QUIKRULER III™ USER'S GUIDE

THE PORTABLE MEASURING SYSTEM FOR USE WITH A DIGITIZER

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QuikRuler III Overview

QuikRuler III is a portable measuring system that is perfect for estimators, builders, contractors, surveyors, scientists, planners, designers and appraisers who need to take measurements from blueprints, maps, diagrams and other drawings. QuikRuler III quickly and accurately automates blueprint takeoff and drawing measurement processes.

With QuikRuler III, you can easily measure areas, perimeters and lengths using any scale and unit of measure. Perform more complex measurements by adding or subtracting areas and lengths. The built-in measurement functions, combined with QuikRuler's calculator, make QuikRuler III an indispensable tool. And with the optional PC interface, you can send results directly from the QuikRuler III display to your PC, for use in a spreadsheet or estimating package.

Best of all, you do not need any special experience or training. QuikRuler III is compatible with all leading estimating software. Simply select a function from the QuikRuler Menu, click the stylus or cursor on the drawing and view the results on the LCD display.

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Set Up

Components

QuikRuler III combines a digitizer, stylus or cursor, and portable display into a single system that is easy to move and set up as needed.

As an option, use your computer to take input from QuikRuler III.

Optional USB Connection to Computer

Power Supply

QuikRuler III Display Module

QuikRuler Menu

GTCO CalComp Digitizer Super L VI or Roll-Up III (Roll-Up III pictured)

Stylus (A 4-button or 16-button cursor can also be used.)
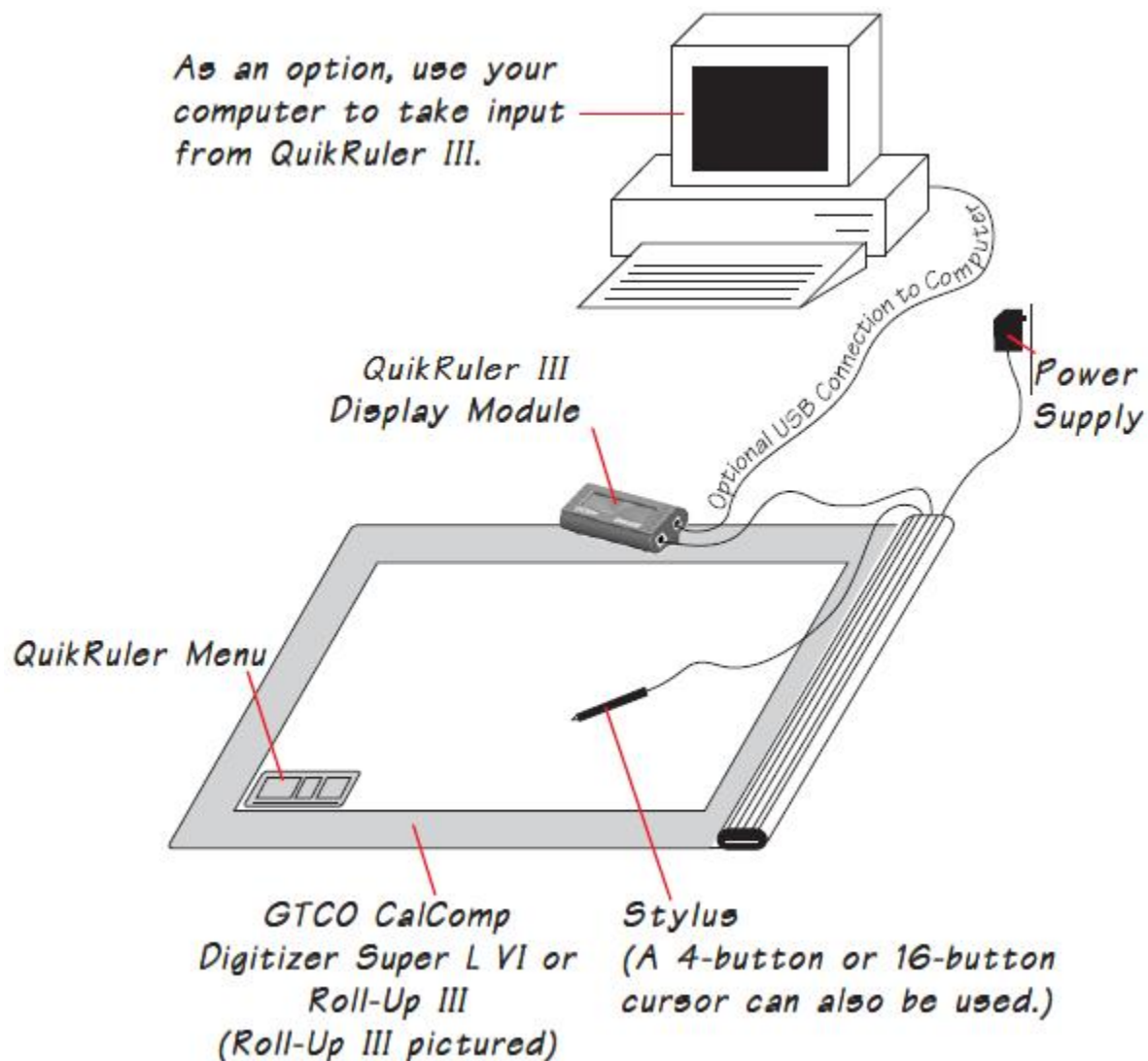
NOTE: Contact GTCO CalComp by Turning Technologies Technical Support Team for instructions on the use of the QuikRuler III with older products – Roll-Up II, Super L III, Super L II Plus, etc.

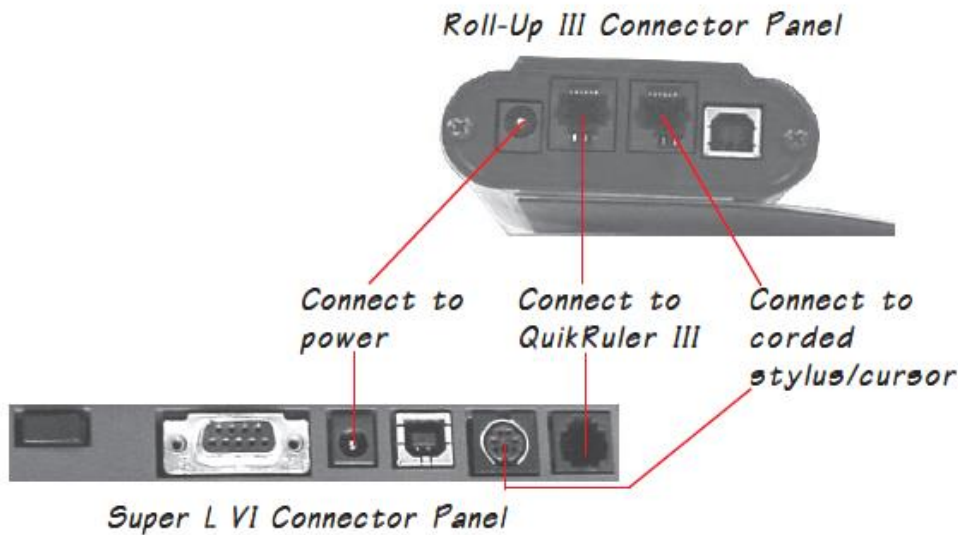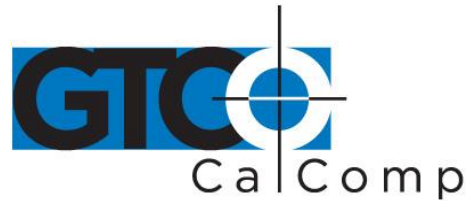**NOTE:** When QuikRuler III is used with GTCO CalComp by Turning Technologies' digitizers other than the Roll-Up III or Super L VI, additional hardware is required. Contact GTCO CalComp by Turning Technologies at 1.866.746.3015 for further information.

Optional PC Connection

To send data directly from QuikRuler III to a PC, connect the keyed end of the supplied USB cable to the QuikRuler Display Module and the USB connector end to an available USB port on the computer. Contact Technical Support regarding computers that do not support USB communications.

Starting QuikRuler III

QuikRuler III starts when you apply power to the digitizer. If the startup is successful, you will hear four short beeps from the digitizer and after the sign-on messages, line 1 of the Display Module will read **Select from Menu**. Line 2 of the display will show the current X-axis and Y-axis position of the stylus and a number indicating the status of the stylus switches. If the stylus is positioned over the menu, the numbers will be replaced by $(-\ \ -----,-----)$. If the stylus is not *in prox of* (close to) the digitizer's measuring area, the numbers will be replaced by asterisks $(*\ \ \ *****,*****)$.

Position your plans or blueprints on the digitizer's active area. You can use tape to hold them in place. Use the tip of the stylus to click on a QuikRuler Menu function button. (See *QuikRuler Menu Location* in this manual before you begin using the device.)

Making Selections

Use either a stylus or cursor to trace and measure drawings. You can also use either device to make selections from the QuikRuler Menu. This manual assumes you are using a stylus.

Stylus

To make a selection with the stylus, press the tip down.

Press the black button to Send data to the computer via the optional USB connection.

Press the gray button to use the Count function. For more information, see Counting Drawing Elements later in this manual.

16-Button Cursor

Crosshairs for tracing or selecting.

Press any button on the top row to make a selection — same as stylus tip-down switch.

Press any button on the bottom three rows to activate a QuikRuler Menu function without clicking on the menu (see Appendix A: Transducer Button Functions).

4-Button Cursor

Crosshairs for tracing or selecting.

Press the yellow button on the cursor to make a selection — same as stylus tip-down switch.

Press the white, green ,or blue button on the cursor to activate a QuikRuler Menu function without pointing to the menu (see Appendix A: Transducer Button Functions).

Configuring QuikRuler III

The QuikRuler Menu

The QuikRuler Menu is used to select QuikRuler III functions and to determine settings.

QuikRuler Menu Location

When QuikRuler III is shipped to you, it is programmed to expect the QuikRuler Menu to be located in the lower left corner of the digitizer's active area.
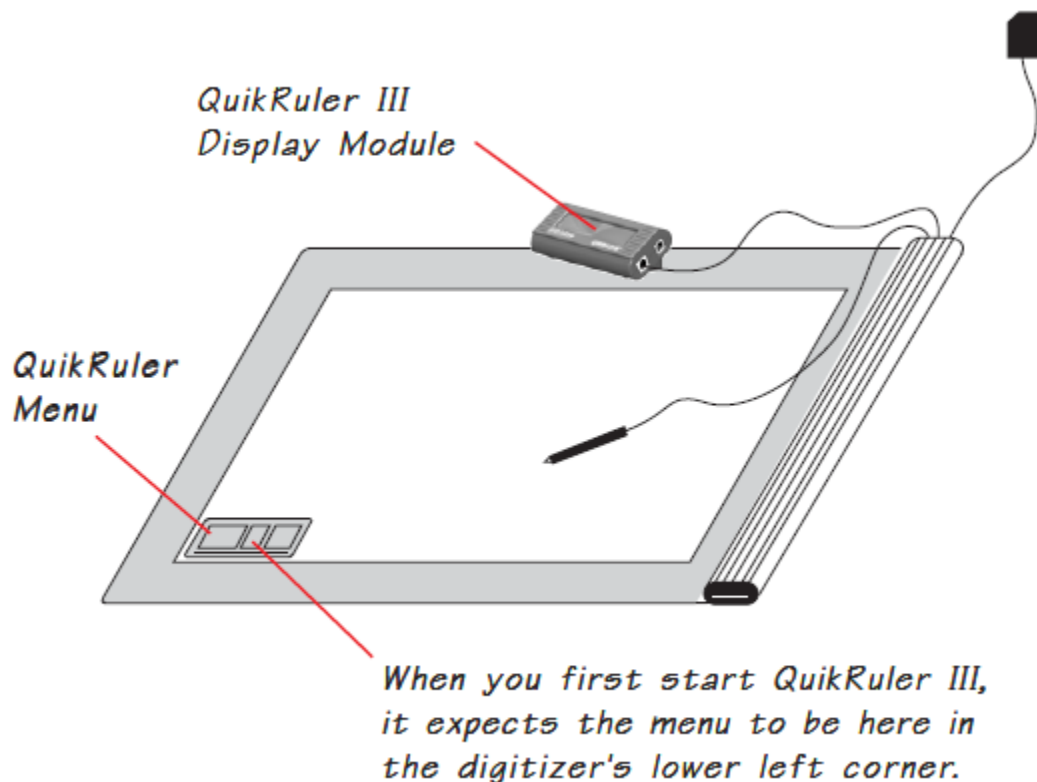
Relocating the Menu at Start-Up
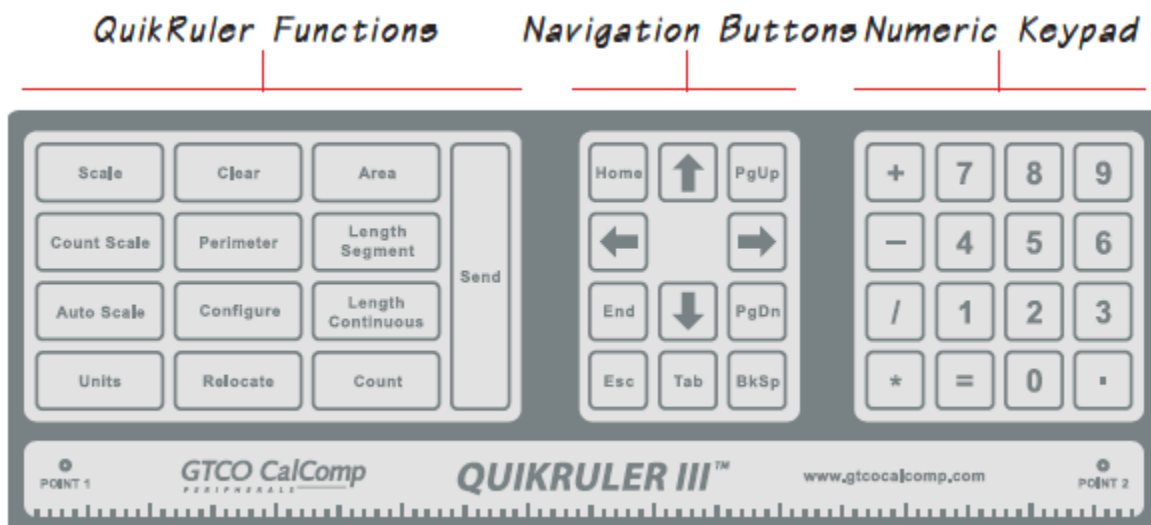
When you start QuikRuler III, the below message appears for five seconds.

**Press Switch to
Relocate Menu...**

If you do not want the QuikRuler Menu to be positioned in the lower left corner of the digitizer, this is the time to relocate it.

1. Position the menu where you prefer to have it located and tape it down. The entire menu must be within the digitizer's active measuring area.

2. Power-up the digitizer.
3. Using the stylus tip, click anywhere on the digitizer when the **Relocate Menu** message is displayed.
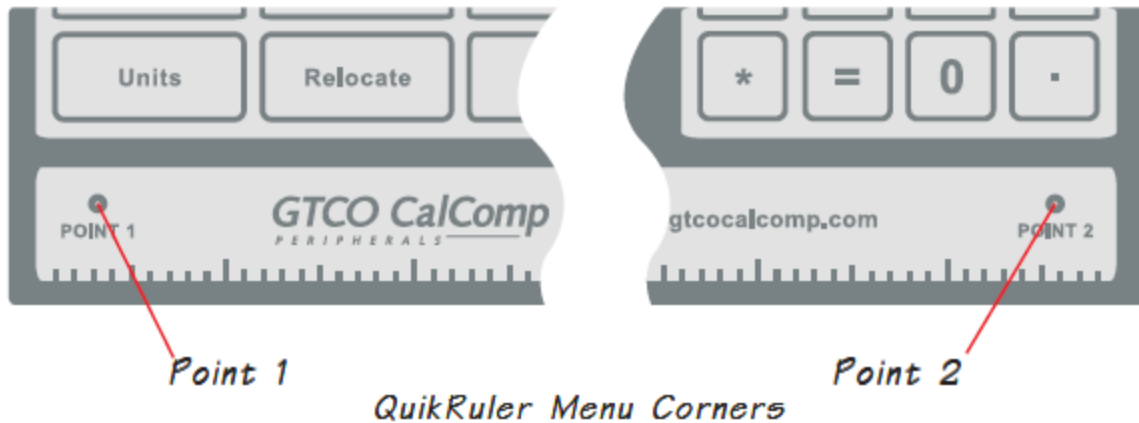

Point 1   Point 2
QuikRuler Menu Corners

QuikRuler III prompts you to **Select Point 1**.

4. Click the stylus on the left point of the menu.

QuikRuler III then prompts you to **Select Point 2**.

5. Click the stylus on the right point of the menu.

The **Select from Menu** prompt displays to indicate the QuikRuler Menu relocation has been successful.

Relocating the Menu while Working with QuikRuler III

You can change the location of the QuikRuler Menu at any time while working with QuikRuler III.

1. Click on the Relocate button.

2. Put the menu where you want it to be relocated and tape it down. QuikRuler III prompts you to **Select Point 1**.
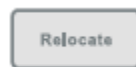
3. Click the stylus on the left point of the menu. QuikRuler III then prompts you to **Select Point 2**.
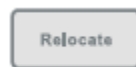
4. Click the stylus on the left point of the menu. The **Select from Menu** prompt displays to indicate the QuikRuler Menu relocation has been successful.

If You Lose the Menu Location

If you inadvertently move the QuikRuler Menu, please follow the below instructions:

1. Tape the menu down where you want it to be located.
2. Disconnect the digitizer power supply.
3. Reconnect the digitizer power supply and listen for the digitizer's four beeps.
4. When QuikRuler III displays the below message, click the stylus anywhere on the digitizer's active area to enter Relocate Mode.

Press Switch to
Relocate Menu...

5. Follow the prompts to select **Point 1** and **Point 2**. (See the previous page for an illustration of the left and right menu points, *Point 1* and *Point 2*.)

   The **Select from Menu** prompt displays to indicate the QuikRuler Menu relocation has been successful.

Using the Configure Function

QuikRuler III provides a number of user preference settings. Use the **Configure** button to set:

- Number of digits to the right of the decimal point
- Tones you want to hear when you perform specific functions
- Language preference
- Character selections

The steps below describe how to select a specific configuration preference. The sections that follow describe how to select a setting for each configuration preference.

1. Select the [Configure] button to activate the *Configure* function.

   QuikRuler III displays a preference option and its current setting.

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2. Click on the [Configure] button repeatedly or click on the [↑] or [↓] button to display the option you want to change. The *Configure* options include:

- **Digits Rt of '.'**
- **Select Tones**
- **Select Language**
- **Decimal Pnt Char**
- **Last Character**

3. Click on the [←] or [→] button to change the current setting of the displayed option. See the following sections for details on each option.

Setting Fractional Digits (Digits to the right of the period [.])

QuikRuler III can display from 0 to 8 digits to the right of the decimal point. Use this *Configure* option to set the number of digits to the right of the decimal point.

1. Display the *Digits Rt of '.'* Option on line 1.

   The current setting for the number of digits is displayed on line 2 beneath the flashing cursor.

2. Change the current setting by clicking on a number from [0] to [8] on the QuikRuler Menu.

3. Click on the [=] button to save your setting, or choose another configuration option or QuikRuler function to save your setting or activate the selected function.

Setting Tone Options

QuikRuler III can sound a tone when you make a selection from the QuikRuler Menu, or when you press the stylus tip on the digitizer surface, or both. You can opt to turn off the tones entirely.

1. Display the *Select Tones* option on line 1.

   The currently selected tone option is displayed on line 2.

2. Click on the ← or → button repeatedly until you see the tone setting that you want to use. Choose from the following options:

- **Menu + Tablet**
- **Menu Only**
- **Tablet Only**
- **Disabled**

3. Select the = button to save your setting, or choose another configuration option or QuikRuler function to save your setting or activate the selected function.

Selecting Your Language

The QuikRuler III display supports a variety of languages. You can select your language preference by:

1. Displaying the *Select Language* option on line 1.

   The currently selected language is displayed on line 2.

2. Click on the ← or → button repeatedly until you see the language setting you want to use.

3. Select the = button to save your setting, or choose another configuration option or QuikRuler function to save your setting or activate the selected function.

Choosing the Decimal Point Character

QuikRuler III can display either a period (.) or a comma (,) as the decimal point character when numeric values are shown.

1. Display the Decimal Pnt Char option on line 1.

   The currently selected character, followed by a flashing cursor, is displayed on line 2.

2. Click on the ⬅ or ➡ button to move the cursor to the character you want to use.

3. Select the = button to save your setting, or choose another configuration option or QuikRuler function to save your setting or activate the selected function.

Setting the Last Output Character

When a numeric value is present on line 2 of the display and the Send button is clicked, the value is sent to the computer. You can use this option to specify which character you want to use to indicate the end of the numeric value being sent. Your selection may be predicated on the destination of the data. For example, you may want to choose the Tab character as the Last Character if you are sending data to an Excel spreadsheet. The tab character will move the cursor to the next cell, where it will be ready to receive the next numeric value.

1. Display the Last Character option is shown on line 1.

   The currently selected last character is displayed on line 2.

2. Click on the ⬅ or ➡ button until you see the last character you want to use. You can choose from the following terminator characters:

   - **Enter**
   - **Tab**
   - **Down Arrow <↓>**
   - **Right Arrow <→>**

3. Select the = button to save your setting, or choose another configuration option or QuikRuler function to save your setting or activate the selected function.

Setting the Units and the Scale

Use the [Units] and [Scale] functions to tell QuikRuler III the units in which you want measurements to be displayed and the scale of the drawing being measured.

First, Identify the Unit of Measure

Use the [Units] function to indicate the units in which you want measurements to be displayed. You will then set the *scale* of the measurements.

Example: Suppose you're working with a map where 1 centimeter represents 3 kilometers.

You would use the [Units] function to tell QuikRuler III that you want to measure your drawing in centimeters and to display the results in kilometers. You would then use the [Scale] function to set a 1:3 scale.

NOTE: Use the [Units] function at any time to convert the current measurement, shown on the second line of the display, to a different unit of measure.

Set the Units

1. Click on the [Units] button.

   QuikRuler III displays:

   Measured (cm)
   Displayed (km)

   Using the previous example, centimeters are the units of measurements from your drawing, and kilometers are the units you want to display. The flashing cursor follows the unit that can be changed.

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2. Click on the ⬆ or ⬇ button to move the flashing cursor to the unit you want to set. Select the ⬅ or ➡ button until you see the unit of measurement you want to use displayed. Select from:

mm   **in**
cm   **ft**
m   **yd**
km   **mi**

3. Click on the = button to save your setting, or choose another option or function to save your setting and activate the selected function.

Manually Setting the Scale

If you know the scale of the drawing you are working with, you can enter the measurement scale manually.

1. Use the **Units** button to select the unit of measure for the first part of the scale. For example, if 1 centimeter equals 3 kilometers, select **cm** as the unit of measure and **km** as the displayed unit.

2. Click on the **Scale** button to activate the *Scale* function.

   QuikRuler III displays the current scale setting on line 2. For example, if the current scale is 1 cm = 3 km, QuikRuler III displays **1:3** on line 2 with the flashing cursor positioned over the 3.

3. Change the scale by clicking on a number on the QuikRuler Menu. For example, click on **5** if the desired scale is 1 cm = 5 km.

4. When the drawing scale is larger than 1:1, use a decimal value. If the scale were 5:1, you would divide both sides of the ratio by 5 and click on the **.** **2** buttons so the scale reads **1:2**.

In another example, if the drawing scale is given as 1/8 in = 1 ft, you would multiply both sides of the equation by 8 and click on the [8] button so that the QuikRuler scale reads **1:8**.

5. Click on the [=] button to save your setting, or choose another option or function to save your setting and activate the selected function.

NOTE: See Appendix B for a list of commonly used scales and their decimal equivalents.

Automatically Setting the Scale

On maps and many other types of drawings, a scale diagram can be found in the drawing's legend. You can use this type of diagram to set the measurement scale automatically. Simply mark the starting and ending points of the legend and tell QuikRuler the distance between the two points.

On other drawings, you can set the scale automatically using a straight surface in the drawing that is of a known length. Simply mark the starting and ending points of the surface and tell QuikRuler III the distance between the two points.
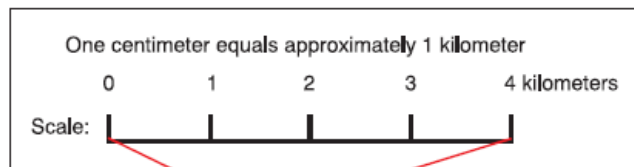
You can set the scale automatically using a map's legend ....
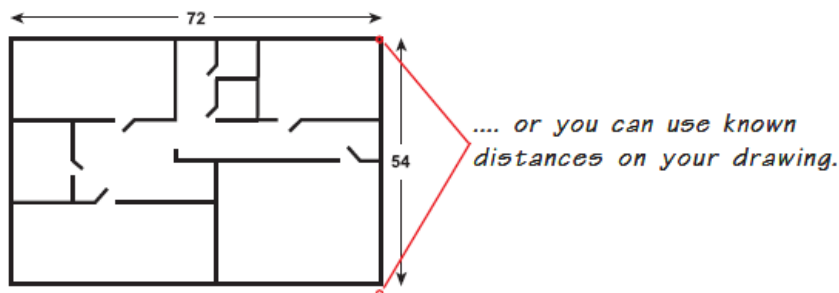
.... or you can use known distances on your drawing.

Set the Scale Automatically

1. Click on the [Auto Scale] button to activate the *Auto Scale* function.
2. Follow the prompts that QuikRuler III displays to select the starting and ending scale points.

   For example, using the illustration of the map legend shown below, you would select the point just below **0** as the *starting point* and the point just below the **4** as the *ending point*.
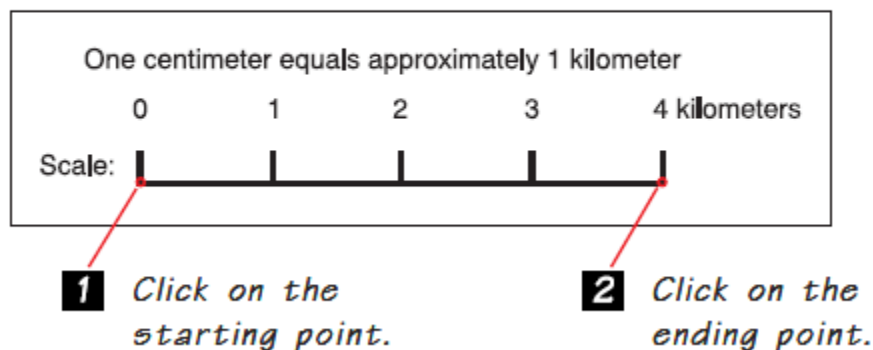
   QuikRuler III prompts you for **Distance** (units).

3. Use the number buttons on the QuikRuler Menu to indicate the distance between the two points you selected.
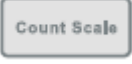
   Referring to the map legend above, you would click on [4] to tell QuikRuler III that the distance between the two points is 4 kilometers-kilometers having been previously established as the unit of measure.

   NOTE: You must first use the [Units] function to specify that your measured values are in *centimeters* and displayed values are in *kilometers*.

4. Click on the ☐ = button to save your setting, or choose another option or function to save your setting and activate the selected function.

5. To view the current Auto Scale setting, click on the ☐ Scale button.

Setting the Counting Scale

You can use QuikRuler's ☐ Count function to count areas or other components on your drawing. For example, if you are using QuikRuler III to estimate how much electrical wiring will be required for a building, you could use the ☐ Count function to count how many electrical outlets will be needed. Normally, QuikRuler III counts by ones. However, you can change the scale to something else using the ☐ Count Scale function. For example, you can use the ☐ Count Scale function to tell QuikRuler III to count by fives, tens or some other value – even fractions.

Change the Counting Scale

1. Click on the ☐ Count Scale button to activate the *Count Scale* function.

   QuikRuler displays the current counting scale under the flashing cursor.

2. Select the appropriate number on the QuikRuler Menu. For example, click on the ☐ 1 and ☐ 0 buttons if you want to count by tens.

3. Click on the ☐ = button to save your setting, or choose another option or function to save your setting and activate the selected function.
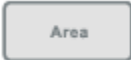
Measurements

The following sections can describe how to use QuikRuler III to measure the components of your drawing.

Measuring the Size of an Area

QuikRuler III can instantly calculate the size of an area on your drawing. Follow these steps:

1. Click on the [Area] button on the QuikRuler Menu to activate the *Area* calculation function.
2. Press and hold down the stylus tip on the outer edge of the area you want to measure.
3. While still holding the stylus tip down, trace around the perimeter of the area with the stylus.
4. Lift the stylus tip when you have finished tracing the area.

   QuikRuler III displays the size of the area in the units you specified.

1 *Press and hold down the stylus tip at a starting point.*

2 *Trace the perimeter of the area.*

4 *End and lift.*

3 *Continue tracing until you get back to the starting point.*
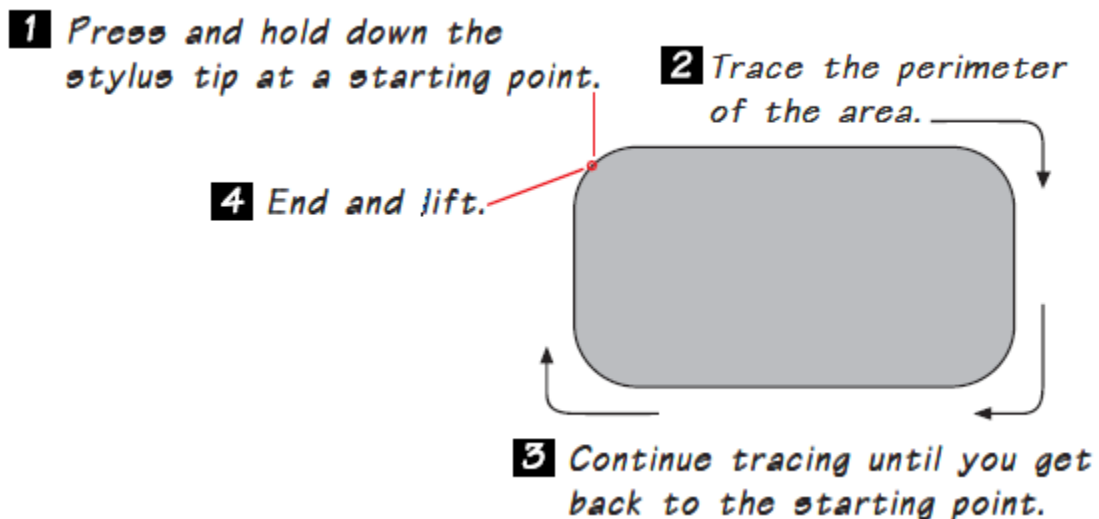
Area Shortcut

If the area you are measuring has some straight edges, you can use a shortcut when calculating the size of the area:

1. Trace the curved portion of the area, as previously described, by pressing the stylus tip down and following the area's perimeter.
2. When you reach a straight edge, lift the stylus tip at one end of the edge and press it back down at the other end.

3 *Press the stylus tip down and lift. This indicates the end point of the first straight edge and the start point of the second.*

4 *Press the stylus tip down here. Keep it down and continue tracing.*

2 *Lift.*

1 *Press down and begin tracing.*

5 *Lift the stylus tip. QuikRuler III closes the area for you.*
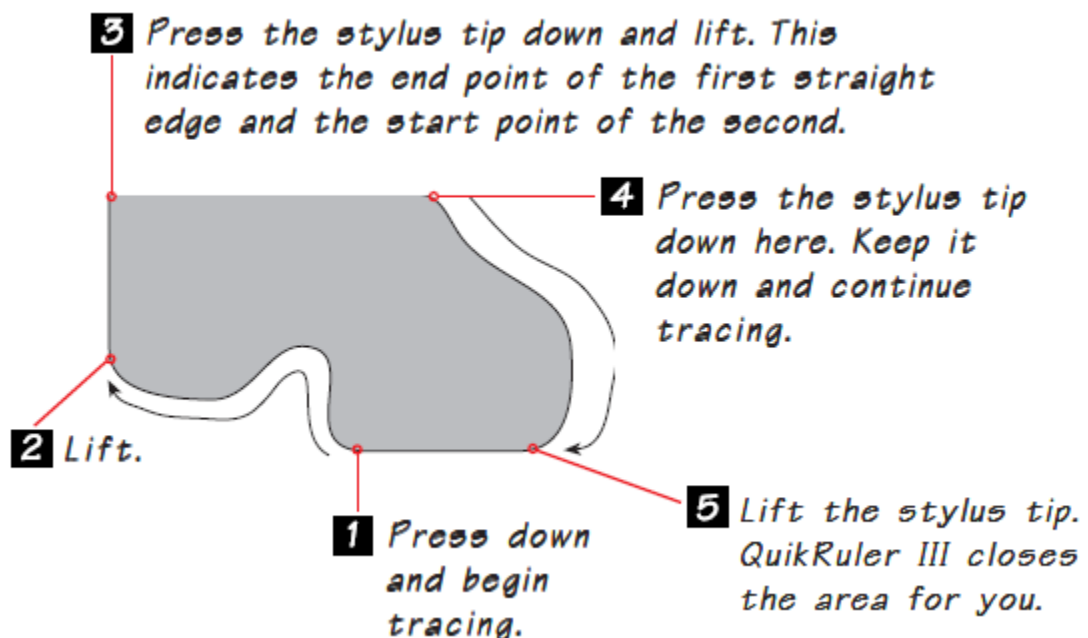
Adding or Subtracting Areas

After calculating the size of an area, you can add an additional area to it, or subtract another area from it. For example, suppose you are estimating the amount of paving material that will be needed for a parking lot. You would first measure the size of the entire lot, and then subtract the sizes of the areas within the lot that will not be paved.

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To calculate the size of the shaded area:

1 *Measure the entire area first.*

2 *Then, subtract these areas.*
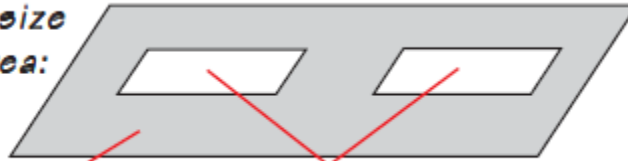
1. Measure the entire area, as described in the previous sections.
2. Click on the ⊞ or ⊟ button to indicate an area is going to be added or subtracted, respectively.
3. Measure the area to be added to, or subtracted from, the first area.
4. If necessary, repeat the previous two steps to add or subtract additional areas.
5. Click on the ⊟ button to calculate the total.

Measuring the Length of a Perimeter

QuikRuler can instantly calculate the length of an area's perimeter.

1. After measuring an area, click on the [Perimeter] button to display the length of the area's perimeter.

NOTE: Only the perimeter of the most recently measured area is displayed. Perimeters of multiple areas are not summed unless the areas are measured in Perimeter Mode.

Counting Drawing Elements
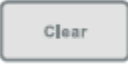
Use the [Count] function to count the elements of your drawing, such as rooms, or walls, or electrical outlets. You can count at any time, even while you are using another function. Use the [Count Scale] function to set the counting scale.

1. Click on the gray button on your stylus if you want to increment the current count in the background while you are using another function.

OR

1. Click on the [Count] button on the QuikRuler Menu to activate the *Count* function. QuikRuler III displays the current count.
2. Continue the current count either by touching the pen tip to the elements you are counting in the drawing, or by clicking on the gray buttons on your stylus.
3. To initiate a new count, click on the [Clear] button to zero out the count, and then click on the first element on the drawing to be included in your new count. Continue counting by clicking the stylus gray button, or by clicking directly on the elements in the drawing with the pen tip to add them to the count.

Measuring a Straight Segment

Use the [Length Segment] function to measure the length of a straight segment.

1. Click on the [Length Segment] button.
2. Follow the prompts that QuikRuler III displays to select the starting and ending points of the segment.

   QuikRuler III displays the length of the segment.
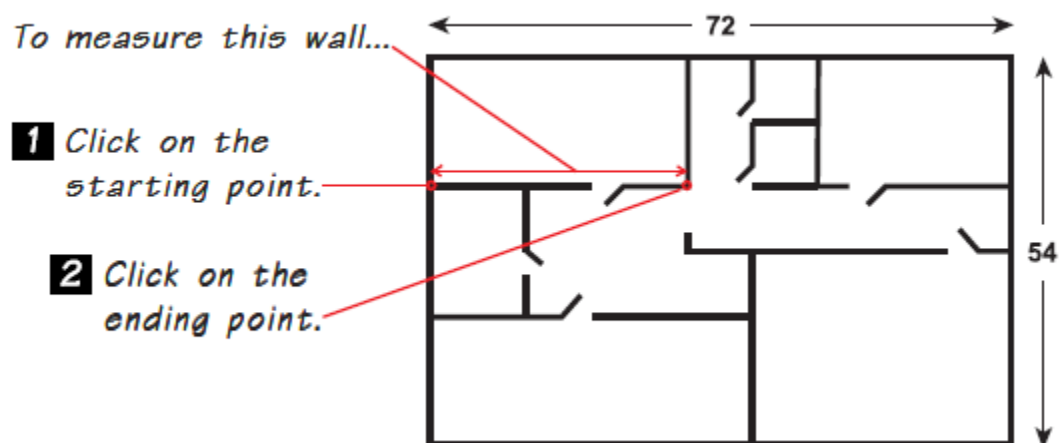
3. To measure another segment, click on its starting and ending points. You do not have to click on the **Length Segment** button first.

NOTE: Each measured segment is automatically summed with previously measured segments when in Length Segment Mode.

4. To start a new sum, click on the **Clear** button.

Measuring a Continuous Length

Use the **Length Continuous** function to measure a curved length.

1. Click on the **Length Continuous** button.
2. Press the stylus tip down on the starting point of the length and hold.
3. Trace along the length of the segment until you reach the ending point.
4. Lift the stylus tip.

QuikRuler III displays the length of the line.

To measure the curved line below...

1 Press the stylus tip down on the starting point.

2 Hold down and trace along the length until you get to the ending point.

3 Lift the stylus.

5. If the segment you are measuring is a straight line, click on the starting point of the line, lift up the stylus and click on the ending point.

Adding or Subtracting Lengths

To add or subtract lengths, follow these steps:

1. Measure the first length.
2. Click on the [+] or [−] button.
3. Measure the next length.
4. If necessary, repeat the previous two steps to add or subtract additional lengths.
5. Click on the [=] button to display the length total.

For example:

1 *Press the stylus tip down and trace.*

2 *Lift stylus.*
Click on the [+].

4 *Press the stylus tip down and lift.*
Click on the [=] to display the total length of the two lines.

3 *Press the stylus tip down and lift.*
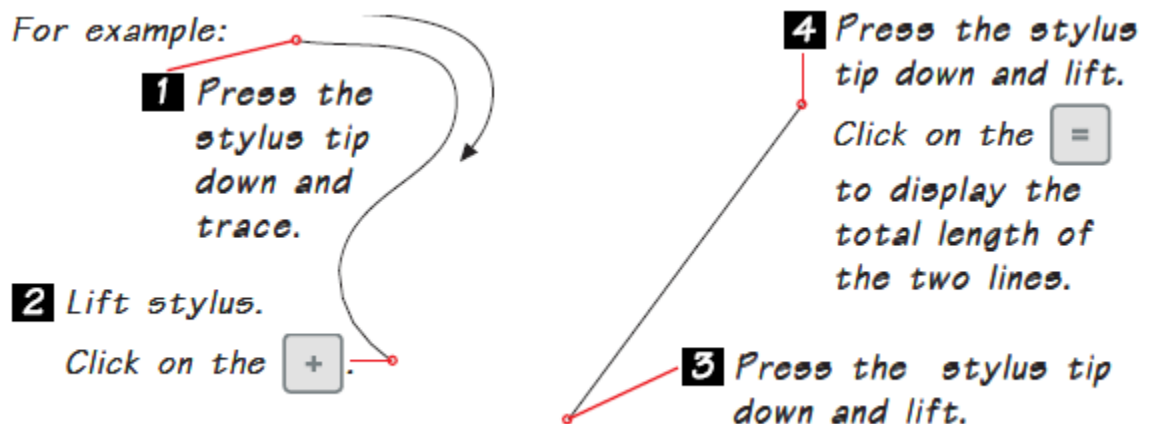
Using QuikRuler III as a Calculator

You can use the arithmetic operations and the numeric keypad buttons on the QuikRuler Menu to perform calculator functions.

Use these keypad buttons to perform calculator functions.

+	7	8	9
−	4	5	6
/	1	2	3
*	=	0	.

You can use the calculator to transform your measurements in various ways. For example, suppose you are using a drawing to estimate the amount of carpeting that will be required for an entire floor of an office building. You want to add 5 percent to the measurement, to account for waste, mistakes and so on. You would follow these steps:

1. Measure the area where carpeting is required.

2. Click on the [*] [1] [.] [0] [5] buttons.
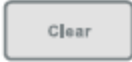
3. Select the [=] button to display the total.

You can also use the QuikRuler Menu numeric keypad as a traditional calculator to add, subtract, multiply and divide numbers independently of your measurements. You can do this at any time, even while you are using QuikRuler III functions.

Editing Data on the Display

QuikRuler III provides several ways of editing and correcting the data on the display.

Correcting Mistakes When Accumulating Measurements

When you are accumulating measurements for areas and lengths, use the [Clear] function to clear the current measurement. In addition, you can use this function to correct mistakes made while accumulating measurements.

Follow the steps below when you need to fix a mistake that occurred while you were adding the measurements of several areas. You can use the same procedure to fix mistakes made while accumulating measurements for lengths.

1. Click on the [Clear] button to clear the area you are currently measuring from the QuikRuler III display.

2. Select the [+] button.

QuikRuler III displays the size of the area you have already calculated.

3. Measure the rest of the area or areas. Click on the [=] button to display the total when you are done.

Clearing the Total

You can clear the total that is on the second line of the display at any time. Click on the [Clear] button to clear the total.
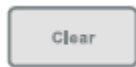
Correcting Numeric Entries

When you are entering numbers, you can delete the last number you entered by clicking on the [BkSp] button. It will delete the last digit you entered.

Sending Data to Your PC

You can send data directly from the QuikRuler III display to your computer via a USB connection. The data can be input to any program running under Windows 98 SE, ME, 2000, XP, Vista, 7 and 8. Contact GTCO CalComp by Turning Technologies Technical Support for information about connecting the QuikRuler III to other operating systems.

Spreadsheet or other application running on your PC.

You can send the current measurement from the QuikRuler III Display Module directly to the PC.

USB Cable
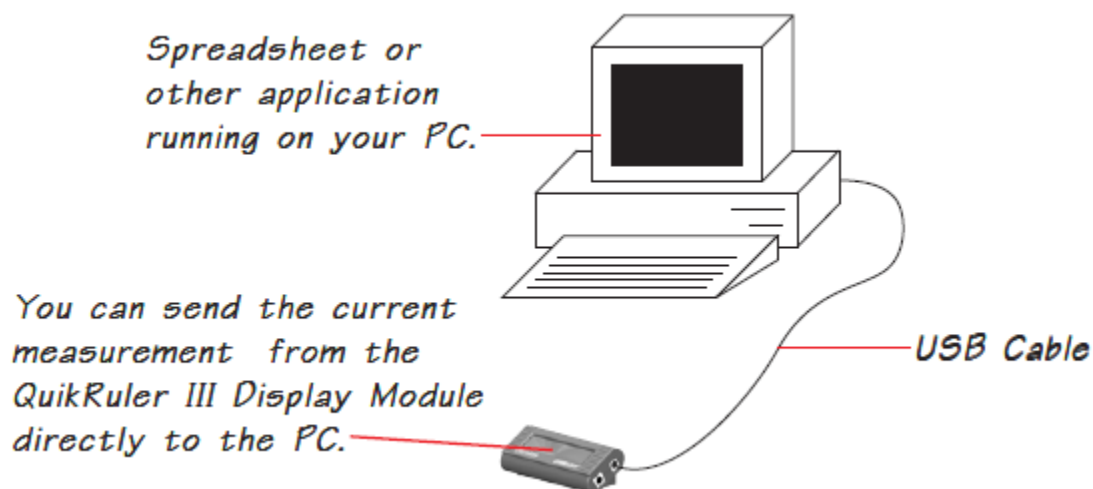
Send Data from QuikRuler III to PC

1. Make sure the cursor is positioned in the application where you want to insert the measurement from QuikRuler III.

2. Click on the [Send] button on the QuikRuler Menu, or on the black button on your stylus, (or on the green button on the 4-Button Cursor, or the 7 button on the 16-Button Cursor) to send the number shown on line 2 of the QuikRuler III display to the computer. The value will be entered into your application as it would if you had actually typed the value on your keyboard.

To simplify data entry to your spreadsheet, use the *Last Character* option from the [Configure] function. The option is used to set the last character sent, terminating the numeric value on line 2 of the QuikRuler III display. For example, select the **Down Arrow <↓> or Enter** option as the last character when you want to enter a column of values to your spreadsheet. This will enter the value in a cell and move the cursor to the cell immediately below the entry, where it will be ready for the next value.

You can navigate around in your spreadsheet application by selecting the cursor-movement buttons. For example, click on the [↑] button to move up one line or cell in your spreadsheet application.

Use these buttons to navigate in your software application.

Messages

QuikRuler III displays a variety of messages as you use its functions. Most of the messages are indicative of normal operation, such as prompts that instruct you how to perform the next step in a process. Other messages can signal a problem.

Message	Meaning
No Digitizer	QuikRuler III is not attached to the digitizer. You must attach it before you can proceed. See instructions for *Connecting the Components*.
Memory Failure	The power on test detected a memory failure. QuikRuler III will attempt to continue normally with all operations, if you click the stylus tip or cursor anywhere on the digitizer surface.
Bad Ref Point	This message will appear during a Relocate Menu operation when an incorrect lower left or lower right reference point is entered. Make sure that the entire QuikRuler Menu is within the digitizer's measuring area. Repeat the Relocate Menu operation when this message appears.
Menu Off Tablet	This message will appear during a Relocate Menu operation when the QuikRuler Menu is not positioned entirely within the digitizer's measuring area. Move the menu and repeat the Relocate Menu operation when this message appears.
Number Too Big	The number on line 2 of the display is too large for QuikRuler III. Try changing units to reduce the number size when this message appears.

If you receive any of these messages and the above suggestions do not correct the problem, contact the GTCO CalComp by Turning Technologies Technical Support Team.

Appendix A:

Transducer Button Functions

Transducer Element	Function
Stylus	
Tip switch	QuikRuler Menu selections
Gray button	Increment Count accumulator
Black button	Send
4-Button Cursor	
Yellow button	QuikRuler Menu selections
White button	Increment Count accumulator
Blue button	Clear
Green button	Send
16-Button Cursor	
0 button	QuikRuler Menu selections
1 button	QuikRuler Menu selections
2 button	QuikRuler Menu selections
3 button	QuikRuler Menu selections
4 button	Increment Count accumulator
5 button	Clear
6 button	Relocate Menu
7 button	Send
8 button	Area
9 button	Length Segment
A button	Length Continuous
B button	Perimeter
C button	Count Mode
D button	Left Arrow
E button	Right Arrow
F button	Total (=)
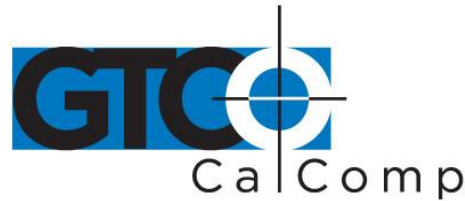
Appendix B:

Conversion Table

Fraction (In inches)	Decimal Equivalent	Ratio 1"=X' (In feet)	Fraction (In inches)	Decimal Equivalent	Ratio 1"=X' (In feet)
1/2	0.50000	2.0000	1/64	0.01563	64.0000
1/3	0.33333	3.0000	3/64	0.04688	21.3333
2/3	0.66667	1.5000	5/64	0.07813	12.8000
1/4	0.25000	4.0000	7/64	0.10938	9.1429
3/4	0.75000	1.3333	9/64	0.14063	7.1111
1/8	0.12500	8.0000	11/64	0.17188	5.8182
3/8	0.37500	2.6667	13/64	0.20313	4.9231
5/8	0.62500	1.6000	15/64	0.23438	4.2667
7/8	0.87500	1.1429	17/64	0.26563	3.7647
1/16	0.62500	16.0000	19/64	0.29688	3.3684
3/16	0.18750	5.3333	21/64	0.32813	3.0476
5/16	0.31250	3.2000	23/64	0.35938	2.7826
7/16	0.43750	2.2857	25/64	0.39063	2.5600
9/16	0.56250	1.7778	27/64	0.42188	2.3704
11/16	0.68750	1.4545	29/64	0.45313	2.2069
13/16	0.81250	1.2308	31/64	0.48438	2.0645
15/16	0.93750	1.0667	33/64	0.51563	1.9394
1/32	0.03125	32.0000	35/64	0.54688	1.8286
3/32	0.09375	10.6667	37/64	0.57813	1.7297
5/32	0.15625	6.4000	39/64	0.60938	1.6410
7/32	0.21875	4.5714	41/64	0.64063	1.5610
9/32	0.28125	3.5556	43/64	0.67188	1.4884
11/32	0.34375	2.9091	45/64	0.70313	1.4222
13/32	0.40625	2.4615	47/64	0.73438	1.3617
15/32	0.46875	2.1333	49/64	0.76563	1.3061
17/32	0.53125	1.8824	51/64	0.79688	1.2549
19/32	0.59375	1.6842	53/64	0.82813	1.2075
21/32	0.65625	1.5238	55/64	0.85938	1.1636
23/32	0.71875	1.3913	57/64	0.89063	1.1228
25/32	0.78125	1.2800	59/64	0.92188	1.0847
27/32	0.84375	1.1852	61/64	0.95313	1.0492
29/32	0.90625	1.1034	63/64	0.98438	1.0159
31/32	0.96875	1.0323			

Scale to convert: 3/16"=1'

Make both sides the same unit of measure (inches): 3/16" = 12"

Multiply both sides by the denominator (16) to eliminate the fraction:

3/16*16 = 12*16   Result: 3 = 192

Divide both sides by the numerator (3) to get the ratio: 3/3 = 192/3 = 64"

Divide the value by the number of inches in a foot (12) to convert the value to feet: 64/12 = 5.33

So, in 3/16" scale, 1 inch is equal to 5.33 feet.

Appendix C: Regulatory Statements and Warranty

Radio Frequency Energy Notice

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Reorient or coil cables.
- Consult the dealer or an experienced Radio/TV technician for help.

NOTE: Any cables the user adds to the device must be shielded to be in compliance with the FCC standards. Any unauthorized modification to this device could result in the revocation of the end user's authority to operate this device.

Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

Le present appareil numérique n'emet pas bruits radioelectriques depassant les limites applicables aux appareils numériques de Classe B prescrites dans le réglement sur le brouillage radioelectrique edicte par le Ministere des Communications du Canada.

DECLARATION OF CONFORMITY
According to ISO/IEC 17050-1 and EN 17050-1

Declaration of Conformity
57-00050 Rev A

Revision history

Rev 00 – Created document 06/15/2004 – Dana Doubrava

Rev A -   Assigned part number, updated the formatting to match new modified letterhead and contact information for Turning Technologies – 10/18/2013 – Andrea Davidson

DoC #: 57-00050 Rev A
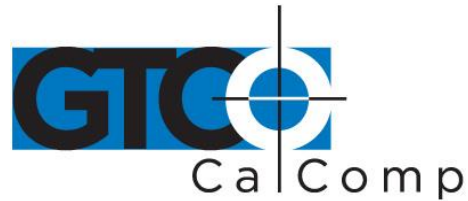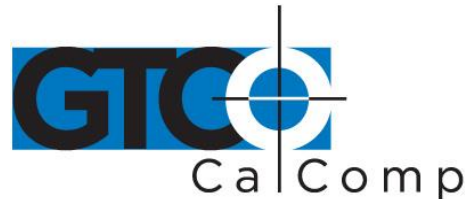
GTCO
CalComp
by TURNING technologies

DECLARATION OF CONFORMITY
According to ISO/IEC 17050-1 and EN 17050-1

Turning Technologies

Manufacturer's Name:	Turning Technologies, LLC /DBA GTCO CalComp
Manufacturer's HQ Address:	255 West Federal Street, Youngstown, Ohio 44503 U.S.A.
European Address:	26/36 rue Alfred Nobel, 93600 Aulnay Sous Bois, France
Phone	+33 1 58 31 10 60 Fax +33 1 58 31 10 69

Declares, that the product
Product Name: Quick Ruler III
Product Options: Models QR3

Conforms to the following specifications:

EMC: **EN55022:1998, A1:2000 A2:2003 CLASS A**
        EN55024:1998 A1:2000 A2:2003 Class A Device
            EN61000-3-2 Harmonic Current Emissions
            EN61000-3-3 Voltage Fluctuations and Flicker
            EN61000-4-2 Direct ESD/Indirect ESD
            EN61000-4-3 Radiated Susceptibility:
            EN61000-4-4 Electrical Fast Transients:
            EN61000-4-5 Surge:
            EN61000-4-6 Conducted RF:
            EN61000-4-8 Magnetic Field:
            EN61000-4-11Voltage Dips and Interruptions
        (USA) FCC Part 15B Title 47 Class B Digital Device
        (AUSTRALIA / NEW ZEALAND) AS/NZS CISPR 22:2002
        (JAPAN) VCCI V-1/93.11, V-2/97.04, V-3/97.04. V-4/97, R-1216 and C-1278 as Class A ITE

CE Marking: The product carries the C E Mark indicating compliance according to 2004/108/EC

**C-Tick Marking:** The product carries the C-Tick Mark indicating compliance according to the Standard AS/NZS CISPR 22:2002 Class A Digital Apparatus

FCC/IC Compliance: This device complies with Part 15 of the FCC Rules Class A and RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) this device may not cause interference and (2) this device must accept any interference, including interference that may cause undesired operation of the device. The user is cautioned that changes or modifications to the device that are not approved by the manufacturer could void user's authority to operate the device.
RoHS: "-R" labeled products conform to Directive 2011/65/EU (Directive 2002/95/EC). These products are RoHS-compliant.

European Union WEEE Directive: The manufacture of this equipment required the extraction and use of natural resources. It may contain hazardous substances that could impact health and the environment.
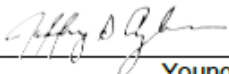
- In order to avoid the dissemination of the hazardous substances into the environment and to diminish the pressure on our natural resources, we encourage you to return this product to the appropriate take-back system facility. These facilities reuse or recycle most of the materials in this equipment in a responsible way.
- The crossed-out wheeled bin symbol invites you to use these take-back systems.
- If you need more information about the collection, reuse and recycling systems in your area, please contact your local or regional waste authority.

Further information about the responsible end-of-life management of this and other products is available on our Web site at www.TurningTechnologies.com
Below is a list of supporting documents to claim this DoC:

- Report Number GTCO\EMC15504-ACA, GTCO\EMC15504-FCC & GTCO\EMC15504-VCCI of October 14, 2004. Testing Facility MET Laboratories, Inc. – 914 West Patapsco Ave, Baltimore, MD 21230
- Report Number GTCO\EMC15504-EN24 of August 31, 2004. Testing Facility MET Laboratories, Inc. – 914 West Patapsco Ave, Baltimore, MD 21230

Signed by: _____

Jeff Cunningham   Youngstown, Ohio, U.S.A.   10/18/2013
Director of Hardware R&D   Location   Date

DoC #: 57-00050 Rev A

Japan

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＢ情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

Bescheinigung des Herstellers/Importeurs

Heirmit wird bescheinigt, dass der/die/das

3036R

(Geraet, Typ, Bezeichnung)

im Uebereinstimmung mit den Bestimmungen der

Vfg 1046/1984

(Amtsblattverfuegung)

Funk-Entstort ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Geraetes angezeigt und die Berechtigung zur Ueberpruefung der Serie auf Einhaltung der Bestimmungen eingeraumt.

GTCO CalComp, Inc.

(Name des Herstellers/Importeurs)

Dieses Geraet wurde einzeln sowohl als auch in einer Anlage, die einen normalen Anwendungsfall nachbildet, auf die Einhaltung der Funkentstoerbestimmungen geprueft. Es ist jodoch moeglich, dass die Funkentstoerbestimmungen unter unguenstigen Umstaenden bei anderen Geraetekombinationen nicht eingehalten werden. Fuer die

Einhaltung der Funk-entstoerbestimmungen seiner gesamten Anlage, in der dieses Geraet betrieben wird, ist der Betrieber verantwortlich.

Einhaltung mit betreffenden Bestimmungen kommt darauf an, dass geschirmte Ausfuhrungen gebraucht werden. Fuer die beschaffung richtiger Ausfuhrungen ist der Betrieber verantwirtlich.

European Union WEEE Directive

The manufacture of this equipment required the extraction and use of natural resources. It may contain hazardous substances that could impact health and the environment.

- In order to avoid the dissemination of the hazardous substances into the environment and to diminish the pressure on our natural resources, GTCO CalComp by Turning Technologies encourages you to return this product to the appropriate take-back system facility. These facilities reuse or recycle most of the materials in this equipment in a responsible way.
- The crossed-out wheeled bin symbol below invites you to use these take-back systems.
- If you need more information about the collection, reuse and recycling systems in your area, please contact your local or regional waste authority.
- Further information about the responsible end-of-life management of this and other GTCO CalComp by Turning Technologies products is available on our website at www.gtcocalcomp.com.

Appendix D

Limited Warranty for QuikRuler III

GTCO CalComp by Turning Technologies, Inc. warrants these products to be free from defects in material and workmanship under the following terms. Complete and return the enclosed warranty registration card to ensure that your products are covered with this warranty.

Coverage
Parts and labor are warranted for two (2) years from the date of the first consumer purchase for the digitizer tablet, controller, transducers and tablet accessories. Power supply and cables are also warranted for one (1) year. This warranty applies to the **original consumer purchaser only**.

Within the European Union, the warranty period is two (2) years, as mandated by the EU. Contact your local dealer or distributor for additional warranty information.

Warranty is only valid if original consumer's purchase or lease date is less than or equal to six months from the original GTCO CalComp by Turning Technologies sale date. This information will be captured by the system serial number and confirmed by the reseller's purchase order.

A nominal Warranty Handling Fee will be charged after the first 90 days of use and calculated from the date of original consumer purchase. This payment may be made by Visa, MasterCard or American Express. A copy of the sales receipt or invoice will be required for warranty verification.

Conditions
Except as specified below, this warranty covers all defects in material or workmanship in the products. The following are not covered by the warranty:
1. Any product on which the serial number has been defaced, modified or removed (if applicable).
2. Damage, deterioration or malfunction resulting from:
   a. Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature, unauthorized modification for any purpose, unauthorized product modification, or failure to follow instructions supplied with the product.
   b. Repair or attempted repair by anyone not authorized by GTCO CalComp by Turning Technologies.
   c. Any damage in shipment of the product (claims must be presented to the carrier).
   d. Any other cause which does not relate to a manufacturing defect.
3. Any product not sold or leased to a consumer within six months of GTCO CALCOMP BY TURNING TECHNOLOGIES original sale date.

GTCO CalComp by Turning Technologies will pay all labor and material expenses for covered items, but will not pay for the following:
1. Removal or installation charges.
2. Costs for initial technical adjustments (set up), including adjustment of user controls.
3. Certain shipping charges. (Payment of shipping charges is discussed in the next section of this warranty.)
4. Packaging costs. (Customers should keep their boxes.)

Warranty Service Procedures
1. To obtain service on your GTCO CalComp by Turning Technologies product, contact the Technical Support Department to receive a Return Material Authorization Number (RMA#) and shipping instructions by calling: 1-866-746-3015.
2. Ship the product to GTCO CalComp by Turning Technologies with the RMA# marked clearly on the outside of the box. Without a clearly marked RMA# on the shipping box, GTCO CalComp by Turning Technologies reserves the right to refuse the shipment.
3. Although you must pay any shipping charges to ship the product to GTCO CalComp by Turning Technologies for warranty service, GTCO CalComp by Turning Technologies will pay the return shipping charges for ground shipment. Other shipping options are available at an additional fee.
4. Whenever warranty service is required, the original dated sales invoice (or a copy) must be presented as proof of warranty coverage and should be included in shipment of the product. Please also include your name, address, telephone number, fax number, email address and a description of the problem.
5. If GTCO CalComp by Turning Technologies determines that the unit is not defective within the terms of the warranty, the consumer shall pay the cost of all freight charges, as well as any repair charges.

Technical Support
Web-based Technical Support is available free of charge at: www.gtcocalcomp.com, where current driver releases, as well as comprehensive technical support, troubleshooting, Technical Bulletins and FAQs can be found.

Telephone Technical Support is available free of charge to the original consumer for a period of 90 days from the date of purchase of the product. Please contact our Technical Support Department at: 1-866-746-3015 or fax your request to: 480.998.1751.

Disclaimer of Unstated Warranties
The warranty printed above is the only warranty applicable to this purchase. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. Assuming the warranty above stated is otherwise applicable, it is expressly understood and agreed that GTCO CalComp by Turning Technologies sole liability whether in contract, tort, under any warranty, in

negligence or other shall be for the repair or replacement of the defective parts and under no circumstances shall GTCO CalComp by Turning Technologies be liable for special, indirect or consequential damages. The price stated and paid for the equipment is a consideration in limiting GTCO CalComp by Turning Technologies liability.

Notice
Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state, or province to province.

To obtain service on your GTCO CalComp by Turning Technologies product, call our Technical Support Department at: 1-866-746-3015 or fax us at (480) 998-1751. We can also be contacted through our website at www.gtcocalcomp.com (in US); at EUOffice@gtcocalcomp.com (in Germany); at infos@calcomp.fr (in France).

Important!
All products returned to GTCO CalComp by Turning Technologies for service must have prior approval in the form of a Return Merchandise Authorization Number (RMA#), which can be obtained by calling the Technical Support Department.

Corporate Headquarters
14557 N. 82nd Street
Scottsdale, Arizona 85260
Tel: 1-866-746-3015
Support: 1-866-746-3015
Fax: 480-998-1751

www.gtcocalcomp.com

QUIKRULER III™