The SPRG Programmer is used to write programs to EPROM (Erasable Programmable Read-Only Memory) for use in YewSeries 80 Programmable Instruments (e.g. SLPC Programmable Indicating Controller, SLMC Programmable Indicating Controller, SCMS Programmable Computing Station or SPLR Programmable Computing Unit).

The Programmer has the following functions:

● **Program Entry.**

The computational and control functions that can be performed by YewSeries programmable instruments can be entered as a sequence of program steps and edited, to construct a user program. Initial values of some variables/ parameters/constants can also be entered from the programmer keyboard, and some parameters may be entered from the tuning panel of the programmable instrument. The entered program is stored in programmer RAM (read-write) memory. As described below, a program may also be entered (stored in programmer RAM) by reading it from a preprogrammed EPROM.

● **To Read/Transfer/Edit Program.**

Programs stored in an EPROM can be read into the programmer, edited (if necessary) and — if the UPRT printer is equipped — printed out.

● **Test Run.**

One way to test SLPC, SLMC or SCMS programs is to store a "process model" simulation program in the SPRG Programmer. (This does not affect the maximum size of user program). The SLPC, SLMC or SCMS can then be connected to the Programmer and test-run "off line". In test run mode, the values of program variables (including inputs and outputs) can be displayed, to check that operation is as expected and confirm that there are no program mistakes. SPLR programs can be "test run" by connecting the programmer, applying inputs to the unit and checking that outputs are as expected.

Any errors found by test running a program can be corrected using the editing functions of the programmer (insert/delete program step, modify variables or constants). Finalized programs, stored in programmer RAM, can be printed out if the UPRT printer is equipped.

● **Program Write.**

Completed and checked programs can be written to a blank EPROM, which is then installed in the programmable instrument. Values (at program write time) of some variables/parameters/constants are also stored in ROM for use as initial (power-up) values.

Note: For the above functions (to Read or Enter and Edit a Program, Test Run a Program, or Write an EPROM), the Programmer must be connected to one of the YewSeries Programmable Instruments.
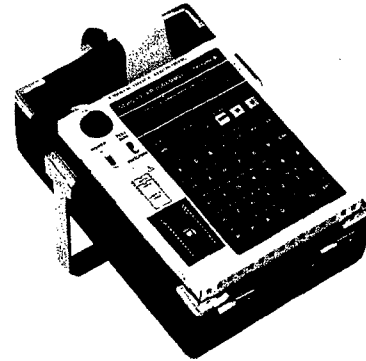
STANDARD SPECIFICATIONS

Keyboard: Incorporates a total of 41 keys (some of which are multi-function keys). There are programming instruction keys — such as numeric and function keys — and command keys such as (EPROM) read, write; (programmer) memory initialize(/clear), program test run, etc. In addition, there are ON/OFF and Program/ Test Run toggle switches.

Display: 16-digit alphanumeric LCD (Liquid Crystal Display). Program steps, variables, parameters or constants may be displayed.

ROM Socket: An EPROM installed in this socket may be read or written (programming time 60 to 130 sec).

Operating Conditions

Ambient Temperature: 0 to 40°C (32 to 104°F).

Ambient Humidity: 5 to 90% relative humidity (non-condensing).

Power Supply: Two versions, for "100 V" (standard) or "220 V" (option /A2ER). Both versions may use AC or DC, without change to the instrument:

Version	"100 V"	"220 V"
DC (polarity reversible)	20 to 130V	120 to 340V
AC (47 to 63 Hz)	80 to 138V	138 to 264V

Maximum Power Consumption:
330 mA at 24 V DC, 15.6 VA at 100 V AC, 19.5 VA at 220 V AC when programming an EPROM.

Insulation Resistance:
Between Front Panel Toggle Switches or ROM Socket Pins and Ground Terminal: 100 MΩ/500 V DC.

Withstanding Voltage:
Between Front Panel Toggle Switches or ROM Socket Pins and Ground Terminal: 500 V AC for 1 minute.
Between Power and Ground:
1000 V AC for 1 minute (100 V version).
1500 V AC for 1 minute (220 V version).

YOKOGAWA ◆

Wiring:

Wiring to YewSeries 80 Programmable Instrument: Special 60-cm (2 ft) cable with connectors.

Wiring to UPRT Printer: 2-meter (6 ft 6 in) printer cable plugs into connector on side panel of programmer.

Power and Ground Wiring:

100 V version: JIS C 8303 two-pin plug with earthing contact. (IEC A5-15, UL498).
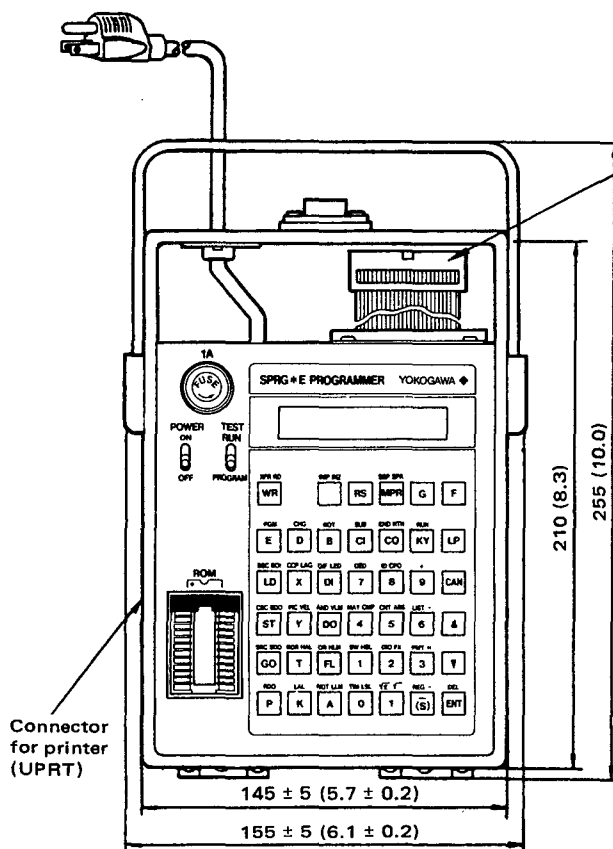
220 V version: CEE 7 VII (CENELEC standard) plug.

Power Cable Length: 2 m (6 ft 6 in).

External Dimensions: 255 × 155 × 95 mm (10 × 6.1 × 3.7 in).

Weight: 1.8 kg (4 lb).

EXTERNAL DIMENSIONS.

Connector with cable for instrument SLPC/SLMC/SCMS/SPLR

Connector for printer (UPRT)

145 ± 5 (5.7 ± 0.2)

155 ± 5 (6.1 ± 0.2)

210 (8.3)

255 (10.0)

Unit: mm (in)

63 ± 2 (2.5 ± 0.2)

95 ± 5 (3.7 ± 0.2)

8 (0.3)

MODEL AND SUFFIX CODES

Model	Suffix code		Description
SPRG	. . . .		Programmer
	-000		Always 000
Style code	•E		Style E
Option		/A2ER	220V power supply

ACCESSORIES

Tool for pulling ROM from socket 1
Extension card for SPLR 1
Conversion plug for two-pole socket 1
Fuse (1 A) 1
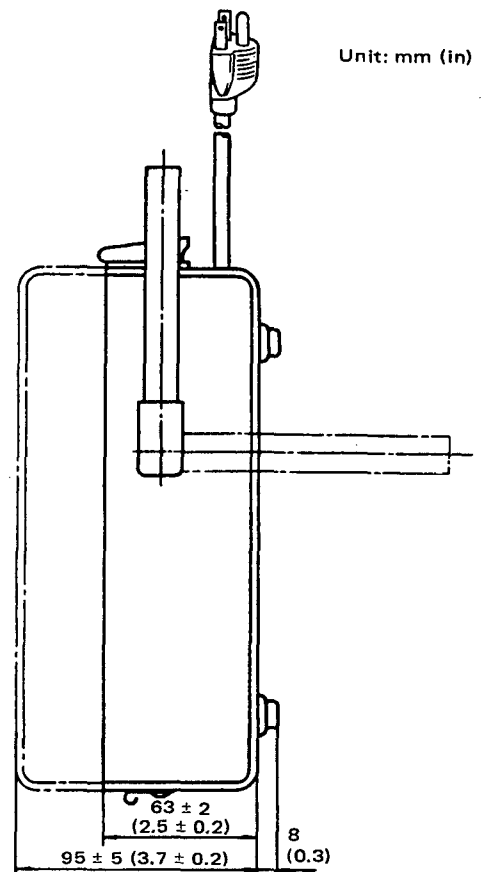
======== ORDERING INSTRUCTIONS ========

When ordering, specify the model and suffix codes.

========== RELATED EQUIPMENT==========

Related Instruments

Model SLPC Programmable Indicating
Controller . . . . GS 1B4C2-E
Model SLMC Programmable Indicating
Controller . . . . GS 1B4C3-E

Model SCMS Programmable Computing
Station . . . . GS 1B4D6-E
Model SPLR Programmable Computing
Unit . . . . GS 1B4L3-E
Model 5½47 IPL Computing Stations . . . . . . GS 1B3E4-E
Model UPRT Printer . . . . GS 34B6F2-01E
EPROM Eraser . . . . Any commercially available unit

Related Spare Parts

User's EPROM (blank) . . . . Part No. G9003LT
(To be reprogrammed, any existing program or data in ROM must be erased).