

GCT-9040 instruction set

system instruction	FAIL:STOP
	SYSTem1:BUZZer:PSOUND.....
	SYSTem1:BUZZer:F SOUND.....
	SYSTem1:BUZZer:PTIME.....
	SYSTem1:BUZZer:FTIME.....
	SYSTem:ERRor
	SYSTem1:ERRor
	SYSTem:GPIB:VERSion
	SYSTem:LCD:CONTRast
	SYSTem:LCD:BRIGhtness.....
	SYSTem:LINK.....
	SYSTem:TEST:MODE
	SYSTem:TIME:CUT.....
	SYSTem1:TIME:CUT.....
Function Command	FUNCTion:TEST.....
	FUNCTion1:TEST.....
	MEASure<x>
	MAIN1:FUNCTion.....
Manual Instruct	MANU:STEP
	MANU1:STEP
	MANU:NAME.....
	MANU1:RTIME
	MANU<x>:EDIT:SLAVE?
	MANU1:EDIT:MODE.....
	MANU1:ACW:VOLTage
	MANU1:ACW:CHISet.....
	MANU1:ACW:CLOSet.....
	MANU1:ACW:TTIME.....
	MANU1:ACW:FREQuency
	MANU1:ACW:REF

MANU1:ACW:ARCCurrent
 MANU1:DCW:VOLTag.....
 MANU1:DCW:CHISet.....
 MANU1:DCW:CLOSet.....
 MANU1:DCW:TTIME.....
 MANU1:DCW:REF
 MANU1:DCW:ARCCurrent
 MANU1:IR:VOLTag.....
 MANU1:IR:RHISet.....
 MANU1:IR:RLOSet.....
 MANU1:IR:TTIME.....
 MANU1:IR:REF
 MANU:GB:CUTMode
 MANU:GB:CURRent
 MANU:GB:RHISet
 MANU:GB:RLOSet
 MANU:GB:VHISet
 MANU:GB:VLOSet
 MANU:GB:TTIME.....
 MANU:GB:FREQuency
 MANU:GB:REF.....
 MANU:GB:ZEROCHECK.....
 MANU1:UTILity:ARCMoDe.....
 MANU1:UTILity:PASShold.....
 MANU1:UTILity:FAILmode
 MANU1:UTILity:MAXHold.....
 MANU1:UTILity:GROUNDMODE.....
 MANU<x>:EDIT:SHOW.....
 TESTok:RETurn.....

Auto Instruct TESTok:RETurn.....

Common instruct *CLS.....
 *IDN
 *IDN1

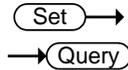
Remote instruct * RMTOFF.....

Specific Function InterLock Key Open.....

System Instruction

FAIL:STOP	91
SYSTem1:BUZZer:PSOUND	92
SYSTem1:BUZZer:FSOUND	92
SYSTem1:BUZZer:PTIME	92
SYSTem1:BUZZer:FTIME	93
SYSTem:ERRor	93
SYSTem1:ERRor	95
SYSTem:GPIB:VERSion	96
SYSTem:LCD:CONTrast	97
SYSTem:LCD:BRIGhtness	97
SYSTem:LINK	98
SYSTem:TEST:MODE	98
SYSTem:TIME:CUT	99
SYSTem1:TIME:CUT	99

FAIL:STOP



Description	Sets or queries the FAIL behavior of the test. FSTOP will stop the test after a FAIL judgment. FCONT will continue the test after a FAIL judgment.
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Syntax	FAIL:STOP{ON OFF}
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Query Syntax	FAIL:STOP?
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Parameter/ Return parameter	ON	Sets the FAIL behavior to FSTOP.
	OFF	Sets the FAIL behavior to FCONT.

Example	FAIL:STOP ON
	Sets the FAIL behavior to FSTOP.

SYSTem1:BUZZer:PSOUND

Set →

→ Query

Description	Turns the buzzer sound on or off for a PASS judgment for the slave.	
Syntax	SYSTem1:BUZZer:PSOUND{ON OFF}	
Query Syntax	SYSTem1:BUZZer:PSOUND ?	
Parameter/	ON	PASS Sound on.
Return	OFF	PASS Sound off.
parameter		
Example	SYST1:BUZZ:PSOUND ON Turns the buzzer sound on for PASS judgments.	

SYSTem1:BUZZer:FSOUND

Set →

→ Query

Description	Turns the buzzer sound on or off for a FAIL judgment for the slave.	
Syntax	SYSTem1:BUZZer:FSOUND{ON OFF}	
Query Syntax	SYSTem1:BUZZer:FSOUND ?	
Parameter/	ON	FAIL Sound on.
Return	OFF	FAIL Sound off.
parameter		
Example	SYST1:BUZZ:FSOUND ON Turns the buzzer sound on for FAIL judgments.	

SYSTem1:BUZZer:PTIME

Set →

→ Query

Description	Sets the PASS sound duration in seconds for the slave.
Syntax	SYSTem1:BUZZer:PTIME <NR2>
Query Syntax	SYSTem1:BUZZer:PTIME?
Parameter/ Return parameter	<NR2> 0.2~999.9
Example	SYST1:BUZZ:PTIM 1 Sets the buzzer to 1 second for a PASS judgment.

SYSTEM1:BUZZer:FTIME

Description	Sets the FAIL Sound duration in seconds for the slave.
Syntax	SYSTem1:BUZZer:FTIME <NR2>
Query Syntax	SYSTem1:BUZZer:FTIME?
Parameter/ Return parameter	<NR2> 0.2~999.9
Example	SYST1:BUZZ:FTIM 1 Sets the buzzer to 1 second for a FAIL judgment.

SYSTEM:ERRor

Description	Returns any errors in the output buffer for the GCT-9040. See the error code table below for details.
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Query Syntax	SYSTEM:ERROR ?
Return	<string> Returns an error string that includes an error code and an error description.

Error Code Table

Error code, Error description

-
- 0, No Error
 - 20, Command Error
 - 21, Value Error
 - 22, String Error
 - 23, Query Error
 - 24, Mode Error
 - 27, GBV > 7.2V
 - 31, Current Setting Error
 - 34, Resistance HI SET Error
 - 35, Resistance LO SET Error
 - 36, REF Setting Error
 - 37, Frequency Setting Error
 - 40, TEST Time Setting Error
 - 41, LINK Setting Error (LINK GPT-9800/9900 Error)
 - 42, Voltage HISet Error (GCT-9040 CUT V HI SET Error)

43, Voltage LOSet Error (GCT-9040 CUT V LO SET Error)

45, Buffer Error (Command buffer overflow)

Example

SYST:ERR ?

>0,No Error

Returns "0,No Error" as the error message.

SYSTEM1:ERRor

→ Query

Description

Returns any errors in the output buffer of the slave GPT-9XXX unit. See the error code table below for details.

Query Syntax

SYSTEM1:ERRor ?

Return

<string> Returns an error string that includes an error code and an error description.

Error Code Table

Error code, Error description

0,No Error

20,Command Error

21,Value Error

22,String Error

23,Query Error

- 24,Mode Error
- 25,Time Error
- 26,DC Over 50W (GPT-98XX), DC Over 100W (GPT-99XX/99XXA)
- 27,GBV > 5.4V
- 30,Voltage Setting Error
- 31,Current Setting Error
- 32,Current HI SET Error
- 33,Current LO SET Error
- 34,Resistance HI SET Error
- 35,Resistance LO SET Error
- 36,REF Setting Error
- 37,Frequency Setting Error
- 38,ARC Setting Error
- 39,RAMP Time Setting Error
- 40,TEST Time Setting Error
- 45,Buffer Error
- 60,Get Data = 0 (GPT-9900 only get SWEEP Data)

Example SYST1:ERR ?
 >0,No Error
 Returns "0,No Error" as the error message.

SYSTEM:GPIB:VERSion

→ Query

Description	Queries the GPIB version.	
Query Syntax	SYSTem:GPIB:VERSion?	
Return parameter	<string>	Returns: The GPIB version as a string "GPIB,V1.00" or "No GPIB connected" if there is not a GPIB device configured/connected.
Query Example	SYST:GPIB:VERS? >GPIB,V1.00 Returns the GPIB version.	

SYSTEM:LCD:CONTRast

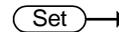
Description	Sets the contrast of the LCD display from 1 (low) to 8 (bright).	
Syntax	SYSTem:LCD:CONTRast <NR1>	
Query Syntax	SYSTem:LCD:CONTRast?	
Parameter/Return parameter	<NR1>	1~8
Example	SYST:LCD:CONT 5 Sets the display contrast to 5.	

SYSTEM:LCD:BRIGhtness

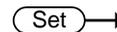
Description	Sets the brightness of the LCD display from 1(dark) to 2(bright).	
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Syntax	SYSTem:LCD:BRIGhtness <NR1>
Query Syntax	SYSTem:LCD:BRIGhtness?
Parameter/ Return parameter	<NR1> 1 (dark), 2 (bright)
Example	SYST:LCD:BRIG 2 Sets the display brightness to bright.

SYSTem:LINK



Description	This is command performs two functions. 1. It will activate the LINK connection. 2. It will then return the status of the LINK connection.
Note	First connect the GCT-9040 to the GPT-9800/9900 series before using this command. This command cannot be used to deactivate the LINK connection.
Syntax	SYSTem:LINK
Return parameter	ON LINE Link is on line OFF LINE Link is off line
Example	SYST:LINK >ON LINE



SYSTem:TEST:MODE



Description	Sets the testing mode (G+W, G-W, W-G, G, W).
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Syntax	SYSTem:TEST:MODE { GandW GtoW WtoG Gonly Wonly}	
Query Syntax	SYSTem:TEST:MODE?	
Parameter/ Return parameter	GandW	Ground bond + Withstanding
	GtoW	Ground bond then Withstanding
	WtoG	Withstanding then Ground bond
	Gonly	Ground bond only
	Wonly	Withstanding only
Example	SYSTem:TEST:MODE GandW Sets the mode to G+W.	




SYSTem:TIME:CUT		
Description	Sets or queries the signal I/O time cut settings for the GCT-9040.	
Syntax	SYSTem:TIME:CUT <NR2> OFF	
Query Syntax	SYSTem:TIME:CUT?	
Parameter/ Return parameter	<NR2>	0~999.9
	OFF	OFF
Example	SYST:TIME:CUT? >OFF	




SYSTem1:TIME:CUT		
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Description	Sets or queries the signal I/O time cut settings for the slave*. *Only available for models with customized firmware.	
Syntax	SYSTem1:TIME:CUT <NR2> OFF	
Query Syntax	SYSTem1:TIME:CUT?	
Parameter/	<NR2>	0~999.9
Return	OFF	OFF
parameter		
Example	SYST1:TIME:CUT? >OFF	

Function Commands

FUNCTION:TEST	101
FUNCTION1:TEST	102
MEASure<x>	103
MAIN1:FUNCTION.....	104

FUNCTION:TEST

Set →

← Query

Description	<p>Turns the currently selected test (output) on or off for the GCT-9040. If a slave is connected using the LINK cable, its output will also turn on, according to the order of the test settings (G+W, G-W, W-G, G, W).</p>
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Setting the FUNCTION:TEST command to OFF at the end of a test will also temporarily turn the PASS/FAIL buzzer sound off.

Note: Setting the FUNCTION:TEST command to OFF will not turn the test off for a connected slave unit. Please use the FUNCTION1:TEST OFF command.

Syntax	FUNCTION:TEST {ON OFF}
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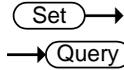
Query Syntax	FUNCTION:TEST?
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Parameter	ON	Turns the test on.
	OFF	Turns the test off.

Return parameter	TEST ON	Test is on.
	TEST OFF	Test is off.

Example	<p>FUNC:TEST ON</p> <p>Turns the output on.</p>
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FUNCTION1:TEST



Description Turns the currently selected test (output) on or off for a slave GPT-9XXX.

Setting the FUNCTION:TEST command to OFF at the end of a test will also temporarily turn the PASS/FAIL buzzer sound off.

Syntax FUNCTION1:TEST {ON|OFF}

Query Syntax FUNCTION1:TEST?

Parameter	ON	Turns the test on for the slave unit.
	OFF	Turns the test off on for the slave unit.
Return parameter	TEST ON	Test is on for the slave unit.
	TEST OFF	Test is off for slave unit.

Example FUNC1:TEST ON

Turns the output on for the slave unit.

MEASure <x>



Description Returns the test parameters & results of the tester.

MANU mode: Returns the test parameters & results of a MANU test for both the GCT-9040 and the slave, if connected.

AUTO mode: Returns the test parameters & results of the selected step (1-16) of the AUTO test of the slave, if connected.

Return parameters: function, judgment/status, test voltage, test current/resistance, test time (time of completed test) or ramp time (elapsed time of test that has not been completed).

Query Syntax MEASure<x>?

Parameter (MANU mode)		No parameter needed for MANU mode.
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Parameter (AUTO mode)	<x>	<NR1>1~16. Step number.
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Return parameter	<string>LN <string>	Returns a string with the test status of the GCT-9040 test, followed by another string of the slave test, if connected, in the following format: function, judgment or status, test voltage, test current or resistance, test time or ramp time
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Function	ACW, DCW, IR, GB
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Judgment /Status	PASS, FAIL VIEW
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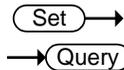
Test voltage	voltage+unit
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Test current	current+unit
/Test resistance	resistance+unit
Test time	T=time+S
/Ramp time	R=time+S

Example (in MANU mode) MEAS?
 > GB ,PASS ,03.00A ,000.0mohm,T=001.0S
 ACW, FAIL , 0.024kV ,0.013 mA ,R=000.1S
 Returns the test result of the current manual test first (1st line) then the slave manual test(2nd line), if connected.

Example (in AUTO mode) MEAS10?
 >IR, FAIL ,0.225kV ,999M ohm,T=010.3S
 Returns step 10 of the automatic result of the connected slave unit.

MAIN1:FUNCTION



Description Changes the mode between AUTO and MANU on the slave unit when in LINK mode.

Syntax MAIN1:FUNCTION {MANU|AUTO}

Query Syntax MAIN1:FUNCTION?

Parameter/ MANU Puts the tester mode to MANU.

Return AUTO Puts the tester mode to AUTO.

parameter

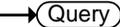
Example MAIN1:FUNC MANU
 Sets the tester to MANU mode for the slave unit.

Manual Commands

MANU:STEP	106
MANU1:STEP	106
MANU:NAME.....	107
MANU1:RTIME	107
MANU<x>:EDIT:SLAVE?	108
MANU1:EDIT:MODE.....	108
MANU1:ACW:VOLTage.....	109
MANU1:ACW:CHISet.....	110
MANU1:ACW:CLOSet.....	110
MANU1:ACW:TTIME.....	111
MANU1:ACW:FREQuency	112
MANU1:ACW:REF	112
MANU1:ACW:ARCCurrent	113
MANU1:DCW:VOLTage.....	114
MANU1:DCW:CHISet.....	114
MANU1:DCW:CLOSet.....	115
MANU1:DCW:TTIME.....	116
MANU1:DCW:REF	117
MANU1:DCW:ARCCurrent	117
MANU1:IR:VOLTage	118
MANU1:IR:RHISet.....	119
MANU1:IR:RLOSet.....	119
MANU1:IR:TTIME	120
MANU1:IR:REF	121
MANU:GB:CUTMode	122
MANU:GB:CURRent	122
MANU:GB:RHISet	123
MANU:GB:RLOSet	123
MANU:GB:VHISet	124
MANU:GB:VLOSet	125
MANU:GB:TTIME	125
MANU:GB:FREQuency	126
MANU:GB:REF.....	126
MANU:GB:ZEROCHECK.....	127

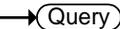
MANU1:UTILity:ARCMode128
 MANU1:UTILity:PASShold.....128
 MANU1:UTILity:FAILmode129
 MANU1:UTILity:MAXHold.....129
 MANU1:UTILity:GROUNDMODE.....130
 MANU<x>:EDIT:SHOW130
 TESTok:RETurn.....131

MANU:STEP



Description	Sets the MANU test number for the GCT-9040.
Syntax	MANU:STEP <NR1>
Query Syntax	MANU:STEP?
Parameter/ Return parameter	<NR1> 0~100.
Example	MANU:STEP 100 Sets the manual test number to 100.

MANU1:STEP

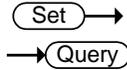


Description	Sets the MANU test number for the slave unit.
Syntax	MANU1:STEP <NR1>
Query Syntax	MANU1:STEP?
Parameter/ Return parameter	<NR1> 0~100.

Example MANU1:STEP 100

Sets the manual test number to 100 for the slave unit.

MANU:NAME



Description Sets or returns the test name for the selected manual test. The test must be in MANU mode before this command can be used.
 Note only alphanumeric characters (A-Z, a-z, 0-9) and the “_” underscore character can be used to set the MANU test name.

Syntax MANU:NAME <string>

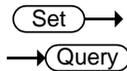
Query Syntax MANU:NAME?

Parameter/Return parameter	<string >	10 character string. (first character must be a letter)
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Example MANU:NAME test1

Sets the manual test name to “test1”.

MANU1:RTIME



Description Sets or returns the Ramp Time for the test in seconds for the slave unit when in LINK mode.

Note: A “TIME ERR” will result if the Ramp Time + Test Time is ≥ 240 seconds when the HI SET limit is over 30mA (GPT-98XX) or over 80mA (GPT-99XX/99XXA). This applies to the ACW function only.

Syntax	MANU1:RTIME <NR2>
Query Syntax	MANU1:RTIME?
Parameter/ Return parameter	<NR2> 0.1~999.9 seconds
Example	MANU1:RTIM 0.5 Sets the ramp time to half a second for the slave unit.

MANU <x>:EDIT:SLAVE? → Query

Description	Returns the test parameters of a manual test for the slave.
Query Syntax	MANU <x>:EDIT:SLAVE?
Parameter/ Return parameter	<x> <NR1> 000~100. Manual test number <string> Returns a string in the following format: > Test function, test voltage, HI SET value, LO SET value, Ramp time, test time.
Example	MANU1:EDIT:SLAV ? > ACW,0.100kV,H=01.00mA,L=00.00mA,R=000.1S, >T=001.0S. Returns the test parameters of manual test number 1.

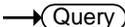
MANU1:EDIT:MODE Set →
→ Query

Description	Sets or returns the mode (ACW, DCW, IR) of the selected manual test for the slave unit when in LINK mode.	
Syntax	MANU1:EDIT:MODE {ACW DCW IR}	
Query Syntax	MANU1:EDIT:MODE?	
Parameter/	ACW	AC Withstand mode
Return	DCW	DC Withstand mode
parameter	IR	Insulation Resistance mode
Example	MANU1:EDIT:MODE ACW Sets the mode to ACW for the slave unit.	

MANU1:ACW:VOLTage

Description	Sets or returns the ACW voltage in kV for the slave unit when in LINK mode. The test must first be in ACW mode before this command can be used.	
Syntax	MANU1:ACW:VOLTage <NR2>	
Query Syntax	MANU1:ACW:VOLTage?	
Parameter/	<NR2>	0.100 ~ 5.000 (kV)
Return		
parameter		
Example	MANU1:ACW:VOLT 1 Sets the ACW voltage to 1 kV for the slave unit.	

 					
MANU1:ACW:CHISet					
Description	Sets or returns the ACW HI SET current value in milliamps for the slave unit when in LINK mode. The test must first be in ACW mode before this command can be used.				
Syntax	MANU1:ACW:CHISet <NR2>				
Query Syntax	MANU1:ACW:CHISet?				
Parameter/Return parameter	<table border="1"> <tr> <td><NR2></td> <td>0.001 ~ 042.0 (GPT-98XX)</td> </tr> <tr> <td></td> <td>0.001 ~ 110.0 (GPT-99XX/99XXA)</td> </tr> </table>	<NR2>	0.001 ~ 042.0 (GPT-98XX)		0.001 ~ 110.0 (GPT-99XX/99XXA)
<NR2>	0.001 ~ 042.0 (GPT-98XX)				
	0.001 ~ 110.0 (GPT-99XX/99XXA)				
Example	<p>MANU1:ACW:CHIS 10.0</p> <p>Sets the ACW HI SET current to 10 mA.</p>				

 	
MANU1:ACW:CLOSet	
Description	<p>Sets or returns the ACW LO SET current value in milliamps for the slave unit when in LINK mode. The LO SET value must be less than the HI SET value. The test must first be in ACW mode before this command can be used.</p> <p>The LO SET range must use the HI SET range. If all the digits in the LO SET range are outside the HI SET range, an error will be produced. All digits outside the HI SET range are ignored and will not be used.</p> <p>For example:</p> <p>HI SET value: 12.34</p> <p>LO SET value1: 0.005 → error</p>

LO SET value2: 0.053 → no error

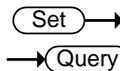
In the example above LO SET value1 will produce an error as all digits are outside the range of HI SET. LO SET value2 will not produce an error, but will return 0.05, not 0.053.

Syntax	MANU1:ACW:CLOSet <NR2>
Query Syntax	MANU1:ACW:CLOSet?
Parameter/Return parameter	<NR2> 0.000 ~ 041.9 (GPT-98XX) 0.000 ~ 109.9 (GPT-99XX/99XXA)

Example MANU1:ACW:CLOS 20.0

Sets the ACW LO SET current to 20 mA for the slave unit.

MANU1:ACW:TTIME



Description Sets or returns the ACW test time in seconds for the slave unit when in LINK mode. The test must first be in ACW mode before this command can be used.

Note: A “TIME ERR” will result if the Ramp Time + Test Time is ≥ 240 seconds when the HI SET limit is over 30mA (GPT-98XX) or over 80mA (GPT-99XX/99XXA). This applies to the ACW function only.

In special MANU mode, the TIMER can be turned off.

Syntax	MANU1:ACW:TTIME {<NR2> OFF}
Query Syntax	MANU1:ACW:TTIME?

Parameter	<NR2> OFF	0.5 ~ 999.9 seconds TIMER OFF (special MANU mode).
Return parameter	<NR2> TIME OFF	0.5 ~ 999.9 seconds TIMER is OFF (special MANU mode).

Example MANU1:ACW:TTIM 1

 Sets the ACW test time to 1 second for the slave unit.

MANU1:ACW:FREQUENCY (Set) →
→ (Query)

Description Sets or returns the ACW test frequency in Hz for the slave unit when in LINK mode. The test must first be in ACW mode before this command can be used.

Syntax MANU1:ACW:FREQUENCY {50|60}

Query Syntax MANU1:ACW:FREQUENCY?

Parameter/	50	50 Hz
Return parameter	60	60 Hz

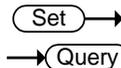
Example MANU1:ACW:FREQ 50

 Sets the ACW test frequency to 50Hz for the slave unit.

MANU1:ACW:REF (Set) →
→ (Query)

Description	<p>Sets or returns the ACW reference value in mA for the slave unit. The test must first be in ACW mode before this command can be used.</p> <p>The ACW reference value must be less than the HI SET value.</p> <p>The ACW reference value must use the same range as the HI SET value.</p>
Syntax	MANU1:ACW:REF <NR2>
Query Syntax	MANU1:ACW:REF?
Parameter/ Return parameter	<p><NR2> 0.000 ~ 041.9 (GPT-98XX)</p> <p>0.000 ~ 109.9 (GPT-99XX/99XXA)</p>
Example	<p>MANU1:ACW:REF 0.01</p> <p>Sets the ACW reference to 0.01 mA for the slave unit.</p>

MANU1:ACW:ARCCurrent

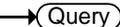


Description	<p>Sets or returns the ACW ARC current value in mA for the slave unit when in LINK mode. ARC must be enabled before the ARC current can be set. The test must first be in ACW mode before this command can be used.</p> <p>ARC current uses the same range as the HI SET value. The ARC current is limited to 2X the HI SET value.</p>
Syntax	MANU1:ACW:ARCCurrent <NR2>
Query Syntax	MANU1:ACW:ARCCurrent?

Parameter/ Return parameter	<NR2>	1.000 ~ 080.0 (GPT-98XX) 2.000 ~ 200.0 (GPT-99XX/99XXA)
Example	MANU1:ACW:ARCC 0.04	
	Sets the ACW ARC value to 0.04 mA for the slave unit.	

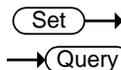
MANU1:DCW:VOLTage		 
Description	<p>Sets or returns the DCW voltage in kV for the slave unit. The test must first be in DCW mode before this command can be used.</p> <p>Note: A “DC Over 50W” error will result if the DCW Voltage X HI SET value is > 50 watts (GPT-98XX).</p> <p>Note: A “DC Over 100W” error will result if the DCW Voltage X HI SET value is > 100 watts (GPT-99XX/99XXA).</p>	

Syntax	MANU1:DCW:VOLTage <NR2>	
Query Syntax	MANU1:DCW:VOLTage?	
Parameter/ Return parameter	<NR2>	0.100 ~ 6.100 (kV)
Example	MANU1:DCW:VOLT 6	
	Sets the DCW voltage to 6 kV for the slave unit.	

MANU1:DCW:CHISet		 
------------------	--	--

Description	Sets or returns the DCW HI SET current value in milliamps for the slave unit when in LINK mode. The test must first be in DCW mode before this command can be used.	
	Note: A “DC Over 50W” error will result if the DCW Voltage X HI SET value is > 50 watts.	
	Note: A “DC Over 100W” error will result if the DCW Voltage X HI SET value is > 100 watts (GPT-99XX/99XXA)	
Syntax	MANU1:DCW:CHISet <NR2>	
Query Syntax	MANU1:DCW:CHISet?	
Parameter/Return parameter	<NR2>	0.001 ~ 011.0 (GPT-98XX) 0.001 ~ 021.0 (GPT-99XX/99XXA)
Example	MANU1:DCW:CHIS 5 Sets the DCW HI SET current to 5mA.	

MANU1:DCW:CLOSet



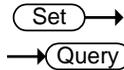
Description	Sets or returns the DCW LO SET current value in milliamps for the slave unit when in LINK mode. The LO SET value must be less than the HI SET value. The test must first be in DCW mode before this command can be used.	
	The LO SET range must use the HI SET range. If all the digits in the LO SET range are outside the HI SET range, an error will be produced. All digits outside the HI SET range are ignored and will not be used.	
	For example:	
	HI SET value: 12.34	

LO SET value1: 0.005 → error
 LO SET value2: 0.053 → no error

In the example above LO SET value1 will produce an error as all digits are outside the range of HI SET. LO SET value2 will not produce an error, but will return 0.05, not 0.053.

Syntax	MANU1:DCW:CLOSet<NR2>
Query Syntax	MANU1:DCW:CLOSet?
Parameter/ Return parameter	<NR2> 0.000 ~ 010.9 (GPT-98XX) 0.000 ~ 020.9 (GPT-99XX/99XXA)
Example	MANU1:DCW:CLOS 2.00 Sets the DCW LO SET current to 2mA for the slave unit.

MANU1:DCW:TTIME

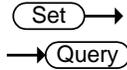


Description	Sets or returns the DCW test time in seconds for the slave unit when in LINK mode. The test must first be in DCW mode before this command can be used. In special MANU mode, the TIMER can be turned off.
Syntax	MANU1:DCW:TTIME {<NR2> OFF}
Query Syntax	MANU1:DCW:TTIME?
Parameter	<NR2> 0.5 ~ 999.9 seconds OFF TIMER OFF (special MANU mode).
Return parameter	<NR2> 0.5 ~ 999.9 seconds TIME OFF TIMER is OFF (special MANU mode).

Example MANU1:DCW:TTIM 1

 Sets the DCW test time to 1 second for the slave unit.

MANU1:DCW:REF



Description Sets or returns the DCW reference value in mA for the slave unit when in LINK mode. The test must first be in DCW mode before this command can be used.

 The reference value must be less than the HI SET value.

 The reference value uses the same range as the HI SET value.

Syntax MANU1:DCW:REF <NR2>

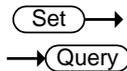
Query Syntax MANU1:DCW:REF?

Parameter/	<NR2>	0.000 ~ 010.9 (GPT-98XX)
Return		0.000 ~ 020.9 (GPT-99XX/99XXA)
parameter		

Example MANU1:DCW:REF 0.01

 Sets the DCW reference to 0.01 mA for the slave unit.

MANU1:DCW:ARCCurrent



Example MANU1:IR:VOLT 1

 Sets the IR voltage to 1 kV for the slave unit.

MANU1:IR:RHISet




Description Sets or returns the IR HI SET resistance value in M Ω (GPT-98XX) or G Ω for the slave unit when in LINK mode. The test must first be in IR mode before this command can be used.

Syntax MANU1:IR:RHISet <NR1>|NULL

Query Syntax MANU1:IR:RHISet?

Parameter/ Return parameter	<NR1>	GPT-98XX only: 2 ~ 9999 (unit = M Ω) GPT-99XX/GPT-99XXA only: Format A: 0.002 ~ 50.00 (unit = G Ω) Format B: 0.002G ~ 50.00G Format C: 2M ~ 50000M
	NULL	Sets the HI SET value to ∞ .

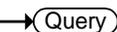
Example MANU1:IR:RHIS 10

(GPT-98XX) Sets the IR HI SET resistance to 10 M Ω for the slave unit.

Example MANU1:IR:RHIS 0.010

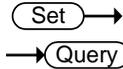
(GPT-99XX/
99XXA) Sets the IR HI SET resistance to 10 M Ω for the slave unit.

MANU1:IR:RLOSet

Description	Sets or returns the IR LO SET resistance value in MΩ (GPT-98XX) or GΩ for the slave unit when in LINK mode. The LO SET value must be less than the HI SET value. The test must first be in IR mode before this command can be used.	
Syntax	MANU1:IR:RLOSet <NR1>	
Query Syntax	MANU1:IR:RLOSet?	
Parameter/ Return parameter	<NR1>	GPT-98XX only: 1 ~ 9999 (unit = MΩ) GPT-99XX/GPT-99XXA only: Format A: 0.001 ~ 50.00 (unit = GΩ) Format B: 0.001G ~ 50.00G Format C: 1M ~ 50000M
Example (GPT-98XX)	MANU1:IR:RLOS 10	Sets the IR LO SET resistance to 10MΩ for the slave unit.
Example (GPT-99XX/ 99XXA)	MANU1:IR:RLOS 0.010	Sets the IR LO SET resistance to 10MΩ for the slave unit.

MANU1:IR:TTIME



Description	Sets or returns the IR test time in seconds for the slave unit when in LINK mode. The test must first be in IR mode before this command can be used.	
Syntax	MANU1:IR:TTIME <NR2>	
Query Syntax	MANU1:IR:TTIME?	

Parameter/ Return parameter	<NR2>	1.0 ~ 999.9 seconds
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Example MANU1:IR:TTIM 1

Sets the IR test time to 1 second for the slave unit.

MANU1:IR:REF



Description Sets or returns the IR reference value in MΩ (GPT-98XX) or GΩ for the slave unit when in LINK mode. The test must first be in IR mode before this command can be used.

The reference value must be lower than the HI SET value.

Syntax MANU1:IR:REF <NR1>

Query Syntax MANU1:IR:REF?

Parameter/ Return parameter	<NR1>	GPT-98XX only: 0000 ~ 9999 (unit = MΩ) GPT-99XX/GPT-99XXA only: Format A: 0 ~ 50.00 (unit = GΩ) Format B: 0G ~ 50.00G Format C: 0M ~ 50000M
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Example MANU1:IR:REF 900
(GPT-98XX)

Sets the IR reference to 900 MΩ for the slave unit.

Example MANU1:IR:REF 0.900
(GPT-99XX/
99XXA)

Sets the IR reference to 900 MΩ for the slave unit.

MANU:GB:CUTMode

Set →
 → Query

Description	Sets or returns the cutoff mode as resistance or voltage. The cutoff mode determines whether pass or fail testing is judged on resistance or voltage limits. This is equivalent to the front panel operation of using the PAGE key to select the HI/LO units when in EDIT status (page 40).	
Syntax	MANU:GB:CUTMode { CUT_R CUT_V }	
Query Syntax	MANU:GB:CUTMode?	
Parameter/	CUT_R	Cutoff mode is set to resistance.
Return	CUT_V	Cutoff mode is set to voltage.
parameter		
Example1	MANU:GB:CUTMode CUT_R Sets the cutoff mode to resistance.	
Example2	MANU:GB:CUTMode? >CUT_R The cutoff mode is set as resistance cutoff.	

MANU:GB:CURREnt

Set →
 → Query

Description	Sets or returns the GB current in A. The test must first be in GB mode before this command can be used.	
Syntax	MANU:GB:CURREnt <NR2>	
Query Syntax	MANU:GB:CURREnt?	

Parameter/ Return parameter	<NR2> 3.00~40.00
Example	MANU:GB:CURR 3.00 Sets the GB current to 3.00A.

MANU:GB:RHISet Set → ← Query

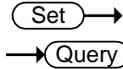
Description	Sets or returns the GB HI SET resistance value in mΩ. The test must first be in GB mode and the cutoff mode must be set to CUT_R (see the MANU:GB:CUTMode command) before this command can be used.
Syntax	MANU:GB:RHISet <NR2>
Query Syntax	MANU:GB:RHISet?
Parameter/ Return parameter	<NR2> 000.1 ~ 650.0
Example	MANU:GB:RHIS 100.0 Sets the HI SET value to 100mΩ.

Note If the (GB current x HI SET resistance) > 7.2V, then an error will be generated ("GB Over").

MANU:GB:RLOSet Set → ← Query

Description	Sets or returns the GB LO SET resistance value in mΩ. The LO SET value must be less than the HI SET value. The test must first be in GB mode and the cutoff mode must be set to CUT_R (see the MANU:GB:CUTMode command) before this command can be used.
Syntax	MANU:GB:RLOSet <NR2>
Query Syntax	MANU:IR:RLOSet?
Parameter/ Return parameter	<NR2> 0.000 ~ 649.9
Example	MANU:GB:RLOS 50 Sets the GB LO SET resistance to 50mΩ.

MANU:GB:VHISet



Description	Sets or returns the GB HI SET voltage value in V. The test must first be in GB mode and the cutoff mode must be set to CUT_V (see the MANU:GB:CUTMode command) before this command can be used.
Syntax	MANU:GB:VHISet <NR2>
Query Syntax	MANU:GB:VHISet?
Parameter/ Return parameter	<NR2> 0.001 ~ 7.200
Example	MANU:GB:VHIS 2.000 Sets the HI SET voltage to 2V.



Note

REF# (V) + HI Set (V) < 7.2V.

MANU:GB:VLOSet

Set →

→ Query

Description	Sets or returns the GB LO SET voltage value in V. The LO SET value must be less than the HI SET value. The test must first be in GB mode and the cutoff mode must be set to CUT_V (see the MANU:GB:CUTMode command) before this command can be used.
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Syntax	MANU:GB:VLOSet <NR2>
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Query Syntax	MANU:GB:VLOSet?
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Parameter/ Return parameter	<NR2> 0.000V ~ 7.199V
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Example	MANU:GB:VLOS 1.000 Sets the GB LO SET voltage to 1V.
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MANU:GB:TTIME

Set →

→ Query

Description	Sets or returns the GB test time in seconds. The test must first be in GB mode before this command can be used.
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Syntax	MANU:GB:TTIME <NR2>
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Query Syntax	MANU:GB:TTIME?
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Parameter/ Return parameter	<NR2> 0.5 ~ 999.9 seconds
-----------------------------------	---------------------------

Example MANU:GB:TTIM 1
 Sets the GB test time to 1 second.

MANU:GB:FREQuency



Description Sets or returns the GB test frequency in Hz. The test must first be in GB mode before this command can be used.

Syntax MANU:GB:FREQuency {50|60}

Query Syntax MANU:GB:FREQuency?

Parameter/	50	50 Hz
Return parameter	60	60 Hz

Example MANU:GB:FREQ 50
 Sets the GB test frequency to 50Hz.

MANU:GB:REF

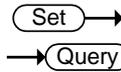


Description Sets or returns the GB reference value in mΩ. The test must first be in GB mode before this command can be used.

The GB reference value must be less than the HI SET value.

Syntax	MANU:GB:REF <NR2>
Query Syntax	MANU:GB:REF?
Parameter/ Return parameter	<NR2> 0.000 ~ 649.9
Example	MANU:GB:REF 100 Sets the GB reference to 100 mΩ.

MANU:GB:ZEROCHECK



Description	Performs the zero check function. The test must first be in GB mode and in the Ready Status before this command can be used. See page 54 or details on the ZERO function.
Syntax	MANU:GB:ZEROCHECK {ON OFF}
Query Syntax	MANU:GB:ZEROCHECK?
Parameter/ Return parameter	ON Zero function is active. OFF Zero function is not active.
Example	MANU:GB:ZEROCHECK OFF Activates the ZERO function.

MANU1:UTILity:ARCMoDe

Set →

→ Query

Description Sets or returns the ARC mode status for the current test of the slave unit when in LINK mode. The ARC mode cannot be set for the IR and GB function.

Syntax MANU1:UTILity:ARCMoDe {OFF|ON_CONT|ON_STOP}

Query Syntax MANU1:UTILity:ARCMoDe?

Parameter/	OFF	Turns ARC mode off.
Return	ON_CONT	Sets ARC mode to ON and CONTINUE.
parameter	ON_STOP	Sets ARC mode to ON and STOP.

Example MANU1:UTIL:ARCM OFF
Turns ARC mode OFF for the slave unit.

MANU1:UTILity:PASShold

Set →

→ Query

Description Sets or returns the PASS HOLD setting for the current test of the slave unit when in LINK mode.

Syntax MANU1:UTILity:PASShold {ON|OFF}

Query Syntax MANU1:UTILity:PASShold?

Parameter/	OFF	Turns PASS HOLD off.
Return	ON	Turns PASS HOLD on.
parameter		

Example MANU1:UTIL:PASS OFF
Turns PASS HOLD OFF for the slave unit.

MANU1:UTILity:FAILmode




Description	Sets or returns the FAIL mode setting for the current test for the slave unit when in LINK mode.	
Syntax	MANU1:UTILity:FAILmode {CONT HOLD STOP}	
Query Syntax	MANU1:UTILity:FAILmode?	
Parameter/	CONT	Sets/returns the fail mode as continue.
Return	HOLD	Sets/returns the fail mode as hold.
parameter	STOP	Sets/returns the fail mode as stop.
Example	<p>MANU1:UTIL:FAIL CONT</p> <p>Sets the fail mode to CONT (continue) for the slave unit.</p>	

MANU1:UTILity:MAXHold




Description	Sets or returns the MAX HOLD setting for the current test for the slave unit when in LINK mode.	
Syntax	MANU1:UTILity:MAXHold {ON OFF}	
Query Syntax	MANU1:UTILity:MAXHold?	
Parameter/	OFF	Turns MAX HOLD off.
Return	ON	Turns MAX HOLD on.
parameter		
Example	<p>MANU1:UTIL:MAXH ON</p> <p>Turns MAX HOLD on for the slave unit.</p>	

MANU1:UTILity:GROUNDMODE

Set →

→ Query

Description Sets or returns the Grounding mode of the current test for the slave unit when in LINK mode.
The Ground Mode setting cannot be turned on with the IR and GB function.

Syntax MANU1:UTILity:GROUNDMODE {ON|OFF}

Query Syntax MANU1:UTILity:GROUNDMODE?

Parameter/ OFF Turns ground mode off.

Return ON Turns ground mode on.

parameter

Example MANU1:UTIL:GROUNDMODE ON

Turns GROUND MODE on for the slave unit.

MANU<x>:EDIT:SHOW

→ Query

Description Returns the test parameters of a selected manual test for the GCT-9040.

Query Syntax MANU<x>:EDIT:SHOW?

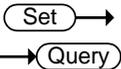
Parameter/ <x> <NR1> 000~100. Manual test number

Return <string> Returns a string in the following format:
parameter Test function, test voltage, HI SET value, LO SET value, Ramp time, test time.

Example MANU1:EDIT:SHOW?

 >GB ,09.14A ,H=598.8m ,L=000.0m ,V=5.473v,
 T=000.5S

 Returns the test parameters of manual test
 number 1.

TESTok:RETurn


Description Allows “OK” to be displayed on the remote
terminal when a test has stopped (PASS/FAIL or
STOP). When used with a slave, “OK” is
displayed after all tested have stopped.

By default, TESTok:RETurn is set to OFF.

Syntax TESTok:RETurn {ON|OFF}

Query Syntax TESTok:RETurn?

Parameter/ Return parameter	ON	Enables the “OK” message to be displayed.
	OFF	Disables the message

Example TEST:RET OFF

 Disables the message.

Common Commands

*CLS.....	132
*IDN	132
*IDN1	132

*CLS → **Set** →

Description	The *CLS command clears the internal registers.
Syntax	*CLS

*IDN → **Query**

Description	Queries the model number, serial number, and firmware version of the tester.	
Query Syntax	*IDN?	
Return parameter	<string >	Returns the instrument identification as a string in the following format: GCT-9040,XXXXXXXXXXXXX,V1.00 Model number : GCT-9040 Serial number :12 character serial number Firmware version : V1.00

*IDN1 → **Query**

Description	Queries the model number, serial number, and firmware version of the slave unit when in LINK mode.
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Query Syntax	*IDN1?	
Return parameter	<string >	Returns the instrument identification as a string in the following format: GPT-9803,XXXXXXXXXXXXX,V1.00 Model number : GPT-9803 Serial number :12 character serial number Firmware version : V1.00

Remote Commands

*RMTOFF134

*RMTOFF Set →

Description This command can be used to terminate a remote session. When this command is used "RMT" will no longer be displayed on the front panel, indicating that remote mode has been terminated.

Syntax *RMTOFF

Special Functions

InterLock Key Open.....134

InterLock Key Open Set →

Description This special function is not a command. When in remote mode, the GCT-9040 will send the message, "InterLock Key Open" if a test is started with INTERLOCK set to ON, but the interlock signal I/O pins are not shorted (either with the included interlock key or manually).

This special function is analogous to the "INTERLOCK OPEN" message that is displayed on the front panel under the same conditions (page 72).

Error Messages

Background The possible error messages returned from SYST:ERR? or SYST1:ERR queries are listed below.

Error	Error Code
Command Error	0x14
Value Setting Error	0x15
String Setting Error	0x16
Query Error	0x17
MODE Setting Error	0x18
Time Error	0x19
DC Over 50W (GPT-98XX only)	0x1A
DC Over 100W (GPT-99XX/99XXA only)	0x1A
GBV Over	0x1B

GCT-9040 Size

