

Product Specification

Model:	BS10A-H24/2.0L	Date:	May 19, 2005
		Created by Engineering & Development Division	

This specification applies to Battery Package, Model BS10A-H24/2.0L
 This unit is Battery Package to back up optional DC stabilized Power Supplies at blackout.

General Specification (All items are provided at normal temperature and humidity unless otherwise specified).

	Items	Specification and Standard	Measurement condition, etc.
Electrical Specification	Battery	1.2V 1800 mA 20 cells in series ▲	Sealed Ni-MH battery
	Nominal Battery Voltage	DC 24.0V	
	Rated capacity	1800mAh ▲	
	Max. Output Power	410W	
	Charging specification	0.20A typical (15 hours typical)	
	Heater	To operate at 15°C typical or below of battery temperature for improving the battery discharge characteristics at low temperature. (Heater power consumption: 10W typical)	Available when AC input is connected regardless of REMOTE-ON/OFF signal of the power supply main body.
	Built-in Fuse rating	30A 32V	
Environment	Operating Temp. & Humidity	0~45°C / 10~90%	No Condensation. However, the heater circuit is activated at 15°C typical or lower.
	Storage Temp. & Humidity	-20°C to lower than 30°C: One year or less storage -20°C to lower than 40°C: within 90 days storage -20°C to 50°C: within 30 days storage	No Condensation.
	Vibration	To endure 0.075mm of displacement amplitude with 10 to 55Hz of Frequency in each direction of X, Y, and Z for 10 sweep cycles.	To follow JIS-C-60068-2-6 at No operation
	Drop Test	Lift one bottom edge of the unit up to 50mm high with the opposite edge placed on the test bench, and let it fall. Repeat 3 times for each of four bottom edges, and no malfunction shall be observed.	To follow JIS-C-60068-2-31 at No operation
	Dimension	200(L) by 146(W) by 38(H)	
	Weight	1.8kg typical	
	Reliability Grade	FA	To follow our standard
	Short lifetime component	Battery	Periodical maintenance and replacement is required.
	Storage condition	Re-charging once at least per year (or half a year if available) is required for six months or longer storage.	When re-charging is not conducted beyond the period on the left, the battery may not recover the enough capacity.
Others	Warranty	One year after delivery. However, if any faults belong to us, the defective unit shall be repaired or replaced at our cost except the defect caused by over discharge.	Except wrong operation out of the specification.
	Documents	Any technical-related documents except the specification including General specification and Outline drawing are not submitted in principle.	
	Battery condition before shipment	The battery has been charged for approx. 15 hours in forcible charging mode before shipment.	



Note 1: Warm-up period from 0°C is approx. one hour, and No Charging during warm-up period.

Note 2: How to re-charge; Provided that the battery package is at auxiliary charging mode, make Pin1 and 3 of CNI shorted, and plug the AC cable to the dedicated Nonstop power supply to which Output cable is connected. And then, turn on the power switch of the power supply. Thus, the battery starts forced re-charging of approx. 15 hours.

Also, make sure to remove the short between Pin1 and 3 of CNI after start or completion of charging to prevent the battery from deterioration due to unnecessary charging.

Due to the technical improvement, the specifications and functions are subject to change without notice.

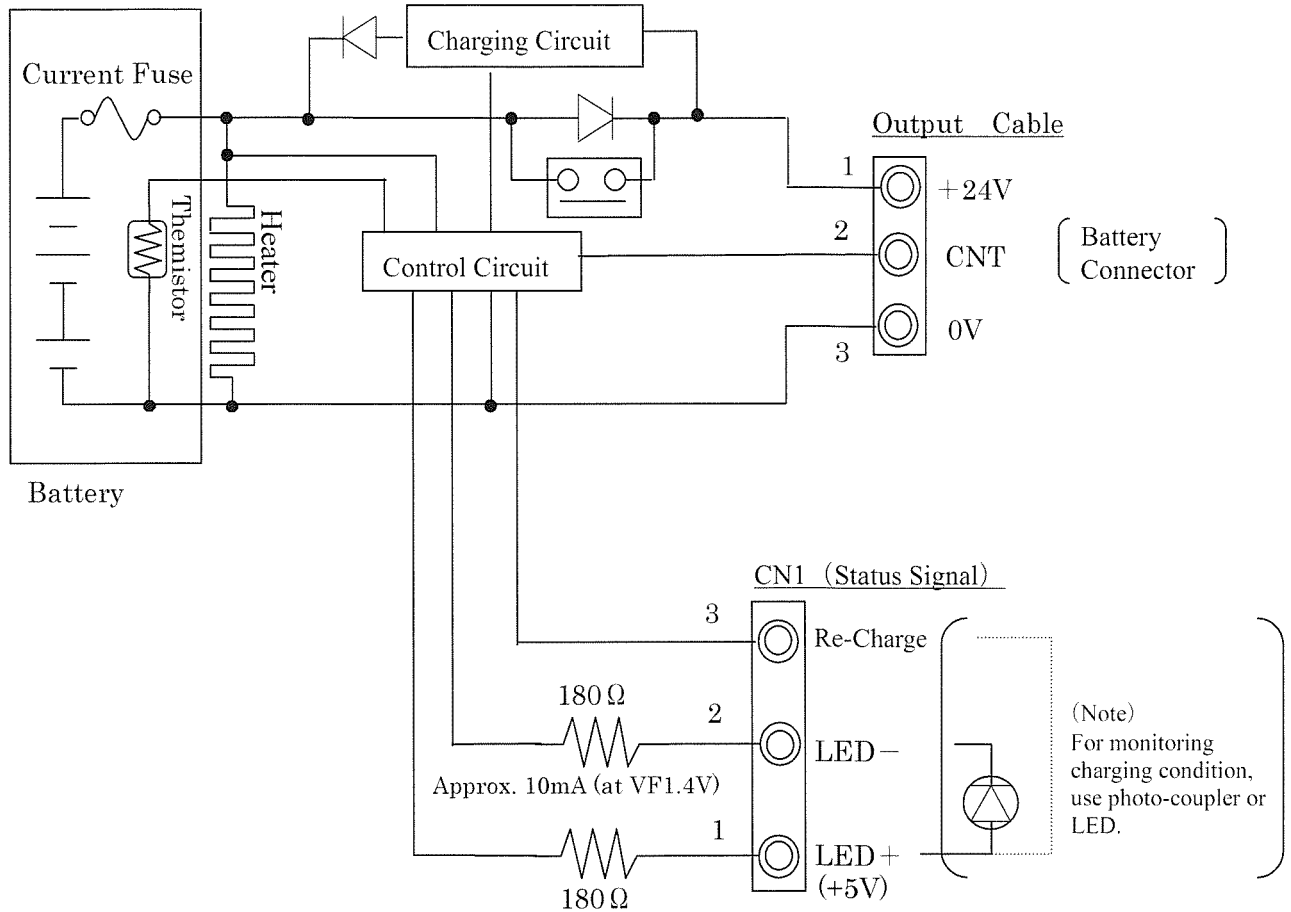
Ver. A ▲×2:2012.02.08 Yodo I-240122A

Drawn by	Checked by	Approved by	Document No.	
<i>Yodo</i>			2795-01-4-520 A	1 / 4

Product Specification

Model: BS10A-H24/2.0L	Date: May 19, 2005 Created by Engineering & Development Division
---------------------------------	---

Circuit Block Diagram



Due to the technical improvement, the specifications and functions are subject to change without notice.

出図

LED display when LED is connected between Pin1 and 2 of CN1. (株)ニプロン・技管

- In Charging: Lighting
- In Discharging: Blinking (0.25sec ON, 0.25sec OFF)
- In Auxiliary Charging: Flashing (0.1sec ON every 10 seconds)

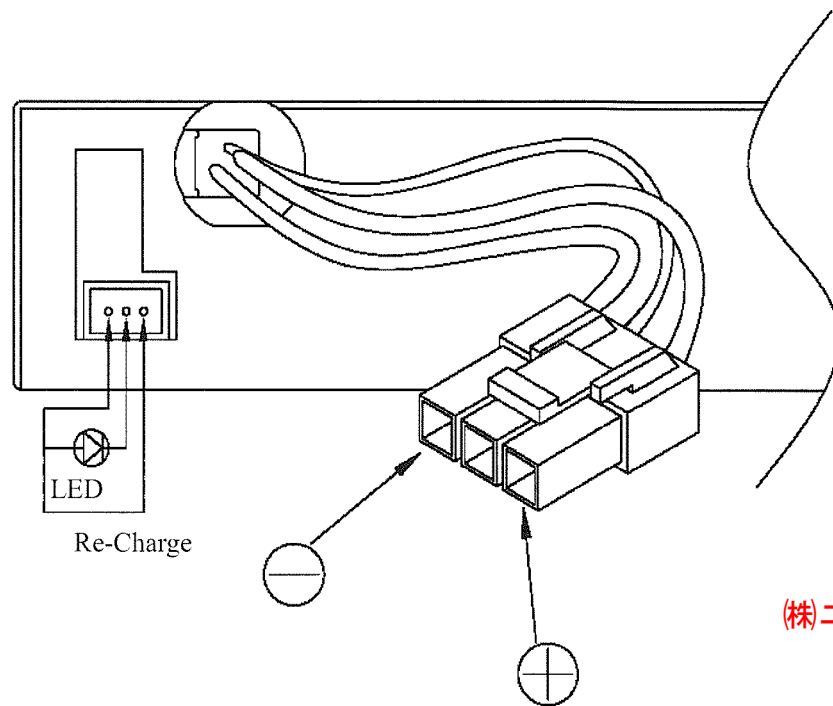
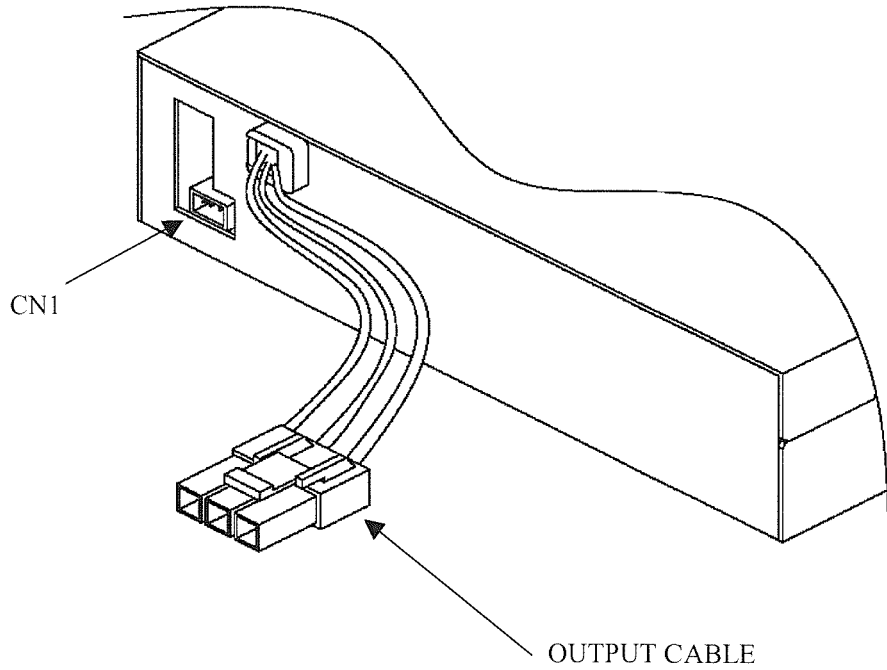
(Auxiliary Charge: Charge to compensate self-discharge)

Drawn by <i>Yoda</i>	Checked by 	Approved by 	Document No. 2795-01-4-520	2 / 4
-------------------------	----------------	-----------------	--------------------------------------	-------

Product Specification



Model: BS10A-H24/2.0L	Date: May 19, 2005 Created by Engineering & Development Division
---------------------------------	---

Connector Pinout Assignment



出図
 (株)ニプロン・技管

Due to the technical improvement, the specifications and functions are subject to change without notice.

Drawn by <i>Yodo</i>	Checked by 	Approved by 	Document No. 2795-01-4-520	3 / 4
-------------------------	---	--	--------------------------------------	-------

Product Specification



Model: BS10A-H24/2.0L	Date: May 19, 2005 Created by Engineering & Development Division
---------------------------------	--

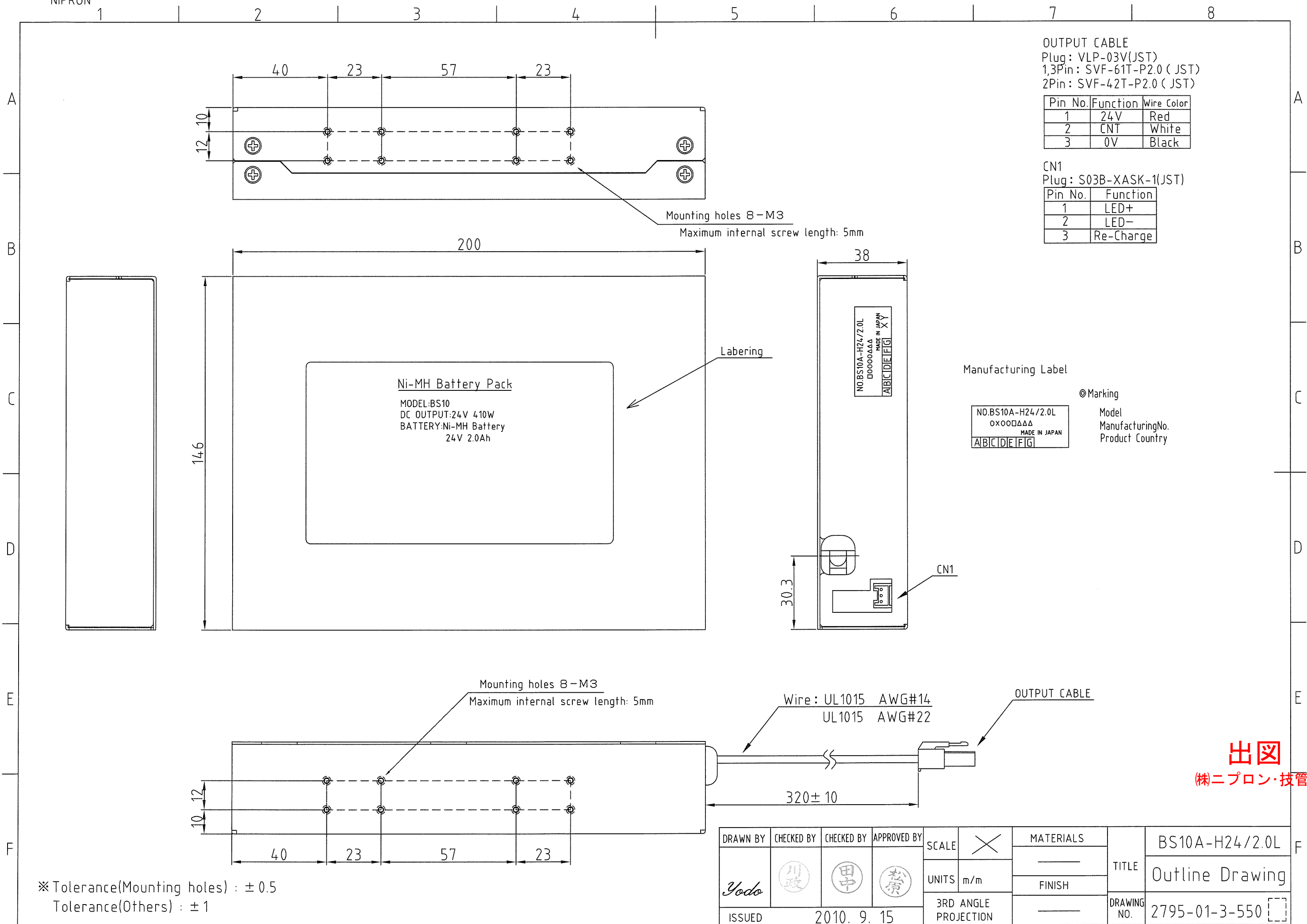
Precaution before use

1. Dismantlement * Danger
Never dismantle the battery package as the electrolyte inside is strong alkaline and it may damage your skin and clothes. In particular, when it is caught in your eyes, you may lose your sight. In case the electrolyte should be caught in you eyes by accident during dismantlement, immediately wash you eyes with clean water and see your doctor. Do not rub your eyes. Also, when dismantled, its electrodes may catch fire reacting to oxygen in the air. NEVER DISMANTLE THE BATTERY PACKAGE!
2. Short Circuit * Danger
Do not touch the terminal area of the battery package or PCB portion with metal pieces or metal bars. It may damage the equipment or generate heat of the battery resulting in burn injury.
3. Throwing into a fire and Heating * Danger
Never throw the battery package into a fire or heat it up. It may cause the explosion of the battery or scatter of the electrolyte.
4. Reversed Charge * Danger
When re-charging the battery with any chargers other than designated charger, do not charge reversed. It may generate gas rapidly inside to increase gas pressure resulting in electrolyte leakage, swell, or explosion.
5. Installation in equipments * Danger
In installing the battery package in equipments, never seal it. In some cases, it may generate gas (oxygen and hydrogen) to cause explosion or fire ignited by spark of switches and/or motors.
Besides, there might be the same danger generated even installed in the open structure because of positional relation between gas clump and flash source. Provide degassing holes or block off the ignition sources, such as motors and switches, in a proper way.
6. Diversion to other applications * Danger
Do not use the battery package for other equipments or applications. It may damage the battery or equipments as the specification varies.
7. Placing into water and Water leakage * Warning
Do not put the battery into water or seawater, or get it wet as it may generate heat of battery or cause rust resulting in malfunction of the battery.
8. Others * Caution
In addition, regarding the items that are not described in this specification, use the battery package in a proper way at your responsibility following the general instructions on sealed Ni-MH batteries. Pay attention not to operate wrong as it may cause electrolyte leakage, heat and explosion of the battery to damage operators or other personnel.

出図
(株)ニプロン・技管

Due to the technical improvement, the specifications and functions are subject to change without notice.

Drawn by <i>Yodo</i>	Checked by 	Approved by 	Document No. 2795-01-4-520	4 / 4
-------------------------	---	--	--------------------------------------	-------



OUTPUT CABLE
 Plug: VLP-03V(JST)
 1,3Pin: SVF-61T-P2.0 (JST)
 2Pin: SVF-42T-P2.0 (JST)

Pin No.	Function	Wire Color
1	24V	Red
2	CNT	White
3	0V	Black

CN1
 Plug: S03B-XASK-1(JST)

Pin No.	Function
1	LED+
2	LED-
3	Re-Charge

Ni-MH Battery Pack
 MODEL:BS10
 DC OUTPUT:24V 410W
 BATTERY:Ni-MH Battery
 24V 2.0Ah

Manufacturing Label

NO.BS10A-H24/2.0L
 OXOO□△△△
 MADE IN JAPAN
 ABC|DE|FIG

© Marking
 Model
 ManufacturingNo.
 Product Country

Wire: UL1015 AWG#14
 UL1015 AWG#22

OUTPUT CABLE

320±10

Mounting holes 8-M3
 Maximum internal screw length: 5mm

※Tolerance(Mounting holes) : ±0.5
 Tolerance(Others) : ±1

DRAWN BY	CHECKED BY	CHECKED BY	APPROVED BY	SCALE	X	MATERIALS	TITLE	DRAWING NO.
Yodo	川政	田中	松原	UNITS		m/m		
ISSUED	2010. 9. 15			3RD ANGLE PROJECTION				2795-01-3-550

出図
 (株)ニプロン・技管