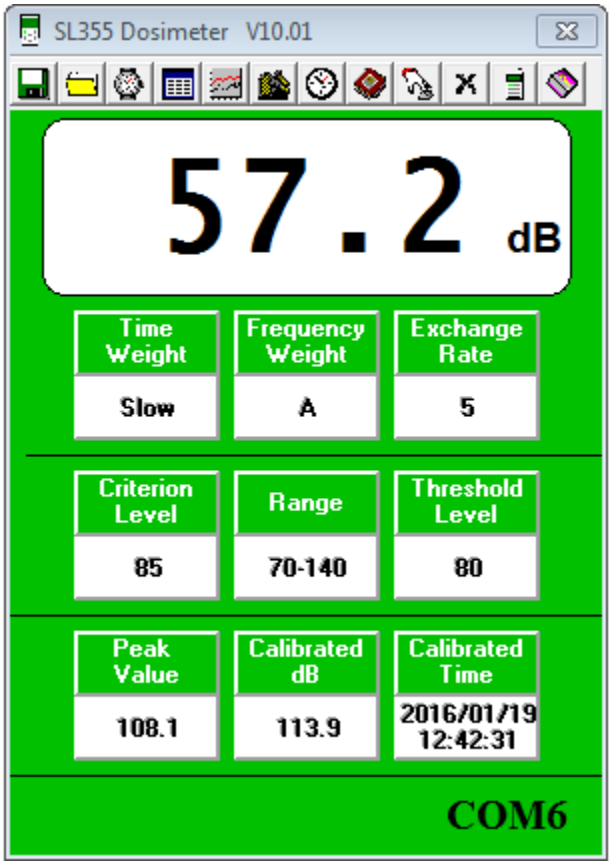
Software Help Manual

Model SL355

Noise Dosimeter/Datalogger



Software Introduction

The SL355 Noise Dosimeter software allows for setup and retrieval of recorded data in the Noise Dosimeter.

A total of 20 sessions can be recorded and a total of 14,400 memory locations.

System Requirements:

Windows 7, Windows 8.1, Windows 10

Minimum Hardware Requirements:

PC Desktop or NoteBook Computer with Pentium 90MHz minimum 32 MB RAM, USB Port, 4 MB hard disk space to install Datalogger software and USB driver. Recommended display resolution 1024 x 768 with High Color (16 bit)

Install Datalogger Software

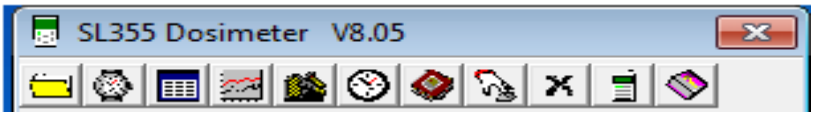
Install the supplied Windows PC Datalogger Software by placing the supplied program disk in the PC CD-ROM drive. If the installation program does not automatically open and provide on-screen prompts, double click the **ExtechInstaller.exe** file included on the program disk.

Follow the on-screen prompts to complete the installation. If you have a problem running EXTECH.exe, run SETUP.exe in the Software folder.

Install USB Driver

Click on Drivers.
Follow the on-screen prompts to complete the driver installation.

Main Menu

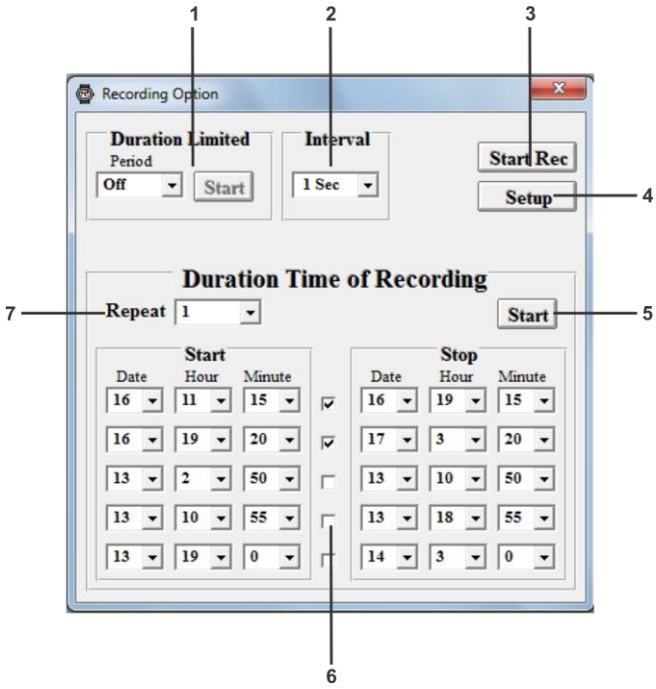


Save As	Saves the most recent .dosi file.
Open File	Opens previously saved .dosi files.
Recording Options	Allows the user to set up recording sessions and the associated parameters.
List Display (Real Time)	Initiates a real time recording of data in a list format.
Graphic Display (Real Time)	Initiates a real time recording of data as a graph.
Recording Setup	Set the parameters of the meter for the Dose recording session(s) set up in the **Recording Options** window.
Set Meter Time	Sync the Dosimeter clock to the PC clock.
Data Logger	Downloads recorded datalog sessions for viewing and saving.
Control Panel	Initiates a Graphical User Interface that allows the user to control the connected Dosimeter via the PC.
Erase Datalogger	Erases all datalogged sessions stored in the Dosimeter's memory.
Meter Setup	Set the current parameters of the Dosimeter for any Real time recording session(s).
Help Menu	Displays SW Help Manual in 6 different languages.

Dosimeter Operation

Recording Options

Click on the  icon found on the menu bar. The **Recording Options** setup window will appear as shown below. Time parameters for dosimeter noise surveys are set in this window. Noise survey parameters must be set in the Recording Setup window prior to starting the survey.



1. **Duration Limited** Allows for the user to record a session immediately.
   - **Period** Changes the length of time desired for the recording.
   - **Start** Starts the **Duration limited** recording session.
2. **Interval** Sets the sampling rate for both the **Duration Limited** options as well as the **Duration Time of Recording** options.
3. **Start Rec** Begins an untimed recording session that will continue until all memory is full.
4. **Setup** Saves the **Recording Options** settings into the SL355 **meter.**
5. **Start** Begins the **Duration Time of Recording** session.
6. **Start/Stop** Sets Start and Stop time parameters for recording future sessions. Parameters include the desired date, hour, and minute of these sessions.
7. **Repeat** If desired, the user can repeat the sessions outlined in the **Duration Time of Recording** section. (set to 1 for one session).

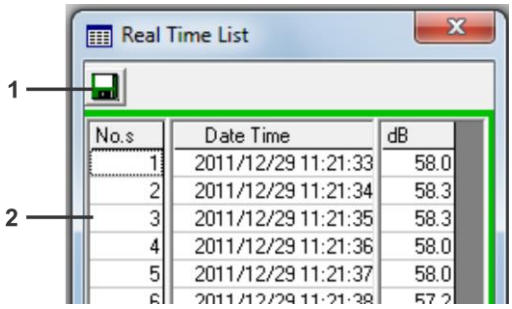
Note: a step by step setup of the SL355 meter for an 8 or 12 hour Dose survey is provided under the heading How to set up the SL355 for an 8 or 12 hour DOSE Survey.

Note: Sample rates less than 1 minute will display each recorded sound level as well as the total calculated Dose and TWA. Sample rates of 1 minute or greater will display your recorded data as a running Dose and TWA list.

Real Time List Display

Click on the  icon found on the menu bar. The **Real Time List Display** window will appear as shown below:

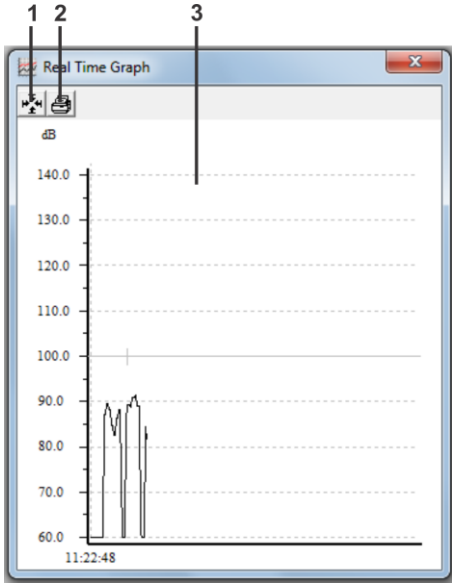
1. **Save** Stores the Real Time List data.
2. **Recorded Data List** Displays each sample with its number, date and time of its recording, and its recorded decibel level.



Real Time Graphic Display

Click on the  icon found on the menu bar. The **Real Time Graphic Display** window will appear as shown below:

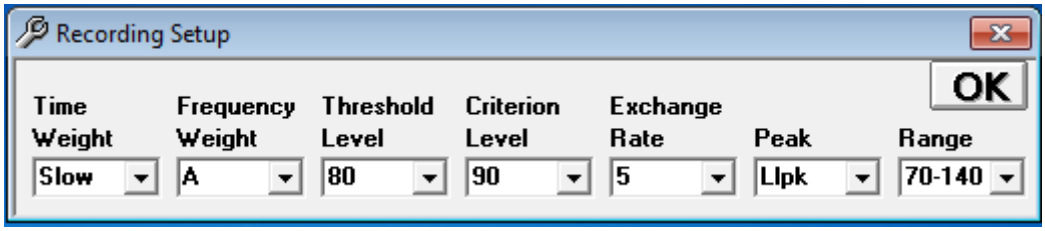
1. **Limit** Alter parameters of the graph; such as maximum and minimum decibel levels displayed as well as the number of samples displayed.
2. **Print** Prints the displayed graph.
3. **Recorded Data Graph** Displays the recording session's data as a graph.



Limit Parameters:

Recording Setup (Dose recording)

Click on the  icon found on the menu bar. The Dose **Recording Setup** window will appear as shown below. Set the appropriate dosimeter noise survey parameters according to the standards required for compliance. Refer to OSHA or other local standards for proper settings.
Figure is set for a typical OSHA Dose noise survey for the USA.



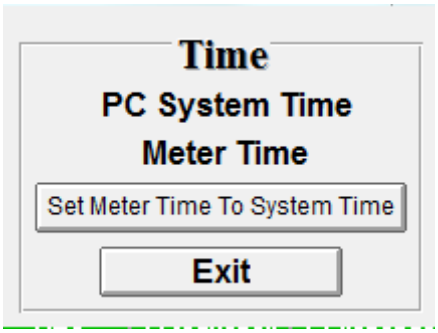
Time Weight: Set to Fast or Slow. Typical human noise surveys are performed in Slow response.
Frequency Weight: Set to A or C weighting. The Human ear setting is A weighted.
Threshold Level: This noise level and above are factored into the Dose calculation.
Criterion Level: Permissible exposure limit (PEL) used in noise dose measurements.
Exchange Rate: The amount by which the permitted sound level may increase if the exposure time is halved. Set by local regulations.
Peak: Maximum peak pressure level value
Range: Range setting of the dosimeter. Either 60-130dB or 70-140dB

Note: a step by step setup of the SL355 meter for an 8 or 12 hour Dose survey is provided under the heading How to set up the SL355 for an 8 or 12 hour DOSE Survey.

Real Time Clock

Click on the  icon found on the menu bar. The **Real Time Clock** window will appear as shown below. **Exit** closes this window.

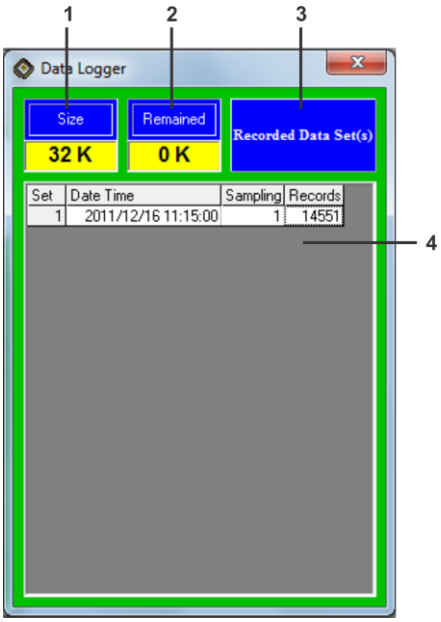
Click on **PC System Time** to view the PC's current date and Time
Click on **Meter Time** to view the Dosimeter's current Date and Time.
Click on "Set Meter Time To System Time" to set the Dosimeter time and date to match the PC.

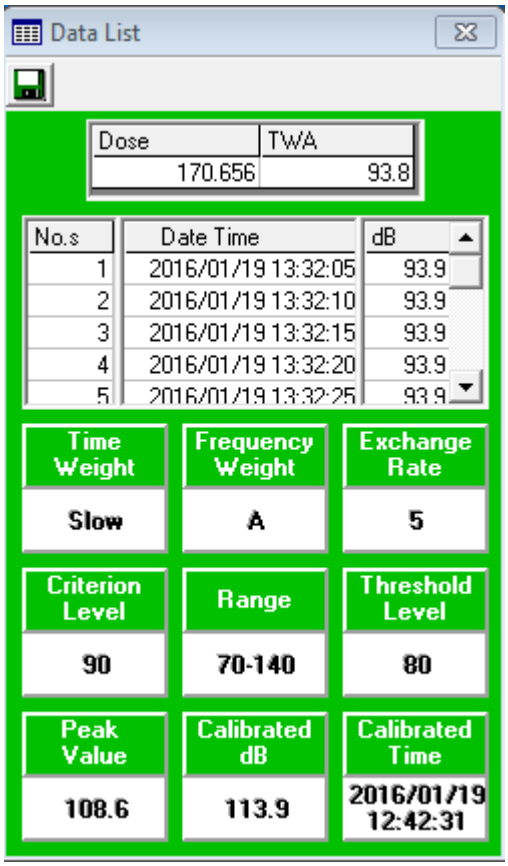


Data Logger

Click on the  icon found on the menu bar. The **Data Logger** window will appear as shown below. Any data recorded in the SL355 memory will be downloaded to the PC.

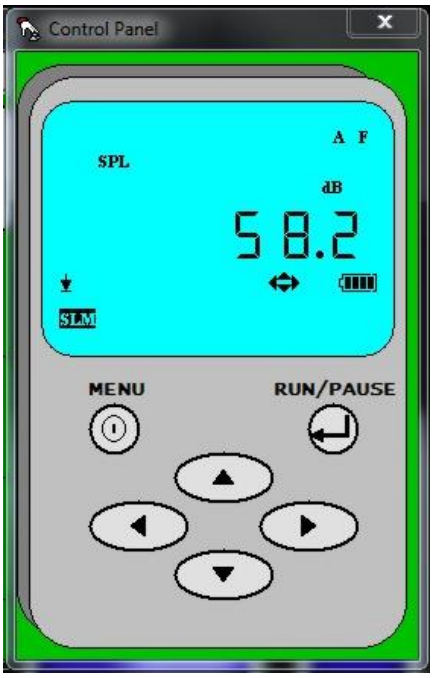
1. **Size** — Displays the total amount of memory the Dosimeter can hold.
2. **Remained** — Displays the remaining amount of memory left in the Dosimeter.
3. **Download Progress** — Displays how much of the saved data has been downloaded; this box will be partially red if the data has not finished downloading.
4. **Recorded Data Set List** — Displays each set's number, date and time, sampling rate, and number of samples recorded. A data set can be reviewed by double-clicking on it; the resulting window is shown below.





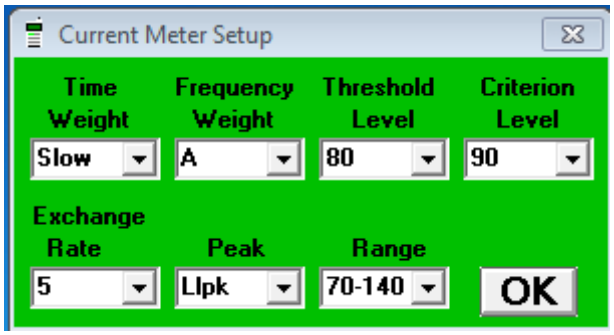
Control Panel

Click on the  icon found on the menu bar. The **Control Panel Graphic User Interface** window will appear as shown; this display has the same functionality as buttons on the Dosimeter itself.



Current Meter Setup (Real Time recording)

Click on the  icon found on the menu bar. The **Current Meter Setup** window will appear as shown below; descriptions of each field can be found under the **Recording Setup** window described above—both sets of parameters are the same. The **Current Meter Setup** is used to change the meter's current parameters as needed to record **real-time** data sessions to the PC.



Help Menu

Click on the icon  to access the SW Help Guide. Select the desired language from the pull-down menu to view the appropriate Help Guide.

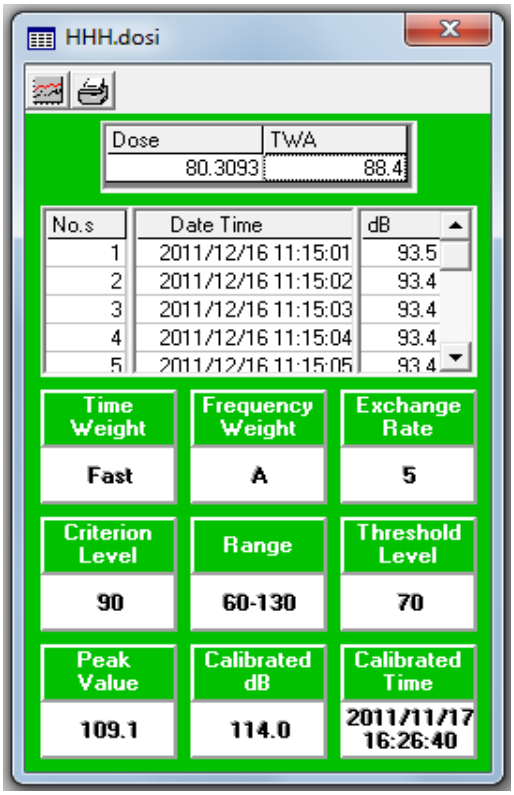
Graphic Display of Saved Data

After saving a data set, the information can be viewed as a graph after recalling the saved file. First,

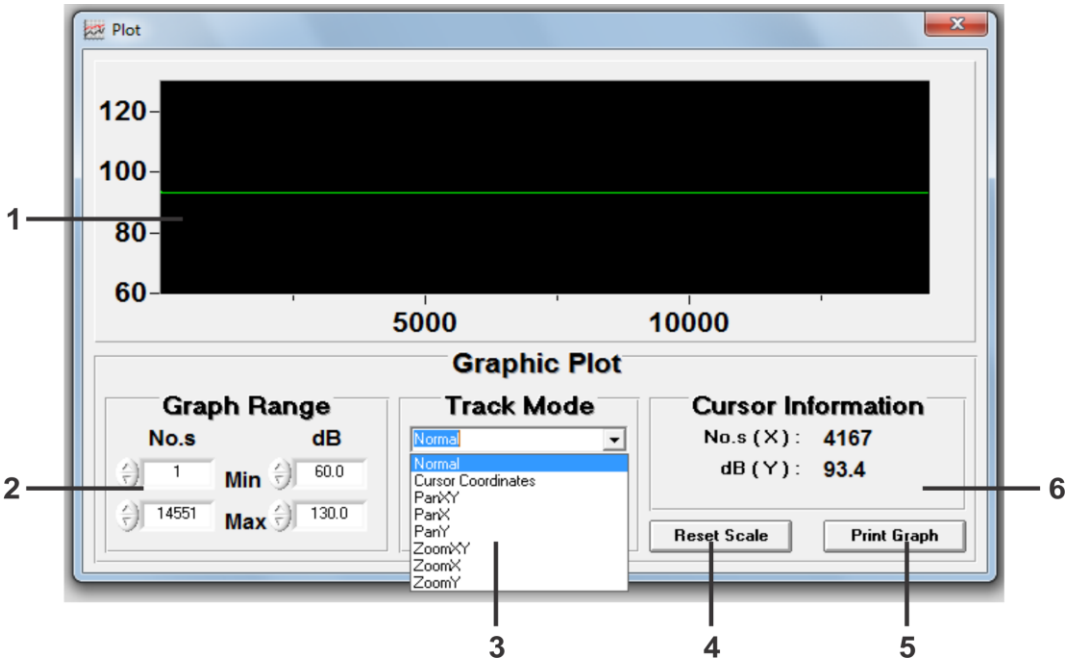
Click on the **Open File** icon  and after the file loads the following screen will appear

This window displays the set's Dose % and TWA (Time Weighted Average), the recorded data (similar to the **List Display** seen before), as well as the settings used by the meter during the recording session.

Click on the icon  to print the set's data as a list.



Click on the  icon to view the graphic representation of the data set:



1. **Graph Window** — Displays graphic representation of data set.
2. **Graph Range** — Modify graph limits.
   - **Sample Number** — Modify the number of samples shown in the graph's window.
   - **Min/Max Decibel limit** — Modify the upper and lower decibel limits shown in the graph's window.
3. **Track Mode** — Offers several ways to review the data set's graph.
   - **Normal** — Displays data in standard view.
   - **Cursor Coordinates** — Displays the information of a selected sample point after it has been clicked on.
   - **Pan XY** — Allows the user to pan the graph in the direction of both the X and Y-axes.
   - **Pan X** — Only allows the user to pan the graph in the direction of the X-axis.
   - **Pan Y** — Only allows the user to pan the graph in the direction of the Y-axis.
   - **Zoom XY** — Allows the user to enlarge the graph by both the X and Y-axes.
   - **Zoom X** — Allows the user to enlarge the graph by the X-axis i.e. the Y-axis's values remain constant.
   - **Zoom Y** — Allows the user to enlarge the graph by the Y-axis i.e. the X-axis's values remain constant.
4. **Reset Scale** — Reverts back to the initial graph.
5. **Print Graph** — Prints the current graph.
6. **Cursor Information** — Displays the values of the X and Y coordinates (sample number and decibel value respectively).

How to set up the SL355 for an 8 Hour Dose survey

1. Power on the SL355. Make sure that the SL355 has fresh batteries.

2. If you have not calibrated the SL355 you should attach a calibrated sound calibrator to the SL355. Press the Menu button until CL xx.x appears on the screen. Turn on the calibrator and set it for 114dB and adjust the calibration potentiometer on the top of the SL355 to 114. Press the Run/Pause button to lock in the calibration value and date/time.

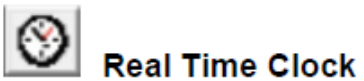
   Note: you might want to set the Date/Time before you perform the calibration.

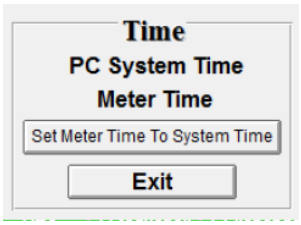
3. Start the SL355 software and plug the SL355 into the PC. Enter the COM port number that the meter is connected to.

4. Erase all of the SL355 memory before starting by clicking on the erase icon. 

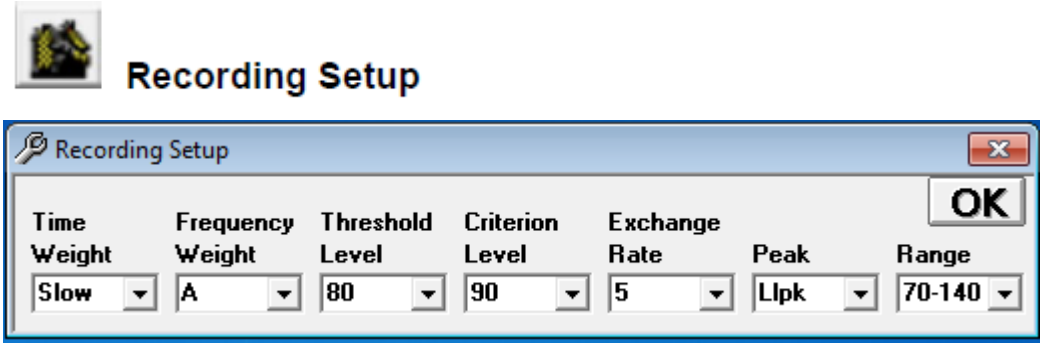
5. Click on the Real Time Clock icon to sync the PC's Time and Date to the SL355.

6. Click on **Set Meter Time to System Time** button.





7. Click on the Recording Setup Icon to set up the parameters of your recording. Typical OSHA (USA) settings for Dose measurements are shown here



8. Click on the Recording options Icon to set up your test time to 8 hours with a 2 second (minimum) Interval time.

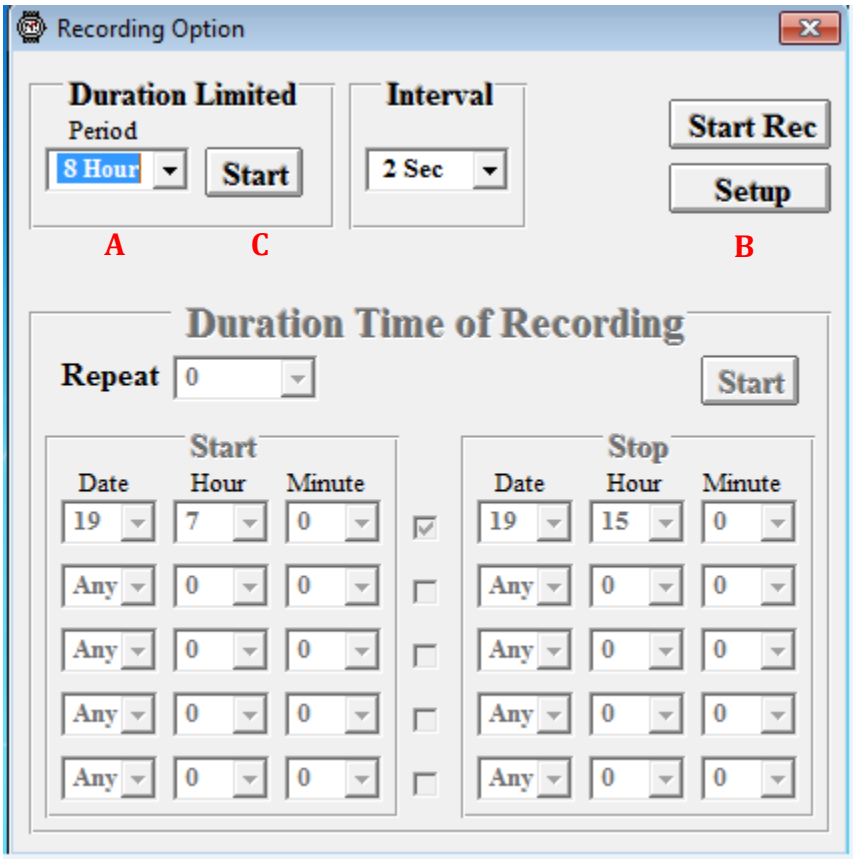
Recording Options

9. Choose duration Period (**A**) on the pull down list (8 hours minimum for a typical Dose survey). Setup the Interval time for how often you want to make a measurement.

   (**2 second minimum** for an 8 hour Dose survey)
   (**5 second minimum** for an 12 hour Dose survey)
   .
10. Click on the SETUP button (**B**)to program the recording options into the SL355.

11. Click on START button (next to Period setting **C**) to start the timed recording <u>immediately</u>
    OR
    to start the meter **<u>manually</u>** after you get the dosimeter in place, press the Menu button on the SL355 until DATA appears, then press the RUN/PAUSE button until REC appears on the display.

12. Disconnect the SL355 from the PC and place the unit on the person who will record the noise survey.



How to set up the SL355 for an 8 Hour Dose survey for a Duration Time of Recording

1. Follow steps 1 through 7 above.
2. Set the Duration Limited Period setting to OFF **(A).**
3. Set Interval to 2 seconds (minimum) for an 8 hour survey, or to 5 seconds (minimum) for a 12 hour survey.
4. Set **Repeat to 1** (runs once)
5. Set START time : Date, Hour, Minute
6. Set STOP time: Date, Hour, Minute
7. Click on Setup button **(B)**
8. Click on Start button **(C)**
9. The SL355 will show a flashing **REC** but will not start recording data until the actual programmed Start time.

   Do NOT turn off the meter.
10. Disconnect the SL355 from the PC and place the unit on the person who will record the noise survey.