

5080/6080/6080PLUS

PORTABLE APPLIANCE TESTERS

OPERATION MANUAL

TRANSMILLE

SOLUTIONS IN CALIBRATION

5080 / 6080 / 6080PLUS

Portable Appliance Testers

Operation Manual

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5080 / 6080 / 6080PLUS PAT Operation Guide

Safety and Warnings

1: For operator safety please read this manual before using the PAT.

IMPORTANT NOTE
Even though the PATs are battery powered it must be understood that dangerous voltages are present on the mains sockets when testing. Appliances which have damaged cables etc. must be failed on the 'visual test', which will prevent the PAT from proceeding to the tests which apply high voltages.

2: Only a competent person with an understanding of PAT testing should use the Transmille range of PATs.

3: The calibration and servicing of the PATs must only be carried out by an Authorised agent, appointed by Transmille Ltd. Unauthorised servicing will invalidate the warranty.

4: The 5080, 6080 & 6080PLUS comply with the safety standard IEC 1010. When using the PATs the operator must take all necessary safety precautions to ensure that there is no risk of shock when testing an appliance. If in doubt about how to safety perform an electrical safety test then advice must be taken before proceeding.

5: Safety markings on the front Panel.

This warning indicates high voltages may be present on the socket(s) of the tester and suitable precautions should be taken.

This marking indicates that the socket(s) on the PAT should only be used for appliance testing in accordance with manufacturer guidelines.

General Description of 5080, 6080 & 6080PLUS Portable Appliance Testers

Transmille PAT testers offer an easy to use solution for the testing of electrical safety of both Class 1 and Class 2 appliances.

Both models share the same main features of being both easy to use, very portable and battery powered.

The results are displayed both graphically on an easy to read LED bar graph and digitally on a LCD display. The pass/fail limits are scaled automatically from a stored table in the memory based on the type of test (Class 1 or 2) the earth bond current used & the lead length selected.

An optional software package from Transmille allows the PAT to be set to save the results of the tests to the PATs internal memory under the label ID number. The results can then easily be downloaded from the PAT by the software to the PC for printing and long term storage.

By selecting **'new location'** on the PAT menu or noting the first and last Label ID number used at each location the address for each site tested can be easily entered on the PC back in the office. Reports for different customers/locations can then be viewed and printed as required

Note : The following applies to 5080/6080 Only
The 'appliance' menu and 'visual check' test are inhibited when the PAT memory function is disabled - the appliance list alone can be enabled from the PAT set-up menu.

Tests performed and saved to memory

Class 1 Appliance Testing

1: Appliance type
2: Visual test
3: Fuse test
4: Earth bond test at either 100mA (IT equipment), 10A or 25A.
5: Insulation resistance test at minimum 250V / 500V (depending on setting selected :option for IT equipment)
6: Leakage test at 230V nominal.

After the tests are completed the label ID number for that appliance is displayed. The results of the test are then saved to the internal memory under the appliance test number along with date, earth bond current used and lead length for download later (applies if using PAT with memory enabled in conjunction with software)

Class 2 Appliance Testing

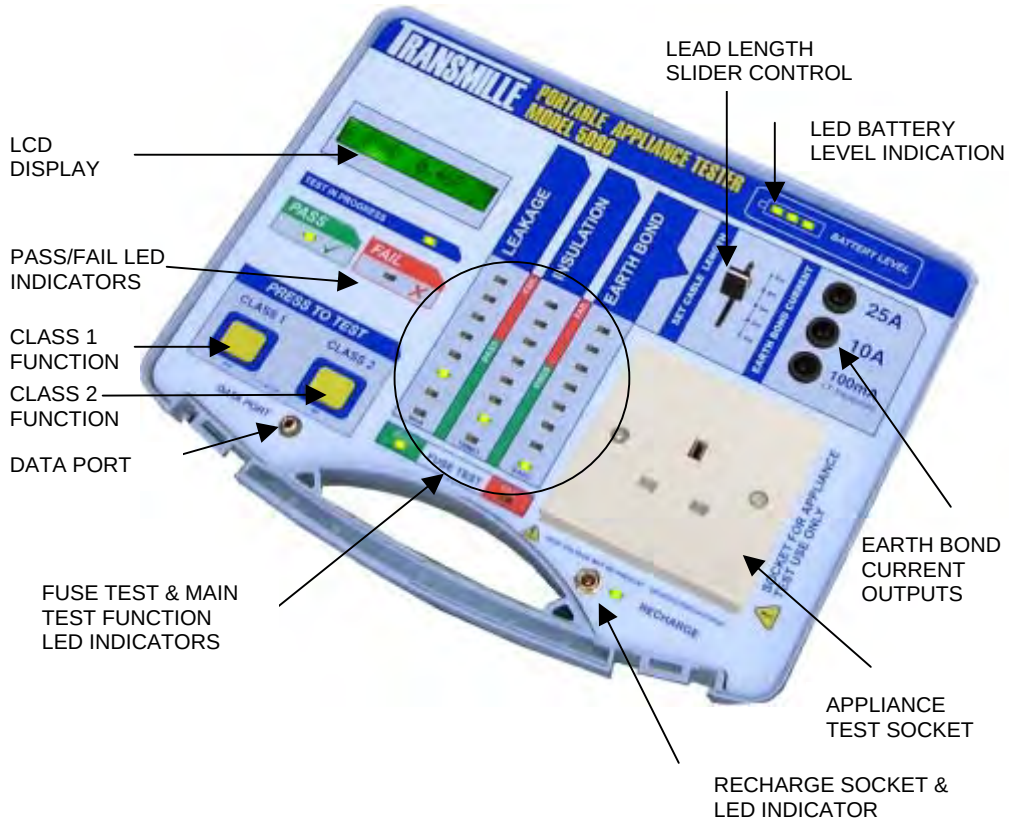
1: Appliance type
2: Visual test
3: Fuse test
5:Insulation resistance test at minimum 500V (option for IT equipment)
6:Leakage test at 230V nominal.

The results are saved as per a class 1 test.

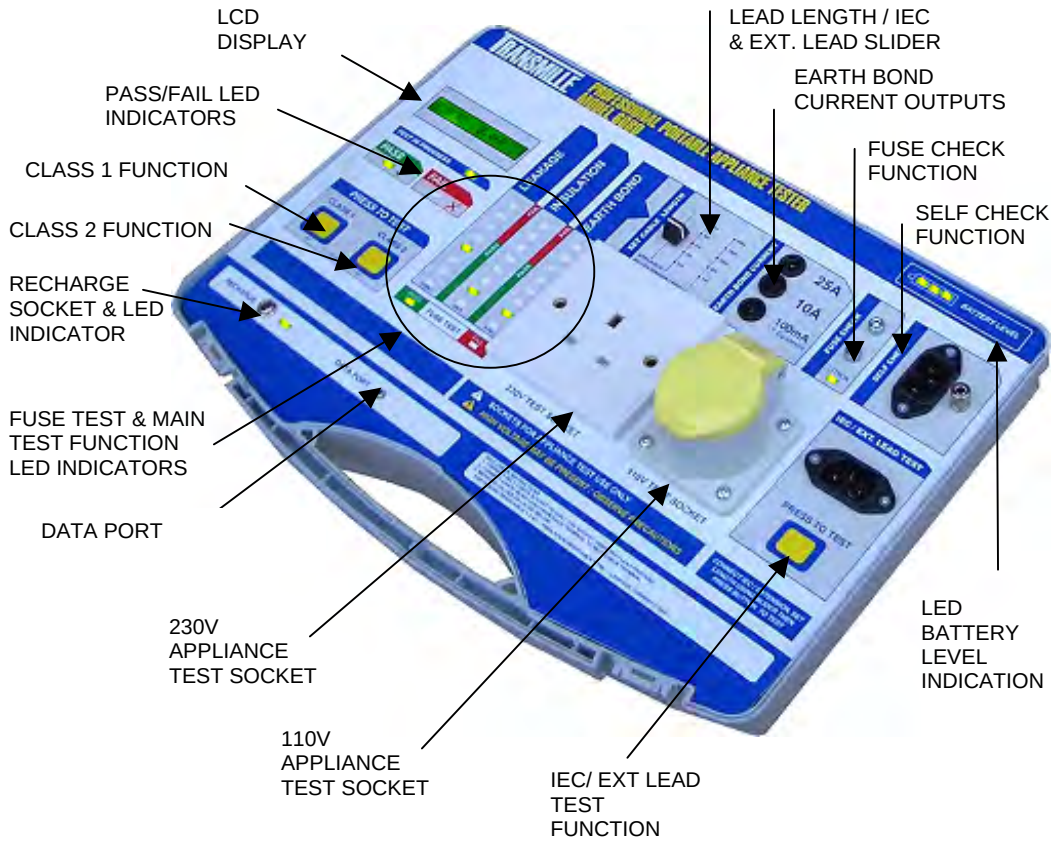
230V / 110V Selection (Models 6080 / 6080PLUS Only)

Models 6080 / 6080PLUS PATs allow tests to be performed at either 110V or 230V, depending on the mode selected (see section ‘operating the PAT’ for details)

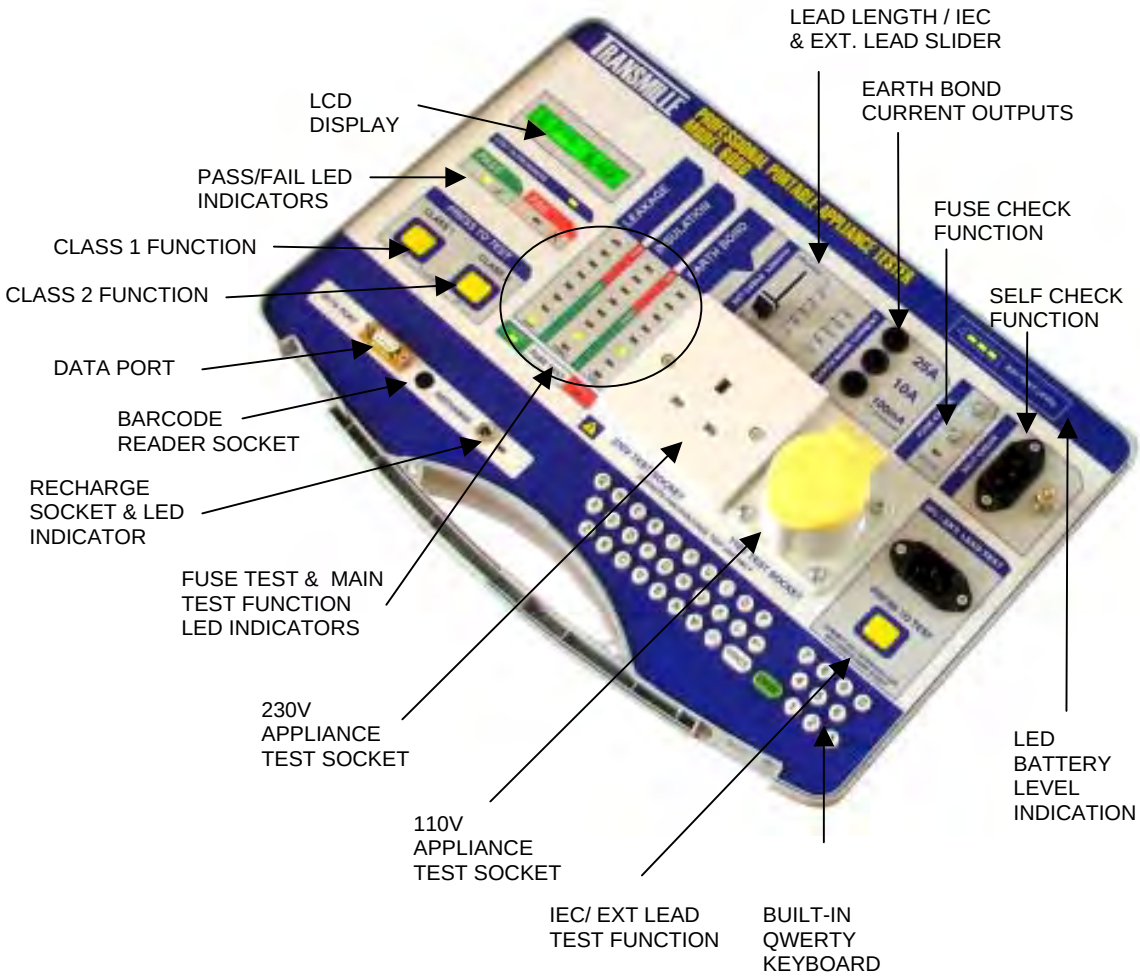
Front Panel Controls & Connectors - 5080



Front Panel Controls & Connectors - 6080



Front Panel Controls & Connectors – 6080 PLUS

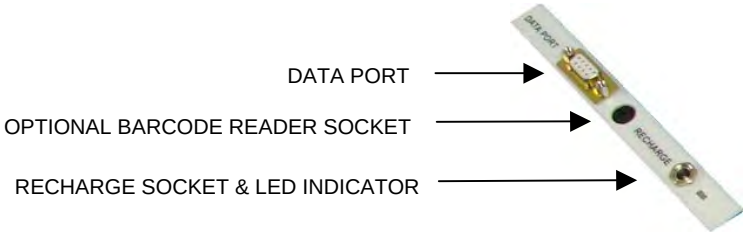


6080PLUS Optional Accessories

The 6080PLUS can be used with the optional Barcode scanner, which plugs into the dedicated socket on the front panel, as shown below.



Optional Barcode Scanner



Operating the PAT – 5080 / 6080 Only

1: Connecting the appliance

Plug in the appliance to be tested and make sure it is switched on.
For the model 6080 plug into appropriate 230V or 110V socket as required (see below for 230V/110V selection).

2: Select the Earth bond current

Plug the earth bond lead into the appropriate earth bond current socket on the PAT for the type of appliance to be tested. Note this should be done even for Class 2 appliances.

For example use the 100mA socket for IT , office , audio & video equipment etc typically fitted with 2A fuses, use 10 Amps for appliances with 5A fuses, lights, Power tools etc, and use the 25Amps for appliances fitted with 13A fuses like heaters, kettles etc.

3: Connect the earth bond clip to the appliance

Clip the earth bond lead to any metal part of the appliance. For a class 2 appliances with some parts of the case being conductive the appliance could be wrapped in tin foil with the earth bond clip to the foil. Although an earth bond test is not performed on a class 2 appliance, the insulation & leakage test will still detect a fault if there is any connection from live to any part of the outer casing of the appliance.

4: Set the mains lead length

Set the slider control on the PAT to the length of the appliance mains lead.

5: Press the Class 1 or Class 2 test button on the tester.

For the model 6080 press and release for 230V test or press and hold for 1 second to select 110V. Check battery indicator (recharge if necessary).

6: Select the Appliance type. Only when enabled **

The LCD displays a list of appliance types; use the ‘NO’ (class 2) key to scroll round the list. Use the ‘YES’ (class 1) key to select when the correct type is displayed.

7: Visual Check.

```
VISUAL CHECK OK  Y/N
```

The LCD display prompts for either a ‘PASS’ – select with the ‘YES’ (class1) Key or ‘FAIL’ using the ‘NO’ (Class 2) key.

8: Fuse Test

```
FUSE TEST - PASS
```

The fuse test checks for continuity between the live and neutral lines.

If the fuse test fails check the appliance is switched on and the fuse is OK, then use the retry option.

```
RE-TEST  Y/N
```

Note : Some appliances will always fail this check, in which case select Y to the ignore fuse check.

```
IGNORE FAIL  Y/N
```

9: Earth Bond Resistance, Insulation Resistance and Leakage Current

These tests will run automatically in sequence displaying the results on the LED indicators.

```
EARTH BOND    PASS
```

```
INS RES   PASS
```

```
LEAKAGE   PASS
```

10: Appliance Label Number

```
APP. NUMBER XXXXXXXX
```

On completion of the tests, the PAT displays the label number to attach to the appliance. The results for this test will be stored against this label number.

11: Viewing Results

```
VIEW RESULTS (Y/N)
```

To see the measured values on the LCD display, choose YES when the Show Results message is displayed.
Note : this message is only displayed for 2 seconds.

** See Software section

Operating the PAT – 6080PLUS Only

1: Connecting the appliance

Plug in the appliance to be tested and make sure it is switched on.
For the model 6080 plug into appropriate 230V or 110V socket as required (see below for 230V/110V selection).

2: Select the Earth bond current

Plug the earth bond lead into the appropriate earth bond current socket on the PAT for the type of appliance to be tested. Note this should be done even for Class 2 appliances.

For example use the 100mA socket for IT , office , audio & video equipment etc typically fitted with 2A fuses, use 10 Amps for appliances with 5A fuses, lights, Power tools etc, and use the 25Amps for appliances fitted with 13A fuses like heaters, kettles etc.

3: Connect the earth bond clip to the appliance

Clip the earth bond lead to any metal part of the appliance. For a class 2 appliances with some parts of the case being conductive the appliance could be wrapped in tin foil with the earth bond clip to the foil. Although an earth bond test is not performed on a class 2 appliance, the insulation & leakage test will still detect a fault if there is any connection from live to any part of the outer casing of the appliance.

4: Set the mains lead length

Set the slider control on the PAT to the length of the appliance mains lead.

5: Press the Class 1 or Class 2 test button on the tester.

Press and release for 230V test or press and hold for 1 second to select 110V.
Check battery indicator (recharge if necessary).

If keyboard mode is enabled (default) then follow steps 6-14 otherwise follow steps 15-19

6: Enter ASSET No.

```
ENTER ASSET No.
```

Asset Found

Enter or barcode scan the asset/appliance number.
If recognised PAT will display :

```
ASSET FOUND
TEST-Y EDIT-N
```

Press “Y” to Immediately start the PAT tests (Step 15)

Press “N” if you need to change any of the details for the Asset,
For example, an item may have moved to a different site or room.
The display will briefly show **“POST CODE?”**, then change to the stored Postcode for this Asset, the postcode can now be changed as needed.

The same situation will now be repeated for each of the following entries:
Site, Location, Description, Manufacturer, Model Number, & Serial Number
Which can all be changed as needed.
Press “ENTER” when done to move on to the next entry.

Note : “Y” or “N” above can be either those on the keyboard or the test buttons “Class 1” for Yes or “Class 2” for No.

Asset Not Found (New Asset)

If a new asset/appliance PAT will display

```
NEW ASSET
```

```
SAME LOCATION Y/N
```

Press “Y” if you are at the same physical Location (i.e. “Room 1”).
6080Plus will now show the Postcode, Site & Location from the previous test.
Then you can enter the Description, Manufacturer, Model Number,
Serial Number & Retest Period, as normal.

Press “N” if you have moved to a NEW Location (i.e. “Room 2”).
6080Plus will now ask for all new details as usual for a new test.

```
ENTER POST CODE
```

7: Enter POST CODE

Enter customer post code then press ENTER on the PAT keyboard. If same as previous postcode, PAT will display SAME POSTCODE If a new/different postcode, PAT will display NEW LOCATION SET and automatically set a ‘new location’ marker.

```
ENTER SITE
```

8: Enter SITE

Enter site then press ENTER on the PAT keyboard.

```
ENTER LOCATION
```

9: Enter LOCATION

Enter location then press ENTER on the PAT keyboard.

```
ENTER APPLIANCE
```

10: APPLIANCE?

Enter appliance *description* then press ENTER on the PAT

```
ENTER MANUFACTURER
```

11: MANUFACTURER?

Enter manufacturer then press ENTER on the PAT keyboard.

```
ENTER MODEL NO.
```

12: ENTER MODEL No.

Enter model number then press ENTER on the PAT keyboard.

```
ENTER SERIAL NO.
```

13: ENTER SERIAL No.

Enter serial number then press ENTER on the PAT keyboard.

```
ENTER CAL PERIOD
```

14: ENTER CAL/RETEST PERIOD

Enter cal/retest period (in weeks) then press ENTER on the PAT.

15: Visual Check.

The LCD display prompts for either a ‘PASS’ – select with the ‘YES’ (class1) Key or ‘FAIL’ using the ‘NO’ (Class 2) key.

```
FUSE TEST - PASS
```

16: Fuse Test

The fuse test checks for continuity between the live and neutral lines.

If the fuse test fails check the appliance is switched on and the fuse is OK, then use the retry option.

```
RE-TEST  Y/N
```

Note : Some appliances will always fail this check, in which case select Y to the ignore fuse check.

```
IGNORE FAIL  Y/N
```

17: Earth Bond Resistance, Insulation Resistance and Leakage Current

These tests will run automatically in sequence displaying the results on the LED indicators.

EARTH BOND PASS	INS RES PASS	LEAKAGE PASS

18: Appliance Label Number

APP. NUMBER XXXXXXXX

On completion of the tests, the PAT displays the label number to attach to the appliance. The results for this test will be stored against this label number.

19: Viewing Results

VIEW RESULTS (Y/N)

To see the measured values on the LCD display, choose YES when the Show Results message is displayed. Note : this message is only displayed for 2 seconds.

Additional Functions – 6080 / 6080PLUS

IEC / Ext. Lead Test Function (Model 6080 / 6080PLUS)

Connect the plug end of the IEC lead into the appropriate 230V / 110V test socket and the IEC connector into the IEC inlet. Plug earth bond lead into earth bond socket according to cable size
(it is not necessary to connect the croc clip end). PAT will default to the 10A range if the earth bond lead is not plugged in.

Set the IEC / Extension lead slider to the length of the lead connected.

For extension leads, use a short IEC mains lead plugged into the extension socket to allow connection to the IEC inlet on the PAT. Ensure the IEC / Ext. lead slider is set to the length of the extension lead PLUS the mains lead plugged into it.

Press the test button in the IEC / Ext. Lead test section to proceed with testing the lead.

Self Check Function (Model 6080 / 6080PLUS)

Plug earth bond lead into the 10A socket and clip the opposite end onto the stud terminal in the self check section. Connect using a 1metre IEC lead (earth resistance 50mohm) from the 230V mains socket to Self Test IEC inlet. Set lead length slider to 1m.

Press Class 1 to begin self check –

Select any appliance description (if appliance list is displayed)

Select Y for visual check

Proceed through tests as normal and once testing is complete choose Y to display results - values displayed should be as follows :

EARTH BOND = 0.10R
INS RES = 10MR
LEAKAGE = <0.01mA

Fuse Check Function (Model 6080 / 6080PLUS)

Press a fuse across the studs in the fuse test section -the LED will illuminate if fuse continuity is OK

Recharging

Connect the supplied charger to the recharge socket of the PAT and connect to the mains. A full recharge requires a minimum of 6 hours - it is acceptable to leave the PAT on charge for up to 12 hours (e.g. overnight). The PAT may also be used while connected to the charger.

Using the PAT Setting Menu

The PAT settings menu can be accessed by pressing both the Class 1 and Class 2 buttons together when the PAT is switched off.

The PAT settings menu comprises of the following items :

SET NEW LOCATION Y/N

This function allows the PAT to store an electronic 'marker' which then allows tests to be displayed in the correct start and end number groups when downloaded to the PC. This useful function removes the need for manual group selection using the download software after downloading data.



If Y is selected for the NEW LOCATION function, the PAT will switch off for convenience, ready for testing at the new site.

INSULATION FOR I.T. Y/N

This function allows the PAT 100mA range (I.T. equipment) to be configured to perform an insulation test. Select Y or N as required.

Y=INS 250V N=500

This function allows the PAT to be configured to use either 250V or 500V for INSULATION tests. The 250V option is ideal for checking surge protected appliances/test leads and prevents the surge protection circuit activating.

BEEPER Y/N (6080PLUS ONLY)

Turns the beeper on/off for keyboard presses and testing

APP. LIST Y/N (5080/6080 ONLY)

This function allows the appliance list displayed at the beginning of each test to be turned on or off – this list is only of use if the PAT tests are to be downloaded to the PC* and can be turned off if not required. Enabled/disabled by the PATDRS software when PAT memory is enabled / disabled.



Pressing both buttons *together* when the PAT is switched on will switch the PAT off.

*Optional PAT download software required

Using the PAT Advanced Settings Menu (6080 / 6080PLUS Only)

The PAT settings menu can be accessed by pressing both the Class 1 and Lead Test buttons together when the PAT is switched off.

The PAT Advanced settings menu comprises of the following items :

OPTIONS Y/N

"N" Will move on to the Diagnostics Menu.
"Y" Will enter the "SETUP" menu, with the following questions.

NEW LOCATION Y/N

"N" Does not set the new location marker, moves on to the next question.
"Y" Sets the new location marker and then turns off.

INS. FOR I.T Y/N

"N" Stops PAT running Insulation Test on IT equipment.
"Y" Allows PAT to run Insulation Test on IT equipment.

Y=INS 250V N=500

"N" Insulation Tests are run at 500Volts.
"Y" Insulation Tests are run at 250Volts.

BEEPER Y/N

"N" Turns the Beeper OFF.
"Y" Turns the Beeper ON.

MEMORY ON Y/N

"N" Turns OFF the Memory, Appliance List & Keyboard.
Then moves on to the Diagnostics Menu.
"Y" Turns the Memory ON.

APP. LIST Y/N

"N" Turns the Appliance List OFF.
"Y" Turns the Appliance List ON.
Note: Keyboard must be turned OFF to see the Appliance List.

KEYBOARD Y/N

"N" Turns the Keyboard OFF.
Note: Asset Feature disabled, Appliance List (if ON) will be shown.
"Y" Turns the Keyboard ON.
Note: Asset Feature enabled, Appliance List (even if ON) will not be shown.

Goes back to OPTION Y/N, PAT will automatically turn off after five seconds.



Pressing both buttons *together* when the PAT is switched on will switch the PAT off.

5080 Specifications

Visual Test

Manual Test: Select 'pass/fail' using keys.
Note : Only runs when PAT memory enabled

Fuse Test

Test Voltage: 230V AC, 50Hz
Test Duration: 2 seconds
Measurement points: Between live and neutral.
Minimum Pass: 300uA typical.
Display: Red-fail, Green- Pass LED. + LCD display

Earth Bond resistance measurements:

Test currents: 100mA (IT),10Amps, & 25Amps (Nominal into short circuit)
Current Selection: Automatic detection from socket used.
Measurement points: From clip end of earth bond lead to earth pin on 13A socket.
Test duration: 5 seconds
Range: 0 to 10 ohms.
Resolution: 0.01 ohms
Accuracy: 3% of reading + 4 digits.
Default Fail Limits: Automatically selected from bond current used & cable length.

25A :	0.1ohm for 1metre Up to 0.2ohm for 5metre
10A :	0.25ohm for 1metre Up to 0.4ohm for 5metre
100mA :	0.5ohm for 1metre Up to 0.75ohm for 5metre

Display: 3 red fail, 5 green pass LED bar graph + LCD

Insulation Resistance measurements:

Test Voltage: Minimum 500V DC.

Measurement points : From Live/neutral to Earth

Test duration: 5 seconds.

Ranges : 0.1Megohms to 2Megohms & 2Megohms to 100Mohms.

Range selection: Automatic.
Default Fail Limits: Automatically selected. Class 1=1Mohm, Class 2=2Mohms.
Accuracy: 3% + 4 digits

Leakage Current Measurements:

Test Voltage: 230V AC 50Hz.
Measurement points: From live to 13 Amp socket Earth pin & earth bond clip.
Test Duration: 5 seconds
Range: 0.1mA to 15mA
Resolution: 0.1mA
Default Fail Limits Automatically selected. Class 1=3.5mA, Class 2=2mA
Accuracy: 3% + 0.2mA
Reference Reading corrected to 253V (10% high supply)

Dimensions:

280mm x 230mm x 80mm. Weight 1.9kgs.

6080 / 6080PLUS Specifications

Visual Test

Manual Test: Select 'pass/fail' using keys.

Fuse Test.

Test Voltage:	230V AC, 50Hz
Test Duration:	2 seconds
Measurement points:	Between live and neutral.
Minimum Pass:	300uA typical.
Display:	Red-fail, Green- Pass LED. + LCD display

Earth Bond resistance measurements:

Test currents:	100mA (IT),10Amps, & 25Amps (Nominal into short circuit)
Current Selection:	Automatic detection from socket used.
Measurement points:	From clip end of earth bond lead to earth pin on 13A socket.
Test duration:	5 seconds
Range:	0 to 10 ohms.
Resolution:	0.01 ohms
Accuracy:	3% of reading + 4 digits.
Default Fail Limits:	Automatically selected from bond current used & cable length.

25A :	0.1ohm for 1metre
	Up to 0.2ohm for 5metre
10A :	0.25ohm for 1metre
	Up to 0.4ohm for 5metre
100mA :	0.5ohm for 1metre
	Up to 0.75ohm for 5metre

Display: 3 red fail, 5 green pass LED bar graph + LCD

Insulation Resistance measurements:

Test Voltage:	Minimum 500V DC.
Measurement points:	From Live/neutral to Earth
Test duration:	5 seconds.
Ranges:	0.1Megohms to 2Megohms & 2Megohms to 100Mohms.
Range selection:	Automatic.
Default Fail Limits:	Automatically selected. Class 1=1Mohm, Class 2=2Mohms.
Accuracy:	3% + 4 digits

Leakage Current Measurements:

Test Voltage:	230V AC 50Hz.
Measurement points:	From live to 13 Amp socket Earth pin & earth bond clip.
Test Duration:	5 seconds
Range:	0.1mA to 15mA
Resolution:	0.1mA
Default Fail Limits	Automatically selected. Class 1=3.5mA, Class 2=2mA
Accuracy:	3% + 0.2mA
Reference	Reading corrected to 253V (10% high supply)

Lead Test Limits (20m cable):

100mA Socket (3/6A cable)	2.05 Ohms
10A Socket (10/13A Cable)	1.23 Ohms
25A Socket (16/25A Cable)	0.82 Ohms

Dimensions:

290mm x 280mm x 110mm. Weight 3.5kgs.

Transmille PRODRS Download & Reporting Software (Option)

Introduction

The optional PAT Download & Reporting Software provides easy to use tools to download data from the Transmille range of PATs and produce fully formatted professional looking reports in seconds.

The program also includes the ability to use the DYMO 'LabelWriter' range of thermal label printers to print appliance test labels.

THIS SOFTWARE REQUIRES AN ACTIVATION CODE TO BE ENTERED WHEN FIRST RUNNING THE SOFTWARE (LOCATED ON THE BACK COVER OF THE CD SLEEVE SUPPLIED).

Installing the software



To install the software, insert the CD into the disc drive – the CD browser will be displayed as show left

Select **INSTALL** to install the software for the first time – then follow the on screen instructions.



Select **UPGRADE** if the software is already installed – this will update to the latest version.

Click on the button as shown left to begin the update, then click UNZIP to proceed.

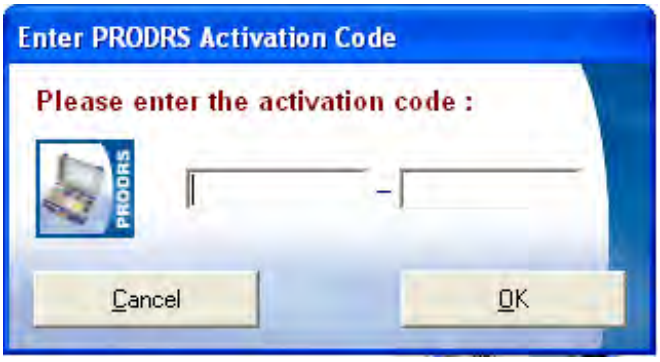
Running the software for the first time

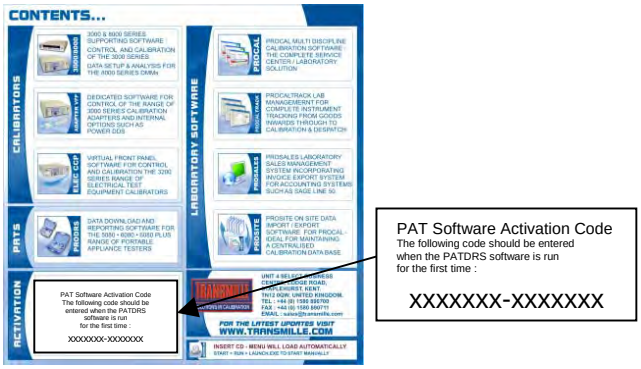
Once installed, the program can be launched by using the Start button
and choosing PAT Download & Reporting Software :



The program will start, and perform a check to ensure the software has been activated – an activation screen will be displayed if the software is being run for the first time.

Activating the software





To activate the software, enter the code as found on the back cover of the CD sleeve, then click OK.

Note : The activation code will enable the software for use with your specific PAT only

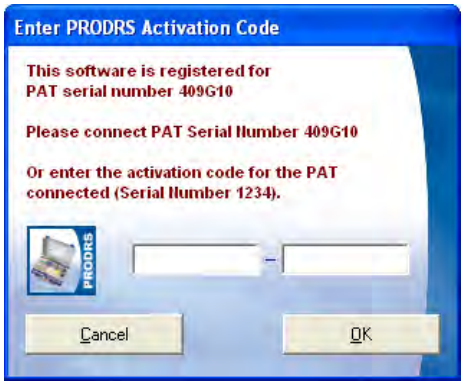
Re-activating the software

To re-activate your software to use a different PAT, the unique activation code for the PAT to be connected is required (supplied with the PAT). Use the Setup / Utilities menu item - select **Re-activate software**.

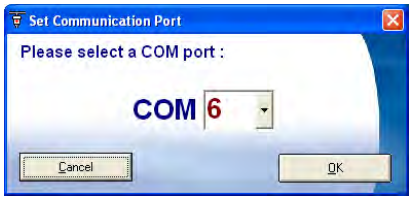
When prompted, ensure the PAT is connected, and press any key on the PAT :



The software will detect a different PAT is connected, and prompt for a new activation code.
Enter the new activation code and the software will be re-activated for the new PAT.



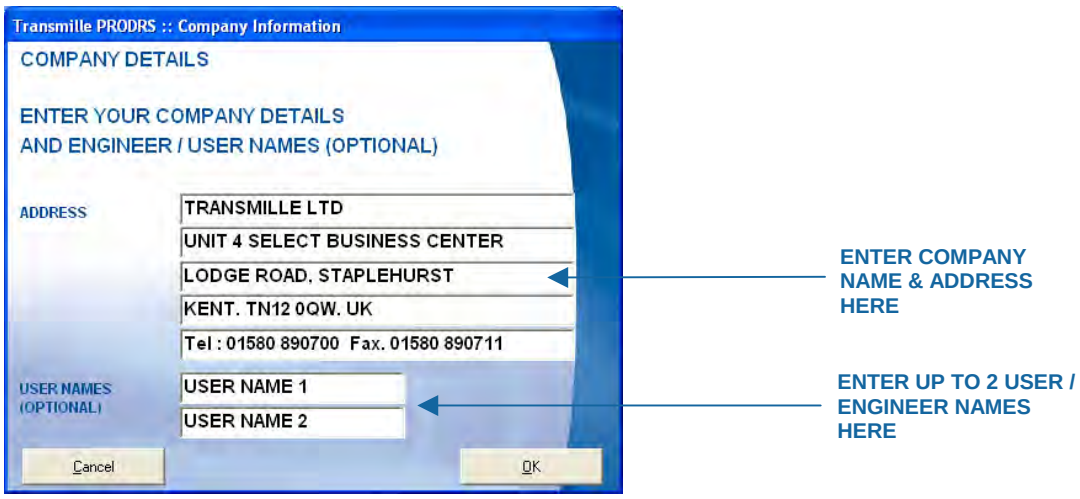
The first time the software is run, the COM port the PAT is connected to will be requested Simply select the COM port from the drop down list and click OK.



If an incorrect COM port is selected, the PAT will not be detected. To change the COM port at any time use the Setup function from the main menu.

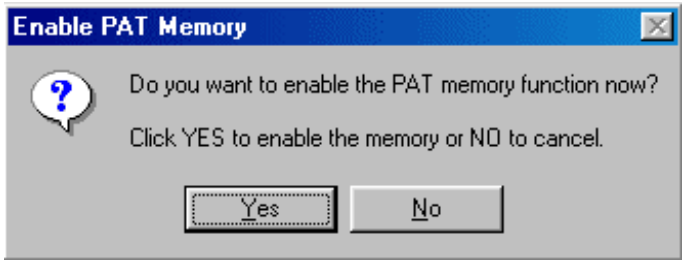
How do I know which COM port to choose?
Choose COM 1 if you PC only has one COM port. If your PC only has USB connections, you will need a USB to Serial converter lead.

The company name and user names will also be requested. This allows the reports to include your specific company details :



Note : This information can be changed later using the setup function.

The following message will be displayed the first time the software is run :



To enable the memory function make sure the PAT is connected to the PC using the supplied data lead. Click YES to enable, the press any button on the PAT to proceed.

Once this information is entered, the main menu will be displayed.
All major functions are accessible from this screen :

Main Menu

5080 / 6080 Models



The following functions are available :

- **Download Appliances**
- **View / Print Reports**
- **Print Labels**
- **Setup / Utilities**

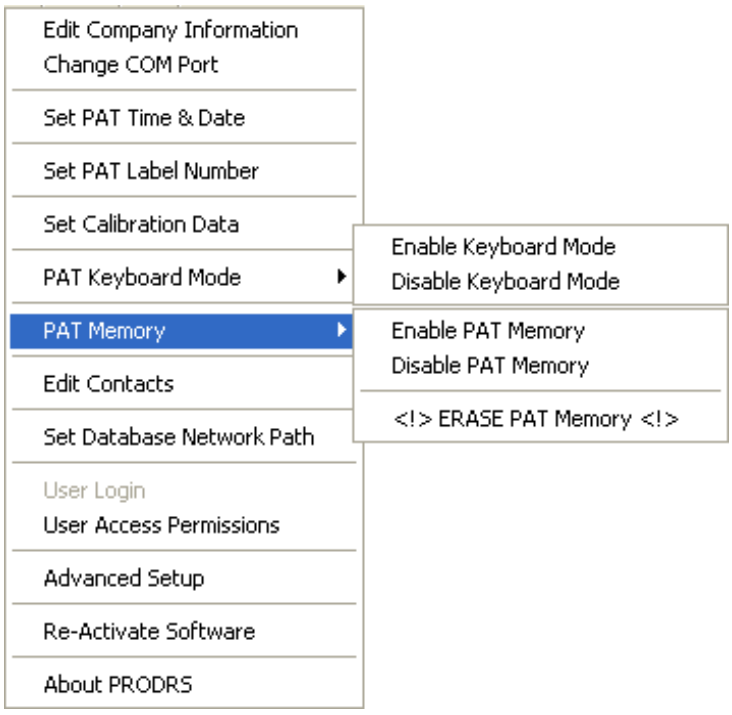
6080PLUS Main Menu



The 6080PLUS includes additional menu items :

- **View / Edit Appliances**
- **Upload Appliances**

The Setup / Utilities menu includes the following functions:

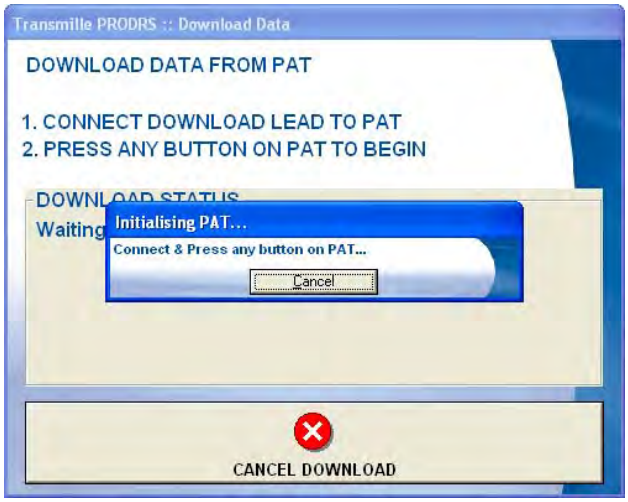


Download Appliances Function

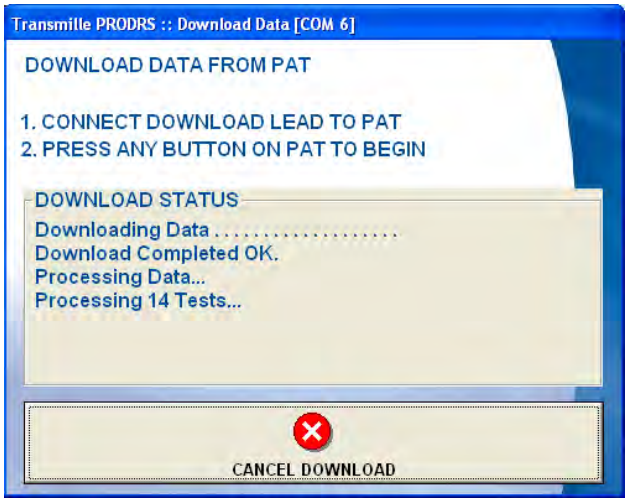


The download function allows the data from one or more PATs to be downloaded from the PAT to the main database stored on the PC.

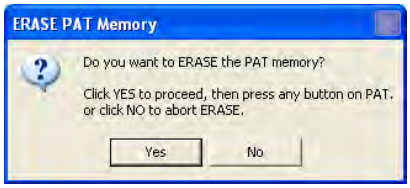
Click on this menu item to proceed to the download screen.
Click Cancel to abort download.



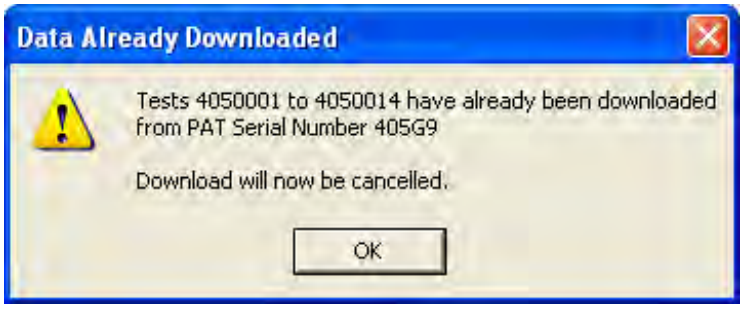
To begin the download, simply click any button on the PAT –
the screen will change to display the data being read back :



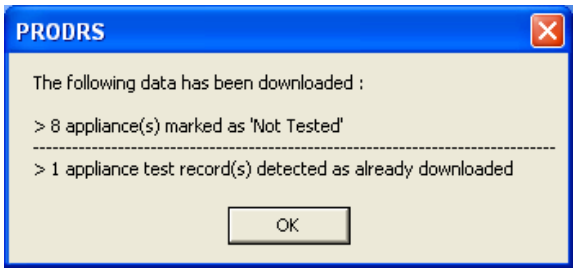
Following the download, the program will ask if you want to erase the PAT memory.
Click Yes to erase the memory or No to abort the erase.



If the download function detects that the data has already been downloaded it will display a message similar to the following :



If the download function detects that some or all data has already been downloaded it will display a message similar to the following :



Example message if selective data has already been downloaded.



Example message if all data has already been downloaded.

If the download function detects that previously unloaded appliances have not been tested, these will be marked as 'untested' and a message similar to the following will be displayed :

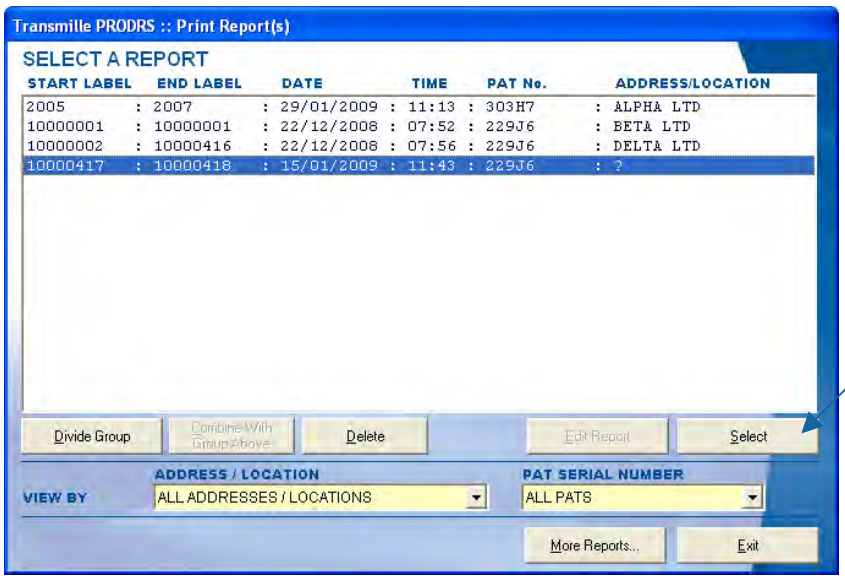


Print Report(s) Function



The print report(s) function allows the user to set the address / location for a report, set the start and end label numbers for a report as well as preview on screen and/or print reports.

The main selection screen displays all test groups & reports available.



To print/preview a different report style, select a report line then **right click** on the SELECT button and choose from the list displayed.

NOTE : This can only be selected for an existing report

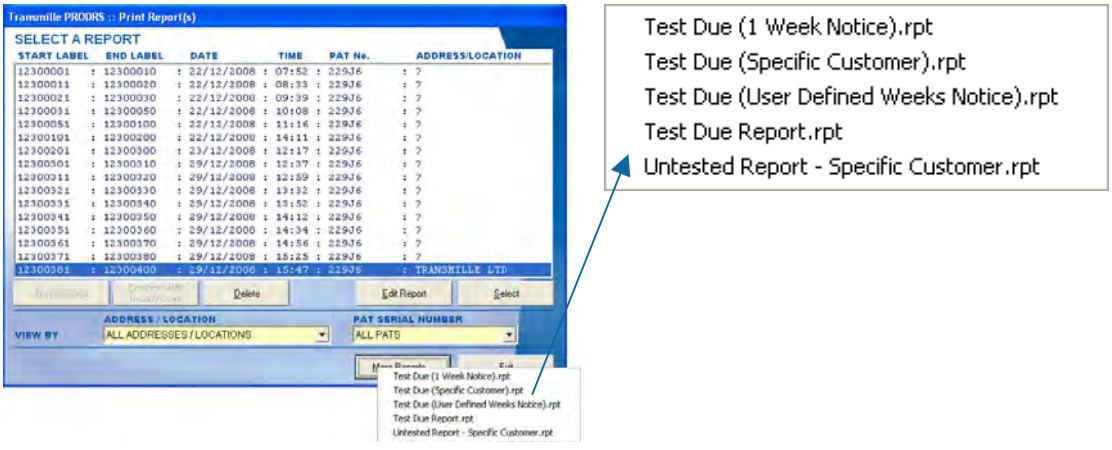
The 'View By' section allow the list to be 'filtered' to show only reports for a specific address / location, PAT serial number or a combination of the two.



To view all reports, select ALL ADDRESSES/LOCATIONS and ALL PATS

The PAT serial number list is only displayed when the system detects two or more PATS have been downloaded into the system.

The **'More Reports…**' button provides access to further *GENERAL* reports, including retest due reports, untested appliances etc.



Reports which have previously had an address / location selected are available for print / preview by highlighting the appropriate line and clicking the select button.

Test groups which do not have had an address / location defined are indicated by a **?** in the address / location column. These start and End 'groups' can be modified as required to match the start and end numbers for a specific address / location.

If the 'NEW LOCATION' function in the PAT set up menu has been used when performing testing at several sites, the start and End groups displayed will be correct. If the Start and End numbers have been recorded manually (using a worksheet), the Start and End groups may need to be manually divided to allow the displayed groups to match the start and End numbers recorded on the worksheet

Dividing a group

Select the line which contains the first and last label number group which needs to be divided into separate 'sub groups'. Click the divide button and the screen shown below will appear :

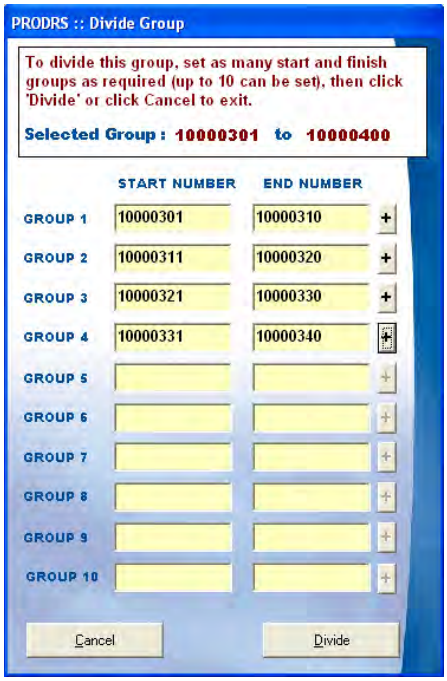
The divide group screen shows the original group Start and End numbers, and allows this original group to be divided into up to 10 'sub groups'

The program will check to ensure valid numbers have been entered into the available boxes and display a warning if invalid numbers are detected.

Once all the groups required are set, click on the Divide button to apply this selection.

The list will be updated to display the new groups, ready for the address / location to be entered when a line is selected and the Select button is clicked.

Click Cancel at any time on the Divide Group screen to abort.



Combining a group

If two groups are displayed which need to be combined into a single group, simply highlight the group below the group it needs to be combined with and click the Combine with Group Above button. The list will be updated to display the new groups

By using the divide and combine functions, the list can be modified to match the required report groups.

Deleting groups / reports

The delete function provides two functions, depending on the type of line selected.

If an existing report is selected (a test group which has the address /location already set), the delete function will delete the report reference only, allow the test data to be released for use on another report. The group used by this report will then be displayed with a ? to indicate it is available for use in a new report.

If an test group is selected which does not have a address / location defined, the delete button will allow the user to delete these tests from the database completely. This is useful if any ad hoc tests have been carried out which are not required to be used in any reports.

Setting the Address / Location for a test group

Once the required groups are displayed in the list, select a line and click the Select button.

The following screen will appear :



Enter / select the address (any address previously entered on a report will be available in the drop down list).

Select the PAT User Name from the drop down list.

To print or preview the report select the required option from the option list marked ‘After Save…”

Click Save and the report will be saved (and printed / previewed as selected).

Editing Reports

For test groups which have an address / location defined, the report information can be edited by clicking on the Edit Report button :

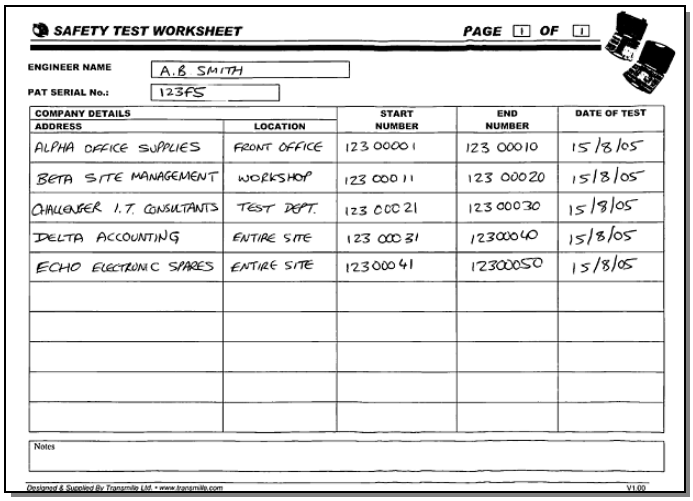


The report cover page details can be edited using the top section of the screen.
Test line data can be either modified or specific lines deleted by using the bottom section of the screen – before a test line is deleted a confirmation message is shown.

ALL CHANGES MADE ON THE ADVANCED EDITOR SCREEN ARE *PERMANENT*.
THIS FUNCTION IS RECOMMENDED FOR EXPERIENCED USERS ONLY

Divide Group Function :: Worked Example

In this example, tests have been performed at each site and recorded on a separate worksheet (as shown below) :



SAFETY TEST WORKSHEET PAGE 1 OF 1

ENGINEER NAME: A.B SMITH

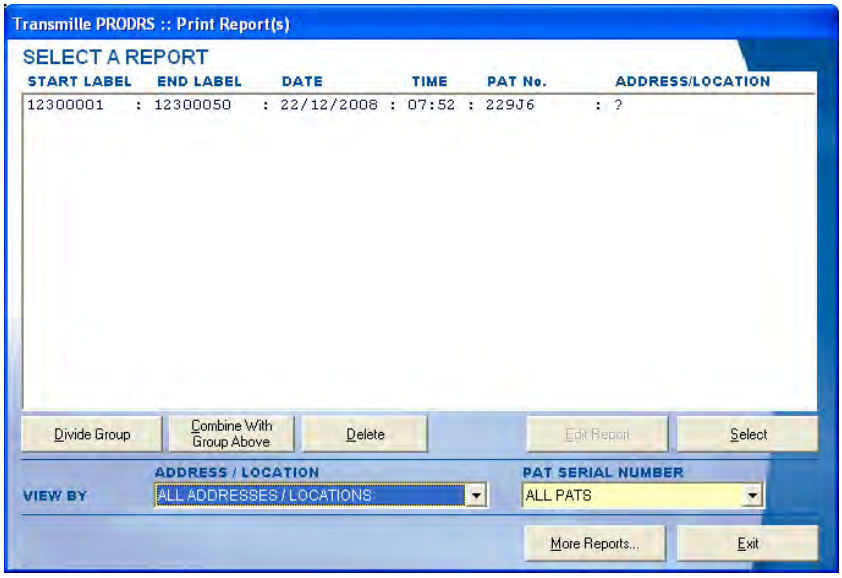
PAT SERIAL No.: 123FS

COMPANY DETAILS ADDRESS	LOCATION	START NUMBER	END NUMBER	DATE OF TEST
ALPHA OFFICE SUPPLIES	FRONT OFFICE	123 00001	123 00010	15/8/05
BETA SITE MANAGEMENT	WORKSHOP	123 00011	123 00020	15/8/05
CHALLENGER I.T. CONSULTANTS	TEST DEPT.	123 00021	123 00030	15/8/05
DELTA ACCOUNTING	ENTIRE SITE	123 00031	12300040	15/8/05
ECHO ELECTRONIC SPARES	ENTIRE SITE	12300041	12300050	15/8/05

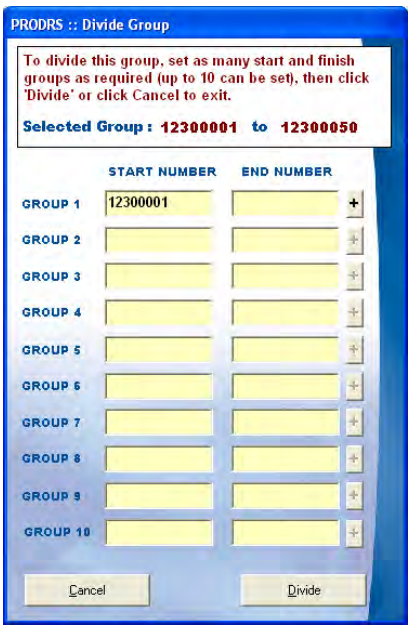
Notes

Designed & Supplied By Transmille Ltd. • www.transmille.com V1.00

The PAT download results in a single group of 50 tests as shown below :



In order to create the 5 reports as recorded on the worksheet, it is necessary to use the 'Divide Group' button.



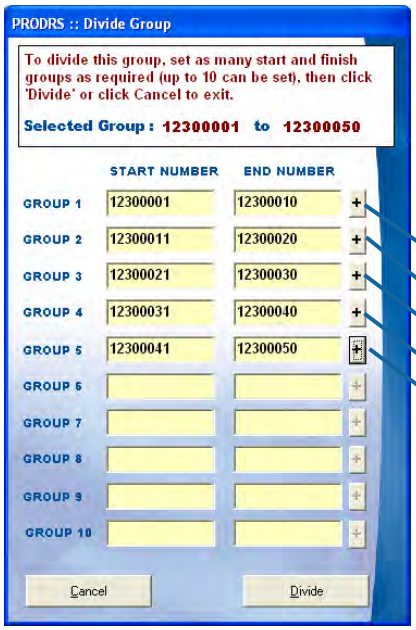
On pressing the Divide Group button, the screen shown left is displayed.

This shows the available range of tests at the top of the screen and allows up to 10 'sub-groups' to be created from the original start and end numbers.

To create the 'sub-groups' use the + button to set the end number as required.

This is repeated for each of the groups required.

The Start an End numbers can be typed in using the keyboard if required.

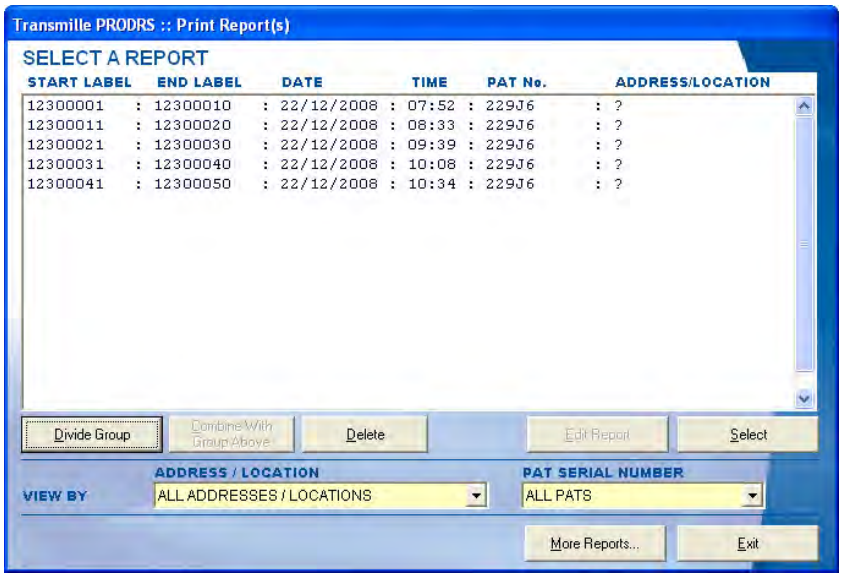


The screen shot left shows the sub-groups defined to match the worksheet show previously.

Once this screen is set as required, click on the Divide button to apply these settings and divide the original group into the five separate groups.

COMPANY DETAILS ADDRESS	LOCATION	START NUMBER	END NUMBER	DATE OF TEST
ALPHA OFFICE SUPPLIES	FRONT OFFICE	123 00001	123 00010	15/8/05
BETA SITE MANAGEMENT	WORKSHOP	123 00011	123 00020	15/8/05
CHALLENGER I.T. CONSULTANTS	TEST DEPT.	123 00021	123 00030	15/8/05
DELTA ACCOUNTING	ENTIRE SITE	123 00031	12300040	15/8/05
ECHO ELECTRONIC SPARES	ENTIRE SITE	12300041	12300050	15/8/05

The screen below shows the groups created once the divide function has been used.
It has divided the original group from **12300001 to 12300050** into five sub-groups as shown in the list below :



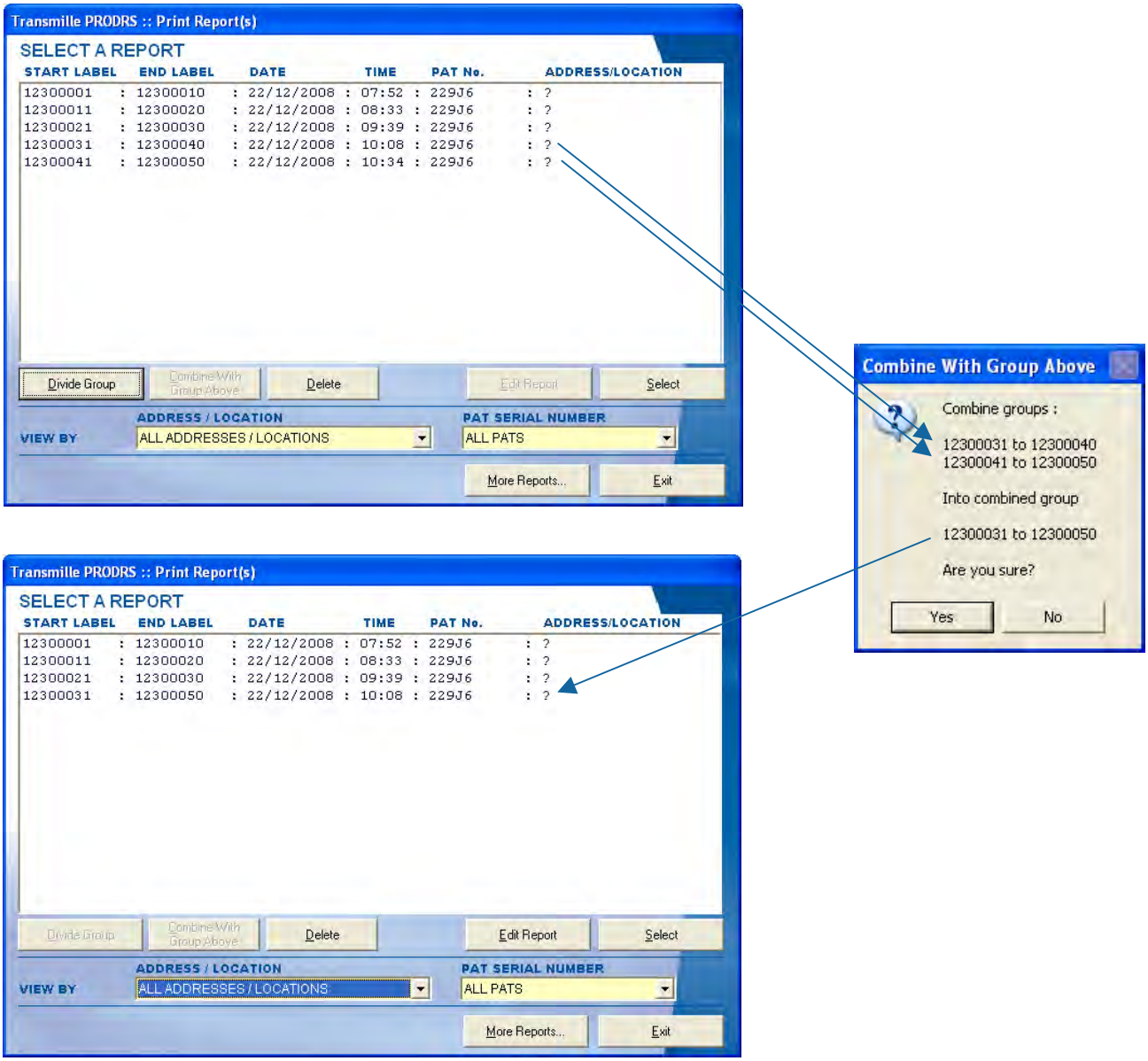
Combine With Group Above Function :: Worked Example

The combine group function allows two consecutive groups to be merged together, as long as they have not been used in a report by setting the address / location information. The 'Combine With Group Above' button is only available when the combine action is permitted – the following conditions do not allow the combine function to be used :

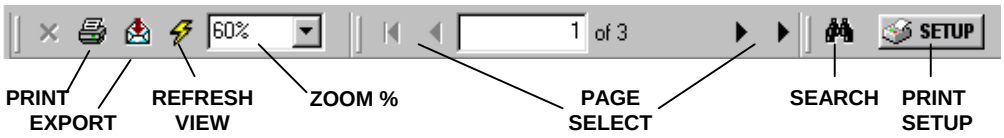
- Group above is used in a report (Address / Location is set)
- Group above is for a different PAT (when more than one PAT tester is downloaded to the same PC)

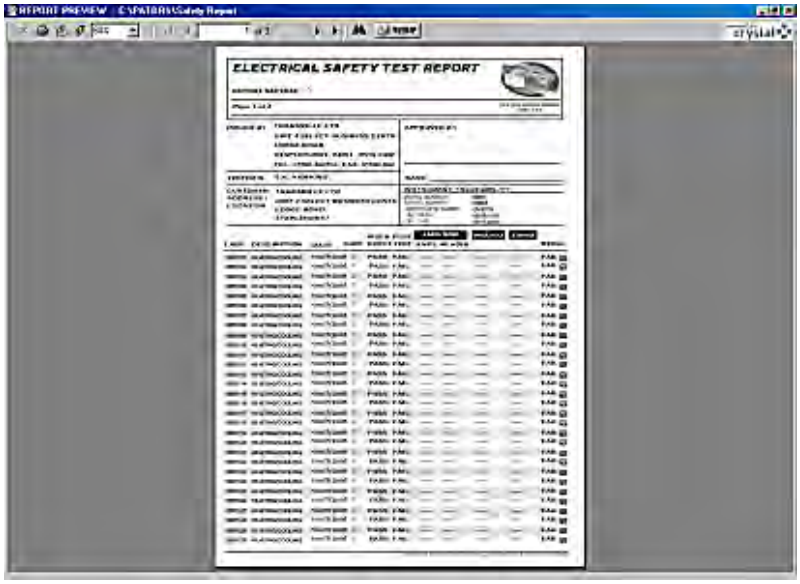
In these cases, the combine with group above button will be disabled to indicate this function is not possible.

When using the combine function on the test group shown below :



Printing a Report





	Preview screen, simply click on the printer button
	To change the printer to use for printing click on the Printer setup button
	To export data to another format (available export functions depend on programs installed on user computer) click the export button

Print Test Labels Function



This function requires the use of a DYMO LabelWriter thermal label printer (option, supplied separately)

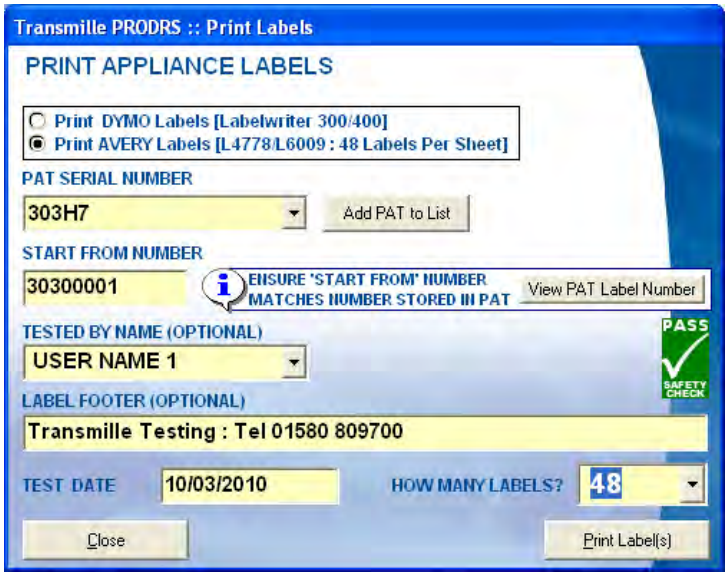
Select the PAT serial number from the drop down list if available.

The first time this function is run, the program will ask for the PAT serial number. This will display the automatic counter, which remembers the label number reached last time labels were printed.

Ensure the label number matches the label number stored in the PAT.
The PATs are supplied new with the first number set to xxx00001
(where xxx is the PAT serial number, e.g. 11100001).

If you do not print labels when you begin to use the PAT, the 'start from number' will need to be checked to ensure it matches the number stored in the PAT

Enter the user name to be printed on the label (if required), and check the footer text for the label is ok (this is saved when this screen is returned to)
Check the date is OK and set the label quantity and simply click Print Labels.



To add your company logo to the test label, use the software supplied with the DYMO printer to edit the label template named **Safety Test Label.LWL**

Alternatively the AVERY label option can be selected – this will print labels onto standard pre-cut label sheets – requires the following AVERY laser printer labels :

AVERY L6009 – Silver Heavy duty Laser Labels
AVERY L4778 – White Heavy Duty Laser Labels

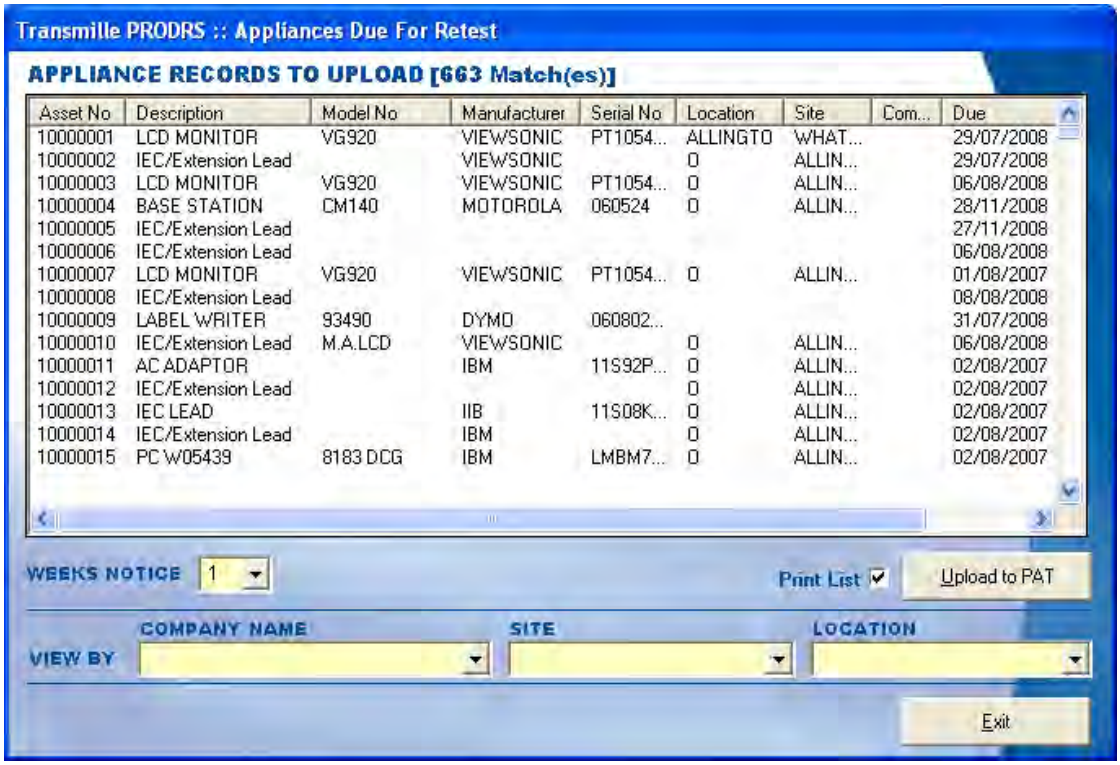
This option will print 48 labels per sheet and increment the test number accordingly.

Upload Appliances Function (6080PLUS Only)



The upload function allows data for one or more appliances which are due for tested to be uploaded into the PAT's memory, avoiding the need to type appliance details when retesting the appliance.

Click on this menu item to proceed to the download screen.



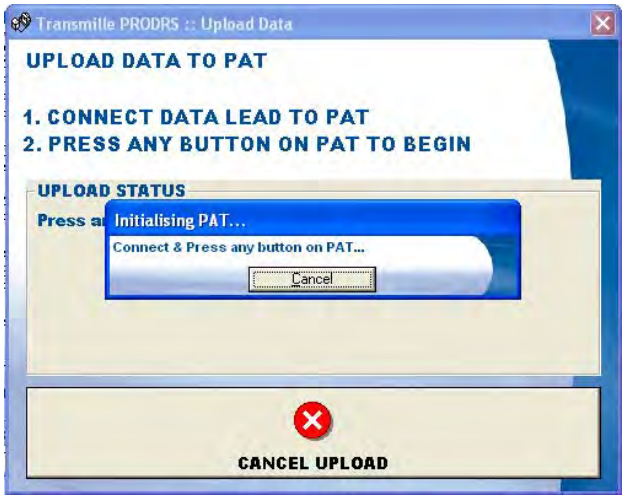
Asset No	Description	Model No	Manufacturer	Serial No	Location	Site	Com...	Due
10000001	LCD MONITOR	VG920	VIEWSONIC	PT1054...	ALLINGTO	WHAT...		29/07/2008
10000002	IEC/Extension Lead		VIEWSONIC		0	ALLIN...		29/07/2008
10000003	LCD MONITOR	VG920	VIEWSONIC	PT1054...	0	ALLIN...		06/08/2008
10000004	BASE STATION	CM140	MOTOROLA	060524	0	ALLIN...		28/11/2008
10000005	IEC/Extension Lead							27/11/2008
10000006	IEC/Extension Lead							06/08/2008
10000007	LCD MONITOR	VG920	VIEWSONIC	PT1054...	0	ALLIN...		01/08/2007
10000008	IEC/Extension Lead							08/08/2008
10000009	LABEL WRITER	93490	DYMO	060802...				31/07/2008
10000010	IEC/Extension Lead	M.A.LCD	VIEWSONIC		0	ALLIN...		06/08/2008
10000011	AC ADAPTOR		IBM	11S92P...	0	ALLIN...		02/08/2007
10000012	IEC/Extension Lead				0	ALLIN...		02/08/2007
10000013	IEC LEAD		IIB	11S08K...	0	ALLIN...		02/08/2007
10000014	IEC/Extension Lead		IBM		0	ALLIN...		02/08/2007
10000015	PC W05439	8183 DCG	IBM	LMBM7...	0	ALLIN...		02/08/2007

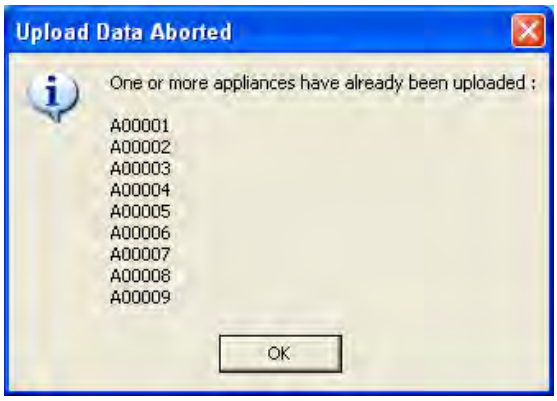
Use the 'View By' drop down lists to view all appliances due for retest by

- Company Name
- Site
- Location

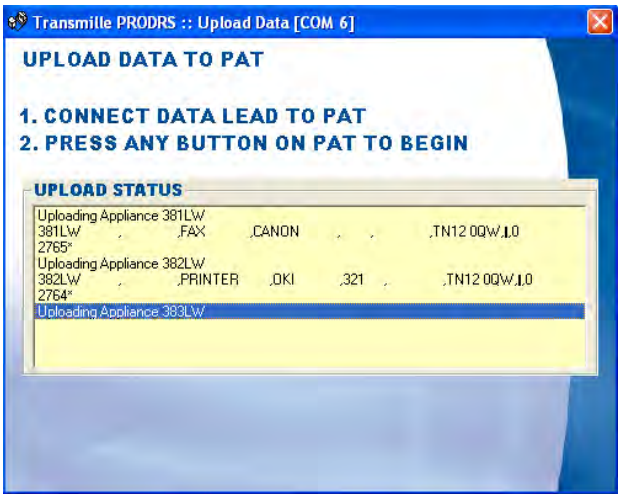
Then click 'Upload to PAT'

To begin the upload, simply click any button on the PAT – the screen will change to display the data being read back. In order to check the PAT memory, the program will first readback any data in memory



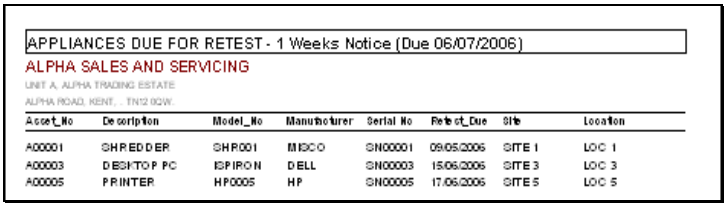


If at this point the program detects that any of the appliances are already in the PAT's memory the program will abort the upload and display a message similar to the message shown above left. Once this check has been performed, the program will proceed to upload the appliance data, displaying the data line followed by the remaining memory left :





On completion of the upload, the program will display a summary of actions including available appliance memory left, followed by a report preview of uploaded appliances


APPLIANCES DUE FOR RETEST - 1 Weeks Notice (Due 06/07/2006)

ALPHA SALES AND SERVICING

UNIT A, ALPHA TRADING ESTATE

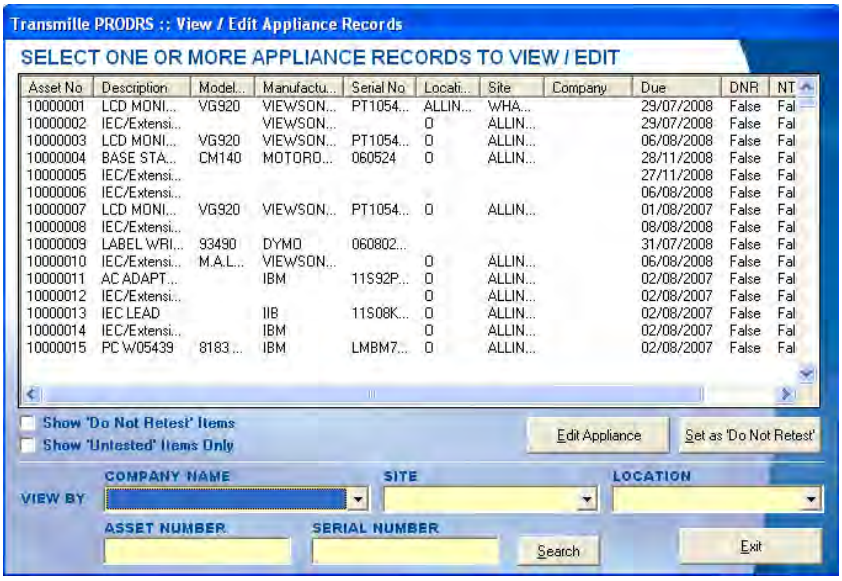
ALPHA ROAD, KENT, . TN12 0QW

Asset_No	Description	Model_No	Manufacturer	Serial No	Retest_Due	Site	Location
A00001	SHREDDER	SHR001	MISCO	SN00001	09/05/2006	SITE 1	LOC 1
A00003	DESKTOP PC	ISPIRON	DELL	SN00003	15/06/2006	SITE 3	LOC 3
A00005	PRINTER	HP0005	HP	SN00005	17/06/2006	SITE 5	LOC 5

Edit Appliance Function (6080PLUS Only)

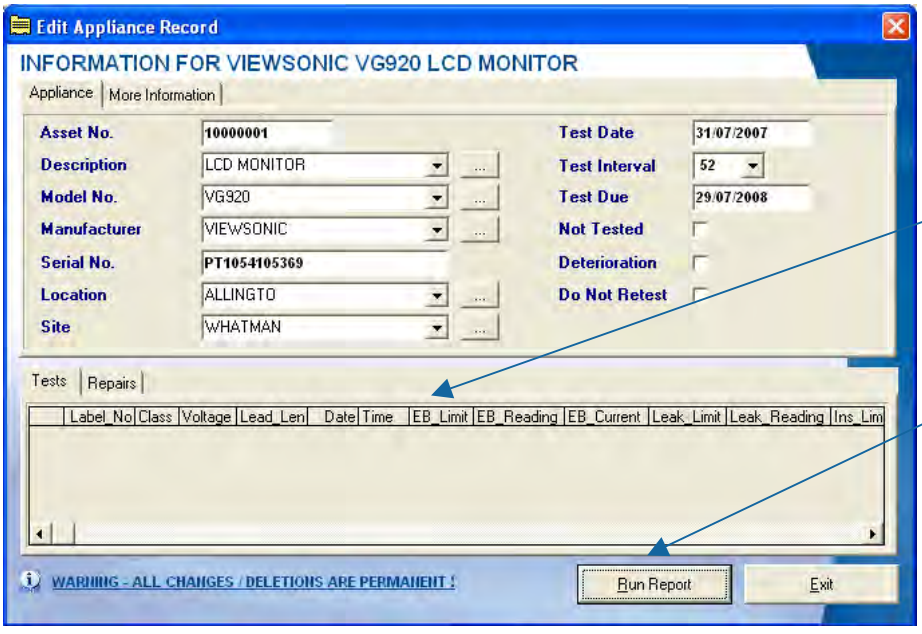


The edit appliance function allows the appliance record to be viewed and/or edited to update information including description, retest date and view the test history of the appliance. An appliance history report can also be viewed/printed including all tests and repairs.



Use the 'View By' section to filter the appliances displayed

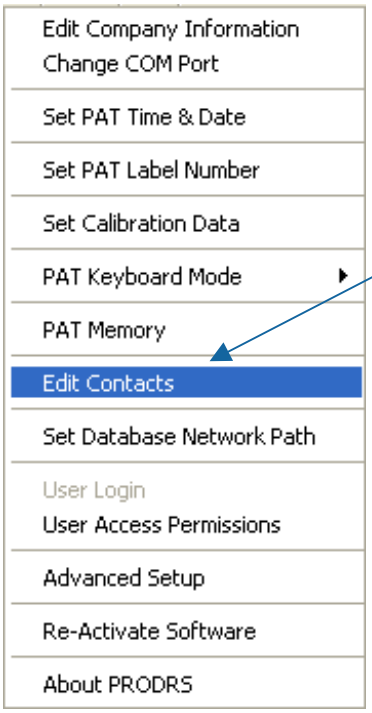
Use the 'View By' section to filter the list to display specific appliances for a customer, site, location or view a specific asset number of serial number. Select the appliance to view then click Edit Appliance to display the full appliance record – the Run Report button displays available appliance reports :



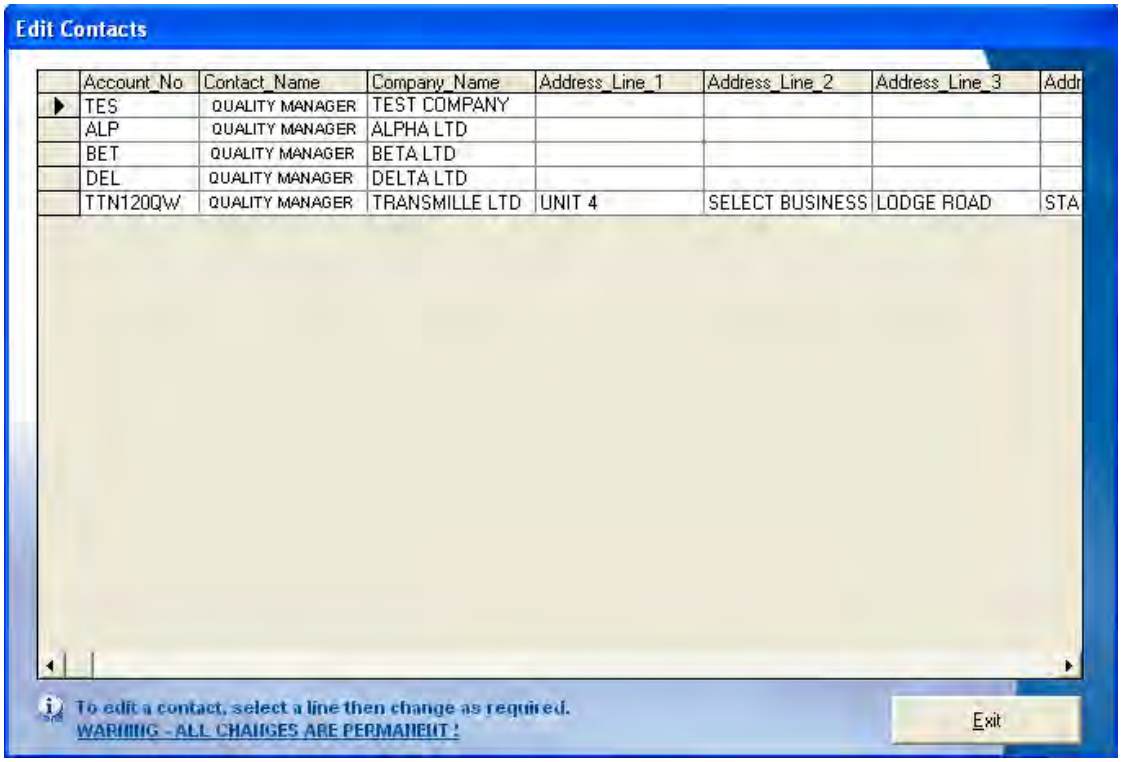
Use the Add Repair button to record repairs carried out

The Run Report button displays available appliance reports

Edit Contacts Function



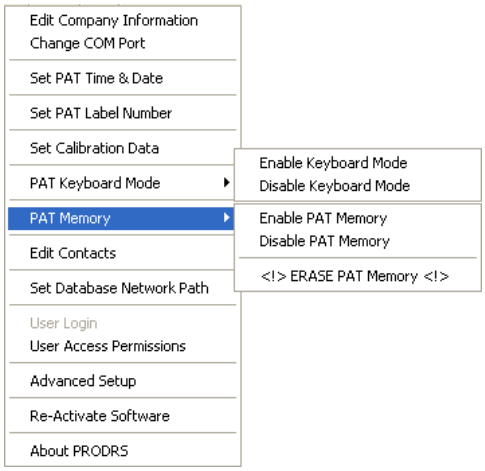
The Edit Contacts function allows company names and addresses to be edited :



Setup Function



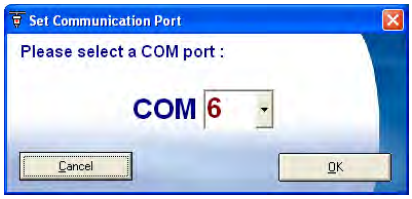
The setup function provides access to the following :



Edit Company Information

Change the details of your company, and edit engineer / user names.

Change COM port



Change the COM port used to communicate with the PAT.

Select a new COM port and click OK.
If port is in use or not available a message will be displayed. Select an available port or click cancel to discard changes.

Set PAT Time & Date

The PAT is supplied set correct for the region you are in. If it is required to change the time or date use this function. To use this function, firstly ensure the PAT is OFF and is connected to the computer using the data cable.

Click on the Set PAT Time & Date menu item – the following screen will appear :



Press any button on PAT to allow the computer to read the time & date
(click Abort to cancel and return to main menu) :



Change time / date as required then click Store to save or Cancel to abort without saving.

Note : The time is in the format **HH:MM**
The date format is **DD/MM/YYYY**

Set PAT Label Number

The PAT is supplied set to a label number which is comprised of the serial number digits plus a five digit number, e.g.

If Serial number is 123F5 the label number will start at 12300001

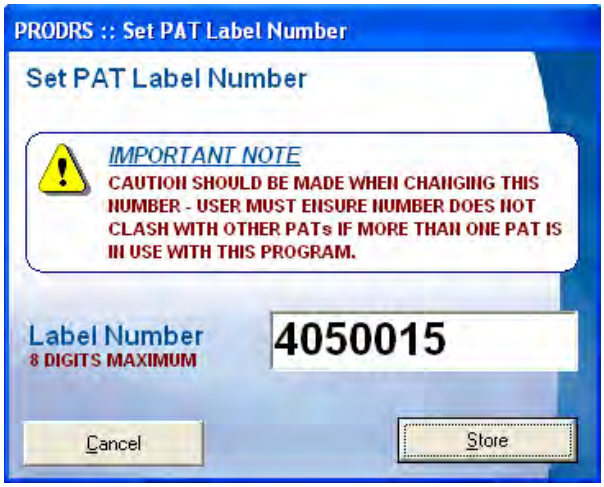
This ensures that the number is unique if more than one PAT is downloaded on the same computer.

If it is required to change this label number, firstly ensure the PAT is OFF and is connected to the computer using the data cable.

Click on the Set PAT Label Number menu item – the following screen will appear :



Press any button on PAT to allow the computer to read the label number
(click Abort to cancel and return to main menu) :



Change label number as required then click Store to save or Cancel to abort.

The label number must be a number only with a maximum of 8 digits.

Ensure the number entered will not clash with other PATs if more that one PAT is in use on the same computer. The program will check to ensure the number has not been used already

Edit Calibration Data

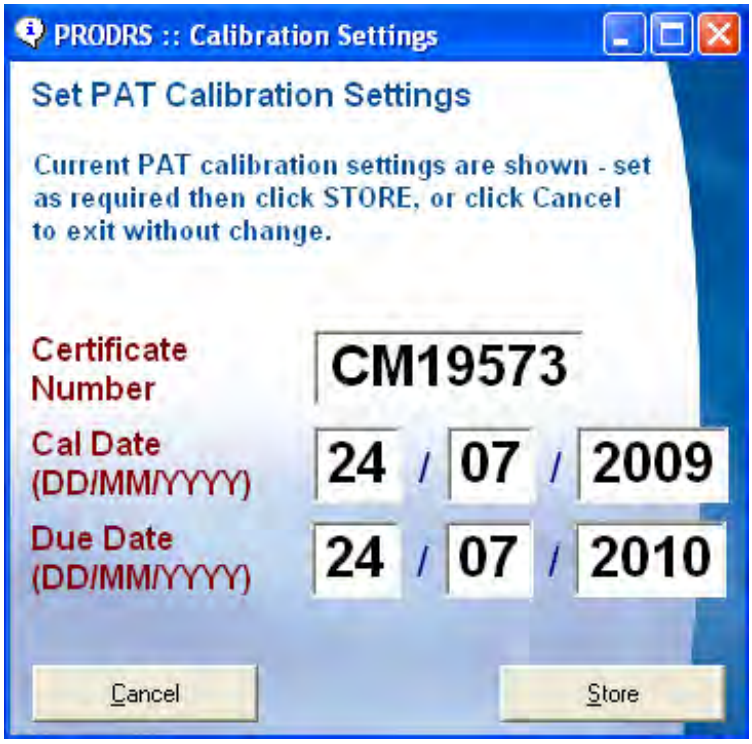
The calibration data for the last calibration performed for the PAT can be viewed and edited using this function :

If it is required to view/edit the calibration data, firstly ensure the PAT is OFF and is connected to the computer using the data cable.

Click on the Edit Calibration data menu item – the following screen will appear :



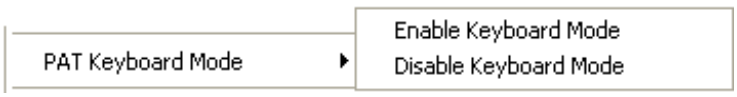
Press any button on PAT to allow the computer to read the label number
(click Abort to cancel and return to main menu) :



Change data as required then click Store to save or Cancel to abort.

Enable / Disable Keyboard Mode

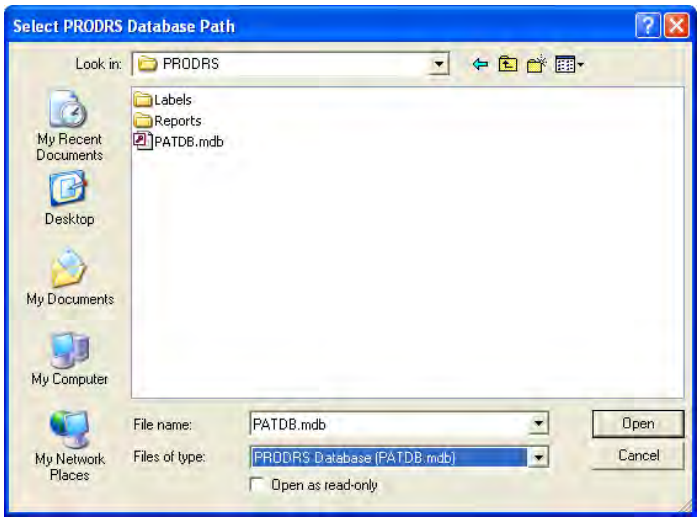
This function applies to the 6080PLUS model only, and allows the 6080PLUS to be set into a mode the same as the 5080 and 6080 model. This allows a basic description to be set with no asset details recorded.



Set Network Database Path

To allow the results data to be stored on a networked server / peer-to-peer computer, the path can be changed to point to a remote location. Simply select this option and point the program to look at the database on another computer with the PRODRS software installed.

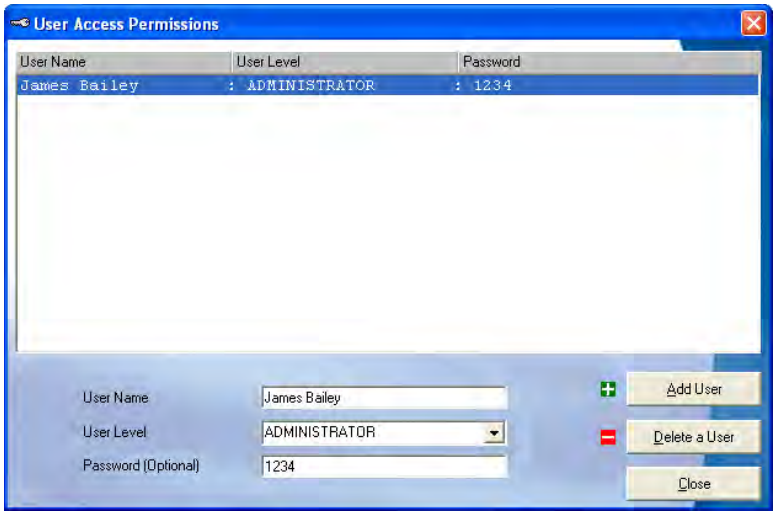
This allows several computers to share the same database.



User Access Permissions

Set up one or more login names with optional password.

This allows a user level to be assigned to prevent access to setup functions for levels lower than Administrator level.



Simply use the Add User / Delete User buttons to add remove users.

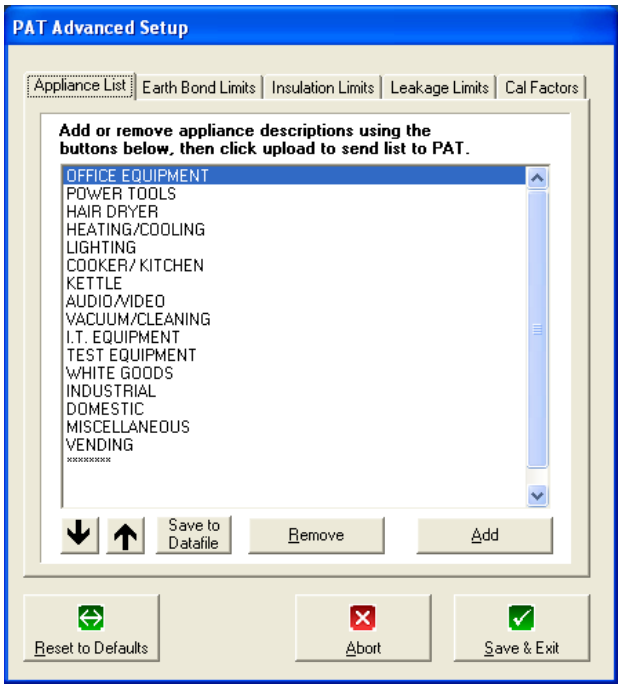
This information will be not be used until the *next* time the software is started.

Ensure at least one user has administrator level set.

Advanced Setup

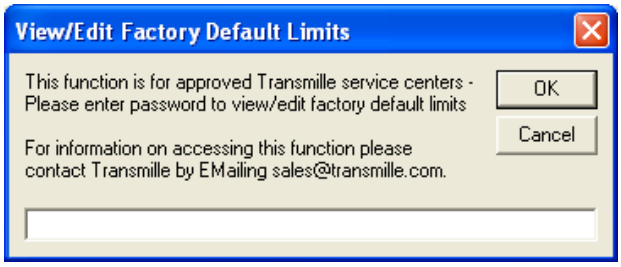
Appliance List

This tab allows the built in appliance list to be edited to add, remove or change the order of the appliance descriptions. Restore to the default descriptions is also available.



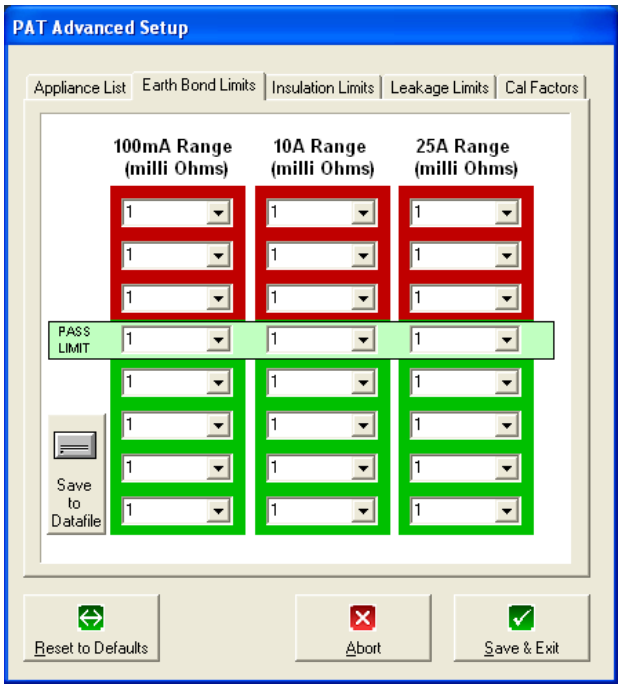
Functions	
Save to Datafile	Save appliance list to datafile for restore at a later time.
Remove	Remove appliance description from the list.
Add	Add an appliance description from the list.
	Move the selected description down within the list.
	Move the selected description up withinthe list.

Editing The Limit / Cal Factor Data



When a limit / cal factor tab is selected for the first time, a password will be requested. Enter the password and access will be allowed to all the remaining tabs oin the advanced edit screen.

Editing The Earth Bond Limits Data

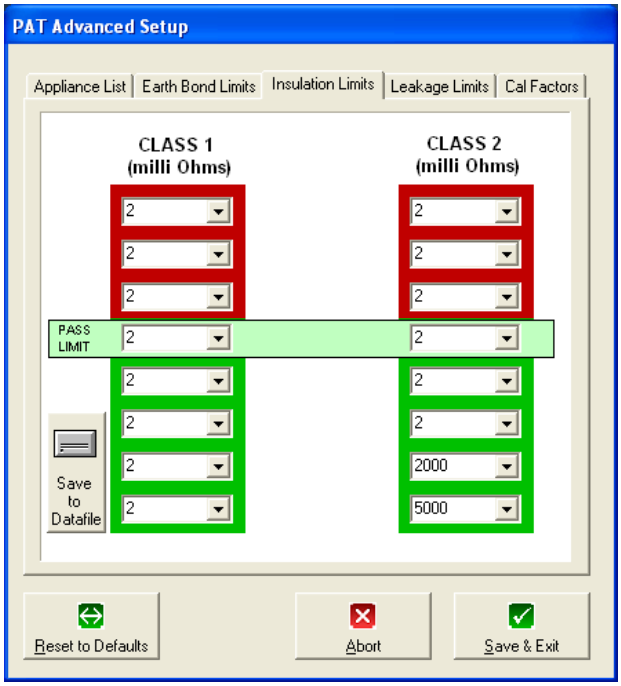


Enter the earth bond limits in mOhms. Each location indicates the limit for the specific LED scale point.



Save the earth bond limits for restore at a later time.

Editing The Insulation Limits Data

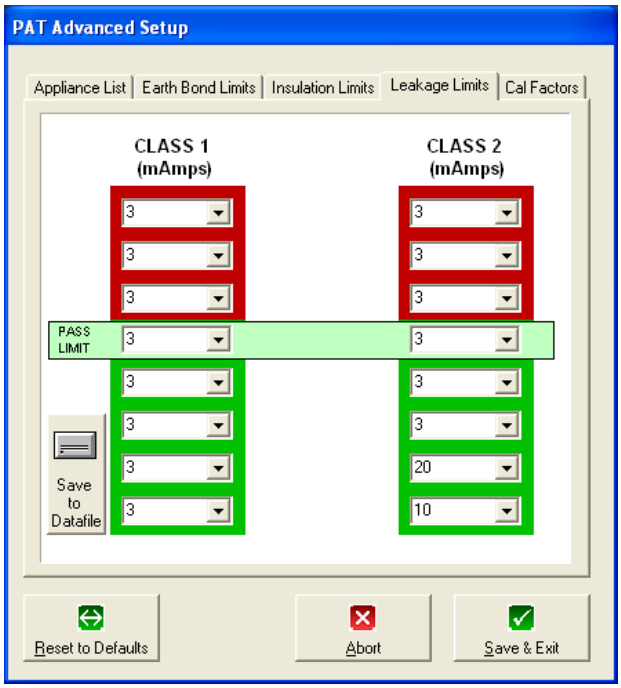


Enter the insulation resistance limits in mOhms. Each location indicates the limit for the specific LED scale point.



Save the insulation resistance limits for restore at a later time.

Editing The Leakage Current Limits Data

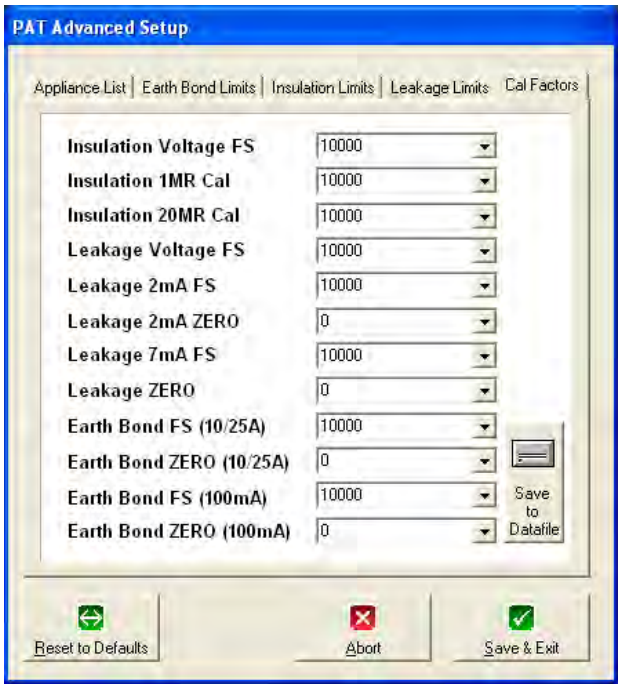


Enter the leakage current limits in mA. Each location indicates the limit for the specific LED scale point.



Save the leakage current limits for restore at a later time.

Editing The Cal FactorData



Enter the calibration factors for all the calibrations points – *zero cal factors* default setting is **0 (zero)**, *full scale cal factors* default setting is **10000**.



Save the cal factors for restore at a later time.

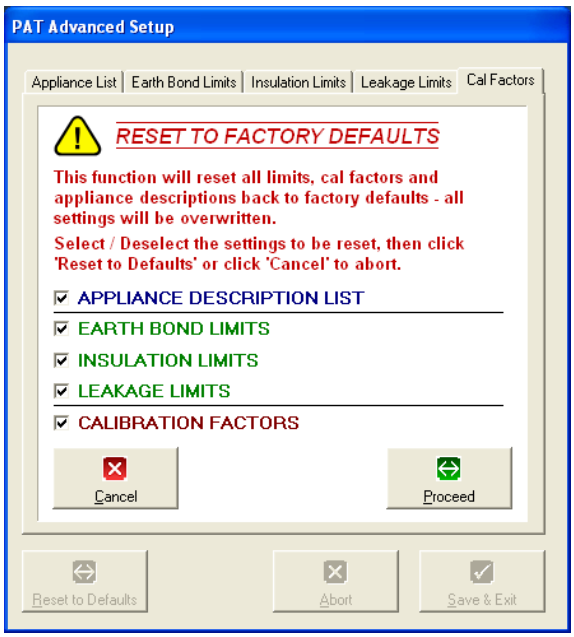
Additional Functions :: Reset To Defaults



The reset to defaults function allows the settings to be restored to either :

- Factory Defaults
- Custom Defaults
  (if the 'Save to File' function for any section has been used)

One or more of the advanced setup functions can be restored using the restore configuration screen :



Simply check / uncheck any of the sections you want to restore, then click PROCEED or click CANCEL to abort the restore process.

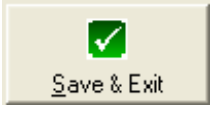
Additional Functions :: Abort



Use the abort button to exit the advanced setup without writing any changes to the PAT (including restore to factory defaults).

Note : If the 'Save to File' buttton on any of the advanced setup screens has been pressed, these files will have already been changed to custom values – clicking abort willl not 'undo' this, however these changes will not have been written to the PAT.

Additional Functions :: Save & Exit



Click Save & Exit to write any changes to the PAT and close the advanced setup screen. Note the program will only upload functions which have been edited to the PAT.

Enable PAT Memory

Firstly ensure the PAT is OFF and is connected using the data cable.

Selecting this function performs the following actions :

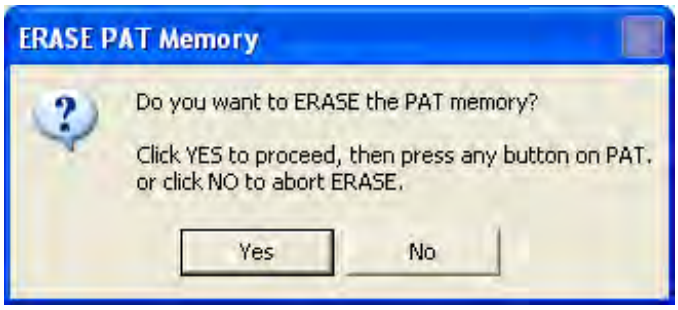
- Enables the memory function to **allow test data to be saved in memory**
- Enables the **appliance list** select function at the beginning of a test
- Enables the **option to discard failed tests** (on completion of a test).

Disable PAT Memory

Turns off the options as detailed above

ERASE PAT Memory

To manually erase the PAT memory of all tests saved use this function.
Firstly ensure the PAT is OFF and is connected using the data cable.
Click on the ERASE PAT Memory menu item – the following confirmation message will appear.



Click YES to proceed or NO to abort - the screen shown below will appear :



Press any button on PAT to allow the computer to erase the memory.



Progress will be displayed, followed by a success message :



Ensure PAT has been downloaded prior to using this function, as all data will be erased.

About PRODRS

Check the version and release date of the currently installed software.

Guarantee and service

Transmille Ltd. guarantees this instrument to be free from defects under normal use and service for a period of 1 year from purchase. This guarantee applies only to the original purchaser and does not cover fuses, or any instrument which, in Transmille's opinion, has been modified, misused or subjected to abnormal handling or operating conditions.

Transmille's obligation under this guarantee is limited to replacement or repair of an instrument which is returned to Transmille within the warranty period. If Transmille determines that the fault has been caused by the purchaser, Transmille will contact the purchaser before proceeding with any repair.

To obtain repair under this guarantee the purchaser must send the instrument in its original packaging (carriage prepaid) and a description of the fault to Transmille at the address shown below. The instrument will be repaired at the factory and returned to the purchaser, carriage prepaid.

Note :
TRANSMILLE ASSUMES NO RESPONSIBILITY FOR DAMAGE IN TRANSIT

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