NITTAN

CONVENTIONAL FIRE ALARM CONTROL PANEL 1PM3 Series

1PM3

■ Description

The 1PM3 is a conventional fire alarm panel with a stylish wall-mount design. Product variation is from 10 to 40-zone supplied in 10 to 40 zone. Detector circuit in alarm is indicated by red LED. Open circuit condition is shown by blinking red LED. Slide-in paper labels are included for zone identification. The 1PM3 has an alarm delay function for all detector circuits to prevent from false alarm. Zone delay setting can be individually configured by ON/OFF switch.

The 1PM3 features a re-sounding function of panel buzzer by receiving any subsequence input from manual alarm stations or other zone alarm activation after the buzzer silenced manually. The 1PM3 also has a maintenance switch to enable to cut off the panel buzzer and zone alarm during installation or maintenance works .

The 1PM3 is equipped with a CPU for securing high reliability features, and also for a CPU trouble back-up function. Even when the CPU falls down, basic functions are continued to indicate alarm zone, to sound alarms and to transmit alarm signals.

The power consumption reduced 70% compared with Nittan's previous models.

■ Features

- 10 to 40 zone model variation
- Stylish wall-mount design
- High reliable model with durable components, LED indicators and CPU
- 10 to 20 circuit alarm bell zone(depends on the model)
- Alarm delay function
- Alarm delay ON/OFF switch
- Trouble monitoring function
- CPU trouble back-up function
- Panel buzzer re-sounding function
- Lightning surge protection
- A function of interrupting zone alarm to prioritize emergency announcement
- Three other alarm indicators for indicating inputs from building facilities
- CPU trouble back-up function
- Capability of transmitting the second fire signal
- Signal transmitting to Emergency PA facility
- Easy wiring by Plug-in type terminals one-touch connection
- Color universal design for people with color vision deficiency

■ Applications

Remote test function is available with using a test device MTT for the detector of PK2B-DP-006, PK2B-P-021 and others.

MTT
- Remote Tester

PK2B-DP-006

- Distinguishes steam and smoke
- Automatic sensitivity compensation
- Suitable for Shower rooms and Kitchens

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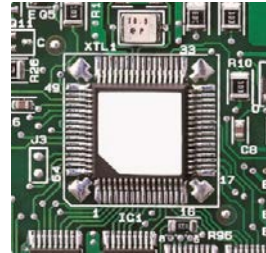
■ Main Features

1. High reliability, advanced fire detection

Re-sounding mode of panel buzzer

After Panel alarm silence by operator at fire, the panel buzzer automatically re-sounds by operation of manual alarm stations or by receiving alarm signal from other zones to announce fire spread.
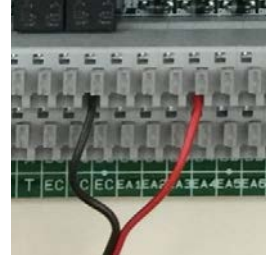
CPU trouble back-up function

During the CPU is down, basic function is continued for alarm signal receving, zone indication, sounding, fire arlam signal transmission, etc.

Alarm delay ON/OFF function

All zone can be set alarm delay ON/OFF by individual switch

Outputs for Emergency PA System

Signal transmittting to the emergency PA system.

2. Advanced functions for easy installation and maintenance

Lightning surge protection

Lightning surge protection devices are equipped.

Maintenance switch(All alarm silsilence)

At maintenance work, unnecessary alarm sounding can be cut off by operating the maintenance switch (except telephone calling sound).
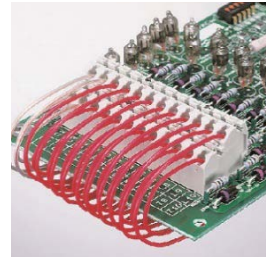
Clicking sound is made either once in 10 seconds or in 60minutes when the maintenance switch is ON

Alarm delay ON/OFF switch

This switch can make the alarm delay function ineffective for installation and maintenance work purpose.

Push-in type terminals

Plug-in type terminals are employed to improve installation effecetively
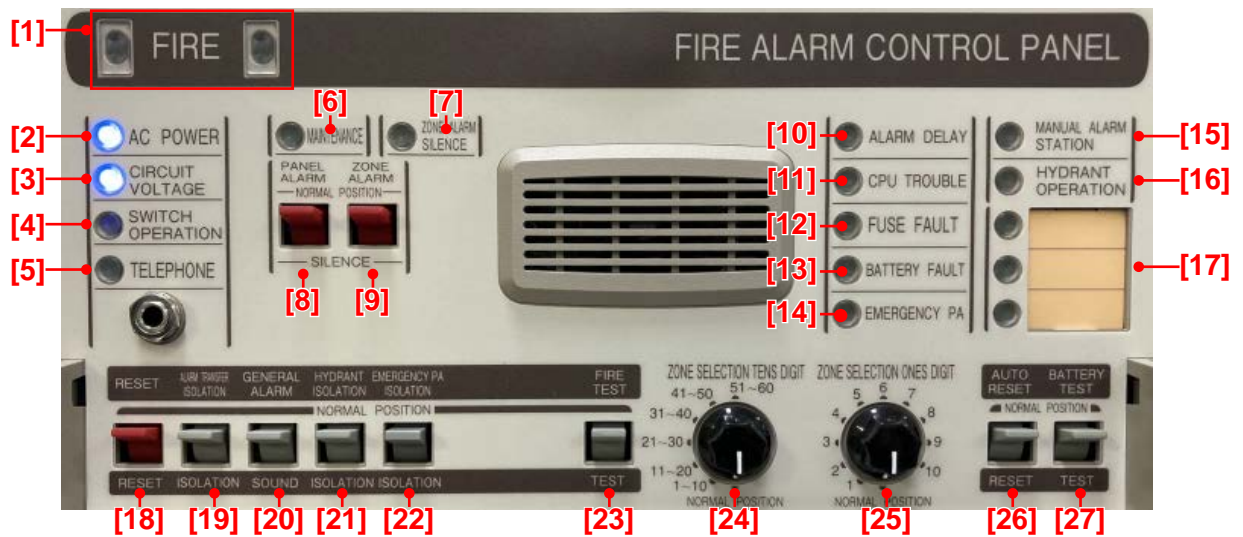
Auto reset switch

When operation test of detectors and manual alarm stations are conducted, by pressing auto reset switch to the reset side, fire test can be conducted zone by zone and the tested detector and the control panel shall be automatically reset.

Self-checking function

Monitoring;

- Detector line open-circuit
- Circuit voltage low
- CPU trouble
- Fuse blow
- Disconnection of standby battery
- Emergency PA line open-circuit

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■ Indicators on Operation Panel

[1] FIRE (Red)

LED turns on when the panel is in an alarm condition.

[2] AC POWER (Blue)

LED turns on when AC power is supplied to the main power circuit.

[3] CIRCUIT VOLTAGE (Blue)

LED turns on as long as the main circuit voltage of the control panel is within acceptable levels (approx. 20.4 V and greater).

[4] SWITCH OPERATION (Red)

LED flashes when the panel switches are ON or not normal state.

[5] TELEPHONE (Red)

LED turns on when a handset is plugged into a telephone jack of a manual alarm station or an annunciator panel.

[6] MAINTENANCE (Red)

LED turns on during a maintenance mode.

[7] ZONE ALARM SILENCE INDICATOR (Red)

LED flashes when zone alarms are silenced. During the maintenance clicking sound long mode, the LED turn on 900 msec and off 100 msec.

[8] PANEL ALARM SILENCE switch

Activation of this switch turns off the sounding buzzer when a panel buzzer is sounding. Also use for change to the maintenance clicking sound long mode by pressing and holding this switch more than three seconds.

[9] ZONE ALARM SILENCE switch

Activation of this switch makes zone alarms silenced.

[10] ALARM DELAY (Red)

LED turns on during a delay time of 60 sec, and flashes during a general alarm delay switch is OFF.

[11] CPU TROUBLE (Red)

LED turns on when the CPU is in a fault state.

[12] FUSE FALUT (Red)

LED turns on when a fuse for zone alarm outputs is blown.

[13] BATTERY FAULT (Red)

LED turns on when a standby battery is not connected to the panel.

[14] EMERGENCY PA (Red)

LED flashes during emergency PA announcements, and turns on when an open circuit is detected on the emergency PA lines.

[17] Other Alarms (Red)

Each of the LEDs turns on when the panel receives alarm signals from building facilities via LXn-C contacts.

[18] RESET switch

Activation of this switch resets the panel condition.

[19] ALARM TRANSMISSION ISOLATION switch

Activation of this switch isolates an alarm signal transmission through GA-GB-GC contacts.

[20] GENERAL ALARM switch

Activation of this switch activates all the zone alarms and outputs alarm signals to an emergency PA facility.

[21] HYDRANT STATION ISOLATION switch

Activation of this switch isolates an alarm signal transmission through H-H' contacts.

[22] EMERGENCY PA ISOLATION switch

Activation of this switch isolates an alarm signal transmission to an emergency PA facility.

[23] FIER TEST switch

Use this switch for conducting a fire indication test.

[24] ZONE SELECTION TENS DIGIT switch

This switch sets tens digit of testing zones during a fire indication test.

[25] ZONE SELECTION ONES DIGIT switch

This switch sets ones digit of testing zones during a fire indication test.

[26] AUTO RESET switch

Activation of this switch enables a non-latching test function which allows manual alarm stations and detectors to be tested and the panel to resets automatically.

[27] BATERY TEST switch

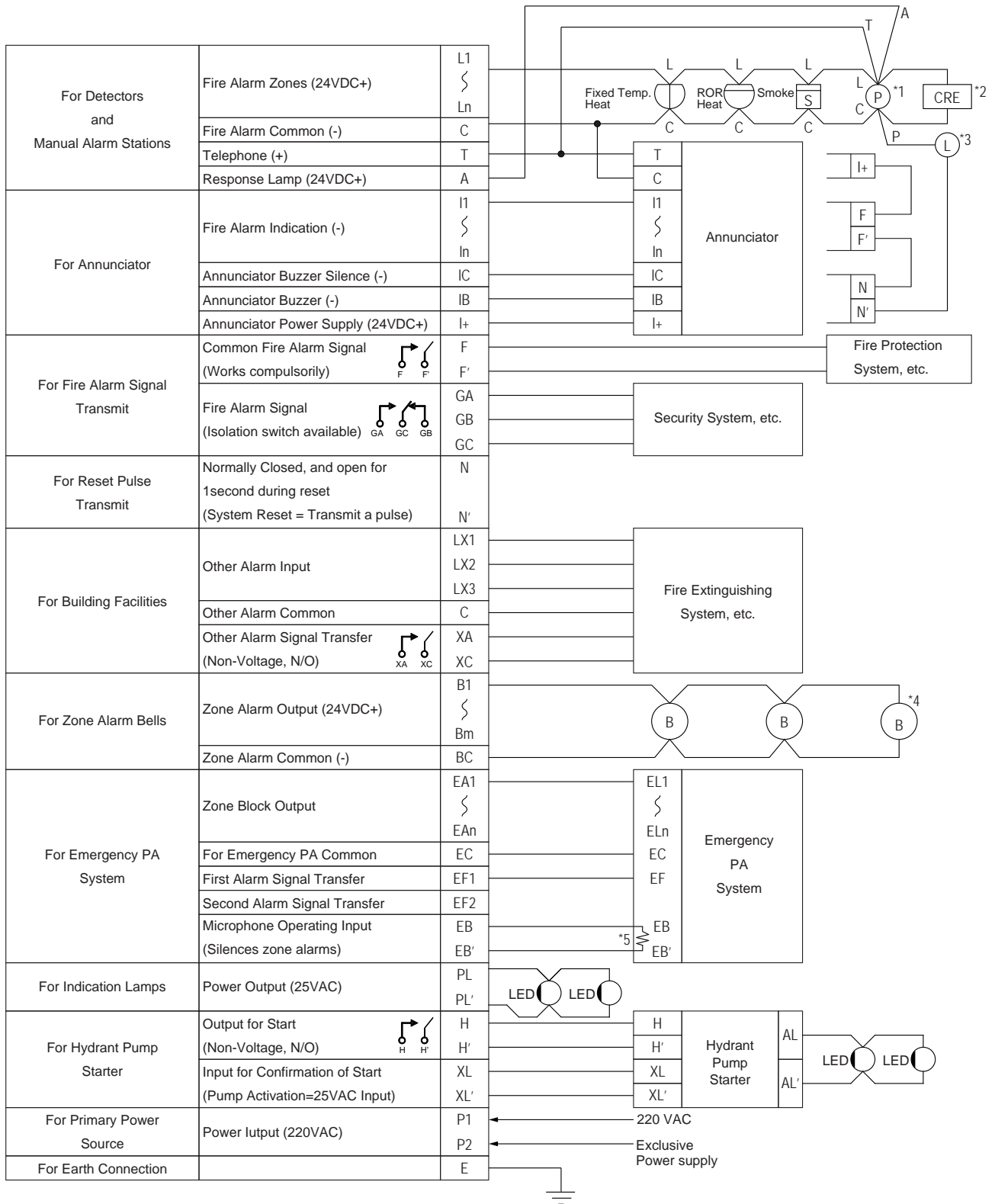Activation of this switch enables a standby battery test.

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Section	Description	Terminal
For Detectors and Manual Alarm Stations	Fire Alarm Zones (24VDC+)	L1 ⌇ Ln
	Fire Alarm Common (-)	C
	Telephone (+)	T
	Response Lamp (24VDC+)	A
For Annunciator	Fire Alarm Indication (-)	I1 ⌇ In
	Annunciator Buzzer Silence (-)	IC
	Annunciator Buzzer (-)	IB
	Annunciator Power Supply (24VDC+)	I+
For Fire Alarm Signal Transmit	Common Fire Alarm Signal (Works compulsorily)	F / F'
	Fire Alarm Signal (Isolation switch available)	GA / GB / GC
For Reset Pulse Transmit	Normally Closed, and open for 1second during reset (System Reset = Transmit a pulse)	N / N'
For Building Facilities	Other Alarm Input	LX1 / LX2 / LX3
	Other Alarm Common	C
	Other Alarm Signal Transfer (Non-Voltage, N/O)	XA / XC
For Zone Alarm Bells	Zone Alarm Output (24VDC+)	B1 ⌇ Bm
	Zone Alarm Common (-)	BC
For Emergency PA System	Zone Block Output	EA1 ⌇ EAn
	For Emergency PA Common	EC
	First Alarm Signal Transfer	EF1
	Second Alarm Signal Transfer	EF2
	Microphone Operating Input (Silences zone alarms)	EB / EB'
For Indication Lamps	Power Output (25VAC)	PL / PL'
For Hydrant Pump Starter	Output for Start (Non-Voltage, N/O)	H / H'
	Input for Confirmation of Start (Pump Activation=25VAC Input)	XL / XL'
For Primary Power Source	Power Iutput (220VAC)	P1 / P2
For Earth Connection		E

Connected devices (diagram): Fixed Temp. Heat, ROR Heat, Smoke, P (Manual Alarm Station), CRE, Annunciator, Fire Protection System, etc., Security System, etc., Fire Extinguishing System, etc., Emergency PA System, Hydrant Pump Starter, 220 VAC Exclusive Power supply.

*1: P = Manual Alarm Station.

*2: The CRE is a dedicated end-of-line device which comes with the 1PM3 fire alarm control panel.

*3: Make sure to be used F-F' and N-N' terminals when use Remote indication lamp.

*4: Use the motor bells rated at 10 mA, 24 VDC.

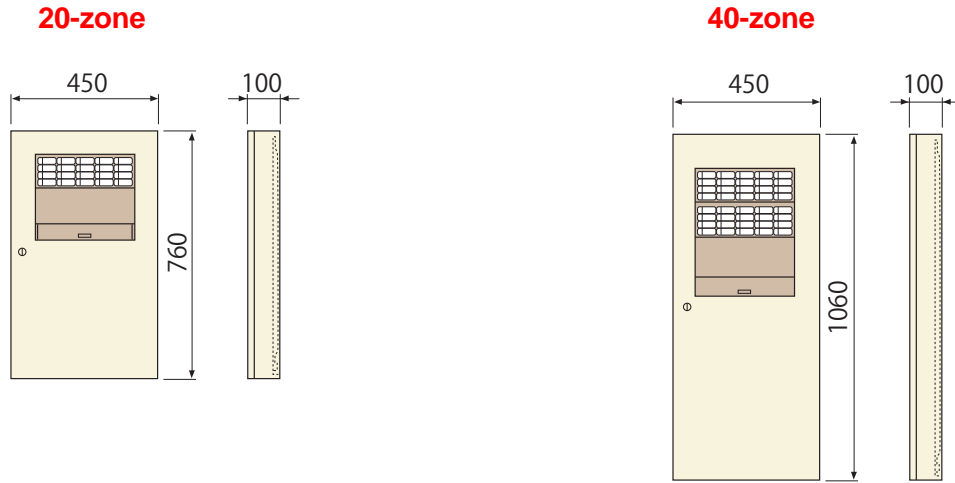*5: The end-of-line resister comes with the 1PM3 fire alarm control panel.

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■ Dimension

20-zone

450 | 100 | 760

40-zone

450 | 100 | 1060

Model	1PM3-nLA			
Number of Zones	10	20	30	40
Number of Bells (10 mA)	20			30
Number of Bell Blocks	10	15		
Primary Rated Current (220VAC)	0.39A			
Standby Battery	0.45 Ah			
Mounting Type	Wall-mounting type			
Dimensions (mm)	W450 x H760 x D100		W450 x H1060 x D100	
Weight	18 kg		25 kg	
Notes	Not included: Dedicated Battery, Telephone Handset			

■ Ordering Information

Model	1PM3-nLA
PTL-1	Telephone handset
Nicd-battery (0.45AH)	Ni-Cd battery (0.45AH) for 1PM3-10LA – 40LA and 1PM2-10LA - 30LA
Nicd-battery (1.2AH)	Ni-Cd battery for (1.2AH) for 1PM2-40LA – 60LA
PSH-nL	Annunciator panel with n zone
2KH2-LS	Optical smoke detector
CKLD-KPT2	Beam type smoke detector
LP05	Remote station for beam detector CKLD-KPT2
1CD-70-LS	Fixed temp. heat detector, 70°C
2SC-LS	Rate of rise heat detector
PK2B-DP-006	Dual wavelength type optical smoke detector with remote testing function
PK2B-P-021	Optical smoke detector with automatic sensitivity compensation and Remote testing function
PR2B-P-009	Dual band IR flame detector
PS2B-PH-014	Rate of rise heat with remote testing function
MTT	Remote testing and address setting device for PK2B-DP-006, PK2B-P-021 and others
LP01/1	Remote station for MTT
3T	Common detector base for LS type detector
B3-J	Detector base for PK2B-DP-006, PK2B-P-021, and others
1MF1A	Manual alarm station with telephone jack
BD-6-24-11	Local alarm bell (10 mA)
PL-R4-LED	Indication lamp (LED type)
AL-4-24	Remote indication lamp
SRT-01M6L-47SGB	Local combination box (vertical type) with telephone jack c/w surface mounting box

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NOT TO BE USED FOR INSTALLATION PURPOSES.
Nittan reserves the right to make changes at any time without notice in prices, colours, materials, components, equipment, specifications and models and also to discontinue models.

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■ Specifications

Specifications	1PM3nLA
AC Power	220 VAC ±10% 50/60 Hz
Standby Battery	Sealed Type Ni-Cd battery 10LA - 40LA Panel : 0.45 Ah
Power Consumption	39 VA
Nominal Delay Time	60 sec. (For smoke detector: 60 sec. For heat detector: 20 sec.)
Dimensions	10L - 20L Panel : W 450 x H 760 x D 100 mm 30L - 40L Panel : W 450 x H 1060 x D 100 mm
LED Indicators	Fire alarm, AC power, Circuit voltage, Switch operation, Telephone, Maintenance, Zone alarm silence, Alarm delay, CPU trouble, Fuse fault, Battery fault, Emergency PA, Manual alarm station, Hydrant operation, Other alarm (3 windows)
Functions	CPU fault monitoring, Fuse fault indication, Cable break monitoring
External Line Resistance	50 Ω and less
End of Line Device	CRE
Panel Alarm Sounder	Piezoelectric buzzer, automatic re-sounding type
Trouble Alarm	Detector line open-circuit, CPU trouble, Zone Alarm Fuse blows, No battery connected, Emergency PA line open-circuit, Alarm inputs from external equipment

Fire Alarm Transmission	Contact Capacity
	Common Fire Alarm : F-F' (Normally-Open) 1 A 24 VDC
	Fire Alarm : GA-GB-GC (Form-C) 1 A 24 VDC
	Reset Pulse : N-N' (Normally-Close) 1 A 24 VDC
	External Equipment Alarms : XA-XC 1 A 24 VDC
	Emergency PA : EC EF1 EF2 EA1-EAn* EB EB'
	                                        (Normally-Open) 1 A 24 VDC
	                                                    *n: 10LA=10, 20LA-40LA=15

Output Current for Zone Alarms (Bell)	24 VDC 10LA-30LA: 200 mA 40LA: 300 mA
Output Current for Indication Lamps	25 VAC 400 mA
Number of Connectable Detectors	Standard type Smoke detector: Max. 40 /zone, Total 20 x zones Heat detector: As required Thermistor type Heat detector: Max. 24 /zone, Total 12 x zones Detectors with test function: Max. 20 /zone, Total 10 x zones
Connectable Manual Alarm Station	1MF1A 1MI1A
Connectable Annunciator Panel	Model PSH x 1 unit
Operating Temperature	0°C to +40°C
Primary Materials	Main Body: SPCC t1.6 Door: SPCC t1.2 Operation Panel: Flame retardant resin
Body Color	JPMA Color Code A22-90B Semi-gloss (off-white)

Distributed By

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