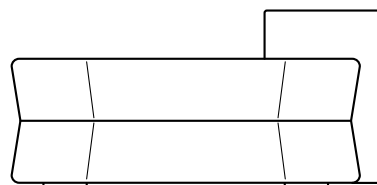
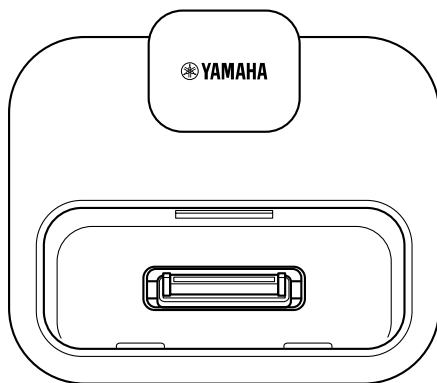


# UNIVERSAL DOCK for iPod YDS-10

## SERVICE MANUAL



YDS-10

### IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel.

It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

**WARNING:** Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components, and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

**IMPORTANT:** The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

**WARNING:** Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

**IMPORTANT:** Turn the unit OFF during disassembly and part replacement. Recheck all work before you apply power to the unit.



このサービスマニュアルは、エコマーク認定の再生紙を使用しています。  
This Service Manual uses recycled paper.

101006

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# YAMAHA

YAMAHA CORPORATION  
P.O.Box 1, Hamamatsu, Japan

'06.03

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## WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

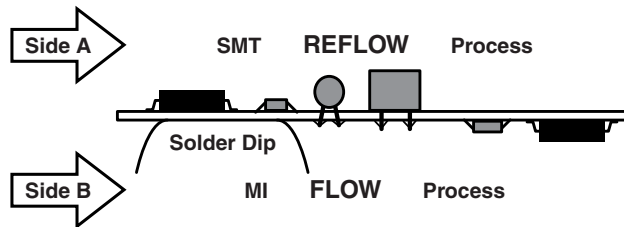
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

## About lead free solder / 無鉛ハンダについて

The P.C.B.s installed in this unit are soldered using the following solder.

本機に搭載されている基板のハンダ付けに使用されているハンダは下記の通りです。

	Side A / A 面	Side B / B 面
MAIN P.C.B.	Lead Free Solder / 無鉛ハンダ	Lead Free Solder / 無鉛ハンダ



Among some types of lead free solder currently available, it is recommended to use one of the following types for the repair work.

- Sn + Ag + Cu (tin + silver + copper)
- Sn + Cu (tin + copper)
- Sn + Zn + Bi (tin + zinc + bismuth)

無鉛ハンダにはいくつかの種類がありますが、修理時には下記のような無鉛ハンダの使用を推奨します。

- Sn+Ag+Cu(錫+銀+銅)
- Sn+Cu(錫+銅)
- Sn+Zn+Bi(錫+亜鉛+ビスマス)

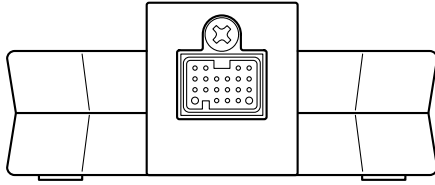
### Caution:

1. As the melting point temperature of the lead free solder is about 30°C to 40°C (50°F to 70°F) higher than that of the lead solder, be sure to use a soldering iron suitable to each solder.
2. If lead solder must be used, be sure to remove lead free solder from each terminal section of the parts to be replaced and from the area around it completely before soldering, or make sure that the lead-free solder and lead solder melt together fully.

### 注意:

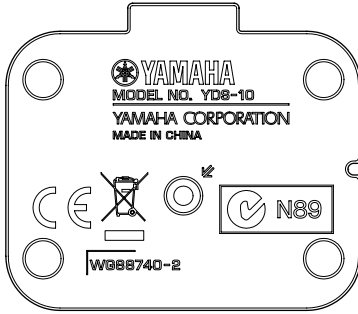
1. 無鉛ハンダの融点温度は通常の鉛入りハンダに比べ30~40°C程度高くなっていますので、それぞれのハンダに合ったハンダごてをご使用ください。
2. 鉛入りハンダを使わざるを得ない場合は、あらかじめ交換する部品端子部やその周辺部の無鉛ハンダをすべて取り除くか、あるいは無鉛ハンダと鉛入りハンダが十分に溶けた状態となるようにハンダ付けしてください。

## REAR PANELS

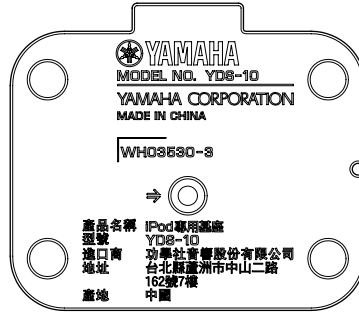


### BOTTOM PANELS

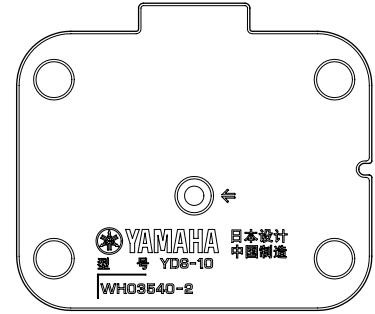
U, C, A, G models



R model



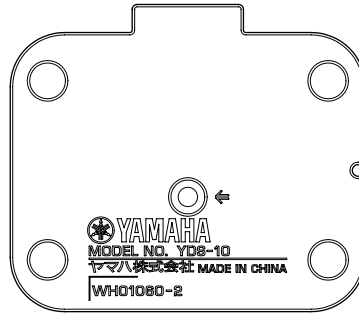
T model



K model



J model



## SPECIFICATIONS / 参考仕様

### General / 総合

Dimensions (W x H x D) / 寸法(幅 x 高さ x 奥行き)  
 ..... 80 x 33 x 70 mm (3-1/8" x 1-5/16" x 2-3/4")

Weight / 質量  
 ..... 0.135 kg (5 oz.)

Finish / 仕上げ  
 Silver color ..... U, C, R, T, K, A, G, J models

Accessories / 付属品  
 Dock cable (2 m) x 1, iPod dock adapter (A type) x 1, iPod dock adapter (B type) x 1, iPod dock adapter (C type) x 1

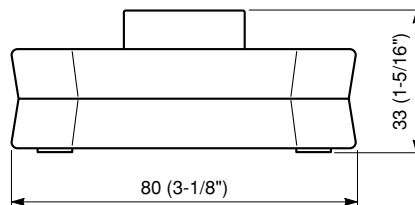
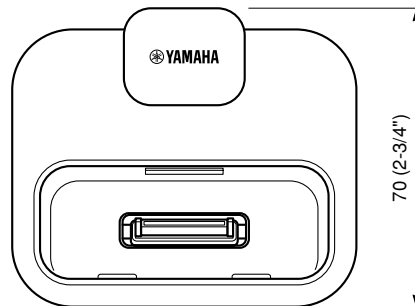
- |                        |                          |
|------------------------|--------------------------|
| U ..... U.S.A. model   | C ..... Canadian model   |
| R ..... General model  | T ..... Chinese model    |
| K ..... Korean model   | A ..... Australian model |
| G ..... European model | J ..... Japanese model   |

### iPod®

"iPod" is a trademark of Apple computer, Inc., registered in the U.S. and other countries.

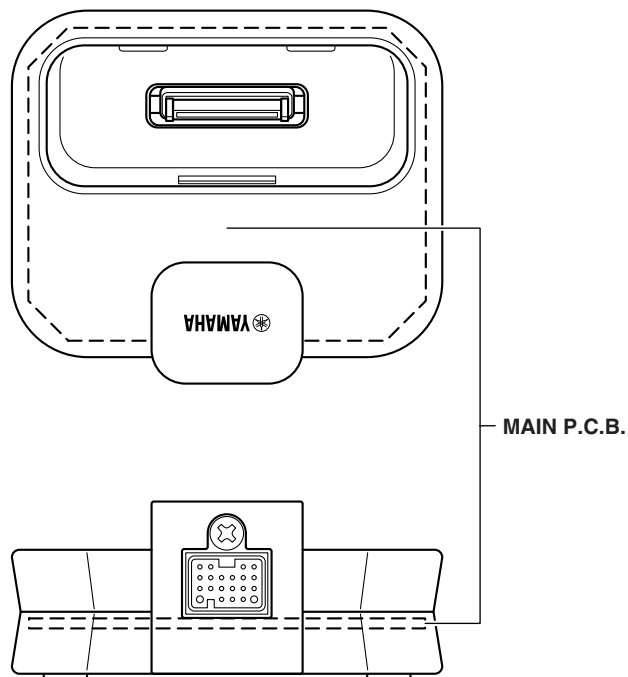
iPodは、米国およびその他の国々で登録されたApple Computer, Inc.の商標または登録商標です。

### DIMENSIONS



Unit: mm (inch)  
 単位: mm(インチ)

## INTERNAL VIEW



## REPAIR NOTES / 修理上の留意点

### 1) Supply of replacement parts

Among the parts installed to the MAIN P.C.B. assembly, only IC1, 2 and F1 are supplied. When any other part is defective, replace each MAIN P.C.B..

### 2) Operation check

YDS-10 does not operate by itself.

To check its operation, prepare the universal dock compatible component (RX-V559) and iPod.

### 1) サービスパーツ供給

PCB MAINの搭載部品は、IC1、2およびF1のみを供給します。  
これらの部品以外の故障の場合、PCB MAINを交換してください。

### 2) 動作確認

YDS-10は単独にて動作しません。

動作確認をする場合には、DOCK対応機器(DSP-AX559)およびiPodを用意してください。

## DISASSEMBLY PROCEDURES / 分解手順

### 1. Removal of MAIN P.C.B.

- a. Remove 1 screw (①). (Fig. 1)
- b. Remove the Bottom Cover and Top Cabinet.
- c. Remove 1 screw (②). (Fig. 2)
- d. Remove the Support Bracket and MAIN P.C.B..

### 1. MAIN PCBの外し方

- a. ①のネジ1本を外します。(Fig. 1)
- b. ボトムカバー、トップキャビネットを取り外します。
- c. ②のネジ1本を外します。(Fig. 2)
- d. サポートブラケット、MAIN PCBを取り外します。

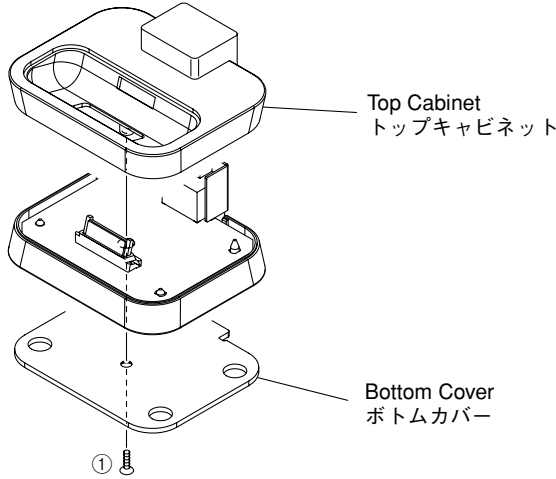


Fig. 1

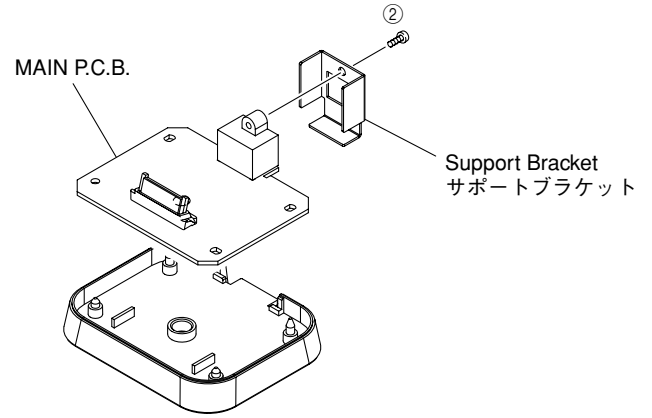
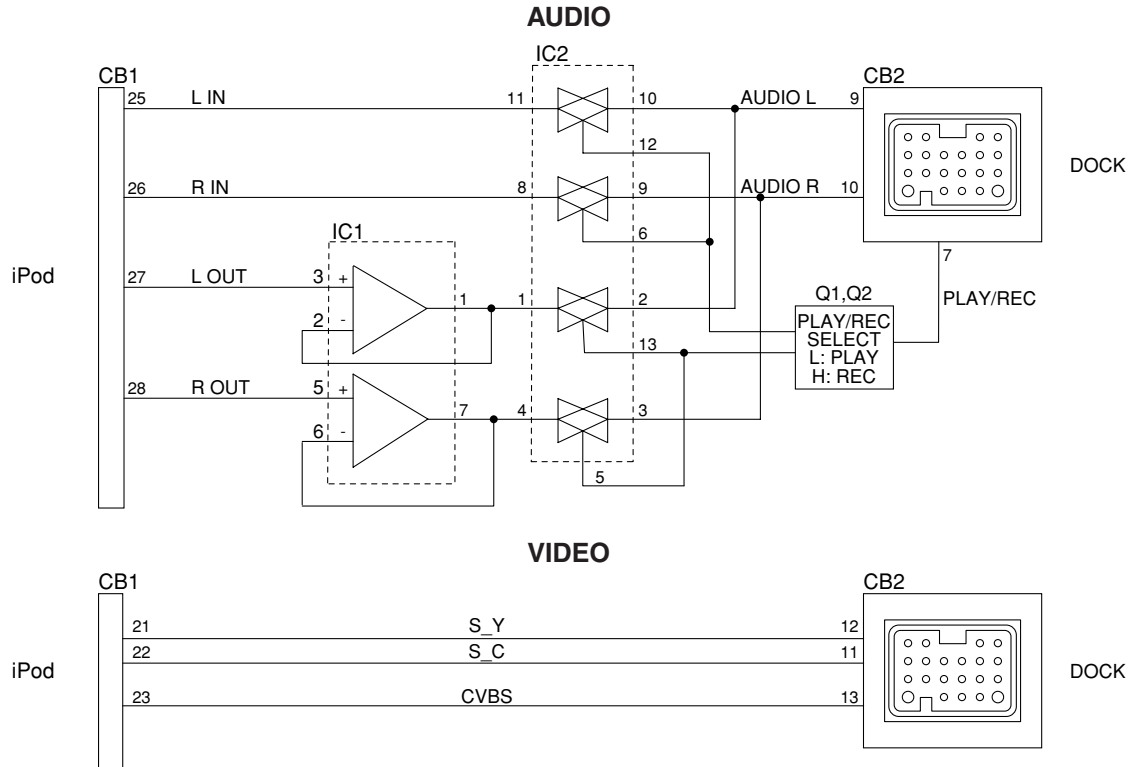


Fig. 2

## BLOCK DIAGRAM



**MAIN** • See page 7 → SCHEMATIC DIAGRAM

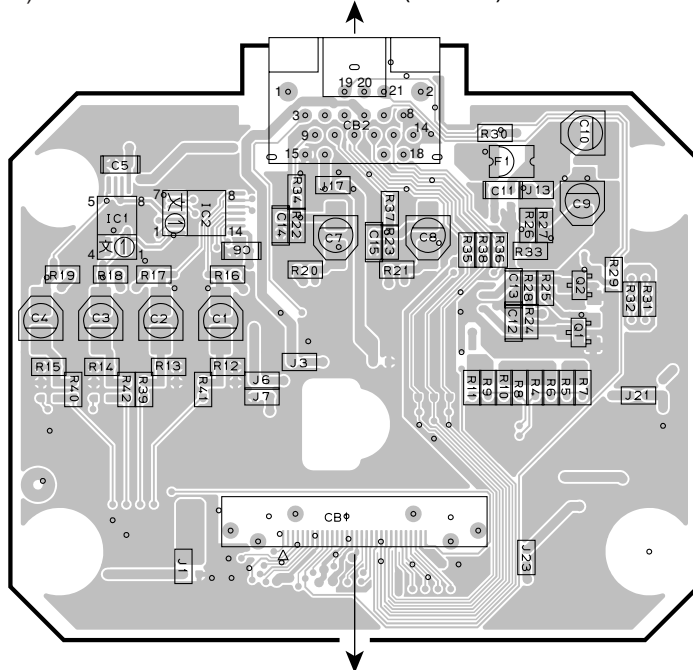
YDS-10

## PRINTED CIRCUIT BOARD Lead Free Solder Used

When any part not included in the replacement parts list has failed, replace the P.C.B..  
 パーツリストに記載されていないパーツの故障の場合、PCBを交換してください。

**MAIN P.C.B.** (Side A)

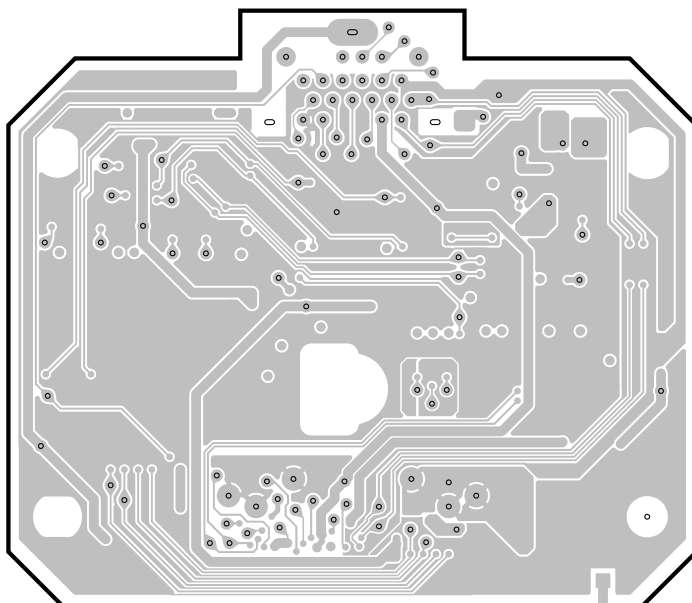
To RECEIVER (DOCK)



• **Semiconductor Location**

Ref no.	Location
IC1	B2
IC2	B2
Q1	D3
Q2	D3

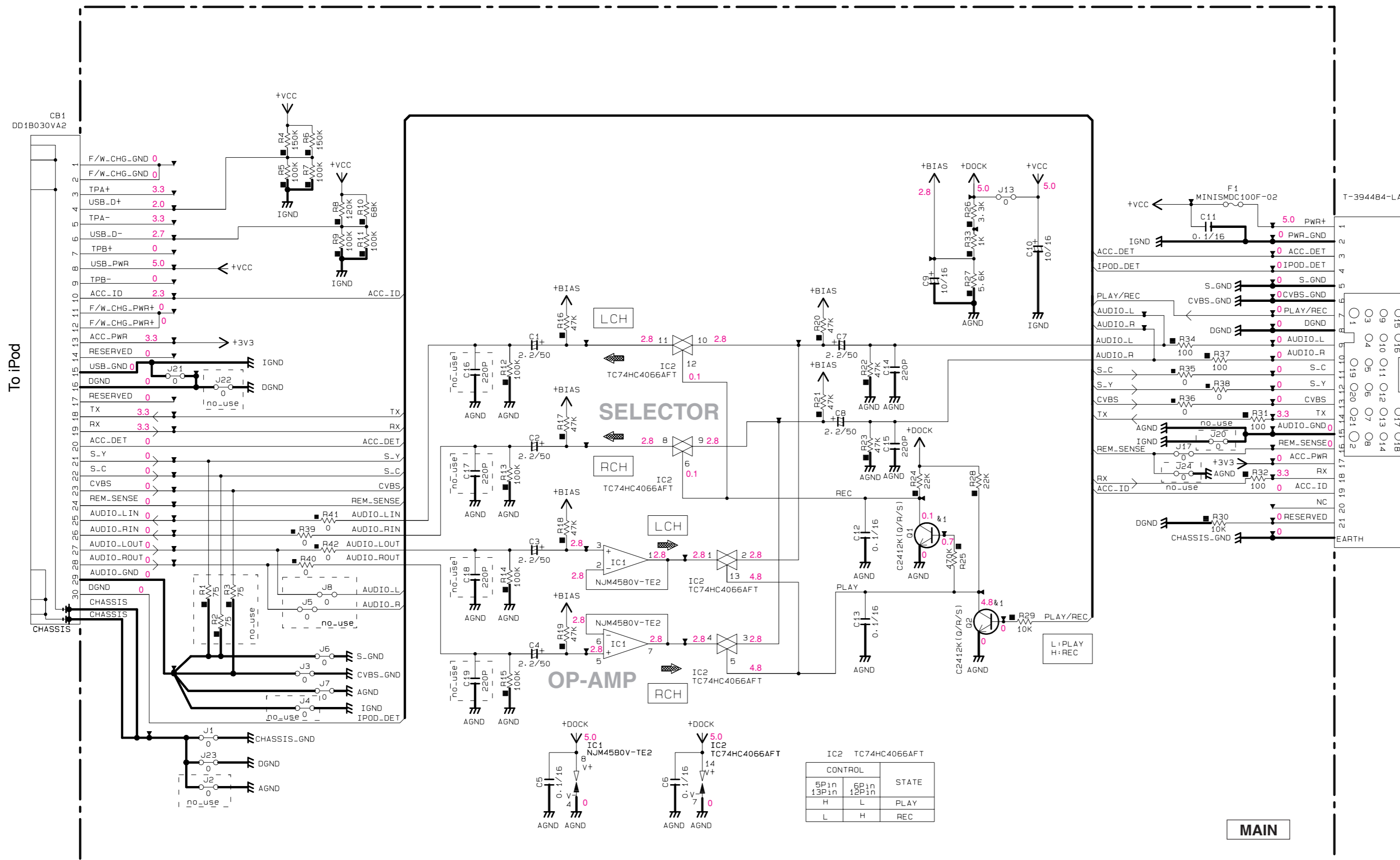
**MAIN P.C.B.** (Side B)



# SCHEMATIC DIAGRAM MAIN

When any part not included in the replacement parts list has failed, replace the P.C.B.  
 パーツリストに記載されていないパーツの故障の場合、PCBを交換してください。

The voltage is measured with the universal dock compatible component (RX-V659) and iPod connected.  
 電圧はDOCK対応機器 (DSP-AX759) および iPod を接続して測定したものです。



### NOTICE (model)

- (J)..... JAPAN
- (U)..... U.S.A
- (C)..... CANADA
- (R)..... GENERAL
- (T)..... CHINA
- (K)..... KOREA
- (A)..... AUSTRALIA
- (B)..... BRITISH
- (G)..... EUROPE
- (L)..... SINGAPORE
- (E)..... SOUTH EUROPE
- (V)..... TAIWAN

### RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
⊠	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
⊞	METAL PLATE RESISTOR
⊞	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
⊞	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

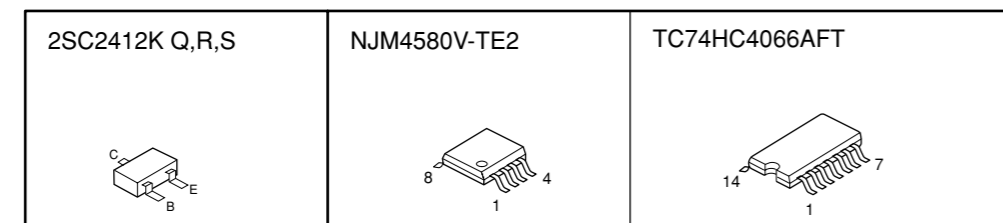
### CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
⊙	POLYSTYRENE FILM CAPACITOR
⊙	MICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR

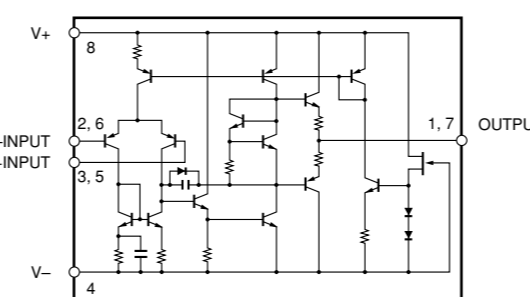
### Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
&1	01,02	25C2412K 25D0601ARL/AQL
&2		
&3		

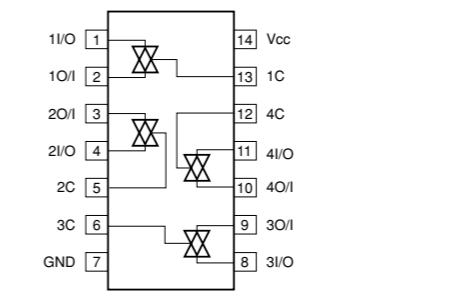
### PIN CONNECTION DIAGRAMS OF TRANSISTOR AND ICs.



IC1: NJM4580V-TE2  
Dual operational amplifier



IC2: TC74HC4066AFT  
High speed CMOS quad bilateral switch



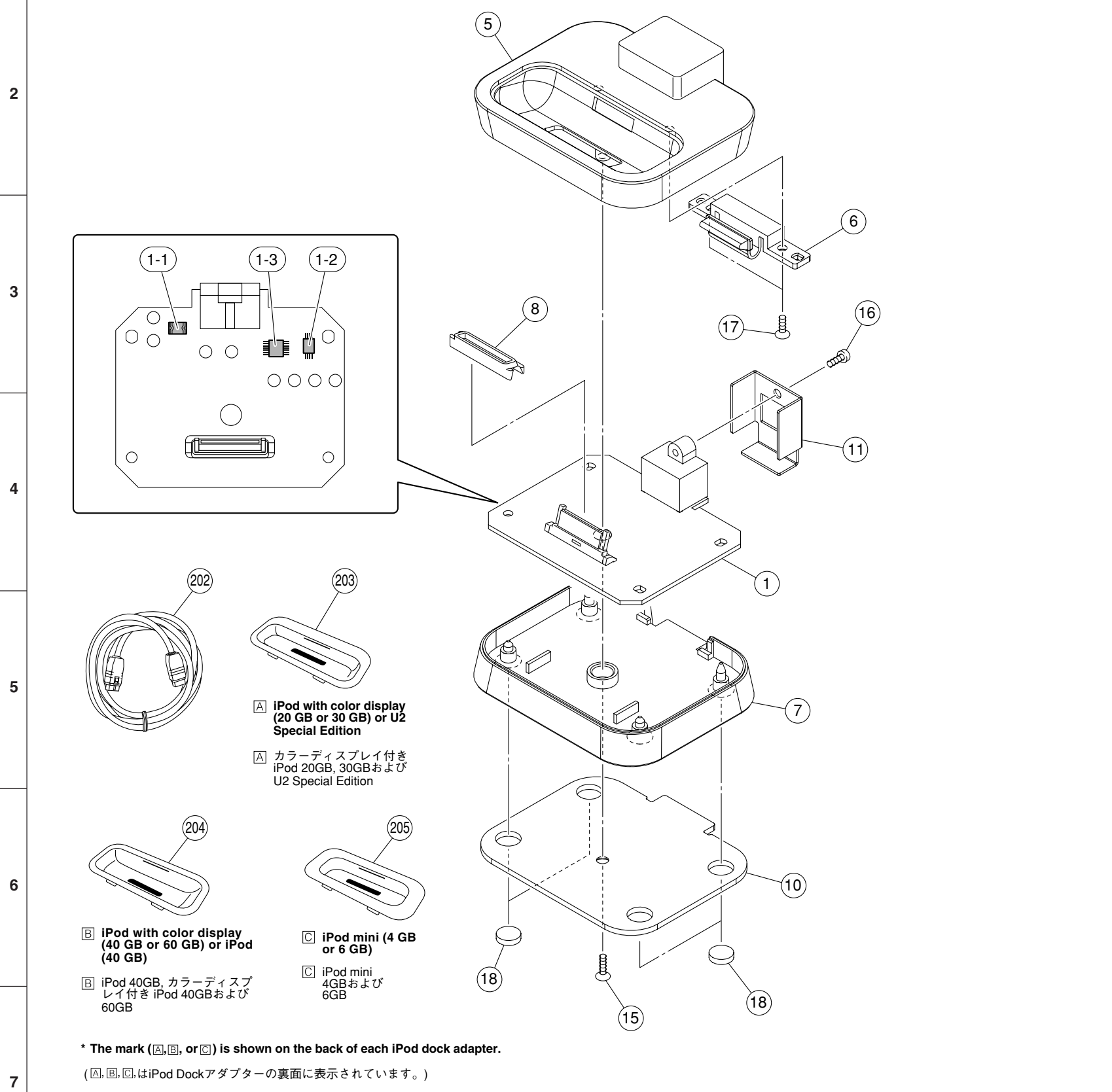
- ★ All voltages are measured with a 10MΩ/V DC electronic volt meter.
- ★ Components having special characteristics are marked ⊠ and must be replaced with parts having specifications equal to those originally installed.
- ★ Schematic diagram is subject to change without notice.

- 電圧は、内部抵抗10MΩの電圧計で測定したものです。
- ⊠印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
- 本回路図は標準回路図です。改良のため予告なく変更することがございます。



1 ■ REPLACEMENT PARTS LIST  
 • OVERALL ASS'Y

● 部品価格ランクは、予告なく変更することがあります。



Ref. No.	Part No.	Description	Remarks	Markets	部品名	Rank
*	1	WH020500 P.C.B. ASS'Y	MAIN		P C B メイン	
	1-1	V2429100 POLY SWITCH	SMDC100-02	F1	ポリスイッチ	02
	1-2	X2474A00 IC	NJM4580V-TE2	IC1	アンプIC	01
*	1-3	X7572A00 IC DIGITAL	TC74HC4066AFT	IC2	ロジックIC	
*	5	WG887200 TOP CABINET			トップ キャビネット	
*	6	WG887500 SPRING HOOK			スプリングフック	
*	7	WG887300 BOTTOM CABINET			ボトム キャビネット	
*	8	WH143300 SUPPORT CONNECTOR			サポート/コネクタ	
*	10	WH010600 BOTTOM COVER		J	ボトムカバー	
*	10	WG887400 BOTTOM COVER		UCAG	ボトムカバー	
*	10	WH035300 BOTTOM COVER		R	ボトムカバー	
*	10	WH035400 BOTTOM COVER		T	ボトムカバー	
*	10	WH035500 BOTTOM COVER		K	ボトムカバー	
*	11	WG887000 SUPPORT BRACKET			サポートブラケット	
*	15	WG256500 FLAT HEAD P-TIGHT SCREW	3x10 MFZN2B3		皿Pタイトネジ	
*	16	WE774100 BIND HEAD BONDING B-T. SCREW	3x8 MFZN2B3		ボンディングBタイトネジ	01
*	17	WF499800 FLAT HEAD P-TIGHT SCREW	3x8 MFZN2W3		皿Pタイトネジ	
*	18	WG595300 NONSKID PAD	M8 t=1.5		滑止パッド	
		ACCESSORIES			付属品	
*	202	WG800600 DOCK CABLE	16P 2m 1pc		DOCK接続ケーブル	
*	203	WG887600 IPOD DOCK ADAPTER	Atype 1pc		IPOD DOCKアダプター	
*	204	WG887800 IPOD DOCK ADAPTER	Btype 1pc		IPOD DOCKアダプター	
*	205	WG887700 IPOD DOCK ADAPTER	Ctype 1pc		IPOD DOCKアダプター	

- A** iPod with color display (20 GB or 30 GB) or U2 Special Edition  
 カラーディスプレイ付き iPod 20GB, 30GBおよび U2 Special Edition
- B** iPod with color display (40 GB or 60 GB) or iPod (40 GB)  
 iPod 40GB, カラーディスプレイ付き iPod 40GBおよび 60GB
- C** iPod mini (4 GB or 6 GB)  
 iPod mini 4GBおよび 6GB

\* The mark (A, B, or C) is shown on the back of each iPod dock adapter.  
 (A, B, CはiPod Dockアダプターの裏面に表示されています。)

\* New Parts \* 新規部品



# YDS-10

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