

DTA		DTB		DTC	
Model: DTA4896R1		Model: DTB4896RR		Model: DTC1000R	
PV	SV	PV	SV	PV	SV
bPS	9600	LoSH	oFF	Adjust temperature	
				Input compensation	0.0
LEn	7	C-SL	ASCII	Password of DTC	
				Level 1 password	Disabled
PrtY	EwEn	C-no	1	Level 2 password	Disabled
				Level 3 password	Disabled
Stop	1	bPS	9600		
Back to top					
		LEn	7		
		PrtY	EwEn		
		Stop	1		
		Back to top			

## 1.2 How to Return to Default Settings in DTA



Display		Explanations
PV	SV	Status of the temperature controller
LoCt	r1	Temporary display when DTA is switched on: <b>r1</b> = relay output with RS-485 communication.
250	00	Example displayed values
		Press  twice
LoC	oFF	Key-locked function
LoC	LoC1	Select Lock 1
SBT		
+		Press “up” and “down” keys together for 1 second.
LoLd	276	Default value

Display		Explanations
PV	SV	Status of the temperature controller
ECU0	-136	Default value
		
PA55	4321	
		
PA55	1357	Press “down” key continuously until the value reaches 1357 <u>(please DO NOT modify this value; otherwise system confusion may occur).</u>
		
PA55	4321	
 + 		Press the two keys together once to return to main screen.
250	00	Main screen
Switch off DTA and re-power it.		
Cont	PT	
no	Cont	Return to default value. The default sensor is PT100, which will be displayed when DTA is not connected to a sensor or thermocouple.

The model adopted in this example is: DTA4896R1 with firmware V3.50.

### **Communication**

1. Make sure RS-485 hardware communication cable in DTA has been connected to the computer.
2. Make sure the communication parameters in DTA are consistent with those in the computer.

Display		Explanations
PV	SV	Status of the temperature controller
250	00	Example displayed values
Press  for more than 3 seconds to enter initial setting mode		
Cont	PT2	Example displayed value: PT100 Sensor
Press  continuously for 8 times		
Co5H	oFF	ON/OFF of communication write-in
		
Co5H	oN	OFF: communication write-in disabled ON: communication write-in enabled

Display		Explanations
PV	SV	Status of the temperature controller
		
		Communication address
		
		Communication speed
		
		Data length (in bits)
		
		Parity bit
		
		Stop bit
 Back to top		Return to the first item in the initial setting mode: 
		Return to PV/SV screen in the operation mode

DTCOM Software	Explanations
	Execute DTCOM Software
	Select "SINGLE COMMAND TEST"
 <p><b>SINGLE COMMAND TEST (HEX FORMAT)</b></p> <p>ADDRESS: 01</p> <p>COMMAND: Write One Wc</p> <p>FUNC ADDR: 471B</p> <p>WRITE DATA: 1234</p> <p>LRC: 51</p> <p>SEND: :0106471B123451</p> <p>RECEIVED: :0106471B123451</p> <p>Buttons: Send, Repeat, Clear Result, Close</p>	<p>Function address = 471B; Write data =1234.</p> <p><u>(Please DO NOT modify this value; otherwise system confusion may occur.)</u></p>

DTCOM Software	Explanations
<p style="text-align: center;">SINGLE COMMAND TEST (HEX FORMAT)</p> <p>ADDRESS <input type="text" value="01"/></p> <p>COMMAND <input type="text" value="Write One Wc"/></p> <p>FUNC ADDR <input style="border: 2px solid red;" type="text" value="4724"/></p> <p>WRITE DATA <input style="border: 2px solid magenta;" type="text" value="1234"/></p> <p>LRC <input type="text" value="48"/></p> <p>SEND <input type="text" value=":01064724123448"/></p> <p>RECEIVED <input type="text" value=":01064724123448"/></p> <p><input type="button" value="Send"/> <input type="button" value="Repeat"/> <input type="button" value="Clear Result"/> <input type="button" value="Close"/></p> 	<p>Clear the user's settings. Function address = 4724; Write data = 1234 <u>(Please DO NOT modify this value; otherwise system confusion may occur.)</u></p>
<p><span style="color: red;">8888</span> <span style="color: green;">8888</span></p>	<p>After the above procedures are completed, DTA will display the information on the left hand side, representing that DTA has return to default settings successfully.</p>
<p>Switch off DTA and re-power it.</p>	
<p><span style="color: red;">Err</span> <span style="color: green;">r1</span></p>	
<p><span style="color: red;">no</span> <span style="color: green;">Cont</span></p>	<p>Return to default value. The default sensor is PT100, which will be displayed when DTA is not connected to a sensor or thermocouple.</p>

The model adopted in this example is: DTA4896R1 with firmware V3.50.

### 1.3 How to Return to Default Settings in DTB



Display		Explanations
PV	SV	
		Status of the temperature controller
<span style="color: red;">b150</span>	<span style="color: green;">rr</span>	Temporary display when DTB is switched on: <span style="color: red;">b150</span> = firmware V1.50; <span style="color: green;">rr</span> = relay output for OUT1/OUT2
<span style="color: red;">250</span>	<span style="color: green;">00</span>	Example displayed value
		Press  for 3 times
<span style="color: red;">LoC</span>	<span style="color: green;">oFF</span>	Key-locked function
		
<span style="color: red;">LoC</span>	<span style="color: green;">LoC1</span>	Select Lock 1
		
		Press "up" and "down" key together for 1 second.

Display		Explanations
PV	SV	Status of the temperature controller
5H00	OFF	
		
PA55	4321	
		
PA55	1357	Press “down” key continuously until the value reaches 1357 <u>(please DO NOT modify this value; otherwise system confusion may occur).</u>
SBT		
5H00	OFF	
SBT + 		Press the two keys together once to return to main screen.
250	00	Main screen
Switch off DTB and re-power it.		
6150	rr	
no	Cont	Return to default value. The default sensor is PT100, which will be displayed when DTB is not connected to a sensor or thermocouple.

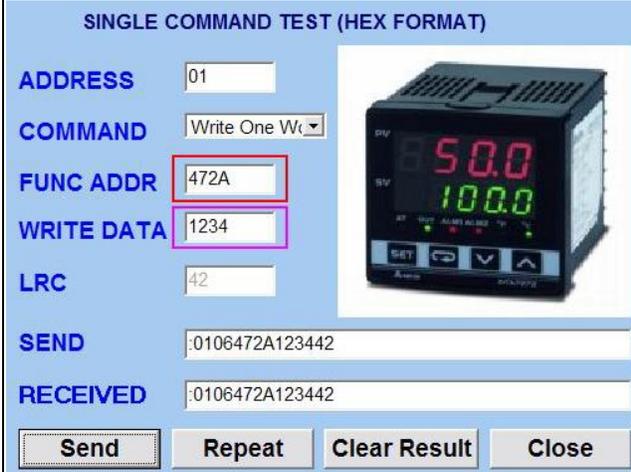
The model adopted in this example is: DTB4896RR with firmware V1.50.

## **Communication**

1. Make sure RS-485 hardware communication cable in DTB has been connected to the computer.
2. Make sure the communication parameters in DTB are consistent with those in the computer.

Display		Explanations
PV	SV	Status of the temperature controller
250	00	Example displayed value
Press  for more than 3 seconds to enter initial setting mode		
Cont	PT	Example displayed value: PT100 Sensor
Press  continuously for 10 times		
CoSH	OFF	ON/OFF of communication write-in
		

Display		Explanations
PV	SV	Status of the temperature controller
		OFF: communication write-in disabled ON: communication write-in enabled
		
		ASCII or RTU
		
		Communication address
		
		Communication speed
		
		Data length (in bits)
		
		Parity bit
		
		Stop bit
 back to top		Return to the first item in the initial setting mode: 
		Return to PV/SV screen in the operation mode

DTCOM Software	Explanations
	Execute DTCOM Software
	Select "SINGLE COMMAND TEST"
 <p>The screenshot shows a software window titled "SINGLE COMMAND TEST (HEX FORMAT)". It contains several input fields: ADDRESS (01), COMMAND (Write One Wr), FUNC ADDR (472A), WRITE DATA (1234), LRC (42), SEND (:0106472A123442), and RECEIVED (:0106472A123442). There are buttons for Send, Repeat, Clear Result, and Close. An image of a Delta temperature controller is also shown in the window.</p>	Function address = 472A; Write data =1234 <u>(Please DO NOT modify this value; otherwise system confusion may occur.)</u>

DTCOM Software	Explanations
<p style="text-align: center;">SINGLE COMMAND TEST (HEX FORMAT)</p> <p>ADDRESS <input type="text" value="01"/></p> <p>COMMAND <input type="text" value="Write One Wr"/></p> <p>FUNC ADDR <input style="border: 2px solid red;" type="text" value="474E"/></p> <p>WRITE DATA <input style="border: 2px solid magenta;" type="text" value="1234"/></p> <p>LRC <input type="text" value="1E"/></p> <p>SEND <input type="text" value=":0106474E12341E"/></p> <p>RECEIVED <input type="text" value=":0106474E12341E"/></p> <p><input type="button" value="Send"/> <input type="button" value="Repeat"/> <input type="button" value="Clear Result"/> <input type="button" value="Close"/></p> 	<p>Clear the user's settings. Function address = 474E; Write data = 1234 <u>(Please DO NOT modify this value; otherwise system confusion may occur.)</u></p>
	<p>After the above procedures are completed, DTB will display the information on the left hand side, representing that DTB has return to default settings successfully.</p>
<p>Switch off DTB and re-power it.</p>	
	
	<p>Return to default value. The default sensor is PT100, which will be displayed when DTC is not connected to a sensor or thermocouple.</p>

The model adopted in this example is: DTB4896RR with firmware V1.50.

### 1.4 How to Return to Default Settings in DTC

#### **Communication**

1. Make sure RS-485 hardware communication cable in DTC has been connected to the computer.
2. Make sure the communication parameters in DTC are consistent with those in the computer.

DTCOM Software	Explanations
	<p>Execute DTCOM Software</p>
	<p>Select "SINGLE COMMAND TEST"</p>

DTCOM Software	Explanations
<p>SINGLE COMMAND TEST (HEX FORMAT)</p> <p>ADDRESS <input type="text" value="01"/></p> <p>COMMAND <input type="text" value="Write One Wc"/></p> <p>FUNC ADDR <input type="text" value="472A"/></p> <p>WRITE DATA <input type="text" value="1234"/></p> <p>LRC <input type="text" value="42"/></p> <p>SEND <input type="text" value=":0106472A123442"/></p> <p>RECEIVED <input type="text" value=":0106472A123442"/></p> <p><input type="button" value="Send"/> <input type="button" value="Repeat"/> <input type="button" value="Clear Result"/> <input type="button" value="Close"/></p> 	<p>Function address = 472A; Write data = 1234 (Please DO NOT modify this value; otherwise system confusion may occur.)</p>
<p>SINGLE COMMAND TEST (HEX FORMAT)</p> <p>ADDRESS <input type="text" value="01"/></p> <p>COMMAND <input type="text" value="Write One Wc"/></p> <p>FUNC ADDR <input type="text" value="474E"/></p> <p>WRITE DATA <input type="text" value="1234"/></p> <p>LRC <input type="text" value="1E"/></p> <p>SEND <input type="text" value=":0106474E12341E"/></p> <p>RECEIVED <input type="text" value=":0106474E12341E"/></p> <p><input type="button" value="Send"/> <input type="button" value="Repeat"/> <input type="button" value="Clear Result"/> <input type="button" value="Close"/></p> 	<p>Clear the user's settings. Function address = 474E; Write data = 1234 (Please DO NOT modify this value; otherwise system confusion may occur.)</p>
<p>Switch off DTC and re-power it.</p>	<p>Return to default settings</p>

The model adopted in this example is: DTC1000R with firmware V1.40.

## CHAPTER 2: CONTROL MODES IN DTA

### 2.1 ON/OFF

There are three control modes in DTA: ON/OFF, MANUAL and PID. First, press **SET** for 3 seconds to enter the “initial setting” mode. See below for how to switch between each mode:

