

First Steps...

... with WireXpert

IT Networks

FW 8.xx
Menu structure and operation

Scope of delivery

WireXpert

optimize!
softing

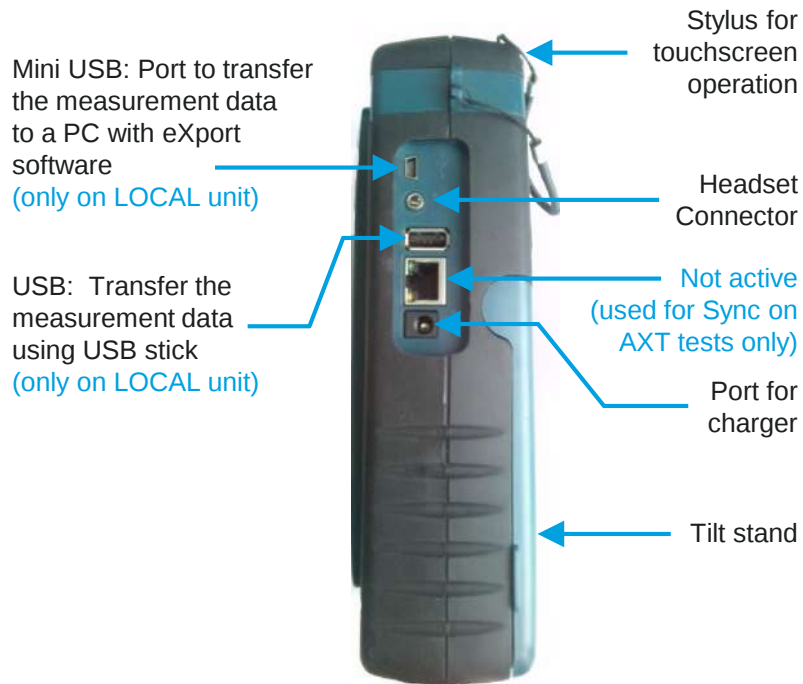
2x	WireXpert 500/4500 handheld devices
2x	Li-Ion batteries
2x	Stylus with cord
2x	Protective covers for LCD screen
2x	CAT 6A/Class E _A Permanent Link Adapter
2x	CAT 6A/Class E _A Permanent Link Test Cord
2x	CAT 6A/Class E _A Channel Adapter
1x	USB stick containing documentation and eXport PC software
2x	Headsets
2x	AC adapters
2x	Country-specific power cords
1x	Calibration Certificate
1x	Soft carrying bag
1x	Quick Start Guide



Connectors and buttons on the device

WireXpert

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Measurement adapters



"PLUG & PLAY" principle

Valid for all WireXpert measurement adapters

Channel adapters
(copper)



Optical fiber adapter
(e.g. multi-mode)



Permanent Link adapter
(copper) plus Test Cords



Starting the WireXpert

WireXpert

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softing

Starting the WireXpert



Start Screen



Connection/
headset symbol
turns red as soon as
the REMOTE and
LOCAL device are
connected to one
another



LOCAL



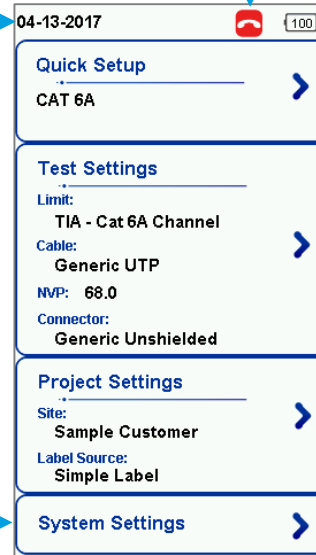
WireXpert

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softing

Activate/
deactivate headset
(tapping on symbol)

Date display

Device
settings



Battery
display

Menu for "rapid
setting/measurement"

Test Settings

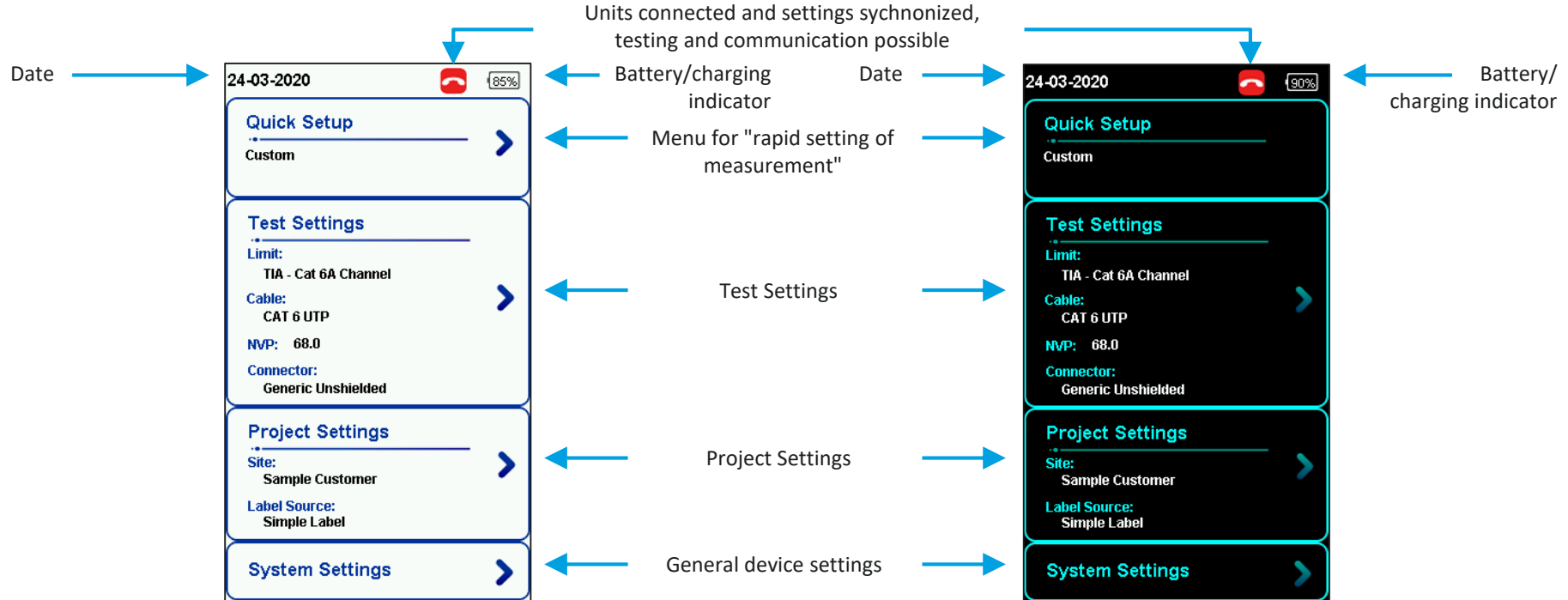
Project Settings

- All measurement settings are made on the LOCAL device and synchronized with the REMOTE device during the first connection
- Some System Settings, such as Language and Audio Settings, can be set individually on both devices.

Start Screen

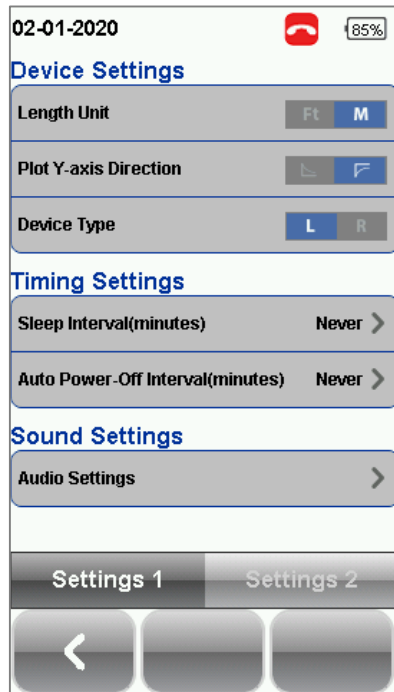
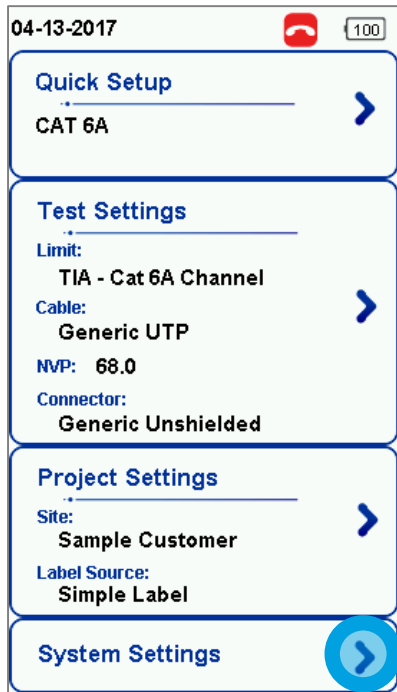
Local

Remote



Device specific settings (Page 1)

Start screen



← Unit of length measurement

← Define graph orientation

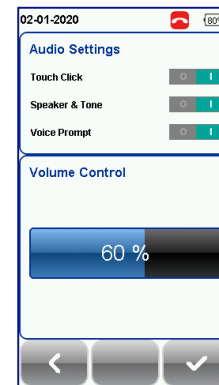
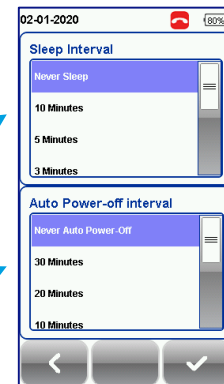
← Defining device type
LOCAL or REMOTE

← Set standby mode
(dark screen)

← Automatic shutdown

← Audio Settings
(individual for LOCAL & REMOTE)

← Settings page
navigation



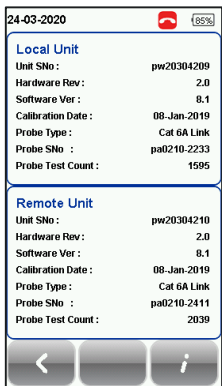
Device specific settings (Page 2)



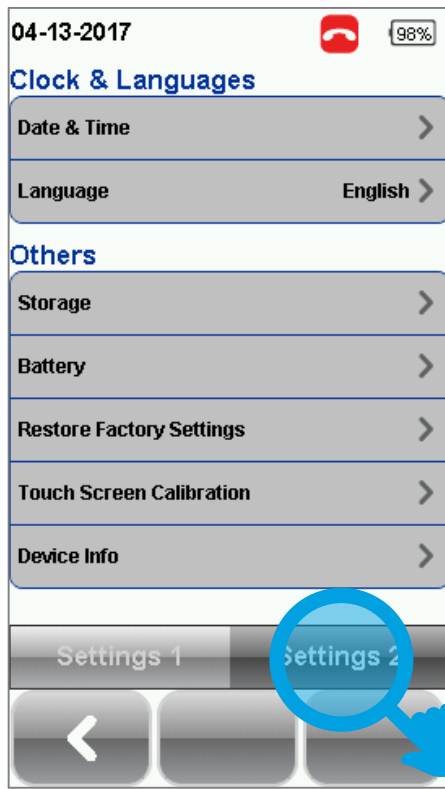
Set date & time



Display battery charge status



General device information



Change system language
Language can be set differently for LOCAL and REMOTE device

Query storage space

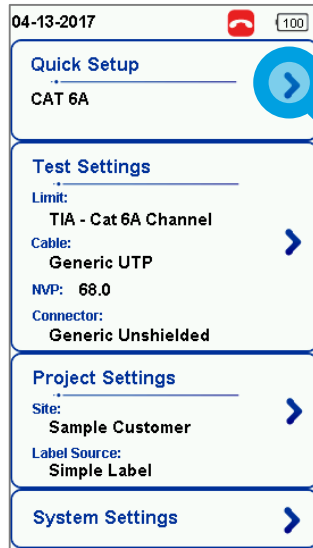
Reset settings to factory default



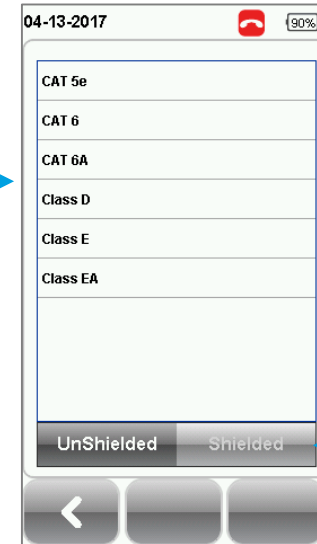
Quick Setup of measurement parameters

Quick Setup

Start screen



Quick selection
of the performance Category/Class of
the cabling system to be measured



Quick selection
of unshielded
or shielded system

INFO:

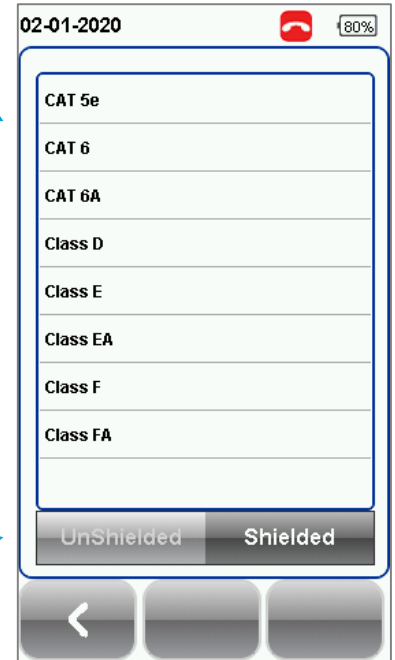
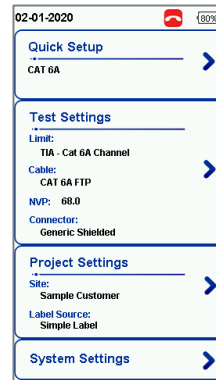
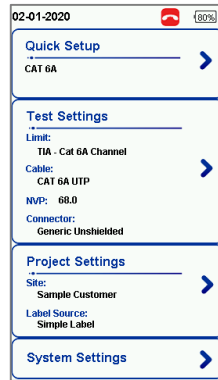
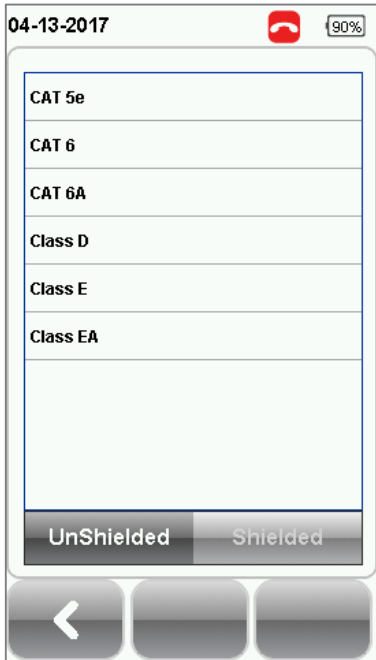
What is the "Quick Setup"?

The "Quick Setup" menu is designed for checking a system or carrying out a repeat measurement. By using the Quick Setup, you have configured the device in seconds for an acceptance measurement.

IMPORTANT: These adjustments can only be carried out from the LOCAL device

Quick Setup

Select Category/Class of measurement and all other settings will be set accordingly based on used type of adapters (here: Channel-Adapter)



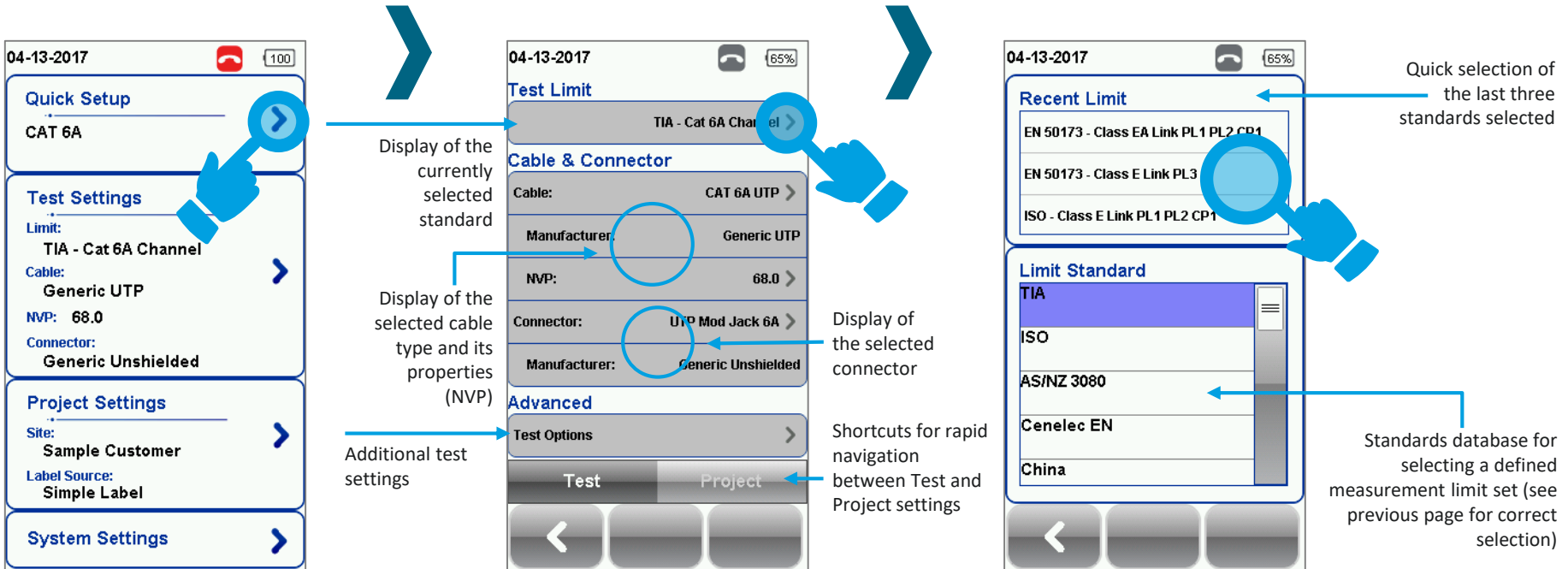
Switching from UnShielded to Shielded system

Overview: Defined standards and their description in the WireXpert / FW version 8.x

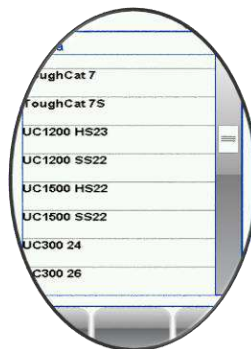
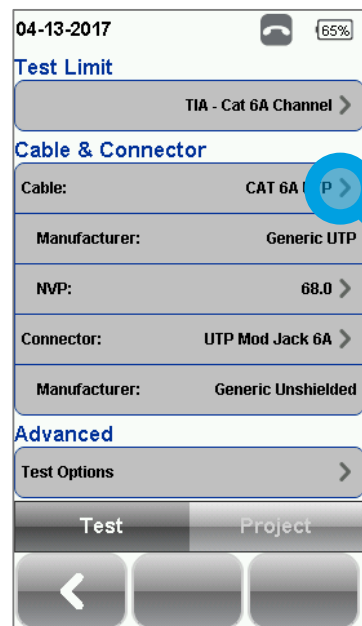
	100 MHz	250 MHz	500 MHz	600 MHz	1000 MHz	1600 MHz	2000 MHz
 USA	ANSI/TIA 568.2-D Category 5e	ANSI/TIA 568.2-D Category 6	ANSI/TIA 568.2-D Category 6A				ANSI/TIA 568.2-D Category 8
Permanent Link	Cat 5e Permanent Link	Cat 6 Permanent Link	Cat 6A Permanent Link TIA TSB-155 Link				Cat 8 Permanent Link
Channel Link	Cat 5e Channel	CAT 6 Channel	Cat 6A Channel TIA TSB-155 Channel				Cat 8 Channel xxAWG
 Inter- national	ISO/IEC11801-1: Class D	ISO/IEC11801-1 Class E	ISO/IEC11801-1 Class E _A	ISO/IEC11801-1 Class F	ISO/IEC11801-1 Class F _A	ISO/IEC11801-1 -9901 (TR) „40G“	ISO/IEC 11801-1 Class I & II
Permanent Link	Class D 2 Connection Link Class D 3 Connection Link	Class E 2 Connection Link Class E 3 Connection Link	Class EA 2 Connection Link Class EA 3 Connection Link TR24750 - Link	Class F 2 Connection Link Class F 3 Connection Link	Class FA 2 Connection Link Class FA 3 Connection Link		Class I Link Class II Link
Channel Link	Class D Channel	Class E Channel	Class EA Channel TR24750 – Channel	Class F Channel	Class FA Channel	TR11801-9901 Channel e TR11801-9901 Channel y	Class I Channel Class II Channel
 Europe	CENELEC EN50173-1 Class D	CENELEC EN50173-1 Class E	CENELEC EN50173-1 Class E _A	CENELEC EN 50173-1 Class F	CENELEC EN50173-1 Class F _A		
Permanent Link	Class D Config A B D Class D Config C	Class E Config A B D Class E Config C	Class EA Config A B D Class EA Config C	Class F Config A B D Class F Config C	Class FA Config A B D Class FA Config C		
Channel Link	Class D Channel	Class E Channel	Class EA Channel	Class F Channel	Class FA Channel		



Selection of Standard



Selection of Cable type

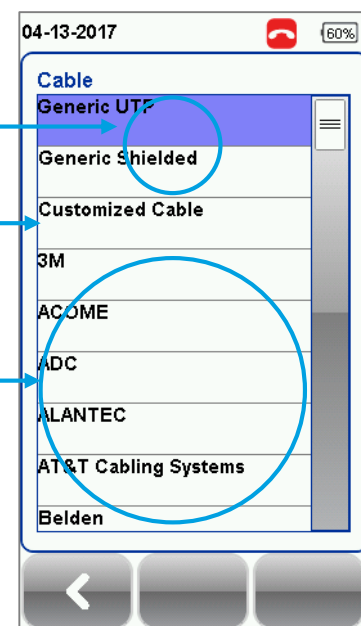


Example:
DRAKA Cables in database

Selecting pre-defined
cable types

Menu for creating your
own cable types

Database
of cable manufacturers for
selecting a cable with stored
NVP value of that cable



Creation of a customer defined cable type

04-13-2017 65%

Test Limit

TIA - Cat 6A Channel >

Cable & Connector

Cable: CAT 6A P >

Manufacturer: Generic UTP

NVP: 68.0 >

Connector: UTP Mod Jack 6A >

Manufacturer: Generic Unshielded

Advanced

Test Options >

Test Project



04-13-2017 60%

Cable

Generic UTP

Generic Shielded

Customized Cable

3M

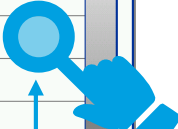
ACOME

ADC

ALANTEC

AT&T Cabling Systems

Belden



Select Customized Cable to create your own cable type

04-13-2017 60%

Custom Cable

Softing Industrial 1P >

Softing Industrial 2P >

Softing Industrial 3P >



Overview of already created own cable types

04-13-2017 60%

Custom Cable

Name

Softing Industrial P

Pair Count

☒ Pair 12 ☐ Pair 45

☐ Pair 36 ☐ Pair 78

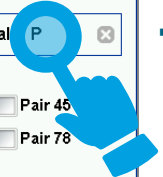
Construction Type

UTP

Performance Grade

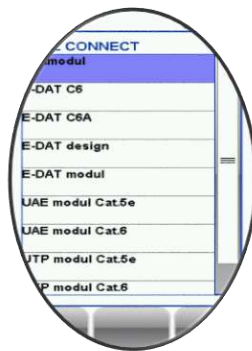
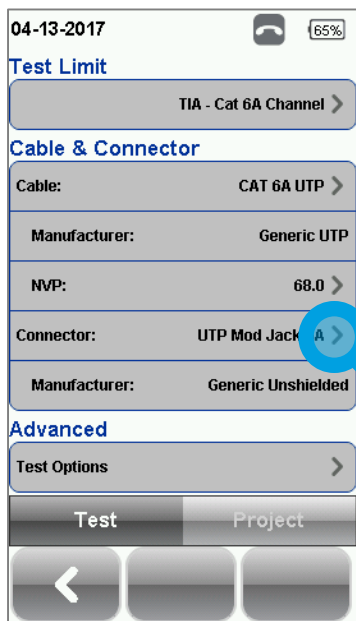
Cat 5e

NVP 68.0 Go Learn NVP



- Enter name (click on the text field in order to open the input keyboard)
- Select wire pairs present
- Select construction and category
- Set/determine NVP value
- Save new cable type

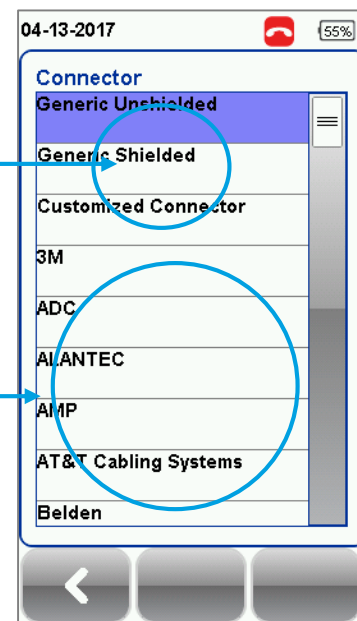
Selection of Connector type



Example:
Extract from
METZconnect database

Select generic connector
types or create your own
connector type

Database with component
manufacturers and stored
connector types of the
manufacturer



Creation of a customer defined connector type

04-13-2017 65%

Test Limit

TIA - Cat 6A Channel >

Cable & Connector

Cable: CAT 6A UTP >

Manufacturer: Generic UTP

NVP: 68.0 >

Connector: UTP Mod Jac 6A >

Manufacturer: Generic Unshielded

Advanced

Test Options >

Test Project

04-13-2017 55%

Connector

Generic Unshielded

Generic Shielded

Customized Connector

3M

ADC

ALANTEC

AMP

AT&T Cabling Systems

Belden

04-13-2017 50%

Custom Connector

Softing Ind. M12D >

Softing Ind. M12X >

04-13-2017 50%

Recent Connector

Name

Softing Ind. M12X

Construction Type

Shielded

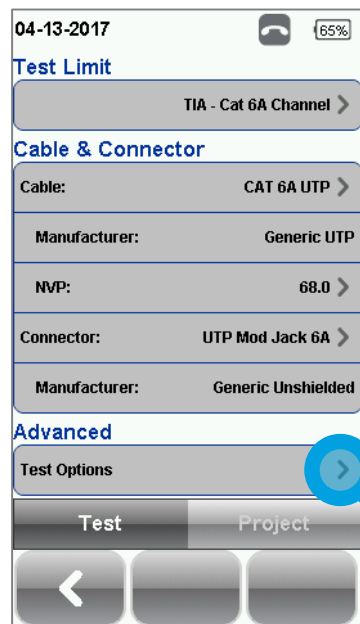
Performance Grade

Cat 6A

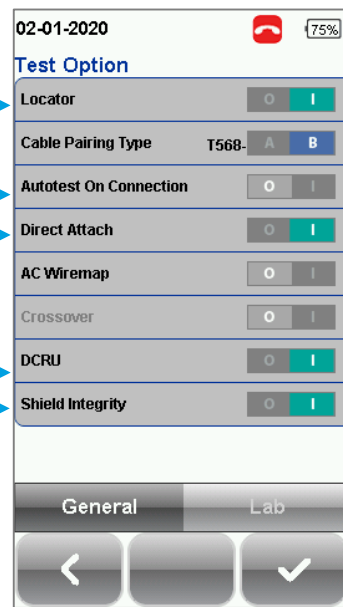
- Enter name (click on the text field in order to open the input keyboard)
- Select construction and category
- Save new connector type

Overview of already created own connector types

Advanced Test Options



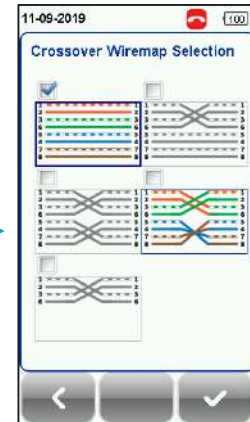
- Activate/deactivate fault locator (troubleshooting tool)
- Start Autotest upon connecting Yes/No
- Activate/deactivate hybrid measurement (Use channel and link adapter in one measurement)
- Measurement of DC Resistance Unbalance Parameters (only selectable if appropriate adapters are plugged in)
- Verification of Shield Integrity (only selectable if appropriate adapters are plugged in)



Color scheme
T568A or T568B

Activate wiremap
measurement via PoE
Midspan device

Selection of wiremap
scheme(s) for testing
against Application
Standards

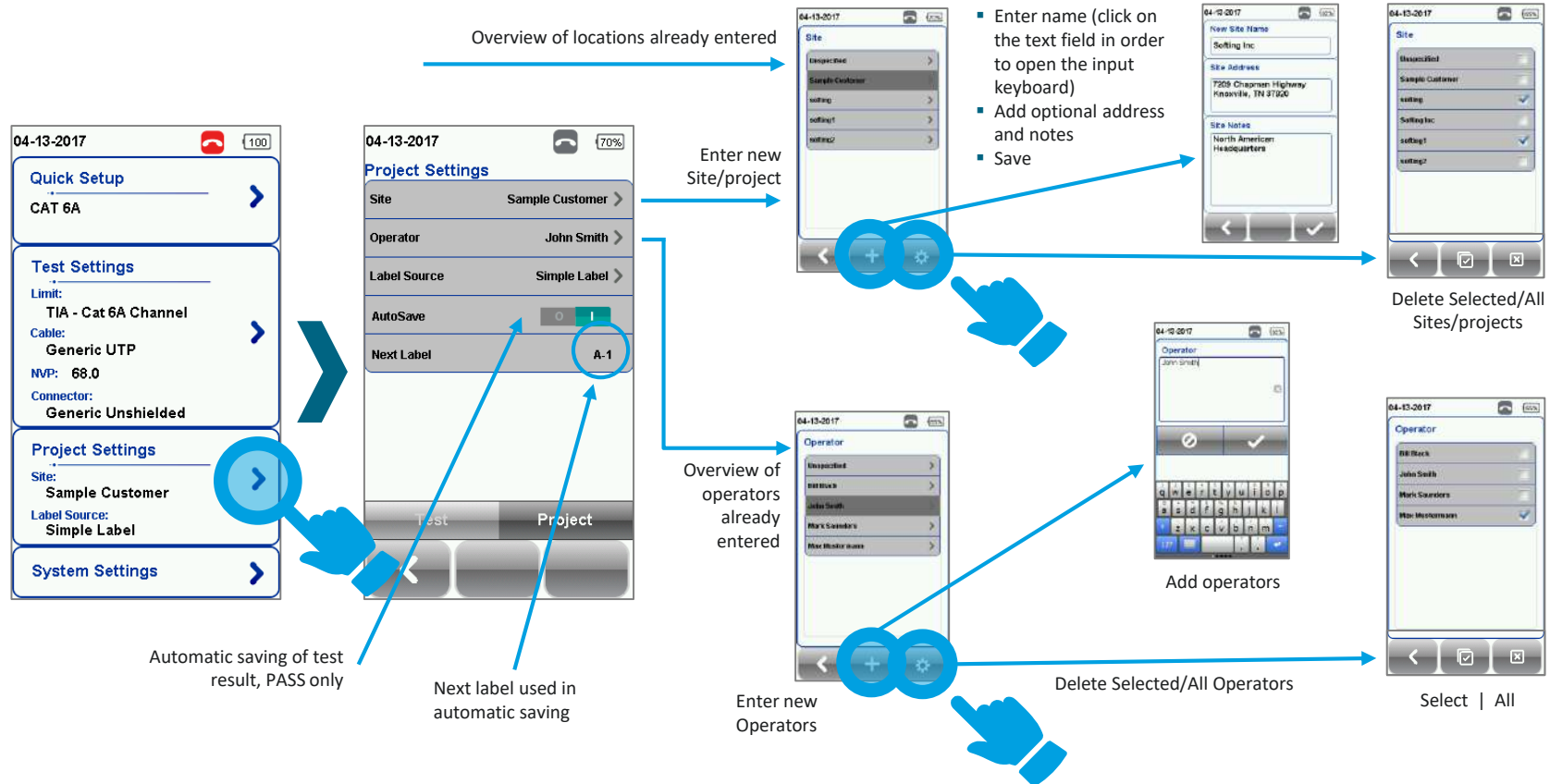


Project Settings

Sites and operators

WireXpert

optimize!
softing



Project Settings

Selecting and defining measurement labels

04-13-2017 70%

Project Settings

Site Sample Customer >

Operator >

Label Source Simple Label

AutoSave >

Next Label A-1

Test Project

02-01-2020 65%

Cable Label Source

None >

Simple Cable Label >

Template Label >

List Based Testing >

Free Form >

02-01-2020 65%

Enter Label

04-13-2017 60%

Simple Cable Label

Label Name
Panel A / Port

Start Value
1

Based on TIA-606-A

04-13-2017 60%

Template Label

TIA-606-A Class 2
Single Building Backbone Cable

TIA-606-A Class 3
Campus Backbone Cable

Free Form

Start Label
A-1A/A-1A- ✓

End Label
A-1A/A-1A- ✓

11-09-2019 100%

Free Form Cabel Label

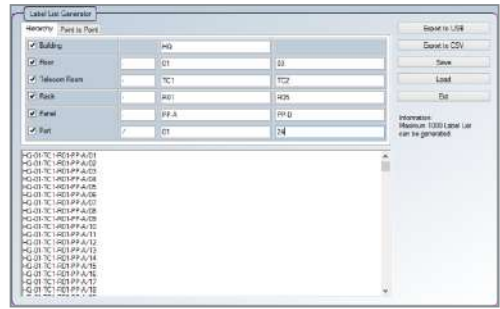
Erstes Label
A-1

Letztes Label
B-5

- **None:**
 - Each measurement run has to be named manually
- **Simple Cable Label:**
 - Free definition with up to 70 characters and counting function at the end of the label
- **Template Label:**
 - Counter scheme based on TIA-606-A
- **List Based Testing:**
 - Option of loading site specific label lists for major projects created in eXport PC software into tester (see next slide)
- **Free Form:**
 - Counter scheme based on self defined scheme reflecting complex naming requirement

Project Settings

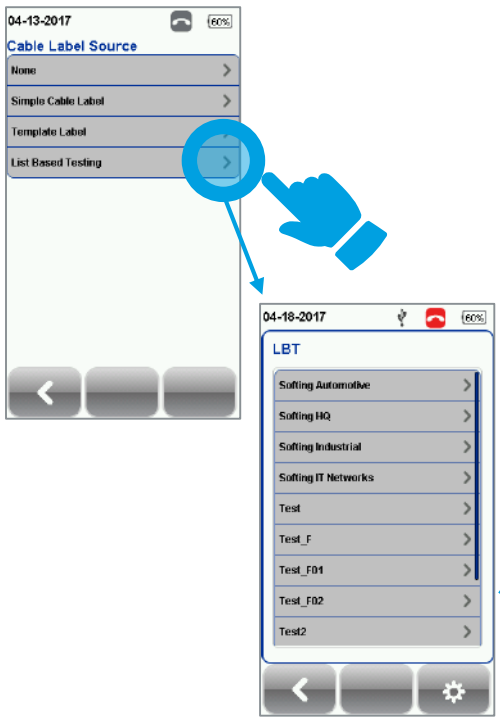
Using List Based Testing



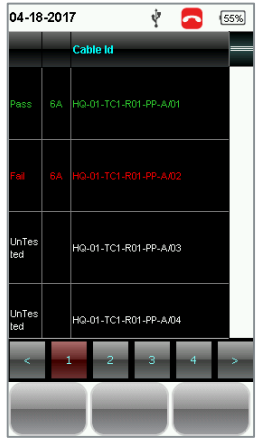
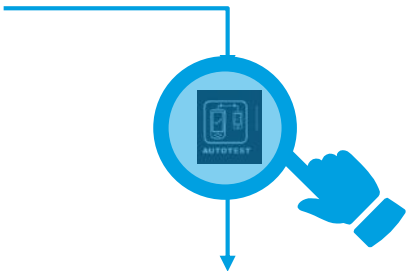
Defining Label Lists in eXport software



Importing Label Lists into WireXpert via USB stick



Selecting Label List for testing



Testing guided by Label List

Commencing measurements with WireXpert

WireXpert

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softing

Initiate AUTOTEST - No REMOTE connected

The AUTOTEST button can be pressed from any menu in order to commence measurements



- If no REMOTE is found, the tone generator starts (progress bar)
- Possibility to localize port with inductive receiver
- Automatic switch-off of the tone generator and start of measurement on contact with REMOTE

Commencing measurements with WireXpert

WireXpert

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Initiate AUTOTEST - REMOTE connected

The AUTOTEST button can be pressed from any menu in order to commence measurements



Progress bar display on LOCAL and REMOTE device whilst AUTOTEST is carried out

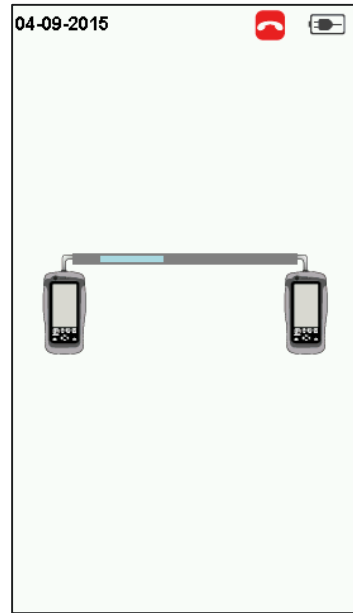
Commencing measurements with WireXpert

WireXpert

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AUTOTEST finished- Viewing results

Autotest runs

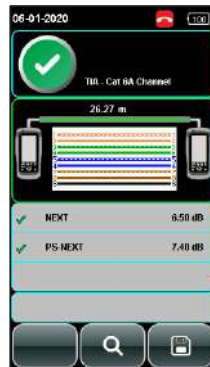


Result of Autotest

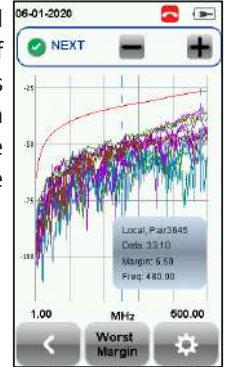
LOCAL



REMOTE



Graphical representation of measured values displayed in relation to the limit line



Saving measurement results (manually)

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Results display on LOCAL device

Results display on REMOTE device



Locator function for troubleshooting of NEXT and RL faults (only possible from LOCAL device)

Results saving possible from LOCAL and REMOTE device



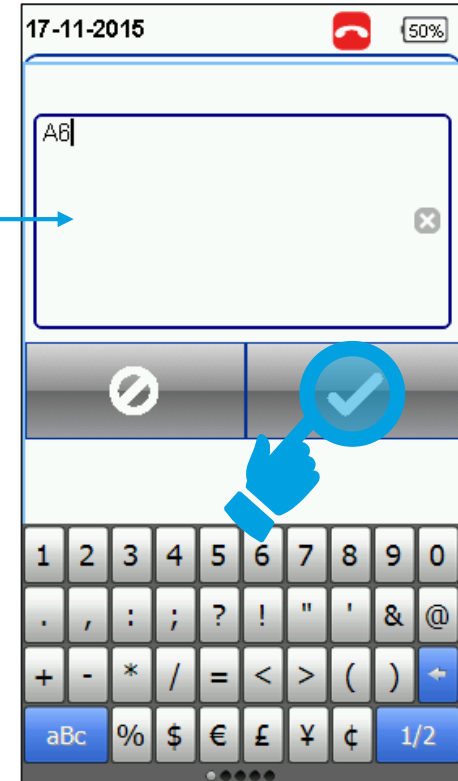
Saving measurement results (manually)

WireXpert

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softing



The label can be changed
from both devices, LOCAL
and REMOTE, prior to
saving



DATA menu

Retrieving measurement results

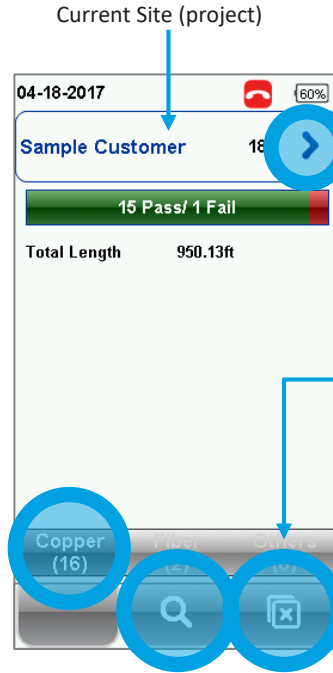
WireXpert

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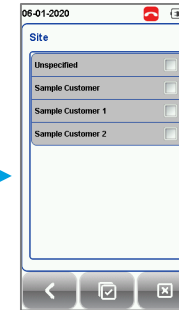
Overview on stored measurement results in Site (project) and type of test:

- Copper
- Fiber Optic
- Others (e.g. Patch Cord testing, FO connector end face images, ...)

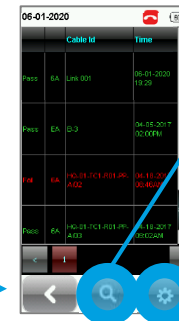


Current Site (project)

List of all Sites (projects)

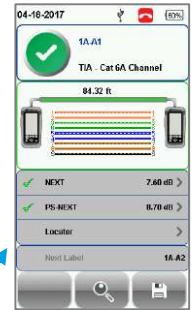


Delete all measurements in a Site



List of the stored measurement results in Site, colour coding:
Green: PASS
Red: FAIL
White: Marginal

Retrieve Stored result



Edit name / Delete selected result



Exporting stored results via USB stick

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Mini USB:
Port to transfer the measurement data from internal memory using to a PC with eXport software

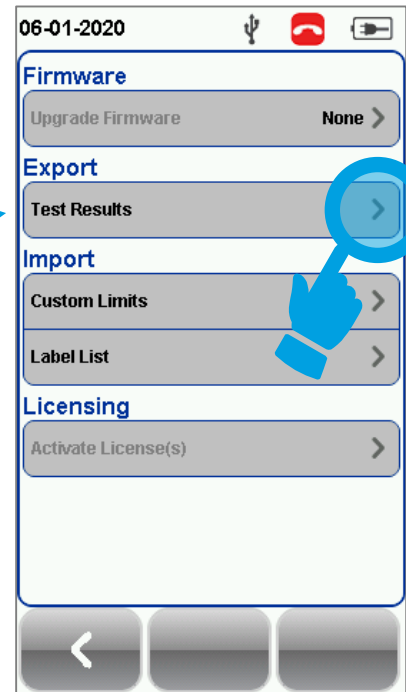
USB port for connecting a USB stick



IMPORTANT

Measurement results are only stored on the LOCAL device and can only be transferred from a LOCAL device

Display after connecting the USB stick to the LOCAL device



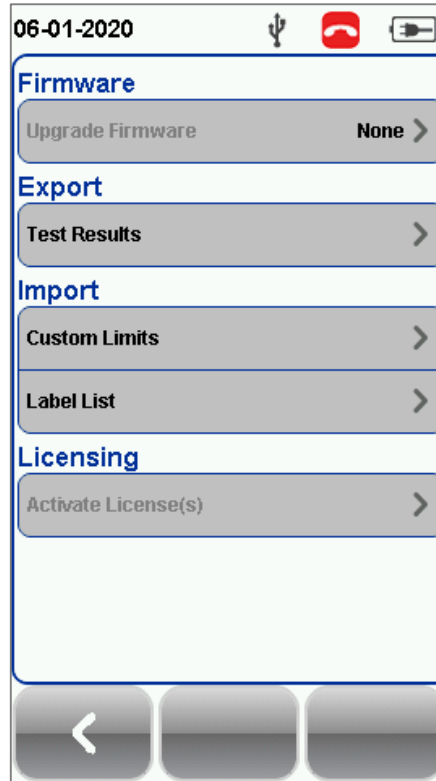
Additional functions via USB interface

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USB port for
connecting a
USB stick



Firmware Update

- Via USB stick
- Update files copied from eXport to USB stick

Selective **export of test results** from internal memory

Import of:

- Customer defined test limits
- Label List prepared in eXport

Upgrading the unit to higher bandwidth or extended functionality via software licensing

TOOLS menu (1)



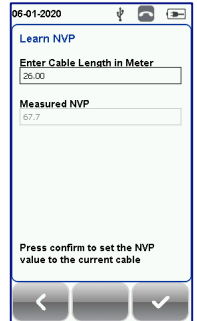
WireXpert

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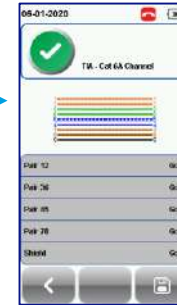


Set Reference using:
(1x Link Adapter, 1x
Channel-Adapter and
1x PL Test Cord)

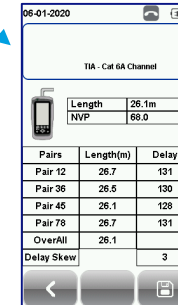
Start Set
Reference



Determining NVP
values using a
known cable length
(>30m)

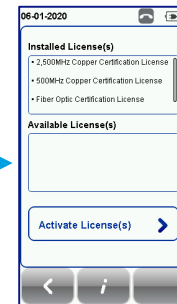


Wiremap test, only



One-sided measurement
on Length and Delay

License menu
(Enhancements)



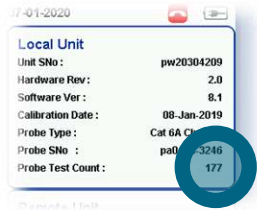
Contact Information
(Softing Branches)

TOOLS menu (2)

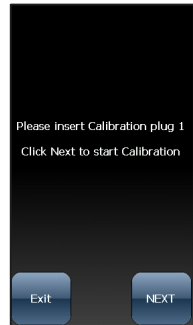


WireXpert

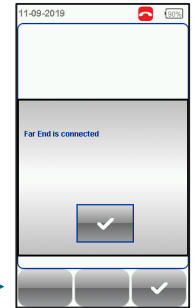
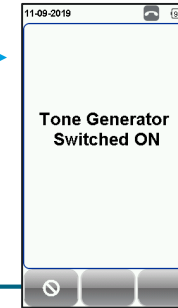
optimize!
softing



Reset of measurement counter in Permanent Link adapter (e.g. when changing test cords)



Service- and calibration menu (Access for Softing technicians only)

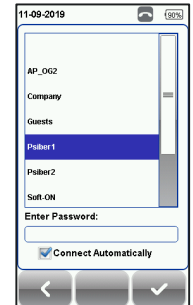


Error message if REMOTE connected

Login for Private Cloud



Setup of WiFi connection for data exchange with Private Cloud (optional WiFi dongle at WireXpert required)



Optional adapters to WireXpert (excerpt)

Class F_A / Class II adapters



COAX adapters



Fiber Optic adapters for SM and MM (EF)



Industrial adapters



Patch cord test adapters



DCRU adapters



Support und Service

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North America & Canada

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7209 Chapman Highway
Knoxville, TN 37920
USA
Tel: +1.865.251.5252
Fax: +1.865.579.4740
E-Mail: sales@softing.us

China

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