INSTRUCTION MANUAL

PROBE SELECTOR

MODEL PS01-COS

KIKUSUI ELECTRONICS CORPORATION

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1. GENERAL

Probe Selector PS01-COS is used in conjunction with Programmable Oscilloscope COS5030-PG. It is capable of selecting two probes out of four probes per channel or total eight probes. Probe selection, input coupling, and attenuation ratio are controllable with external signals. These signals can be stored in memory of Remote Controller RC01-COS or Memory Unit MU01-COS.

2. SPECIFICATIONS

Item	Specification	Remarks
Number of inputs	4 inputs × 2 channels (= total 8 inputs)	BNC connector
Input impedance	1 MΩ ±2%, 35 pF ±2 pF	In parallel
Allowable maximum input voltage	400 Vp-p (AC + DC peak)	AC component not higher than 1 kHz
Frequency bandwidth	DC - 50 MHz, within -3 dB	With reference to 50 kHz
Crosstalk	60 dB or less (10 MHz)	Between channels
Number of outputs	1 output × 2 channels	BNC connector
Output impedance	50 Ω ±5%	
Gain	1 ±5%	With 50-ohm termination
Power	Supplied from oscilloscope	
Dimensions and weight Maximum dimensions Chassis section		
Weight	Approx. 3 kg (6.6 lbs)	

Ambient conditions

Ranges to satisfy specifications:	+5°C to +35°C (41°F to 95°F), up to 85%
Maximum operable ranges:	0°C to 40°C (32°F to 104°F), up to 90%

Accessories

	Kikusui code
Inter-device connection cable (24P)	1
50-ohm termination resistors (1/2W)	2
50-ohm cables	2
Instruction manual	1

3. GENERAL PRECAUTIONS

3-1. Unpacking

Please unpack the device immediately when it is delivered to you and check for any signs of damage which might have been sustained when in transportation. If any sign of damage is found, please immediately notify the bearer and your Kikusui dealer.

3-2. Ambient Conditions

The maximum operable temperature range of the device is 0°C to 40°C (32°F to 104°F). Note that, if the device is operated for a long time in high temperature and high humidity, the device may become malfunctioning or its service life may be shotened.

3-3. Maximum Allowable Voltage of Input Terminals

The maximum allowable voltage of the input terminals is as shown in below. Note that the device may be unretrievably damaged if a voltage higher than the allowable maximum voltage is applied.

Input terminals (BNC connector)	400 V (DC + AC peak)

AC component not higher than 1 kHz

3-4. 24-pin Inter-device Connection Cable

Before connecting or disconnecting the inter-device connection cable, make it sure that the power of the oscilloscope is turned off. After making it sure that the cable is securely connected (making it sure that the cable is engaged by the connector lock spring of the main unit), turn on the power switch of the oscilloscope.

3-5. Output Termination

The output impedance of this device is 50 ohms (±5%). Be sure to use the 50-ohm coaxial cables and 50-ohm termination resistors supplied. Note that the wattage of the 50-ohm resistors is 1/2 W.

4. PANEL DESCRIPTION AND INTER-DEVICE CONNECTIONS

4-1. Description of Front Panel

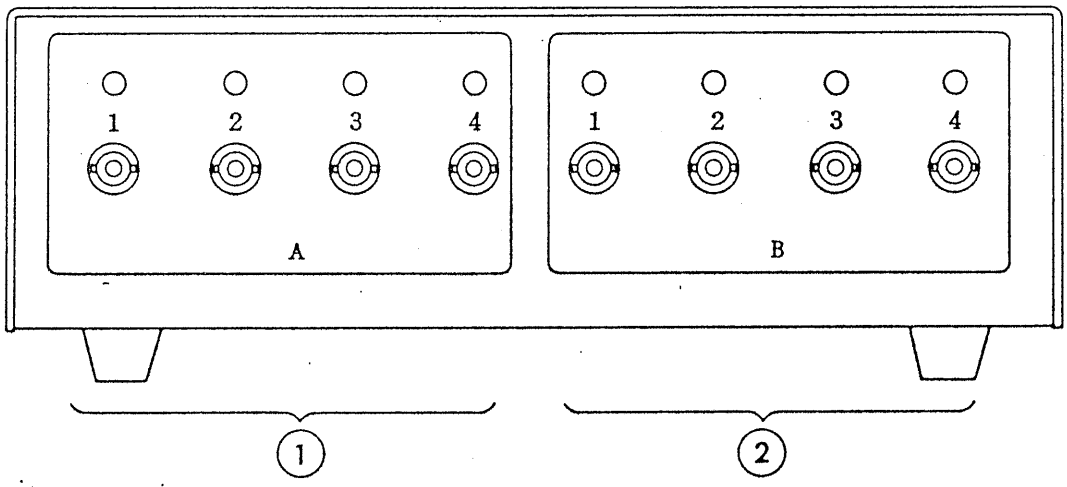


Figure 4-1

① Input connectors and indicator lamps (red RED's) of channel A

② Input connectors and indicator lamps (red LED's) of channel B

4-2. Description of Rear Panel

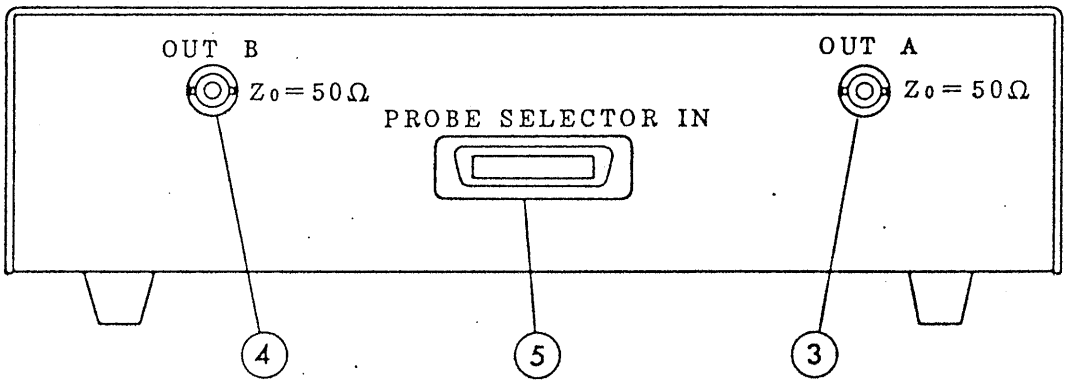


Figure 4-2

③ OUT A: Output connector of channel A
Zo = 50 Ω

④ OUT B: Output connector of channel B
Zp = 50 Ω

⑤ PROBE SELECTOR IN: 24-pin connector for control input signals

4-3. Inter-device Connections

Connect the devices as shown in Figure 4-3.

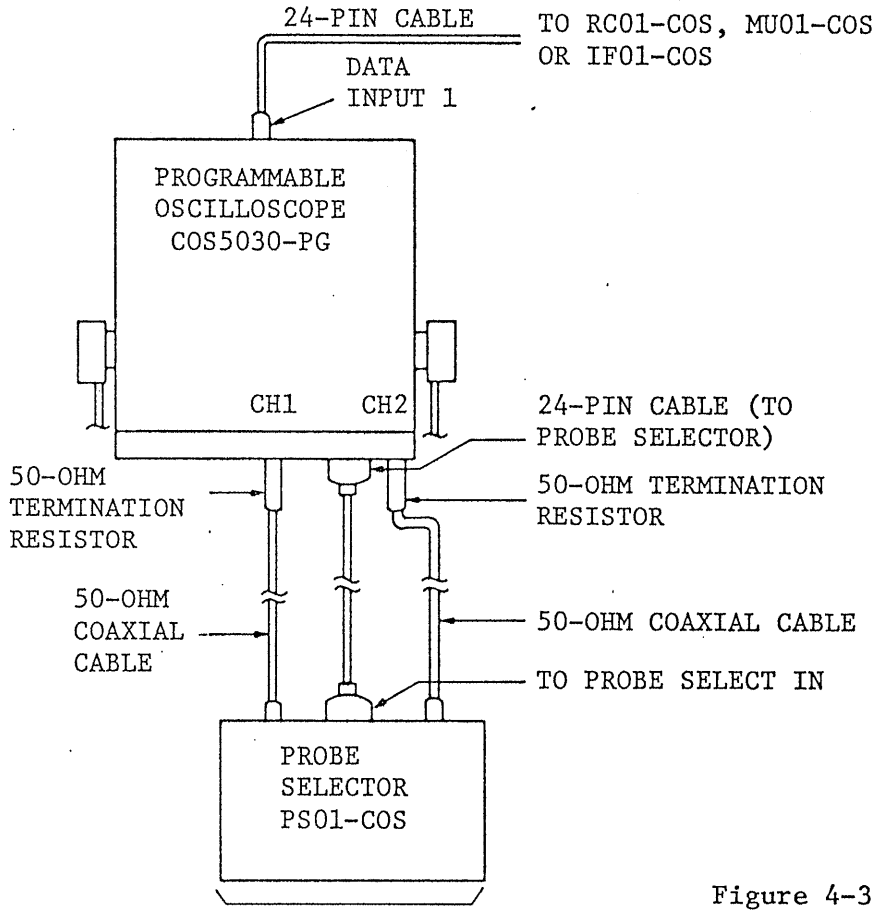


Figure 4-3

For connection between Probe Selector PS01-COS and Programmable Oscilloscope COS5030-PG, be sure to use the 50-ohm coaxial cables and 50-ohm termination resistors which are supplied accompanying the probe selector.

5. OPERATION METHOD

5-1. Operation with Remote Controller RC01-COS

When Probe Selector PC01-COS is operated in conjunction with Remote Controller RC01-COS, probe selection operation of PC01-COS can be controlled with the EXT SELECTOR (A and B) switches of the remote controller.

(1) Set to the WRITE state the READ/WRITE switch located at the left-hand side of the MEMORY switch on the front panel of Remote Controller RC01-COS.

(2) Press the A-1 button of EXT SELECTOR switches.

(3) Check that the LED lamp above the A-1 connector of Probe Selector PS01-COS is turned on indicating that the A-1 connector is in the usable state.

(4) Turn the CH1 VOLTS/DIV range selector switch of Remote Controller RC01-COS to select the required sensitivity range. (When this is done, the corresponding LED lamp of VOLTS/DIV range selector switch of Programmable Oscilloscope COS5030-PG also lights, indicating the sensitivity of the input terminal of Probe Selector PC01-COS.)

(5) Select the required program step number by pressing the UP/DOWN button of Step Controller SC01-COS or SC02-COS.

(6) Press the MEMORY switch of Remote Controller RC01-COS to store data.

(7) Return to procedure of item (2) and press another button of EXT SELECTOR switch.

By the above procedure, the probe selection data is stored in memory of the remote controller.

(8) Set the MEMORY READ/WRITE switch of Remote Controller RC01-COS to the READ state.

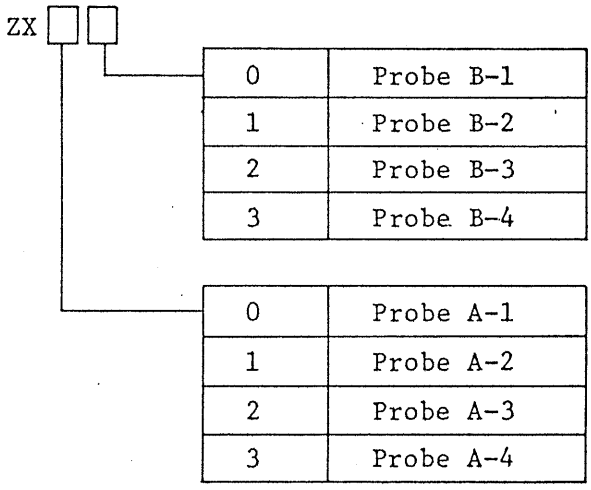
(9) Read the required program step by pressing the UP/DOWN button of Step Controller SC01-COS. The probes will be switched as programmed.

5-2. Operation with Memory Unit MU01-COS

When Probe Selector PC01-COS is operated in conjunction with Memory Unit MU01-COS, transfer control data from Remote Controller RC01-COS to Memory Unit MU01-COS. When this is done, probes can be switched with the programs stored in the memory unit in the same manner as probes can be controlled with the remote controller.

5-3. Operation with GP-IB Interface Unit IF01-COS

When Probe Selector PC01-COS is used in conjunction with GP-IB Interface Unit IF01-COS, the two lower-order digits of Z characters are used as codes for selection of A and B probes, respectively.



0	Probe B-1
1	Probe B-2
2	Probe B-3
3	Probe B-4

0	Probe A-1
1	Probe A-2
2	Probe A-3
3	Probe A-4