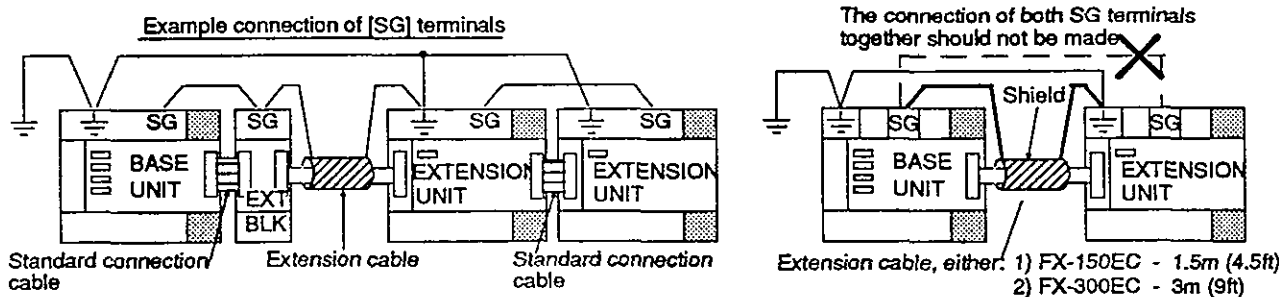# FX-150EC AND FX-300EC EXTENSION CABLE USER'S GUIDE

Introduction

The FX-150EC and FX-300EC cables are for the connection of FX series programmable controllers (base units) to FX series extension units. For the construction of the optimum PC system the following points should be observed when using these extension cables:

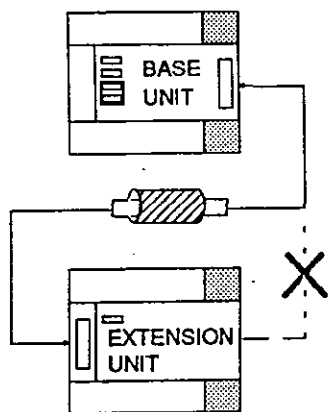### (1) The Wiring Of The [SG] Terminal

Care should be taken when using the FX-150EC or FX-300EC extension cable. The cable shield should be connected to both the [SG] terminal of the FX base unit and the earth terminal of the FX extension unit. The normal practice of connecting both [SG] terminals of the base and extension unit should NOT be made when using extension cables. The connection cable for the [SG] terminals should be a minimum 2mm^2 (0.003 inches^2).

Example connection of [SG] terminals

Standard connection cable   Extension cable   Standard connection cable

The connection of both SG terminals together should not be made

Extension cable, either: 1) FX-150EC - 1.5m (4.5ft)
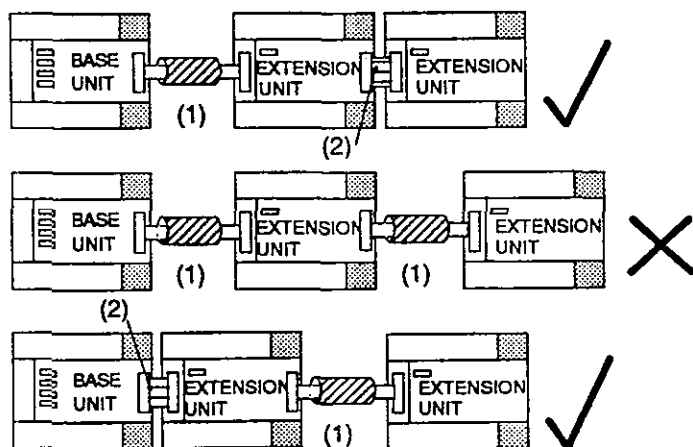2) FX-300EC - 3m (9ft)

(2) Cable Configurations

The practice of connecting multiple extension cables on one FX system is not recommended. However the positioning of the extension cable is completely flexible. It should be remembered that between the units separated by the extension cable NO connection of the [SG] terminal is required, as mentioned in point (1).

Correct extension cable use

Cable configurations

1) Extension cable, either:
a) FX-150EC - 1.5m (4.5ft)
b) FX-300EC - 3m (9ft)

2) Standard connection cable.

(3) Miscellaneous

The extension unit should not be connected to the base unit through the right hand expansion port of the said extension unit. The practice of laying cables well away from power lines should be observed. Under some conditions excess electrical noise may make it necessary to filter any local power supplies.

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