

# Multifunction Calibrator Control Panel Software User Manual

Revision 2306-1

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To ensure correct operation and safety, please follow the instructions in the product user manual.

Time Electronics reserves the right to change the contents, specifications and other information contained in this manual without notice.

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1	Introd	ductio	n									
				Time Electro	onics Control Panel v0.8.36.0	-		<b>DO 11-11</b>		_	<b>F</b> 1	- = ×
				5025 (sim	ulated) series 2			DG Voltage			Fixed R	standby
												∆%
												∆±
					DCV		1	00	.000	mV		No Dev
				Functio	on Range	Units	Adjust	Deviate				Output On Standby
		Time Electro 5025 (simu	onics Control Panel v0.8. lated) series 2	50.0	Thermoc. Ty	pe B			– 🗆 × Range: 0°C50°C			
									Standby			
			Туре В		3	800.	. <b>0</b> °0	)	8         9           6         7           4         5           2         3			
				CJ Mode	Exter	nal			0 1 ± . ⊠ CE			
					(	).5 ∘c			٥C			
		Functio	Range	Units A	djust Deviat	e	]		Output On Standby			
ኛ Time 8 5025 (	Electronics Control Panel v0.8.36.0 (simulated) series 2		AC Volta	ige		Auto Range	□ × a: 20 mV			-		
							Standby					
							$\sim$					
	ACV		-	1_00	0 mV	Auto	Range					
						20	) mV					
		Freq		<b>50</b> Hz		20	0 mV					
							$\checkmark$					
Fun	action Range	Units A	djust Devia	ite		Out Sta	put On andby					

The Time Electronics multifunction calibrator control panel is a software application that provides an advanced user interface for series 2 models. Connect a PC or laptop to the calibrator and the application will communicate with the instrument for control, configuration, and information display and readback.

It is an intuitive control application that enables a fast method of function selecting, setting and output. Quickly adjust and deviate values in real time, and easily select function ranges and units required.

The control panel is designed to work with keyboard and mouse, or via touch screen operation. It is ideal for a bench setup performing testing work and calibration applications.

# 2 Setup

# 2.1 Operating System Requirements

Windows 10 or 11 (64-bit only)

## 2.2 Installation

The software will be supplied on a USB stick or made available by download. Run the installer wizard and follow the steps shown:

Time Electronics 5025 Front Panel v0	.8.36 Setup	×
Welcome to Time Electronic	s 5025 Front Panel v0.8.36 Setup	Advanced Installer
<ul> <li>Collecting information</li> <li>Preparing installation</li> <li>Installing</li> <li>Finalizing installation</li> </ul>	Welcome to the Wizard for Time Electronics 5025 Front P Setup. The Setup Wizard will install Time Electronics 5025 Front Panel v0. computer. Please click "Next" to continue.	anel v0.8.36 8.36 on your
	< Back Next >	Cancel

Once the install is complete, you can close and then launch the application.

Time Electronics 5025 Front Panel	v0.8.36 Setup	×
Time Electronics 5025 Fro	ont Panel v0.8.36 Setup Complete	Advanced Installer
	Click the "Finish" button to exit the Setup Wizard.	
Collecting information		
Preparing installation		
Installing		
Finalizing installation	Launch Time Electronics 5025 Front Panel v0.8.36	
	< Back F	inish Cancel

# 2.3 Communication Settings

When the application is first launched, the communication setting screen will appear:

Time Electronics Control Panel v0.8.36.0					- 🗆 X				
					Standby				
Communication S	ettings								
Comms Port									
Baud Rate	115200								
Auto Detect Before auto-detecting comms settings:									
	a) 5025 must b b) 5025 must b	e powered up and con e showing Ready pror	nected to PC npt						
No cali	brator found. C	onfigure comms	settings above or A	uto Detect.					
Eurotion Comms	Baud	Auto	Done		Output On				
Port	Rate	Detect	Done		Standby				

To utilise the auto-detect setting, connect the calibrator to the computer.

You can also manually configure the communication using the buttons in the bottom of the screen. These will allow you to enter the comms port and baud rate. A side menu will show the available baud rates when the button is selected.

Time Electronics Control Panel v0.8.36.0				- o x						
				Standby						
Communication S	ettings			$\sim$						
Comms Port	Comms Port									
Baud Rate	Baud Rate 115200									
Auto Detect Before auto-detecting comms settings:										
	b) 5025 must be showing Ready (	prompt		115200						
No calibrator found. Configure comms settings above or Auto Detect.										
Function Comms Port	Baud Auto Rate Detect	Done		Output On Standby						

Once connection is established, you must close the application and restart.

# 3 Operation

**Important Note:** This application should be used alongside the calibrator user manual and all safety warnings and guidelines in that document should be followed.

After setup the control panel application can be started. An initialising screen will briefly display as the application loads:



Once loaded the application home screen will display:

Time Electronics Con	trol Panel v0.8.36.0							- 🗆 X	
5025 (simulated) series 2 Home									
								Standby	
				• • • •					
Function	1	Home	DCV	ACV	DCI	ACI		Output On	
anotion		neme		Aov	Bor	Aoi		Standby	

# 3.1 Functions

On the home screen, the function menu buttons are displayed in the bottom section. The buttons listed will depend on the calibrator functions. The following examples will be based on the 5025C-S2 multifunction calibrator.



The menu has right and left arrow buttons to view the selection of functions. The dots above the menu indicate the page of the menu:

Function Menu Page 1:



Function Menu Page 2:

Function Menu Page 3:



 
 Function
 CAP
 IND
 COND
 RTD
 TCO
 Output On Standby

Function Menu Page 4:



The function buttons are active from the home screen and can be selected.

The buttons in red (Function and Home) are inactive, and are used once a function is selected to return to the home screen. The output button is also inactive at this time because no function is selected for use.

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# 3.2 DC Voltage or Current DCV | DCI

DC Voltage and DC Current have common operation steps. Shown here is DC V.

Press the **DC V** button. The DC Voltage function screen will display:

Time Electronics Control Panel v0.8.36.0	- 🗆 X	
5025 (simulated) series 2	DC Voltage	Auto Range: 20 mV
DCV	<b>0.000</b> mV	
Function Range	Units Adjust Deviate	Output On Standby

By default the application will set to auto-range. This can be changed by pressing the **Range** button. The sidebar menu will display the available ranges:

Time Electronics Control Panel v0.8.36.0										
5025 (simulated	d) series 2			DC Voltage			Aut	o Range: 20 mV		
								Standby		
								Auto Range		
	DCV		<b>0.000</b> mV					20 mV		
								200 mV		
								$\sim$		
Function	Range	Units	Adjust	Deviate				Output On Standby		

To close the Range sidebar menu, press the Range button.

T	Time Electronics Control Panel v0.8.36.0										
502	25 (simulated	l) series 2		DC Voltage						Range: 20 mV	
										Standby	
										μ٧	
										mV	•
	DCV			<b>0 000</b> mV						v	
F	unction	Range	Units	Adjust	Deviate					Output On Standby	

The Units button opens a sidebar menu that allows you to change the units as required: -

To close the Units sidebar menu, press the Units button.

**Note:** DC Voltage has a selectable high drive mode that provides a higher output current to power more demanding instruments such as analogue meters or voltage detectors. This can be set in the Settings Menu – Options. See the Settings Section later in this guide for details.

To exit the function, press the **Function** button.



The output setting display will fade to indicate that no output can be entered, and the other functions will show in the bottom menu, available for selection.

#### 3.2.1 Setting an Output Value

The application has convenient methods of setting the output, that can be used depending on the user preference, or if a touchscreen interface is available.

These methods are:

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

# Keyboard Entry

With the function selected, you can use your computer's keyboard (or numeric keypad) to enter a value. Once a value is entered it will display below the output display. For example, here the keyboard entry "2":

Time Electronics Con	trol Panel v0.8.36.0							– 🗆 X
5025 (simulated) series 2				DC Voltage			Au	to Range: 20 mV
								Standby
								μ٧
			ſ					mV
	D	GV		1.000	J U m\	/		v
					<b>り</b>			V
					۷			
Function	Range	Units	Adjust	Deviate				Output On Standby

The units sidebar menu will display to provide the option to change the unit.

If you are in the correct unit, you can press "enter" on the keyboard to finalise the value.

Time E	Time Electronics Control Panel v0.8.36.0								- 🗆 X
5025 (	simulated	) series 2		D	C Voltage			Auto	o Range: 20 mV
									Standby
				0			$\mathbf{\cap}$		
		DCV	<b>∠.UUU U</b> mV						
Fun	ction	Range	Units	Adjust	Deviate				Standby

Or you can press one of the unit buttons and the value entered + unit will be applied to the display:

Time Electronics Con	ntrol Panel v0.8.36.0							- 🗆 ×
5025 (simulated	) series 2			DC Voltage			Au	to Range: 20 mV
								Standby
								μV
	D	CV	C	).000	) () mV	,		mV V
					<u> </u>			
Function	Range	Units	Adjust	Deviate				Output On Standby

The value will display, ready for output.

🐺 Ti	ime Electronics Cor	ntrol Panel v0.8.36.0	_				- 🗆 ×
502	25 (simulated	) series 2			DC Voltage		Auto Range: 2 V
							Standby
		DCV	4	2 0	$\bigcap \bigcap$		
						V	
f	unction	Range	Units	Adjust	Deviate		Output On Standby

Note that the function units will default to the previously unit currently in use. So if you are entering 3 V after 2 V the unit will remain the same, for speed of operation.

To output the value, press and hold the Output On button for 3 seconds.

The red indicator will illuminate on the output button, and the Output On status will display:

Time Electronics Cor	ntrol Panel v0.8.36.0					- 🗆 X	
5025 (simulated	l) series 2			DC Voltage		Auto Range: 2 V	
						Output ON	-
		•	<b>7 1</b>		1		
		4			V		
						_	-
Function	Range	Units	Adjust	Deviate		Output On	
						Standby	

**Important Note:** Before outputting, ensure the calibrator is properly connected and the output value is suitable for the unit under test.

When the output is on, you can change the value as required and this will be applied to the calibrators terminals. If you enter a high output value, a pop-up safety screen will display to request you confirm the output.

Time Electronics Control Panel v0.8.	36.0				– 🗆 X
5025 (simulated) series 2		DC Voltage		Auto	o Range: 20 mV
					Output ON
	Caution	HIGH V			μV
			OLIAGE:		mV
	Conf	irm Output C	hange?		
	Confirm		Cancel		
Function Rang	e Units Ad	ijust Deviate			Output On Standby

# On-screen Keyboard Entry

This method is suitable for touchscreen users With the function selected, press the Keyboard button:

Function	Range	Units	Adjust	Deviate		Output On Standby
					C )	

The on-screen keyboard will display on the sidebar: -

Time Electronics Co	ntrol Panel v0.8.36.0		-					- 1	
5025 (simulated	I) series 2			DC Voltage				Auto Range	: 20 mV
									Standby
								8	9
								6	7
								4	5
					00			2	3
	DCV					() n	nV	0	1
							IIV	±	•
									CE
								m	V
								μν	V
Function	Dongo	Unite	Adjust	Deviate				Out	out On
Function	Range	Units	Aujust	Deviate				Sta	indby

You can enter the value required by pressing the number buttons, then the unit required.

5025 (simulated) series 2		DC Vo	Itage		Au	to Range	: 20 mV
							Standby
						8	9
						6	7
						4	5
	DCV	0.0	000	mV		2	3
						0	1
			10			±	•
						$\boxtimes$	CE
						m	IV
						μV	

The entered value will display, ready for output.

Time Electronics Cont	trol Panel v0.8.36.0						-	
5025 (simulated)	series 2			DC Voltage			Auto Ran	ge: 20 mV
								Standby
							8	9
							6	7
							4	5
							2	3
	าตง		1(			$\alpha V$	0	1
•						IIV	±	•
								CE
								mV
							μV	V
Function	Range	Units	Adjust	Deviate				utput On Standby

To close the on-screen keyboard, press the red keyboard button.

To output the value, press and hold the **Output On** button for 2 seconds.



The red indicator will illuminate on the output button, and the Output On status will display.

**Important Note:** Before outputting, ensure the calibrator is properly connected and the output value is suitable for the unit under test.

When the output is on, you can change the value as required and this will be applied to the calibrators terminals.

If you enter a high output value, a pop-up safety screen will display to request you confirm the output.



#### Adjust Method

This method allows you to adjust the value incrementally. It can be used from a zero starting value or once the initial set value has been entered. You will need to be in the required units.

#### Press the **Adjust** button:



The adjust control buttons will display on the sidebar:

Time Electronics Co	ontrol Panel v0.8.36.0								- 🗆 X	
5025 (simulated	d) series 2			DC Voltage				Auto	Range: 20 mV	
									Standby	
									<	
									>	•
	DCV		(	).()	00	0	mV			
									▼	
Function	Range	Units	Adjust	Deviate					Output On Standby	

The lowest decimal point of the function and range will be highlighted. This is the finest adjustment. You can increment by using the up/down arrow buttons.

You can move the adjustment to the next decimal point using the right/left arrow buttons.

This operation can also be used with the up/down and right/left buttons on your computer's keyboard.



A mouse scroll wheel can also be used to adjust the value up and down.



To close the adjust function, press the **Adjust** button. To output the value, follow the steps on the previous page.

# 3.3 Deviation Mode

Certain functions can be used with deviation mode to vary the output as required.

When a function is selected, press the **Deviate** button:

Function	Range	Units	Adjust	Deviate	Output On Standby

The deviation control buttons will display on the sidebar: -

5025 (simulated	l) series 2			DC Voltage		Fixed	l Range: 200 mV
							Standby
							∆%
							$\Delta \pm$
	DCV		1	00.	. <b>000</b> r	nV	No Dev
							_
Function	Range	Units	Adjust	Deviate			Output On

You can choose to deviate by a percentage (%), or value.

When deviation mode is used, the display is dual line with the preset output value shown above the deviation value.



The method is commonly used with a measuring UUT to display and check the deviation between the calibrator's output value and UUT's specific set point.

**Note**: Your set output value will be within a range, so the deviation will only be allowable within the range limits. The calibrator will not auto-range when deviation is being applied.

#### Percentage Deviation

To use percentage deviation press the  $\underline{\wedge}\%$  button:



The deviation row will appear under the output display:

Time Electronics Control Pa	inel v0.8.36.0								o ×
5025 (simulated) ser	ies 2		l	DC Voltage			Fi	xed Ra	inge: 200 mV
									Standby
									<b>∆%</b>
			11	ח חו					∆±
									No Dev
				Τυ.					
Function	Range	Units	Adjust	Deviate					Output On Standby

You can now enter a deviation value by:

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

To exit the deviation mode, press the **No Dev** button.

#### **Keyboard Entry**

Using your computer's keyboard (or numeric keypad), you can enter a deviation value.

The deviation menu will give you the option to choose PPM or %.



You can use the "enter key" on keyboard to continue with % deviation, or press the % button on screen. Or press PPM to select PPM deviation. Note that the +/- keys are pressed after the number to apply positive or negative.

Once entered, the deviation value will display below the output value. If the calibrator output is on, the deviated output value will be applied to the unit under test (ie 100 mV - 2%):

🔁 Time Electronics Con	trol Panel v0.8.36.0						-	o x
5025 (simulated)	) series 2			DC Voltage		I	Auto Ra	inge: 200 mV
								Output ON
								<b>∆%</b>
	DC	N/	1	<u></u>	1			∆±
		V		-2	/			No Dev
				-2.				
Function	Range	Units	Adjust	Deviate				Output On Standby

#### **On-screen Keyboard Entry**

To use the on-screen keyboard, press the keyboard button:

unction	Range	Units	Adjust	Deviate		<u>)</u>	Output On Standby
e on-scre	en keyboa	rd will dis	play on th	e sidebar:			
Time Electronics	Control Panel v0.8.36.0						- 0 X
5025 (simulat	ed) series 2			DC Voltage		Aut	a Range: 200 mV       Output ON       8     9       6     7       4     5
		ocv 2	1	00.0 +0.	00 mv 00 %		2 3 0 1 ± .
							CE %
Function	Range	Units	Adjust	Deviate			Output On Standby

You can now enter the required value and press % or PPM to apply.

Once entered, the deviation value will display below the output value. If the calibrator output is on, the deviated output value will be applied to the unit under test (ie 100 mV + 1%):

🔁 Time Electronics Cor	ntrol Panel v0.8.36.0								n x
5025 (simulated	I) series 2			DC Voltage			l	Auto Range	: 200 mV
									Dutput ON
								8	9
								6	7
								4	5
	D	CV	1		2	3			
								0	1
	$\triangle$	<b>_</b>	+1.00%					±	
								$\boxtimes$	CE
									%
								ppm	
Function	Range	Units	Adjust	Deviate					tput On tandby

#### Adjust Method

This method allows you to adjust the % deviation incrementally.

#### Press the **Adjust** button:



The adjust control buttons will display on the sidebar: -

Time Electronics Cor	ntrol Panel v0.8.36.0						- 🗆 X
5025 (simulated	l) series 2			DC Voltage		Auto I	Range: 200 mV
							Output ON
							<
	D		-1		00		>
	D	υV	I	00.0			
	$\wedge$			+0			
Function	Range	Units	Adjust	Deviate			Output On Standby

The lowest decimal point of the % will be highlighted. This is the finest adjustment. You can increment by using the up/down arrow buttons.

You can move the adjustment to the next decimal point using the right/left arrow buttons.

This operation can also be used with the up/down and right/left buttons on your computer's keyboard.

A mouse scroll wheel can also be used to adjust the value up and down.

To close the adjust function, press the **Adjust** button.



#### Value Deviation

To use value deviation press the  $\Delta \pm$  button:



The deviation row will appear under the output display:



You can now enter values using the same methods as % deviation:

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

Instead of selecting % or PPM, units are displayed in the sidebar for selection:

To exit the deviation mode, press the **No Dev** button.



# 3.4 AC Voltage or Current ACV | ACI

AC Voltage and AC Current have common operation steps. Shown here is AC V.

Press the **AC V** button. The function screen will display:

Т	ime Electronics Cor	ntrol Panel v0.8.36.0								
50	25 (simulated	) series 2			AC Voltage				Auto R	ange: 20 mV
										Standby
	l	ACV			1.	00	<b>0</b> m	۱V		
		F	req			<b>50</b> нz				
F	Function	Range	Units	Adjust	Deviate					Output On Standby

Two displays will show for AC voltage and frequency. The main display is situated at the top, and is the active settable function. The displays can be quickly switched by pressing the lower display, making the frequency active for setting:

ACV	<b>1.000</b> mV	
Freq	50 нг	
Freq	50 Hz	
ACV	<b>1.000</b> mV	

By default the application will set to auto-range. This can be changed by pressing the **Range** button. The sidebar menu will display the available ranges:



To close the Range sidebar menu, press the **Range** button.

The Units button opens a sidebar menu that allows you to change the units as required: -

Time Electro	onics Control Panel v0.8.36.0						
5025 (sim	ulated) series 2		AC Voltage			Auto Rang	e: 20 mV
							Standby
						1	μ٧
	ACV		1	.000	mV		mV
			•				v
	F	req		<b>50</b> Hz			
Functio	on Range	Units Adju	ist Deviate			Ou St	tput On tandby

To close the Units sidebar menu, press the Units button.

#### 3.4.1 Setting an Output Value

Setting the output on AC functions is the same as shown in the DC functions.

The methods are:

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

See section 3.2 for detailed instructions of these setting methods.

With AC functions the frequency can also be set and adjusted as required. Deviation mode is not available for frequency.

To exit the function, press the **Function** button.

Standby	Function Pange	Units	Adjust	Deviate			Output On Standby
---------	----------------	-------	--------	---------	--	--	----------------------

T	ime Electronics Con	trol Panel v0.8.32.0							- 🗆 X
50	25 (simulated	) series 2			AC Voltage			Au	to Range: 20 mV
									Standby
	l	ACV		<b>1.000</b> mV					
			Freq		0.0	<b>50</b> kHz			
					• • • •				
F	unction	<	Home	DCV	ACV	DCI	ACI	>	Output On Standby

# 3.5 Turn Coil Current Functions Coil DCI | Coil ACI

The DCI and ACI functions have extra ranges to complement the 9780 clamp coil. The control panel application features separate function buttons for these operations. When using Turn Coil ranges, the current displayed is a multiplication according to the range selected, as per the current that will be present at the coils of the 9780.

These ranges are:

- 2 A x 1
- 20 A x 1
- 2 A x 5
- 20 A x 5
- 2 A x 50
- 20 A x 50

The inductance loading for DCI is higher when using the Turn Coil ranges. The frequency for ACI is limited to 100 Hz.

Time Electronics Cor	ntrol Panel v0.8.36.0							:	×
5025 (simulated	) series 2		DC	Turn Coil Curre	nt			Range: 2A x	1
								Stand	by
				2		$\bigcap_{m}$	٨		
					00.		7		
Function	Range	Units	Adjust	Deviate				Output On	
								Stanuby	

To use, press the **Coil DC** button. The function screen will display:

By default the application will set to lowest range (2A x 1). This can be changed by pressing the **Range** button. The sidebar menu will display the available ranges:

Time Electronics Co	ontrol Panel v0.8.36.0							– 🗆 X
5025 (simulated	d) series 2		DC	Turn Coil Curre	nt			Range: 2A x 1
								Standby
								$\wedge$
								2A x 1
	DCI			2	00.0	) mA	•	2A x 5
								2A x 50
								$\sim$
Function	Range	Units	Adjust	Deviate				Output On Standby

To close the Range sidebar menu, press the **Range** button.

The Units button opens a sidebar menu that allows you to change the units as required: -

Time Electronics Co	ntrol Panel v0.8.36.0						- 0 ×	
5025 (simulated	d) series 2		DC	Turn Coil Curre	nt		Range: 2A x 1	
							Standby	
							μA	
							mA	•
	DCI			2	0.00	mA	А	
Function	Range	Units	Adjust	Deviate			Output On Standby	

To close the Units sidebar menu, press the Units button.

Setting the output value is the same method as the DCI and ACI functions. See section 3.2 and 3.4 for detailed instructions of these setting methods.

### 3.6 Power **PWR**

Power calibration is available by selecting the **PWR** button. The option of DC or AC power will display:



#### 3.6.1 DC Power

DC power displays DCV, DCI, and DCW. The voltage and current can be entered, deviated and adjusted as per DCV and DCI functions. The power is a calculated value based on the V and I inputs, you can change the units (mW, W, kW, VA).



Voltage will display as default at first. To enter a current value, press the DCI box and it will swap to being the active settable function.



#### 3.6.2 AC Power

AC power will display the functions required for the required output.

These will be AC voltage (ACV), AC current (ACI), Frequency (Freq), Power (ACW). The additional display is for Phase or Power Factor.

😨 Time	Electronics Control	Panel v0.8.42.0						-	
5028	ōC Series 2 v	0.8.28			AC Power			Auto Ra	nge: 1 kV
									Standby
								8	9
					000		6	7	
		ACV			22			4	5
								2	3
								0	1
	ACW		2 640.	0 w	ACI 12.0		<b>00</b> A	±	•
									CE
	Phase		0	<b>0</b> °	Freq		50 HZ		V
								mV	kV
Fu	inction	Range	Units	Adjust	Deviate				tput On tandby

The power (ACW) is a calculated value based on the function inputs, you can change the units (mW, W, kW, VA).

AC voltage, AC current, and frequency all swap to being the active settable function when pressed. You can enter and adjust these functions as required.

Time	e Electronics Control	Panel v0.8.42.0						_	$\Box$ $\times$
5025	5C Series 2 v	/0.8.28			AC Power			Auto Ran	ge: 20 A
									Standby
								8	9
					10			6	7
		ACI			12.	UUU A		4	5
							,		3
								0	1
	ACV		220.0	<b>0</b> v	Freq		50 Hz	±	
								$\boxtimes$	CE
	ACW		2 640	<b>O</b> w	Phase	10°	l	A	
			_ 0 10.				0.0	μA	mA
Fu	inction	Range	Units	Adjust	Deviate			Out Sta	put On andby

3

1

CE

mΑ

Output On

Standby

2 0

±  $\bigotimes$ 

μA

**50** Hz

0.0

😨 Time	e Electronics Control Panel v0.8.42.0		_	
5025	5C Series 2 v0.8.28	AC Power	Auto Ran	ge: 20 .
				Standb
			8	9
			6	7
	ACI	12.UUU A	4	5

A Phase or Power Factor value can be entered, this is done pressing the **Phase** box:

Once selected the box will highlight in	hlup	

Range

Function

**220.00** v

2 640.0 w

Units

Adjust

ACW		w <b>0.0</b>	Phase	0.0°		
Function	Range	Units Adjust	Deviate		Output On Standby	

Deviate

	ACI			2(	<b>)</b> ()	<b>O</b> mA	o
AC	ACV		<b>2.000</b> mV			<b>50</b> Hz	
ACV	ACW		<b>0</b> w	P.F.		1.000	
Function	Range	Units	Adjust	Deviate			Output On Standby

Either enter the required phase in degrees or press the **Units** button.

From the sidebar menu you can select degree ° for phase, or **PF** for power factor.

# 3.7 Resistance Functions 2WQ | 4WQ

The 5025E-S2 features 2-wire variable resistance. The 5025C-S2 features both 2-wire variable resistance and 4-wire decade resistance.

2-wire variable resistance is selected by pressing the  $2W\Omega$  button:

Time Electronics Con	trol Panel v0.8.32.0							– 🗆 X	
5025 (simulated)	) series 2		2-	Wire Resistanc	•			Auto Range: 20 $\Omega$	2
								Standby	y
	_					-			
	Res					(	Ω		
Function	Range	Units	Adjust	Deviate				Output On Standby	
								oranaby	

By default the application will set to auto-range. This can be changed by pressing the **Range** button. The sidebar menu will display the available ranges:

Time Electronics Co	Time Electronics Control Panel v0.8.32.0											
5025 (simulated	d) series 2		2-	Wire Resistand	e			Au	to Range: 20 $\Omega$			
									Standby			
									^			
								]	Auto Range			
	Res					1	Ω	• •	<b>20</b> Ω			
								]	<b>1 k</b> Ω			
									$\sim$			
Function	Range	Units	Adjust	Deviate					Output On Standby			

To close the Range sidebar menu, press the **Range** button.

Time Electronics Cor	ntrol Panel v0.8.32.0								– 🗆 X	
5025 (simulated	l) series 2		2-	Wire Resistand	e			Aut	to Range: 20 $\Omega$	
									Standby	
									mΩ	
								]	Ω	•
	Res					1 (	2		kΩ	
								J	MΩ	
Function	Range	Units	Adjust	Deviate					Output On Standby	

The Units button opens a sidebar menu that allows you to change the units as required: -

To close the Units sidebar menu, press the Units button.

#### Setting an Output Value

Setting the output value is the same method as the DCI and ACI functions. See section 3.2 and 3.4 for detailed instructions of these setting methods.

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

Deviation can also be used on this function.

To exit 2-Wire Resistance press the **Function** button. The output setting display will fade, and the other functions will show in the bottom menu, for selection.

4-wire variable resistance is selected by pressing the  $4W\Omega$  button:

When this option is fitted to the calibrator, decade resistance are fixed values that can be selected.



**Note:** 4-wire resistance is a set of fixed resistors that are displayed on the readout as calibrated values. This means the output will not indicate the nominal value (ie 1, 10, 100), but the actual value of the resistor from it's time of calibration. The same applies to capacitance and inductance functions.

#### To return to the function menu, press the function button:



# 3.8 Capacitance CAP

Capacitance is available as fixed values that can be individually selected. Calibrated values are shown on the readout.

The function is selected by pressing the **CAP** button:



You can now select the from the fixed values listed. Use the left/right arrows to access the complete list. Once selected, press and hold the **output on** button for 2 seconds to output.

To exit the function, press the **Function** button.





# 3.9 Inductance IND

Inductance (5025C-S2 only) is available as fixed values that can be individually selected. Calibrated values are shown on the readout.

The function is selected by pressing the **IND** button:



You can now select the from the fixed values listed. Use the left/right arrows to access the complete list. Once selected, press and hold the **output on** button for 2 seconds to output. –

To exit the function, press the **Function** button.





# 3.10 Conductance **COND**

Conductance is available as fixed values that can be individually selected.

The function is selected by pressing the **COND** button:

😨 Time	e Electronics Cor	trol Panel v0.8.32.0							- 🗆 X
5025	(simulated	) series 2			Conductance				Range: 10 S
									Standby
	0								
	C	ond							
Ľ									
Fu	nction		1 nS	10 nS	100 nS	1 μS	10 µS		Output On Standby

You can now select the from the fixed values listed. Use the left/right arrows to access the complete list. Once selected, press and hold the **output on** button for 2 seconds to output.

To exit the function, press the **Function** button.





# 3.11 RTD Simulation RTD

Time Electronics C	Time Electronics Control Panel v0.8.50.0 —										
5025 (simulated)	series 2			Home							
							Standby				
				Ŧ							
Function	PT100	PT200	PT500	PT1000			Standby				

RTD simulation can be selected by pressing the **RTD** button:

You can now select from Pt100, Pt200, Pt500, or Pt1000.

Once selected the RTD type will display and range will show in the information bar.

Time Electronics	Control Panel v0.8.50.	c						- 🗆	×
5025 (simulated	I) series 2			RTD PT100			Range:	-180°C to 8	850°C
								Sta	andby
Т	emn								
	unp								
Function	Range	Units	Adjust	Deviate				Output Stand	On by

You can now enter a temperature for output from the calibrator.

Time Electronic	s Control Panel v0.8.5	0.0					—		
5025 (simulate	ed) series 2			RTD PT100		Rai	Range: -180°C to 850°C		
								Standby	
								°C	
								°F	•
Г	emp				0.00	°C		к	
Function	Range	Units	Adjust	Deviate				Output On Standby	

The Units button opens a sidebar menu that allows you to change the units as required: -

To close the Units sidebar menu, press the Units button.

#### Setting an Output Value

Setting the output value is the same method as the DCI and ACI functions. See section 3.2 and 3.4 for detailed instructions of these setting methods.

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

Deviation can also be used on this function.

To go back to the RTD selection menu, press the **Function** button. The output setting display will fade, and selection is possible. To exit RTD simulation, press function again.

# 3.12 Thermocouple Simulation TCO

Thermocouple simulation can be selected by pressing the **TCO** button:

Time Electronics C	Control Panel v0.8.5	50.0					_	- 🗆 X
5025 (simulated) series 2 Home								
								Standby
				• • •				
Function		Туре В	Туре С	Type E	Type J	Туре К		Standby

You can now select from the various types of thermocouples listed.

Once selected the thermocouple type will display and range will show in the information bar.

Time Electronics	Control Panel v0.8.50	0.0							×
5025 (simulated	d) series 2		т	hermoc. Type B			Range: 3	00°C18	20°C
								Sta	ndby
Ту	ype B			3(	)0.	<b>0</b> °C			
		CJ Mode	E	xterna					
		Ext. Ref		0.(	) °C				
Function	Range	Units	Adjust	Deviate				Output Standi	On oy

You can now enter a temperature value as required. Note that the display with the blue outline indicates the active state for user input. When you press a secondary lower display it will become active for user input or mode selection.

The default cold junction compensation setting is **External**. You can use this or change the mode to **Internal** or **Off**. To change the CJC mode press the **CJC Mode** display box:

Time Electronics Control Panel v0.8.50	)	– 🗆 ×
5025 (simulated) series 2	Thermoc. Type B	
		Standby
Туре В	<b>300.0</b> ∘c	
	cj Mode External	
	Ext. Ref 0.0 °C	
Function External	Internal Off	Output On Standby

The 3 mode options will display at the bottom.

**External:** This setting allows a simulated cold junction temperature to be manually entered. Use this option if the junction from thermocouple alloy to copper is made externally and measured in temperature. This is common when using non-compensating cables and the UUT cold junction compensation is enabled.

To enter the CJC external value, press the **Ext Ref** display box and input the temperature.

Time Electronics	Control Panel v0.8.50	.0							×
5025 (simulated	) series 2		Ther	moc. Type B			Ranç	ge: 0°C.	.50°C
									andby
Ту	/pe B			3(	)0.	0°0			
		CJ Mode	Ex	terna					
		Ext. Ref		0.0	) •0				
Function	Range	Units	Adjust	Deviate				Output Stand	t On Iby

The range of the allowable temperature value is shown in the right of the info bar. -You can enter the reference temperature by:

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

Time Electronics	Control Panel v0.8.5	0.0						—		
5025 (simulated	d) series 2		I	Thermoc. Type B				Range: 0°C50°		
									Standby	
								8	9	
				0				6	7	
T	ype B			্রা	JU.	) ° (	)	4	5	
								2	3	
								0	1	
		CJ Mode	E	Externa				±		
									CE	
		Ext. Ref		0.5	<b>−</b> °C				°C	
Function	Range	Units	Adjust	Deviate					Standby	

To exit the external reference setting press the main display box. Then you can enter the required temperature output and the external reference will be applied.

😨 Time	e Electronics	Control Panel v0.8.5	0.0								×
5025	(simulated	l) series 2		т	'hermoc. Type B				Range: 3	300°C	.1820°C
											Standby
	Ту	/pe B			3(	)()(	0°(	)		8 6 4	9 7 5
										2 0	3 1
			CJ Mode		xterna					± ⊠	Ce
			Ext. Ref		0.5	<b>⊃∘ C</b>				°(	C
Fun	nction	Range	Units	Adjust	Deviate					Outp Sta	out On ndby

**Internal:** This setting uses the front panel terminals as the cold junction. Use this if the UUT is connected to the front panel terminals using compensating cables (cables of the same alloy as the thermocouple being simulated).

5025 (simulated) series 2 Type B Type B CJ Mode Internal Usr Trim 0.0 °C	Time Electror	nics Control Panel v0.8.	50.0			— c	) ×
Type B 300.0 °C CJ Mode Internal Usr Trim 0.0 °C	5025 (simula	ted) series 2		Thermoc. Type B			
Type B 300.0 °C 4 2 0 ± Usr Trim 0.0 °C							Standby
CJ Mode Internal Usr Trim 0.0 °C		Гуре В		300	<b>.0</b> °C	8 6 4 2	9 7 5 3
Usr Trim 0.0 °C			CJ Mode	Internal		0 ±	1
			Usr Trim	0.0 °c			
Function External Internal Off Output C Standb	Function	External	Internal	Off		Out	tput On andby

To use, press the CJC Mode display, then the **Internal** button at the bottom:

The CJ mode will show Internal, and the lower display provides the option for User Trim.

This option means that the calibrator's internal cold junction reference value can be trimmed by this additional setting, to correct for any thermal drifts or inaccuracies due to the UUT's cold junction compensation.

In effect it is a zeroing mechanism that allows the accuracy of the UUT's cold junction compensation to be disregarded and calibration performed purely on the UUT's capability to measure the EMF voltages for the specified thermocouple type.

You can enter the trim value temperature by:

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method



To exit the internal reference setting press the main display box. Then you can enter the required temperature output and the internal reference and trim value will be applied.

**Off**: This setting disables any cold junction reference. Use this if the UUT's cold junction compensation can be set to zero or if the junction from thermocouple alloy to copper wire is made in an ice bath.

Time Electronics Co	ntrol Panel v0.8.50.0					×
5025 (simulated) s	series 2		Thermoc. Type B			
					Sta	andby
Тур	e B		300.0	°C		
	CJ Mo	de	Off			
Function	External	Internal	orf Contraction		Output Stand	On by

To use, press the CJC Mode display, then the **Off** button at the bottom:

To exit the Off mode setting, press the main display box. Then you can enter the required temperature output.

Time Electronics (	Control Panel v0.8.50						- 🗆 X
5025 (simulated	) series 2		т	hermoc. Type E			Range: 300°C1820°C
							Standby
Тур	oe B			3	00.	<b>0</b> °C	
	CJ M	ode		(	Off		
Function	Range	Units	Adjust	Deviate			Output On Standby

#### Temperature Units

To change the temperature units, ensure the main display is selected, then press the **Units** button.

Time	e Electronics	Control Panel v0.8.5(	0.0					- 🗆 X	
5025	(simulated	l) series 2		Thermoc. T	ype B		Ran	ıge: 300°C1820°C	
								Standby	
						•		°C	
	Ту	/pe B			300.	<b>0</b> °C		°F	•
				_	_			К	
			CJ Mode	Exter	nal				
			Ext. Ref	(	0.5 ∘c				
Fun	iction	Range	Units	Adjust Devia	te 🛄	]		Output On Standby	

This opens a sidebar menu that allows you to change the units as required:

To close the Units sidebar menu, press the Units button.

#### Setting an Output Value

Setting the output value is the same method as the DCI and ACI functions. See section 3.2 and 3.4 for detailed instructions of these setting methods.

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

Deviation can also be used on this function.

To go back to the thermocouple selection menu, press the **Function** button. The output setting display will fade, and selection is possible. To exit, press **Function** again.

# 3.13 Frequency FRQ

Time Electronics Control Panel v0.8.50.0		- 🗆 X
5025 (simulated) series 2	Frequency	Auto Range: 1 kHz
		Standby
Freq	U.10	łz
		_
Function Range	Units Adjust Deviate	Output On Standby

Digital frequency is selected by pressing the **FRQ** button:

By default the application will set to auto-range. This can be changed by pressing the **Range** button. The sidebar menu will display the available ranges:

Time Electroni	cs Control Panel v0.8.50.0							-	
5025 (simulated) series 2				Frequency				Aut	o Range: 1 kHz
									Standby
									Auto Range
								1	1 kHz
	Freq				0.1	0	łz		1 MHz
									10 MHz
Function	Range	Units	Adjust	Deviate					Output On Standby

To close the Range sidebar menu, press the **Range** button.

Time Electronic	s Control Panel v0.8.50.0							_		×
5025 (simulate	d) series 2			Frequency				Auto	Range: 1	kHz
									Sta	Indby
									Hz	
								1	kHz	
	Freq				0.1	0	-Iz		MHz	z
									GHz	:
Function	Range	Units	Adjust	Deviate					Output Standl	On by

The Units button opens a sidebar menu that allows you to change the units as required: -

To close the Units sidebar menu, press the Units button.

#### Setting an Output Value

Setting the output value is the same method as the DCI and ACI functions. See section 3.2 and 3.4 for detailed instructions of these setting methods.

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

Deviation can also be used on this function.

To exit the function, press the Function button.

# 3.14 Period PER

Period is available as fixed values that can be individually selected.

The function is selected by pressing the **PER** button:

ime Electronics (	Control Panel v0.8.	50.0						- 🗆 X
25 (simulated	) series 2			Period				Range: 10 s
								Standby
						$\mathbf{\cap}$		
Pe	riod				IU	U ns		
				• • • • •				
unction	<	100 ns	200 ns	500 ns	1 µs	2 µs		Output On Standby
	ime Electronics ( 25 (simulated PC	ime Electronics Control Panel v0.8. 25 (simulated) series 2 Period	Inne Electronics Control Panel v0.8.50.0 Period Unction 100 ns	Ime Electronics Control Panel v0.8.50.0 Period Unction Unctio	erime Electronics Control Panel v0.8.50.0 Period Period Period Unction 100 ns 200 ns 500 ns	Imme Electronics Control Panel v0.8.50.0         Period         Period         Immediate (b) series 2       Period         Immediate (b) series 2       Period         Immediate (b) series 2       Immediate (b) series (	Imme Electronics Control Panel v0.8.50.0         Period         Period         Immediate and the second secon	ime Electronics Control Panel v0.8.50.0 25 (simulated) series 2 Period Period IOO ns IOO ns I μs 2 μs

You can now select the from the fixed values listed. Use the left/right arrows to access the complete list. Once selected, press and hold the **output on** button for 2 seconds to output.

To exit the function, press the **Function** button.





# 3.15 Scope Calibration SCP

The oscilloscope calibration option that is available in the control application when fitted to a calibrator. It provides:

- Amplitude for calibrating the voltage gain. (Vertical deflection)
- Frequency and Period for calibrating the time base. (Horizontal deflection)
- **Fast Rise** for rise time calibration and bandwidth determination.
- **Duty Cycle** for verifying duty cycle measurements.
- Levelled Sine for bandwidth calibration (frequency response) and trigger functions.

© Time Electronics Control Panel v08.500

5025 (simulated) series 2

Home

Standby

Standby

Function

Amplitude

S0 Ω

Frequency

Period

Duty

Cutput On

Standby

The function is selected by pressing the **SCP** button:

The menu buttons for scope calibration are displayed at the bottom. These are:

- Amplitude
- Amplitude 50 Ω
- Frequency
- Period
- Duty Cycle
- Fast Rise
- Levelled Sinewave

#### 3.15.1 Amplitude

Time Electronics Control Panel v0.8.500
Osc. Amplitude
Auto Range: 200 mV

5025 (simulated) series 2
Osc. Amplitude
Auto Range: 200 mV

Ampl
Z.000 mV

Wave
Squarewave

Function
Range
Units

Adjust
Deviate

Deviate
Cutput On Standby

The wave can be set as Squarewave or DC. Press the **Wave** box and select from the two options in the bottom menu:

Time Electronics Control Panel	v0.8.50.0					×
5025 (simulated) series 2		Osc. Amj	plitude			
					Sta	andby
Ampl			2.0	<b>0</b> mV		
	Wave	Squarev	vave			
Function Sq	DC				Output Stand	On by

Select by pressing the Amplitude button:

By default the application will set to auto-range. This can be changed by pressing the **Range** button. The sidebar menu will display the available ranges:

5025 (simulated) series 2	Osc. Amplitude	Auto Range: 200 mV			
		Auto Range			
Amnl	2 00	200 mV			
	2.00	20 V			
	Wave Squarewave	200 V			

To close the Range sidebar menu, press the **Range** button.

The Units button opens a sidebar menu that allows you to change the units as required: -

5025 (simulated) series 2	Osc. Amplitude	Auto Range: 200 mV
		Standby
		μ٧
Amnl	2 00	mV
Ашр	2.00	V V
	Wave Squarewave	kV

To close the Units sidebar menu, press the Units button.

#### Setting an Output Value

Setting the output value is the same method as the DCI and ACI functions. See section 3.2 and 3.4 for detailed instructions of these setting methods.

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

Deviation can also be used on this function.

To go back to the Scope Calibration Option menu, press the **Function** button. The output setting display will fade, and selection is possible. To exit, press **Function** again.

### 3.15.2 Amplitude 50 Ω

This function is the same operation as amplitude. Select by pressing the **Amplitude 50**  $\Omega$  button:



The wave can be set as Square or DC. Press the **Wave** box and select from the two options in the bottom menu.

**Range:** By default the application will set to auto-range. This can be changed by pressing the **Range** button. The sidebar menu will display the available ranges. To close the Range sidebar menu, press the **Range** button.

**Units:** The **Units** button opens a sidebar menu that allows you to change the units as required. To close the Units sidebar menu, press the **Units** button.

#### Setting an Output Value

Setting the output value is the same method as the DCI and ACI functions. See section 3.2 and 3.4 for detailed instructions of these setting methods.

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

Deviation can also be used on this function.

To go back to the Scope Calibration Option menu, press the **Function** button. The output setting display will fade, and selection is possible. To exit, press **Function** again.

### 3.15.3 Frequency

Frequency in the Scope Calibration Function is available as fixed values that can be individually selected.

The function is selected by pressing the **Frequency** button:

Time Electronics Control Panel v0.8.50.0			- 🗆 X			
5025 (simulated) series 2	Osc. Frequer	Osc. Frequency				
			Standby			
_						
Freq		U.I Hz				
	• • • • •					
Function	0.1 Hz 0.2 Hz 0.5 Hz	1 HZ 2 HZ	Standby			

You can now select the from the fixed values listed. Use the left/right arrows to access the complete list. Once selected, press and hold the **output on** button for 2 seconds to output.

To go back to the Scope Calibration Option menu, press the **Function** button. The output setting display box will fade, and selection is possible.

To exit, press **Function** again.

### 3.15.4 Period

Period in the Scope Calibration Function is available as fixed values that can be individually selected.

The function is selected by pressing the **Period** button:

Time Electronics	Control Panel v0.8.50.0						- 0	×
5025 (simulated	) series 2			Osc. Period	Range	: 10 s		
							St	andby
	Der					$\square$		
	Per					U ns		
				• • • • •				
Function	/	100 ле	200 no	500 no	1.00	2 40	Output	i On 🔶
Function		100 115	200 115	200 112	- 1 μs	<u> </u>	Stand	lby

You can now select the from the fixed values listed. Use the left/right arrows to access the complete list. Once selected, press and hold the **output on** button for 2 seconds to output.

To go back to the Scope Calibration Option menu, press the **Function** button. The output setting display box will fade, and selection is possible.

To exit, press **Function** again.

### 3.15.5 Duty Cycle

Select by pressing the **Duty Cycle** button:



Select the frequency (100 Hz, 1 kHz, 10 kHz) from the menu buttons at the bottom.

Then press the **Duty** display box and enter the required % duty cycle.

Time Electronics	Control Panel v0.8.5	0.0								×
5025 (simulated	d) series 2		(	Osc. Duty Cycle				Rang	e: 0-1(	00%
									Star	ndby
	Duty		50.000 %							
		Freq		100	Hz					
Function	Range	Units	Adjust	Deviate				0 - :	utput ( Standb	Dn Yy

You can adjust and deviate the duty cycle % value as required.

To go back to the Scope Calibration Option menu, press the **Function** button. The output setting display box will fade, and selection is possible. To exit, press **Function** again.

#### 3.15.6 Levelled Sinewave

Select by pressing the Levelled Sinewave button:



To set the amplitude, press the Ampl box and select from the voltages in the bottom menu:



The amplitude can also be deviated by pressing the **Amp Dev** box and entering a value. The adjust method can also be used. By default the application will set to 1 MHz. This can be changed by pressing the **Range** button. The sidebar menu will display the available ranges:

5025	(simulated) series 2	Osc. Levelled Sinewave					Range: 1 MHz
							Standby
							1 MHz
	Hz			50.	<b>O</b> kHz		2.2 GHz
						J	
		Ampl		350 mv			

To close the Range sidebar menu, press the **Range** button.

The Units button opens a sidebar menu that allows you to change the units as required: -



To close the Units sidebar menu, press the Units button.

#### Setting an Output Value

Setting the output value is the same method as the DCI and ACI functions. See section 3.2 and 3.4 for detailed instructions of these setting methods.

- 1. Keyboard Entry
- 2. On-screen Keyboard Entry
- 3. Adjust Method

Deviation can also be used on this function.

To go back to the Scope Calibration Option menu, press the **Function** button. The output setting display will fade, and selection is possible. To exit, press **Function** again.

#### 3.15.7 Fast Rise

#### Select by pressing the Fast Rise button:

Time Electronics C	Control Panel v0.8.50	.0						×
5025 (simulated)	) series 2			Osc. Fast Rise				
							Sta	andby
E/I	Dico				- 1	I		
1/1	1130					12		
Function	Range	Units	Adjust	Deviate			Output	On
							Stand	by-

# 4 Settings

Function	<	FRQ	PER	SCP	Ö Settings	>	Output On Standby
Press to acc	ess the m	ienu.					
Function	Options	Comms	Info	Log	Done		Output On Standby

The **Settings** button is situated in the functions menu at the end:

The **Done** button is used to step back a menu level at any time within the settings screens.

#### Options

This screen will display the calibrator options that can be set. The 5025-S2 models have an optional DC High Drive setting that can be set for required use.

After pressing the options button, the screen appears:

Time Electronics Control Panel v0.8.36.0			– 🗆 X			
5025 (simulated) series 2	Home					
			Standby			
Option Settings						
DC High Voltag	e 200V & 1kV High Drive					
			Output On			
Function DCHV E	one		Standby			

The high drive modes provides a higher output current to power more demanding instruments such as analogue meters or voltage detectors.

Press the DCHV button to open the sidebar menu with available settings:

Option Settings DC High Voltage 200V & 1kV High Drive 1k High I 200V & High J	andby
Option Settings DC High Voltage 200V & 1kV High Drive	
DC High Voltage 200V & 1kV High Drive	rive
High 200V 8 High I	v
200V a High I	rive 🔸
	r 1kV Irive
Function DCHV Done Output	t On

When the High Drive option is set, the display will indicate it is in use at the top right of the screen. The High Drive ranges will also be available in the Range selection menu:

5025 (simulated) series 2			DC Voltage			Auto R	Auto Range: 200 V HiDrive		
								Standby	-
								^	
								20 V	
	DCV		2	<b>00</b>	.000	V	•	200 V HiDr	•
								1 kV HiDr	
								$\sim$	
Function	Range	Units	Adjust	Deviate				Output On Standby	

#### Additional settings are:

**Comms:** Check and select the communication settings required.

Info: View the calibrator details, options fitted, firmware versions etc.

Log: View the log records of recent commands in the application.

Done: Exit settings.

# 5 Errors and Fault Diagnosis

The control interface will detect and display errors from the calibrator. These errors are displayed on the calibrator front panel as well.

**NOTE:** When an error displays, please look up the code in the calibrator user manual for information and guidance on how to proceed.

#### **Recoverable Error Notifications**

These are displayed in a pop-up window and notify you of the error and code. The window can be closed and the application can continue to be used.



#### **Non-Recoverable Error Notifications**

These are displayed in a pop-up window and notify you of the error and code. The control application must be closed when this type of error appears.



# 6 Contacting Time Electronics

#### Online:

Please visit **www.timeelectronics.com** and select Support Request from the Contact links. From this page you will be able to send information to the Time Electronics service team who will help and support you.

#### By phone:

+44 (0) 1732 355992

By email: mail@timeelectronics.co.uk

#### **UK Factory Address**

Time Electronics Ltd Unit 5, TON Business Park, 2-8 Morley Road, Tonbridge, Kent, TN9 1RA. United Kingdom.