



LDM (Long-term Deployment Module)

User's Manual

LDMcom Software revision 4.

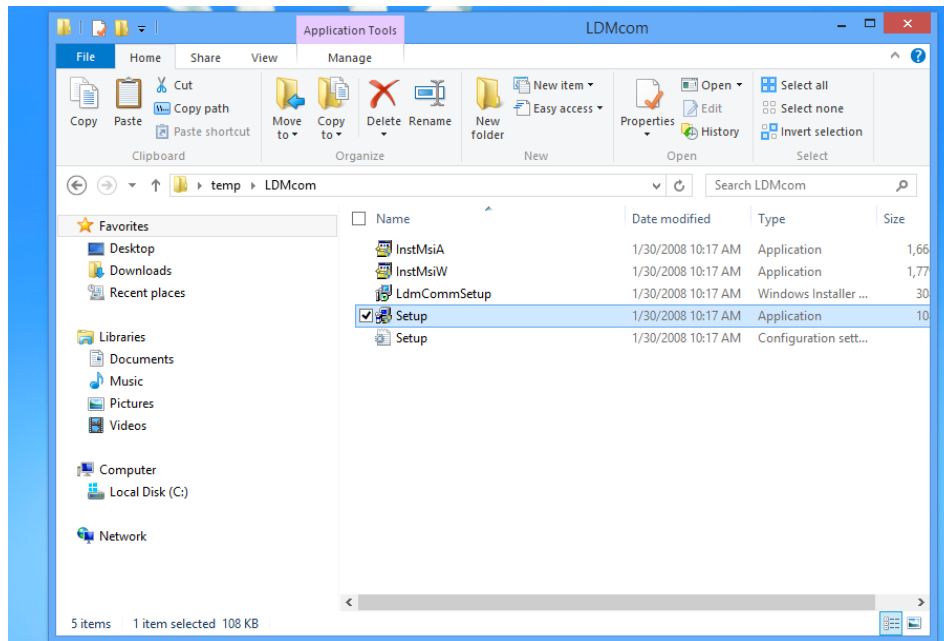
HydroTech

P.O Box 5520, Round Rock TX 78683 (512)-846-2893

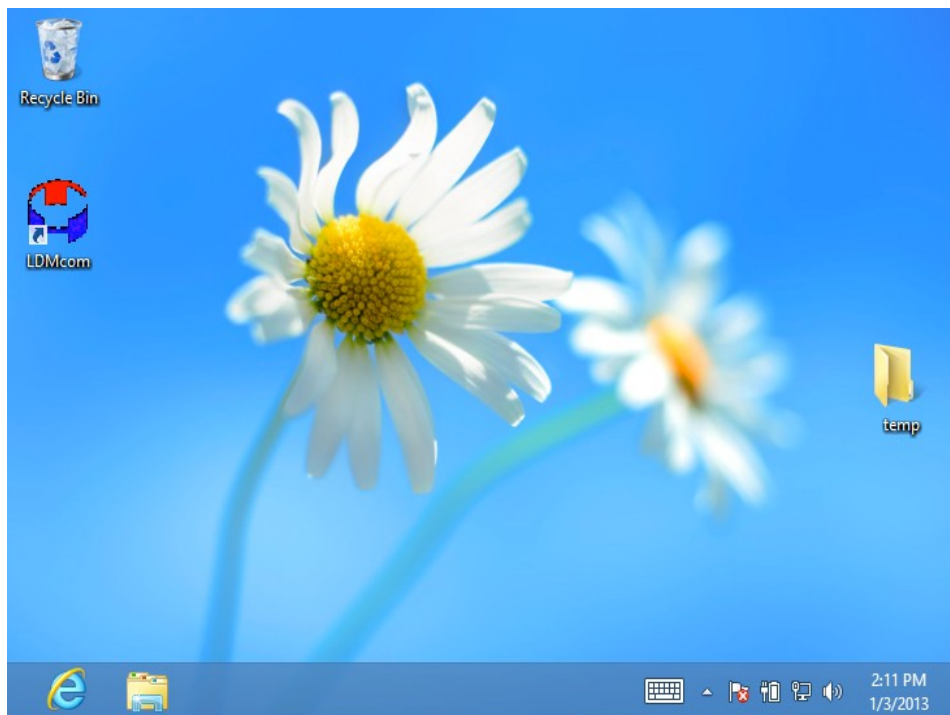
April 2014

Installing LDMcom software:

Use the installation CD provided with the LDM to install the LDMcom software on your PC. The LDMcom is compatible with Windows XP, Windows 2000, Windows Vista, Windows 7 and Windows 8. After installing the LDMcom, a shortcut to the LDMcom will install on your desktop. See picture below.



Double click on the setup file



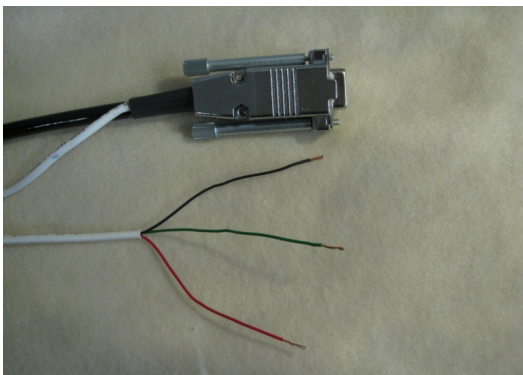
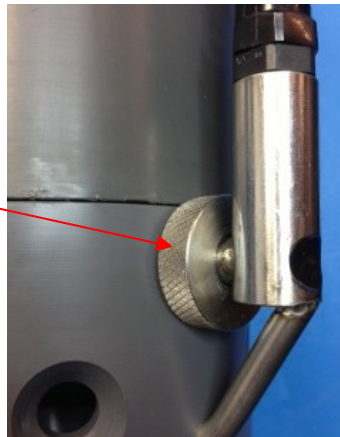
Connecting the LDM to your PC and a 12 volts power supply:

1- Connect the LDM underwater connector to the LDM communication port. Make sure the LDM connector guide is aligned with the LDM connector guide port. Push sideways on the LDM connector and the LDM connector guide, then turn the LDM connector locknut clockwise until the connector and the guide are fully inserted. Connect the DB9 connector at the other end of the LDM cable to the RS232 port of your computer, then connect the red wire to the positive 12 volts supply and the black wire to the negative of the 12 volts power supply.

LDM under water connector
LDM communication port
LDM connector guide port
LDM connector guide



LDM connector locknut



RS232 connect to PC via DB9 or USB to RS232 adaptor

Black: Power (Ground)
Green: SDI12 Data
Red: Power (+)

2- Turn the 12 volts power supply ON, then double-click on the Hydrotech LDMcom icon on your desktop. The LDMcom window will open. See picture below. After 30 seconds, the LDMcom will populate the LDM date and time fields which indicate the LDMcom is now communicating with your LDM. The LDMcom will automatically search all comports at all standard baud rates to find the LDM. No need for baud rate or comport setup.

Note:

If you are going to use the LDM with an SDI-12 data-logger , go to the section “When using an SDI-12 data-logger with the LDM” at the end of this document.

LDMcom field descriptions:

LDM Date: Actual date reading from the LDM clock

LDM Time: Actual time reading from the LDM clock

PC Date: Actual date reading from your PC clock

PC Time: Actual time reading from your PC clock

Update LDM Clock: Enter new date and time in the “LDM Date” and “LDM Time” fields, then click on “Update LDM Clock” to save the new values to your LDM

Synchronize LDM clock to PC: Make sure your PC clock is set to the correct date and time, then click on “Synchronize LDM clock to PC” to synchronize LDM clock to PC date and time.

Revision: LDM firmware revision

Schedule Refresh: Will read all schedules in the LDM memory and update the LDMcom screen.

Exit:: Exit LDMcom

Status: Status of the schedules listed from LDM memory: “Active” or “Inactive”.

Start Date: Start date of the schedule listed.

Start Time: Start time of the schedule listed.

Stop Date: Stop date of the schedule listed.

Stop Time: Stop time of the schedule listed.

Interval: Time interval between cycles.

Schedule Start Date: Select start date and time for the schedule or accept default date and time.

Schedule Stop Date: Select stop date and time for the schedule or accept default date and time.

Select Interval:

Select 15 for a schedule of fifteen-minute cycles.

Select 30 for a schedule of thirty-minute cycles.

Select 1 hour for a schedule of 60-minute cycles.

Select 24 hours for a schedule of 24-hour cycles.

Select Custom to modify any of the existing schedules or to create a new custom schedule.

(Note: The start time of an interval is at the center of the holding time.)

Add: Click to add a new schedule.

Delete: Click to delete a selected schedule.

Discard: Click to discard any changes you made to a schedule.

Activate: Click to activate a selected schedule.

Deactivate: Click to deactivate a selected schedule.

Custom Schedule Interval: Modify or enter new time interval “HH:MM:SS”.

Custom Schedule Open Valve: Modify or enter new time interval “MM:SS” during which the valve will be open.

Custom Schedule Sample Holding: Modify or enter new time interval “MM:SS” during which the LDM will hold the water sample for measurement.

Custom Schedule Pump ON: Modify or enter new time interval “MM:SS” during which the Pump will be ON.

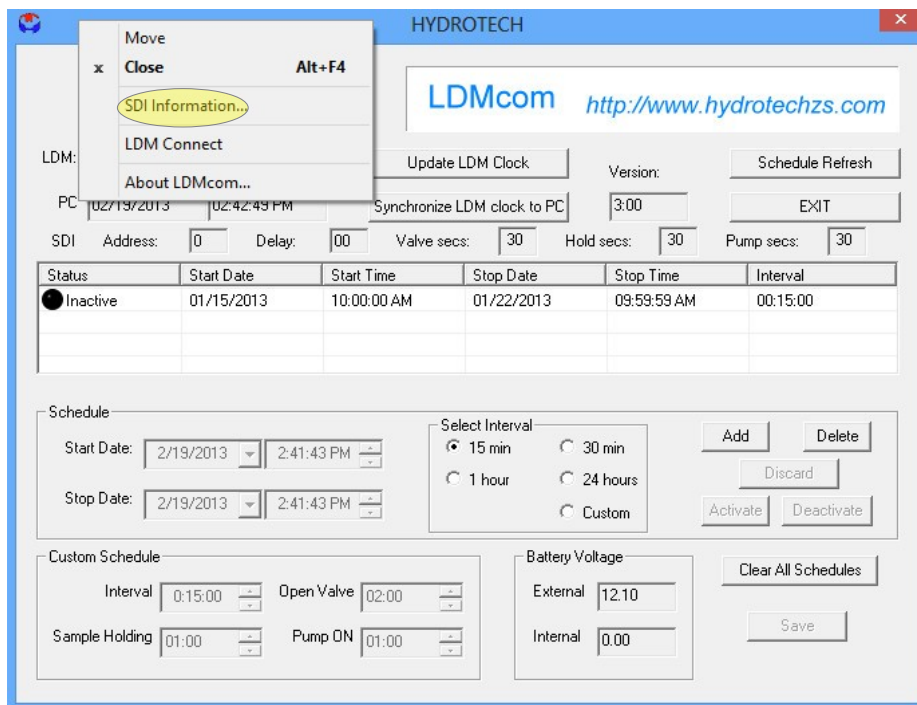
Battery Voltage External: External battery voltage connected to LDM

Battery Voltage Internal: Internal battery voltage connected to LDM

Clear All Schedules: Click to clear all schedules from the LDM memory

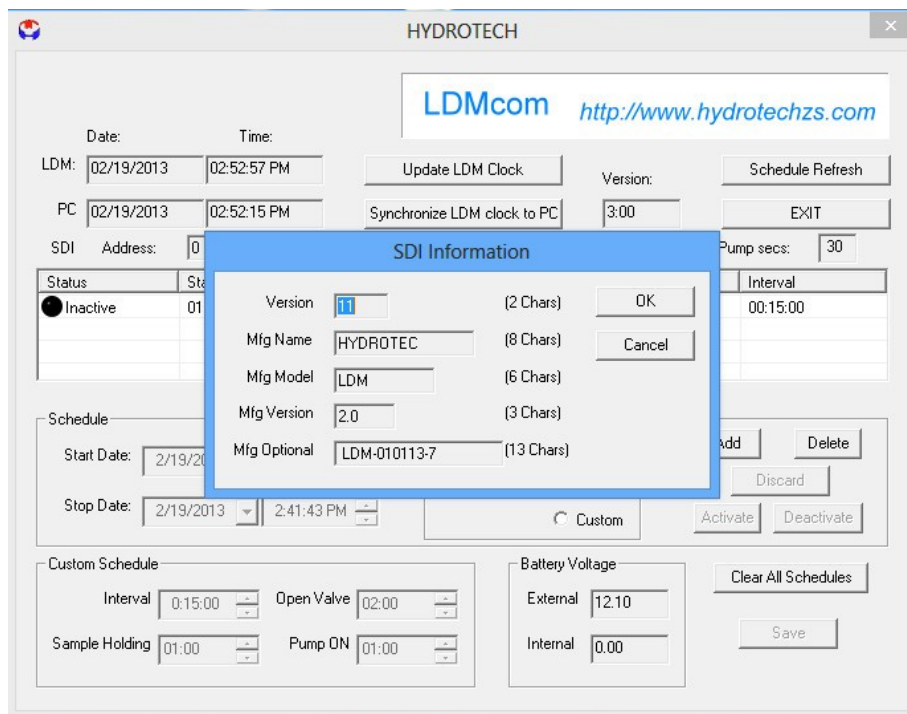
Save: Click to save changes made to any schedule.

Right click on the Hydrotech logo for a menu:

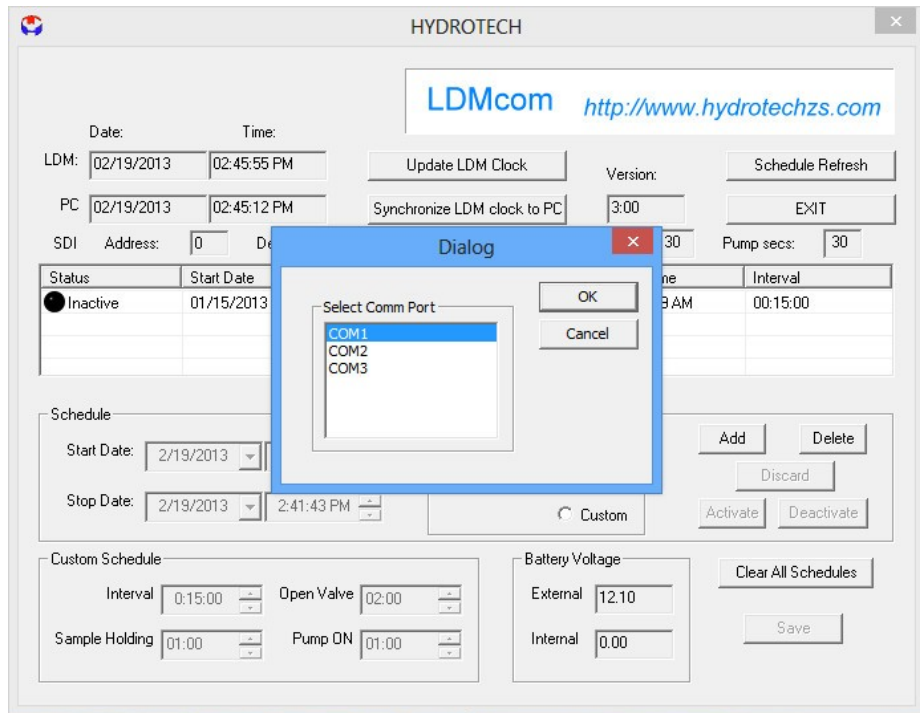


SDI Information:

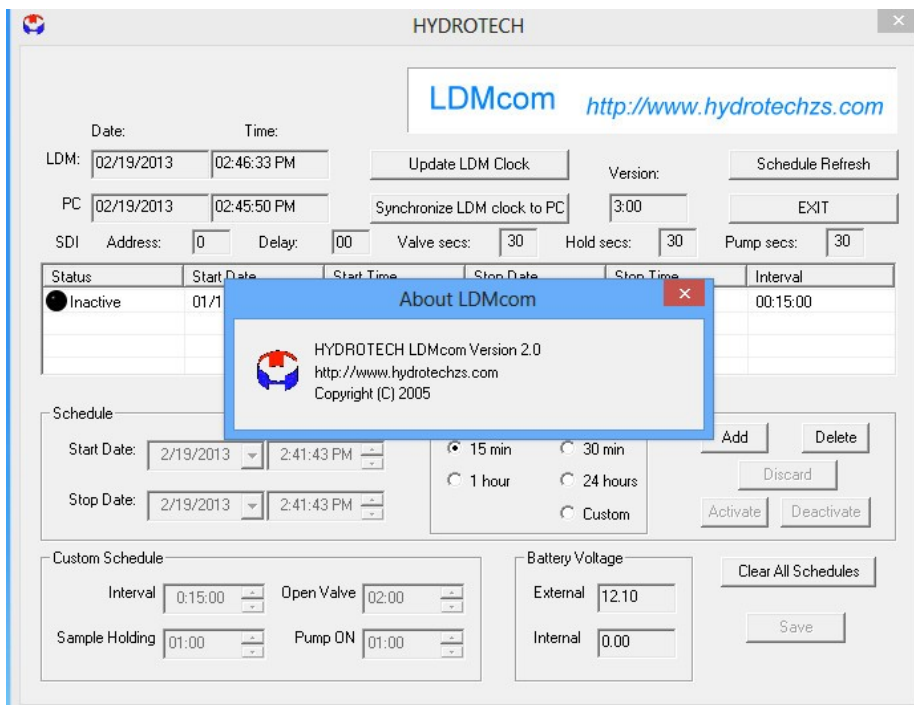
Version: SDI firmware revision
Mfg Name: Manufacturer name
Mfg Model: Manufacturer model
Mfg Version: LDM revision
Mfg Optional: Manufacturer serial number



LDM connect: Select the comport you want the LDMcom to use. The LDMcom automatically searches for which comport the LDM is connected to.



About LDMcom: LDMcom information



LDM connection to Multiprobe:

Install the appropriate sample housing for your Multiprobe on the LDM. Install the Multiprobe to the sample housing.



Multiprobes

Sample housing

LDM main

LDM optional extra weight

Getting Started:

Make sure your PC clock is set to the right time and date.

Connect your multiprobe to your PC as recommended by the manufacturer.

Make sure to set the multiprobe date and time to match the date and time on your PC.

Set a logging file on your multiprobe.

Connect the LDM to your PC

Open the LDMcom software

Click on "Synchronize LDM clock to PC"

Make sure the SDI delay is set to Zero

Create a schedule with the same start date, start time, stop date, stop time, and interval as you did for the multiprobe.

You can right click on the schedule created, then select "test". The LDM will run one cycle of that schedule. The first click corresponds to the opening of the valve. A second click corresponds to the valve closing. Nothing happens during the holding time (Measurements are being taken by the multiprobe during the holding time).

Then the pump will go ON at the end of the interval.

Make sure the schedule created is active, then disconnect the LDM from your PC.

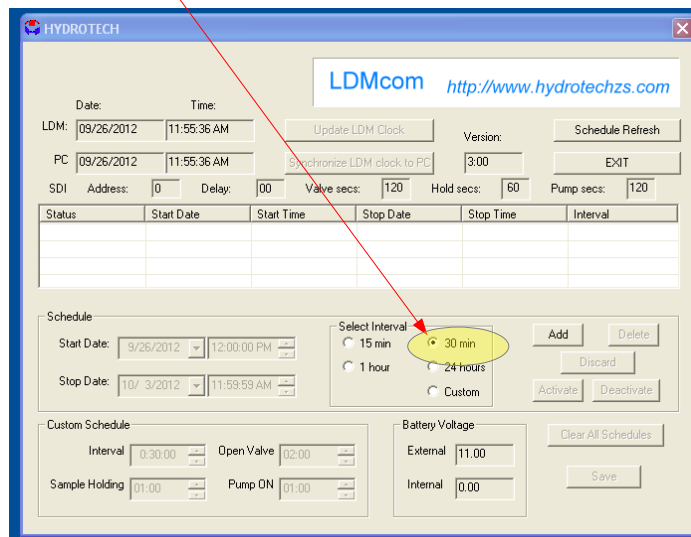
Connect the LDM to the multiprobe and run the cable and the hose vent to the surface.

Make sure the hose vent is secured at the surface.

Adding a new Schedule:

1- From the "Select interval" menu, select one of the following intervals: 15 min, 30 min, 1 h, 24 h or Custom.

For this example we will select 30 min:



- 2- Click on Add: A file will be created on the open space above the Add button:
(The file will need to be saved before it's stored to LDM memory)

HYDROTECH LDMcom <http://www.hydrotechzs.com>

Date: 09/26/2012 Time: 11:59:10 AM Update LDM Clock Version: Schedule Refresh

PC: 09/26/2012 11:59:10 AM Synchronize LDM clock to PC 3:00 EXIT

SDI Address: 0 Delay: 00 Valve secs: 120 Hold secs: 60 Pump secs: 120

Status	Start Date	Start Time	Stop Date	Stop Time	Interval
Inactive	09/26/2012	12:00:00 PM	10/03/2012	11:59:59 AM	00:30:00

Schedule

Start Date: 9/26/2012 12:00:00 PM Stop Date: 10/ 3/2012 11:59:59 AM

Select Interval: ☐ 15 min ☒ 30 min ☐ 1 hour ☐ 24 hours ☐ Custom

Add Delete Discard Activate Deactivate

Custom Schedule

Interval: 0:30:00 Open Valve: 02:00 Sample Holding: 01:00 Pump ON: 01:00

Battery Voltage

External: 11.00 Internal: 0.00

Clear All Schedules Save

- 3- Click on the "Save" button to save the file to the LDM:

HYDROTECH LDMcom <http://www.hydrotechzs.com>

Date: 09/26/2012 Time: 12:03:33 PM Update LDM Clock Version: Schedule Refresh

PC: 09/26/2012 12:03:33 PM Synchronize LDM clock to PC 3:00 EXIT

SDI Address: 0 Delay: 00 Valve secs: 120 Hold secs: 60 Pump secs: 120

Status	Start Date	Start Time	Stop Date	Stop Time	Interval
Inactive	09/26/2012	12:00:00 PM	10/03/2012	11:59:59 AM	00:30:00

Schedule

Start Date: 9/26/2012 12:00:00 PM Stop Date: 10/ 3/2012 11:59:59 AM

Select Interval: ☐ 15 min ☒ 30 min ☐ 1 hour ☐ 24 hours ☐ Custom

Add Delete Discard Activate Deactivate

Custom Schedule

Interval: 0:30:00 Open Valve: 02:00 Sample Holding: 01:00 Pump ON: 01:00

Battery Voltage

External: 11.00 Internal: 0.00

Clear All Schedules Save

4- Click on the file listing under the status window. The listing will be highlighted in blue:

HYDROTECH LDMcom <http://www.hydrotechzs.com>

Date: 09/26/2012 Time: 12:08:35 PM Update LDM Clock Version: Schedule Refresh

PC 09/26/2012 12:08:35 PM Synchronize LDM clock to PC 3:00 EXIT

SDI Address: 0 Delay: 00 Valve secs: 120 Hold secs: 60 Pump secs: 120

Status	Start Date	Start Time	Stop Date	Stop Time	Interval
Inactive	09/26/2012	12:30:00 PM	10/03/2012	12:29:59 PM	00:30:00

Schedule

Start Date: 9/26/2012 12:30:00 PM Stop Date: 10/ 3/2012 12:29:59 PM

Select Interval: 15 min 30 min 1 hour 24 hours Custom

Add Delete Discard Activate Deactivate

Custom Schedule

Interval: 0:30:00 Open Valve: 02:00 Sample Holding: 01:00 Pump ON: 01:00

Battery Voltage

External: 11.00 Internal: 0.00

Clear All Schedules Save

5- You can modify the “Start Date” and “Stop Date” to fit your needs.

Example: We will change the Start Date: to 09/26/2012 , 1:00:00 PM and the Stop Date: to 10/3/2012 , 1:00:00 PM

Then click Save.

HYDROTECH LDMcom <http://www.hydrotechzs.com>

Date: 09/26/2012 Time: 12:14:02 PM Update LDM Clock Version: Schedule Refresh

PC 09/26/2012 12:14:02 PM Synchronize LDM clock to PC 3:00 EXIT

SDI Address: 0 Delay: 00 Valve secs: 120 Hold secs: 60 Pump secs: 120

Status	Start Date	Start Time	Stop Date	Stop Time	Interval
Inactive	09/26/2012	01:00:00 PM	10/03/2012	01:00:00 PM	00:15:00

Schedule

Start Date: 9/26/2012 1:00:00 PM Stop Date: 10/ 3/2012 1:00:00 PM

Select Interval: 15 min 30 min 1 hour 24 hours Custom

Add Delete Discard Activate Deactivate

Custom Schedule

Interval: 0:15:00 Open Valve: 02:00 Sample Holding: 01:00 Pump ON: 01:00

Battery Voltage

External: 11.00 Internal: 0.00

Clear All Schedules Save

6- To change the default setting for the Interval, Open Valve, Sample Holding and Pump ON, Point and click once on the file listing to be highlighted. Then select “Custom” from the “Select Interval” menu. The fields under the “Custom Schedule” are now active and can be edited.

Status	Start Date	Start Time	Stop Date	Stop Time	Interval
Inactive	09/26/2012	01:00:59 PM	10/03/2012	01:00:00 PM	00:15:00

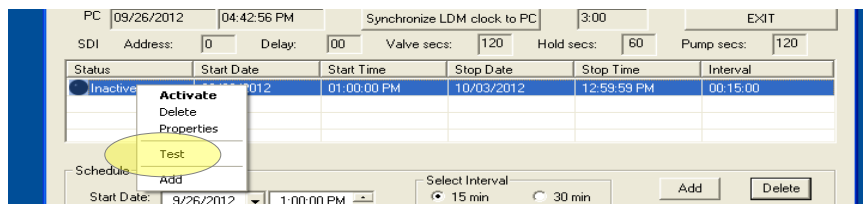
7- Now you can edit the fields under “ Custom Schedule” to fit your needs then click on Save:

8- Point and click once on the file listing to be highlighted:

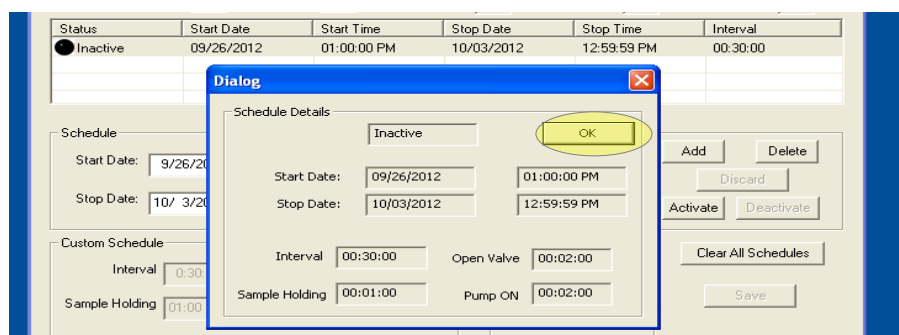
Status	Start Date	Start Time	Stop Date	Stop Time	Interval
Inactive	09/26/2012	01:00:00 PM	10/03/2012	12:59:59 PM	00:30:00

9- Before activating the file, you can test the file setting: Point and right-click once on the file listing, then select "Test" from the drop down menu. The LDM will immediately process one cycle. In this example:

The valve will open for 2 minutes, the sample will be retained for one minute, then the pump will turn ON for two minutes.

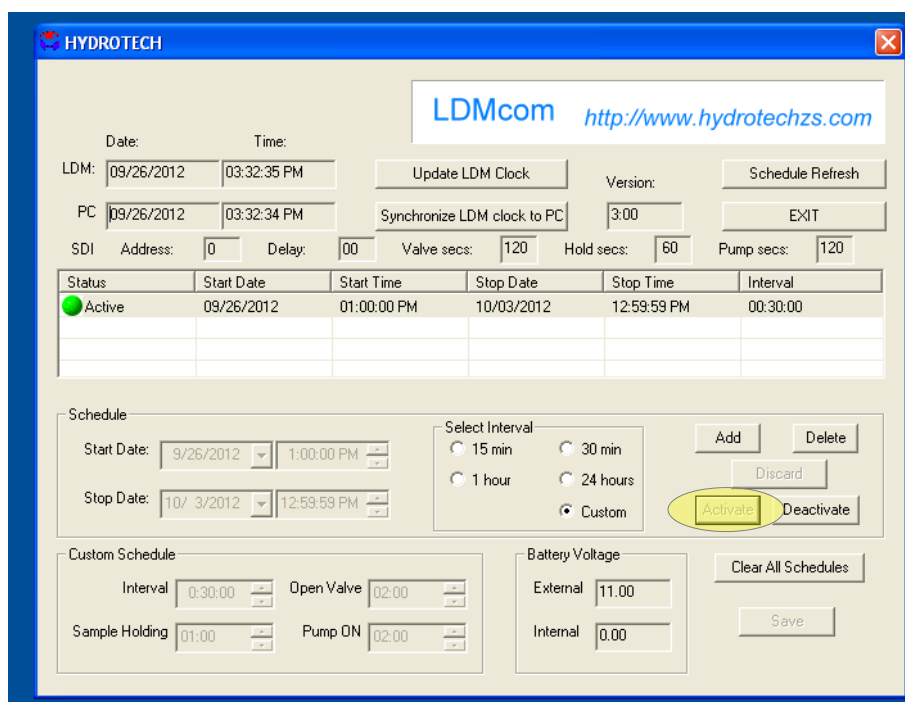


10- You can also select Properties from the drop down menu to verify the file setting. Click OK to close the window.



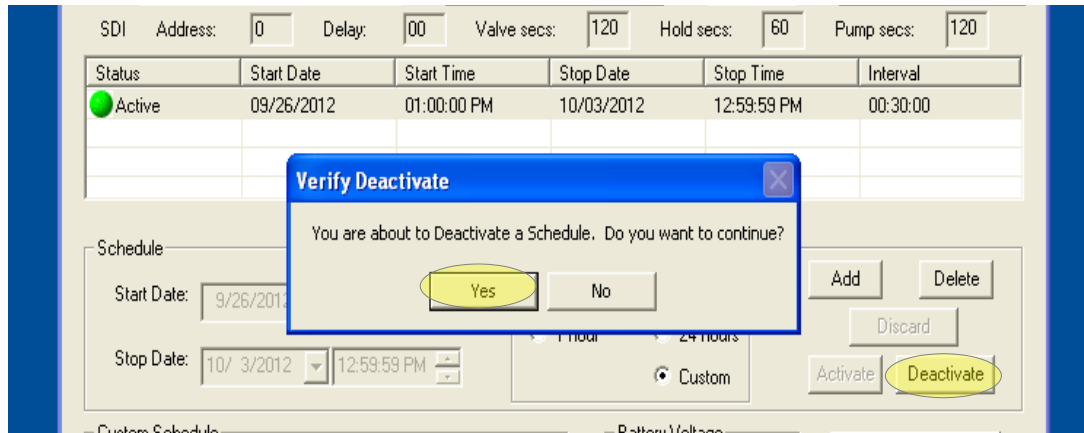
11- Once you are satisfied with the settings, you can activate the file by clicking the "Activate" button or by selecting "Activate" from the drop down menu.

The file is now active. You can exit from the LDMcom software by clicking the EXIT button. You can disconnect the LDM from your PC and the power source. Once installed in the field and powered, the LDM will automatically resume the active schedule.

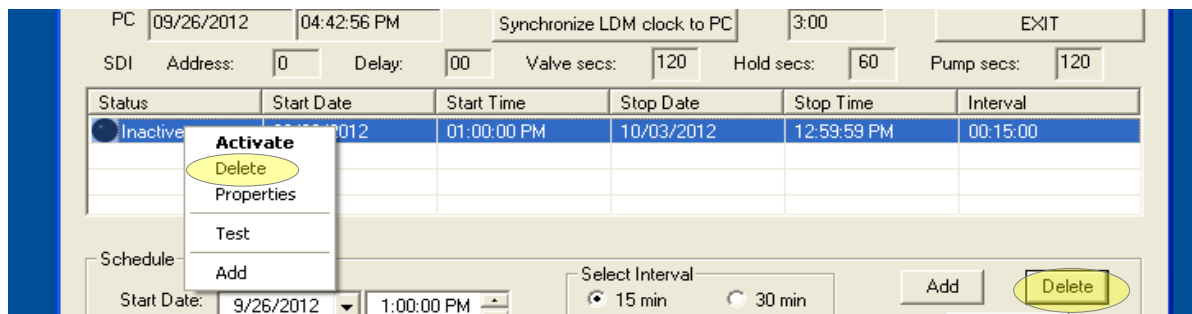


12- You can still run a test cycle even after the file is activated. (Follow step 9)

13- To deactivate a file, select and click on that file from the file listing then click the “Deactivate” button. Select “Yes” to confirm then click on the “Save” button.

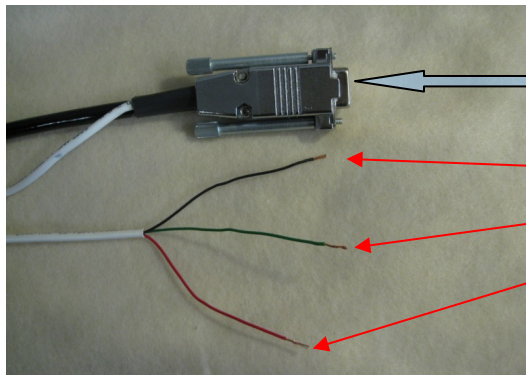


14- To delete a file, select and click on that file from the file listing then click the “Delete” button; or right-click and select “Delete” from the drop down menu.



When using an SDI-12 data-logger with the LDM:

Cable connection:



RS232 connect to PC via DB9 or USB adaptor

Black: Power (Ground)

Green: SDI12 Data

Red: Power (+)

If you are going to use the LDM with an external data-logger (Like Sutron®, Campbell Scientific®, or others), all you have to do is set the SDI line, there is no need for programming schedules:

SDI	Address:	2	Delay:	00	Valve secs:	120	Hold secs:	60	Pump secs:	120
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HYDROTECH

LDMcom <http://www.hydrotechzs.com>

Date: 09/26/2012 Time: 04:47:43 PM
LDM: 09/26/2012 04:47:43 PM
PC: 09/26/2012 04:47:42 PM

Update LDM Clock Synchronize LDM clock to PC Version: 3.00 EXIT

SDI Address: 2 Delay: 00 Valve secs: 120 Hold secs: 60 Pump secs: 120

Status	Start Date	Start Time	Stop Date	Stop Time	Interval

Schedule

Start Date: 9/26/2012 1:00:00 PM
Stop Date: 10/ 3/2012 12:59:59 PM

Select Interval
☒ 15 min ☐ 30 min
☐ 1 hour ☐ 24 hours
☐ Custom

Add Delete
Discard
Activate Deactivate

Custom Schedule

Interval: 0.15:00 Open Valve: 02:00
Sample Holding: 01:00 Pump ON: 01:00

Battery Voltage

External: 11.00
Internal: 0.00

Clear All Schedules
Save

SDI address: Active LDM SDI address. Type a number from 0 to 9

The LDM should always have a lower address than the multiprobe

SDI Delay: SDI-12 delay. Enter a value between 00 to 99 seconds

Valve secs: Time interval in seconds for the valve to stay open when an SDI measuring command request is sent to the LDM.

Hold secs: Time interval in seconds for the LDM to hold the water sample when an SDI measuring command request is received from the data-logger.

Pump secs: Time interval in seconds for the pump to stay “ON” when an SDI measuring command request is received from the data-logger.

If your multiprobe is connected to a data-logger that uses SDI-12 communication protocol, the address order is important. The LDM should always have a lower address than the multiprobe.

You always want to make sure that:

1. When using a HydroTech or a Hydrolab® multiprobe make sure:

A. “Multiprobe delay” = “Valve secs” + (“Hold secs” ÷ 2)

$$T_s = T_v + (T_h \div 2)$$

T_s = Hydrolab / Hydrotech multiprobe delay in seconds

T_v = LDM “Valve secs”

T_h = LDM “Hold secs”

B. LDM delay should be set to Zero

C. Data-logger delay should be set to Zero

2. When using a YSI® multiprobe:

A. The data-logger delay for the measuring command for the multiprobe = “Valve secs” + (“Hold secs” ÷ 2).

$$T_m = T_v + (T_h \div 2).$$

T_m = data-logger delay for the measuring command for the multiprobe

T_v = LDM “Valve secs”

T_h = LDM “Hold secs”

Note:

The YSI® multiprobes do not have “multiprobe delay” so you will be using the (Data-logger delay if supported) data-logger delay for the measuring command for the multiprobe instead.

3. If the Data-logger you are using does not support data-logger delay:

The Sutron data-logger does not support SDI-12 delay.

- Set the data-logger to send a measure command to the YSI multiprobe at a given time: T_y
- Set the data-logger to send a measure command to the LDM at a given time: T_L

$$T_L = T_y - (T_v + T_h/2)$$

T_v = LDM “Valve secs”

T_h = LDM “Hold secs”

Example:

T_v = LDM “Valve secs” = 120

T_h = LDM “Hold secs” = 60

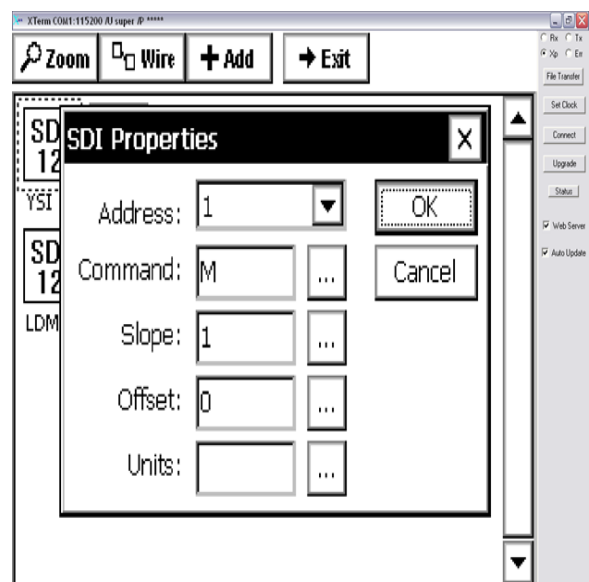
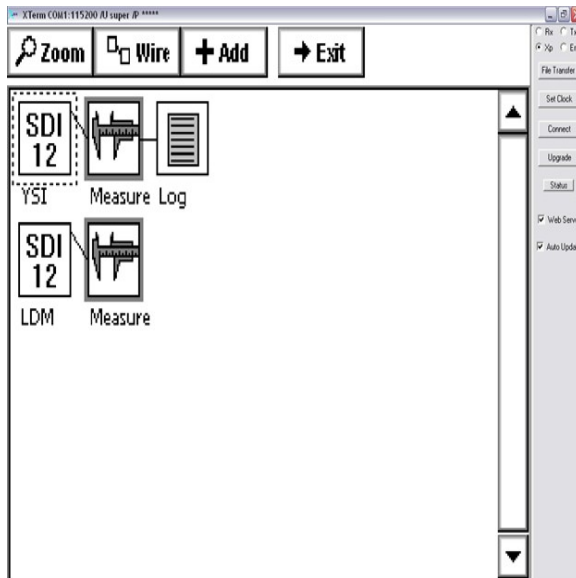
T_p = LDM “ Pump secs” = 120

T_y = 15:15:00

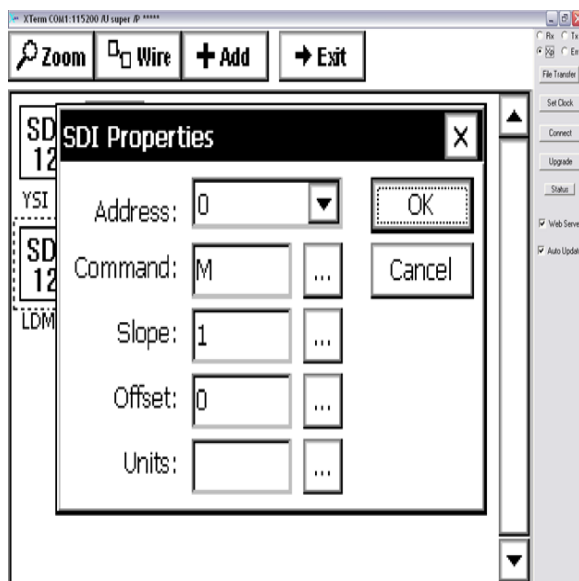
$$T_L = 15:15:00 - (120 + 60/2) = 15:15:00 - (120 + 30) = 15:12:30$$

The LDM will start its measurement 150 seconds before the sonde.

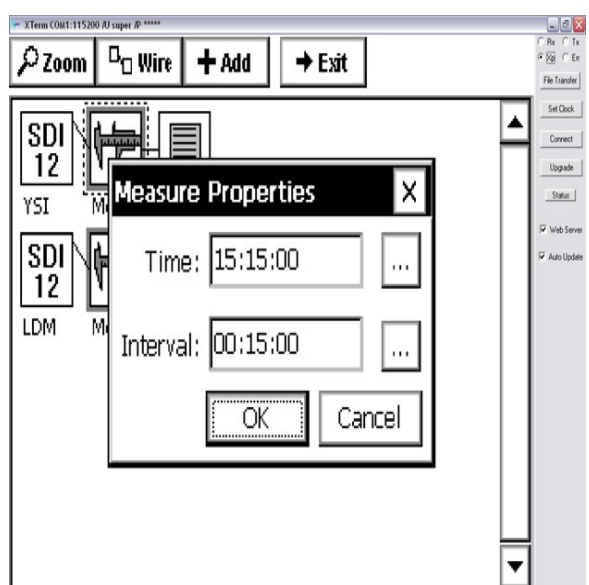
Graphical setup on the Sutron 9210 Xlite for the example above:



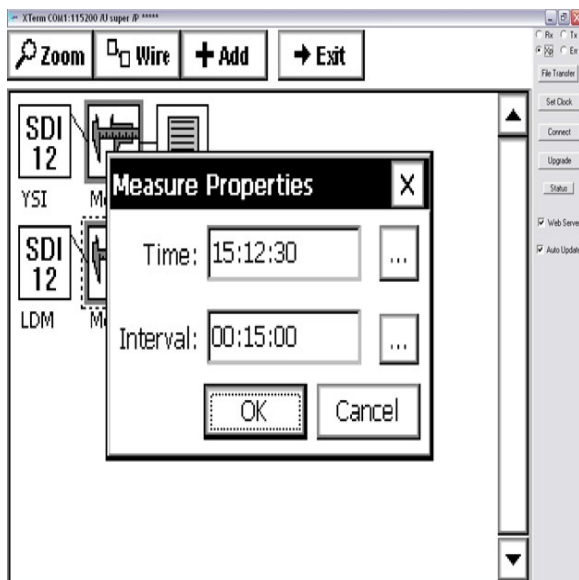
SDI-12 setup of the YSI in the Sutron 9210 Xlite menu



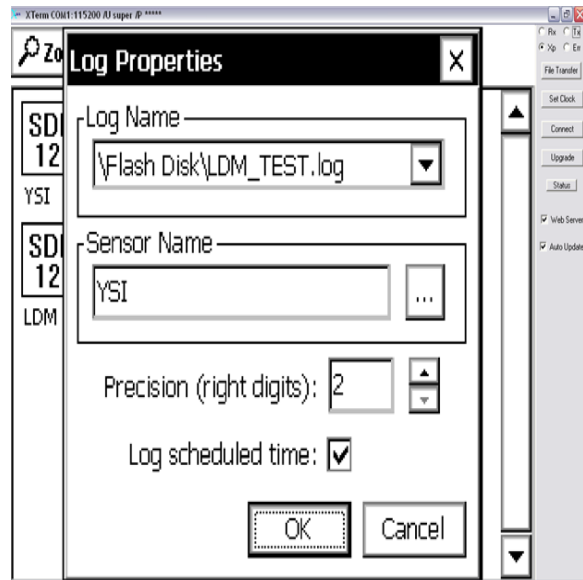
SDI-12 setup of the LDM in the Sutron 9210 Xlite menu



Sampling interval and sampling start time of the YSI



Sampling interval and sampling start time of the LDM



Log properties of the YSI

Recommended Setup for SDI-12 :

LDM SDI-12 address: 0

LDM Delay seconds: 0 = Td

Valve seconds: 120 = Tv

Hold seconds: 60 = Th

Pump seconds: 120

Multiprobe SDI-12 address: 3

When using a Hydrolab multiprobe: Multiprobe Delay seconds = Ts = 150 seconds

When using a YSI multiprobe: The data-logger delay (if supported) for the measuring command = Tm = 150 seconds

SDI 12 Command String and Functions:

Standard SDI 12 commands	Response	Meaning
a!	a[cr][1f]	Controller requests acknowledgment of communication. The LDM sends the acknowledgment.
a!	aLDMsn#####REV#####[cr][1f]	Controller requests LDM identity. LDM sends its identity code (sn#####): Serial number (REV#####): Firmware revision
aM!	add0[cr][1f]	Controller requests measurement data. LDM replies that it will have 0 measurements in ddd seconds. That means we are not providing any data to the datalogger.
aLddd!	addd[cr][1f]	Controller requests changing the LDM SDI delay to ddd seconds. The LDM makes the changes and echoes the new delay.
aReset!	aReset[cr][1f]	Controller requests an LDM reset of SDI delay and address to default values. LDM makes the changes and echoes the command. Default SDI address is 0 Default SDI delay is 030 seconds
aAa'!	a'[cr][1f]	Controller requests changing the LDM address to a'. LDM makes the changes and echoes the new address.
aL!	addd[cr][1f]	Controller requests reports current SDI delay value. LDM echoes the current SDI delay ddd seconds.
aD!	addmmyyyy[cr][1f]	Controller requests current date. LDM echoes current day, month, and year.
ADddmmyyyy!	addmmyyyy[cr][1f]	Controller requests changing the day, the month, and the year. LDM makes the changes and echoes back the new day, month, and year.
aT!	ahhmmss[cr][1f]	Controller requests changing the time. The LDM makes the changes and echoes back the new time.
avo2!	avo2![cr][1f]	Controller requests LDM valve to open for 2 minutes. LDM echoes the command then opens the valve for 2 minutes. This command overrides any active schedule. The active schedule continues as normal after 2 minutes.
apo2!	apo2![cr][1f]	Controller requests LDM to turn pump ON for 2 minutes. LDM echoes the command then turns the pump for 2 minutes. This command overrides any active schedule. The active schedule continues as normal after 2 minutes.

a = sensor address assignment (0-9)

ddd = SDI 12 delay (000 – 994 seconds)

= (00000 – 99999)

Notes:

SDI12 Delay: Will cause all active files to be delayed by that value.

Example:

Start time: 15:00:00

Start date: 03:27:2006

Stop time: 15:00:00

Stop date: 04:27:2006

If the SDI delay is set to: 180

The start time is now: 15:03:00

The center of the holding time for each interval is now 3 minutes past each quarter hour.

LDM maintenance:

1- After using the LDM in the field, the optional filter will need to be cleaned or replaced.

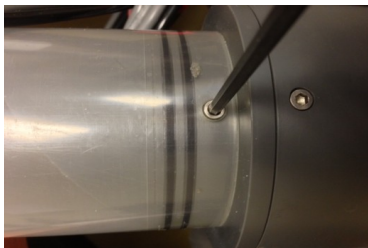
Remove the four hex screws holding the stainless steel weight then remove the weight and the filter.



2- The outside of the LDM should be cleaned to remove algae growth and sediment deposits.

3- Once a year, the LDM internal tubing will need to be cleaned with a 5 to 10% bleach solution.

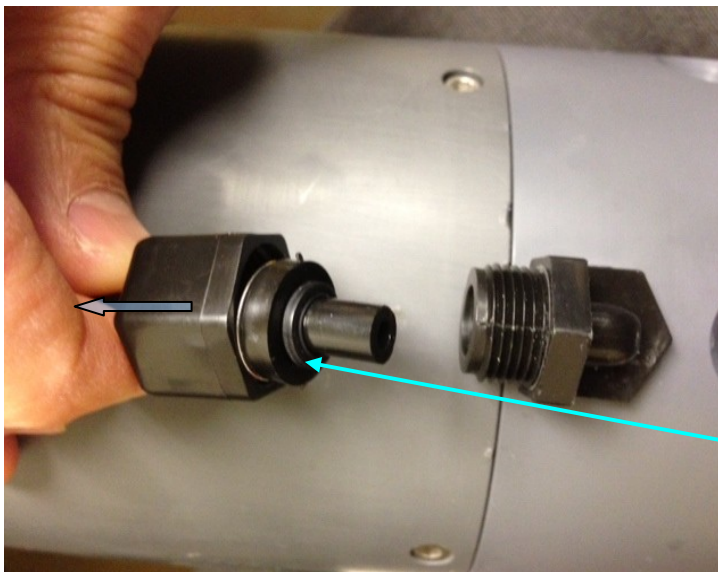
- Remove the multiprobe from the LDM.
- Remove the sample housing by removing the four hex screws that secure the housing to the LDM main part.



- Remove the black vent tube from the LDM:



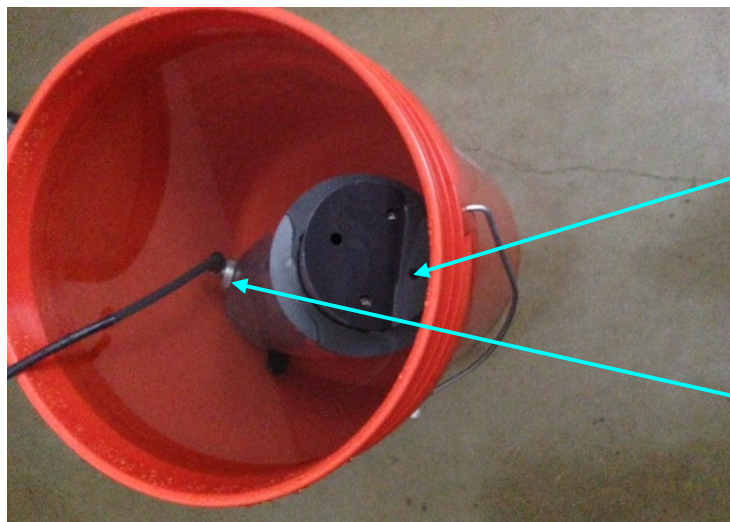
Turn the lock nut counterclockwise



Pull the cable and the lock nut from the threaded part.

Make sure not to lose the o-ring seal.

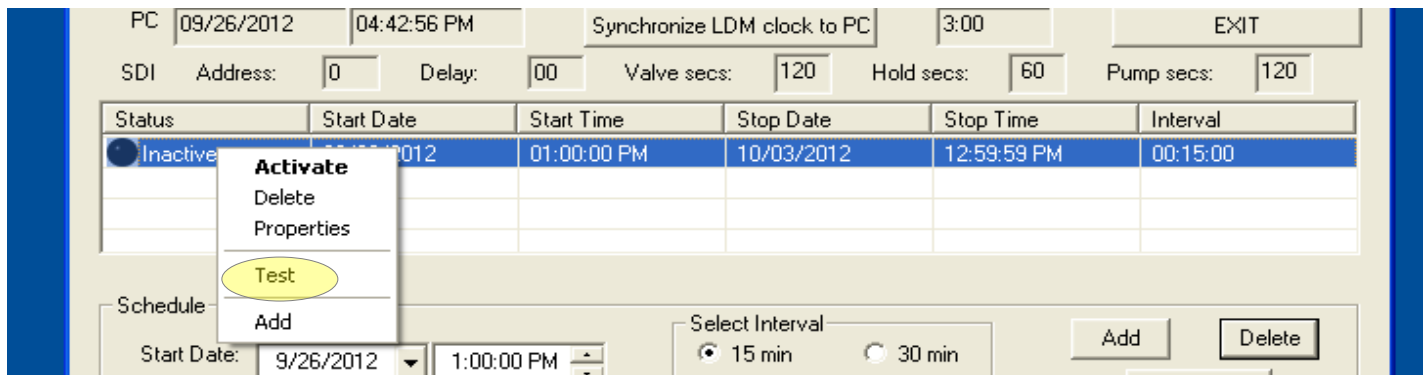
- Sink the LDM in 5 to 10% bleach solution in a 5 gallon bucket:



Make sure the water /bleach solution covers the lower intake.

Make sure the cable is connected to the LDM, then to the PC and the power supply.

- Create a 15 minute schedule. Right click on the schedule then select "Test"
- Run the test mode several time.



LDM replacement parts :

The following parts can be replaced by end user in case of damage or loss:

Descriptions	Part number	Quantity
Standard LDM sediments filter	LDM Filter-S	1
LDM Label	DI002141	1
(Y) connector for LDM vent tube	LDM-Barb-3	1
LDM Sample housing vent tube fitting	LDM-Fitting-1	2
LDM pump output tube fitting		
LDM Socket screws for holding main housing and weight	LDM-Screw-1	4
LDM twin hose (Grey and Black)	LDM-tube-1	Per foot
LDM sample housing o-ring seal	Oring 232	2
LDM O-ring for sealing main housing	Oring 239	4



HydroTech
P.O Box 5520, Round Rock TX 78683 (512)-846-2893

SERVICE and LIMITED 2-YEAR WARRANTY

LIMITED 2-YEAR WARRANTY

THIS WARRANTY IS EXPRESSLY MADE BY **HYDROTECH ZS CONSULTING** AND ACCEPTED BY PURCHASER IN LIEU OF ALL OTHER WARRANTIES. HYDROTECH EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHETHER WRITTEN OR ORAL, EXPRESSED OR IMPLIED, OR STATUTORY. HYDROTECH DOES NOT ASSUME ANY OTHER LIABILITIES IN CONNECTION WITH ANY PRODUCT.

What Is Covered

This warranty statement applies specifically to the LDM (Longterm Deployment Module), Compact MS, Compact DS, OEM MS, OEM DS, HT6 and all HydroTech instruments introduced to market after January 1, 2012, unless specifically excluded in the warranty statement.

What Is Not Covered

This warranty does not apply to products or parts thereof which may be used or connected to HydroTech equipment but which are not manufactured by HydroTech. Our obligation to repair or replace does not apply to the parts that have been consumed through normal use. This warranty specifically excludes batteries of any type, filters, fitting and membrane caps of any type.

This warranty does not apply to products or parts thereof which have been altered or repaired outside of a HydroTech factory or other authorized service center, or products damaged by improper installation or application, or subjected to misuse, abuse, neglect or accident.

All new HydroTech products listed above are warranted by HydroTech against defects in materials and workmanship for two years (or for the term of an optional extended warranty) from date of invoice. During the warranty period, we will repair or, at our option, replace at no charge a product that proves to be defective provided that you return the product, shipping prepaid, to HydroTech. HydroTech's liability and obligations in connection with any defects in materials and workmanship are expressly limited to repair or replacement, and your sole and exclusive remedy in the event of such defects shall be repair or replacement.

HydroTech's obligations under this warranty are conditional upon it receiving prompt written notice of claimed defects within the warranty period and its obligations are expressly limited to repair or replacement as stated above.

HydroTech shall not be liable for any contingent, incidental, or consequential damage or expense incurred by you due to partial or complete inoperability of its products for any reason whatsoever or due to any inaccurate information generated by its products. HydroTech's obligations and your remedies are limited as described above.

Products are sold on the basis of specifications applicable at the time of sale. HydroTech ZS Consulting shall have no obligation to modify or update products once sold.

If you have any questions concerning this warranty, please call: 512-846-2893

SERVICE & SHIPPING

You may have your instrument repaired at HydroTech any time it needs service, whether it is in warranty or not. There is a charge for repairs after the warranty period.

HydroTech instruments within the two years warranty are normally repaired and shipped (transportation paid, via Ground service) within 10 working days of receipt at HydroTech.

Please carefully pack your equipment in its original shipping case (or other protective package) to avoid in-transit damage. Such damage is not covered by warranty, so we suggest that you insure the shipment. We also recommend that the entire instrument, including the battery pack and charger (when applicable), be returned unless a particular faulty component has been clearly isolated.

Send the instrument and a completed "Repair Form" to HydroTech, using the address shown on the repair form. You can download the repair form from the HydroTech website. <http://www.hydrotechzs.com>

Whether or not the unit is under warranty, it is your responsibility to pay shipping charges for delivery to HydroTech.

Ship all equipment for service to:

HydroTech ZS Consulting
1700 Bryant Dr. Suite 103
Round Rock, TX 78664
Attn.: Customer service

All HydroTech instruments are manufactured in Round Rock, Texas, U.S.A.