



MANAGER BASIC

# DCX Manager Basic

# Instruction Manual

**Branson Ultrasonics Corp.**  
120 Park Ridge Road  
Brookfield, CT 06804  
(203) 796-0400  
<http://www.bransonultrasonics.com>

**BRANSON**

## 1.1 Introduction

The DCX Manager Basic software allows to record weld data of a DCX power supply. The weld data includes the following details:

- Cycle Counter
- Weld Time (ms)
- Weld Power (W)
- Weld Energy (Ws)
- Weld Amplitude (%)
- End Frequency (Hz)
- Peak Current (%)
- Temperature (°C)
- Error Messages

This instruction manual provides information for installing and using the DCX Manager Basic software for Windows operating systems.

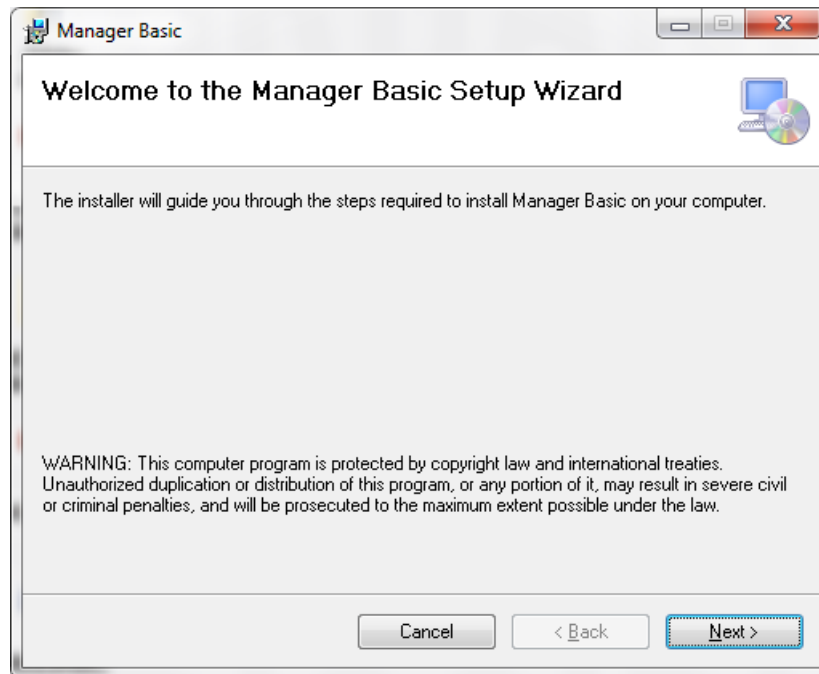
### 1.1.1 System Requirements

To install and run the DCX Manager Basic software, your system must meet the following minimum requirements:

- Windows 7 or greater
- Internet Explorer 10 or greater
- Ethernet port
- CD-ROM drive

## 1.2 Installation

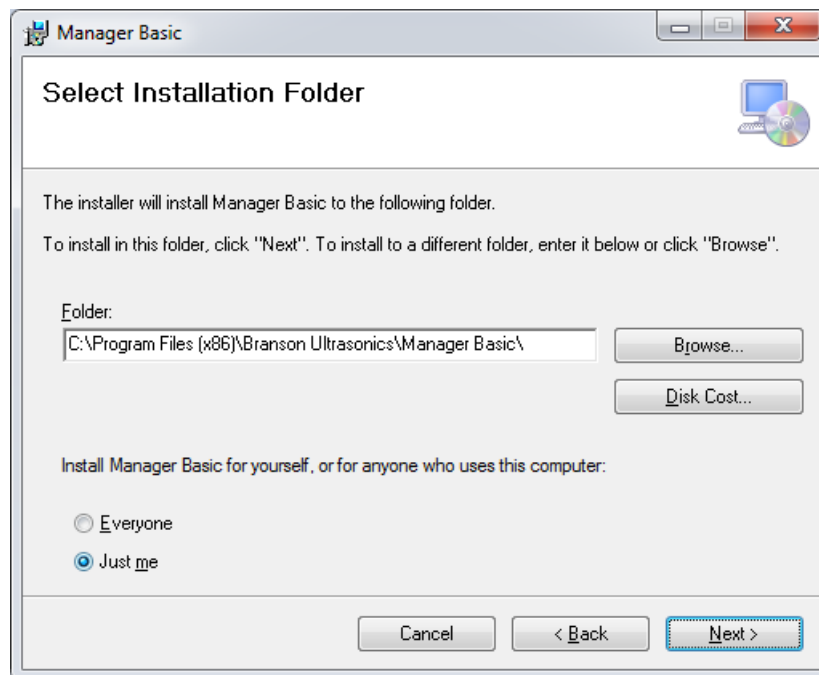
1. Insert the installation CD into the CD-ROM, click *Start Menu > Computer* and browse your CD-ROM drive
2. Locate and run **DcxManagerBasic\_V1.0.0\_Setup.msi** to open the DCX Manager Basic setup wizard. Click **Next**



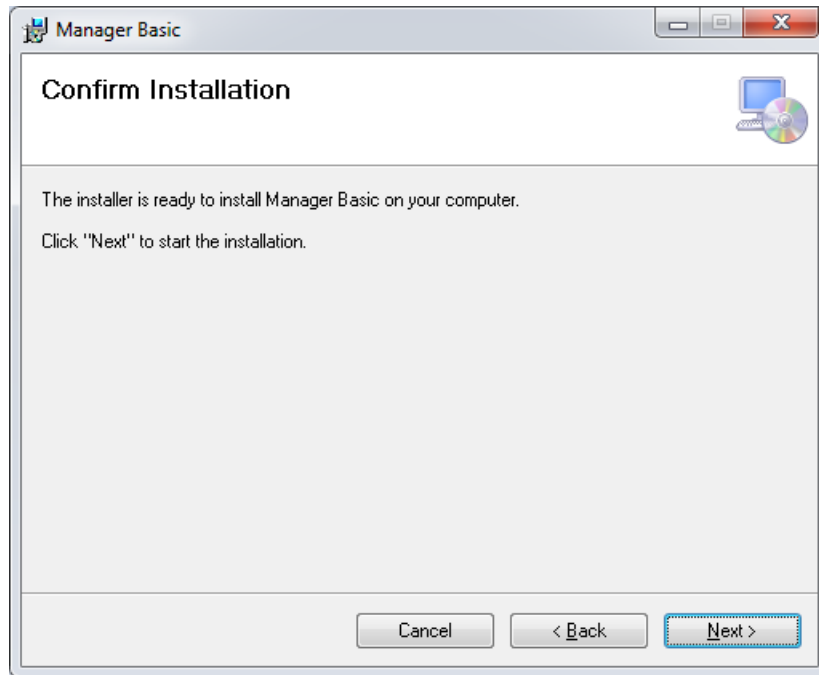
3. The setup wizard will install DCX Manager Basic by default to the following folder:

*C:\Program Files (x86)\Branson Ultrasonics\Manager Basic*

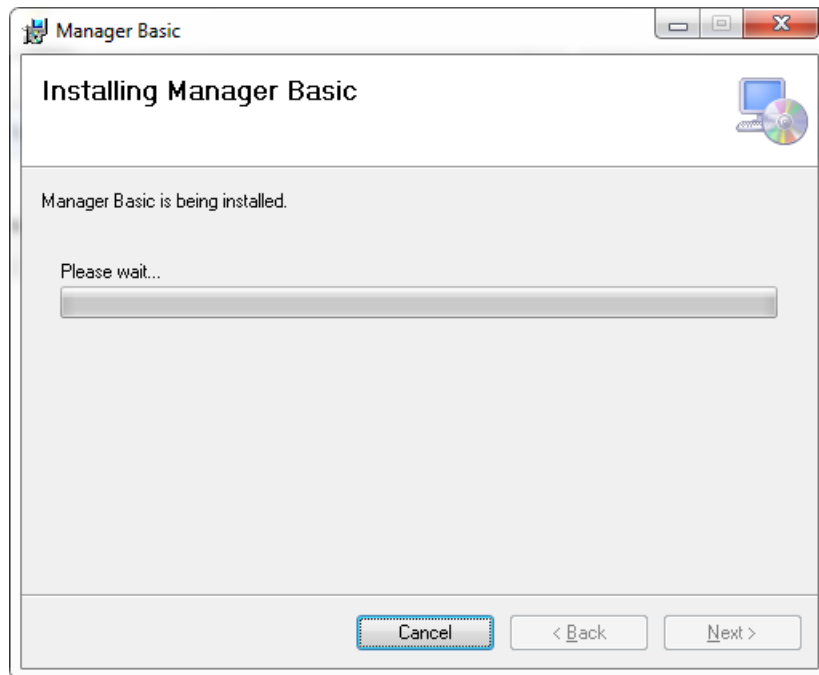
To install in this folder, click **Next**. To install to a different folder, click the **Browse** button to select the folder you want to install DCX Manager Basic, then click **Next**



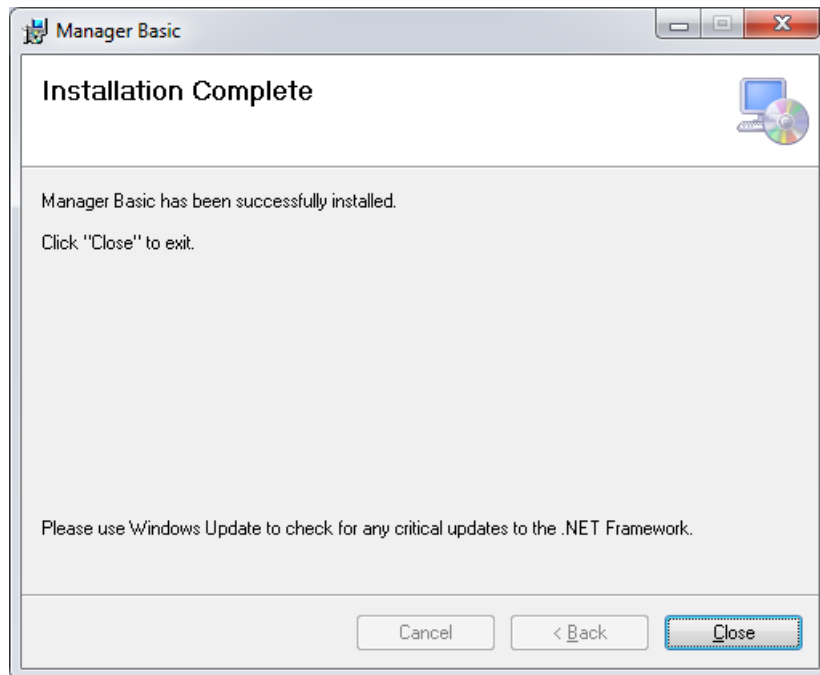
- The setup wizard is ready to install DCX Basic Manager on your computer. Click **Next** to start the installation



- The setup wizard will show the current progress of the installation



6. Once DCX Manager Basic has been successfully installed, click **Close** to exit the setup wizard



7. A shortcut to open the DCX Manager Basic software will be created in the desktop and Start Menu



## 1.3 DCX Manager Basic Interface

### 1.3.1 Main Screen

Figure 1.1 Main Screen

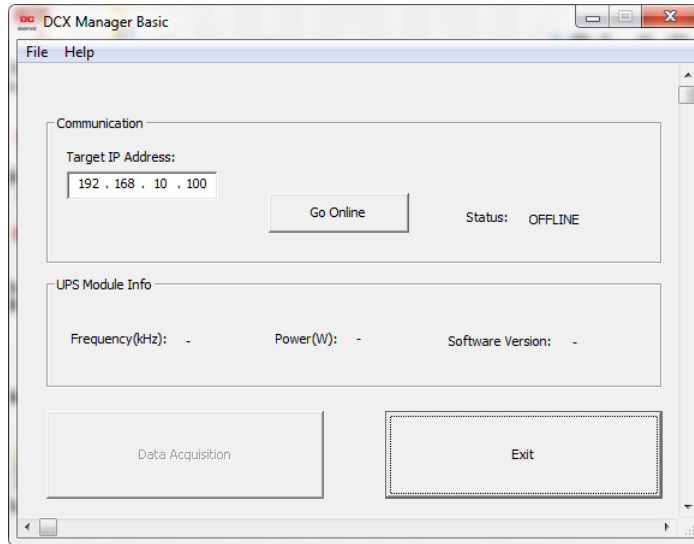


Table 1.1 Main Screen

Name	Description
<b>Communication</b>	
Target IP Address	Enter the IP address assigned to the target power supply. Refer to your power supply manual for more information.
Go Online	Click to establish communication to the target power supply.
Go Offline	Click to interrupt communication to the target power supply.
Status	Displays the communication status to the target power supply.
<b>UPS Module Info</b>	
Frequency (kHz)	Displays the power supply operating frequency.
Power (W)	Displays the power supply wattage.
Software Version	Displays the power supply software version.
Data Acquisition	Click to go to the Data Acquisition screen. <b>NOTICE</b> To enable this function, communication must be established by using the Go Online button.
Exit	Click to close DCX Manager Basic.
<b>Menu Bar</b>	
File	Quit DCX Manager Basic.
Help	Information about DCX Manager Basic.

### 1.3.2 Data Acquisition Screen

Figure 1.2 Data Acquisition Screen

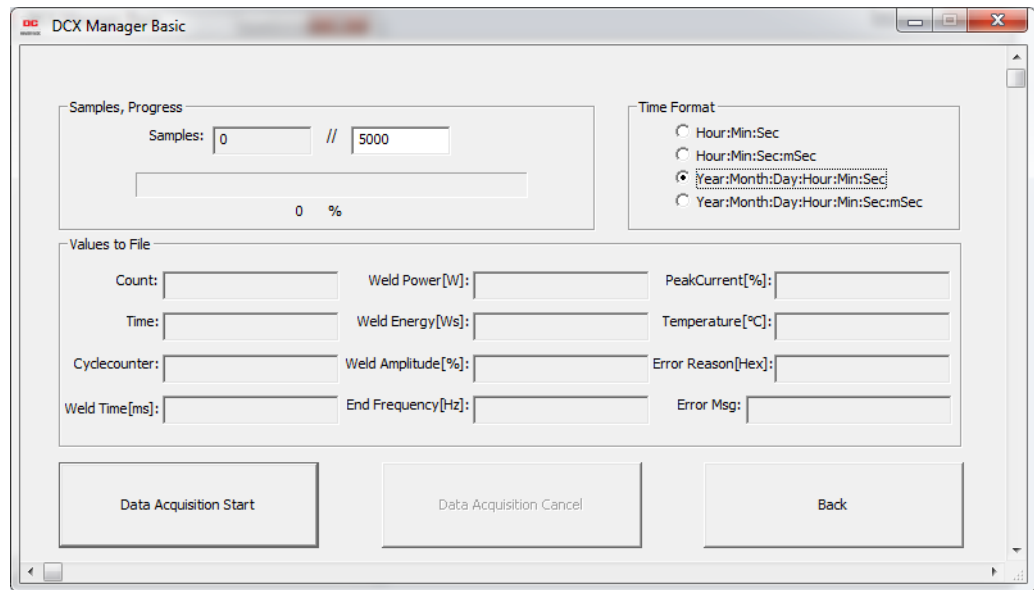


Table 1.2 Data Acquisition Screen

Name	Description
<b>Samples, Progress</b>	
Samples	<p>Set the number of weld cycles to be recorded by the DCX Manager Basic software. Operation of the power supply is independent from this setting.</p> <p><b>NOTICE</b> Number of samples must be between 1 and 100,000.</p>
Progress Indicator	Displays a percentage progress bar. As soon as the progress indicator has reached 100%, recording of the data will be completed.
Time Format	<p>When recording, details on time and date are added to the weld data. To define the format to use, select from the following options:</p> <ul style="list-style-type: none"> <li>hour: min: sec</li> <li>hour: min: sec: msec</li> <li>year: month: day: hour: min: sec</li> <li>year: month: day: hour: min: sec: msec</li> </ul>
<b>Values to File</b>	
Count	Displays the sample count.
Time	Displays the time in the defined time format.
Cycle Counter	Displays the cycle counter.
Weld Time (ms)	Displays the weld time in milliseconds.
Weld Power (W)	Displays the weld power in watts.

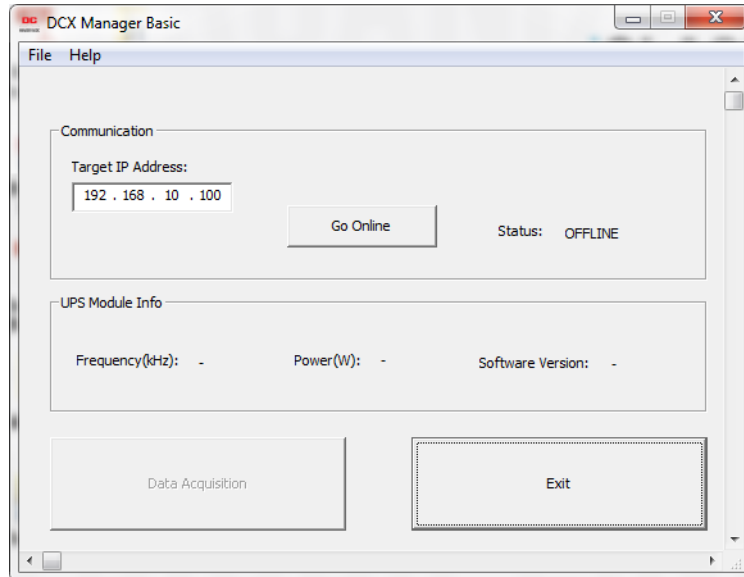
**Table 1.2** Data Acquisition Screen

Name	Description
Weld Energy (Ws)	Displays the weld energy in watts-second.
Weld Amplitude (%)	Displays the weld amplitude percentage.
End Frequency (Hz)	Displays the end frequency in hertz.
Peak Current (%)	Displays the peak current percentage.
Temperature (°C)	Displays the temperature in Celsius.
Error Reason (Hex)	Displays error messages in hexadecimal format. <div style="background-color: #003366; color: white; padding: 2px; display: inline-block; font-weight: bold;">NOTICE</div> See <a href="#">1.5 Error Messages</a> for more information.
Error Message	Displays error messages. <div style="background-color: #003366; color: white; padding: 2px; display: inline-block; font-weight: bold;">NOTICE</div> See <a href="#">1.5 Error Messages</a> for more information.
Data Acquisition Start	Click to start data recording.
Data Acquisition Cancel	Click to interrupt data recording.
Back	Click to return to the main screen.



## 1.4 DCX Manager Basic Operation

1. Connect an Ethernet cable (RJ45) from the PC to the target DCX power supply
2. On the main screen, set the IP address assigned to the target DCX power supply. Click the **Go Online** button to establish communication. The status field will change from OFFLINE to ONLINE and the UPS Module Info fields will display the DCX power supply frequency, power, and software version. Click the **Data Acquisition** button to continue



### NOTICE



If connection cannot be established, check your IP settings, and ensure that the Ethernet cable is properly connected.

3. Set the number of weld cycles to be recorded by the DCX Manager Basic software on the **Samples** field. Select an option from the **Time Format** section to define the time format to be recorded.

The screenshot displays the DCX Manager Basic software interface. The window title is "DCX Manager Basic".

**Samples, Progress**

Samples:  //

%

**Time Format**

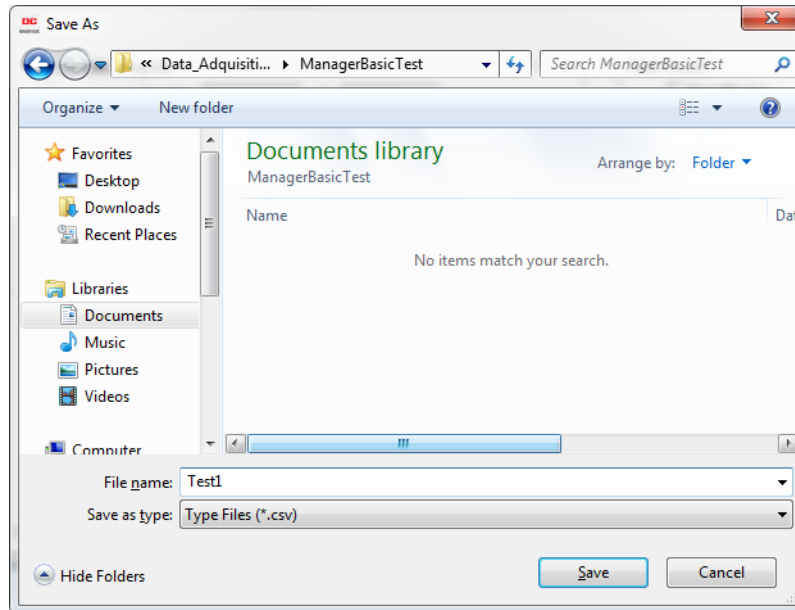
- Hour:Min:Sec
- Hour:Min:Sec:mSec
- Year:Month:Day:Hour:Min:Sec
- Year:Month:Day:Hour:Min:Sec:mSec

**Values to File**

Count: <input type="text"/>	Weld Power[W]: <input type="text"/>	PeakCurrent[%]: <input type="text"/>
Time: <input type="text"/>	Weld Energy[Ws]: <input type="text"/>	Temperature[°C]: <input type="text"/>
Cyclecounter: <input type="text"/>	Weld Amplitude[%]: <input type="text"/>	Error Reason[Hex]: <input type="text"/>
Weld Time[ms]: <input type="text"/>	End Frequency[Hz]: <input type="text"/>	Error Msg: <input type="text"/>

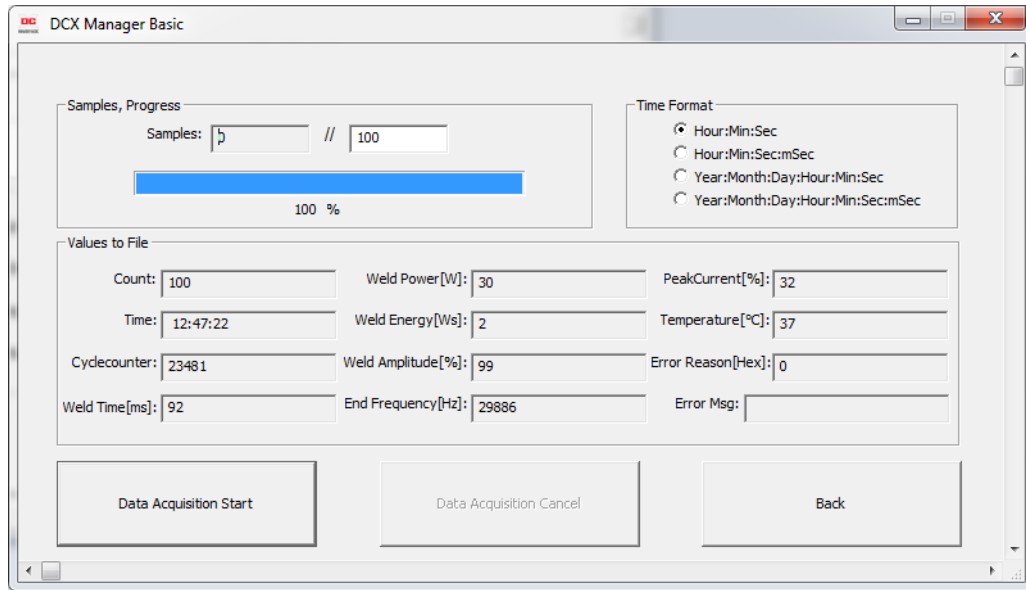
**Data Acquisition Start**      **Data Acquisition Cancel**      **Back**


4. Click the **Data Acquisition Start** button. A dialog box will appear. Define the file name and location for the data to be recorded, and click **Save** for the DCX Manager Software to start reading and recording data from the DCX power supply to a **.csv** file, or press **Cancel** to only read data without saving it.

**NOTICE**

A previously saved **.csv** can be used for further data acquisition by selecting it. The **.csv** file can be opened with Microsoft Excel.

5. As soon as the progress indicator has reached 100%, recording of the data will be completed



NOTICE	
	Click the <b>Data Acquisition Cancel</b> button to interrupt data recording.

## 1.5 Error Messages

**Table 1.3** Error Messages

Error Code (Hex)	Error Message	Description
1	Overload - Temperature	IGBT heat sink temperature limit is reached.
2	Overload - Power Limit	Power supply reached 115% rated power.
4	Overload - Voltage	RF voltage peak limit reached.
8	Overload - Current	RF current peak limit reached.
10	Frequency - Low Seek Limit	Frequency reached low end limit: 20 kHz 19.450 kHz 30 kHz 29.250 kHz 40 kHz 38.900 kHz
20	Frequency - High Seek Limit	Frequency reached high end limit: 20 kHz 20.450 kHz 30 kHz 30.750 kHz 40 kHz 40.900 kHz
40	Frequency - Low Weld Limit	Frequency reached low end limit: 20 kHz 19.450 kHz 30 kHz 29.250 kHz 40 kHz 38.900 kHz
80	Frequency - High Weld Limit	Frequency reached high end limit: 20 kHz 20.450 kHz 30 kHz 30.750 kHz 40 kHz 40.900 kHz
100	Overload - Phase	Phase peak limit reached.
200	Power - Low Limit	Power reached low end limit.
400	Power - High Limit	Power reached high end limit.
800	Energy - Timeout Reached	Energy didn't reach limit within the established timeout period.
1000	AC Power Lost	AC power has been lost. Ensure that the line cord is properly connected.

## 1.5.1 Network Connection Error

If connection cannot be established, check your IP settings, and ensure that the Ethernet cable is properly connected.

If connection is lost during data acquisition, DCX Manager Basic will stop acquiring data and will return to Main Screen.

**Figure 1.3** Network Connection Error

