

OPERATION MANUAL

BATTERY ADAPTOR

MODEL BAO1-COM

First Edition

KIKUSUI ELECTRONICS CORPORATION

(KIKUSUI PART NO. Z1-946-120)

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On Power Supply Source, it is requested to replace the related places in the instruction manual with the following items.

(Please apply the item of mark.)

- Power Supply Voltage: to _ _ _ _ _ V AC
- Line Fuse: to _ _ _ _ _ A
- Power Cable: to 3-core cable (See Fig. 1 for the colors.)

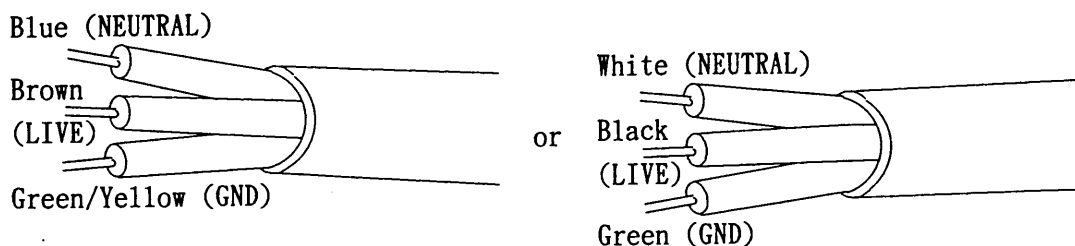


Fig. 1

Please be advised beforehand that the above matter may cause some alteration against explanation or circuit diagram in the instruction manual.

* AC Plug: In case of Line Voltage 125V AC or more, AC Plug is in principle taken off and delivered, in view of the safety.

(AC Plug on 3-core cable is taken off in regardless of input voltages.)

TO connect the AC plug to the AC power cord, connect the respective pins of the AC plug to the respective core-wires (LIVE, NEUTRAL, and GND) of the AC power cord by referring to the color codes shown in Fig. 1.

Before using the instrument, it is requested to fix a suitable plug for the voltage used.

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1. General

Model BA01-COM Battery Adaptor has a built-in rechargeable battery and can be used being installed on a COM3000 Series Oscilloscope.

The adaptor allows you to operate the oscilloscope outdoors where no AC line power is available or indoors even when the AC line power has failed. The Adaptor can be charged from the oscilloscope or external DC power supply.

2. Specifications

o Operation Periods

COM3100/COM3050: Approx. 80 minutes on average
(60 minutes or more at maximum loaded)

COM3101/COM3051: Approx. 50 minutes on average
(35 minutes or more at maximum loaded)

Notes: (1) The operation periods mentioned in the above are on the assumptions that the battery has been fully charged up at 25°C (77°F) and the oscilloscope is operated with minimal scale illumination and mid-intensity.

If the oscilloscope is with the Interface Unit, the Operation periods will be reduced by approximately 15%.

(2) The OPERATE lamp (green) illuminates to indicate that the oscilloscope is operated on the battery power. When the battery is discharged, the lamp blinks. (The relationship between operation period and blinking of the lamp differs depending on ambient temperature.)

○ Ambient Temperature and Humidity

	Discharge	Charge
Ambient Temperature to Satisfy Specified Performance	5 to 35°C (41 to 95°F)	5 to 30°C (41 to 86°F)
Operable Ambient Temperatuer Limits	0 to 40°C (32 to 104°F)	0 to 35°C 32 to 95°F)
Allowable Short-term Storage Temperature	-30 to 50°C (-22 to 122°F) within 30 days	
Ambient Humidity	< 85% RH for all of the above items	

○ Charge up Periods

15 hours or more when the battery is charged by the oscilloscope itself (standard charging current 0.1CmA)

5 hours or more when the battery is charged by an external battery charger (charging voltage 18V DC, charging current approximately 1.3A)

During the charging operation, the CHARGE lamp (orange) illuminates.

When the battery is nearly fully charged up, the CHARGE lamp blinks. Since it is most recommendable to fully charge up the battery, be sure to charge the battery for the above-mentioned charge up period or more.

The battery can be charged while operating the oscilloscope. Note that, when ambient temperature is higher than 30°C (86°F), the battery may not be fully charged up due to temperature rise of the oscilloscope.

Charging of the battery via the DC INPUT terminals from an external battery charger should be made with a charging current of approximately 1.5A with a charging voltage of 15 to 20 volts. The charging current may differ by ambient temperature. If the charging current is less than 1.5A, a longer charging period is needed.

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o Dimensions and Weight

Dimenstions

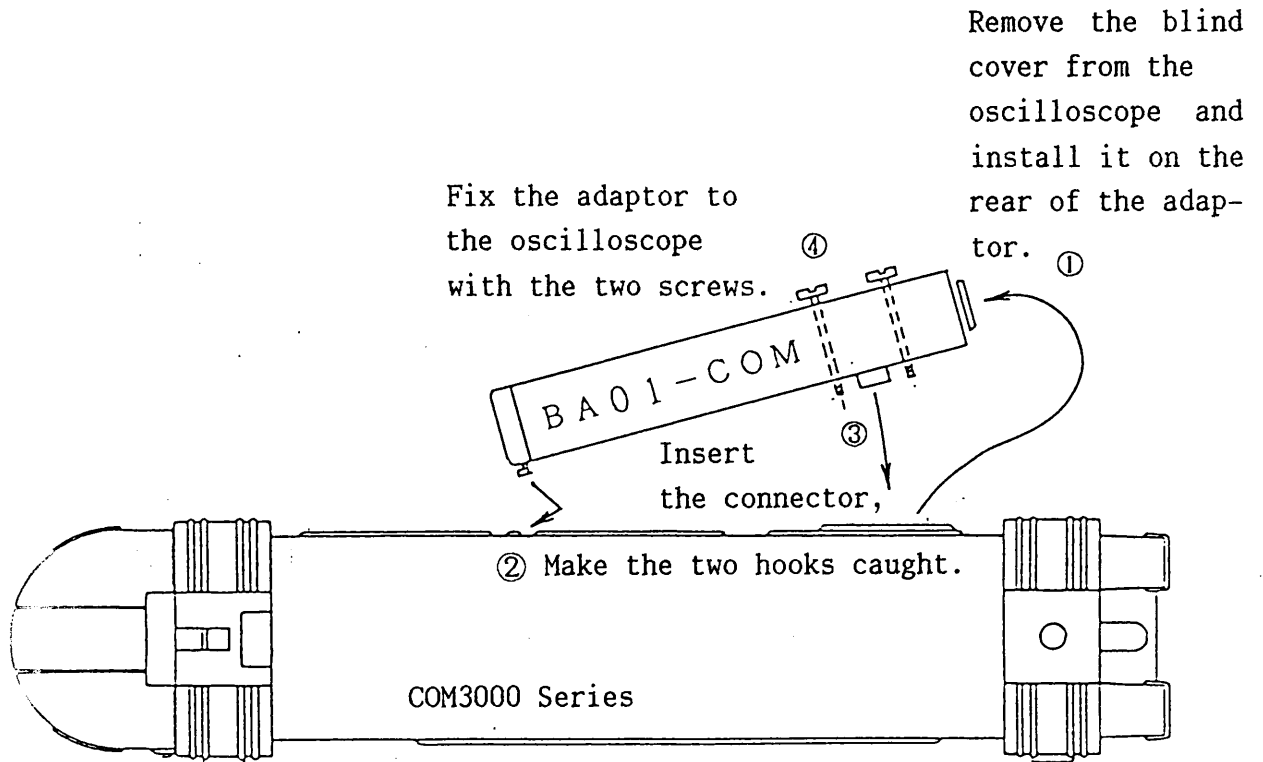
Excluding Extrusions: 214 W x 30 H x 174 D mm
(8.43 W x 1.18 H x 6.85 D in.)

Including Extrusions: 214 W x 43 H x 174 D mm
(8.43 W x 1.69 H x 6.85 D in.)

Weight: Approx. 1.9 kg (4.2 lbs)

3. Operation Method

To use the BA01-COM Battery Adaptor, install it on the COM3000 series oscilloscope as illustrated below.



When using the battery for the first time, charge it before starting operating the oscilloscope on the battery power.

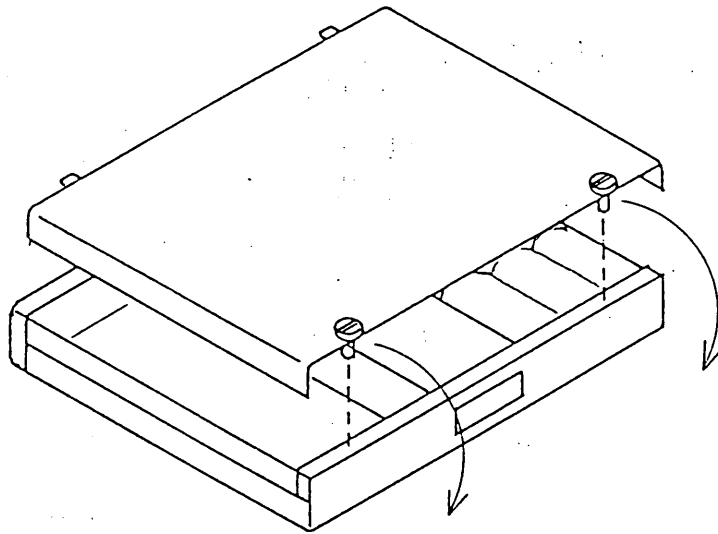
Note: Be sure to turn off both front and rear POWER switches of the oscilloscope before installing or removing the adaptor.

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4. Battery Replacement

To replace the battery, remove the cover of the battery compartment. Use the batteries of the same model and install them in the correct polarity.

Never mixedly use stale and fresh batteries, different types of batteries, or different manufacturers' batteries.



Loosen and disengage the two screws using a coin or a screwdriver and remove the cover by pulling it rearward.

5. General Precautions

- Exercise care so that the connector terminals are not short-circuited. Note that, if they are short-circuited, a dangerously large current will be drawn from the battery and it may overheat or explode.
- The number of rechargeable cycles of the built-in nickel-cadmium battery is approximately 300 at 25°C (77°F). Replace the battery with a new one when the capacity of the battery even after full charge up has become less than the normal capacity.
- The life of the battery is adversely affected if it is operated at high or low temperature for long periods. To make the best use of the battery capacity, it is most recommendable to use it at about 25°C (77°F).
- Do not connect the BA01-COM power and the EXT DC input power at the same time.
- To charge the battery with an external battery charger, dismantle the BA01-COM from the oscilloscope and feed the charging current via the DC INPUT terminals, with a voltage of 15 to 20 volts. The polarities of the terminals (connector) are as illustrated below.

(Applicable connector: EIAJ RC-705 Power Supply Plug)

