purposes of this Warranty, "Season of Harvest" is defined as the period of time between June 1st and December 31st of a calendar year.

Support Policy:

Technical support that can be handled over the phone will be provided at no charge to the end user. Field support, if required, will be charged at the rate of \$50.00 per hour on site, plus mileage one way at the rate of \$1.70 per mile. Support at the factory will be charged at the rate of \$50.00 per hour with a minimum charge of one hour.

Data Back-up:

Support by Shivvers can require re-setting the hard drive of the PC and any changes that have been made to the PC would be lost. It is the operator's responsibility to back up any data.

Shivvers is not responsible for damages or information lost from the hard drive due to; acts of God, power failure, loss of internet connection, or the use of any unauthorized program installed on the PC.

SAFETY

The installer of this equipment must assume the responsibility for his own safety, and that of those working around him. He must also make sure that the equipment is installed as shown in this manual.

If any items covered in this manual are not completely understood, or there is a concern with the safety of this product, contact Shivvers at the address shown on the front page.



**TAKE NOTE ANYTIME THIS SYMBOL APPEARS.
YOUR SAFETY, AND THAT OF PERSONS AROUND
YOU, IS AT STAKE.**

ALL ELECTRICAL WIRING SHALL BE INSTALLED IN COMPLIANCE WITH THE LATEST EDITION OF THE ANSI/NFPA STANDARD 70, NATIONAL ELECTRICAL CODE, AS A MINIMUM REQUIREMENT, AND IN COMPLIANCE WITH LOCAL WIRING CODES AS APPLICABLE.

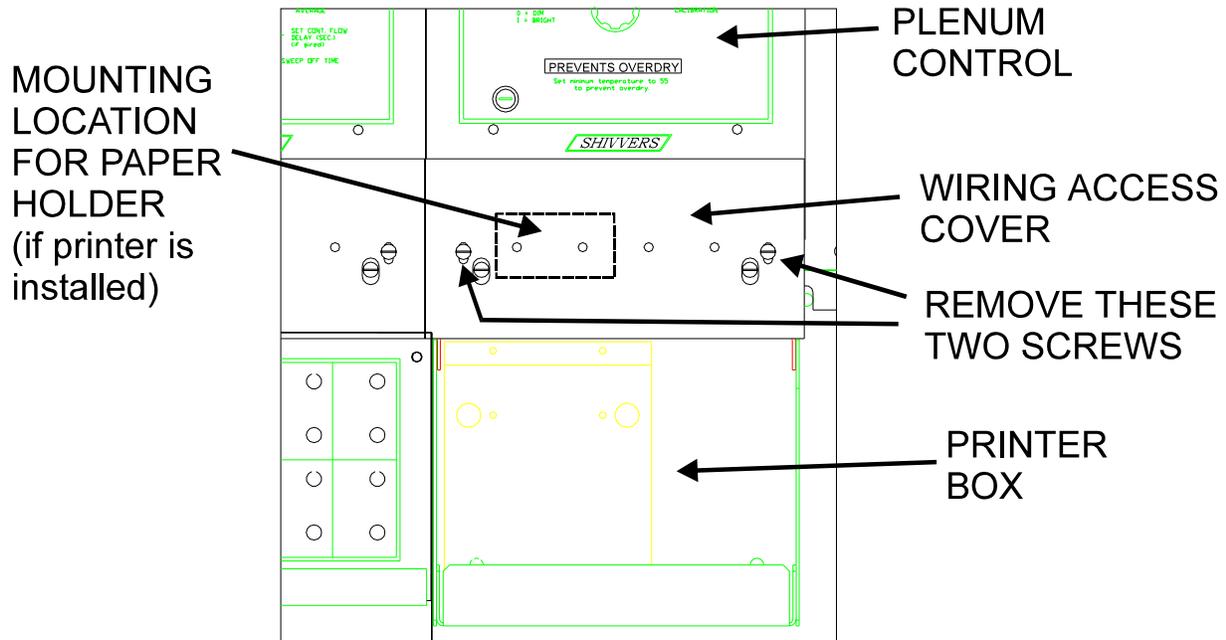
WIRING MUST BE DONE BY A COMPETENT ELECTRICIAN. A LICENSED ELECTRICIAN IS RECOMMENDED AND MUST BE USED WHEN REQUIRED BY LOCAL OR STATE STATUTES.

DATA LINK INSTALLATION

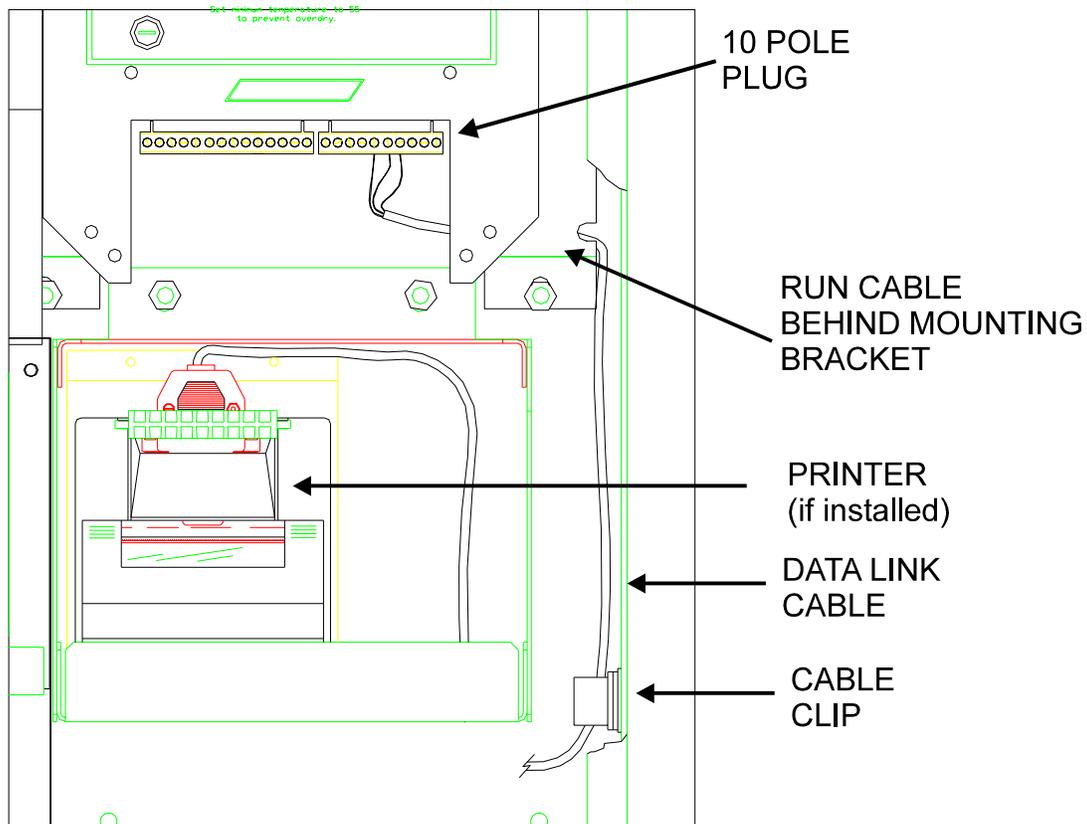
! DANGER

DISCONNECT AND LOCK OUT POWER TO THE ENTIRE DRYING SYSTEM BEFORE OPENING THE MAIN COVER ON THE CONTROL BOX.

Before opening the main cover on the Command Center disconnect and lock out all power. Test several points with a known good tester to verify power has been disconnected. Begin by locating the printer mounting box and the wiring access cover on the Plenum Control. Remove the wiring access cover by removing the 2 screws that fasten it to the Plenum Control module.

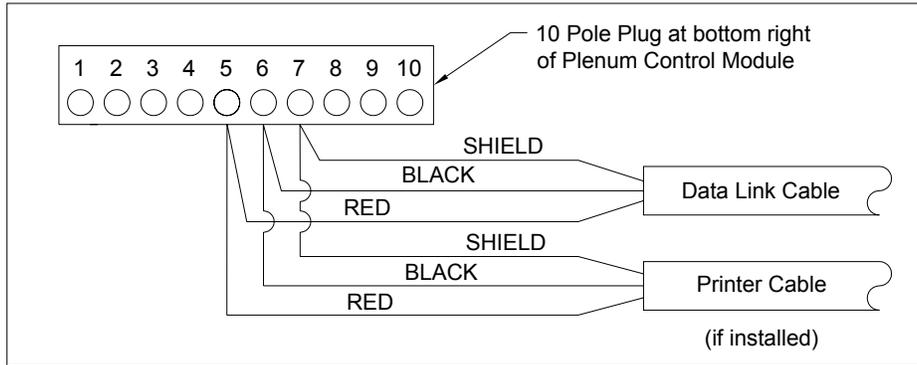


Route the 25' Data Link cable (the end without a connector) from the bottom of the Command Center box, up through the cable clip located on right side of the control box, to the right side and behind the plenum control module. Leave enough cable to connect to the 10 pole plug on the bottom right of the plenum control. Make sure the cable entrance into the Command Center box is sealed so mice and bugs can't get in.



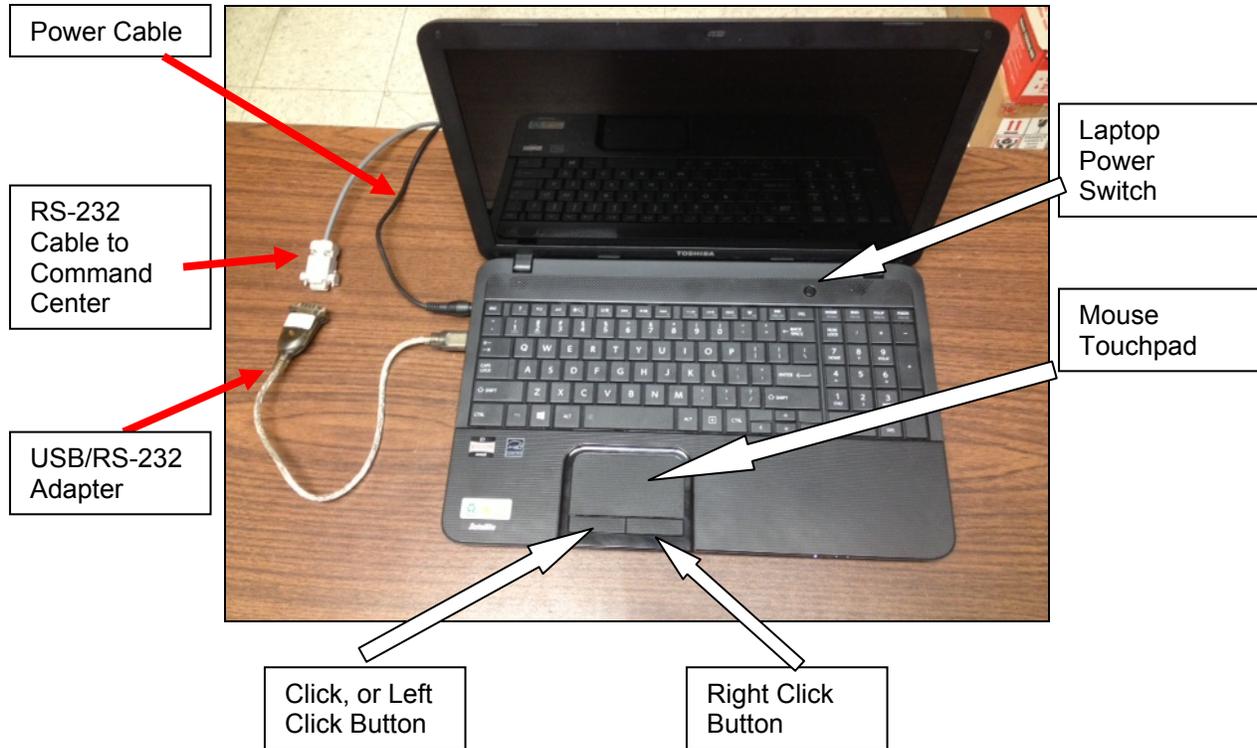
Cut off any excess cable. Do not coil excess cable near any high voltage (greater than 50 volts) wires. Do not run serial cable in conduit with any high voltage wires. Cross any high voltage wires at an angle instead of running lengthwise with them.

The Data Link cable connects to the plenum control on the 10 pole plug located on the bottom right of the Plenum Control module. The Red wire in the cable connects to terminal 5 of the 10 pole plug. The Black wire connects to terminal 6 of the 10 pole plug. The shield connects to terminal 7 of the 10 pole plug. If a Command Center printer is installed, its cable will have wires in these terminals also.



Double check all wiring then replace the wiring access cover on the plenum control. Close and latch the Command Center main cover.

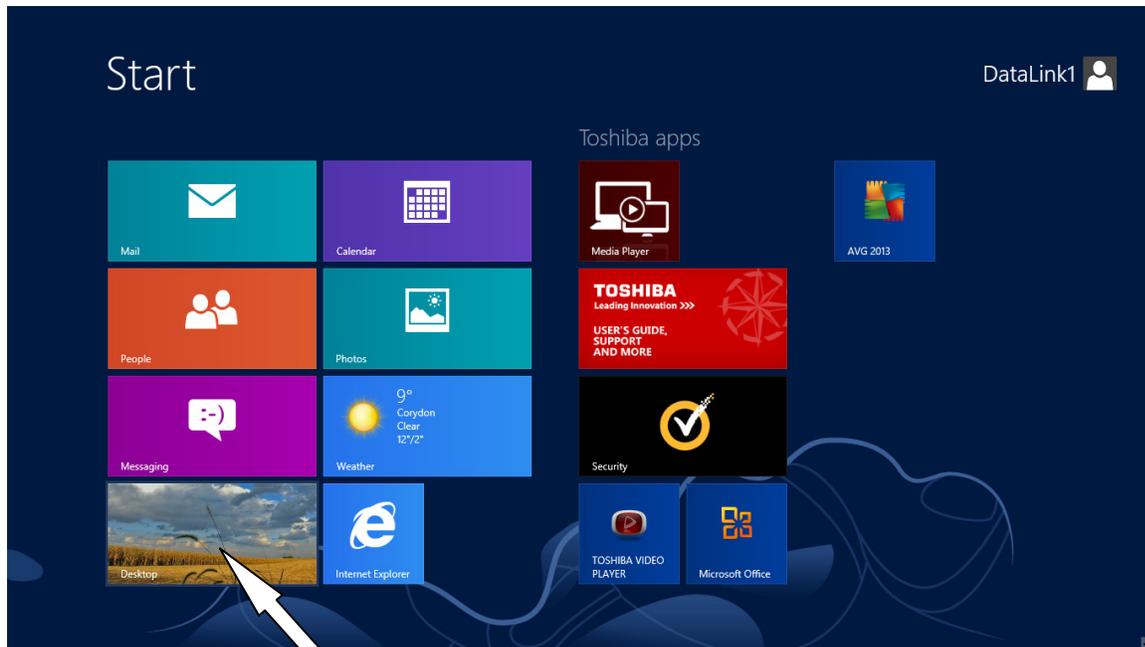
Connect the other end (the end with the DB-9F connector) of the 25' Data Link cable to the RS-232 DB-9M connector of the USB to RS-232 converter.



Set the Data Link laptop computer in a convenient location. Plug the power cable into the laptop and plug the charger into a 120 VAC supply. Plug the USB to RS-232 converter into the laptop. Failure to have the USB to RS-232 converter plugged into the laptop before powering it on will result in several error messages. Open the screen on the laptop. The setup should look similar to the diagram above.

Always plug the USB/RS-232 Adapter into the same USB port, or the communications port will change.

The Data Link program will automatically start when the laptop is turned on. However, Windows 8 will not start up on the desktop screen. After the laptop is turned on, click on the Desktop tile to view the Data Link program.

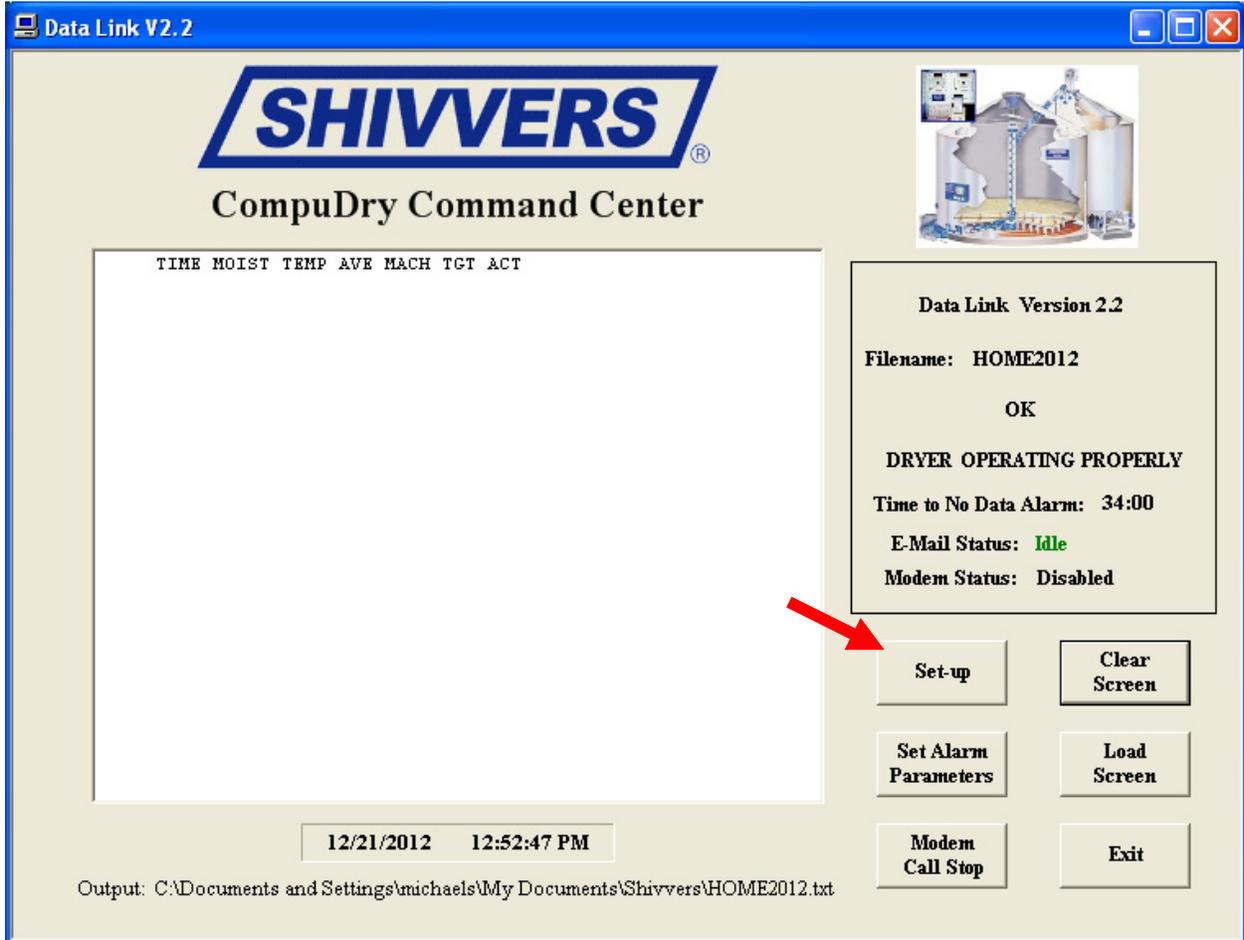


Desktop Tile
Move mouse pointer over Desktop tile,
and Left Click on it to go to Desktop.
Note: Location of tile may be different
than shown here.

SETTING UP DATA LINK

Wait for Data Link to automatically open.

After Data Link is started, go to the set-up page by clicking the Set-up button.



The Set-up page will appear. Put your dryer name in the filename box. It is a good idea to put the year in the filename so the files will be easier to locate later. The default name is “HOME2012”. Only up to 10 capital letters or numbers can be used in the filename. A file containing some actual dryer information is included with the Data Link program. It is called “DEMO”. It can be used to look at or to show dryer data when the laptop is not actually connected to a Command Center.

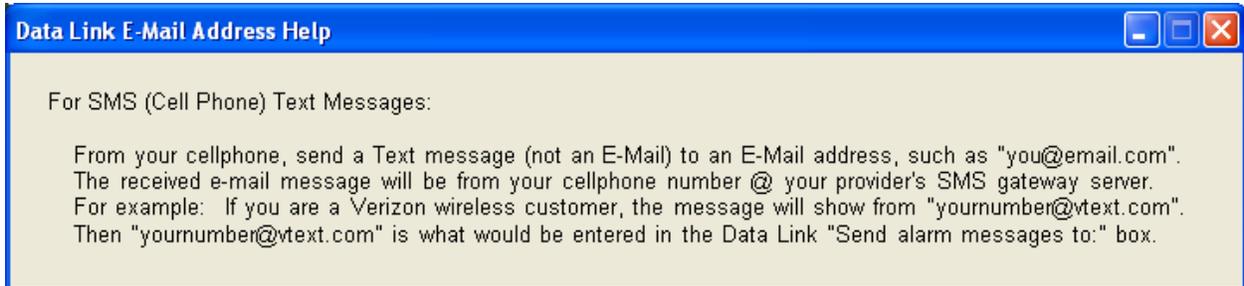
The communications port number where the data will be received is pre-loaded at the factory and shouldn't need to be changed. The communications port is the personal computer RS-232 port number to which the CompuDry Command Center is connected.

Valid Communication Port entries are shown in the drop down list accessed by clicking on the downward pointing arrow. If there are not any valid Com ports listed, make sure the USB/RS-232 Adapter is securely plugged into the laptop. If the adapter wasn't installed when the computer was turned on, it may be necessary to exit Set-up, and exit the Data Link Program, then restart the Data Link Program to see the Com port. If an invalid port number is entered, an error message will be displayed when the Save button is pressed.

The Baud Rate is factory set at 1200. No changes should be made to this field. All CompuDry Command Centers are programmed to send information at 1200 Baud.

IF THE DATA LINK LAPTOP HAS INTERNET ACCESS:

Enter the phone number and server address, or e-mail address, in the “Send alarm messages to:” field. Click on the “E-Mail Address Help” button for information on how to acquire the server extension.



Don't send the text message to a phone number. Send it to an actual e-mail address, or you won't be able to see the SMS (Short Message Service) gateway server. SMS is basically just a text message service.

Click on the red “X” in the upper right corner to close Help.

If you don't have internet access for the Data Link Laptop, make sure the box for E-Mail Disabled is checked.

Make sure the box for Modem Disabled is checked, and skip to saving changes (if a phone modem is not installed).

FOR OPTIONAL PHONE MODEM:

Enter the phone number the program should call in case there is an alarm. An example of the format is given. It is not necessary to enter the dashes, but it makes the number easier to read. If the phone needs to access an outside line, enter a comma to cause the modem to pause while dialing. For example, if 9 accesses an outside line and a delay is required, enter: 9,1-641-555-1212.

Next select a modem from the drop down list (click on the downward pointing arrow to display the possible choices). It should be named similar to your installed modem. Click on the Test Modem button to test the modem. Make sure the computer modem is plugged into a phone line. If no modem is installed, or the calling feature is not wanted, leave the modem disabled.

It is possible to have both the text message/e-mail and the phone modem enabled. The program will then send any alarms to both devices. In most cases, the Modem Disabled box will be checked. If the laptop does not have internet access, also check the E-Mail Disabled box. When both boxes are checked, alarms will not be sent out, but a voice will play on the laptop speakers when there is an alarm.

If the modem is not disabled and is not “voice” compatible, the following message will be shown.

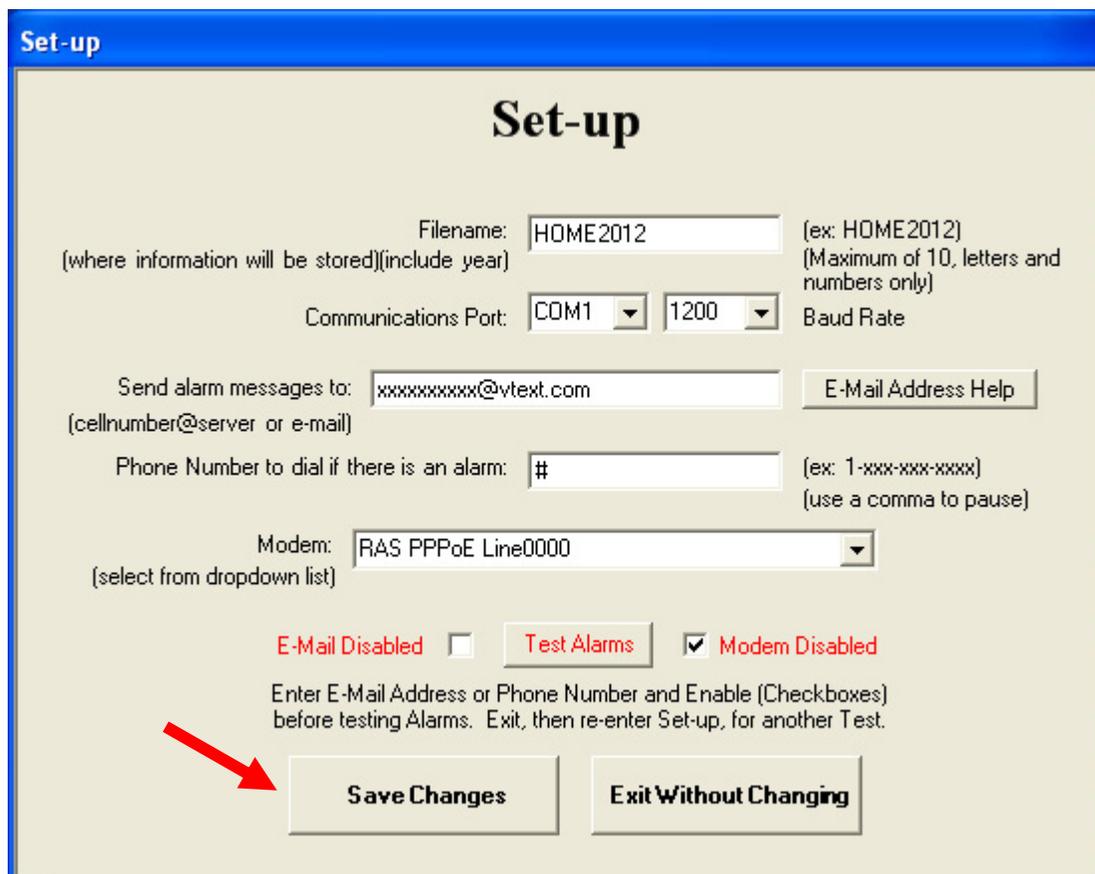


Click on OK. The modem will still call out, but there will not be any voice messages. The line will be silent.

If you don't get the message above, it is probably a “voice” modem. However, starting with Windows 7 and maybe even Vista, the modem sound playback devices are no longer enabled, so sounds will not be heard through the voice modem. There is not a solution for this yet.

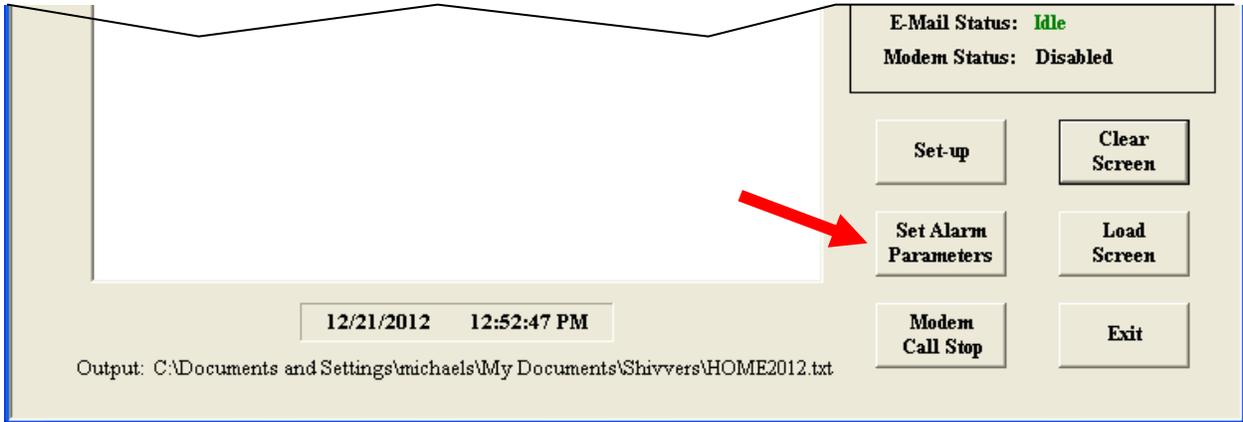
Saving Changes:

When finished, click the Save Changes button. An error message will be shown if an invalid Com Port is entered.

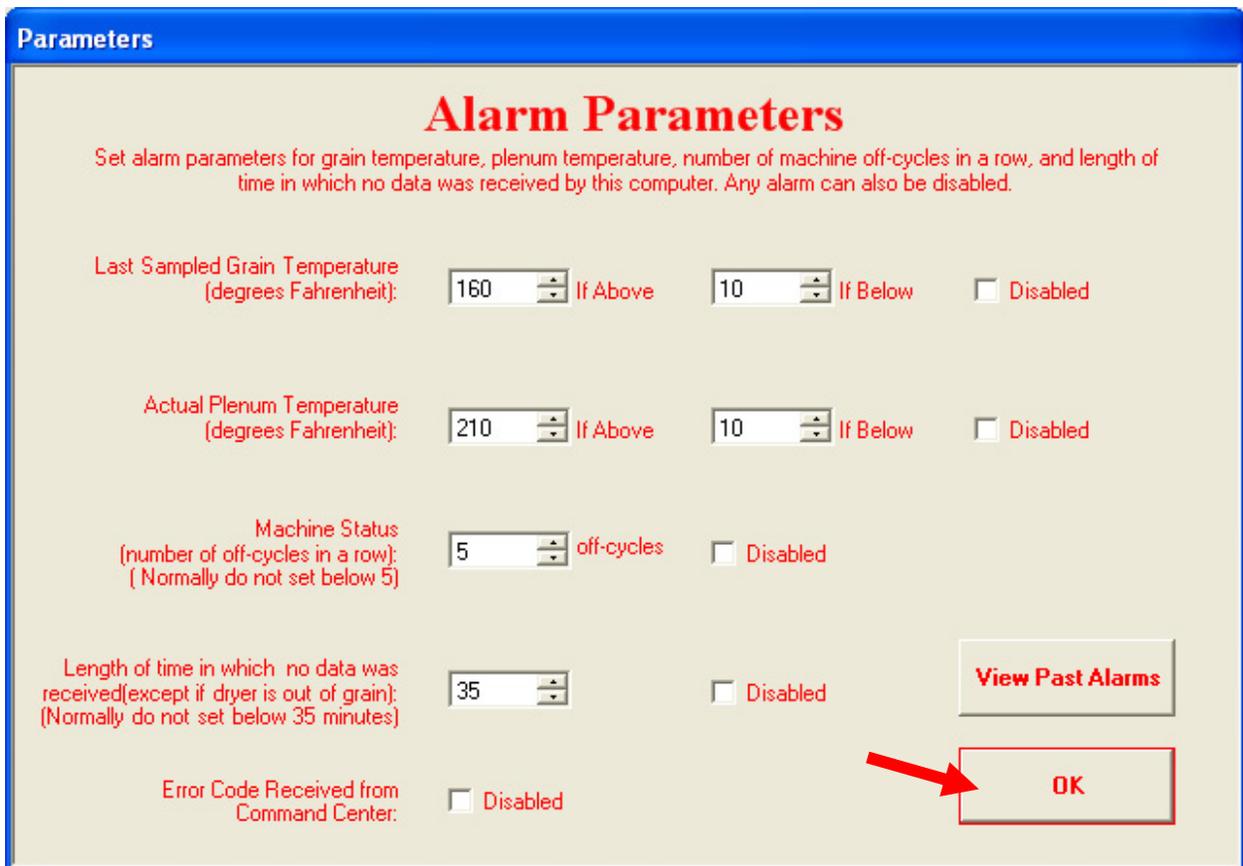


SETTING ALARM PARAMETERS

After set-up, click the Set Alarm Parameters button.



The Alarm Parameters page will appear. There are 5 alarms that can be enabled or disabled. The default settings are shown. Set your personal alarm parameters as desired. Leave the Disabled box unchecked to be notified of an alarm. If a Disabled box is checked, that alarm will be ignored by the program. Press OK when all alarms are set.



MAIN FORM

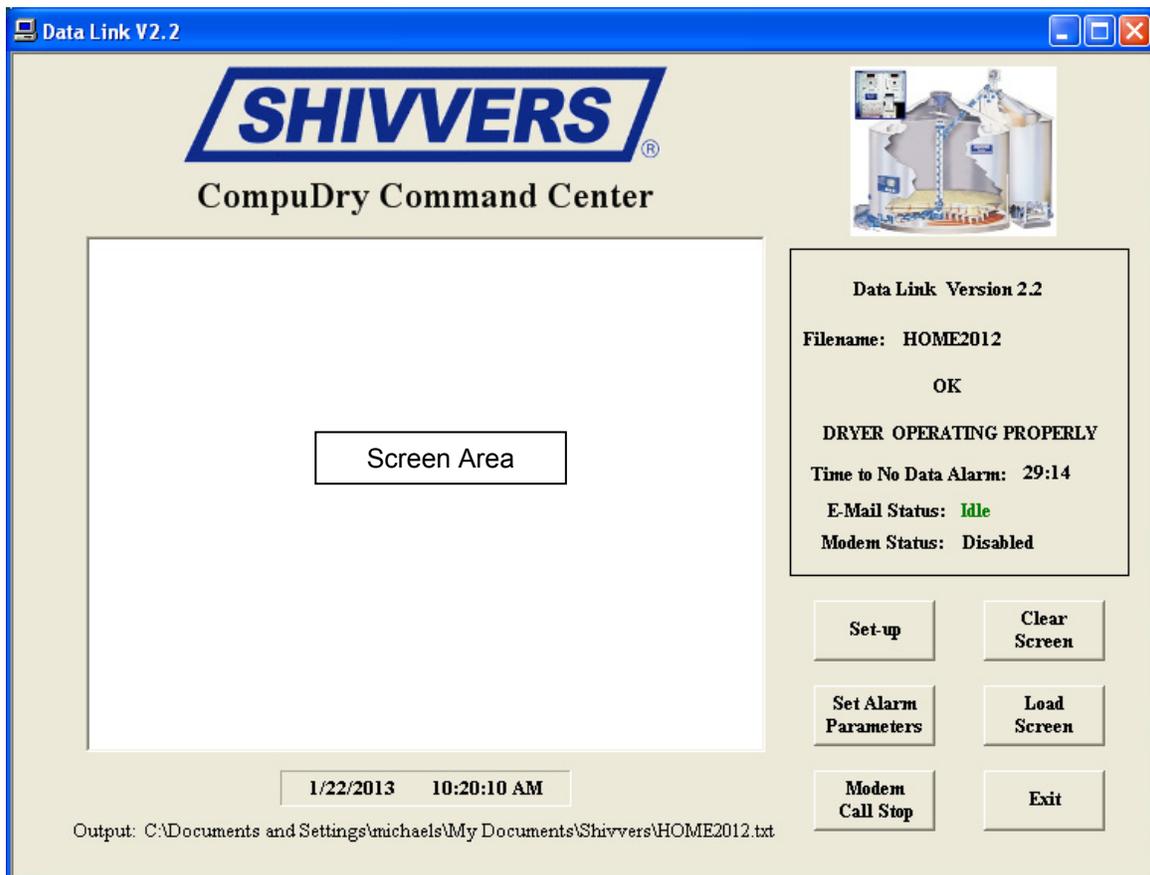
The main form is displayed below. The other four buttons on the main form are:

Modem Call Stop - This can be clicked to interrupt an modem alarm call. If no alarm call is in process, nothing happens when this button is clicked. If the voice alarm is playing through the laptop speakers, click on this button to stop the voice. Otherwise, the voice will stop on its own after about 1 minute.

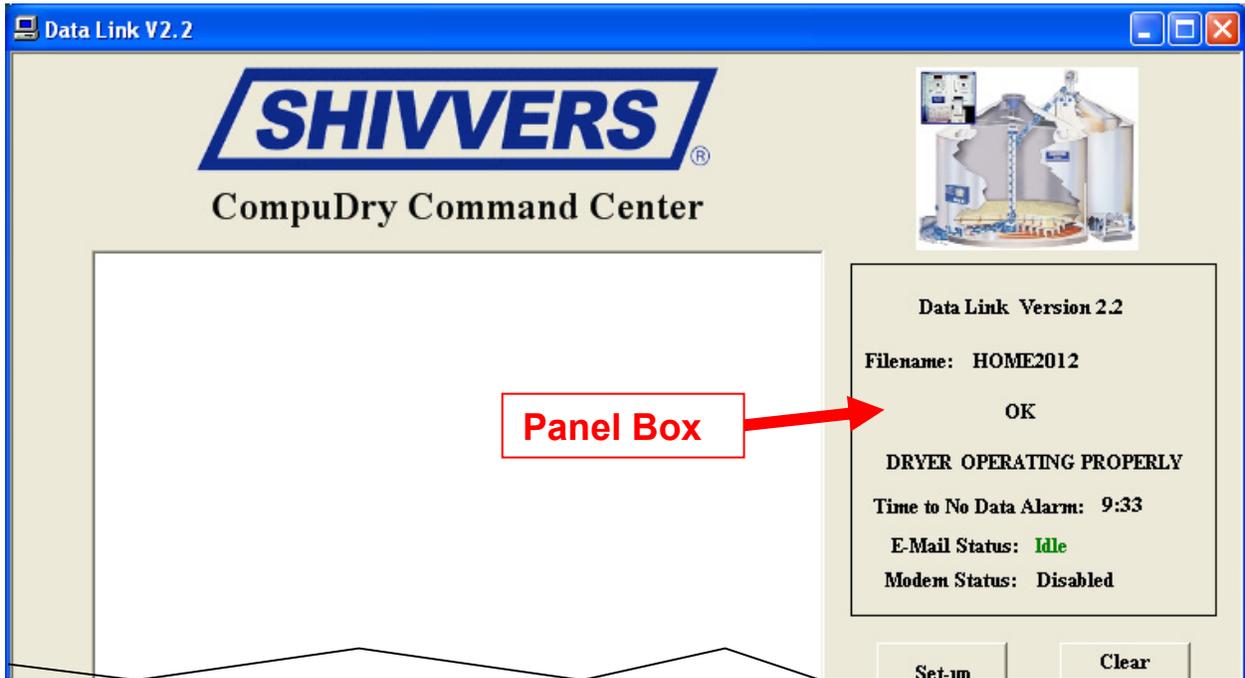
Clear Screen - When this button is clicked all the information shown on the screen is wiped off. The data is still stored in a file in the computer and can be recalled at any time. If too much information is on the screen, click on this button to clear it out.

Load Screen - When this button is clicked, any information in the data file (named in the "Filename:" area) is loaded onto the screen. Anytime the Data Link program is exited and re-started, the screen will be empty. If you want to recall the data, click on this button to see all the information in the file.

Exit - When this button is clicked, the Data Link program will store the time and put "Program closed." into the data file. The program will then close. Clicking on the little red "X" in the upper right hand corner of the form does the same thing.



PANEL BOX



Information shown in the panel box includes:

- 1) Data Link Version number:
- 2) Current Filename:
- 3) Dryer status: Either **OK** or a flashing red **“ALARM”**
- 4) Dryer message: Possible messages are:
 - DRYER OPERATING PROPERLY**
 - GRAIN TEMP OUT OF RANGE**
 - PLENUM TEMP OUT OF RANGE**
 - TOO MANY OFF CYCLES**
 - TOO MUCH TIME WITHOUT DATA**
 - ERROR CODE RECEIVED**
 - DRYER STOPPED. BIN OUT OF GRAIN.**
- 5) Time to No Data Alarm: Time remaining before the “No Data” alarm is activated. If the “length of time no data was received” is disabled, this will show **“Disabled”**. When the bin runs out of grain, the clock will stop counting down.
- 6) E-mail Status: This shows the status of the E-mail alarm. Possible states are:
 - Idle:** Nothing is happening. E-mail is just waiting for an alarm.
 - Disabled:** E-Mail is disabled in Set-up.
 - Failed (Retrying):** The text message didn’t go through. It will try again in 10 minutes. Make sure your internet is reliable.

- 7) **Modem Status:** This shows the status of the modem. Possible states are:
- Idle :** Nothing is happening. Modem is just waiting for an alarm.
 - Disabled:** Modem is disabled in Set-up. (Most common status).
 - Dialing:** Modem is dialing number for an alarm.
 - Connected:** Modem is connecting or has connected to remote phone.
 - Busy:** A busy signal has been encountered. It will try again in 1 minute.
 - No Dial Tone:** The modem is not connected to a phone line or the phone line was in use when the modem attempted to dial.

OPERATING THE DATA LINK

At the CompuDry Command Center, make sure the dryer is ready and can be ran safely. Press the Adjust switch up or down on the Moisture Control and hold it until 8.8.8. appears. This will start the Moisture Control. After a few seconds, the Plenum Control will show 8.8.8. Shortly after this, the Plenum Control will send Command Center settings to the Data Link computer. Turn the knob on the Moisture Control to “Minutes to Next Sample”. Hold the Adjust switch down until the display shows 0. The machine should start. After about 90 seconds, the Moisture Module should have a reading and will send it to the Plenum Module, which will in turn send the information to the Data Link computer.

Once some data is in the screen area, the E-mail, Text Message, or phone (if installed), alarm notification can be checked by going to the Set Alarm Parameters page. Change a setting so there will be an alarm. As soon as an alarm is shown on the screen, the phone number or e-mail entered in the Set-up page will be accessed (or dialed). The E-mail, Text Message, or phone call should go through. The alarm message will be heard over the computer speakers. Make sure the volume isn't muted. The message will repeat for 1 minute or until the Modem Call Stop button is pressed.

The E-mail or text message will be from alarms@shivvers.com. The message will state: **(Alarm from Shivvers Data Link FILENAME)**, then something similar to one of the messages shown below. FILENAME is the name of the data file shown in the Panel box (changed in Set-up).

ALARM TEXT MESSAGES

- 1). DRYER OPERATING PROPERLY
- 2). TOO MUCH TIME WITHOUT DATA
- 3). PLENUM TEMP OUT OF RANGE
- 4). GRAIN TEMP OUT OF RANGE
- 5). TOO MANY OFF CYCLES
- 6). ERROR CODE RECEIVED

Additionally, if the text message failed when it tried to send the alarm, it will state: "E-Mail Failed, <AlarmCount> Not Sent...Last: <AlarmMessage>" <AlarmCount> is the number of Alarms that occurred since the first failure. <AlarmMessage> is one of the 6 alarm text messages.

If an alarm text message fails, the data file will log the time and "Alarm Occurred, but E-Mail Transmission Failed."

If these occur often, the internet service you have is not reliable and should be addressed.

Do not reply to alarms@shivvers.com. It is not a monitored e-mail address.

ALARM VOICE MESSAGES

Six different alarm messages can be heard from the Data Link computer speakers.

They are:

- 1). Alarm! Command Center grain temperature is out of range.
- 2). Alarm! Command Center plenum temperature is out of range.
- 3). Alarm! Command Center has had too many machine "OFF" cycles in a row.
- 4). Alarm! It has been too much time since the Command Center sent information.
- 5). Alarm! An error code has been received from the Command Center.
- 6). This is a test of the Data Link modem.

MISCELLANEOUS

Make sure there are not two instances of the Data Link program running. The Data Link program will automatically start when the computer is powered on. It may take a while for the program to actually open. Don't double click on the Data Link desktop icon or two Data Link programs will try to run at the same time. If this happens, error messages about the serial port will occur. Just close the messages and close all but one Data Link program.

Keep the screen open on the computer when it is running. If it is closed, the computer will go into sleep mode and the program won't be able to log data or send alarms.

The computer is set up to download Windows updates automatically. You may be asked to restart your computer. It is OK to restart, but any data coming in will be lost until the Data Link program starts running again.

The Anti-Virus program may prompt you for various updates. Keep it up to date.

Make sure the computer time and date (and time zone) are correctly set by clicking on the time/date in the lower right hand corner of the screen.

SCREEN HEADING

The screen heading is the same as the Command Center printer.

“TIME MOIST TEMP AVE MACH TGT ACT”

- TIME** = Time of sample. Note this is the Data Link Computer time which may be different from the Command Center printer time.
- MOIST** = The individual moisture reading taken at that time.
- TEMP** = The grain temperature.
- AVE** = The rolling “ON” moisture average. Can be set from 2 to 9 samples.
- MACH** = The machine (tapered sweep) status, “ON” or “--” (off).
- TGT** = The target temperature setting. This is the temperature the Command Center is trying to control the plenum at.
- ACT** = The actual plenum temperature. It should be close to the target temperature if everything is set properly.

SHIVERS
CompuDry Command Center

| TIME | MOIST | TEMP | AVE | MACH | TGT | ACT |
|-------------------|--|------|------|------|-----|-----|
| 02:37PM | 14.1 | 127F | 13.9 | ON | 126 | 124 |
| 02:43PM | 15.1 | 125F | 14.3 | ON | 131 | 126 |
| 02:48PM | 14.7 | 125F | 14.5 | ON | 131 | 129 |
| 02:54PM | 14.5 | 126F | 14.6 | ON | 131 | 130 |
| 03:00PM | 14.9 | 125F | 14.8 | ON | 131 | 131 |
| 03:05PM | 15.2 | 124F | 14.8 | ON | 135 | 131 |
| 03:11PM | 15.2 | 123F | 14.9 | ON | 135 | 131 |
| 03:16PM | 15.2 | 122F | 15.1 | -- | 135 | 130 |
| 03:38PM | 14.6 | 120F | 14.6 | ON | 135 | 129 |
| 03:43PM | 14.0 | 125F | 14.3 | ON | 132 | 129 |
| 03:49PM | 14.4 | 125F | 14.3 | ON | 132 | 129 |
| 03:55PM | 14.7 | 125F | 14.4 | ON | 132 | 129 |
| 04:00PM | 14.5 | 124F | 14.4 | ON | 132 | 127 |
| 04:06PM | 13.7 | 124F | 14.3 | ON | 129 | 126 |
| 04:11PM | 14.6 | 124F | 14.3 | ON | 129 | 126 |
| 04:17PM | 14.8 | 124F | 14.4 | ON | 129 | 126 |
| 04:22PM | 14.9 | 123F | 14.5 | ON | 129 | 126 |
| 04:28PM | 14.3 | 122F | 14.6 | ON | 129 | 125 |
| 04:33PM | 14.6 | 122F | 14.6 | ON | 129 | 124 |
| 04:39PM | 14.6 | 122F | 14.6 | ON | 129 | 124 |
| 04:44PM | 14.9 | 123F | 14.6 | ON | 129 | 123 |
| 01/22/2013 4:50PM | ALARM: Plenum Temperature Out of Range | | | | | |
| 04:50PM | 14.9 | 119F | 14.9 | ON | 134 | 122 |

Data Link Version 2.2
Filename: DEMO
ALARM
PLENUM TEMP OUT OF RANGE
Time to No Data Alarm: 27:23
E-Mail Status: Idle
Modem Status: Disabled

Set-up Clear Screen
Set Alarm Parameters Load Screen
Modem Call Stop Exit

1/22/2013 4:51:50 PM

Output: C:\Documents and Settings\michaels\My Documents\Shivvers\DEMO.txt

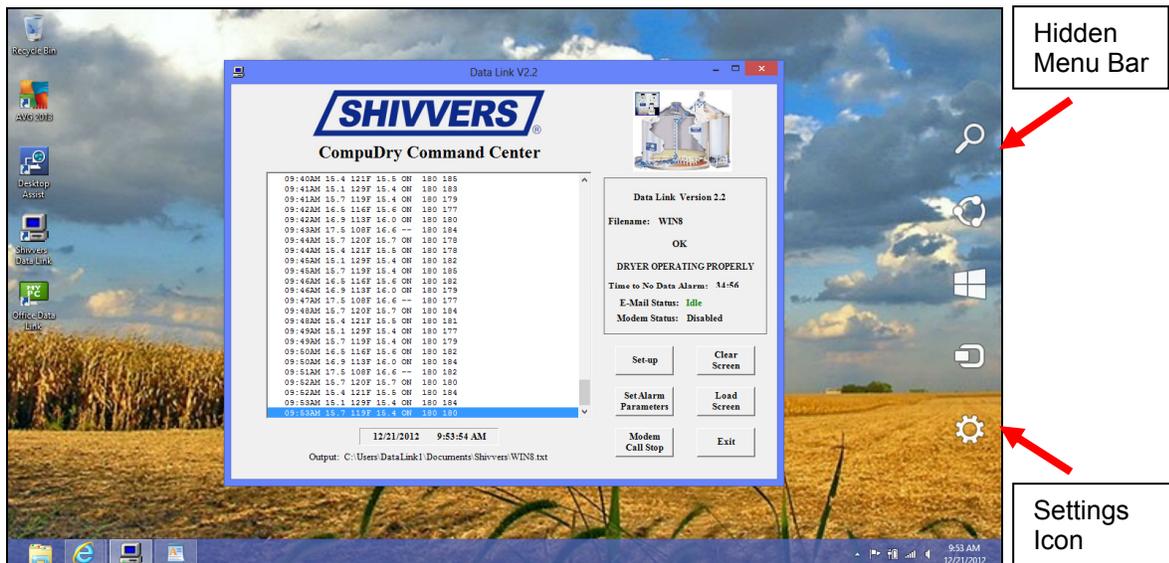
Data Link main form showing data on screen and plenum temperature alarm.

SHUT DOWN

To exit the Data Link program, click on the EXIT button or click on the little red “X” in the upper right hand corner of the main form. Note that data will no longer be taken if the Data Link program is not running. If the Data Link program gets shut down, it can be re-started by double clicking on the Data Link shortcut icon on the desktop or by clicking on the Data Link icon on the bottom taskbar.

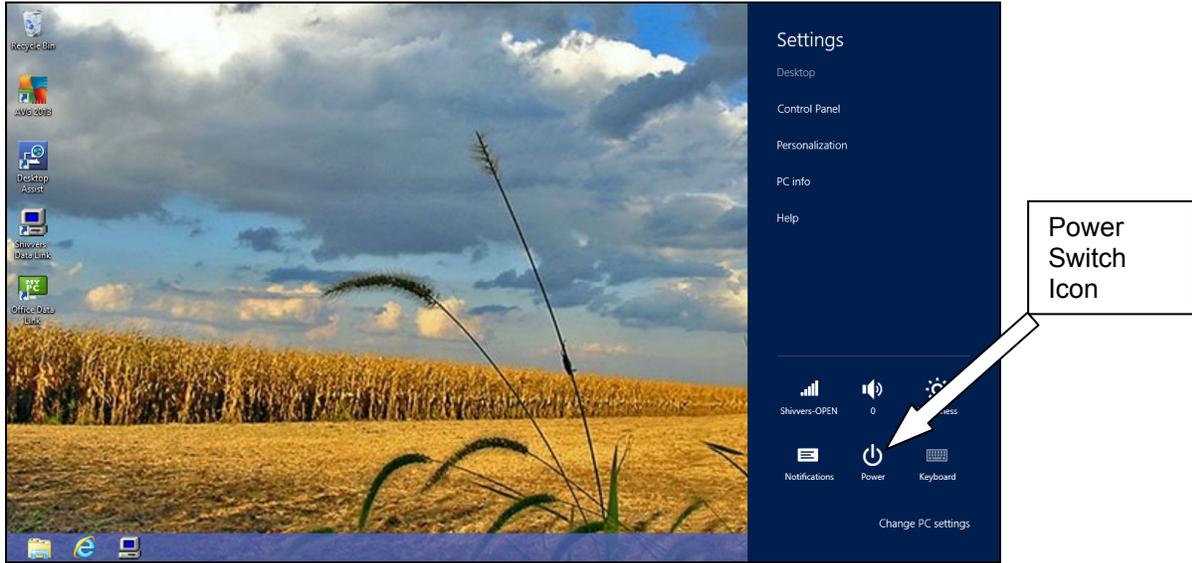
The power switch has been programmed to shut down the complete laptop. Just press it and the computer will shut down. The screen will quickly go dark, but the computer will not really be completely shut down until the blue power light goes out. If the computer is plugged in to the charger, the only light that will be on is the charging light (yellow if charging and blue if fully charged).

OPTIONAL SHUT DOWN: To shut down the complete laptop with the Windows 8 operating system, position the mouse pointer to the right hand upper or lower corners of the screen. A menu bar will appear as shown below.

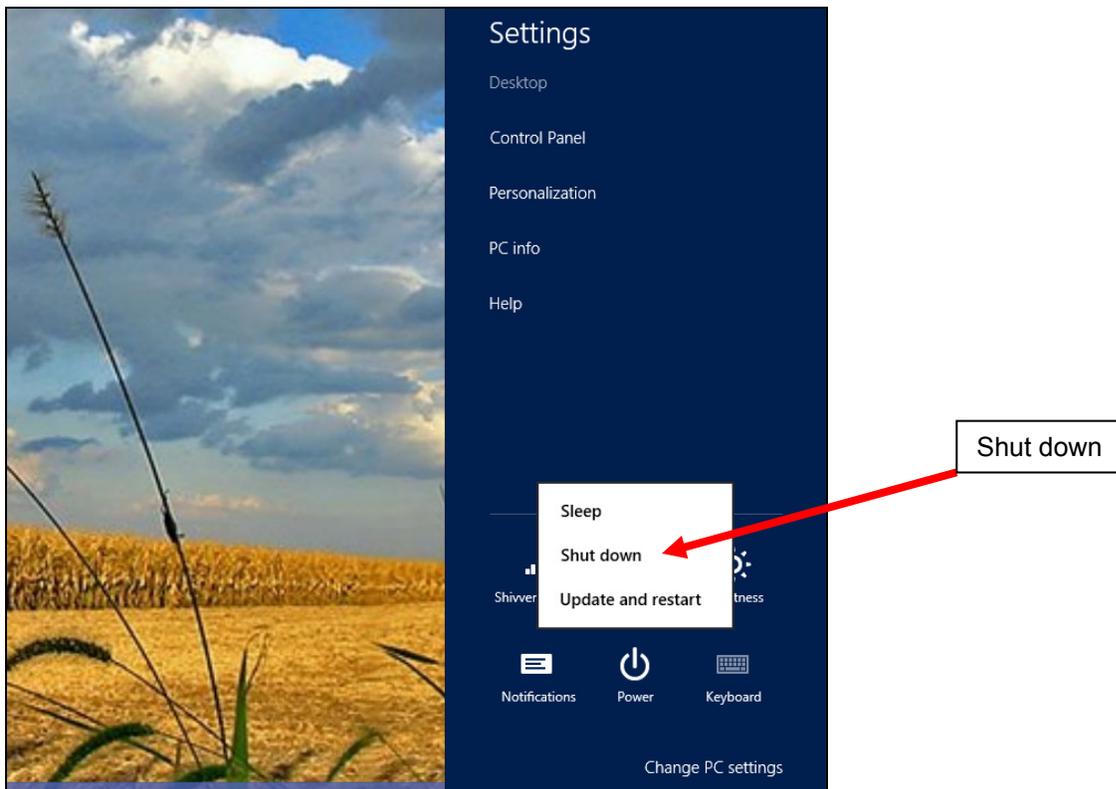


Click on the Settings Icon that looks like a little gear or sprocket.

The Settings menu will appear and you can click on the power switch.



Click on the power switch icon, and the shutdown choices will appear.

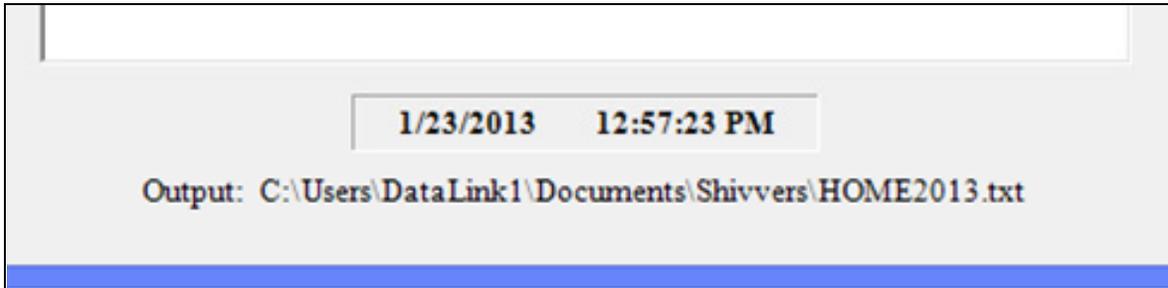


Click on Shut down, and the laptop computer will shut off.

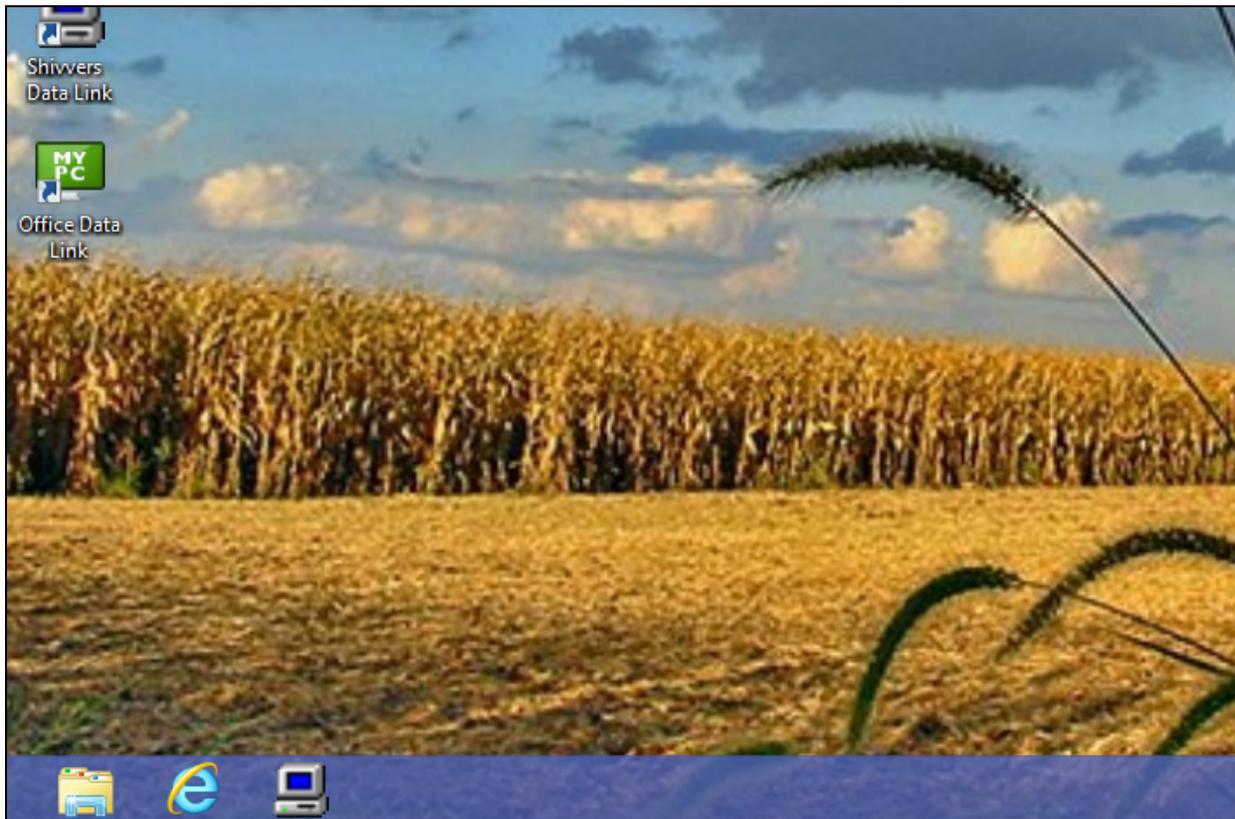
Only as a last resort: If the computer locks up, press and hold the laptop power switch until the computer shuts down.

DATA BACKUP AND SENDING DATA

Located at the bottom of the Main Form there will be a line showing the location and name of the dryer data file. In this example, the file is named "HOME2013.txt". This file should be backed up periodically to protect against data loss, the same as with any computer file. This file can also be copied and e-mailed to your dealer or to Shivvers service for analysis, should it be required.

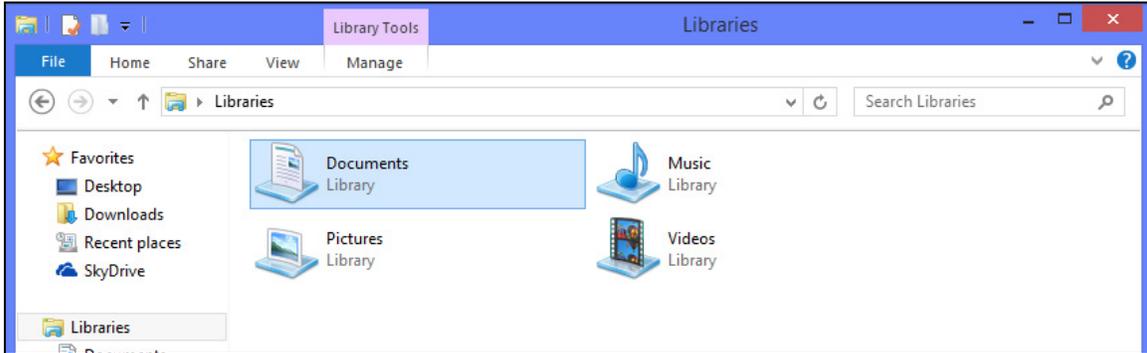


The data file can be accessed by clicking on the File Explorer icon, located in the bottom left taskbar of the desktop. The location of the icon may be a little different than shown here.

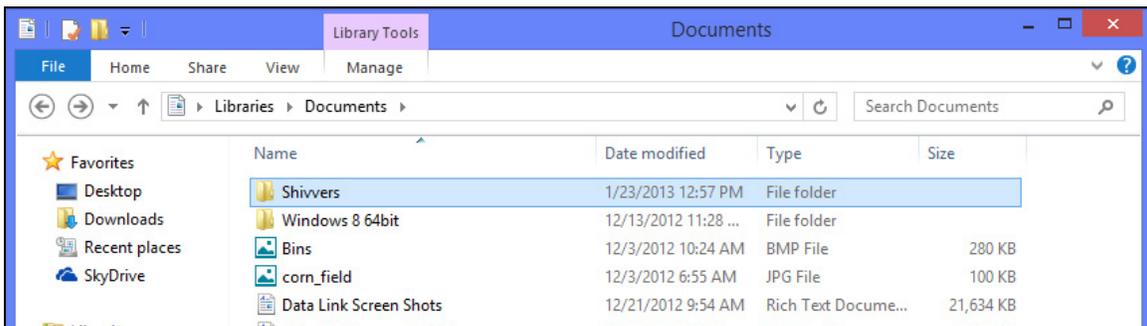


File Explorer
icon

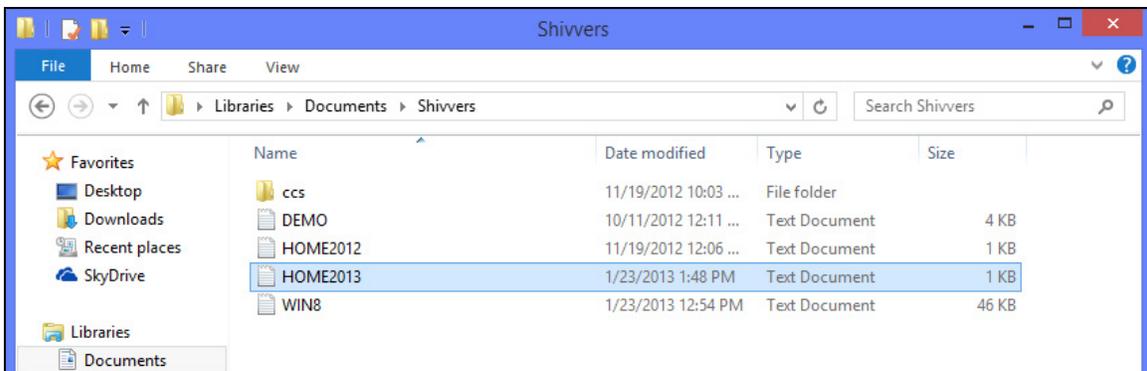
A window showing the Documents Library should open. Double click on Documents.



A list of the Document folders and files will be shown. Double click on the Shivers folder.



A list of folders and files will be shown. Here is where the data file will be found. In this case it is HOME2013 and it is a Text Document. The file can now be copied to an external device or attached to a web e-mail. Double clicking on the file will open it with Notepad. Just use caution when closing Notepad. If changes are made to the data, and the file is saved when closing, any data received while Notepad was open won't get recorded.



A search of the internet will usually yield answers to specific Computer/Windows 8 operation questions.

REMOTE ACCESS

There are many programs available for remote access to the Data Link laptop computer. Shivvers does not specifically recommend any particular one; we are just listing these for your reference. It is up to you to select, install, and set-up, the remote access software. Remote access is a very desirable feature that can be added to the Data Link computer. It requires that the computer have reliable internet service to be useful. Most of the remote access software requires the Data Link laptop to be the “host” computer. The “host” is the one which you want to be able to access remotely. Some companies offer discounts if you have more than one “host”. Once you purchase the host software, the access software for your other devices (computers, smart phones, tablets, etc) is often available at no extra charge.

When the remote access software is running, you can log into the Data Link Computer from anywhere you have an internet connection. Once securely logged in, you can see and operate the Data Link computer just like you were sitting in front of it. You will see the same thing that is on the Data Link computer screen.

www.GoToMyPC.com : Monthly or yearly charge of about \$8-\$12/month. Requires credit card even for 30 day trial version (charge can be cancelled, if not purchased). Works with both Android and Apple smart phones and tablets.

www.TeamViewer.com : Free for Private use. Works with both Android and Apple smart phones and tablets. Free version leaves an advertisement on the host computer whenever host is accessed.

www.LogMeIn.com : Free for Apple products. Charge for Android. Don't know a lot about this product, just know some customers have used it.

www.gbridge.com : Google Bridge. Free, but requires gmail account. Works only Windows PC to Windows PC (not with smart phones or tablets).

Remote access software is not associated with Shivvers.

Information on this page is subject to change without notice.

MAINTENANCE

It is a good idea to disconnect the Data Link cable from the personal computer during the off season. To do this, simply remove the cable connector by loosening the 2 screws that hold it to the USB/RS-232 Adapter. You can also just unplug the USB/RS-232 Adapter from the computer. Just remember that if the computer is powered up without the USB/RS-232 Adapter, error messages will occur because the Data Link program won't be able to find a serial communications port. Store the computer in a clean, dry, temperature controlled environment.

Make sure the laptop computer battery has been fully charged before storage.

When re-activating the laptop computer after storage, allow some extra time to update Windows and the anti-virus software.

KNOWN BUGS

(All known bugs are for the optional phone modem at this time)

- 1). Modems will not play back the voice alarm through the modem, even though it is a “voice” modem. This is a Windows operating system problem that started with Windows Vista (64 bit).
- 2). Some modems will occasionally give a connected signal even though the line is busy. If call waiting is activated, this shouldn't be an issue, but if it isn't activated, some alarm messages may be lost. The program will think they went through.
- 3). If no one answers the incoming call, the program will think the call went through and hang up. This shouldn't be an issue if caller ID is available.
- 4). If there isn't any dial tone or the line is busy, the program will try calling every minute for up to one hour. If the call still hasn't connected, a message stating the call could not be completed will be placed on the screen and in the data file.
- 5). If there is more than one error at a time, the phone message may not talk about the original error that was printed out. If the error goes away before the call is connected, the message may be “This is a test of the Data Link modem.” Also, if you are testing the modem and there is an alarm shown on the main form, the message won't be about the test, it will be about the alarm.

APPENDIX

Using tile Apps:

To get out of any tile apps that are used on the start page, either press the Windows key (located in the lower left hand corner of the keyboard (between FN and ALT)), or move the mouse pointer to the lower left corner of the screen and click on the Start tile.

Starting Computer without USB/RS-232 Adapter:

If the laptop is started without the USB/RS-232 Adapter plugged into it, you will get three error messages. These occur because the Data Link program is set to automatically start when the laptop is started. The computer needs to be in Desktop mode to see the messages. It is required to click on the OK button on each message to get the Data Link program to start up. The messages are:

- 1). Error! Problem with Comm Port setting. Set to defaults Com1, 1200 Baud.
- 2). An error occurred initializing port.
- 3). You must enter the correct communications port before data is taken.

The Data Link program must be exited, the USB/RS-232 Adapter plugged in, and Data Link re-started, before the program can receive data.

Finding Communications Port:

Click on Desktop tile, to go to Desktop Mode. Move the mouse pointer into the upper or lower right hand corner of the screen until the hidden Menu Bar appears. Click on the Settings icon. Click on Control Panel. Click on System. Click on Device Manager. Double click on Ports (COM & LPT). The available serial ports will be shown. For example: ATEN USB to Serial Bridge (COM3).

To uninstall the Data Link Program:

Always un-install previous versions of the Data Link Program before installing a new version.

- 1). Position the mouse pointer to the right hand upper or lower corners of the screen until the hidden menu bar appears.
- 2). Click on the Settings icon.
- 3). Click on Control Panel.
- 4). Click on Programs and Features.
- 5). Click on Data Link to highlight it.
- 6). Click on Uninstall, and follow prompts.