

**Specification Sheets
for HomeSeismo(R)**

Model: **HS301**

Number. **HS-10361-5(E)**

This Specification sheet is the Tranlation of the ORIGINAL JAPANESE Version.

We do never compensate for any damage caused on our mistaranslation.
Please refer the Original Language Version to make sure Detail.

SUPPLY	RECEIVE

A-2 Corp. LTD.
株式会社エイツー

Contents

1. Outline
2. the Mechanical & Electrical Specification
3. Input & Output Terminals
4. About the built-in Seismometer
5. Outside Views
 5. 1 Face view
 5. 2 face view (partly enlarged)
 5. 3 Rear view
 5. 4 Rear part (Enlarged)
6. an Attached Label
7. Outlines and construction of contained goods
8. Detail Descriptions about the Contained goods
 8. 1 CAT.5 Network Cable
 8. 2 A.C. Acaptor (Power Supply)
9. Outside Dimension drawing
10. the Definition of the directions of each axes about the built-in seismometer

	日 付	氏 名	図 名	HomeSeismo納入仕様書	モデル	HS301
承 認	2007/11/06	takagi	図 番	HS-10361-5(E)	版	01
検 査	2007/11/06	kouchi				
作 成	2007/11/06	onodera				

1. General Outline (What "HS301" is ?)

HomeSeismo HS301 is a terminal to receive the emergency earthquake alert
It has the built-in seismometer to catch the epicentral earthquake

©The characteristic feature is described briefly below.

- ① To Receive the emergency earthquake alert from the Meteorological Agency.
Not only the sound, but it can Drive the alarm lampe immediately for the deaf users.
気象庁が配信する緊急地震速報を受信します。大きな地震が来る前に音声で注意を促します。接点出力を併用すれば、聴覚障害者向けに警告表示灯等を同時に点灯する事も可能です。
- ② Available to adjust the threshold level independently, each of "the Emergency Alart from the Meteorological Agency" and "the Built-in Seismometer" as the trigger , to the electrical contact outputs.
緊急地震速報を受信した時や、本機内蔵の地震計がP波を感知した時に、接点出力を制御し、自動的に機器を安全に停止する等の運用が可能です。
- ③ Also suitable for the ordinary announcement system on local community.
普段、緊急地震速報を受信しないとき、地域の告知放送の受信端末として、告知放送や地震以外の災害等の緊急放送を受信する端末としてご利用頂けます。
もし、一般の放送を受信中に緊急地震速報を受信した場合は、緊急地震速報を優先します。
- ④ Use the new algorithm to detect the primary wave of earthquake from the noises of daily life. (DSP機能搭載型処理機採用)
一般的なP波センサーは、十分に静かな環境に設置する事を想定し、設計されているので、地震波とノイズを識別する機能がありません。
本機は緊急地震速報の受信端末であり、ドアの開け閉め等の振動ノイズが常に混入する様な、人々が日常生活を送る場所に設置する事を念頭に設計されました。
HomeSeismoの波形解析アルゴリズムは防災科学技術研究所で長年培われたノウハウにより、注意すべき地震波と無視して良いノイズを正確に識別します。
- ⑤ Update the newest embedded firmware quickly through the IP network.
HomeSeismo地震プロジェクトは常に研究、改良を進めてまいります。
現在のファームウェアに機能追加、若しくは改良がなされた場合には、IPネットワークを通じて自動的に更新を行う事が可能です。
また、お客様のご都合に合わせたタイミングで随時更新して頂く為に弊社ウェブサイトにて最新のファームウェアを公開する予定です。
- ⑥ Built in small and compact body.
誰でも設置し易いように、筐体サイズをコンパクトに設計しました。
- ⑦ Please pronounce HOME SEISMO as "ほーむさいすも".

	日 付	氏 名	図 名	HomeSeismo納入仕様書	モデル	HS301
承 認	2007/11/06	takagi	図 番	HS-10361-5(E)	版	01
検 査	2007/11/06	kouchi				
作 成	2007/11/06	onodera				

2. Specification Outlines

Item	Discription
Name	HomeSeismo HS301
TYPE	HS-HS301-01
definition	an Emergency earthquake Alart receiver with built-in seismic instrument.
Available I/F	•General Purpose Input × 3 •General Purpose Output × 3 •+-(External Poewr Output DC5V) •External Passive Speaker × 1 •LINE OUT × 1
Power Consumption	Stand-by 2W(a reference value) Max 5W(a reference value)

controller CPU	MAIN 32bit Inner Data Bus CPU
environment	Operating Temperature 0°C~40°C Operating Humidity(Relative) 20~80% (without condensation)
way to setting	console with the External PC, connected with RS-232C interface.

reliability	MTBF = about 12.96 Years	guarantee period	1 year after purchased
-------------	--------------------------	------------------	------------------------

LAN I/F

Connecting Form	RJ-45 10BASE-T / 100BASE-TX (Automatic MDI/MDI-X Switch Supported)
DHCP client function	Supported (Only under the IPV4 system)

Accessories

AC Adaptor	INPUT AC100V 50/60Hz(ONLY for SINE WAVE, Be careful to use with UPS) (Also :100V~240V SW TYPE Available as the Option)
Serial I/F Cable	RJ-45 X D-SUB9 Female, Cross Connection 1.5meter Long.
NETWORK CABLE	RJ-45 Each End CAT.5 Straight connection, 3meter LONG
Other	Instruction Manual, Guarantee Card, Serial Number Seal (for the Guarantee card)

environmental preservation measures

environmental preservation measures	All of Electrical parts are conform to the ROHS recommendation. ・Pb Free Solder is Used on the Factory. ・筐体ケース、梱包材は、同梱品は全てRoHS対応品を使用しています ※We take all materials notified as suit ROHS recommendation, by the supplier
--	---

*Any Specification may be going to be changed without notice.

	日 付	氏 名	図 名	HomeSeismo納入仕様書	モデル	HS301
承 認	2007/11/06	takagi	図 番	HS-10361-5(E)	版	01
検 査	2007/11/06	kouchi				
作 成	2007/11/06	onodera				

3. Description of the General – I/O Terminals

Input Contacts (C.IN 1~3)

Item	Description
Name of the terminal	C.IN (1~3)
Method to binding	Screwless (Max Diameter of the Line Cable : 0.65mm)
Input Method	1:Non-voltage contact, or 2: To be applied external DC Voltage, from 0V to +5V respect to GND. (required "similar to TTL Level" input)
note	1:Lower than 10k Ω resistance for detecting "Short or Connected" and Higher than 100k Ω for detecting "Open, or Not Connect", Between the two-contacts of each terminal. (estimated values just for reference) 2:Detect as "L" Level for applying lower than 3.5V respect to GND, and "H" level for Higher than 4.2V respect to GND. (estimated values for reference) ※the terminal, with Notice of a black dot, is for the Common GND Level. ※The Common GND terminals are connected to GND of the internal system.

Output Contacts (C.OUT 1~3)

Item	discription
Name of terminal	C.OUT (1~3)
Method to Binding	Screwless (Max Diameter of the Line Cable: 0.65mm)
Output Method	C.OUT 0 : PhotoMOS Relay (R) , Type-a contact. C.OUT 1 : PhotoMOS Relay (R) , Type-a contact. C.OUT 2 : PhotoMOS Relay (R) , Type-b contact.
note	C.OUT 0 : MAX DC45V 800mA (AC30V 550mA rms) C.OUT 1 : MAX DC45V 800mA (AC30V 550mA rms) C.OUT 2 : MAX DC45V 400mA (AC30V 250mA rms) ※Non-Polarity, Suit for AC Power,(Frequency must be less than 100Hz) ※All of "C.OUT" terminals are insulated from main system, each other.

"PhotoMOS Relay (R)" is the registered trademark of PanasonicElectric Works Co., Ltd. Osaka JAPAN.

DC5V Output (+ -)

Item	discription
Name of Terminal	+ -
Method of Binding	Screwless (Max Diameter of the Line Cable: 0.65mm)
note	The "+" Terminal is 5V respect to "-" Terminal. The "-" Terminal is connected to Common GND level of the internal system. Output Current is less than 100mA, protected tith the resetable fuse. 本機内部の回路系の一部の電源と共通なので、本端子への接続機器の特性に依っては、本機の動作に影響を与える場合が有りますのでご留意下さい。 *Do not apply any Voltage source to this terminal.

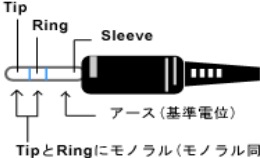
* We do not gualantee any external instrument connect to our product.

*Any Specification may be going to be changed without notice.

	日付	氏名	図名	HomeSeismo納入仕様書	モデル	HS301
承認	2007/11/06	takagi	図番	HS-10361-5(E)	版	01
検査	2007/11/06	kouchi	株式会社エイツー (A-2 Corp. LTD.)			
作成	2007/11/06	onodera				

3. Specification of the Connecting terminals

LINE OUT (LINE)

Item	Description
Name of Terminal	LINE
Method to Connect	Triple-poled 3.5mm-Diameter Mini -Phone Jack.
Output Level	Max 0dBm, for 600 Ohm Loading (It may change depends on Load Impedance)
Method for Output	Unbalanced, Monoral Output
Assumed Load Impedance	Higher than 600 Ohm
Connector Assign	 Tip, Ring : Output Signal (Same Phase Each) Sleeve: Signal Return GND (Base or Common Level) アース (基準電位) TipとRingにモノラル (モノラル同一信号) の音声出力
note	Do not apply any Voltage source to this terminal. Max Output Level from this terminal is independent from the "VOL" Knob.

EXternal Speaker (SPK)

Item	Description
Name of Terminal	SPK
Method of Binding	Screwless (Max Diameter of the Line Cable : 0.65mm)
Method of Output	BTL Type, Balanced Output (Max Power 1W.) Output Impedance is 8 Ohm.
note	Both of lines on this terminal must not connectsd to any part of body. (Except "C.Out" Terminals) Max Output Power from this terminal is depends on the "VOL" knob. The impedance of External instrument is required higher than 8 Ohm.

* We do not gualantee any external instrument connect to our product.

4. Specification about the Built-In Seismometer

Item	Description
Measurement Direction	Triple Axes (X, Y and Z) , ON Same TIME.
Sampling Rate	500Hz (ALL of 3 Axes), Frequency band width 0 to 250 Hz.
Quantamize Resolution	Equivalent to about 21 Bit (All of 3 Axes)
Assumed Max Acceleration	-2G to +2G Along to Each Axes. (1G is equal to the acceleration of gravity on the Earth ... 9.8m/s^2)
Absolute Max Acceleration	-4600G to +4600G Along to Eacn Axes (Continue Less Than 0.5miliSecond)
Noise Level	X and Y: about 0.6mG(RMS), Z: about 1.0mG(RMS) only for the reference 1000mG is equal to 1G, same as the gravitation acceleration on the earth.
Minimun angle of deviation	Smaller than 1.5 Degree respect from the direction of Gravity, for Setting.

*See Chapter 10 for the Definition the X,Y and Z Axis.

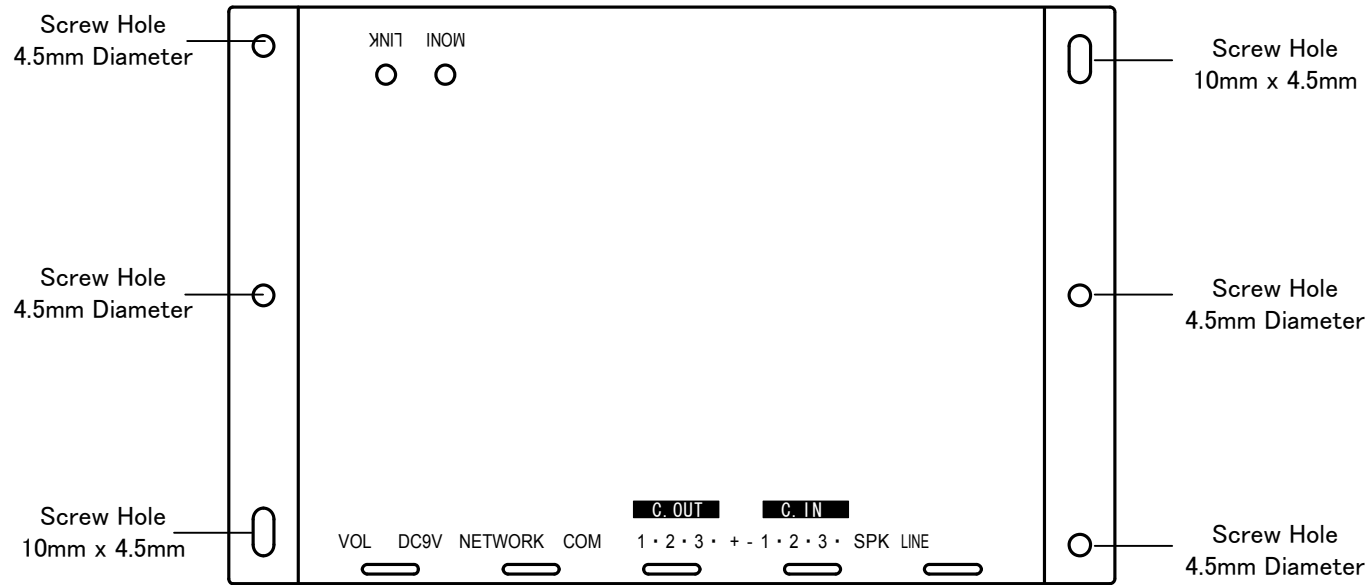
*Any Specification may be going to be changed without notice.

	日付	氏名	図名	HomeSeismo納入仕様書	モデル	HS301
承認	****/**/**		図番	HS-10361-5(E)	版	01
検査	2008/09/17	kouchi				
作成	****/**/**			株式会社エイツー		(A-2 Corp. LTD.)

5. Outside View

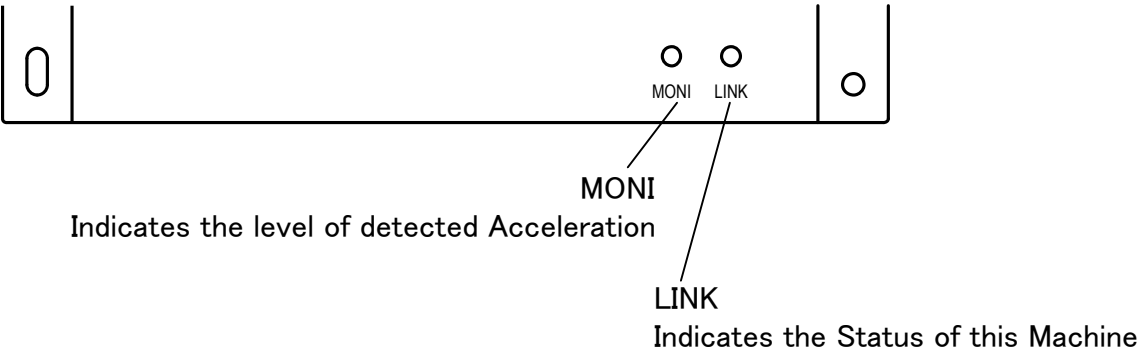
5. 1 正面

<Face Surface View>



5. 2 正面(一部拡大)

<Face View Close UP>



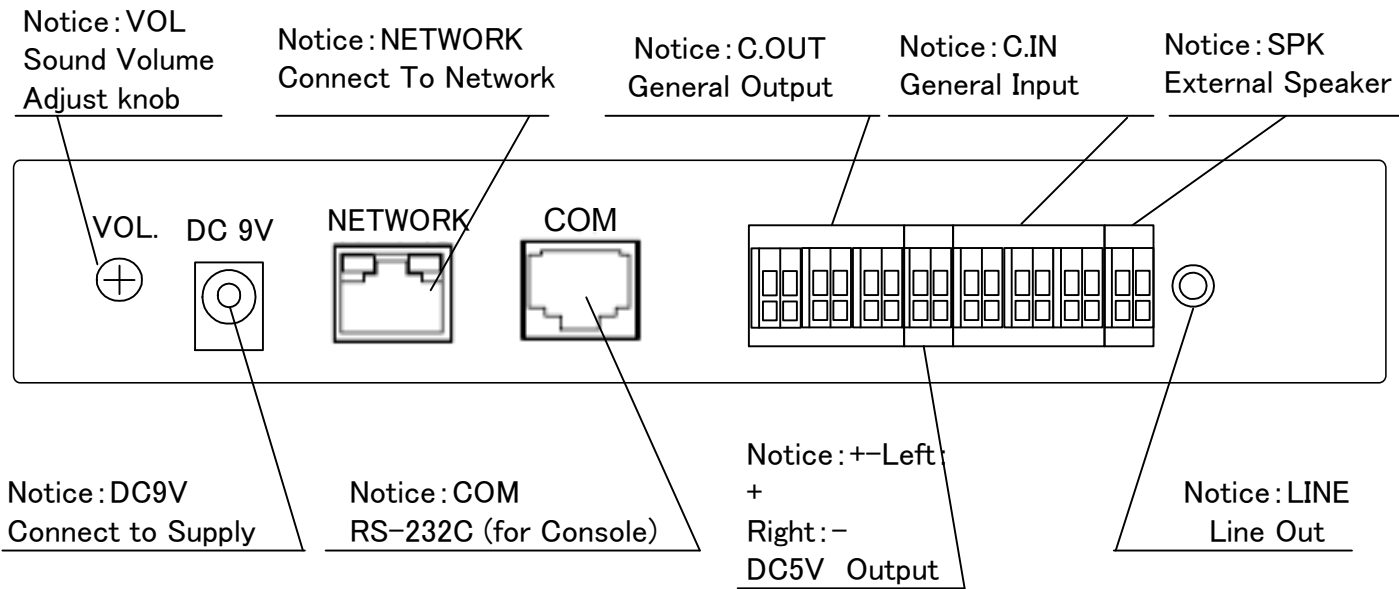
*Any Specification may be going to be changed without notice.

	日 付	氏 名	図 名	HomeSeismo納入仕様書	モデル	HS301
承認	2007/11/06	takagi	図 番	HS-10361-5(E)	版	01
検査	2007/11/06	kouchi	株式会社エイツー (A-2 Corp. LTD.)			
作成	2007/11/06	onodera				

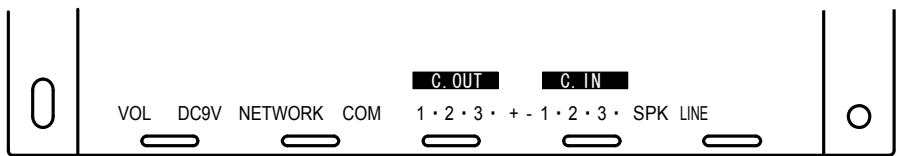
5. 外観説明

5. 3 背面

<Rear Side View>



5.4 正面(一部拡大)



*Any Specification may be going to be changed without notice.

	日付	氏名	図名	HomeSeismo納入仕様書	モデル	HS301
承認	2007/11/06	takagi	図番	HS-10361-5(E)	版	01
検査	2007/11/06	kouchi	株式会社エイツー (A-2 Corp. LTD.)			
作成	2007/11/06	onodera				

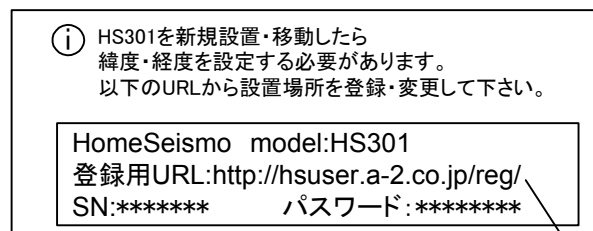
6. Outline of Attached LABELS

Product Label (Base Color is Silver and Printed Color is Black)



Note for the Description about Setting (Base Color is YELLOW)

[This information is required, when the User Set the Location on our Website]

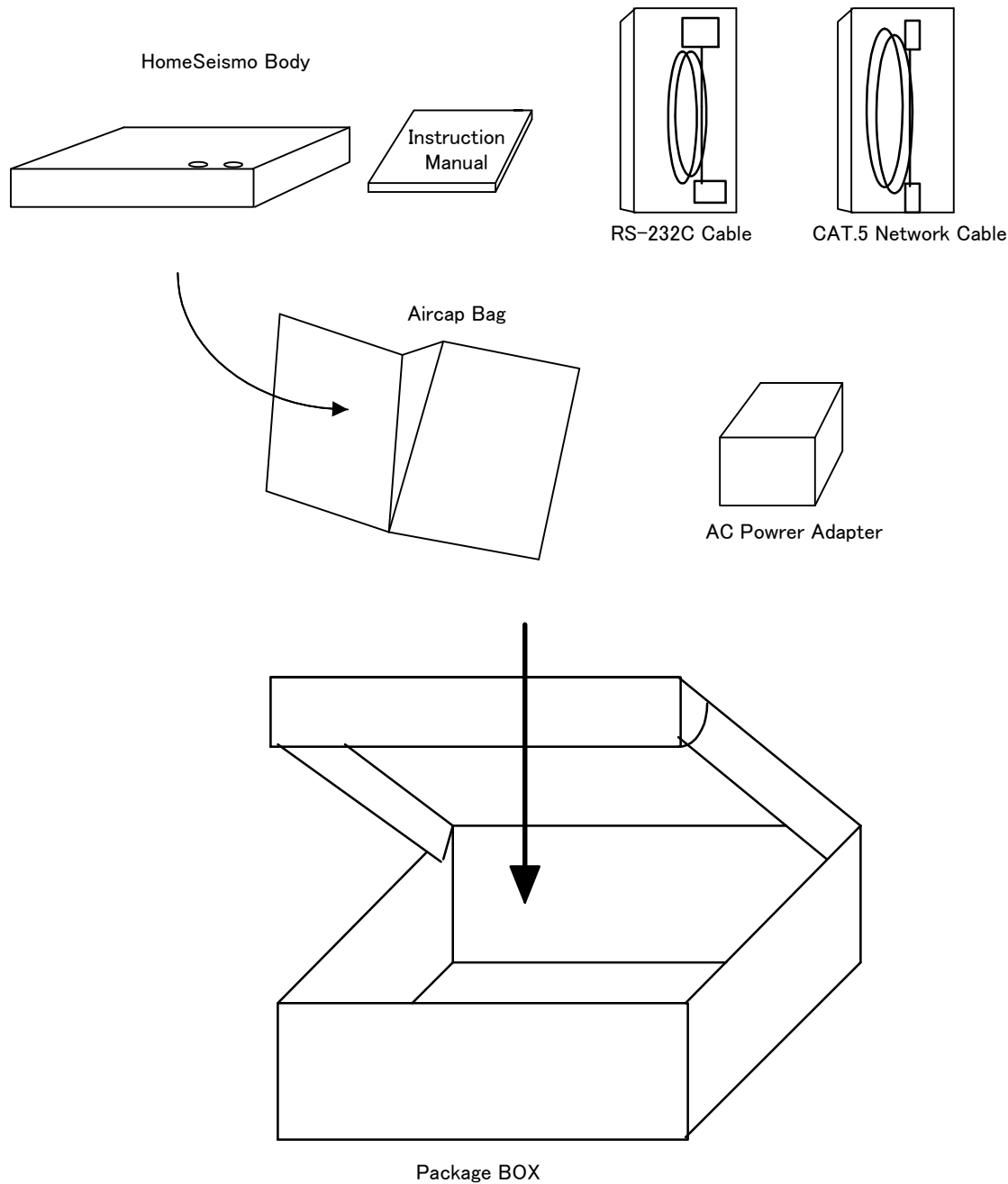


Access our website of this URL to setup the location of your HS301.
 SN(Serial Number) is given as unique for every product.
 パスワード(PASSWORD) is also given as unique, corresponding to each SN.

*Any Specification may be going to be changed without notice.

	日付	氏名	図名	HomeSeismo納入仕様書	モデル	HS301
承認	2007/11/06	takagi	図番	HS-10361-5(E)	版	01
検査	2007/11/06	kouchi	株式会社エイツー (A-2 Corp. LTD.)			
作成	2007/11/06	onodera				

7. description about the struture of the package

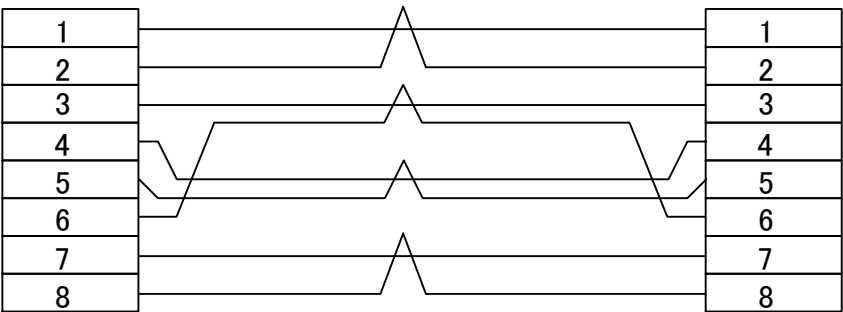
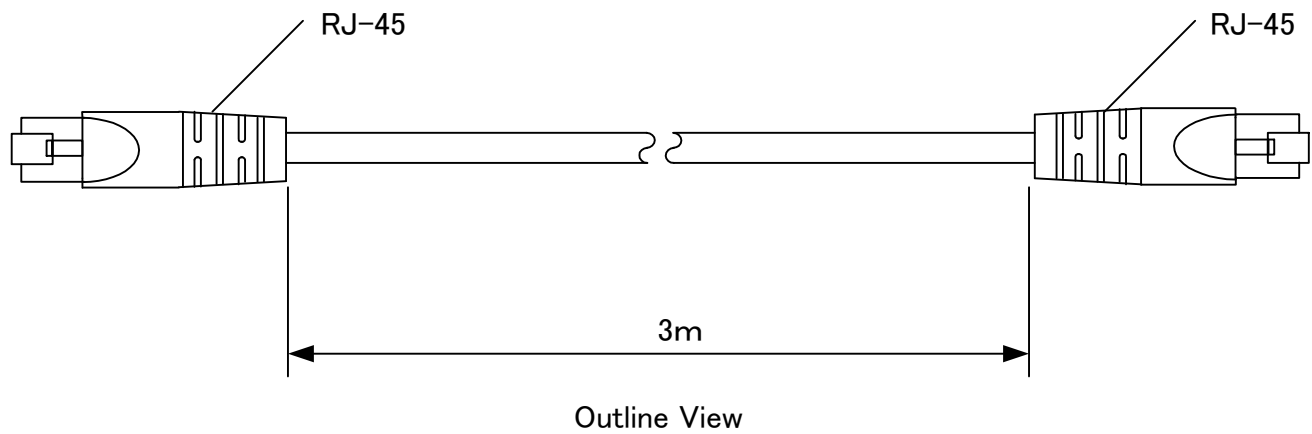


*Any Specification may be going to be changed without notice.

	日 付	氏 名	図 名	HomeSeismo納入仕様書	モデル	HS301
承認	2007/11/06	takagi	図 番	HS-10361-5(E)	版	01
検査	2007/11/06	kouchi	株式会社エイツー (A-2 Corp. LTD.)			
作成	2007/11/06	onodera				

8. Detaill about the Accessories

8. 1 CAT.5E Network Cable (Straight Connect)



wireing instruction

*Color of Cable may be Blue. (User can not designate tha color)
*Any Specification may be going to be changed without notice.
*Kind of category Cable may be going to be change without notice.

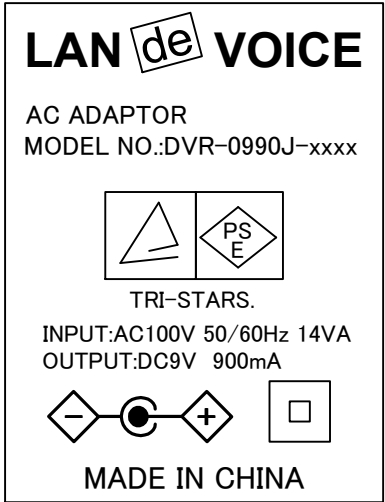
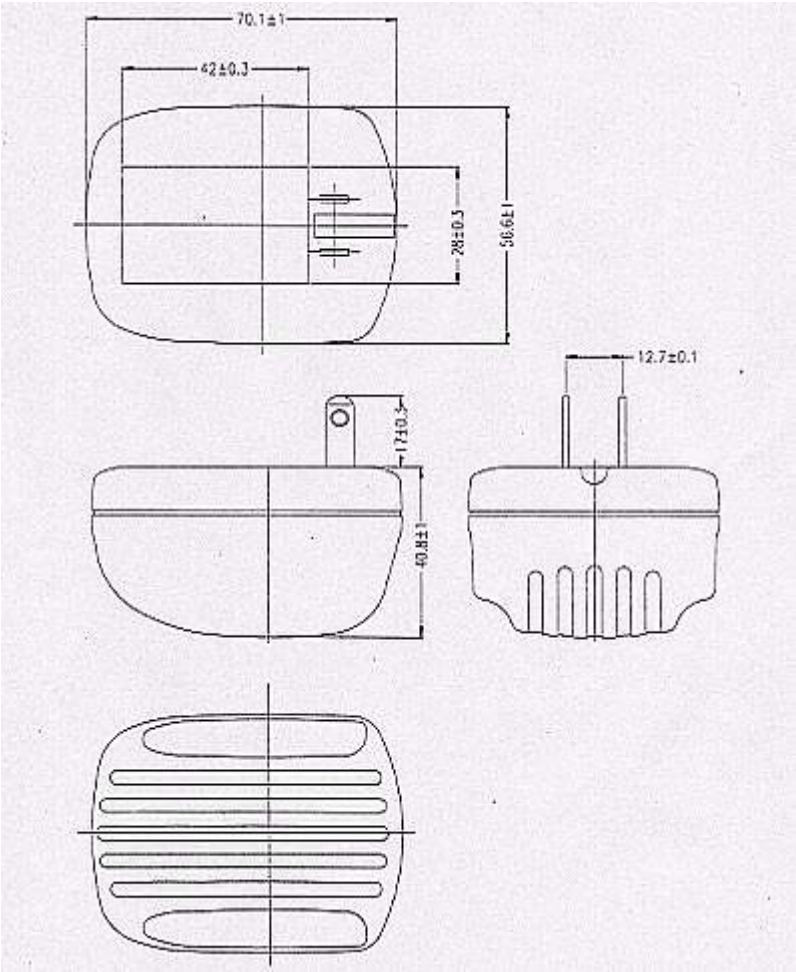
	日 付	氏 名	図 名	HomeSeismo納入仕様書	モデル	HS301
承 認	2010/03/03	takagi	図 番	HS-10361-5(E)	版	01
検 査	2010/03/03	kouchi	株式会社エイツー (A-2 Corp. LTD.)			
作 成	2010/03/03	mok				

8. Detaill about the Accessories

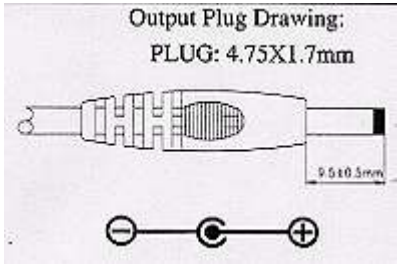
8. 2 A.C. Power Adapter (Normal TYPE)

INPUT:AC100V 50/60Hz 14VA
OUTPUT:DC9V 900mA

Cable Length is 1.8m



Attached LABEL



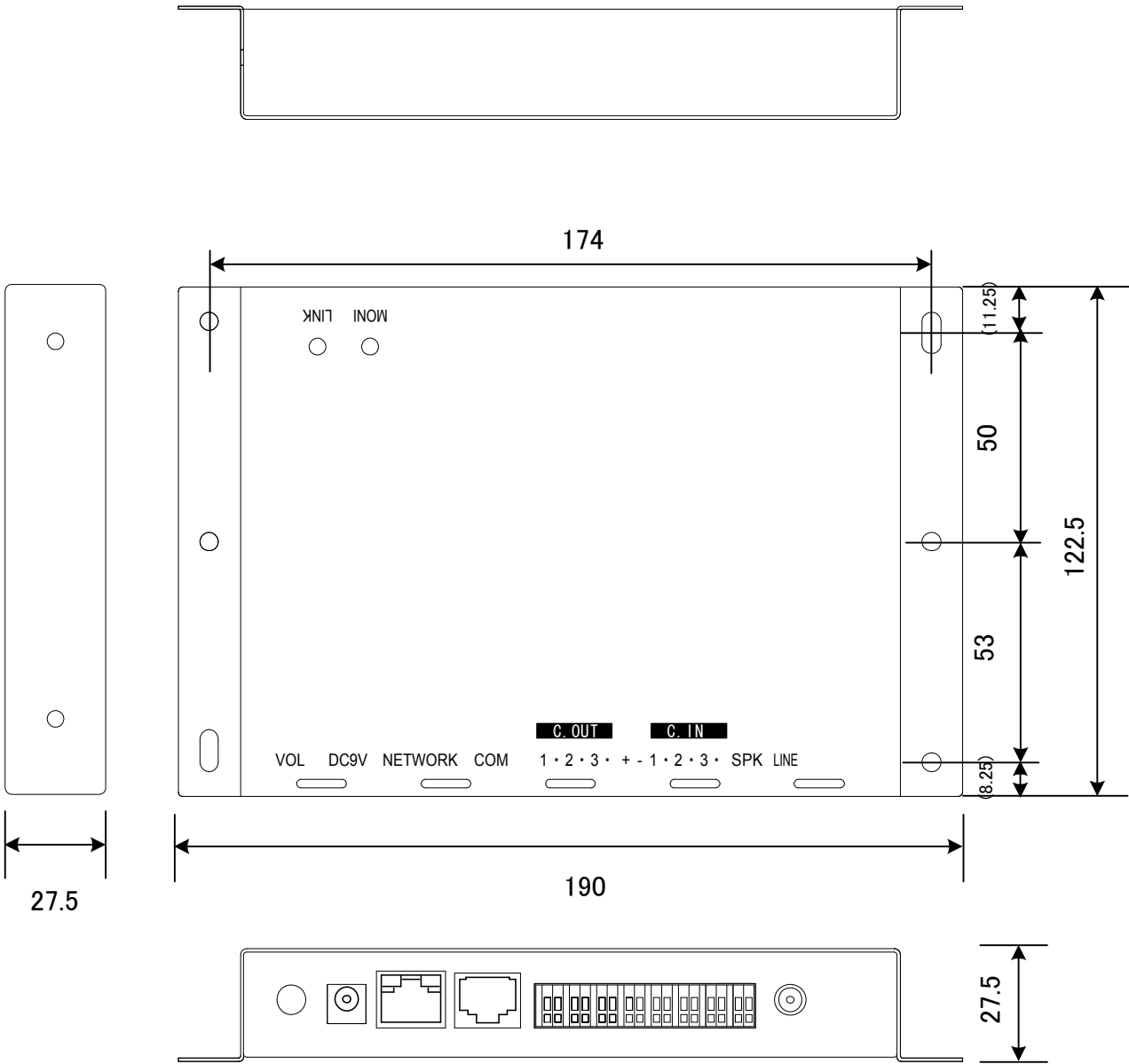
Outline of Plug Connector
JEITA RC-5320 TYPE-3

- *Color of Cable and Enclosure may be Black. (User can not designate tha color)
- *Any Specification may be going to be changed without notice.
- *SW Type Adaptor (for AC240V option) is different from this spec.

	日 付	氏 名	図 名	HomeSeismo納入仕様書	モデル	HS301
承認	2007/11/06	takagi	図 番	HS-10361-5(E)	版	01
検査	2007/11/06	kouchi	株式会社エイツー (A-2 Corp. LTD.)			
作成	2007/11/06	onodera				

9. Enclosure Dimension Drawing

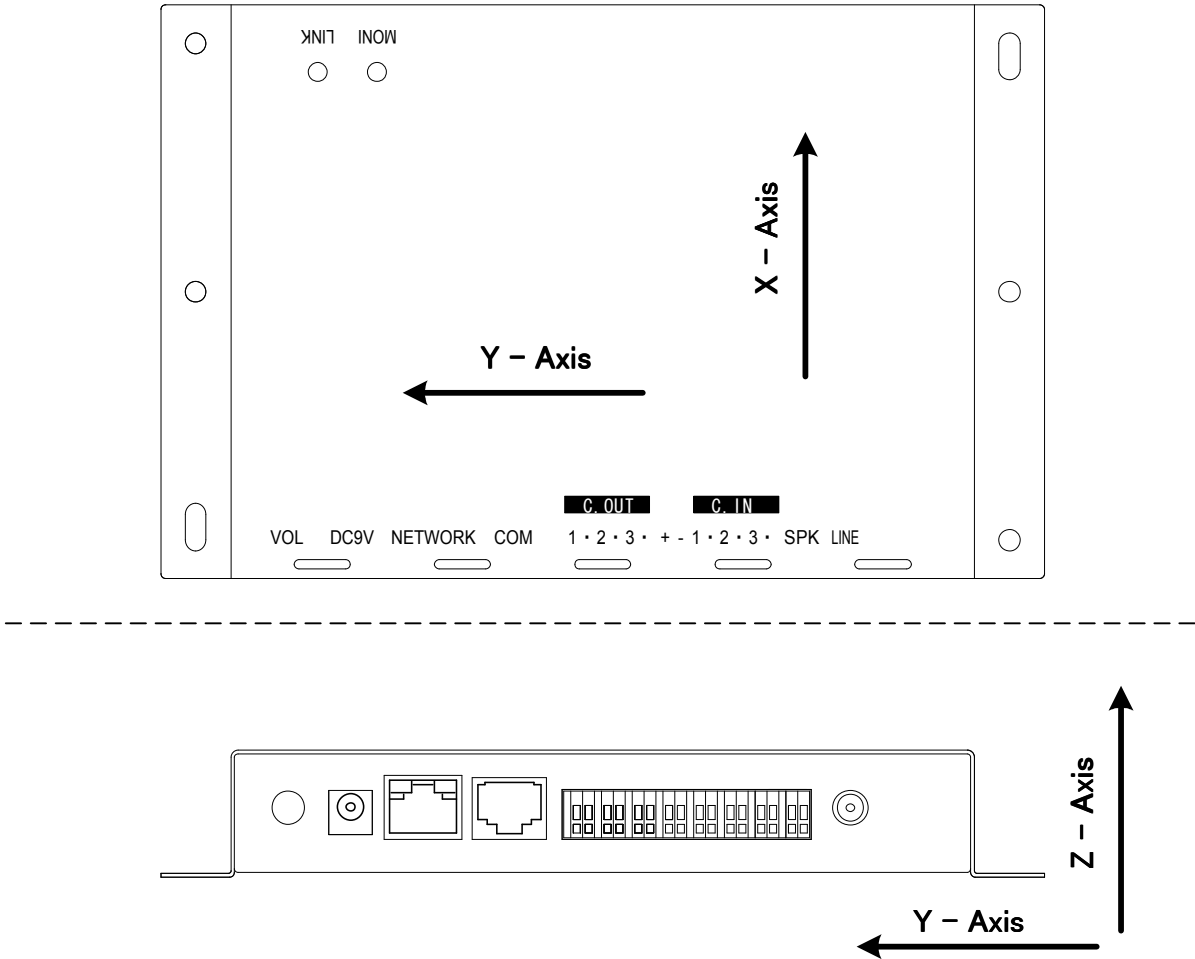
(UNIT : mm)



*Any Specification may be going to be changed without notice.

	日付	氏名	図名	HomeSeismo納入仕様書	モデル	HS301
承認	2007/11/06	takagi	図番	HS-10361-5(E)	版	01
検査	2007/11/06	kouchi	株式会社エイトー (A-2 Corp. LTD.)			
作成	2008/07/01	onodera				

10. Definition of the X, Y and Z Axes



*Any Specification may be going to be changed without notice.

	日 付	氏 名	図 名	HomeSeismo納入仕様書	モデル	HS301
承 認	2007/11/06	takagi	図 番	HS-10361-5(E)	版	01
検 査	2007/11/06	kouchi	株式会社エイツー (A-2 Corp. LTD.)			
作 成	2007/11/06	onodera				