



E-Sperm™

User Guide

Catalog # 7651

Version

July 2008





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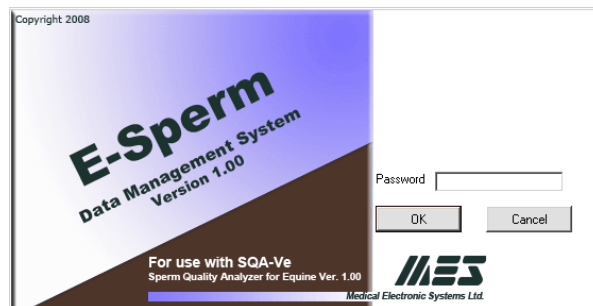
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Section 1: Overview

E-Sperm is a data management software package that works together with the SQA-Ve to provide the following features and benefits.

- RAW semen test results can be transferred to E-Sperm automatically for automated AI dosing.
- The SQA-Ve archive of the test results can be imported to the E-Sperm for viewing and printing formatted reports.
- Test reports can be exported from E-Sperm to Excel for data analysis.
- Information is secure – access to E-Sperm requires a password.



The E-Sperm package includes:

- E-Sperm User Guide
- Installation CD
- Security Key

System Requirements:

- SQA-Ve with RS232 communication cable and power cable
- PC requirements:

Hardware requirements:

- 1Ghz or higher CPU
- 256 MB RAM
- AGP Video Display Card with at least 16 MB of RAM memory
- CD-ROM compatible drive
- RS232 communication port (serial)
- Two available USB ports

Software requirements:

- Compatible operation system:
 - Windows XP and VISTA
 - EXCEL (for exporting data)
 - At least 20 GB of free hard disk space recommended

NOTE: It is recommended to use the manufacturer's default settings.

Section 2: Software / Hardware Installation

E-Sperm Installation

1. Close any open programs before beginning the installation process.
2. Insert the E-Sperm CD into the PC's CD-ROM. The installation process will begin automatically.
3. The screen will display: Initializing Wise Installation Wizard.
4. Click NEXT when the "Welcome" screen is displayed.
5. Click NEXT when the "Choose Destination Location" screen is displayed to accept the E-Sperm default folder or click "Browse" to select another folder.
6. Click NEXT when "Select Program Manager Group" is displayed. If a messages "Digital Signature Not Found" is displayed, click YES.
7. Installation complete: Click OK to restart the PC.

Security Key Installation

Warning: E-Sperm will not work without the Security Key connected to the PC.

- Plug the E-Sperm security key into a free USB port on the computer and it will be automatically installed.



SQA-Ve Connection to the PC

- Connect one end of the RS232 communication cable to the PC.
- Connect the other end of the RS232 communication cable to the SQA-Ve.

Section 3: System Navigation Overview

Main Menu: six navigation buttons allow easy access to the E-Sperm features.



- Activate E-Sperm features by clicking on one of six Main Menu navigation buttons which are always displayed in the left margin of the screen.
- When a Main Menu button is selected, sub-menu buttons appear across the top of the E-Sperm screen displaying further options and features.
- Several icons indicate the E-Sperm features and options:



Print: Click this icon to print an SQA-Ve Test Report.



Export: Click this icon to export the test records to Excel.



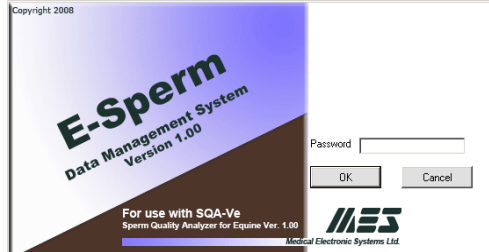
Dosing Error or Low Quality Sample:

- This icon will be displayed in a column of the Raw Semen Test Report when the dosing requirements cannot be implemented. This can happen when:
 - The set-up values have been entered incorrectly
 - The semen sample is of low quality
 - The same icon will be displayed in the Extended, Cooled and Frozen Test Report if the sample is of low quality.



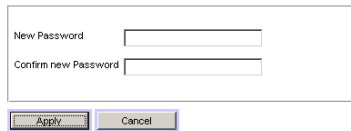
Section 4: Start-up

Click on the E-Sperm icon located on the PC desktop to enter the system. Enter the **temporary password: fertility** and then click OK.



The E-Sperm Main Menu will automatically appear. Enter and confirm a new password using Set-Up/Password path:

WARNING: Please remember the new password or the system cannot be re-entered.



Section 5: Reports

Reports

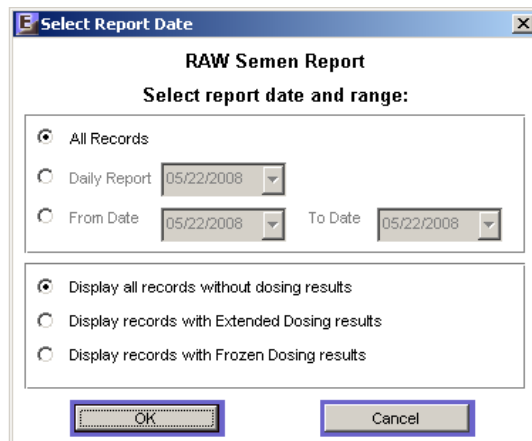
The first navigation button is **REPORTS**. From this screen the user can locate, select and display the test results that have been imported from the SQA-Ve. Click the navigation button **REPORTS** and four sub-buttons will appear:

- **Raw**
- **Extended**
- **Cooled**
- **Frozen**

Raw

Select: **RAW** to display the following report options:

- Date of the report
- The date range (based on record testing dates)
- Three options for displaying dosing results



Click OK to view the test results table

SQA-Ve Test Report

RAW SEMEN WITH EXTENDED DOSING RESULTS

Date: 05/20/2008 - 05/22/2008

SAMPLE DATA					TEST RESULTS					DOSE PREPARATION: EXTENDED					
Date	Time	Stallion		Sample #	Semen Volume [ml]	Sperm Conc. [M/ml]	Motility [%]	Prog. Motility [%]	Morpl. [%]	velocity [mic/sec]	Extender Volume [ml]	# Doses	# Sperm / Dose [M]	Dose Volume [ml]	Dosing Error
		ID	Name												
05/22/2008	14:10	123	Prince	1	110.0	380.7	80.4	49.8	80.9	98	308	41	515	10.2	
05/21/2008	14:49	12542	Bob	14	30.0	496.8	14.6	14.3	40.6	23	75	10	213	10.6	
05/20/2008	14:17	120	Star	5	90.0	453.3	38.9	38.4	54.4	82	686	50	816	13.6	

The **Raw Semen Test Report** table is divided into three sections:

Sample Data:

- Date/Time – The date/time the sample was tested
- Stallion ID - The assigned stallion identification number
- Stallion Name – Entered through the **Stallion Settings** screen (Set-Up section of this manual)
- Sample # - The assigned sample number
- Semen Volume – The actual volume of the extended semen

Test Results:

- Sperm Concentration, M/ml
- Motility, %
- Prog. Motility, %
- Normal Morphology, %
- Velocity, micron/second

Dose Preparation: Extended or Dose Preparation: Frozen

- | | |
|--|---|
| <ul style="list-style-type: none"> • Extender Volume, ml • # Doses • # Sperm / Dose, M • Dose Volume, ml • Dosing Error indicator | <ul style="list-style-type: none"> Re-suspend pellet to equal, ml # Doses # Sperm / Dose, M Dose Volume, ml Dosing Error indicator |
|--|---|

Report Spreadsheet Functions:

- Use the page bar at the bottom of the report to move between pages
- Click the Printer icon to print the report
- Click the Export button to save the data in Excel format (Excel software required)
- Use the ZOOM to minimize/maximize the view
- Click the "X" in the upper right hand corner to exit

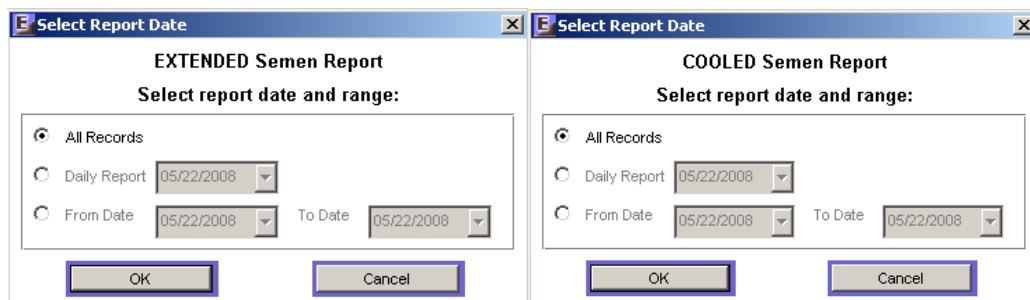
Extended

Cooled

Extended / Cooled:

Select either the **Extended or Cooled** button to display the following report options:

- Date of the report
- The date range (based on record testing dates)



Click OK to view the test results table :

**SQA-Ve Test Report
EXTENDED SEMEN**

All Records

SAMPLE DATA					TEST RESULTS						
Date	Time	Stallion		Sample #	Semen Volume [ml]	Sperm Conc. [M/ml]	Motility [%]	Prog. Motility [%]	MSC [M/ml]	PMSC [M/ml]	Velocity [mic/sec]
		ID	Name								
28/04/2008	01:04	6	Pegasus	59	50.0	114.5	75.6	74.3	86.6	85.1	118
28/04/2008	00:59	6	Pegasus	63	150.0	14.2	70.0	38.5	9.9	5.5	69
28/04/2008	00:54	6	Pegasus	62	100.0	25.8	73.9	38.5	19.1	9.9	69
28/04/2008	00:49	6	Pegasus	61	50.0	51.2	77.9	36.1	39.9	18.5	66
27/04/2008	23:44	4	Man of War	19	150.0	6.2	50.7	48.5	3.1	3.0	80

The **Extended or Cooled** Report divided into two sections:

Sample Data:

- Date/Time – The date/time the sample was tested
- Stallion ID - The assigned stallion identification number
- Stallion Name – Entered by the user through the **Stallion Settings** screen (Set-Up section of this manual)
- Sample # - The assigned sample number
- Semen Volume – The actual extended/cooled semen volume (or volume of a dose)

Test Results:

- Sperm Concentration, M/ml
- Motility, %
- Prog. Motility, %
- MSC (motile sperm concentration), M/ml
- PMSC (progressively motile sperm concentration), M/ml
- Velocity, micron/second

Frozen

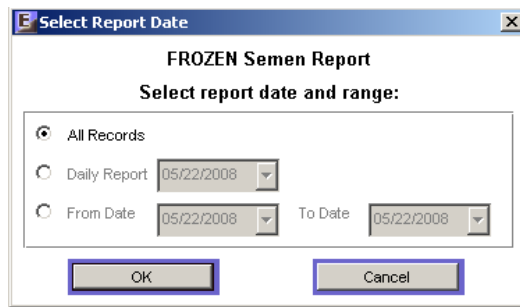
Report Spreadsheet Functions:

- Use the page bar at the bottom of the report to move between pages
- Click the Printer icon to print the report
- Click the Export button to save the data in Excel format (Excel software required)
- Use the ZOOM to minimize/maximize the view
- Click the "X" in the upper right hand corner to exit

Frozen:

Select the **Frozen** button to display the following report options:

- Date of the report
- The date range (based on record testing dates)



Click OK to view the test results table:

**SQA-Ve Test Report
FROZEN SEMEN**

All Records

SAMPLE DATA							TEST RESULTS					
Date	Time	Stallion		Straw Date	Sample #	Semen Volume [ml]	Sperm Conc. [M/ml]	Motility [%]	Prog. Motility [%]	MSC [M/ml]	PMSC [M/ml]	Velocity [mic/sec]
		ID	Name									
27/04/2008	18:34	14557	Silver Blaze		4822024	0.5	203.0	34.1	26.2	69.2	53.2	63
27/04/2008	10:20	2	Mr. Ed		2	0.5	417.8	58.2	50.9	243.0	212.9	122
27/04/2008	09:55	3	Seabiscuit		1	0.5	N/A	19.1	16.5	29.9	25.9	N/A
27/04/2008	09:50	2	Mr. Ed		1	0.5	N/A	19.5	16.9	30.6	26.5	N/A
27/04/2008	09:45	1	Flicka		1	0.5	N/A	21.8	17.8	40.2	32.8	N/A

The **Frozen** Report divided into two sections:

Sample Data:

- Date/Time – The date/time the sample was tested
- Stallion ID - The assigned stallion identification number
- Stallion Name – Entered by the user through the **Stallion Settings** screen (Set-Up section of this manual)
- Straw Date – The date when the straw was produced
- Sample # - The assigned sample number
- Semen Volume – The actual frozen semen volume (volume of a dose)



Test Results:

- Sperm Concentration, M/ml
- Motility, %
- Prog. Motility, %
- MSC (motile sperm concentration), M/ml
- PMSC (progressively motile sperm concentration), M/ml
- Velocity, micron/second

Report Spreadsheet Functions:

- Use the page bar at the bottom of the report to move between pages
- Click the Printer icon to print the report
- Click the Export button to save the data in Excel format (Excel software required)
- Use the ZOOM to minimize/maximize the view
- Click the "X" in the upper right hand corner to exit

Section 6: Extended Dosing

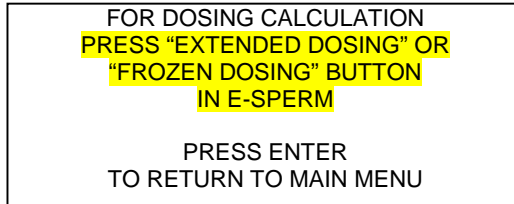
Extended Dosing

Error messages will be displayed if there is a problem transferring data from the SQA-Ve to E-Sperm:

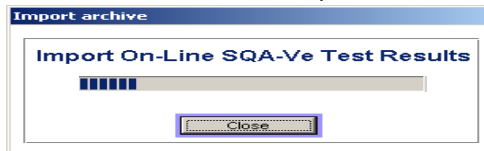
Communication error – The SQA-Ve is not connected to the PC.

This button cannot be used from this screen – if the Extended Dosing button is clicked when the SQA-Ve is not on the appropriate screen for transferring data.

The **SQA-Ve** screen displayed below will be activated AFTER Raw semen testing (and if "Perform Dosing: **YES**" was selected on the SQA-Ve).



Follow the **SQA-Ve** screen directions and click the second **E-Sperm** Main Menu navigation button: **EXTENDED DOSING** to import test results from the SQA-Ve for dosing:



The **Dose Preparation: Extended** screen below will be activated in E-Sperm:

DOSE PREPARATION: EXTENDED			
Stallion ID	123	Stallion Name	Prince
Date	05/22/2008 18:54		
Semen Volume [ml]	95.0	Sperm Conc. [M/ml]	409.0
Motility [%]	93.6	Prog. Motility [%]	14.3
DOSING SETUP:			
Dosing Method	Total Sperm	Maximum Dose Volume [ml]	100
Minimum # Sperm Cells / Dose [M]	800	Conc. Target [M/ml]	50
<input type="button" value="Calculate"/>			
Extender Volume [ml]	674	Dose Volume [ml]	16
		# Doses	48
Total Volume [ml]	769		# Sperm / Dose [M]
			809
<input type="button" value="Save and Close"/> <input type="button" value="Cancel"/>			

The Dose Preparation **EXTENDED** screen will display:

- Stallion ID, Name and Date of the test and semen parameters will be shown
- Select the Raw semen dosing parameters:
 - **Dosing method:** Total Sperm, Motile Sperm or Progressively Motile Sperm per AI dose.
 - **Maximum Dose Volume:** The upper limit of the dose volume in ml.
 - **Minimum # Sperm Cells / Dose:** The lower limit of (Total, Motile or Prog. Motile) sperm cells required per AI dose.
 - **Concentration Target:** The final (Total, Motile or Prog. Motile) sperm cell concentration per AI dose.

Click the **CALCULATE** button to calculate and display the dosing parameters:

- **Extender Volume (ml):** The volume to be added to the raw semen.
- **Total Volume (ml):** The volume of the semen plus the extender.
- **Dose Volume (ml):** The volume of the AI dose in ml.
- **# Doses:** The total number of doses possible from the extended sample.
- **# Sperm / Dose:** The #sperm per dose after extending the raw semen.

Click **Save and Close** to display the test report below or **Cancel** and the dosing data will NOT be saved.

SQA-Ve Test Report RAW SEMEN WITH EXTENDED DOSING RESULTS

Date: 05/20/2008 - 05/22/2008

SAMPLE DATA					TEST RESULTS						DOSE PREPARATION: EXTENDED				
Date	Time	Stallion		Sample #	Semen Volume [ml]	Sperm Conc. [M/ml]	Motility [%]	Prog. Motility [%]	Morph. [%]	Velocity [m/sec]	Extender Volume [ml]	# Doses	# Sperm / Dose [M]	Dose Volume [ml]	Dosing Error
		ID	Name												
05/22/2008	14:10	123	Prince	1	110.0	380.7	50.4	49.8	60.9	98	308	41	515	10.2	
05/21/2008	14:49	12542	Bob	14	30.0	496.8	14.6	14.3	40.6	23	75	10	213	10.5	
05/20/2008	14:17	120	Star	5	90.0	453.3	38.9	38.4	54.4	82	585	90	816	13.5	

Frozen Dosing

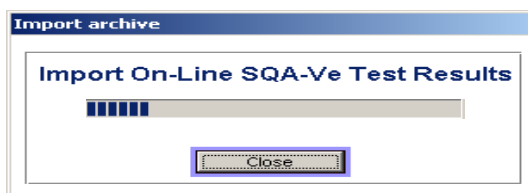
Section 7: Frozen Dosing

The **SQA-Ve** screen displayed below will be activated AFTER Raw semen testing (and if "Perform Dosing: **YES**" was selected on the SQA-Ve).

FOR DOSING CALCULATION
 PRESS "EXTENDED DOSING" OR
 "FROZEN DOSING" BUTTON
 IN E-SPERM

PRESS ENTER
 TO RETURN TO MAIN MENU

Follow the **SQA-Ve** screen directions and click the third **E-Sperm** Main Menu navigation button: **FROZEN DOSING** to import test results from the SQA-Ve for dosing:



The following **Dose Preparation: Frozen** window will appear:

The Dose Preparation **FROZEN** screen displays:

- Stallion ID, Name and Date of the test and semen parameters will be shown
- Select the Raw semen dosing parameters:
 - **Dosing method:** Total Sperm, Motile Sperm or Progressively Motile Sperm per AI dose.
 - **Dose Volume:** The desired dose volume in ml.
 - **# Sperm Cells / Dose:** The desired number of (Total, Motile or Prog. Motile) sperm cells required per AI dose.

Click the **CALCULATE** button to calculate and display the dosing parameters:

- **Resuspend pellet to equal (ml):** The total volume of the bulk semen preparation after re-suspending the raw semen pellet with freezing extender.
- **# Doses:** The total number of doses that can be generated from the extended sample.
- **Dose Volume (ml):** The volume of the AI dose in ml.

Click **Save and Close** to display the test report below or **Cancel** and the dosing data will NOT be saved.

SQA-Ve Test Report RAW SEMEN WITH FROZEN DOSING RESULTS

Date: 05/22/2008

SAMPLE DATA				TEST RESULTS						DOSE PREPARATION: FROZEN					
Date	Time	Stallion		Sample #	Semen Volume [ml]	Sperm Conc. [M/ml]	Motility [%]	Prog. Motility [%]	Morpl. [%]	Velocity [m/sec]	Resusp. pellet to equal [ml]	# Doses	# Sperm / Dose [M]	Dose Volume [ml]	Dosing Error
		ID	Name												
05/22/2008	18:54	123	Prince	3	95.0	409.0	93.6	14.3	85.3	23	45	90	404	0.5	

Stallion name is entered through the **Set-Up/Stallion Settings** feature (please refer to the Set-Up section of this User Guide)

Import

Section 8: Import

NOTE: E-Sperm software checks for duplicate records and will not overwrite records already imported.

Click the **Import** button from the Main Menu to transfer the SQA-Ve archive to the E-Sperm:

- When instructed by the SQA-Ve (in order to free-up archive space).
- Anytime a record transfer is desired.

The following screen will be activated:

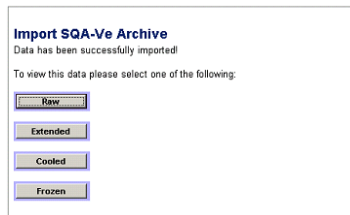


Press **Continue** to start importing SQA-Ve records. A progress bar and the number of records transferred will be displayed:

- ✓ **Import successfully completed**
- ✓ **Importing Data: Number of Records** **55**
- ✓ **Importing New Data: Number of Records** **48**

NOTE: The user has the option to delete the SQA-Ve archive when the import has been completed.

After the archive transfer, a screen will ask: **Do you want to delete the SQA-Ve archive?** It is strongly recommended to delete the SQA-Ve archive at this time. When the process is completed, the screen below will appear:



NOTE: The SQA-Ve archive has limited storage capacity so records MUST be imported to E-Sperm and deleted from the SQA-Ve archive when a warning message is displayed in the SQA-Ve!

Section 9: Set-Up

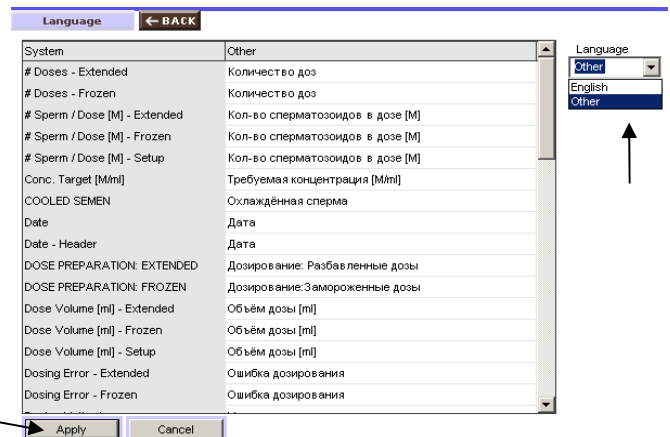
Set-Up

Set-Up is the fifth navigation button of the Main Menu. Click the **Set-Up** button to display the following options: **Language, Stallion Settings, I-Button, Password and Port.**

Language

Language: Click this button to customize the language used in the E-Sperm Reports.

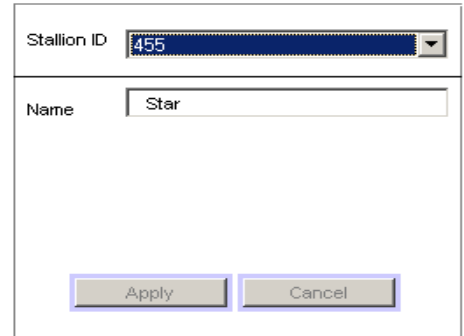
- Choose "Other" from the Language drop-down menu.
- Edit the table by over-writing the text in the "Other" column as desired.
- Click Apply to save.



Stallion Settings

Stallion Settings:

- Using the drop-down menu of the Stallion ID, locate the desired Stallion ID.
- Type in a stallion Name
- Press Apply

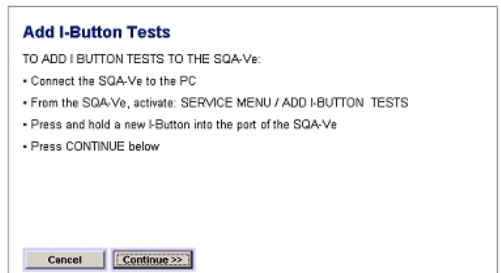


I-Button

NOTE: Warning messages will be displayed if the I-Button will not load:
Communication error: I-Button not activated or recognized by the system
Empty I-Button inserted! Use a new I-Button or retry loading the I-Button

Click: **I-Button** to add the tests to the SQA-Ve.

Follow the on-screen instructions and then press continue. The number of tests added and the number remaining will be displayed.

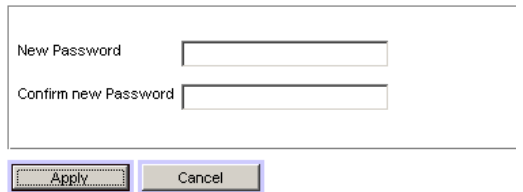


Password

Password: Change the password by:

- Clicking the Password button
- Enter and confirm the new password (enter it again) on the entry screen
- Click **APPLY** to save the new password.

The password is immediately re-set and the E-Sperm can be accessed with this new password only.

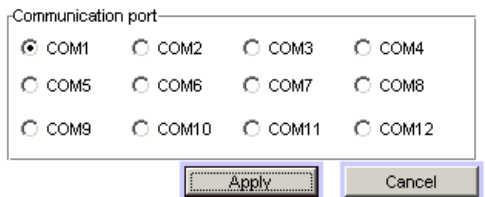


REMEMBER YOUR PASSWORD!

NOTE: Forget your password? E-mail the MES customer support team @: mes@mes-ltd.com

Port

Port: Click this button to set the communication port for the PC.



Exit

Section 10: Exit

Exit the E-Sperm system by clicking the **EXIT** button. Confirm with a click.

