

# Manual Supplement

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We've added two new features and made several changes in Version 2.0 of the 635 QuickBERT-T1 tester. This supplement provides an overview of the tester's new capabilities and updates you on the changes and corrections we've made in the latest version.

This supplement contains information necessary to ensure the accuracy and completeness of the above manual. It is organized as follows:

- New features
- Product Updates
- Corrections

## New Features

Version 2.0 of the QuickBERT-T1 tester offers these two features:

- Prints current test results and setup information
- Downloads software updates

This section shows you how to use these new features.

### Printing Current Test Results

The tester can print test results and setup information automatically or on demand (when you press the **PRINT** key). This section shows you how to set up the tester to enable automatic printing or manual printing of test results.

Complete the following:

1. Using the supplied RS-232 cable, connect one end to the tester and the other end to a printer.
2. Press the **MODE** this screen is displayed:



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3. Press the **RESULTS** ▽ key twice to display this screen:

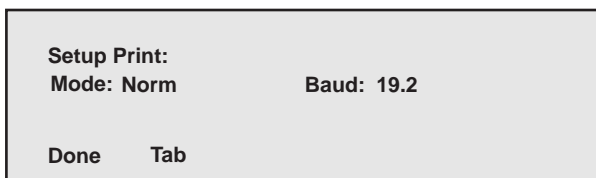


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“Print” is blinking to indicate that it is selected.

4. Press the **SIGNALING TYPE (Setup)** key.

The **Setup Print** screen is displayed. The current setting for “Mode” is blinking:



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This screen lists the two setup parameters for printing: “Mode” and “Baud”. “Mode” has two settings:

- Norm: (for manual printing) prints only when you press the **PRINT** key.
- Auto: (for automatic printing) prints automatically when the tester detects an error or alarm condition (bit error, BPV error, Frame error or CRC error).

*Note*

*If Auto is selected, you can also press the **PRINT** key to print results.*

“Baud” has four settings: 2.4, 4.8, 9.6, and 19.2.

5. To change the settings for "Mode" and "Baud", do the following:
  - a) Press the **RESULTS** ▾ key to select the desired setting for "Mode".  
The setting blinks to indicate that it is selected.
  - b) Press the **SIGNALING TYPE (Tab)** key to move to “Baud”. Then, press the **RESULTS** ▾ key until the desired setting is displayed.
  - c) Press the **MODE (Done)** key to save your selections.

You return to the second page of the setup menu. “Print” is blinking.

6. Press the **MODE (Done)** key to exit the setup menu.

You can print at any time by pressing the **PRINT** key. However, if “Auto” is selected, the tester automatically prints a report when it detects an error or an alarm.

Following is an example of the type of report that the tester prints:

<b>Time: 07:54:06</b>		<b>Date: 01/21/01</b>	
<b>Receive Setup:</b>		<b>Transmit Setup:</b>	
<b>Pattern : QRSS</b>		<b>Pattern : QRSS</b>	
<b>Line Code : B8ZS</b>		<b>Line Code : B8ZS</b>	
<b>Frame : ESF</b>		<b>Frame : D4</b>	
<b>Input : TERM</b>		<b>Clock : RX</b>	
<b>Receive Status</b>			
<b>DS1 Frequency : 1544000</b>		<b>Bit Errors : 0</b>	
<b>Clock Slips : -2</b>		<b>BPV Errors : 0</b>	
<b>DS1 Level : -1.11dBD</b>		<b>Frame Errors : 0</b>	
<b>DS1 Level : 5.28vp-p</b>		<b>CRC Errors : 0</b>	
<b>E-Bit Sync : No</b>		<b>Frequency Deviation : Yes</b>	
<b>Signal Present : Yes</b>		<b>Signal Present Hist : No</b>	
<b>Out of Frame: Yes</b>		<b>Out of Frame Hist : No</b>	
<b>Blue Alarm : Yes</b>		<b>Blue Alarm Hist : No</b>	
<b>Ones Density : Yes</b>		<b>Ones Density Hist : No</b>	
<b>Excess Zeros : Yes</b>		<b>Excess Zeros Hist : No</b>	
<b>Yellow Alarm : Yes</b>		<b>Yellow Alarm Hist : No</b>	
<b>Pattern Sync Loss : Yes</b>		<b>Pattern Sync Loss Hist : No</b>	
<b>Dropped Channel : 2</b>			
<b>DS0 Frequency : 0 . 0</b>			
<b>DS0 Level : 0 . 0</b>			
<b>DTMF Digits : None</b>			

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## Downloading Software Updates

When a software update becomes available for the tester, you can download the latest version to a PC from the Fluke Networks web site (<http://www.flukenetworks.com>). The web site provides instructions for downloading and transferring the update software from a PC to the tester. Using the web site requires Internet access and a web browser.

## Product Updates

Version 2.0 incorporates minor updates that we made to enhance the usability of the product. These updates are documented in this section. Page and section numbers are given to help you locate the information to be updated in the manual.

On page 1-6, replace the entire section 1-8 with the following:

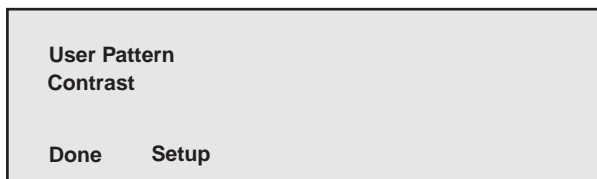
### 1-8. Adjusting the Contrast of the LCD

To adjust the contrast of the LCD, complete the following:

1. Press the **MODE** key until the following screen is displayed:

*Note*

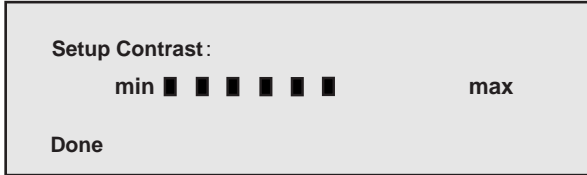
*The **MODE** key is the **TEST MODE** key on some models.*



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2. Press the **RESULTS**  $\nabla$  key to select “Contrast”. “Contrast” blinks to indicate that it is selected.

3. Press the **SIGNALING TYPE (Setup)** key.  
The **Setup Contrast** menu is displayed:



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The blinking rectangle on the min/max indicator shows the current level of contrast.

4. Do one of the following:
  - Press the **RESULTS**  $\triangle$  key to increase the contrast.
  - Press the **RESULTS**  $\nabla$  key to decrease the contrast.

When the desired level of contrast is obtained, press the **MODE (Done)** key.

You return to the first page of the setup menu. "Contrast" is blinking.

5. To exit the setup menu, press the **MODE (Done)** key.

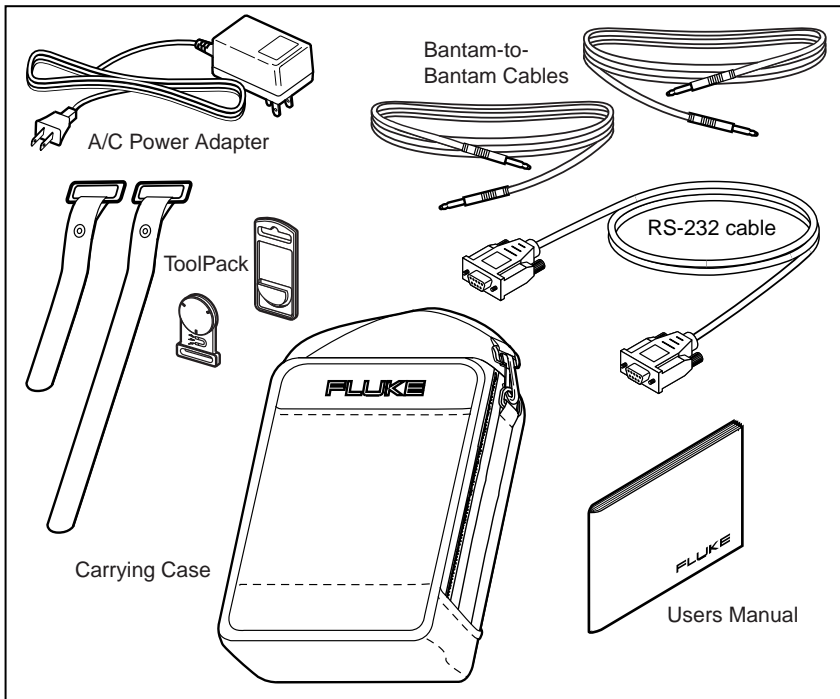
On page 1-2, section 1-2, add the following item to the list of features:

- Prints test results and setup information

On page 1-4, section 1-6, add the following item to the first list:

- RS-232 cable

On page 1-4, replace Figure 1-2 with the following figure:



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**Figure 1-2. Supplied Equipment**

On page 1-6, section 1-9, add the following sentence between the first and second sentences:

Also available for purchase is a thermal printer.

On page 2-2, section 2-4, paragraph 3, change **TEST MODE** key to **MODE** key, and add **PRINT** key to the list of keys.

On page 2-11, make the following changes:

Change: **2-16. TEST MODE Key**

To: **2-16. MODE Key**

Under section 2-16, replace the first sentence with the following:

Pressing the **MODE** key allows you to select one of four modes: T1, F64 (fractional T1, 64k), F56 (fractional T1, 56k) and Setup. When you select Setup mode, you can access menus that enable you to do the following:

- Change the contrast of the LCD
- Change the user pattern for a BERT test
- Set up the tester for printing test results
- Set the date and time
- Download new software to the tester.

On page 2-12, add the following prior to section 2-19:

### **2-18A. PRINT Key**

This key enables you to print a summary report that includes setup information and an analysis (both current and history) of the signal present on the Rx receiver. For instructions on how to set up the tester and how to print this report, see “Printing Current Test Results” (earlier in this Supplement).

On page 2-14, add the following note prior to section 2-21:

#### *Note*

If the CSU loop code is selected and the QuickBERT-T1 receives a CSU Loop Up code for approximately five to ten seconds, the tester enters TX THRU mode and displays 'CSU LOOPBACK' on the third line of the display. After the tester is in TX THRU mode, if it receives a CSU Loop Down code, it responds by going back to the original TX Pattern and clearing the third line of the display.



On page 2-15, make the following changes:

Section 2-25, add the following to the end of the paragraph:

To arm the span, first select the ARM loop code. Then, press the **SEND LOOP UP** key to arm the span. To disarm the span, press the **SEND LOOP DOWN** key.

Section 2-26, add the following to the end of the paragraph:

To loop up the HTU-R, select the HTU-R loop code (with the span armed) and press the **SEND LOOP UP** key. To loop down the HTU-R, select the HTU-R loop code (with the span armed) and press the **SEND LOOP DOWN** key.

Section 2-27, add the following to the end of the paragraph:

To loop up the HTU-C, select the HTU-C loop code (with the span armed) and press the **SEND LOOP UP** key. To loop down the HTU-C, select the HTU-C loop code (with the span armed) and press the **SEND LOOP DOWN** key.

Section 2-28, add the following to the end of the paragraph:

To loop up the first doubler (if provided), select the HRE1 loop code (with the span armed) and press the **SEND LOOP UP** key. To loop down the first doubler, select the HRE1 loop code (with the span armed) and press the **SEND LOOP DOWN** key.

Section 2-29, add the following to the end of the paragraph:

To loop up the second doubler (if provided), select the HRE2 loop code (with the span armed) and press the **SEND LOOP UP** key. To loop down the second doubler, select the HRE2 loop code (with the span armed) and press the **SEND LOOP DOWN** key.

Section 2-30, add the following to the end of the paragraph:

To loop the HRU (remote interface) from the central office, select the NREM loop code and press the **SEND LOOP UP** key. To loop down the HRU, select the NREM loop code and press the **SEND LOOP DOWN** key.

Section 2-31, add the following to the end of the paragraph:

To loop up the HLU (central office interface) from the central office, select the NLOC loop code and press the **SEND LOOP UP** key. To loop down the HLU, select the NLOC loop code and press the **SEND LOOP DOWN** key.

Section 2-32, add the following to the end of the paragraph:

To loop up the first doubler (if provided) from the central office, select the NDU1 loop code and press the **SEND LOOP UP** key. To loop down the first doubler, select the NDU1 loop code and press the **SEND LOOP DOWN** key.

Section 2-33, add the following to the end of the paragraph:

To loop up the second doubler (if provided) from the central office, select the NDU2 loop code and press the **SEND LOOP UP** key. To loop down the second doubler, select the NDU2 loop code and press the **SEND LOOP DOWN** key.

On page 2-16, make the following changes:

Section 2-34, add the following to the end of the paragraph:

To loop up the HLU (central office interface) from the customer side, select the CREM loop code and press the **SEND LOOP UP** key. To loop down the HLU, select the CREM loop code and press the **SEND LOOP DOWN** key.

Section 2-35, add the following to the end of the paragraph:

To loop up the HRU (customer interface) from the customer side, select the CLOC loop code and press the **SEND LOOP UP** key. To loop down the HRU, select the CLOC loop code and press the **SEND LOOP DOWN** key.

Section 2-36, add the following to the end of the paragraph:

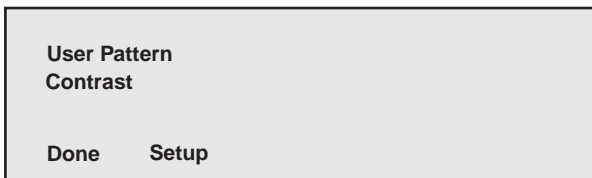
To loop up the first doubler (if provided) from the customer side, select the CDU1 loop code and press the **SEND LOOP UP** key. To loop down the first doubler, select the CDU1 loop code and press the **SEND LOOP DOWN** key.

Section 2-37, add the following to the end of the paragraph:

To loop up the second doubler (if provided) from the customer side, select the CDU2 loop code and press the **SEND LOOP UP** key. To loop down the second doubler, select the CDU2 loop code and press the **SEND LOOP DOWN** key.

On page 2-20, section 2-54, replace the entire procedure in the second paragraph with the following:

1. Press the **MODE** key until this screen is displayed:



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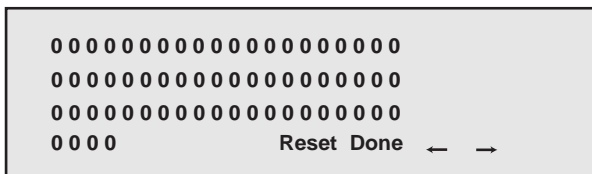
“User Pattern” is blinking.

2. Press the **SIGNALING TYPE (Setup)** key.

A screen similar to the following is displayed:

*Note*

*On your screen, the pattern length that is displayed may not match the one shown in the following figure. There are 64 bits for which you can specify a pattern.*



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The bit in the first position is blinking to indicate that it is selected.

3. To change the default user pattern, do the following:
  - a) Press the **RESULTS**  $\triangle$  key to select “0” or “1” for the bit in the first position.

*Notes*

*To clear all of the bits in the current length of the pattern and set them all to “1”, press and hold the **RESULTS**  $\triangle$  key for approximately two seconds. To set all of the bits to “0”, press and hold the **RESULTS**  $\nabla$  key.*

*To erase all of the bits and start with a pattern length of one bit that is set to “0”, press the **SIGNALING TYPE (Reset)** key.*

- b) Press the **LOOP CODE**  $\nabla$  ( $\rightarrow$ ) key to move right to the next position. Then, press the **RESULTS**  $\triangle$  key to select “0” or “1” for the bit.

Continue in this manner until you have specified the entire user pattern.

*Notes*

*To move among the bits, press the **LOOP CODE**  $\nabla$  ( $\rightarrow$ ) key to scroll right and the **LOOP CODE**  $\triangle$  ( $\leftarrow$ ) key to scroll left.*

*To delete the last character in the pattern, select it. Then, press the **RESULTS**  $\nabla$  key.*

4. When the desired user pattern is displayed, press the **TXCLK SOURCE (Done)** key.

You return to the first page of the setup menu. “User Pattern” is blinking.

5. Press the **MODE (Done)** key to exit the setup menu.

On page 2-23 replace the third sentence in section 2-58 with the following:

The VOLUME  $\triangle$  and  $\nabla$  keys, which are located to the right of the LCD, are used to adjust the audio volume.

On page 2-28, replace the entire 2-80 section with:

### ***2-80. Battery Status LEDs***

The tester has two battery status LEDs, which are labeled CHARGING and LOW. The CHARGING LED illuminates to indicate that the battery is currently being charged. The LOW LED illuminates to indicate that the battery life is nearly exhausted and that the battery should be recharged.

On page 3-12, add the following section:

## ***3-11. Setting the Date and Time***

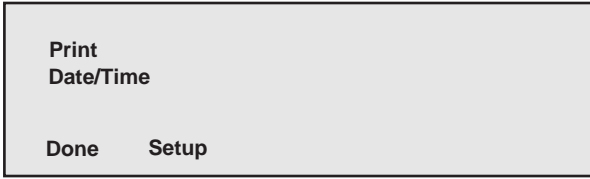
When you set the date and time on the tester, it enables the tester to put a timestamp on your test reports. To set the date and time, complete the following:

1. Press the **MODE** key until this screen is displayed:



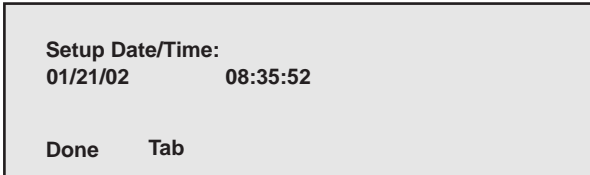
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2. Press the **RESULTS**  $\nabla$  key twice. The second page of the setup menu is displayed:



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3. Press the **RESULTS** ▾ key to select “Date/Time”.  
“Date/Time” blinks to indicate that it is selected.
4. Press the **SIGNALING TYPE (Setup)** key to display the **Setup Date/Time** menu, as follows:



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The format for the date is “mm/dd/yy” and the format for the time is “hh/mm/ss”. The value in the first position of the month field is blinking.

5. Press the **RESULTS** △ or ▾ key to select a value for the first position of the month field. Next, press the **SIGNALING TYPE (Tab)** key to move right to the next position, and press the **RESULTS** △ or ▾ key select the desired value.

Continue in this manner until you supply both the date and time.

After you finish selecting a value for “ss” (seconds), the value in the first position of the month field blinks.

6. Press the **MODE (Done)** key to exit the **Setup Date/Time** menu.

*Note*

If you supplied an incorrect value for a field, an error message is displayed. To supply the correct value, press the **SIGNALING TYPE (Tab)** key to move to the field that contains the error.

Then, press the **RESULTS**  $\triangle$  or  $\nabla$  key to select the correct value. When you finish, press the **MODE (Done)** key to exit the **Setup Date/Time** menu.

7. Press the **MODE (Done)** key to exit setup mode.

On page A-1, Table A-1, add the following entry between “Connectors” and “RX T1 Receiver Term/Monitor/Bridge”:

Characteristic	Specification
RS-232	Serial RS-232 (9-pin male)

## Corrections

We make every effort to provide you with error-free information. Please make the following change to ensure that the 635/633 Users Manual is accurate.

### Change #1

On page A-2, Table A-2, change the Input Impedance,

From: Bridge > 1000 ohms

To: Bridge > 700 ohms