

Please note the following changes to user's manual IM701730-01E.

**[List of Functions and Firmware Versions in this Notice of Alterations]**

This notice of alterations pertains to the added functions listed below. Check the version of your product to determine the changes that are relevant to you. To check the product version, press the MISC key followed by the Overview soft key. The version is listed under Soft Version in the overview window.

Added Functions	Version	Suffix Code
Korean added to the message and menu languages	Ver. 2.09 or later	Standard
"H&V cursor" added to the cursor types	Ver. 2.09 or later	Standard

**[Addition of Korean to the menu and message languages (for products of version 2.09 or later)]**

Starting with ROM version 2.09 of this product, users can also select Korean. See section 15.1 of user's manual IM701730-01E for the operating procedure. Note that the user's manual gives the explanation in English.

**Note**

The combinations of menu and message languages that can be set are as shown in the table below.

		Menu Language		
		English	Chinese	Korean
Message Language	Japanese	✓	-	-
	English	✓	✓	✓
	Chinese	✓	✓	-
	Korean	✓	-	✓

If Japanese\*, Chinese, or Korean are set as either the menu language or message language option, then only that same language or English can be specified for the remaining option. For example, if Chinese is set as the menu language, then only Chinese or English can be set as the message language. In this example, if the message language were changed to Korean, the menu language would also be changed to Korean.  
\* Japanese can only be set as the message language.

**Page 17-6 "Other Functions"**

Item	Specifications
....	
Help function	Displays help concerning the settings (select Japanese, English, Chinese, or Korean)
....	

**[“H&V cursor” added to the cursor types (version 2.09 or later)]****Page 2-27 “Cursor Measurements”**

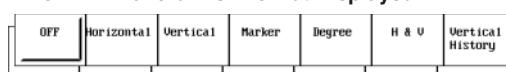
Please note the following additions.

**Both Horizontal and Vertical Cursors (H&V)**

Displays Horizontal and Vertical cursors simultaneously.

**Page 10-31 through 10-35 “Procedure”**

Please note the following change in the selection menu that appears when you press CURSOR followed by the Type soft key.

**When X-Y Waveforms Are Not Displayed****When X-Y Waveforms Are Displayed**

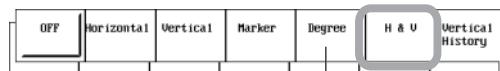
## Page 10-36

Please note the following additions.

### Measuring Waveform Using Horizontal and Vertical Cursors

#### Selecting Both Horizontal and Vertical Cursors

See steps 1-3 to set the **Type** to **H&V**

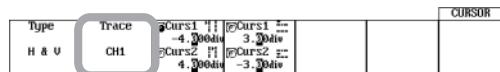


When X-Y waveforms are displayed, Degree is not available.

#### Selecting the Waveform to Measure

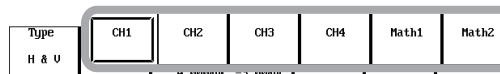
- When X-Y Waveforms Are Not Displayed

4. Pressing the **Trace** soft key. The Trace menu appears.



5. Press the **CH1** to **CH4(2)**, **Math1**, or **Math2** soft key to select the waveform to measure.

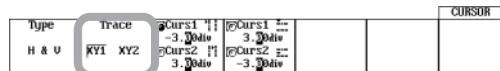
- On the DL1740E/DL1740EL, you can select from CH1 to CH4, Math1, and Math2.
- On the DL1720E, you can select CH1, CH2, and Math1.



- When X-Y Waveforms Are Displayed

4. Press the **Trace** soft key to select XY1 or XY2.

Proceed to step 6.



#### Moving the Cursor

6. Press the **Curs1** / **Curs2** soft key to set the jog shuttle control to Curs1(Cursor1), Curs2(Cursor2), or both Curs1 and Curs2.

- Select Curs1 to move Curs1.
- Select Curs2 to move Curs2.
- If you select both Curs1 and Curs2, you can move Curs1 and Curs2 vertically without changing the spacing between the two. The value of the digit being specified by Curs1 changes.

#### When X-Y Waveforms Are Not Displayed



#### When X-Y Waveforms Are Displayed



7. Turn the **jog shuttle** to move the cursor.

8. Move **Curs1** / **Curs2** in the same manner according to steps 6 through 7.

## Page 10-37

Please note the following additions to "When X-Y Waveforms Are Not Displayed" and "When X-Y Waveforms Are Displayed" of **Cursor Measurement Parameters**.

#### Both horizontal and vertical cursors (H&V)

Measures the X and Y values at the cursor.

Y1 Y axis value of horizontal Curs1 (Cursor1)

Y2 Y axis value of horizontal Curs2 (Cursor2)

DY The difference in Y axis values of horizontal Curs1 and horizontal Curs2

X1 X axis value of vertical Curs1

X2 X axis value of vertical Curs200

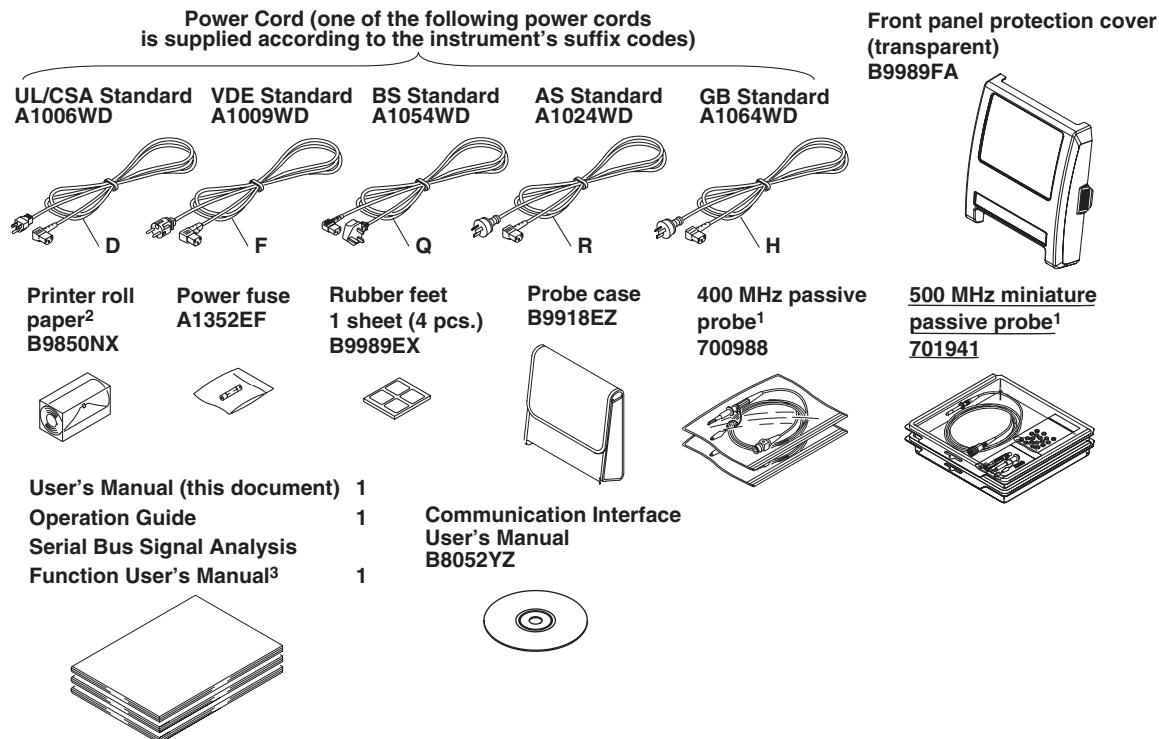
DX The difference in X axis values of vertical Curs1 and vertical Curs2

[Please change the following contents.]

Page ii "Option specifications"

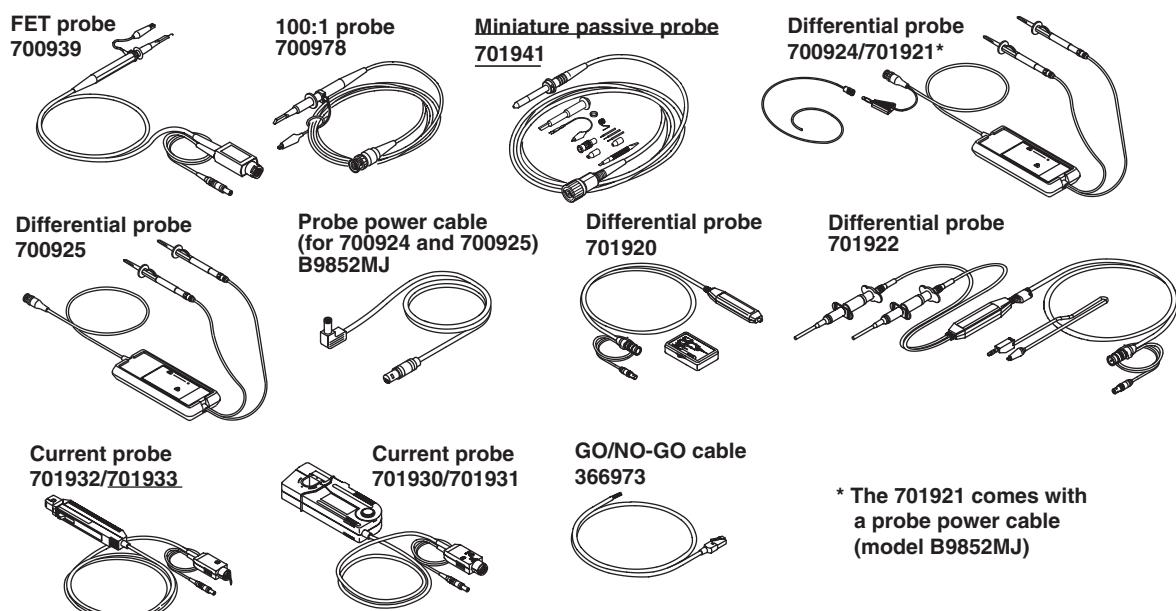
Option specifications (Optional)	/B5 /EX2 /EX4 /C10 .....	Built-in printer <sup>2</sup> 2 additional 701941 miniature passive probes in place of 700988 passive probes (option only for the DL1720E) 4 additional 701941 miniature passive probes in place of 700988 passive probes (option only for the DL1740E and DL1740EL) Ethernet interface
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Page iii "Standard Accessories"



1. The DL1720E comes with two, and the DL1740E/DL1740EL comes with four. On models with the /EX2 or the /EX4 option, 701941 passive probes are provided in place of 700988 passive probes.
2. Provided on models with the /B5 option (built-in printer).
3. Provided on models with the /F5 option (serial bus signal analysis function).

Page iii "Optional Accessories"



\* The 701921 comes with a probe power cable (model B9852MJ)

### Page 3-9 "Probes"

#### Miniature Passive Probe (701941) Specifications after Probe Phase Correction

(On models with the /EX2 or the /EX4 option, 701941 passive probes are provided in place of 700988 passive probes.)

Item	Specifications	Conditions
Input resistance/capacity	10 MΩ ±2% / approx. 10 pF	When used on the DL1700
Attenuation	10:1 ±3%	When used on the DL1700
Frequency range	DC to 500 MHz	When used on the DL1700
Rise time	Within 700 ps	When used on the DL1700
Maximum input voltage	400 Vrms*	500 kHz or less For the maximum input voltage when 500 kHz is exceeded, see the manual that comes with the probe.
Connector type	BNC	—
Cable length	1.2 m	—

\* This probe complies with the following measurement categories of IEC 61010-031.

Measurement category I 400 Vrms (transient overvoltage: 1250 V)

Measurement category II 300 Vrms

### Page 3-9 to 3-10

#### When Using the FET Probe, Current Probe, or Differential Probe

When using FET probes (700939), current probes (700937, 701930, 701931, 701932, or 701933), or differential probes (701920 or 701922) made by YOKOGAWA, use the probe power supply on the rear panel of the instrument.

#### CAUTION

Do not use the probe power supply terminals on the rear panel of the instrument for purposes other than supplying power to the FET probe (700939), current probes (700937, 701930, 701931, 701932, or 701933), or differential probes (701920, or 701922). Doing so may damage the instrument or the device connected to them.

#### When Using the FET Probe, Current Probe, or Differential Probe

When connecting FET probes (700939), current probes (700937, 701930, 701931, 701932, or 701933), or differential probes (701920 or 701922) to the probe power supply terminal on the rear panel, make sure that the current does not exceed the range shown below. Otherwise, the instrument operation may become unstable due to the activation of the excessive current protection circuit of the power supply.

### Page 17-1 "17.1 Input Section"

Item	Specifications
Maximum input voltage <sup>6</sup>	.....
Frequency characteristics <sup>1, 2</sup> (-3 dB point when a sine wave of amplitude ±4 divisions is input)	For 50 Ω input ..... For 1 MΩ input (when using the 700988 passive probe, indicates the frequency of the input signal at the probe tip. The value inside the brackets is the frequency when using the 701941 miniature passive probe.) 10 V/div–10 mV/div: DC–400 MHz [DC–500 MHz] 5 mV/div–2 mV/div: DC–300 MHz [DC–400 MHz]
.....	.....

5. Automatically set to the optimum values for the current probe 700937, 701930, 701931, 701932, or 701933 (sold separately).

6. When using the probe, be sure that the maximum input voltage of the DL1700 and the maximum input voltage of the probe are not exceeded.

### Page 17-8 "Probe Power Supply Terminal (Optional)"

Item	Description
.....	.....
Probe that can be used	FET probe (700939), current probe (700937, 701930, 701931, 701932, or 701933), differential probe (701920 or 701922)

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**Page 17-10 "Accessories"**

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Accessories	Power cord: <u>400 MHz passive probe(700988):</u>	1 (DL1740E/DL1740EL) 4 (DL1720E) 2
	<u>500 MHz miniature passive probe(701941):</u>	4 (On the DL1740E/DL1740EL with the /EX4 option, 701941 passive probes are provided in place of 700988 passive probes.) 2 (On the DL1720E with the /EX2 option, 701941 passive probes are provided in place of 700988 passive probes.)
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Item	Description
Emission	Standards Compliance

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