

TRANSMILLE

SOLUTIONS IN CALIBRATION



PROCAL TRACK & PROCAL



**BOOKING, CALIBRATING &
DESPATCHING INSTRUMENTS
USING**

ProCal :: PROGRAM SETUP OVERVIEW

Step 1



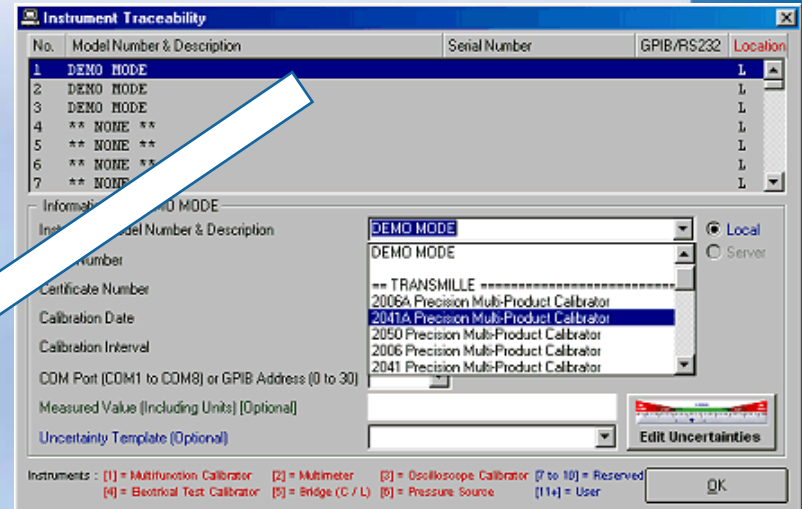
→ Start ProSet

→ Select File → Instrument Traceability

→ For instrument 1 use the dropdown box to select the system calibrator - select 2041A Precision Multi-Product Calibrator



Click the 'Uncertainty' button to view the uncertainty table for the 2041A. This will be used to include contributions for the test uncertainty calculations by ProCal.



No.	Model Number & Description	Serial Number	GPIB/RS232	Location
1	2041A Precision Multi-Product Calibrator	123456A1	COM1	L

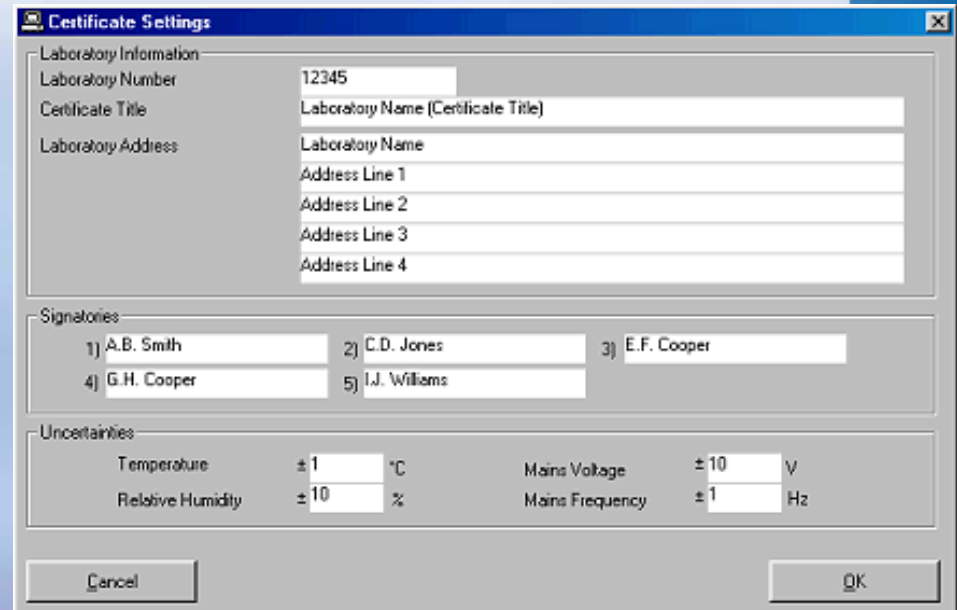
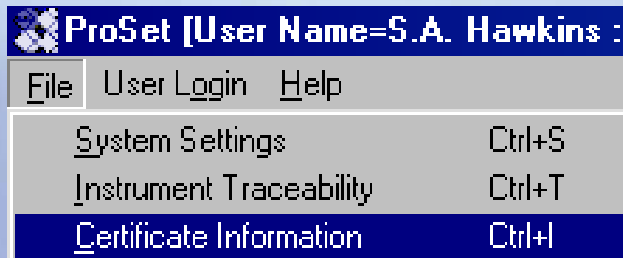
ProCal :: PROGRAM SETUP OVERVIEW

Step 2



→ Select File → Certificate information

→ Set the Laboratory address etc. and enter your name as one of the signatories.



ProCal :: BOOKING IN AN INSTRUMENT



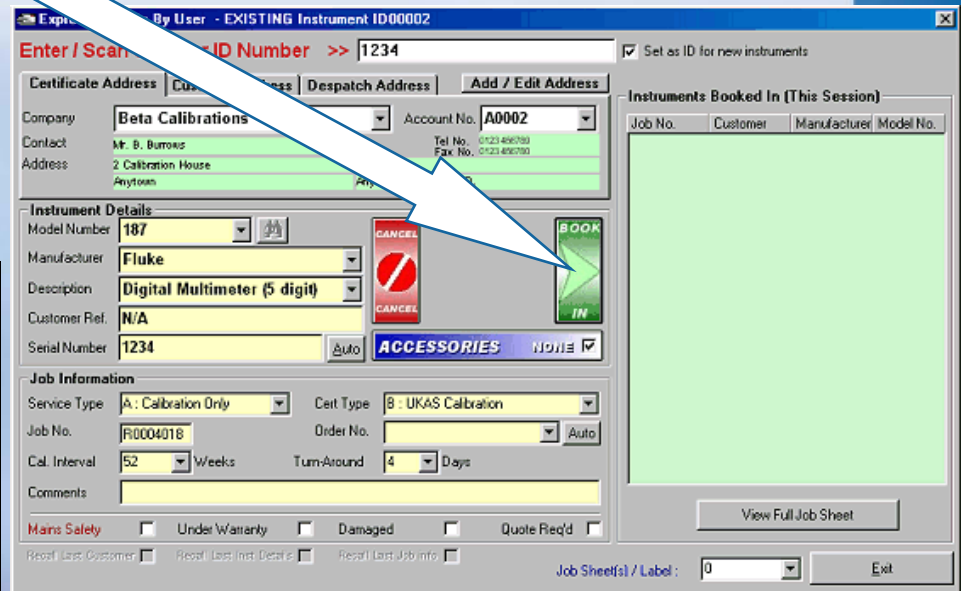
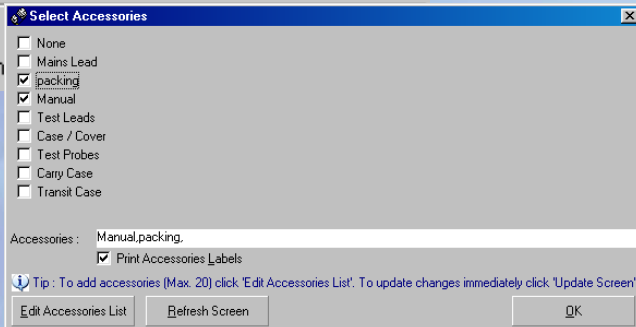
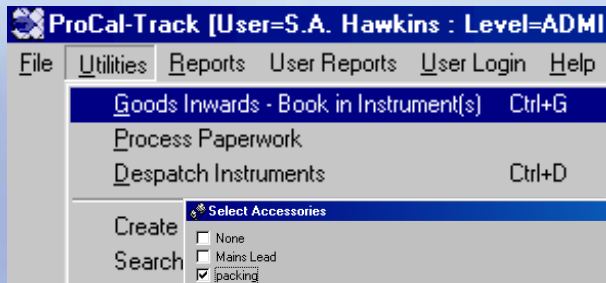
→ Start ProCal-Track

→ Select Utilities → Goods Inwards (Book in instrument)

→ Type '1234' in the serial number box at the top of the screen then press enter (This instrument is pre-installed in the database and known to ProCal).

→ Click ACCESSORIES button – select MANUAL – Click OK

→ Simply click the green 'Book in' button - ProCal Track will print a booking in label or Job sheet.



ProCal :: CALIBRATE AN INSTRUMENT

Step 1



- Start ProCal
- Select File → Instrument Calibration Priority Lists → List all Instruments (Active Jobs)
- Click on the Fluke 187 (serial number 1234) you have just booked in.
- Click 'Calibrate Instrument'

The screenshot shows the ProCal software interface. The 'File' menu is open, and the 'Instrument Calibration Priority Lists' option is selected, which has opened a sub-menu. The sub-menu options are:

- List All Instruments (Active Jobs)
- List Instruments Awaiting Calibration
- List Instruments Awaiting Quote
- List Instruments Awaiting Repair
- List Instruments For a Specific Customer

The 'List All Instruments (Active Jobs)' option is highlighted. A white arrow points from the text 'Click on the Fluke 187 (serial number 1234) you have just booked in.' to the 'List All Instruments (Active Jobs)' option in the sub-menu.

In the background, a table of instrument data is visible. The table has the following columns: Status, Model Number, Serial Number, and Job Number. The data rows are:

Status	Model Number	Serial Number	Job Number
E	Example	SN0005	000145-1
E	SMARTPAT3K	SN0003	000143-1
E	CM500	SN0002	000139-1
E	Example	SN0001	000141-1
E	Example	SN0004	000144-1

At the bottom of the window, there is a search bar with the text '22/08/2005 [4] Beta Calibrations' and a search icon. Below the search bar, there is a 'DU E' label. At the bottom of the window, there are three buttons: 'Cancel', 'Refresh List', and 'Calibrate Instrument'. A small image of a handheld device is also visible in the bottom right corner.


ProCal :: CALIBRATE AN INSTRUMENT

Step 2



→ The calibration information screen is now displayed, drop down the 'Tested By' box and select your name (as entered in ProSet) then click Next >>

Calibration Information - Accredited Certificate



Instrument Information		Environmental Information	
System ID	ID00002	Room Temperature	20 °C
Customer Ref.	N/A	Mains Voltage	240 Volts
Manufacturer	Fluke	Humidity	50 %RH
Serial Number	1234	Mains Frequency	50 Hz
Model Number	187	Calibration Information	
Cal. Interval	52 Weeks	Date of Receipt	22/08/2005
Certificate Type		Date of Calibration	22/08/2005
Accredited Certificate		Job Number	R0004018
Customer Information		Tested By	
Customer Name	Beta Calibrations	A.B. Smith	
Customer Address	2 Calibration House	C.D. Jones	
	The Drive	E.F. Cooper	
	Anytown	G.H. Cooper	
		I.J. Williams	

Buttons: Cancel, << Back, Next >>



ProCal :: CALIBRATE AN INSTRUMENT

Step 3



→ The list of procedures which match the model number are displayed.

Select procedure 3 then click Next >>

Please confirm the procedure for instrument 'ID00002'

No.	Manufacturer	Model	Description	Version
2	Fluke	187	Multimeter	1.00AUTO/H
3	Fluke	187	Multimeter	1.00/H

Procedure Type:



ProCal :: CALIBRATE AN INSTRUMENT

Step 4



→ The next window lists reference instruments and uncertainty information - Click yes to proceed.

Confirm Procedure Settings - Fluke 187 procedure [PROC3]

→ TRACEABILITY INFORMATION

This procedure uses the following traceable instruments :

None Selected

→ UNCERTAINTY STATEMENTS

Procedure uses individual or auto-calculation uncertainties

Is the information listed above correct ?

No Yes

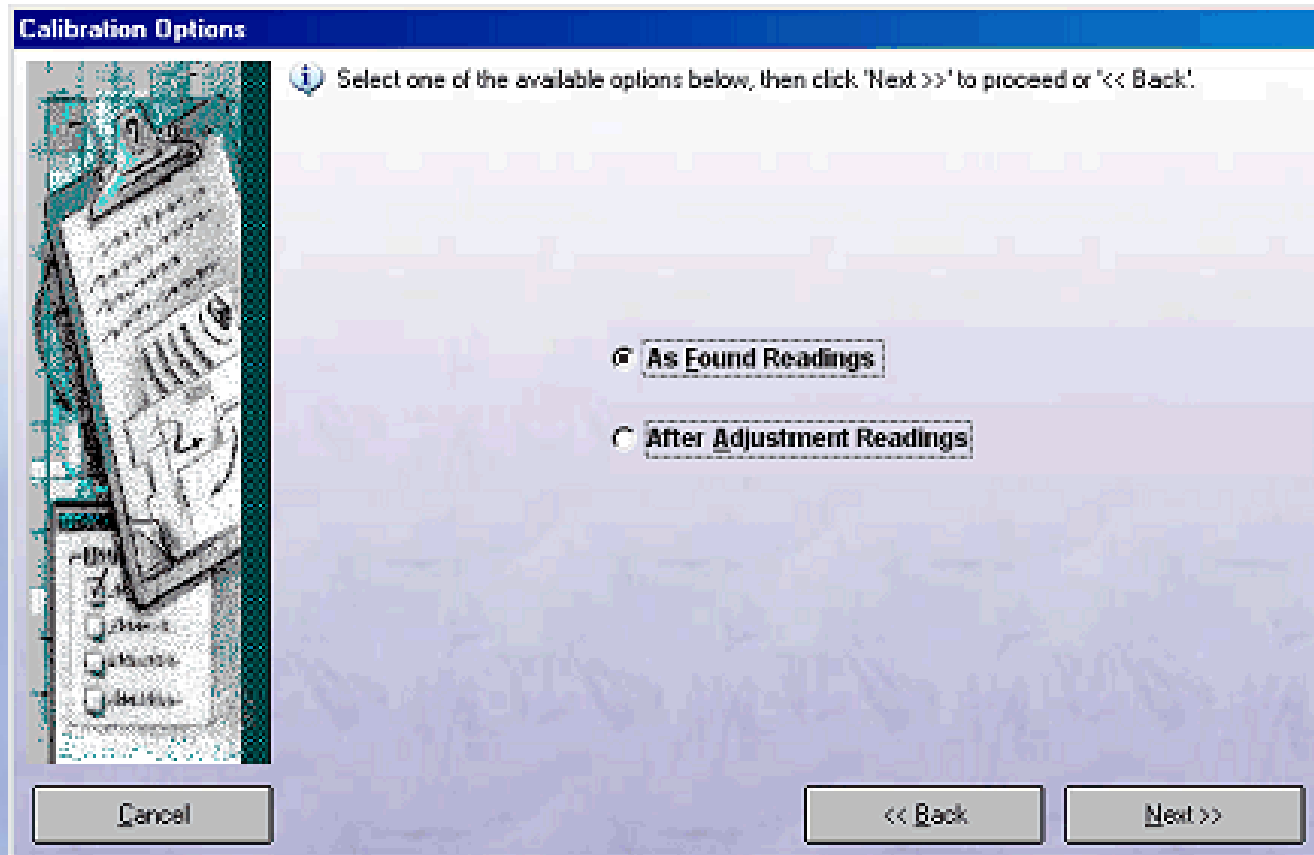


ProCal :: CALIBRATE AN INSTRUMENT

Step 5



→ The next window asks if As Found or After Adjustment Readings - click As Found Readings then click Next >>.

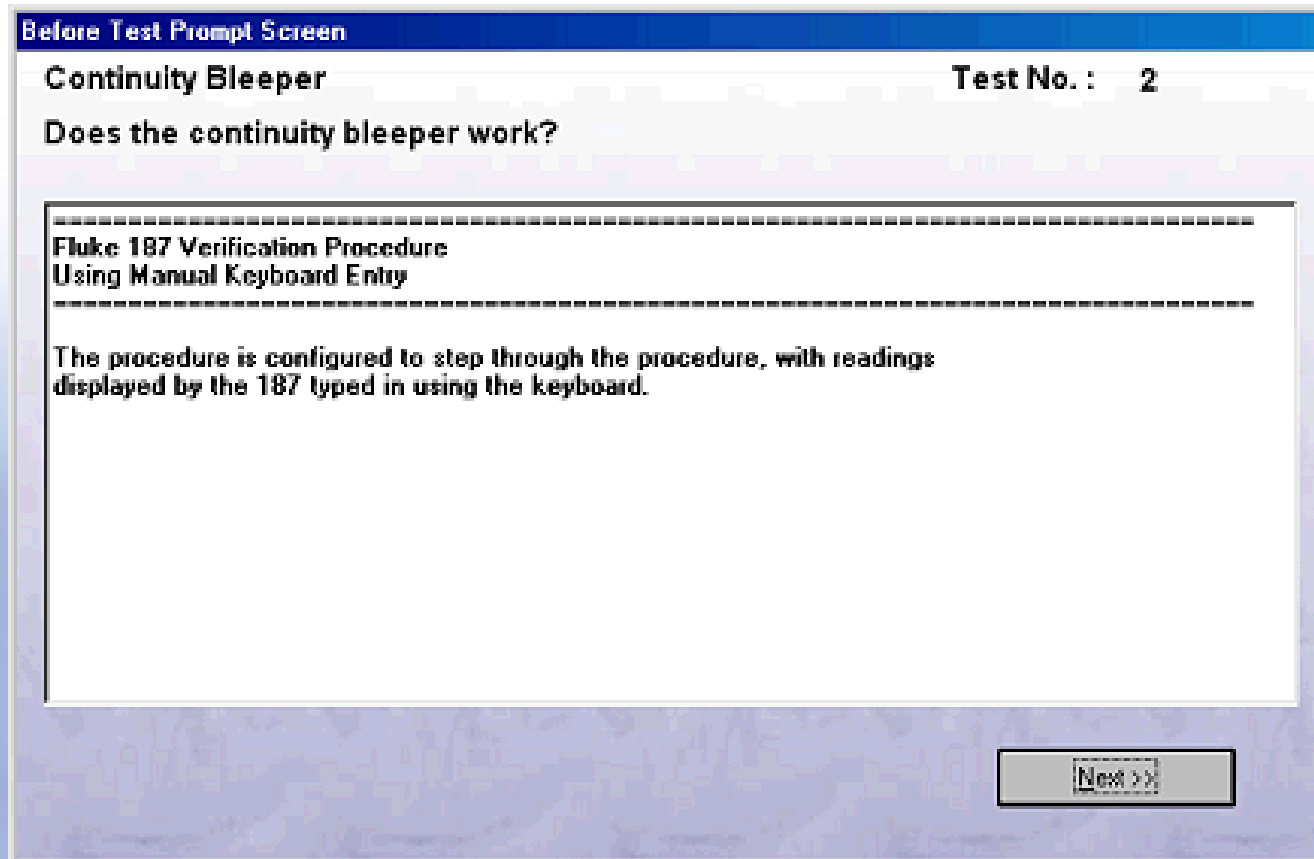


ProCal :: CALIBRATE AN INSTRUMENT

Step 6



→ Prompt for first test is displayed - Click Next >>



ProCal :: CALIBRATE AN INSTRUMENT

Step 7



→ Tests 2,3 and 4 are YES / NO type tests – select YES for each of these tests

Manual Input - After Adjustment - Procedure PROC3

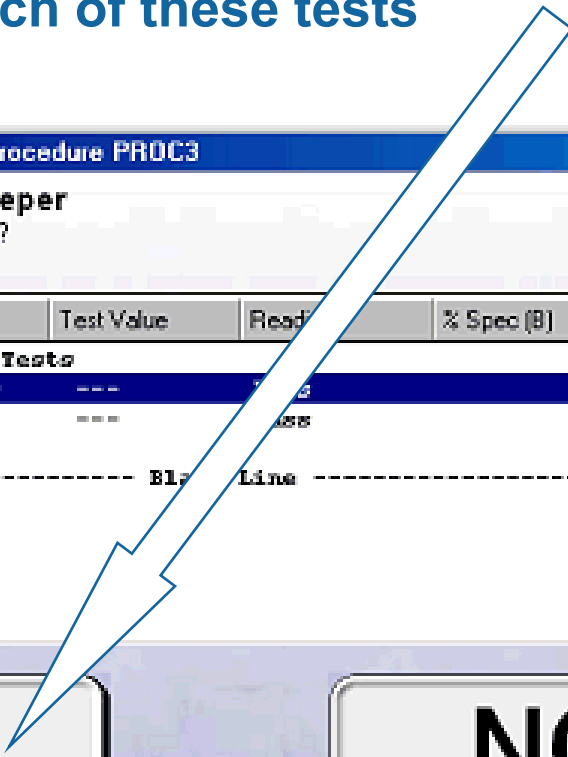
Test 2 : Continuity Bleeper
Does the continuity bleeper work?

No.	Test Title	Test Value	Read	% Spec (B)	% Spec (F)
1	General Operation Tests				
2	Continuity Bleeper	---		---	
3	Diode Test	---		---	
4	Bar Display				
5	----- Blp Line -----				
6	DC Voltage				
7	50mV D.C. Range				
8	500mV D.C. Range				
9	3000mV D.C. Range				
10	5V D.C. Range				

YES **NO**

Exit Help Restart Test

Expected Result YES

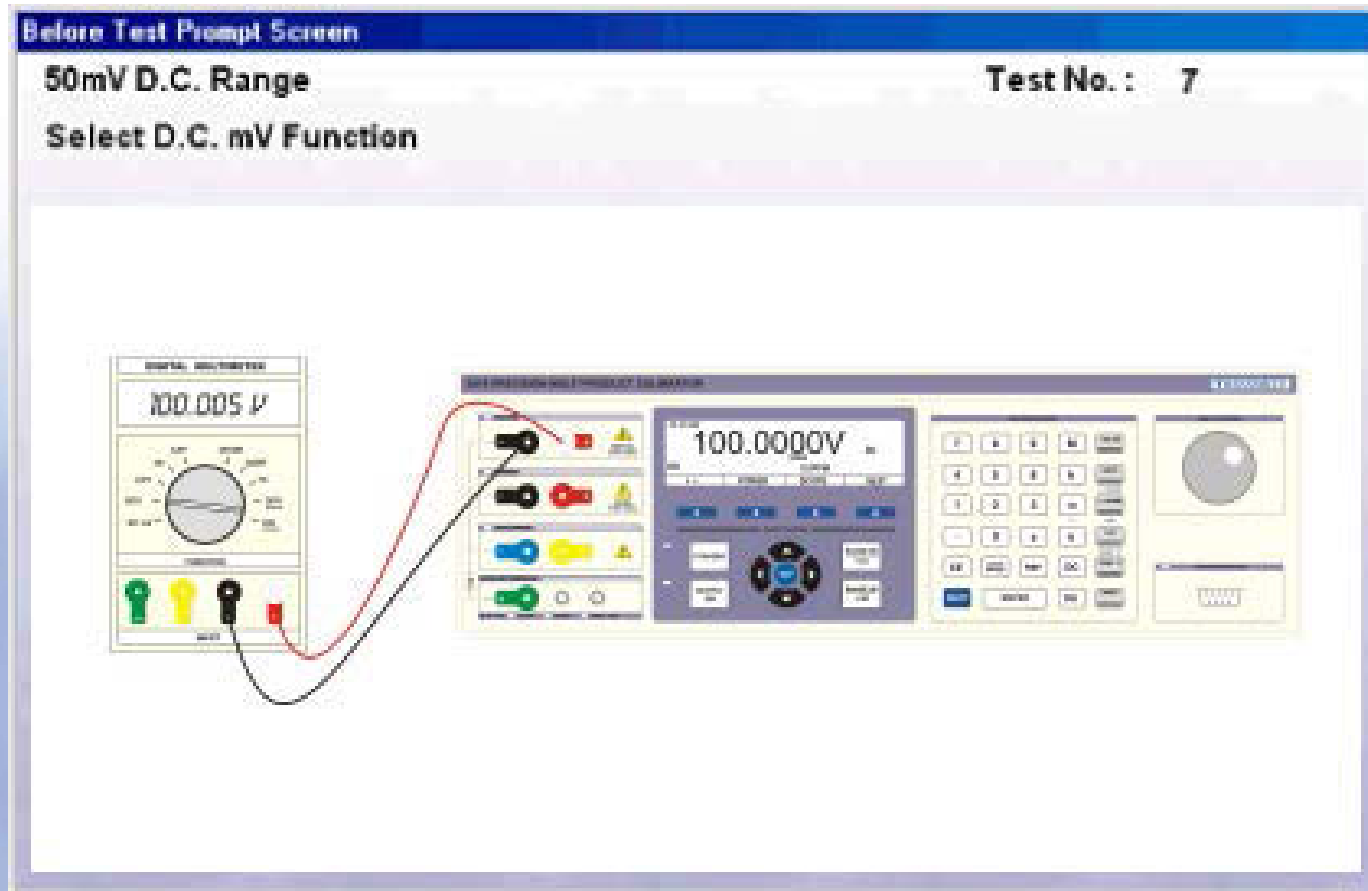


ProCal :: CALIBRATE AN INSTRUMENT

Step 8



→ Test 5 displays a picture prompt, demonstrating the graphical capabilities of ProCal in aiding the user. Click Next >> to continue.



ProCal :: CALIBRATE AN INSTRUMENT

Step 9



→ Tests 5 and above are METER type tests with keyboard entry of the value – enter a reading and click Next >> to go to the next test.

Multimeter Calibration - After Adjustment - Procedure PROC3

Test 7 : 50mV D.C. Range

Select D.C. mV Function
Enter value displayed on meter (without units)

TEST PASSED

No.	Test Title	Test Value	Reading	% Spec (B)	% Spec (F)
1	General Operation Tests				
2	Continuity Bleeper	---	Pass	---	---
3	Diode Test	---	Pass	---	---
4	Bar Display	---	Pass	---	---
5	----- Blank Line -----				
6	DC Voltage				
7	50mV D.C. Range	49.900mV	49.900mV		0
8	500mV D.C. Range				
9	3000mV D.C. Range				
10	5V D.C. Range				

Manual Input > 49.9 < Manual Input

FAIL (LOW) 69.9uV | 49.900mV | 49.900mV

FAIL (HIGH) 49.900mV

UKAS Calibration

Fail Cal Help Uncerts Restart Test Next >>

Test Value 49.900mV Noise / Flicker 1uV Uncertainty 0% of Spec.



ProCal :: CALIBRATE AN INSTRUMENT

Step 10



→ When the last test is reached, the test review Screen is displayed - Click Next >> (if a message stating some tests are not completed appears, simply click YES to proceed)

Review Calibration Results - Tests Incomplete - Procedure PROC3

Calibration Results (After Adjustment)

Tests Incomplete : 51 Tests Marginal Pass : 0 Tests Failed : 0

No.	Test Title	Test Value	Reading	% Spec (B)	% Spec (F)
1	General Operation Tests				
2	Continuity Sleeper	---	Pass	---	---
3	Biode Test	---	Pass	---	---
4	Bar Display	---	Pass	---	---
5	----- Blank Line -----				
6	DC Voltage				
7	50mV D.C. Range	49.900mV	49.900mV	0	0
8	500mV D.C. Range	499.00mV	499.00mV	0	0
9	3000mV D.C. Range	2900.0mV	2900.0mV	0	0
10	5V D.C. Range	4.9900V	4.9900V	0	0
11	50V D.C. Range	49.900V	49.900V	0	0
12	500V D.C. Range	499.00V	499.00V	0	0
13	1000V D.C. Range	1000.0V	1000.0V	0	0
14	----- Blank Line -----				
15	Linearity				
16	50V Linearity				
17	50V Linearity				

Click on any test to repeat. Current View: All Tests

<< Back Next >>

Control Help User Login About

- ✓ AUTOSTEP [Y]
 Ignore Fail
- ✓ Show Auto Safety Prompts Ctrl+S
 Set to Non-Printing Ctrl+P
- ✓ Run Calibration Tests

Finish Calibration (Review Results)

Abort Current Test

Abort Calibration Run



→ To finish at any time select Control → Finish Calibration



ProCal :: CALIBRATE AN INSTRUMENT

Step 11

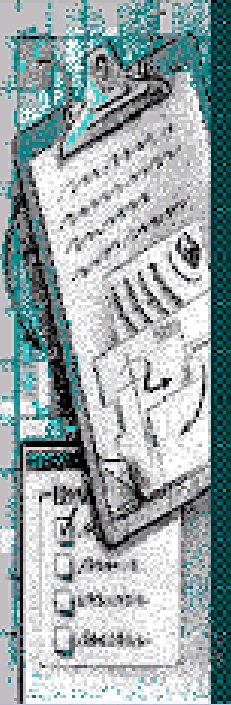


→ Enter/select certificate comments

Note : Drop down lists can be set using '...' buttons

Click Next >>

Certificate Comments

 Enter any required certificate comments below - to import an external text file click on 'Import Comments' and select the required file. To edit the contents of the 'drop down' lists click on the button marked '...'

Instrument was in lab for at least 4 Hours to stabilise before calibration.	▼	...
	▼	...
	▼	...
	▼	...
	▼	...



ProCal :: CALIBRATE AN INSTRUMENT

Step 12



→ Job information, parts used & engineers report – click Next > 3 times to step through each tab and proceed to the status screen

Job Information

Enter any required job information below. To edit the contents of the 'drop down' lists click on the button marked '...'

Parts Used | Engineers Report | Job Comments | Quote

Code	Description	Quantity	Cost (Each)
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£
<input type="text"/>	<input type="text"/>	<input type="text"/>	£

Total Parts Cost
£

Repair Cost
£

Calibration Cost
£ 35.00

Repair Time (Hours)

Cal / Test Time

Engineer

Edit Parts List

<< Back Next >>



ProCal :: CALIBRATE AN INSTRUMENT

Step 13



→ Set instrument status - if unfinished, calibration complete will be disabled. Use 'Other' and select 'M Cal complete waiting paper work' then click Next >>

The screenshot shows a software window titled "Instrument Status Information". On the left is a vertical sidebar with a clipboard icon and several checkboxes. The main area contains a list of radio buttons for instrument status. The "Other" option is selected, and a dropdown menu is open showing various status codes. The "M : Cal. done - awaiting paperwork" option is highlighted. At the bottom are "Back" and "Next >>" buttons.

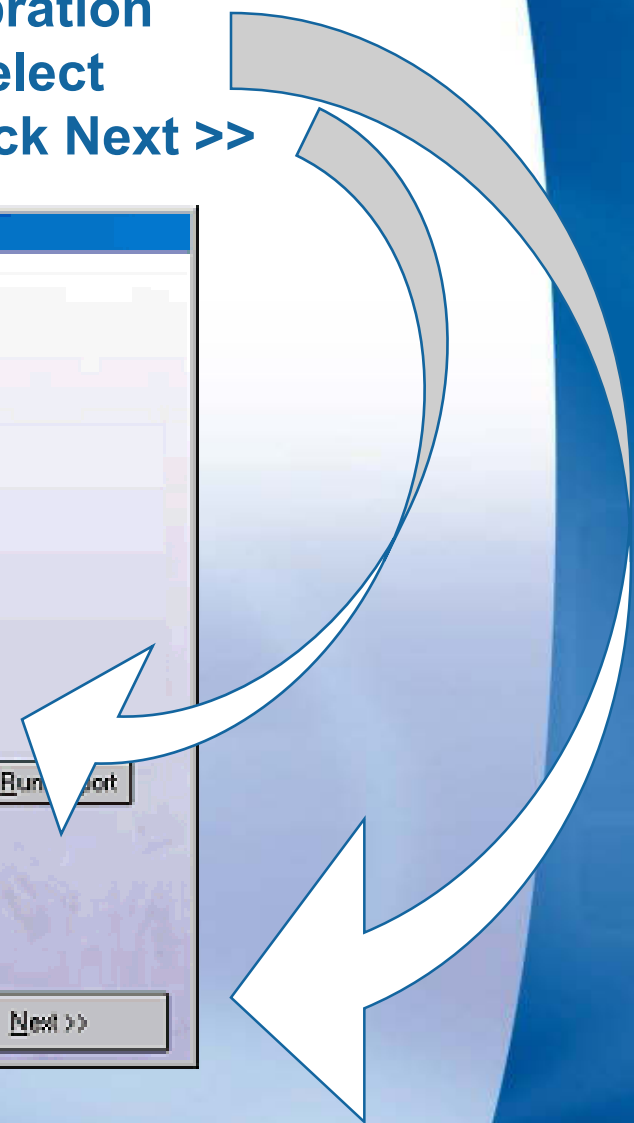
Select an instrument status from the available options below.

- Calibration Complete [NOT AVAILABLE - 51 Incomplete Tests]
- Adjustment Required
- Awaiting Customer Response / Information
- Calibration Incomplete
- Other

Run a Report

E : Received - awaiting cal.
I : Before cal. done - awaiting adj.
J : Calibration Incomplete
K : Sent for repair (OEM)
L : Sent for repair (Internal)
M : Cal. done - awaiting paperwork
N : In despatch
O : Requested (Posted)
P : OverDue (Posted)

<< Back Next >>



ProCal :: CALIBRATE AN INSTRUMENT

Step 14



→ The next certificate number is displayed (Note : This can be overtyped with another number if required). Click 'Finish' to save results.

A screenshot of a software dialog box titled "Set Certificate Number & Save Calibration". On the left is a vertical sidebar with a clipboard icon and a list of checkboxes: "Print Certificate", "Print Label", "Print Results", and "Print Data". The main area contains an information icon and text: "Check the certificate number below. If not acceptable, change to the required number and then click 'Finish' to save the calibration." Below this is a "Note : If the certificate number already exists a warning will be shown and another number may be chosen." A large text field displays "00022" next to a UKAS logo. At the bottom are two buttons: "<< Back" and "Finish".

If set in ProSet Options, the Print Certificate dialog is displayed to allow certificate and label to be printed

ProCal :: DESPATCH AN INSTRUMENT

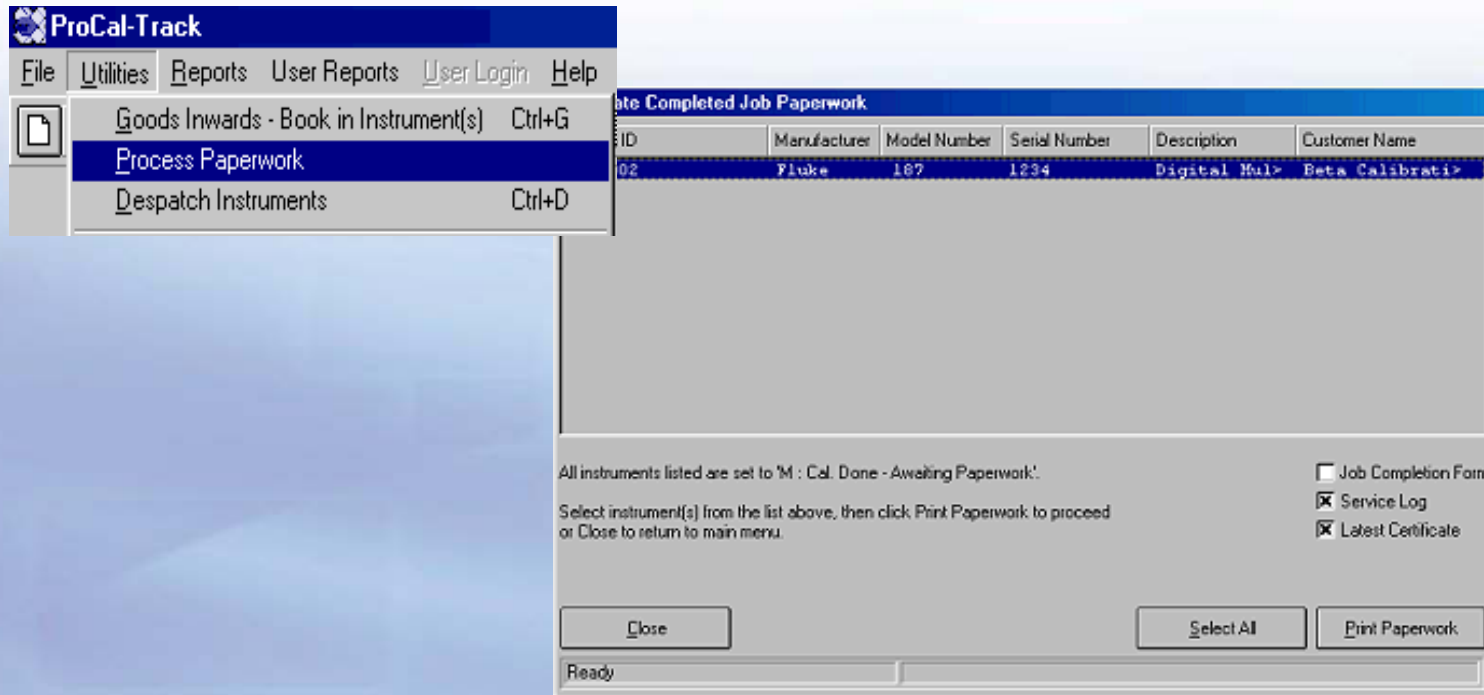
Step 1



→ Start ProCal-Track

→ Select Utilities → Process Paperwork

→ A list is displayed of instruments ready for paperwork processing. Click on the Fluke 187 and select the required paperwork items, then click Print Paperwork.



ProCal :: DESPATCH AN INSTRUMENT

Step 2



- Select Utilities → Despatch Instruments
- A list is displayed of instruments ready to despatch. Click on the instrument to produce a despatch note.

The screenshot shows the ProCal-Track software interface. The main menu bar includes File, Utilities, Reports, User Reports, User Login, and Help. The Utilities menu is open, showing options like Goods Inwards, Process Paperwork, and Despatch Instruments (highlighted). The Despatch Instruments dialog box is displayed, titled "Confirmation". It contains a text field for "Enter a System ID", a "Delivery Note" section with radio buttons for "Individual (One Per Instrument)", "Multi-Instrument Delivery Note", and "No Delivery Note", and a table of instrument data.

Customer Name	Customer Ref.	Model No.	Serial No.	Job No.
Challenger Laboratories	N/A	187	1234	R0004018

At the bottom of the dialog, there are buttons for "Close", "Dispatch Instrument", and a status bar showing the date "22/08/2005" and time "12:45:10".



ProCal :: DESPATCH AN INSTRUMENT

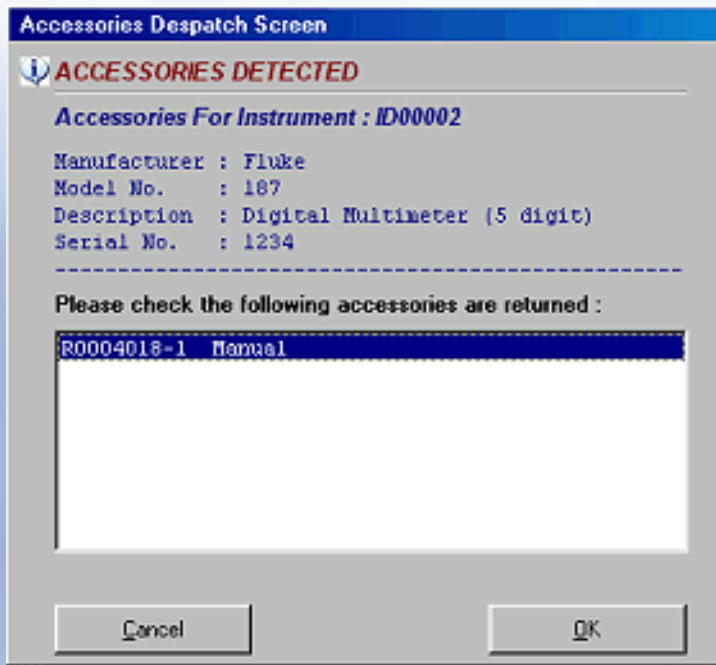
Step 3



→ It is at this point the software will want to confirm return of the accessories that were booked in with the job.



If the system is running with a barcode reader, a label could have been printed with a unique number to each accessory that had been booked in - this label would need to be scanned before the despatch paperwork could be printed.



ProCal :: DESPATCH AN INSTRUMENT

Step 4



→ Check / change despatch details and enter shipping information, then click despatch to complete the process.

The screenshot shows a software window titled "Details For Instrument ID00002". The window contains the following fields and controls:

- Account Number: A0002 (dropdown menu)
- Contact Name: Mr. B. Burrows
- Department Head: Mr. B. Burrows
- Company Name: Beta Calibrations (dropdown menu)
- Address: 2 Calibration House, The Drive, Anytown, AnyCounty AB12 3CD.
- Telephone: 0123 456789
- Fax: 0123 456780
- email: (empty field)
- Site: West Building
- Dept: Engineering
- Location: Room 15
- Comments: Two empty text boxes with dropdown menus and ellipsis buttons.
- Buttons: Cancel, Dispatched Via: (dropdown menu), and Dispatch.
- Additional Control: An "Add Company" button with a printer icon is located to the right of the Contact Name and Department Head fields.



ProCal : LIFECYCLE COMPLETE

→ This completes the cycle of calibration and the instrument status is returned to 'A - With Customer' - the calibration date & certificate number are updated automatically.

