

EST240Z

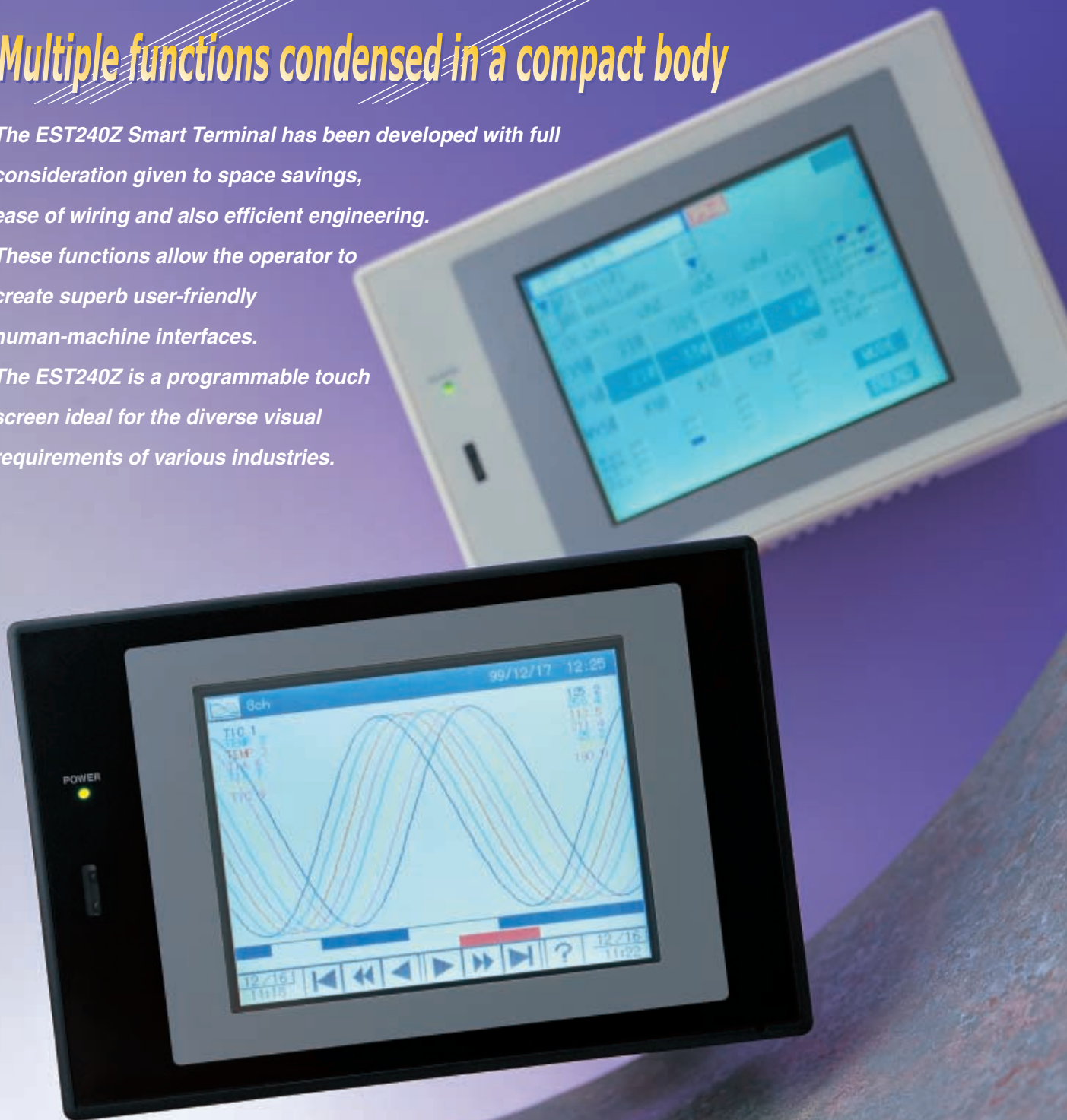
Intelligent Programmable Color Touch ScreenCE certified product (EN50081-2
EN61000-6-2)

Multiple functions condensed in a compact body

The EST240Z Smart Terminal has been developed with full consideration given to space savings, ease of wiring and also efficient engineering.

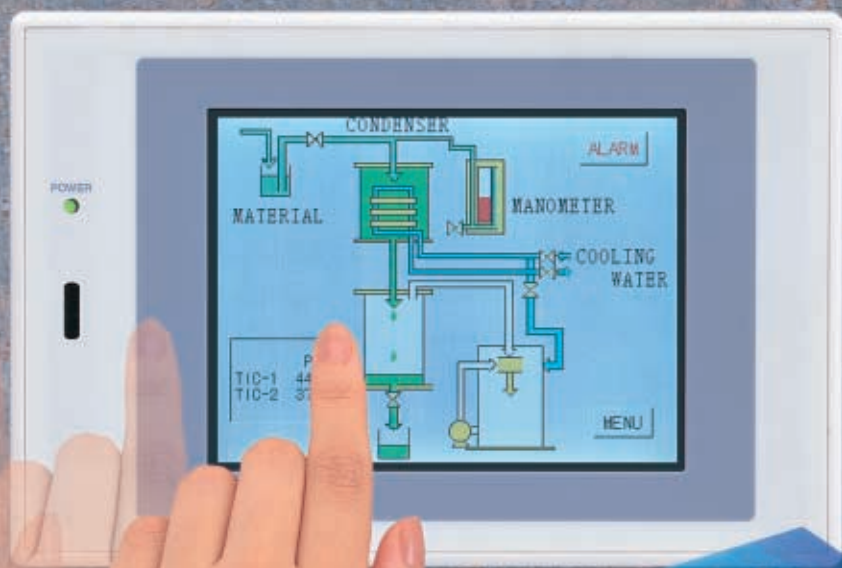
These functions allow the operator to create superb user-friendly human-machine interfaces.

The EST240Z is a programmable touch screen ideal for the diverse visual requirements of various industries.



EST240Z

Features



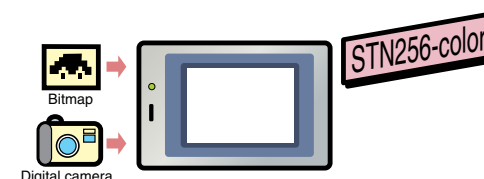
Satisfies all user requirements

Compact color touch screen with intelligent functions

Highly visible display functions, multiple interfaces and enhanced reporting functions with the addition of application-creating software for easy software development. The EST240Z satisfies all of your needs with its intelligent design and functions.

Highly visible image drawings

The STN device enables color image drawings to be viewed in 256-color. Graphics, bitmap (bmp) files, JPEG images taken with a digital camera, and so on can all be incorporated into a custom layout.



Bright screen and improved viewing angle

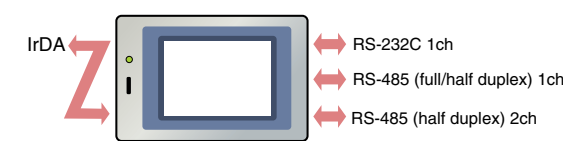
The brightness of the LCD is 200cd/m². The viewing angle has been greatly widened. The backlight service life* has been extended to 40,000 hours.



(* The service life is the duration after which brightness has been diminished by half.)

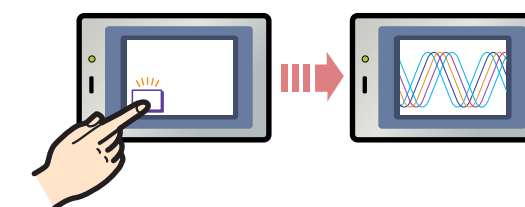
Multi-channel communications

RS-232C, RS-485 and IrDA (infrared) communication functions are provided. PLC, controller or personal computer connection is supported. The gateway function provides program-less data exchange between the PLC and controllers



Faster screen redraw

The unit has been installed with a 32-bit CPU. Time for screen redraw has been improved considerably.



Loader port on front panel

An IrDA loader port has been placed on the front face therefore freeing the operator from performing troublesome wiring from the rear panel. This infrared port allows high-speed wireless communications thus aiding in realizing an excellent watertight (IP65) structure.

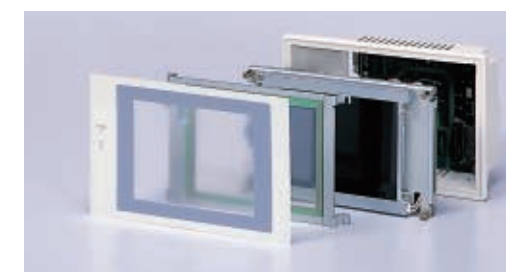


A complete range of intelligent functions

- Enhanced recording functions, trend collection/display, alarm history, recipe management, etc.
- Highly compatible with temperature controllers (superior compatibility with the DMC10)
- Bit monitor/word monitor for Mitsubishi's PLCs (Q, A, FX Series) are provided.

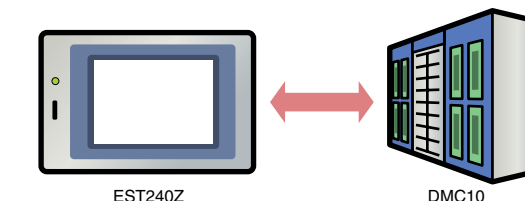
Easy maintenance

All maintenance work involving backlight, LCD, touch switch, battery, etc. can be performed from the front face, thus contributing to a considerable reduction in maintenance time.



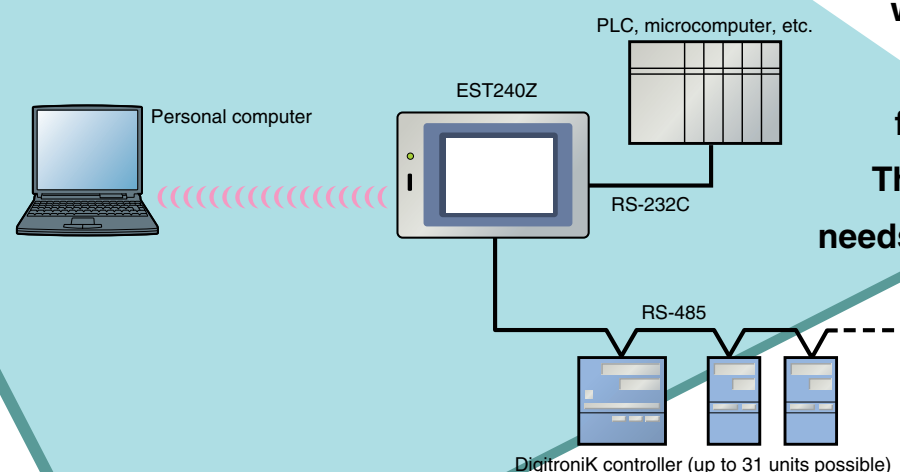
Library software for DMC10 controllers (DMC loader package available separately)

The loader terminal can easily be installed by incorporating the setting/display screens for Yamatake's DMC10 temperature controllers into the user's software.



System Outline

The user can develop a custom system integration with the EST240Z used as a central device.



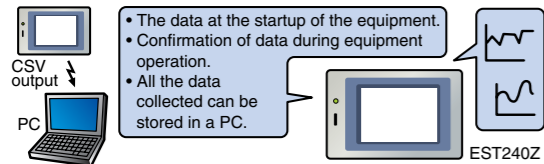


Multiple functions for custom user applications

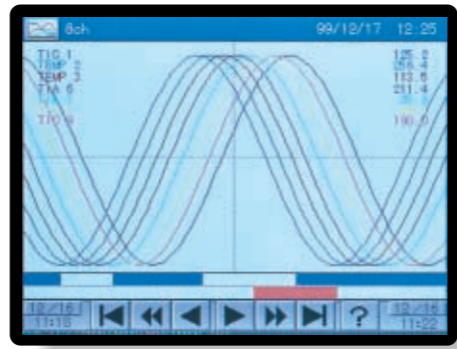
Proposal of applications to be realized by the EST240Z

Trend collection and display

This is a function that records data from controllers and PLCs over a long period and that data can then be viewed on the screen. The collection point can have 8 channels per screen, and a maximum of 5 trend screens. The point cycles can be changed on-line. For instance, for the data from a collection cycle of 30s and a maximum of 5 channels, approximately one week of data may be stored.

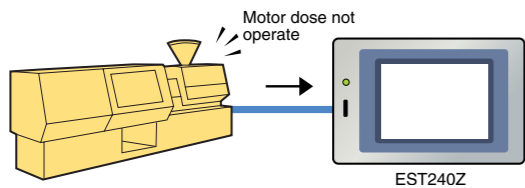


• Software is available to transfer CSV output from the EST240Z to a personal computer.



Alarm history

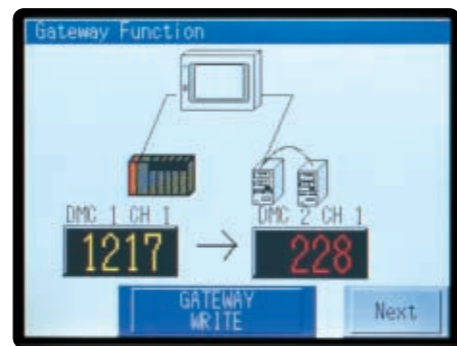
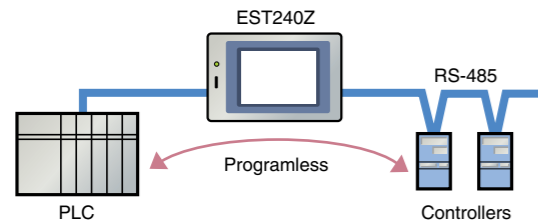
Up to 400 alarms generated by other devices connected to the EST240Z can be automatically collected. Of course, a personal computer can utilize that data.



No.	ALARM	OCCURRED	RECOVERED
005	No3-2T/C AL	09-05 16:19	09-05 16:19
006	No3-4T/C AL	09-05 16:19	09-05 16:19
007	No3-1T/C AL	09-05 16:19	-
008	No3-2T/C AL	09-05 16:19	09-05 16:19
009	No3-4T/C AL	09-05 16:19	-

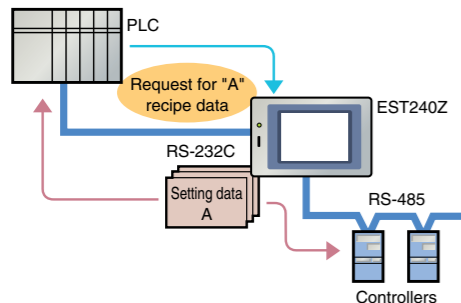
Gateway functions

Data transfer between the PLC and Yamatake temperature controllers can be performed through the EST without the need for any program. Address settings and communication cycle settings can be performed easily by entering the values using the AP Editor.



Recipe management

The EST240Z is able to manage the setting data, operation parameters and so on for every recipe. Data loading from the host can be reduced by making batch-writings of both set and managed data into the PLCs and controllers.



No.	Data	Data Name
001	1000	DMC1 CH1 SP
002	1500	DMC1 CH2 SP
003	105	Line Speed
004	1200	DMC1 CH1 Prop.B
005	2000	DMC1 CH1 Inte.T



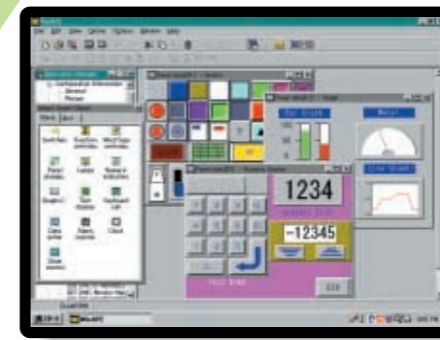
Easy creation of applications and positive debugging

New AP editor for Windows 98/Me/XP

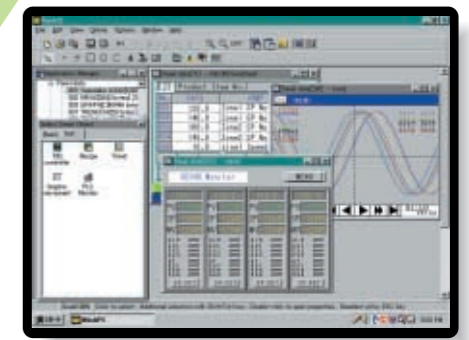
The new AP editor is application creation software for Windows 98/Me/XP. Approximately 1000 smart objects developed for object-oriented processing have been provided, thus, considerably reducing software development time.



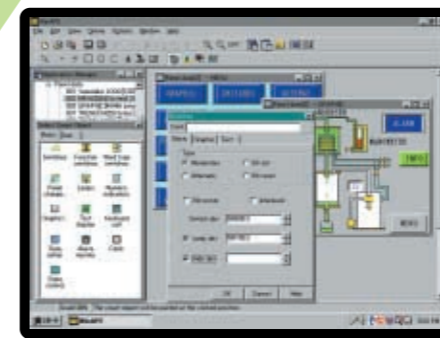
Various object items



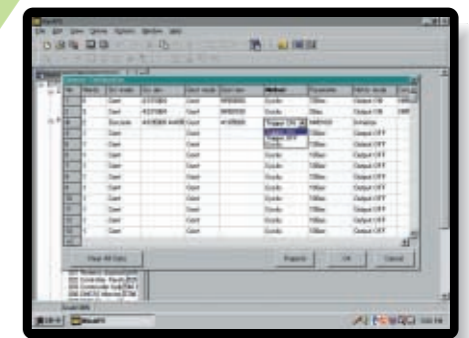
Smart objects available for both basic parts and instrumentation objects



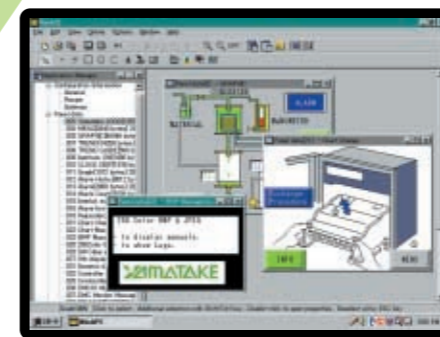
Configuration of object parameters made simple



Gateway settings facilitate communications with various devices



Multiple representations by pasting bitmaps (bmp) or JPEGs



Created application data can be easily printed out

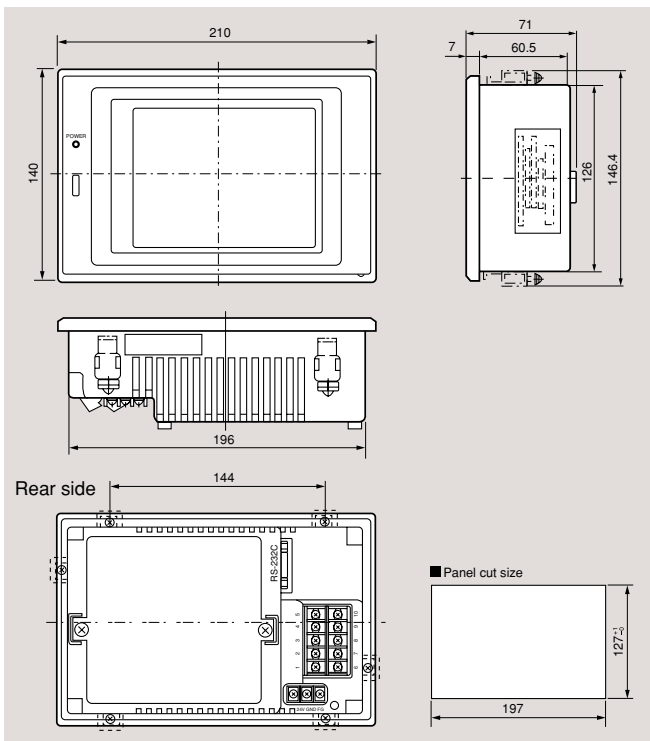


General specifications

Item	Specification
Power supply voltage	24Vdc±15%
Power consumption	1A max.
Dielectric strength	500Vac for 1 min. (between power supply and FG terminals, between signal cables and power supply/FG terminals)
Insulation resistance	10MΩ min. at 500Vdc (between power supply and FG terminals, between each signal cables and power supply/FG terminals)
Storage temperature	-20 to +60°C
Operating temperature	0 to 50°C
Ambient humidity	30 to 85% (no condensation allowed)
Ambient atmosphere	No corrosive gas allowed
Vibration resistance	Conforms to JIS 0911, the equipment is exposed to 10 to 55Hz vibrations, 9.8m/s ² in X, Y and Z directions, single sweep: 6 minute., 2 hours in each direction.
Impact resistance	Conforms to JIS0912: 9.8m/s ² for 20ms or less.
Noise resistance	DC power supply±1000V, 100ns to 1μs (using impulse noise simulator)
Protective structure	IP65 (dust-protected and water splash-proof)
External dimensions	140 (H) x 210 (W) x 71 (D) mm
Weight	1.3kg
Mounting	Vertical panel mounting & fixing from the rear by auxiliary fittings.
Cooling method	Natural cooling

Dimensions

(unit: mm)



Functional specifications

Item	Specification
Display element	STN color LCD
Display color	256 colors (bmp, JPEG); 64 colors (smart objects)
Effective display area	115 x 86mm
Resolution	320 x 240 dots
Touch switch	Transparent resistor membrane (analog)
Service life of touch switches	1 million times
Service life of backlight	40,000 hours (This is the time until the brightness is reduced to 50% at a room temperature.)
Clock accuracy	±120s/month (Ta=25°C)
Battery life	4 years with the power supply turned off
User memory	1 Mbytes (programs), Number of screens: 899
Communication port	IrDA, RS-232C 1-channel, RS-485 full duplex 1-channel, RS-485 half duplex 2-channel
Others	1 digital input / 1 digital output, buzzer

Selection Guide

Model No.	Description
EST0240Z05WBX00	5.7 type programmable color touch screen, white body
EST0240Z05BBX00	5.7 type Programmable color touch screen, black body

Maintenance parts

Model No.	Description
ESTX924BL60	Backlight (for the EST240Z not complying with CE certifications)
ESTX92XBL61	Backlight (for the EST240Z complying with CE certifications)
ESTX92XSS60	Panel protective sheet (for white model)
ESTX92XSS61	Panel protective sheet (for black model)
81446345-001	Battery

Option Devices

Model No.	Description
CBL232AFT02	RS-232C cable (2m) D-sub25pin pin contact – D-sub9pin socket contact
CBL232FFT02	RS-232C cable (2m) D-sub9pin pin contact – D-sub9pin socket contact

AP Editor application creation software

Model No.	Description
ESTX240SWWEC000	AP Editor for Windows 98/Me/XP, Version 4.4 CD-ROM
ESTX220D1AE3001	Package for DMC10, 3/5 in. floppy disk

CAUTION

The product has been designed, developed and manufactured for general purpose applications for machinery and equipment. The product shall be handled with extra caution to provide fail-safe and/or redundant design in the applications that require strict safety as those listed below.

- applications pertaining to the protection of human life
- applications pertaining directly to controlling transportation equipment and machinery (start/stop control, etc.)
- applications pertaining to aircraft
- applications pertaining to spacecraft
- applications pertaining to nuclear reactors

Do not use this device in applications where the device's functions are directly responsible for human safety.

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Specifications are subject to change without notice.

YAMATAKE

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