

SPACE-9180

Electrical Safety &

Functionality Test System

Operation manual

ER 1.00

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Chapter 1. INSTALLATION

This instrument control software was designed to provide you with a quick and easy way to utilize when using ESA、ESC、774X、7630、74XX. It offers you complete control of the instrument setups as well as the ability to capture test result & data analysis.

1.1 SYSTEM REQUIREMENTS

- National Instruments GPIB interface card.
- GPIB connection cables.
- Microsoft Windows 9x、2000、XP、Windows NT、Windows 7
- PC with Pentium or AMD Processor (Above 500MHz speed is recommended).
- CD-ROM Drive
- 256MB RAM minimum (512MB recommended).
- 40MB free disk space on you hard drive.

1.2 INSTALLATION PROCEDURE

- 1. Insert the Space-9180 compact disk into your CD-ROM drive.
- 2. Select the Run command from the Start menu.
- 3. Click the browse button and select the CD-ROM drive.
- 4. Double click or run the program called Setup.exe.
- 5. Follow the instruction within the Setup Program window for a complete installation.

Please note: The National Instruments runtime engine will automatically be installed on your system during the installation of Space-9180. You can install National Instruments GPIB Card driver separately before or after install Space-9180 software. Space-9180 will not run without these programs.



- 6. After installation is complete a Space-9180 program group will be created with an icon labeled Space-9180. Click on the icon to run the software.
- 7. When first run the software, then you should go to the Setups System Parameters to set the value of communication parameters & etc.

1.3 Registration

When first to run the software, the following message will display, please contact our company right now, and please provide the Produce Code number, we will give you a set of Registry Code, this number input after registration is completed.

9180	Space-9180 Ver 1.04.00	_ 🗆 🗡
File Window		
9	Registry ×	
eec		
	z38p6aMN5NVXxz-0 Produce Code	
CH2	Registry Code	\CE
		30
and the second s	Cancel Cancel	o Test Software
540		
Constant and		



Chapter 2. MAIN START UP WINDOW



Space-9180 Main Menu Window

Two pull down selection in the menu bar are File and Window. Details are as follows.

2.1 File

The File pull down menu consists of the 3 selections: Login、Logout、Exit。

Login: When the system security is start-up, the system will need to users to login in with an user ID

Logout: When the user wants to Logout, it shall be implement the logout function to ensure the system security.





Exit is the leave SPACE - 9180 system program. When users do not use the SPACE - 9180 system, it should be Exit Space-9180 first, and then shut down the computer.

2.2 Window

The Window pull down menu consists of the 5 selections that will access 5 difference windows that are described below. The window pull down menu is also duplicated on all of the windows that are accessible from the Window menu. Therefore direct access to any one of these windows is available after one of the windows has been selected. Details are as follows.

Setup System: Setup the parameters about the System of S-9180 communication with compture.it's not necessary connect to the Safety tester when user Set these parameters, if you would perform hardware automatic to set system parameters, it need to be connect the instruments.

File Manager: This window is used to manage the setup files. You can work with files stored in the instrument memory or in the PC file.

Setup Test : This window is used to setup and store test parameters as well as recall test setups from exiting files from PC or instrument memory

Perform Tests: This window allows you to initiate and reset tests. You will also be able to monitor result of the test, & can also use barcode scanning to compare product code with current load file & duplicate product serial in the test result file.

Test Results: This window allow you to see actual test results, summary report & graph results by category.



Chapter 3. SETUP SYSTEM

When first run the Space-9180 software, then you should go to this window. The first option on this window is titled "Instrument Configuration". This control allows you to select which instruments you which to control. This control is used to select difference combinations of instruments and system settings to tailor your testing environment for difference situations.

There are 9 tabs on this window that will take you a difference page of system settings. The tabs are labeled; General, Safety, LLT, AC Source, Scanner, Security, Test Setup, File Path, MES System, Please refer to the following sections for description of the parameters on each page.

3.1 General

If you select the tab labeled "General" you will see the settings show below.







• Language English、Traditional Chinese、Simplified Chinese

• Startup Windows

When enter system, Setup Startup windows as following item :

- 1. Main Screen
- 2. Setup System
- 3. File Manager
- 4. Setup Tests
- 5. Perform Tests
- 6. Test Results

• Screen Resolution 800 x 600 and full screen.

If parameter have any change, please save the files before exit, unless the setting parameters will not work

Save process: File→Save or File→ Save & Close



3.2 Safety

9180			Setup	System			- 🗆 🗙
File Window							
File Path		_		MES System			
General	Safety	шт	AC Source	e Scanne	er	Security	Test Setup
✓ Enable/Disat	ble Safety	[RS-232	Safety I/O	Туре	Se	tup
77XX	Safety Type	• (8 Addr	ress 1 10	Address 3	wi	ndow
4	Safety No.	ĺ	9 Addr	ress 2 11	Address 4		
		(1	
7742	77XX Mo	del					
OFF	DUT-HV	Setup					
None	Remote	capper					
	Nemote 2	scanner				Di	
PLC Extend	led						
							naow

3.2.1 Setup windowns

• Safety Type

Select the Safety Model: ESA、77XX、SE 74XX, 7630 and 74XX

• Safety I/O Type

GPIB、RS232 can be selected

Note: it is recommend to use the GPIB interface and it does not appear transmission speed too slow

• Safety No.

Set the number of safety tester, maximum safety is 4 units. Note: Its should be same model

• Address 1 - 4

GPIB address setting for EXTECH-safety that should also match the same address as the setting from the software for successful link control.





Note: if select RS23 interface, the address Settings need to be the same as the COM port.





3.3 Display Windows

When safety tester is (Safety Type) set the model, the column will follow change.

Safety tester (Safety Type) select the ESA, the widow will show as follows

9180			Setup	System				×
File Window								
File Path				MES Sys	stem			
General	Safety	LLT	AC Source	•	Scanner	Security	Test Setup	
ESA 4	Safety Safety Type Safety No.		RS-232	Sa ress 1	afety I/O Type Address 3 Address 4			
ESA-140-	+ 💌 ESA Mod	el	OFF		C Source			
ON	DUT-HV	Setup	HV Channel	• c	ontinuity Scanner			
None	Remote S	Scanner	OFF	▼ E	xternal Output Cha	nnel		
✓ PLC Extend	ded		OFF		C,DC,AC+DC			

• ESA Model

Model have ESA-140、ESA-140+Opt.767、ESA-140+Opt.768、 ESA-140+Opt.769、ESA-150、ESA-150+Opt.767、ESA-150+Opt.768、 ESA-150+Opt.769, Please select the model that have connection

Opt.767 : RUN Opt.768 : RUN + LLT Opt.769 : RUN + LLT + AC Source





• AC Source

Set whether use internal AC source or not. If set ON, then it will be used by ESA' s internal AC source; if set OFF, then it will be used by external AC source DUT-HV Setup

Set the DUT output of back whether there will be a high voltage output.

• Continuity Scanner

Set the Channel of Continuity test is GND channel or HV channel

Remote Scanner

Set system whether there are Remote scanner function .it can be set 8 channel, 16 channel or turn off this function.

• PLC Extended

Through the way of memory recall to control external AC source output voltage and frequency.





Safety tester (Safety Type) select the 74XX, the widow will show as follows

9180			Setup System	m		- 🗆 🗙
File Window						
File Path	-		MES S	System		
General	Safety	ШТ	AC Source	Scanner	Security	Test Setup
✓ Enable/Disal 74xx 4 7410 None DCW 7.5K	safety Type Safety No. 74XX Mo	del Scanner	RS-232 v Address 1 Address 2	Safety I/O Type IO Address 3 II Address 4		

• 74XX Model

Model have 7410 7420 7430 7440 7451 7452 , Please choose the model that have connection

Remote Scanner

Set system whether there is remote scanner function .it can be set 8 channel, 16 channel or turn off this function.

If parameter have any change, please save the files before exit, unless the setting parameters will not work





Safety tester (Safety Type) select the 77XX, the widow will show as follows

9180			Setup	System			- 🗆 X
File Window							
File Path				MES Syste	m		
General	Safety	LLT	AC Source	S	canner	Security	Test Setup
<pre> ✓ Enable/Disabl 77xx 4 7742 OFF None PLC Extend </pre>	e Safety Safety Type Safety No. TYXX Mo TYXX Mo TYXX Mo TYXX Mo Remote S ed	del Setup	RS-232	Safe ess 1 10 ess 2 11	ty I/O Type Address 3 Address 4		

• 77XX Model

Model have 7742、7742 + Opt.736、7742 + Opt.738、7742 + Opt.739, Please select the model that have connection

```
Opt.736 : 8 Channel Scanner
Opt.738 : RUN
Opt.739 : RUN + LLT
```

• DUT-HV Setup

Set the DUT output of back whether there will be a high voltage output.

Remote Scanner

Set system whether there are Remote scanner function .it can be set 8 channel, 16 channel or turn off this function.

• PLC Extended

Through the way of memory recall to control external AC source output





voltage and frequency.

If parameter have any change, please save the files before exit, unless the setting parameters will not work.





3.3 Line Leakage Tester

When system need to connect to Line Leakage tester, it need to setup the touch current tester is Enable or Disable. Please mark ticks (\checkmark), it means this function is ON

9180			Setup Syster	n		- 🗆 🗙
File Window						
File Path			MES S	/stem		
General	Safety	LLT	AC Source	Scanner	Security	Test Setup
✓ Enable/Disa 7630 1 7630	ble LLT ULT Type ULT No. 7630 Mod	del	GPIB	LT I/O Type 14 Address 15 Address int Tester (/4.0KVdc)& (/4.0KVdc)& Module (/6.0KVdc)& RG(40/4)		etup Vindow
	Op Op Op	t 752 — 1 t 754 — 1 t 766 — 1 t 789 — 1	Run Test Function High Measurement R 35mArms/70mApeak AC/DC/AC+DC/ Touc MD module for JIS CS UL544NP,UL1563	ange 8x4MDs h Current Mesurem	ent V	Display Vindow

3.3.1 Setup Window

• LLT Type

Select Line Leakage tester model:7630 and ESC.

• LLT I/O Type

GPIB and RS232 interface selectable

Note: it is recommended to use GPIB interface so that it won't appear the problem of transmission speed too slow.

• LLT No.

Set Line Leakage tester number , maximum is 4 units Note : Need same model





• Address 1 - 4

GPIB address setting for EXTECH-safety that should also match the same address as the setting from the software for successful link control. Note: when select RS-232 interface, the address should be same with COM port.

If parameter have any change, please save the files before exit, unless the setting parameters will not work





3.3.2 Display Window

After LLT type setup the model, This column will follow change

LLT Type select 7630, the widow will show as follows

9190			Setup	System			- 🗆 🗙
File Window							
File Path				MES Sys	tem		
General	Safety	LLT	AC Source		Scanner	Security	Test Setup
▼Enabley®iseble 7630 1 7630	ELLT Type ULT No.	del 77	GPIB 2 Addre 3 Addre 7630 Tour 7630-753 HV GB(4 630-760 HV Link	LL ess 1 1 ess 2 1 ch Current (3.5KVac/ 0.0)Link N (5.0KVac/ Module v	T I/O Type Address Address t Tester 4.0KVdc)& todule 0.0KVdc)&GR(40 v/o Safety Listed	 A) 	
		+ 754	ligh Measure	ment Ran	ige		
		3	5mArms/70n	hApeak&	4MDs		
	Op	ot 766 — A	AC/DC/AC+D	C/ Touch	Current Mesuren	nent	
	Op	ot 789 — M	/ID module fo JL544NP,UL1	or JIS C92: 563	50,		

• 7630 Model

The Model have 7630、7630 + Opt.753、7630 + Opt.760, Please select the model that

have connection

7630: Complete Touch Current Tester

7630 + Opt.753 : 7630 + HV Module, linkable to EXTECH Hipot Testers. This HV module could withstand 3.5KV AC and 3.5KV DC (Max).

7630 + Opt.760 : 7630 + HV Module, linkable to EXTECH Hipot Testers. This HV module could withstand 5KV AC and 6KV DC (Max).

Opt.752: RUN Test

Opt.754: High measurement Range 35mArms / 70mApeak

Opt.789 : MD Module (5MDS) JIS C9250





If parameter have any change, please save the files before exit, unless the setting parameters will not work





3.4 AC Source

If you select the tab labeled "AC Source" you will see the settings show below.

When AC Source is connected, please tick Enable/Disable AC Source in the selection.

9180			Setup	System			- 🗆 🗙
File Window							
File Path				MES Sy	stem		
General	Safety	шт	AC Source		Scanner	Security	Test Setup
Center Content of Con	AC Source AC Source AC Source Source Address ternal Meter	I/O Type Model	iency A	UTO 💽	Auto Range		

• AC Source I/O Type

GPIB、RS232 can be selected

Note: it is recommend to use the GPIB interface and it does not appear transmission speed too slow

- AC Source Model : Select the model that you have connected to AC source
- AC Source Address :

GPIB address setting for AC Source that should also match the same address as the setting from the software for successful link control.





Run Test External Meter : When this selection is ticked, the system will read the measurement values of voltage, current, power, power factor from the AC Source. If it is not ticked, the system will read those measurement values from the Hipot Tester.

Note: if you need a higher resolution, this item can be tick.

• Default Setting : It presets the common values of voltage, frequency and Auto range parameters of AC Source.

If parameter have any change, please save the files before exit, unless the setting parameters will not work



3.5 Scanner

0				Setup	System			
ile Window								
File Path					MES System			
General	Safety		LLT	AC Source	scanner		Security	Test Setup
1 💌	7006 No.							
RS-232	700)6 I/O Type	e					
	Address 1	(m) (0	Slave No	1 x 8	HV Scanner	None	GND Scan	iner
2	Address 2		Slave No	None	HV Scanner	2 x 8	GND Scan	iner
3	Address 3		Slave No	None	HV Scanner	None	GND Scan	iner
4	Address 4		Slave No	None	HV Scanner	None	GND Scan	iner

• 7006 No.

Setup scanner 7006 number, maximum 4 units Master scanner be control

• 7006 I/O Type

GPIB、RS232 can be selected

Note: Recommend using the GPIB interface and it does not appear transmission speed too slow

• Address 1 - 4

GPIB address setting for Scanner that should also match the same address as the setting from the software for successful link control and Not set with Safety, LLT, AC Source addresses conflict.

Note: when select RS-232 interface, the address should be same with COM port.

• Slave No.

Set each Master scanner can connect the salve number, maximum is 4 units



salve

• HV Scanner

Set HV channel number and it can set be 1*8Port and 2*8Port, Please confirm with hardware configuration is the same or not

• GND Scanner

Set GND channel number and it can set be 1*8Port and 2*8Port, Please confirm with hardware configuration is the same or not

If parameter have any change, please save the files before exit, unless the setting parameters will not work Save process: File \rightarrow Save or File) \rightarrow Save & Close



3.6 Security

9180				Setup S	System		- 🗆 🗙		
File	e Wind	w							
Fi	le Path				MES System				
G	eneral	Safety	шт	AC Source	Scanner	Security	Test Setup		
s	□ Securi ecurity Li	ty Mode On st							
	Item	User ID		Secur	ty Level	A			
	1	eec		Full Sy	stem Access				
	2	Andy		Edit S	tups				
	3	Markus		Recall	Setups				
	4	TEST		Run O	nly				
	<u> </u>								
	L					×			
	Delete User Add User								

• Security Mode On

When checked, namely into the security mode. When entering this system, the user needs to do the login action to execute the program.

Security List : this system has been set by the user name and access.

Item	User ID	Security Level
1	EXTECH	Full System Access
2	EEC1	Edit Setups
3	EEC2	Recall Setups
4	EEC3	Run Only

• Delete User

Select the User name and press the "Delete User" Delete selected User.





• Add User

Click on the "Add User", namely add the new User name.

Click on the "Add User", the display will show as below

D Add User	
User ID	
Password	
Password Con	firmation
Full System Access 🕤 Security Leve	
Cancel	OK OK

- User ID
- Password
- Password Confirmation
- Security Level
 - 1. Full System Access : the user has full access level to all function
 - 2. Edit Setups : the user can edit test parameters
 - 3. Recall Setups : the user can recall files and perform run test
 - 4. Run Only : The user can only initiate run test.

NOTE: if the system be used first time and in order to turn on the Security Mode, be sure that Security Level must have at least one Full System Access of User ID, and then others access will be permissions.

If parameter have any change, please save the files before exit, unless the setting parameters will not work



3.7 Test Setup

💷 Setup System 🗕 🗆 🗙									
File Window									
File Path	e Path				MES System				
General	Safety	ШТ	AC Source		Scanner	Security	Test Setup		
Fail Stop Data Save Fail Auto Sav Continuous Product Cod Product Seri O O O Disable Checc Inone Te: Inone Re	Disable e fest al compare Days Che k Interlock st Key ←	e Check Offset Da ck Set Test Key Set Reset Key	ata						

• Fail Stop

This feature is mainly used for multiple test steps are connected into a test program. Tick this function, the TEST will stop testing when there is a test step of DUT is failure, if has not completed the TEST steps, intends to continue to finish the TEST, you can again according to the TEST switch, the TEST program will continue to carry out the unfinished TEST steps. If you press the RESET switch, and then according to the TEST switch, the TEST program will return to the first step, start testing; if not check this function, no matter whether failed in the test procedure steps, the program will continue to test on, until the entire test program is finished.

• Save Data

Whether the archive set test result. Check this function, the test result data will be stored.

• Fail Auto Save

Setting when test to the bad product and whether the test result is save or not.



Check this function, the bad product test results will be save

• Continuous Test

This function for the loop test, such as setting 4 test steps, system will be in accordance with the test step 1 and step 2, step 3 and step 4 back to test step 1, infinite loop testing, until the RESET will stop.

• Product Serial

If open this function in Perform Tests, after press the TEST, there will be pop up message window requires user input product serial number, after the completion of the input and it will Perform the TEST; If shut down this function in Perform Tests, it will immediately perform after the press TEST.

• Product Code

If open this function in Perform Tests, after press the TEST, there will be pop up message window requires user input Product Code after the completion of the input and it will perform the TEST; If shut down this function in Perform Tests, it will immediately perform after the press TEST.

• First Fields

After the Product Serial and Product Code both are open, this feature can be set, the field has a Code and the Serial two options, if choose Code, then when entering the test frame, system will ask the user to scan Code first and then the Serial number; If choose the Serial, when entering the test frame, system will ask the user to scan the Serial first, then sweep Code

If the Product Serial or the Product Code of scanning function is open, after the test is over, the screen will display scan window again, waiting for user input bar Code, the system will automatically execute the test after input the number.

• Interlock (Disable Check Interlock)





Before perform test, the system will detect the signal of Interlock, each time detection takes 100 ms,

If you will not remove the Interlock in the testing process ,this feature can be closed (tick), it can save the time you ask every time

If parameter have any change, please save the files before exit, unless the setting parameters will not work



3.8 File Path

File Window General Safety File Path Safety File CAProgram Files (x8) Safety File CAProgram Files (x8)	/ LLT 5)\Space-9180\Setup Da	AC Source ME	Scanner S System	Security	Test Setup
General Safet File Path	y LLT 5)\Space-9180\Setup Da	AC Source ME	Scanner S System	Security	Test Setup
File Path	5)\Space-9180\Setup Da	ME	S System		
۹ C:\Program Files (x8	5)\Space-9180\Setup Da	ata			
ြို့ C:\Program Files (x8	5)\Space-9180\BackUp [Data		Setup Data Path Auto File Path BackUp Data Path	

• Setup Data Path

Select test parameters data file path.

- Test Data Path Select test date data file path.
- Auto File Path

When entering the Perform Tests, the system will automatically load the specified test parameters file.

Note: when Security function is ON, before the Run Only identity login, the manager Full System Access identity must set this option. Because when the user of Run only login, it goes straight to the test frames, other options can't operate.

If parameter have any change, please save the files before exit, unless the setting parameters will not work







3.9 MES System

9180			Setup Sy	/stem		- 🗆 X
File Window						
General	Safety	LLT	AC Source	Scanner	Security	Test Setup
File Path			М	ES System		
				_		
Non	e 💽 MES	Туре	None	IO Card		

• MES Type

Select MES system。

• IO Card

PCI-7230 and PCI-1761 can be selection

Note: this function should be provided by the customer, it can be to connect after revised.

If parameter have any change, please save the files before exit, unless the setting parameters will not work



Chapter 4. File Manager

File Window Setup Data Path C:\Program Files (x86)\Space-9180\Setup Data File List Image: Save As T1 T1 TEST Image: Save As Image: Save As Image: Save As <t< th=""><th>9180</th><th>File M</th><th>anager</th><th>- 🗆 🗙</th></t<>	9180	File M	anager	- 🗆 🗙
Setup Data Path <pre> C\Program Files (x86)\Space-9180\Setup Data </pre> Ti Ti Ti Ti Ti Ti Ti Ti Testi Code Delete Edit 74xx	File Window			
C:\Program Files (x86)\Space-9180\Setup Data File List T1 TEST TEST1 C Edit ESA C Edit SE C Edit 770X C Edit 740X	Setup Data Path			
File List T1 TEST TEST1 Image: Control of the state of the	& C:\Program Files (x86)\Space-9180\Setup Data			
Ti Ti TEST Image: Save As TEST1 Image: Save As Image: Save As Image: Save As Imad	File List			
TEST TEST TEST1		<u>^</u>		
TEST1 Image: Control of the second secon	TEST	- 1	Save As	Edit ESA
Image: Sector of the secto	TEST1		Rename	Edit SE
□ □				
Edit 74∞ Edit 74∞ Edit 74∞ Edit 74∞			Delete	Edit 77XX
Edit 7403		- 1		
Load 9120 Step				Edit 74XX
Load 9120 Step				
Load 9120 Step		- 1		
Load 9120 Step				
Load 9120 Step				
Load 9120 Step		_		
		-	🔶 Load 9120 Step	
Load 9170 Step		_	📀 Load 9170 Step	
· · · · · · · · · · · · · · · · · · ·	L	~		

• Setup Data Path

Test parameter file access path

• File List

The file name set by users

• Save As

After click a file in the File List, click saves as, then a new File can be stored into the specified File name.

Rename

After click on a File in the File list, Click rename this File can be changed to other names.

• Delete

After click on a File in the File list, After click on a File in the File list, Click





Delete ,then this file can be delete.

• Load 9120 Step

If you use SPACE - 9120 before and set the related parameters in the computer, you can use this function to load parameters into SPACE - 9180 format, the user does not need to set parameters again.

Operate Steps

1. After Click on the Load 9120 Step, shown as follows

1	File Manager –	• ×
ile Window		
Setup Data Path		
C:\Program Files (x86)\Space-9180\Setup E	Data	
File List		
T1 TEST	Save As	A
TEST1	Rename Contraction Edit S	E
	Delete Edit 77	xx
	Edit 743	xx
	Load 9120 Step	
	📀 Load 9170 Step	
	· ·	

2. Click below location, then choose file path.

9180	Select 9120 step path	
	9120 Data Path	
	Output Data Path	
	C:\Program Files (x86)\Space-9180\Setup Data	
	Select 9120 step file or folder OK OK	





3. To determine the file path, and then press the confirmation key press open.






Chapter 5.Setup Test

Setup Test can let users set the parameters of the test data, and organize test sequence of steps.

9180	Setup Test		- 🗆 🗙
File Window			
Open 📄	File Path	Safety No.	DUT No.
Save	9		
ACW			Custom Table
DCW	Step List	Parameter List	
IR	Item Type Parameter	^	^
GND			
CONT			
шт	Test item		
DualCHEK(ACW)			
DualCHEK(DCW)			
AC SOURCE			
Custom Command			
PROMPT			~

• File path

Store the path of the test parameters.

• Safety No.

Set the number of Hipot tester, range: 0-4

• DUT No.

Set the number of DUT, range: 1-4

• Open

Open the parameters of the stored file and edit.



• Save

Save the file of edited

Note: save the file name is the the string of Product Code. If products need to scan the Product Code to be tested, please named the file name directly to the Product Code of the string when set a test parameter file, and Convenient to the subsequent setting and testing.

• Step List

Show the test item of every step

If you need to modify the test steps that have been established, please move the cursor to the testing step, and double-click the left of mouse, the system will open the editor window for this test step, modified and press OK, which can finish the modification.

If you want to change the sequence of the test steps, please move the cursor to the testing step, click and drag the mouse to change and let go of then the change is completed.

If you want to delete the test steps that have been established, please move the cursor to the testing step, click and drag to Step List field outside the area, let go of the left; Or click to Delete the test steps, press the Delete key on the keyboard, the system will ask whether you want to Delete this test step, if you would like to Delete please click OK.

• Parameter List

Click on any test steps of Step List, this field will display detail information of the testing steps.

If the parameters setting, move the cursor to the Step List to select a test Step, the following figure, will showed a full set of parameters in the Parameter List.



l			Setup Test		-	
ile Window						
Open Open	File Path			Safety No.	DUT No.	
Save Save	2					
ACW					Custom	Table
DCW	Step List			Parameter List		
	Item	Ivne	Parameter	ACW		^
IR	1	ACW	1240\/	Voltage (V)	1240	
			10.00mA	High Limit-Tot	al (mA) 10.00	
GND			0.000mA	Low Limit-Tota	al (mA) 0.000	
			1.0s	Ramp Up Time	e 0.1	
CONT	2	DCW	12001/	Dwell Time	1.0	
			10000uA	Ramp Down T	ime 0.0	
			1.0c	Arc Sense	5	
	3	IR	5001/	High Limit-Rea	al (mA) 10.00	
LLT		ii v	0.00MOhm	Low Limit-Rea	l (mA) 0.000	
			0.05MOhm	Frequency	60Hz	
DualCHEK(ACW)			0.5s	Arc Detect	Off	
	4	GND	25.00A	Continuity	Off	
DualCHEK(DCW)			100mOhm	DUT Output	Off	
			1.0s	Offset (mA)	S 1,D 1= 0.00	0
AC SOURCE						_
Custom Command						
PROMPT						



5.1 ESA series

5.1.1 ACW

9180	ACW	- 🗆 🗡
File Window O O O O O O O O O O O O O O O O O O O	ACW Settings 1240 Voltage (V) 10.00 High Limit-Total (mA) 10.00 High Limit-Real (mA) OFF Arc Detect	tom Table
DCV IR GNI CON	0.000 Low Limit-Total (mA) 0.000 Low Limit-Real (mA) 0.1 Ramp Up Time Offset (mA) OFF • Continuity 1.0 Dwell Time DUT Offset (mA) OFF • DUT Output 0.0 Ramp Down Time Arc Sense Auto Edit	
DualCHEK DualCHEK AC SOU	Scanner Settings Prompt 7006 Scanner	
Custom Co PROM	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	v

Voltage : output voltage setting

High Limit-Total : total leakage of high limit setting

Low Limit-Total : total leakage of low limit setting

Ramp Up Time : Ramp up time setting Dwell Time : Test time setting

Ramp Down Time : Ramp down time setting

Arc Sense : Arc Detect level setting High Limit-Real : Real leakage of high limit setting

Low Limit- Real : Real leakage of low limit setting

Offset : offset value setting

Auto : Automatic perform offset leakage value

Edit : Manually input offset leakage value

Range : the scope of the parameters setting

Frequency : setup output frequency Arc Detect : Setup Arc Detect mode Continuity : setup continuity test DUT Output : DUT Output : L,N output of DUT of rear panel setting Scanner Settings : Setup Scanner channel

Prompt : Prompt information function



DUT	Offset	
S1,D1	0.000	
		v

Above column S1, D1 field is mean the offset Value of the leakage current between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.



5.1.2 DCW

9180	DCW	- 🗆 🛛
File Window	DCW Settings Charge-LO (uA) Voltage (V) DUT Charge-LO 10000 High Limit (uA) DUT Charge-LO 0.0 Low Limit (uA) Auto Edit OFF • Arc Detect 0.4 Ramp Up Time Offset (uA) OFF • Continuity 0.0 Ramp Down Time DUT Offset OFF • DUT Output 5 Arc Sense Auto Edit OFF • DUT Output	stom Table
DualCHE	Scanner Settings Prompt	
AC SOL	7006 Scanner	
PRON	Cancel V OK	v

Voltage : output voltage setting	Offset : offset value setting
High Limit : leakage of high	Auto:Automatic perform offset leakage
limit setting	value
Low Limit : leakage of low	Edit : Manually input offset leakage
limit setting	value Range : the scope of the
Ramp Up Time: Ramp up time setting	parameters setting
Dwell Time : Test time setting	Ramp-HI : Setup Ramp-hi mode
Ramp Down Time : Ramp down time	Arc Detect : Setup Arc-Detect mode
setting	Continuity : setup continuity test mode
Arc Sense : Arc Detect level Setting	DUT Output : L,N output of DUT of rear
Charge-LO : Charge-LO setting	panel setting
Auto : Automatic setup Charge-LO	Scanner Settings : Setup Scanner
Edit : Manually setup Charge-LO	channel
	Prompt : Prompt information function



DUT	Charge-LO		DUT	Offset	
S1,D1	0.0		S 1,D 1	0.0	
		Ŧ			

Above column S1, D1 field are mean the offset Value of the leakage current and Charge_LO value between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.



5.1.3 IR

980	IR IR X	- 🗆 🗙
File Window	IR Settings 0.0 Ramp Down Time OFF DUT Output 0.00 High Limit (MOhm) Charge-LO (uA) OFF DUT Output 0.05 Low Limit (MOhm) DUT Charge-LO (sharge-LO (sharge-	tom Table
	1.0 Delay Time Auto Edit 30 - 1000V Range	
DualCHEK	Scanner Settings Prompt 7006 Scanner	
AC SOU		
Custom Cor PROMI	Cancel OK	

Voltage : setup output voltage	Charge LO : Charge-LO setting
High Limit : setup IR of High limit	Auto : Automatic setup Charge-LO
Low Limit : setup IR of Low limit	Edit: Manually setup Charge-LO
Ramp Up Time : Ramp up time setting	Range : the scope of the parameters
Dwell Time : Test time setting	setting
Delay Time : Delay time setting	DUT Output : L,N output of DUT of rear
Ramp Down Time : Ramp down time	panel setting
setting	Scanner Settings : Setup Scanner
	channel

Prompt : Prompt information function

DUT	Charge-LO	
S1,D1	0.000	
		-

Above column S1, D1 field are mean Charge_LO value between safety tester 1 (Safety1) and (DUT1), when there connect multi safety tester or DUT at the





same times, this column system will automatically increase the number.





9180	III GND ×	- 🗆 🗡
File Window Op Sa ACW DCW IR GND CONT	GND Settings 60Hz Frequency ESCO Current (A) 0ffset (mOhm) 8.00 Voltage (V) 51,D 1 100 High Limit (mOhm)	om Table
LLT DualCHEK(DualCHEK(AC SOUR Custom Con	Scanner Settings O Channel Selection (0= OFF)	
PROMP		~

Current : setup output current	Auto : Automatic perform offset
Voltage : setup output voltage	value
High Limit : setup impedance of	Edit : Manually input offset value
high limit	Range : the scope of the
Low Limit : setup impedance of low	parameters setting
limit	Frequency : setup output
Dwell Time: Test time setting	frequency
Offset : offset value setting	Scanner Settings : Setup Scanner
	channel
	Prompt : setup prompt
	information function

DUT	Offset	
S1,D1	0	
		×





Above column S1, D1 field are mean the offset Value of test cable between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.





5.1.5 DC Continuity

9180	CONT ×	- 🗆 🗡
File Window	CONT Settings 1000 High Limit (Ohm) 0.00 Low Limit (Ohm) 1.0 Dwell Time Auto Edit	com Table
шт		
DualCHEK(Scanner Settings Prompt	
DualCHEK(7006 Scanner	
AC SOU		
Custom Cor PROMI	Cancel OK	

High Limit : setup impedance of highAuto : Automatic perform offset valuelimitEdit : Manually input offset value

Low Limit : setup impedance of low limit

Range : the scope of the parameters setting

Dwell Time : Test time setting

Offset : offset value setting

Prompt : Prompt information function

DUT	Offset	
S1,D1	0.00	

Above column S1, D1 field are mean the offset Value of test cable between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.

After finished setting, please click OK, the system will automatically store the





parameters and exit.



5.1.6 LLT

9180	III LLT	×	- • ×
File Window	LLT Settings	Page 1 Page 2	
0	5000 Leakage-HI (uA)		
Si Si	0.0 Leakage-LO (uA)	CLOSE Neutral	Page 1 Page 2
ACW	125.0 Voltage-HI (V) Offset (uA)	OFF Reverse	
DCW	0.0 Voltage-LO (V) DUT Offset	CLOSE Ground	Extended Meters
IR	0.5 Delay Time	UL544N P Meas. Device	
GND	0.5 Dwell Time		AUTO Ranging Mode
CON	Auto Edit	Ground To Probe	OFF Continuous
		Line	
шт	Range		
DualCHEK	AC Source Settings	Prompt	
DualCHEK	110.0 AC Voltage (V) AUTO Range		
AC SOU	45.0 Frequency (Hz)		
Custom Co			
PROM		Cancel V OK	

Leakage-HI (uA) : Leakage High limit	Neutral : The working state of power
setting	supply of DUT
Leakage-LO (uA) : Leakage low limit	Reverse : The working state of power
setting	supply of DUT
Voltage-HI (V) : Voltage High Limit	Ground : The working state of power
setting	supply of DUT
Voltage-LO (V) : Voltage low Limit	Meas.Device : Human body impedance
setting	setting
Dwell Time : Test time setting	Probe : Test type setting
Delay Time : Delay time setting	Continuous : setup DUT Power
Offset (uA) : Line leakage offset	continuous output
Auto : Automatic perform offset value	Ranging Mode : Automatic shift setting
Edit : Manually input offset value	Range : the scope of the parameters
	setting
	Prompt : Prompt information function

AC Source Settings :

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AC Voltage : output voltage setting Auto Range : Voltage gears setting Frequency : out frequency setting Output N/G : Setup neutral/Ground A-HI : current of high limit setting short or open

OC-Fold : Over current fold Settings



Above column S1, D1 field is mean the offset Value of the line leakage current between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.





5.1.7 DualCHEK (ACW)

1. GND setting : Please refer to 5.1.4 GND setting

9180	DualCHEK(ACW)	- 🗆 🗡
File Window	GND Settings ACW Settings	
	25.00 Current (Å 8.00 Voltage (V) 100 High Limit (mOhm) 0 Low Limit (mOhm)	tom Table
	Dut Offset S 1,D 1 0	
CON.	v	
	Auto Edit	
шт	Range	
DualCHEK	Scanner Settings Prompt	
DualCHEK AC SOU	7006 Scanner	
Custom Co	Channel Selection (0=OFF)	
PROM	Cancel OK	,

2. ACW setting : Please refer to 5.1.1 ACW setting

9180	DualCHEK(ACW)	- 🗆 🛛
File Window	GND Settings ACW Settings	
CON	1240 Voltage (V) 10.00 High Limit-Total (mA) 0.000 Low Limit-Total (mA) 0.000 Low Limit-Total (mA) 0.000 Low Limit-Total (mA) 0.000 Low Limit-Real (mA) 0.1 Ramp Up Time 1.0 DWell Time 0.0 Ramp Down Time 5 Arc Sense	tom Table
LLT	Auto Edit Range	
DualCHEK AC SOU	Scanner Settings Prompt 7006 Scanner 1000 Scanner	
Custom Co	1 8 9 16	
PROM	Cancel OK	、





5.1.8 DualCHEK (DCW)

1. GND setting : Please refer to 5.1.4 GND setting

9180	DualCHEK(DCW)	- 🗆 🛛
File Window Or ACW DCW IR GND CON	GND Settings CW Settings Current (A) 8.00 Voltage (V) 100 High Limit (mOhm) 0 Low Limit (mOhm) 1.0 Dwell Time Auto Edit Range	
DualCHEK DualCHEK AC SOU Custom Co	Scanner Settings 7006 Scanner Channel Selection (0=OFF)	
PROM	Cancel OK	

2. DCW setting : Please refer to 5.1.2 DCW setting

9180	DualCHEK(DCW)	- 🗆 🗡
File Window	GND Settings DCW Settings	
CON	1200 Voltage (V) 10000 High Limit (uA) 0.0 Low Limit (uA) 0.4 Ramp Up Time 1.0 Dwell Time 0.0 Ramp Down Time 5 1.0 0.0 Ramp Down Time	
LLT DualCHEK DualCHEK AC SOU Custom Co PROM	Arc sense Auto Edit Range Scanner Settings 7006 Scanner 1 7006 Scanner 1 8 9 16 Cancel OK	v





5.1.9 AC Source

980	AC Source ×	- 🗆 🗙
File Window	Limit Settings	
<u> </u>	800.00 Voltage-HI (V) 1.00 PF-HI	
Si Si	0.00 Voltage-LO (V) 0.00 PF-LO	tom Table
ACW	4.200 Current-HI (A) 1.0 Delay Time	
DCW	0.000 Current-LO (A) 2.0 Dwell Time	
IR	500.0 Watt-HI (W)	
GND	0.0 Watt-LO (W)	
CON		
	0.00 - 300.00V	
шт		
DualCHEK	AC Source Settings	
DualCHEK	Auto Range	
AC SOU	45.0 Frequency (Hz)	
	0.0 Start Angle (Deg)	
Custom Cor		
PROM	Cancel VC	
PROM		

Voltage-HI (V) : voltage of high limit Power-HI (W) : setup Power of high Voltage-LO (V) : Setup voltage of low limit

limit	Power-LO (W) : setup Power of low
Amp-HI (A) : setup high Leakage	limit
Current	PF-HI : setup Power Factor of high limit
Amp-LO (A) : setup low Leakage	PF-LO : setup Power Factor of low limit
Current	Range : the scope of the parameters
Dwell Time : setup test time	setting
Delay Time : setup delay time	Continuous : setup DUT Power
Leakage-HI (mA) : Setup high line	continuous output
Leakage Current	Prompt : Prompt information function
Leakage -LO (mA) : Setup low line	
Leakage Current	





AC Source Settings :

AC Voltage : output voltage setting Frequency : out frequency setting A-HI : current of high limit setting Auto Range : Voltage gears setting Output N/G : Setup neutral/Ground short or open OC-Fold : Over current fold Settings





5.1.10 Prompt

9180	9180	Prompt	- 🗆 🗡
File Window File Window O O C C C C C C C C C C C		Prompt massage	
DualCHEK DualCHEK AC SOU			
Custom Col		Cancel CA	~

To display information that can be input in this field, when the test to this step, the screen will pop up message window as a reminder.



5.2 74XX Series

5.2.1 ACW

9180	aat ACW	- 🗆 🗡
File Window	ACW Settings Voltage (V) 10.00 High Limit (mA) 0.000 Low Limit (mA) 0.1 Ramp Up Time 1.0 Dwell Time 5 Arc Sense	tom Table
Custom Co PROM	Scanner Settings Prompt Scanner Settings	

Voltage : setup output voltage High Limit : setup leakage of high limit

Low Limit : setup leakage of low limit

Ramp Up Time : setup ramp up time Dwell Time : setup test time

Ramp Down Time : setup ramp down time

Arc Sense : setup Arc Detect level Offset : offset value setting Auto : Automatic perform offset leakage value

Edit : Manually input offset leakage value

Range : the scope of the parameters setting

Frequency : setup output frequency Arc Detect : Setup Arc Detect mode Scanner Settings : Setup Scanner channel

DUT	Offset	
S1,D1	0.000	



Above column S1, D1 field is mean the offset Value of the leakage current between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.





9180	DCW X	- 🗆 🗙
File Window Of ACW DCW IR GND	DCW Settings Voltage (V) Is500 Voltage (V) Is500 High Limit (uA) Image: Image I	tom Table
Custom Cor PROM	Auto Edit Auto Edit Concel Cancel Cancel Concel Concel	

Voltage : setup output voltage High Limit : setup leakage of high limit

Low Limit : setup leakage of low limit

Ramp Up Time : setup ramp up time value

Dwell Time : setup test time

Arc Sense : setup Arc Detect level

Charge-LO : Charge-LO setting

Auto : Automatic charge-LO

Edit : Manually setup Charge-LO Offset : Offset : offset value setting Auto:Automatic perform offset leakage value

Edit : Manually input offset leakage value

Range : the scope of the parameters setting

Ramp-HI : Setup Ramp-hi mode Arc Detect : Setup Arc-Detect mode Scanner Settings : Setup Scanner channel







Above column S1, D1 field are mean the offset Value of the leakage current and Charge_LO value between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.



5.2.3 IR

9180	IR IR	- 🗆 🛛
File Window	IR Settings Voltage (V) High Limit (MOhm) Low Limit (MOhm) Low Limit (MOhm) Jo Low Limit (MOhm) Low Limit (MOhm) Auto Edit	tom Table
	Scanner Settings Prompt	
Custom Cor PROM	1 8 9 16	

Voltage : setup output voltageCharge LO:setup leakage of chargeHigh Limit : setup IR of High limitAuto : Automatic setup leakageLow Limit : setup IR of Low limitcharge LORamp Up Time : setup ramp up timeEdit: Manually input leakage ofDelay Time : setup Delay timecharge_Lo

Charge LO: setup leakage of charge_LO Auto : Automatic setup leakage of charge LO Edit: Manually input leakage of charge_Lo Range : the scope of the parameters setting Scanner Settings : Setup Scanner channel

DUT	Charge-LO	
S1,D1	0.000	
		Ψ.

Above column S1, D1 field are mean Charge_LO value between safety tester 1 (Safety1) and (DUT1), when there connect multi safety tester or DUT at the





same times, this column system will automatically increase the number.





5.2.4 GND (7440、7452 Only)

9180	III GND ×	×
File Window File Window O C C C C C C C C C C C C	GND Settings 60Hz Frequency 8.00 Voltage (V) 0 100 High Limit (mOhm) 0 Low Limit (mOhm) Auto Edit	
Custom Coi PROM	3.00 - 30.00A Range Scanner Settings Prompt 0 • Channel Selection (0=OFF) Image: Cancel Image: Cancel Image: Cancel	

Current : setup output current Auto : Automatic perform offset value Voltage : setup output voltage Edit : Manually input offset value High Limit : setup impedance of high Range : the scope of the parameters limit setting Low Limit : setup impedance of low Frequency : setup output frequency Scanner Settings : Setup Scanner limit Dwell Time : setup test time channel

Offset : Offset : offset value setting

DUT	Offset	
S1,D1	0	
		_
		T

Above column S1, D1 field are mean offset value of test cable between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.









5.2.5 Prompt

9180	III Prompt	× - □ ×
File Window File Window O O S ACW DCW IR GND CON	Prompt massage	tom Table
DualCHEK DualCHEK AC SOU		
Custom Col	Cancel OK	_

To display information that can be input in this field, when the test to this step, the screen will pop up message window as a reminder.



5.3 77XX Series

5.3.1ACW

9180	ACW	×	- 🗆 🗡
File Window	ACW Settings		
0 () () () () () () () () () () () () ()	Voltage (V) 0.0 Ramp Down Time 60H • Frequency		
ACW	High Limit-Total (mA) 5 Arc Sense		tom Table
DCW	0.000 Low Limit-Total (mA) 10.00 High Limit-Real (mA) OFF Continuity		
	0.1 Ramp Up Time 0.000 Low Limit-Real (mA)		
	1.0 Dwell Time		
	0 - 5000V Range		
	Scanner Settings Prompt	1	
Custom Cor			
PROM	Cancel VK		

Voltage : setup output voltage Range : the scope of the parameters High Limit-Total : Total leakage of high setting limit setting Frequency : setup output frequency Low Limit-Total : Total leakage of low Arc Detect : Arc Detect setting Continuity : setup continuity test limit setting Ramp Up Time : Ramp up time setting DUT Output : DUT output of rear Dwell Time : Test time setting panel setting Scanner Settings : Setup Scanner Ramp Down Time : Ramp down time setting channel Prompt : Prompt information Arc Sense : Arc Detect level setting function High Limit-Real : Real leakage of high limit setting Low Limit- Real : Real leakage of low

After finished setting, please click OK, the system will automatically store the

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limit setting



parameters and exit.



5.3.2 DCW

9180 9	DCW	- 🗆 🛛
File Window Or S ACW DCW IR GND CON	DCW Settings Voltage (V) 10000 High Limit (uA) 0.0 Low Limit (uA) 0.4 Ramp Up Time 1.0 Dwell Time 5 Arc Sense Auto OFF • Ramp-HI OFF • Continuity OFF • Continuity	tom Table
Custom Cor PROM	Scanner Settings Scanner Settings Prompt Scancel Cancel CM CM CM CM CM CM CM CM CM C	

Voltage : setup output voltage	Range : the scope of the parameters
High Limit : setup leakage of high	setting
limit	Ramp-HI : Setup Ramp-hi mode
Low Limit : setup leakage of low	Arc Detect : Arc-Detect mode setting
limit	Continuity : setup continuity test mode
Ramp Up Time : setup ramp up time	DUT Output : setup L,N out of DUT of
Dwell Time : setup test time	rear panel
Ramp Down Time : setup ramp down	Scanner Settings : Setup Scanner
time	channel
Arc Sense : Arc Detect level setting	Prompt : Prompt information function
Charge-LO : Charge-LO setting	
Auto : Automatic setup charge-LO	

 DUT
 Charge-LO

 S 1,D 1
 0.0

Edit : Manually setup Charge-LO

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Above column S1, D1 field are mean the offset Value of the leakage current and Charge-LO value between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.



5.3.3IR

9180	II IR	- 🗆 🗙
File Window File Window ACW ACW IR GND CON	IR Settings OFF DUT Output 0.00 High Limit (MOhm) OFF DUT Output 0.05 Low Limit (MOhm) DUT Charge-LO (uA) 0.1 Ramp Up Time 0.000 Image 1.0 Delay Time Auto Edit 0.0 Ramp Down Time Auto Edit	tom Table
Custom Co PROM	Scanner Settings Prompt Scanner Settings 9 9 16 Cancel Concel	v

Voltage : setup output voltageCharge LO : Charge-LO settingHigh Limit : setup IR of High limitAuto : Automatic setup Charge-LOLow Limit : setup IR of Low limitEdit: Manually setup Charge-LORamp Up Time : setup ramp up timeRange : the scope of the parametersDelay Time : setup Delay timesettingRamp Down Time : setup Ramp downDUT Output : setup L,N out of DUT oftimerear panelScanner Settings : Setup Scanner

channel

Prompt : Prompt information function

DUT	Charge-LO	A
S1,D1	0.0	
		Ŧ

Above column S1, D1 field are mean the offset Value of the leakage current





and Charge-LO value between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.





9180	III GND X	- 🗆 🗙
File Window	GND Settings Offset (mOhm) 60Hz Frequency 8.00 Voltage (V) Voltage (V) 100 High Limit (mOhm) 0 Low Limit (mOhm) Auto Edit 1.0 Dwell Time 1.00 - 40.00A Range	tom Table
Custom Co PROM	Scanner Settings Channel Selection (0=OFF) Channel Selection (0=OFF) Cancel C	v

Current : setup output current	Auto : Automatic perform offset
Voltage : setup output voltage	value
High Limit : setup impedance of	Edit : Manually input offset value
high limit	Range : the scope of the
Low Limit : setup impedance of low	parameters setting
limit	Frequency : setup output
Dwell Time : Test time setting	frequency
Offset : offset value setting	Scanner Settings : Setup Scanner
	channel
	Prompt : Prompt information
	function

DUT	Offset	
S 1,D 1	0	




Above column S1, D1 field are mean offset value of test cable between safety tester 1 (Safety1) and (DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.





5.3.5DC Continuity

9180	CONT ×	- 🗆 🗙
File Window	Dut Offset 0.00 Low Limit (Ohm) 1.0 Dwell Time Auto Edit	tom Table
CON	0.00 - 10K Ohm 0=OFF Range	
	Scanner Settings Prompt Channel Selection (0=OFF)	
Custom Col	Cancel OK	~

High Limit : setup impedance of
high limitAuto : Automatic perform offset
value Edit : Manually input offsetLow Limit : setup impedance of low valueRange : the scope of the parametersDwell Time : setup test timesetting

Offset : offset value setting

Prompt : Prompt information function

DUT	Offset	
S1,D1	0.00	

Above column S1, D1 field are mean offset value of test cable between safety tester 1 (Safety1) and (DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.





5.3.6Run Test

9180	III RUN X	- 🗆 🗙
File Window	RUN Settings OFF • Continuous 0.0 Voltage-HI (V) 0.00 Leakage-HI (mA) OFF • Continuous 0.0 Voltage-LO (V) 0.00 Leakage-LO (mA) OFF • Continuous 10.00 Amp-HI (A) 1000 Power-HI (W) OFF • Continuous 0.00 Amp-HI (A) 1000 Power-HI (W) OFF • Continuous 0.00 Amp-HI (A) 0 Power-HI (W) OFF • Continuous 0.00 Amp-LO (A) 0 Power-LO (W) OFF • Continuous 0.00 PF-HI 0.000 PF-HI OFF • Continuous	tom Table
Custom Col	O.0 - 277.0V Range AC Source Settings Prompt I10.0 AC Voltage (V) AUTO Auto Range Auto Range 45.0 Frequency (Hz) Image: Cancel Image: OK	

Voltage-HI (V) : Setup voltage of high Power-HI (W) : setup Power of high limit limit Voltage-LO (V) : Setup voltage of low Power-LO (W) : setup Power of low limit limit Amp-HI (A) : setup high Leakage PF-HI : setup Power Factor of high limit PF-LO : setup Power Factor of low limit Current Amp-LO (A) : setup low Leakage Range : the scope of the parameters Current setting Dwell Time : setup test time Continuous : setup DUT Power Delay Time : setup delay time continuous output Prompt : Prompt information function Leakage-HI (mA) : Setup high line Leakage Current Leakage -LO (mA) : Setup low line Leakage Current





AC Source Settings :

AC Voltage : output voltage setting Auto Range : Voltage gears setting Frequency : out frequency setting A-HI : current of high limit setting



5.3.7 LLT

9180	LLT	×	×
File Window O O O O O O O O O O O O O O O O O O O	LLT Settings Leakage-HI (uA) CO Leakage-LO (uA) HIS Voltage-HI (V) CO Voltage-LO (V) Delay Time RMS RMS RMS RMS RMS RMS RMS RMS	CLOSE Reverse CLOSE Ground UL544N Meas. Device Ground Probe	tom Table
Custom Col	AC Source Settings I110.0 AC Voltage (V) AUTO Auto Range I110.0 Frequency (Hz)	Prompt	

Leakage-HI (uA) : Leakage High limit	Neutral : The working state of power
setting	supply of DUT
Leakage-LO (uA) : Leakage low limit	Reverse : The working state of power
setting	supply of DUT
Voltage-HI (V) : Voltage High Limit	Ground : The working state of power
setting	supply of DUT
Voltage-LO (V) : Voltage low Limit	Meas. Device : Human body impedance
setting	setting
Delay Time : Delay time setting	Probe : Test type setting
	Continuous : setup DUT Power
	continuous output
	Ranging Mode : Automatic shift setting
	Range : the scope of the parameters
	setting
	Prompt : Prompt information function



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AC Source Settings :

AC Voltage : output voltage setting Auto Range : Voltage gears setting Frequency : out frequency setting

A-HI : current of high limit setting

DUT	Offset	
S1,D1	0.0	

Above column S1, D1 field is mean the offset Value of the line leakage current between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.





5.3.8 Prompt

9180	9180	Prompt	- 🗆 🗡
File Window File Window O Con IR CON LLT		Prompt massage	tom Table
DualCHEK DualCHEK AC SOU			
Custom Col		Cancel Cancel OK	v

To display information that can be input in this field, when the test to this step, the screen will pop up message window as a reminder.



5.4 LLT : Link 7630 5.4.1 LLT

180	seo LLT	×	- 🗆 ×
File Window	LLT Settings	Page 1 Page 2	
<u> </u>	6000 Leakage-HI (uA)		
Si Si	0.0 Leakage-LO (uA)	CLOSE 💿 Neutral	Page 1 Page 2
	125.0 Voltage-HI (V) Offset (uA)	OFF Reverse	
	0.0 Voltage-LO (V) DUT Offset	CLOSE Ground	OFF Extended Meters
	0.5 Delay Time	UL544N P Meas, Device	
	0.5 Dwell Time		AUTO Ranging Mode
		Ground To Probe	OFF 💽 Continuous
	Auto	Line	
шт	0.0 - 20000uA		
	AC Source Settings	Prompt	
	AUTO Auto Range		
	[45.0] Frequency (Hz)		
Custom Cor			
		Cancel 🖌 OK	
PROM			¥

Leakage-HI (uA) : Leakage High	Neutral : The working state of power
limit	supply of DUT
setting	Reverse : The working state of power
Leakage-LO (uA) : Leakage low limit	supply of DUT
setting	Ground : The working state of power
Voltage-HI (V) : Voltage High Limit	supply of DUT
setting	Device : Human body impedance
Voltage-LO (V) : Voltage low Limit	setting
setting	Probe : Test type setting
Dwell Time : Test time setting	Continuous : setup DUT Power
Delay Time : Delay time setting	continuous output
Offset (uA) : Line leakage offset	Ranging Mode : Automatic shift
Auto : Automatic perform offset	setting
value	Range : the scope of the parameters
Edit : Manually input offset value	setting
	Prompt : Prompt information





function Extened Meter :

AC Source Settings :

AC Voltage : output voltage setting Auto Range : Voltage gears setting Frequency : out frequency setting

A-HI : current of high limit setting

DUT	Offset	
S1,D1	0.0	

Above column S1, D1 field are mean the offset Value of the line leakage current between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.





9180	RUN X	- 🗆 🗡
File Window	RUN Settings	
0	Voltage-HI (V) 10.00 Leakage-HI (mA) OFF Continuous	
Si Si	0.0 Voltage-LO (V) 0.00 Leakage-LO (mA)	tom Table
	10.00 Amp-HI (A) 1000 Power-HI (W)	
	0.00 Amp-LO (A) 0 Power-LO (W)	
	0.5 Dwell Time 1.000 PF-HI	
	0.5 Delay Time 0.000 PF-LO	
RUN	Range	
шт		
	AC Source Settings Prompt	
	AC Voltage (V) AUTO AUTO AUTO AUTO AUTO AUTO Range	
	45.0 Frequency (Hz)	
Custom Col		
PROM	Cancel OK	~

Voltage-HI (V) : Setup voltage of high Power-HI (W) : setup Power of high limit limit Voltage-LO (V) : Setup voltage of low Power-LO (W) : setup Power of low limit limit Amp-HI (A) : setup high Leakage PF-HI : setup Power Factor of high limit PF-LO : setup Power Factor of low limit Current Amp-LO (A) : setup low Leakage Range : the scope of the parameters Current setting Dwell Time : setup test time Continuous : setup DUT Power Delay Time : setup delay time continuous output Leakage-HI (mA) : Setup high line Prompt : Prompt information function Leakage Current Leakage -LO (mA) : Setup low line Leakage Current





AC Source Settings :

AC Voltage : output voltage setting Auto Range : Voltage gears setting Frequency : out frequency setting A-HI : current of high limit setting





5.4.3 Opt.766 AC、DC、AC+DC Touch Current Measurement

9100	ILT LLT	X	- 🗆 ×
File Window	LLT Settings	Page 1 Page 2	
	6000 Leakage-HI (uA) 0.0 Leakage-LO (uA) 125.0 Voltage-HI (V) 0.0 Voltage-LO (V) 0.5 Delay Time 0.5 Dwell Time	CLOSE Neutral OFF Reverse CLOSE Ground UL544N Meas.Device Ground To Probe	Page 1 Page 2 OFF • Extended Meters AC + DC • AC / DC AUTO • Ranging Mode OFF • Continuous
RUN	Auto Edit	Line	
	AC Source Settings	Prompt	
Custom Cor	[45.0]] Frequency (Hz)		
PROM		X Cancel V OK	~

Leakage-HI (uA) : Leakage High limit	Neutral : The working state of power
setting	supply of DUT
Leakage-LO (uA) : Leakage low limit	Reverse : The working state of power
setting	supply of DUT
Voltage-HI (V) : Voltage High Limit	Ground : The working state of power
setting	supply of DUT
Voltage-LO (V) : Voltage low Limit	Meas.Device : Human body impedance
setting	setting
Dwell Time : Test time setting	Probe : Test type setting
Delay Time : Delay time setting	Continuous : setup DUT Power
Offset (uA) : Line leakage offset	continuous output
Auto : Automatic perform offset value	Ranging Mode : Automatic shift setting
Edit : Manually input offset value	Range : the scope of the parameters
	setting
	Prompt : Prompt information function
	Extened Meter :

AC Source Settings :



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AC Voltage : output voltage setting Auto Range : Voltage gears setting Frequency : out frequency setting A-HI : current of high limit setting

DUT	Offset	
S1,D1	0.0	

Above column S1, D1 field are mean the offset Value of the line leakage current between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.

After finished setting, please click OK, the system will automatically store the parameters and exit.

DUT	Offset	
S1,D1	0.0	

Above column S1, D1 field are mean the offset Value of the line leakage current between safety tester 1 (Safety1) and(DUT1), when there connect multi safety tester or DUT at the same times, this column system will automatically increase the number.



5.6 Link Scanner 7006

In the Setup test click test project, in the Scanner Setting you will see 7006 Scanner options

Scanner Settings	
2 x 8 Port Scanner	7006 Scanner
	9

Click to enter 7006 Scanner Settings screen, set the page according to the Scanner to set for configuration. Display as following

9180			Setup	System			- 🗆 🗙
File Window							
File Path				MES Syster	n		
General	Safety	шт	AC Source	e So	anner	Security	Test Setup
1 7	006 No.						
RS-232	7006 I/O Ty	pe					
	ldress 1	Slave No	0. 2 x 8	HV Sc	anner None	GND Scanne	er
2 Ac	idress 2	Slave No	D. None	HV Sc	anner 2 x 8	GND Scanne	er
3 Ac	Idress 3	Slave No	D. None	HV Sc	anner None	GND Scanne	er
4 Ac	ddress 4	Slave No	o. None	HV Sc	anner None	GND Scanne	er





In 7006 Scanner Settings screen configuration is as following

Edit 7006 Scanner

Scanner 1

Master



Please make sure to the hardware device is the same as the setting of 7006

Master and Slave

NOTE: if 7006 all match to 16 HV channel, the user can set each individual channel state; Master 7006 with 8 High Voltage channel module and 8 High Current module





Chapter 6 Perform Tests

Perform test: This is that allows users to perform test. When the user want to perform test, users need to choose the function table File, click open and load the parameter Settings File.

9180					Perform Te	ests			- 🗆 🗙
File	Window								
	2015/07/16 14:32:40		ESA Product Code 0% Product SN Pass Fail User ID 0 0						Â
Ite	m Type	Status	Test Time	Meter 1	Meter 2	Meter 3	Meter 4	Meter 5 🔺	
√ √	2 IR								Safety 1 DUT 1
Ŀ									
Ŀ									
E									
		Pro	npt inf	forma	tion		Те	st Key	
	Rea	dy			✓ Da Pr ✓ Fa Sin	ata Save oduct SN il Stop ngle Step	🗌 Auto SI	N TEST	RESET

• Product Code

The file name of load the parameters setting

• Product SN

Manually input the product serial number or through the Barcode to scan.

• User ID

When security to open, the user perform test that need to be done the login action, this column can display the name of the user.





• Tield Rate

The system will calculate the total number of Pass and Fail, and convert tield rate



• DUT1 - DUT4

Arbitrary click on one of the DUTX, it can display the test results of the DUT.

• Save Data

Whether the archive set test result. Check this function, the test result data will be stored. That is same as the instructions of 3.7 Test Setup, Using this function in this picture for quick setting.

Product SN

Set whether it need to input the product serial number, when checked this feature and press the TEST key, system will pop up the serial number windows, the user can input the serial number of UUT





Safety 1 DUT 1
Cancel V OK

• Auto SN

When set start and end serial number, the serial number will be automatically add 1, the user can continue to perform test and don' t need to input the serial number again. Open this function and shown as following

💷 Auto SN Set.vi	X
[[]	Command
start	
End	
Long	
01→10	
	Cancel OK

Start : Set the starting serial number



End : Set the end of the serial number Long : Set the serial number string length

• Fail Stop

This feature is mainly used for multiple test steps are connected into a test program. Check this function, the TEST program will stop testing on this step when the step is fail , if has not completed the TEST steps, intends to continue to finish the TEST, you can press TEST switch, the TEST program will continue to carry out the unfinished TEST steps. If you press the RESET switch, and then press the TEST switch, the TEST program will return to the first step, start testing; if not check this function, no matter whether failed in the test procedure steps, the test program will continue to test, until the entire test program is finished. That is same as instructions of 3.7 Test Setup, this function in this picture is as quick setting

• Single Step

When carry out the test step connection, the first step is finished, the system will automatically connect the next test step; when start the function, the first step is finished, and then press the TEST switch; it will perform the next TEST step.

The beginning of the test, if Product Serial or Product Code function in the setup system is open, system will open a bar Code input window, allows users to barcode scanning pattern or by keyboard input.

System to prevent DUT model error, cause test misjudgment, even DUT damaged, when setup system to input the Product Code must be the same as the setting of Product Code, the system will allow users to perform test.



Chapter 7 Test Results

7.1 Search

9180				Test Results			-	
File	Window							
Sea	arch	Summary Data	Test Data	X-Chart	Pareto Ch	art		
[C:\Progran	n Files (x86)\Space-918	0∖Setup Data				Test Data Path Product Code	
	Time Start	PASS	Time Stop	Time Filt Result F SN Filter	er ilter	Search		
l							J	

Enter the test results window, first select data search page (Search) function, and choose test data path and product code, and setup test results data search conditions (Filter). Test results data can be in accordance with the following three ways to search;

Dates Filter : Set the start and end dates, the system in accordance with the test date to look for information.

Result Filter : System in accordance with the test results (PASS or FAIL) to look for information.

Serial Number Filter : System in accordance with the product serial number to look for test results data.

Only need to ticks on the condition of the check box, system will search out the test results by the conditions and do statistical analysis. After the





completion of the search data conditions, according to the Search button (Search) and search data. When message prompt test data search is complete, and enter the next page function to perform statistical analysis.



7.2 Summary Data

indow					
Summary	Data	Test Data	X-Chart	Pareto Chart	
19 Total of data	a search				
19 Total of data	a pass				
Total of dat	a fail				
100.00% Yield					
Date Time	Pass / Fail	User ID	Product Code	Product SN	
Date Time 2014/6/23上午 10:10:06	Pass / Fail Pass	User ID	Product Code 7440-TEST	Product SN	
Date Time 2014/6/23上午 10:10:06 2014/6/23上午 10:10:26	Pass / Fail Pass Pass	User ID	Product Code 7440-TEST 7440-TEST	Product SN	
Date Time 2014/6/23上午 10:10:06 2014/6/23上午 10:10:26 2014/6/23上午 10:11:24	Pass / Fail Pass Pass Pass	User ID	Product Code 7440-TEST 7440-TEST 7440-TEST	Product SN 00111	
Date Time 2014/6/23上午 10:10:06 2014/6/23上午 10:10:26 2014/6/23上午 10:11:24 2014/6/23上午 10:17:45	Pass / Fail Pass Pass Pass Pass Pass	User ID	Product Code 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST	Product SN 00111	
Date Time 2014/6/23上午 10:10:06 2014/6/23上午 10:10:26 2014/6/23上午 10:11:24 2014/6/23上午 10:17:45 2014/6/23上午 10:18:36	Pass / Fail Pass Pass Pass Pass Pass Pass Pass	User ID	Product Code 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST	Product SN 00111	
Date Time 2014/5/23上午 10:10:06 2014/5/23上午 10:10:26 2014/5/23上午 10:11:24 2014/5/23上午 10:17:45 2014/5/23上午 10:18:32	Pass / Fail Pass	User ID	Product Code 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST	Product SN 00111 1 2	
Date Time 2014/6/23上午 10:10:06 2014/6/23上午 10:10:26 2014/6/23上午 10:11:24 2014/6/23上午 10:17:45 2014/6/23上午 10:18:42 2014/6/23上午 10:18:48	Pass / Fail Pass	User ID	Product Code 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST 7440-TEST	Product SN 00111 1 2 3	
Date Time 2014/6/23上午 10:10:06 2014/6/23上午 10:10:26 2014/6/23上午 10:11:24 2014/6/23上午 10:17:45 2014/6/23上午 10:18:36 2014/6/23上午 10:18:42 2014/6/23上午 10:18:54	Pass / Fail Pass Pass Pass Pass Pass Pass Pass Pas	User ID	Product Code 7440-TEST	Product SN 00111 1 2 3 4	
Date Time 2014/6/23上午10:10:06 2014/6/23上午10:10:26 2014/6/23上午10:11:24 2014/6/23上午10:17:45 2014/6/23上午10:18:42 2014/6/23上午10:18:48 2014/6/23上午10:18:48 2014/6/23上午10:18:54	Pass / Fail Pass Pass Pass Pass Pass Pass Pass Pas	User ID	Product Code 7440-TEST	Product SN 00111 1 2 3 4 5	
Date Time 2014/6/23上午 10:10:06 2014/6/23上午 10:10:26 2014/6/23上午 10:11:24 2014/6/23上午 10:17:45 2014/6/23上午 10:18:36 2014/6/23上午 10:18:48 2014/6/23上午 10:18:54 2014/6/23上午 10:19:00	Pass / Fail Pass Pass Pass Pass Pass Pass Pass Pas	User ID	Product Code 7440-TEST	Product SM 00111 1 2 3 4 5 6	
Date Time 2014/6/23上午 10:10:06 2014/6/23上午 10:10:26 2014/6/23上午 10:11:24 2014/6/23上午 10:18:36 2014/6/23上午 10:18:42 2014/6/23上午 10:18:44 2014/6/23上午 10:18:54 2014/6/23上午 10:19:00 2014/6/23上午 10:19:00 2014/6/23上午 10:19:12	Pass / Fail Pass Pass Pass Pass Pass Pass Pass Pas	User ID	Product Code 7440-TEST	Product SN 00111 1 2 3 4 5 6 7	
Date Time 2014/6/23上午 10:10:06 2014/6/23上午 10:10:26 2014/6/23上午 10:11:24 2014/6/23上午 10:17:45 2014/6/23上午 10:18:42 2014/6/23上午 10:18:42 2014/6/23上午 10:18:54 2014/6/23上午 10:19:00 2014/6/23上午 10:19:00 2014/6/23上午 10:19:06 2014/6/23上午 10:19:18	Pass / Fail Pass Pass Pass Pass	User ID	Product Code 7440-TEST 7440-TEST	Product SN 00111 2 3 4 5 6 7 8	

Summary data page that display content information, including

Total Of Data Search : The total number of data according to the search conditions.

Total Of Data PASS : The number of Pass in the data

Total Of Data FAIL : The number of Fail in the data

Yield : The rate of total of data pass divide total of data search

If you want to export into excel file from filtered data, please click on the File and then select Export Data



7.3 Test Data

aich		Summary Da	ta Test	Data	X-Chart	Pareto C	Chart	art				
	7440)-TEST	Product Co	le		2014/6/23	Test Date					
	1		Product SN		Ł	午 10:18:36	Test Time	,				
			User ID			Pass	Pass / Fai	Pass / Fail				
Item	Туре	Status	Test Time	Meter 1	Meter 2	Meter 3	Meter 4	Meter 5				
1	ACW	Pass	1.0s	1.20KV	0.001mA							
2	DCW	Pass	1.0s	1.50KV	0.0uA							
		1835	1.05	10004	>>>>>iOun							
			Data of s	Scroll but	ton							
-												

This page display search data, every test results; according to the data of scroll button to switch display each test results details.

If you want to export into excel file from this data, please click on the File and then select Export Data



7.4 X-Chart

According to search out information, its individual values painting on the chart one by one. The cross (X) coordinates is the number of measurement; the vertical (Y) coordinates is measurement data of the instrument, it can be in accordance with different test items to choose parameters.

Te	st Results																							
ile	Window									_				_										
Sear	ch	Su	пшагу	Data		Te	est Da	ita			X-Ch	art			Par	eto C	hart							
	Step	1,ACW		•	Тур	e Of	Test				М	eter 1			•	Me	ler							
ſ	1.32-																							_
	1.30 -																							
	1.28 -																							
	1.26 -																							
	1.24 -																							
	1.22 -																							
	⊵ 1.20 -	••••	•••	•••	•••	••	••	••	••		•••		••	••						•••	•••	•••	•••	•
	1.18-																							
	1.16 -																							
	1.14 -																							
	1.12-																							
	1.10-																							
	1.08-		Ļ	1				1	1	1	1	1	1	1	1	1	1	1	1	, in	1		1	

• Type Of Test : Switch test results that want to display the test item.

ACW	AC Withstand test			
DCW	DC Withstand test			
IR	Insulation Resistance Test			
GND	Ground Bond Test			
RUN	Run Function Test			
LLT	Line Leakage Test			

• Meter: Switch test results that want to display the measurement data of the instrument





	Meter 1	Meter 2	Meter 3	Meter 4	Meter 5
ACW	Voltage (KV)	Leakage (mA)	-	-	-
DCW	Voltage (KV)	Leakage (uA)	-	-	-
IR	Voltage (KV)	Resistance(M Ω)	-	-	-
GND	Current (A)	Resistance(m Ω)	-	-	-
RUN	Voltage (V)	Current (A)	Power(W)	Power	-
				Factor(PF)	
LLT	Voltage (V)	Line	-	-	-
		leakage(uA)			





7.5 Pareto Chart

According to search out information ,using this chart to analyze the failure item for a choice that users as the key to improve the target. Cross (X) coordinates is failure item, according to the number of the fail listed the most failure in the chart on the left, left to right, vertical (Y) coordinates is failure quantity or cumulative percentage.



• Fail Type : Choose bad for cumulative way, you can take < number > accumulated or in percentage < % > to the cumulative way.

