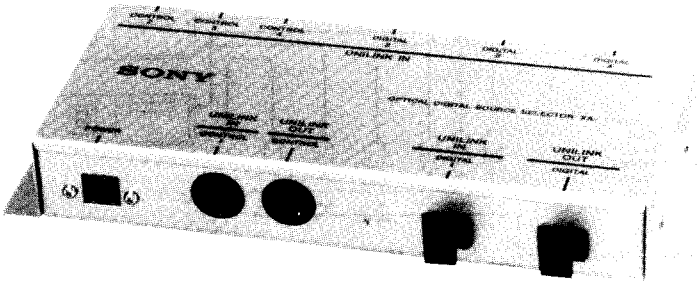
XA-U40D

SERVICE MANUAL

US Model
AEP Model
UK Model
E Model



SPECIFICATIONS

Power requirements
DC 12 V car battery (negative ground)
Mounting dimensions
Approx. 80 × 203 × 28 mm (w/h/d) ($3\frac{1}{4} \times 8 \times 1\frac{1}{8}$ inches)
Weight Approx. 0.4 kg (14 oz.)
Accessories supplied
Power connecting cord (1)
UNILINK cable (2 m) (1)
Optical cable (2 m) (1)
Mounting screw (2)
Optional accessories
UNILINK cable RC-61 (1 m)
UNILINK cable RC-62 (2 m)

Design and specifications subject to change without notice.

Features

The XA-U40D is a digital source selector for connecting several CD changers which are compatible with the Sony digital UNILINK system to a car audio system which is also compatible with the Sony digital UNILINK system. Four CD changers can be connected per unit, and the maximum of ten CD changers can be connected by three XA-U40Ds.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

MICROFILM

DIGITAL SOURCE SELECTOR

SONY®

SECTION 1
GENERAL

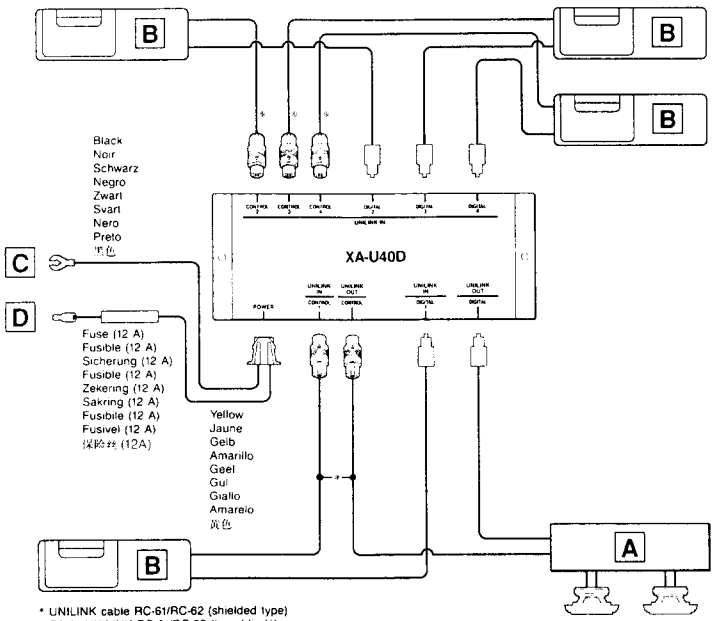
This section is extracted from instruction manual.

System Connections

Connection Diagram
Diagrama de conexión
Schema di collegamento

Schéma de connexion
Aansluitschema
Diagrama de ligações

Anschlußdiagramm
Kopplingsdiagram
接线图



C

to a metal point of a car
à un point métallique de la voiture
an ein Metallteil des Wagens
a un punto metálico del automóvil
naar een metalen onderdeel van de auto
till en metalldel i bilen
a un punto metallico dell'auto
A um ponto metálico do automóvel
接车内的金属部分

D

to the +12 V power terminal which is energized at all times
à la borne d'alimentation +12 V qui est energetisée en permanence
An einen +12-V-Kontakt, das stets unter Strom steht.
a un terminal de alimentación de +12 V que esté permanentemente energizado
naar de (+) 12 V accu-aansluiting die altijd onder spanning staat
till det 12 V strömuttag som alltid är spänningsförande
al terminale di alimentazione +12 V, sempre sotto tensione
Ao terminal +12 V de alimentação o qual recebe energia permanentemente.
至经常通电的 +12V 电源端子

B

Digital UNILINK system compatible CD changer
Changeur CD compatible avec le système numérique UNILINK
Mit digitalem UNILINK-System kompatibler CD-Wechsler
Cambiador de discos compactos compatible con el sistema UNILINK digital
CD wisselaar die geschikt is voor het digitale UNILINK systeem
CD-skivväxlare som är kompatibel med Sonys digitala, optiska styrsystem UNILINK
Cambiatore CD compatibile con il sistema digitale UNILINK
Permutador de discos compactos compativel com o sistema UNILINK digital
与数字信息 UNILINK 系统有通用性的激光唱片转换器

A

Digital UNILINK system compatible car audio set
Autoradio compatible avec le système numérique UNILINK
Mit digitalem UNILINK-System kompatible Auto-Audioanlage
Sistema de audio para automóvil compatible con el sistema UNILINK digital
Auto-geluidsinstallatie die geschikt is voor het digitale UNILINK systeem
Bilstereo som är kompatibel med Sonys digitala, optiska styrsystem UNILINK
Autostereo compatibile con il sistema digitale UNILINK
Auto-estéreo compativel com o sistema UNILINK digital
与数字信息 UNILINK 系统有通用性的汽车音响装置

* UNILINK cable RC-61/RC-62 (shielded type)
* Câble UNILINK RC-61/RC-62 (type blindé)
* UNILINK-Kabel RC-61/RC-62 (abgeschirmter Typ)
* Cable UNILINK RC-61/RC-62 (tipo apantallado)
* UNILINK aansluitsnoer RC-61/RC-62 (afgeschermd type)
* Styrkabel UNILINK RC-61/RC-62 (avskärmad kabel)
* Cavo UNILINK RC-61/RC-62 (tipo schermato)
* Cabo UNILINK RC-61/RC-62 (tipo blindado)
* UNILINK 电缆 RC-61/RC-62 (屏蔽型)

Caution

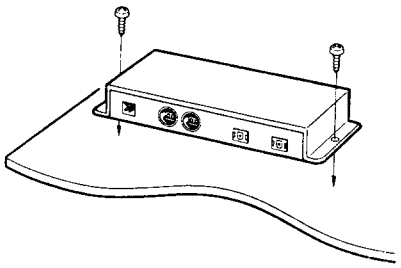
- Before making connections, disconnect the ground terminal of car battery to avoid short-circuiting.
- Connect the yellow power input cord only after all the other cords have been connected.
- Be sure to connect the ground wire of the unit securely to a metal point of the car. A loose connection may cause a malfunction of the unit.
- Do not force to bend the optical cable too much so that the bent part (arc) becomes less than 10 cm (4 inch) in diameter.

Note

If your car has an on board computer or navigation computer installed, their memories can be wiped out when the negative terminal of the car battery is disconnected. In such a case, make sure that all the connections except the yellow power input cord are completed before connecting the power input cord.

Mounting Example

Mounting with the supplied screws

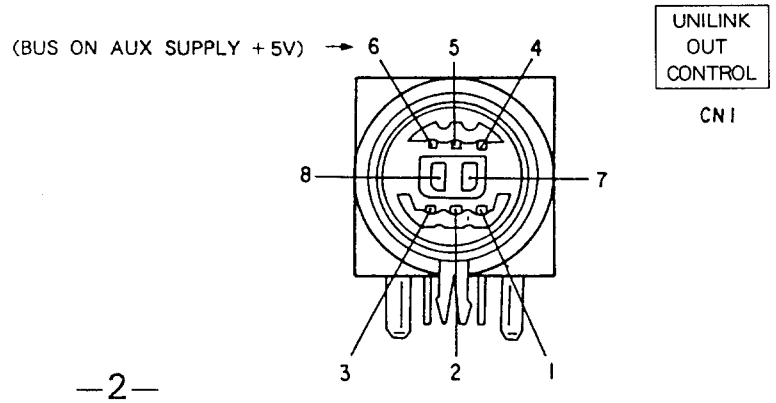


[Safety Precaution]

XA-U40D controls CD changers with the control signal supplied from head unit. So, when attempting to repair this equipmentas an independent unit, control signals are needed to add, but operation check is possible by setting up BUS ON conditions.

[Method]

Apply a +5V voltage to the 6PIN (BUS ON) terminal of the CN1 (UNILINK OUT CONTROL) to set the unit to the BUS ON condition.



Connections

When using one XA-U40D
(up to four CD-changers can be connected)

Cuando emplee un XA-U40D
(podrá conectar hasta cuatro cambiadores de discos compactos)

Quando si usa un XA-U40D
(possono essere collegati fino a quattro cambiatori CD)

Lors de l'utilisation d'un XA-U40D
(Quatre changeurs de CD au maximum peuvent être branchés)

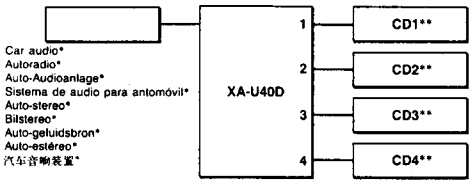
Bij gebruik van één XA-U40D
(in totaal kunnen vier CD-wisselaars aangesloten worden)

Emprego de somente um XA-U40D
(um máximo de quatro permutadores de disco compacto)

Bei Verwendung eines XA-U40D
(bis zu vier CD-Wechsler können angeschlossen werden)

När en XA-U40D används
(upp till fyra CD-skivväxlare kan då anslutas)

使用 1 架 XA-U40D 时
（最多可连接 4 架激光唱片转换器）



When using two XA-U40Ds
(up to seven CD-changers can be connected)

Cuando emplee dos XA-U40D
(podrá conectar hasta siete cambiadores de discos compactos)

Quando si usano due XA-U40Ds
(possono essere collegati fino a sette cambiatori CD)

Lors de l'utilisation de deux XA-U40Ds
(Sept changeurs de CD au maximum peuvent être branchés)

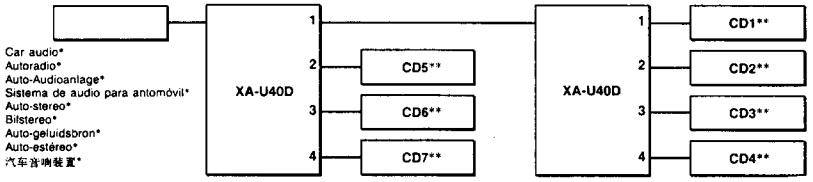
Bij gebruik van twee XA-U40D's
(in totaal kunnen zeven CD-wisselaars aangesloten worden)

Emprego de dois XA-U40Ds
(um máximo de sete permutadores de disco compacto)

Bei Verwendung von zwei XA-U40D
(bis zu sieben CD-Wechsler können angeschlossen werden)

När två XA-U40D används
(upp till sju CD-skivväxlare kan då anslutas)

使用 2 架 XA-U40D 时
（最多可连接 7 架激光唱片转换器）



When using three XA-U40Ds
(up to ten CD-changers can be connected)

Cuando emplee tres XA-U40D
(podrá conectar hasta diez cambiadores de discos compactos)

Quando si usano tre XA-U40Ds
(possono essere collegati fino a dieci cambiatori CD)

Lors de l'utilisation de trois XA-U40Ds
(Dix changeurs de CD au maximum peuvent être branchés)

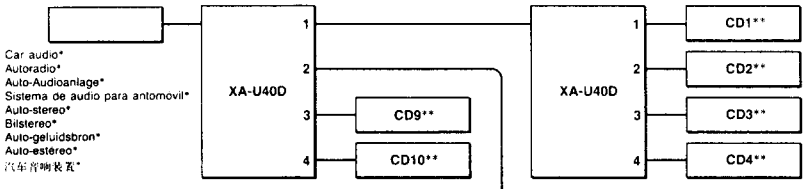
Bij gebruik van drie XA-U40D's
(in totaal kunnen tien CD-wisselaars aangesloten worden)

Emprego de três XA-U40Ds
(um máximo de dez permutadores de disco compacto)

Bei Verwendung von drei XA-U40D
(bis zu zehn CD-Wechsler können angeschlossen werden)

När tre XA-U40D används
(upp till tio CD-skivväxlare kan då anslutas)

使用 3 架 XA-U40D 时
（最多可连接 10 架激光唱片转换器）



* Car audio which is compatible with the digital UNILINK system.
Autoradio compatible avec le système numérique UNILINK.
Mit digitalem UNILINK-System kompatible Auto-Audioanlage
Sistema de audio para automóviles compatible con el sistema UNILINK digital.
Auto-geluidsinstallatie die geschikt is voor het digitale UNILINK systeem.
En bilstereo kompatibel med Sonys digitala, optiska styrsystem UNILINK.
Autostereo compatibile con il sistema digitale UNILINK.
Auto-estéreo compatível com o sistema UNILINK digital.
与数字信息 UNILINK 有通用性的汽车音响装置

** CD changer which is compatible with the digital UNILINK system.
Changeur de CD compatible avec le système numérique UNILINK.
Mit digitalem UNILINK-System kompatibler CD-Wechsler
Cambiador de discos compactos compatible con el sistema UNILINK digital.
CD-wisselaar die geschikt is voor het digitale UNILINK systeem.
En CD-skivväxlare kompatibel med Sonys digitala, optiska styrsystem UNILINK.
Cambiatore CD compatibile con il sistema digitale UNILINK.
Permutador CD compatível com o sistema UNILINK digital.
与数字信息 UNILINK 有通用性的激光唱片转换器

Notes

- Up to three XA-U40Ds can be connected.
- When three XA-U40Ds are to be connected, they can be connected either in series or parallel fashion regardless of the terminal numbers printed on them. There will be no difference in the flow of signals. However, the order of connected CD changers may change depending on the way they are connected.
- After the connection is completed, make sure to note down the CD changer numbers (i.e. CD1, CD2) displayed on the monitor or display window of the car audio. It will be useful to write them down on pieces of paper etc. and stick them on the CD changers so that you can identify them easily.

SECTION 2
DIAGRAMS

2-1. IC Description

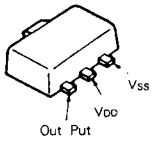
Microprocenssor (IC : uPD75004GB-749-3B4) Port Function and I/O Level

Pin No.	Pin Name	I/O	Description
13	$\overline{\text{AUDIO 3}}$	O	Audio signal select output for inputs (4ch and 2ch).
14	$\overline{\text{AUDIO 2}}$	O	
15	$\overline{\text{AUDIO 1}}$	O	
16	$\overline{\text{AUDIO 0}}$	O	
17, 18	Vss	–	GND
20	$\overline{\text{RESET}}$	I	Reset signal input.
21	X1	–	System clock. 4.19 MHz.
22	X2	–	
23	$\overline{\text{LINK 3}}$	O	UNILINK communication enable signal output for inputs(4ch/2ch). L: Enable.
24	$\overline{\text{LINK 2}}$	O	
25	$\overline{\text{LINK 1}}$	O	
26	$\overline{\text{LINK 0}}$	O	
28	REQ	O	UNILINK communication serial data request output.
29	SI	I	UNILINK communication serial data input.
30	SO	O	UNILINK communication serial data output.
31	SCLK	I	UNILINK communication serial clock.
32	$\overline{\text{BUS ON}}$	I	UNILINK communication enable signal input. L: Enable.
36	$\overline{\text{MAIN BACKUP}}$	I	BACKUP power supply failure detect input. H: Power failure.
37	$\overline{\text{BACK UP}}$	I	GND
38, 39	Vcc	–	Power supply terminal.
42	$\overline{\text{MUTE}}$	O	Open
43	$\overline{\text{POWER ON}}$	O	Power-ON signal (Signal to enable)output. L: Enable.

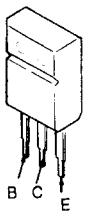
Note : Ports other than those described above are unused.

2-4. SEMICONDUCTOR LEAD LAYOUTS

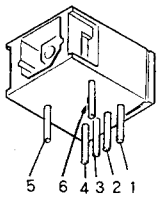
S8054-HN-CB-S



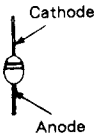
2SD2137



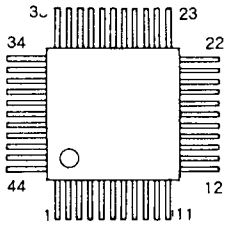
TORX193
TOTX193



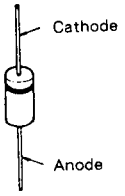
DSA3A4



μPD75004GB-749-3B4



HZ6C2L



OVERALL SECTION