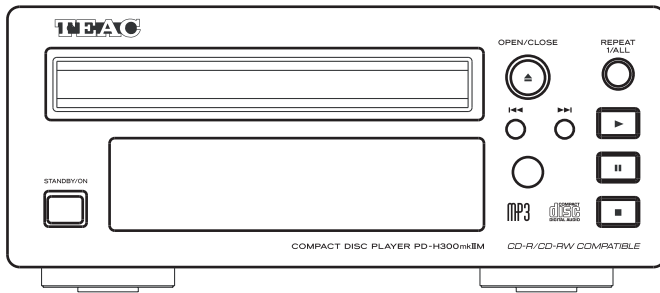


# TEAC



## SERVICE MANUAL

# PD-H300mk II M

Compact Disc Player

COMPACT disc DIGITAL AUDIO MP3 WMA

PD-H300mk II M : EUR

### CONTENTS

|   |                               |    |
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### NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

Preliminary  
暫定版

# 1 SPECIFICATIONS

## CD Player

|                                       |  |
|---------------------------------------|--|
| Pickup . . . . .                      | 3-beam, semiconductor laser                |
| Frequency Response . . . . .          | 20 Hz - 20 kHz $\pm$ 2dB                   |
| Total Harmonic Distortion . . . . .   | Less than 0.02 % (1 kHz)                   |
| Signal-to-Noise Ratio (S/N) . . . . . | More than 90 dB (IHF-A)                    |
| Outputs . . . . .                     | Analog: RCA x 1set<br>Digital: TOS OPTICAL |
| Input/Output . . . . .                | Remote control connection x 2(RCA)         |
| Output level . . . . .                | Analog: 2.0 Vrms                           |
| Playable Disc . . . . .               | CD-DA/CD-R/CD-RW                           |
| Playable format . . . . .             | CD-DA/MP3/WMA                              |

## General

|                                  |                             |
|----------------------------------|-----------------------------|
| Power Requirement . . . . .      | AC 230 V, 50 Hz             |
| Power Consumption . . . . .      | 13 W                        |
| Dimensions (W x H x D) . . . . . | 215 x 93 x 305 mm           |
| Weight (Net) . . . . .           | 2.8 kg                      |
| Operating temperature . . . . .  | +5° C - +35° C              |
| Operating humidity . . . . .     | 5% to 85% (no condensation) |
| Storage temperature . . . . .    | -20° C - +55° C             |

Note:

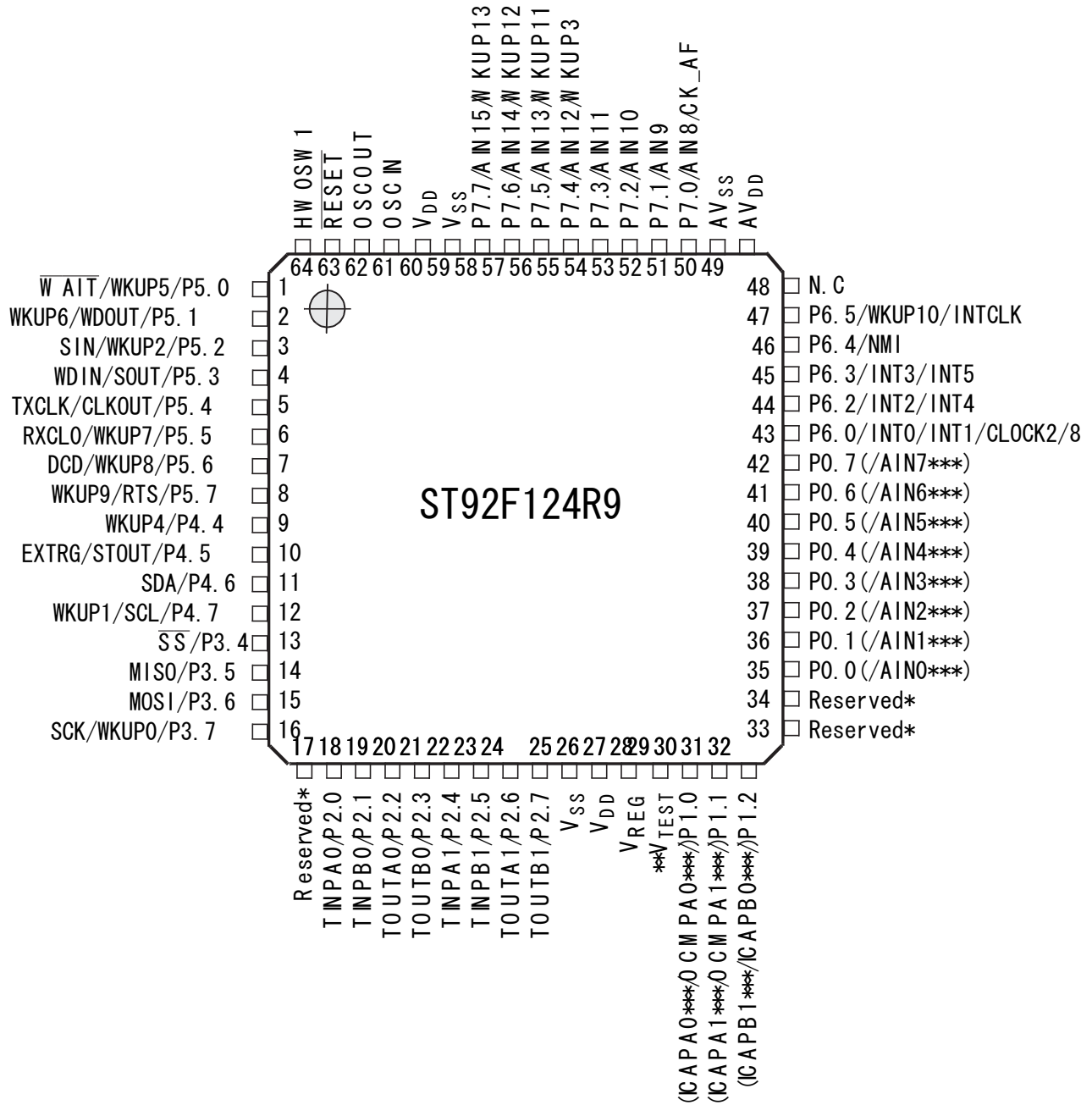
- This unit can play MP3 files with sampling frequency 44.1 kHz or 48 kHz, bit-rate 320 kbps or less.
- This unit can play WMA files with sampling frequency 44.1kHz, bit-rate 192 kbps or less.
- Design and specifications are subject to change without notice.
- Weight and dimensions are approximate.
- Illustrations may differ slightly from production models.

## Standard Accessory

- RCA cable x 1
- Remote control connection cord (RCA) x 1
- Remote control unit (RC-1039) x 1
- Batteries (AA) x 2
- Owner' s manual x 1
- Warranty card x 1

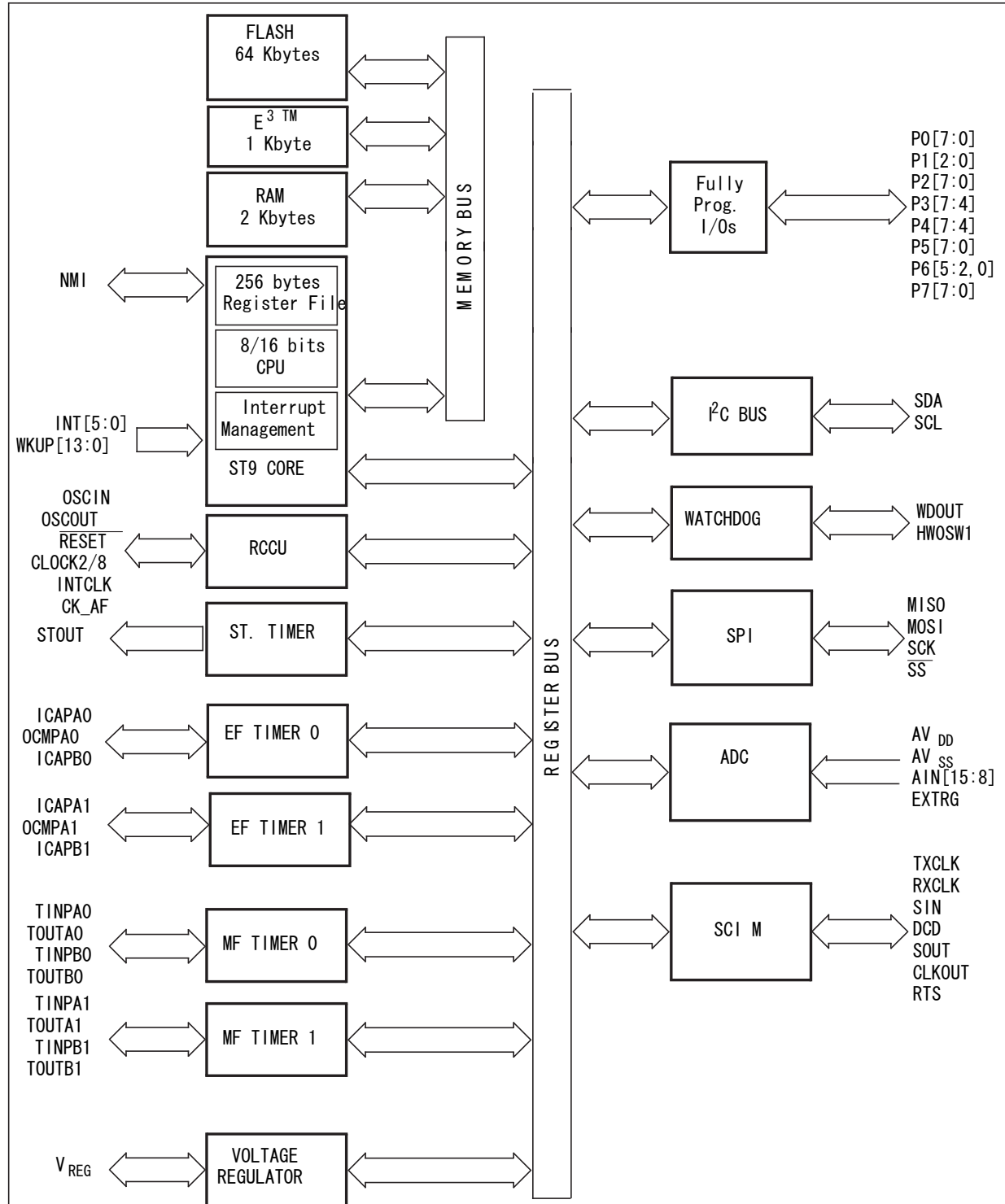
## 2 IC SPECIFICATIONS

HOST MICROCOMPUTER:ST92F124R9



# HOST MICROCOMPUTER: ST92F124R9

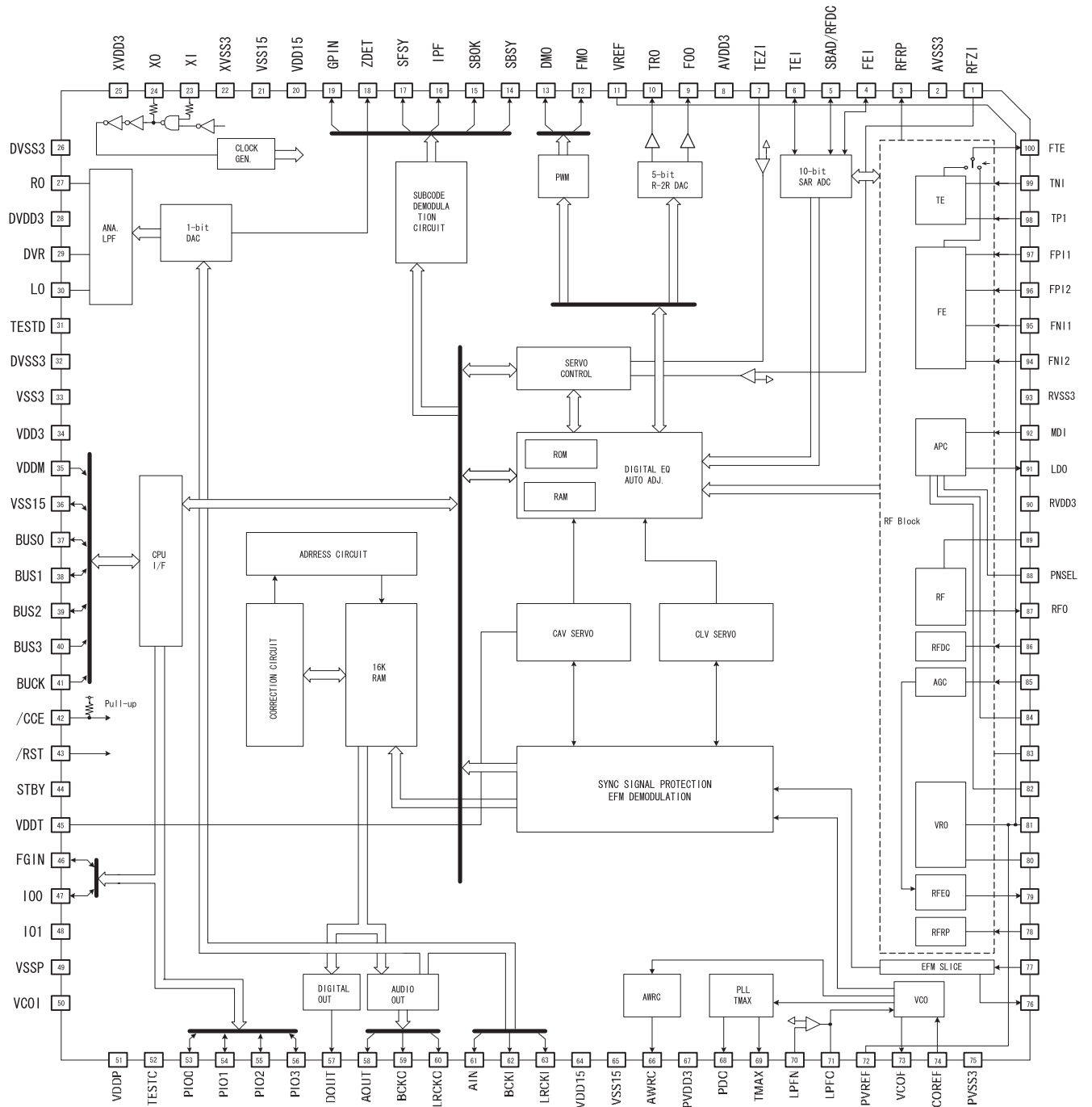
ST92F124R9: Architectural Block Diagram



The alternate functions of the static characters are mapped on Port 0, Port 1, Port 2, Port 3, Port 4, Port 5, Port 6 and Port 7.

# CD Block System:TC94A54MFG

## Pin Configuration and Block Diagram



## Power Driver IC for CD Player: TA2125AF

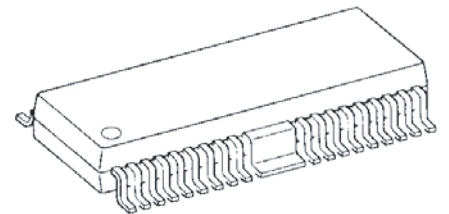
TA2125AF is power driver IC developed for CD players.

This IC have built-in 4 channel BTL power amplifiers and 1 channel H-Bridge driver.

Which drives focus-coil and tracking coil for 3-beam pick-up head, disc motor, feed motor and loading motor.

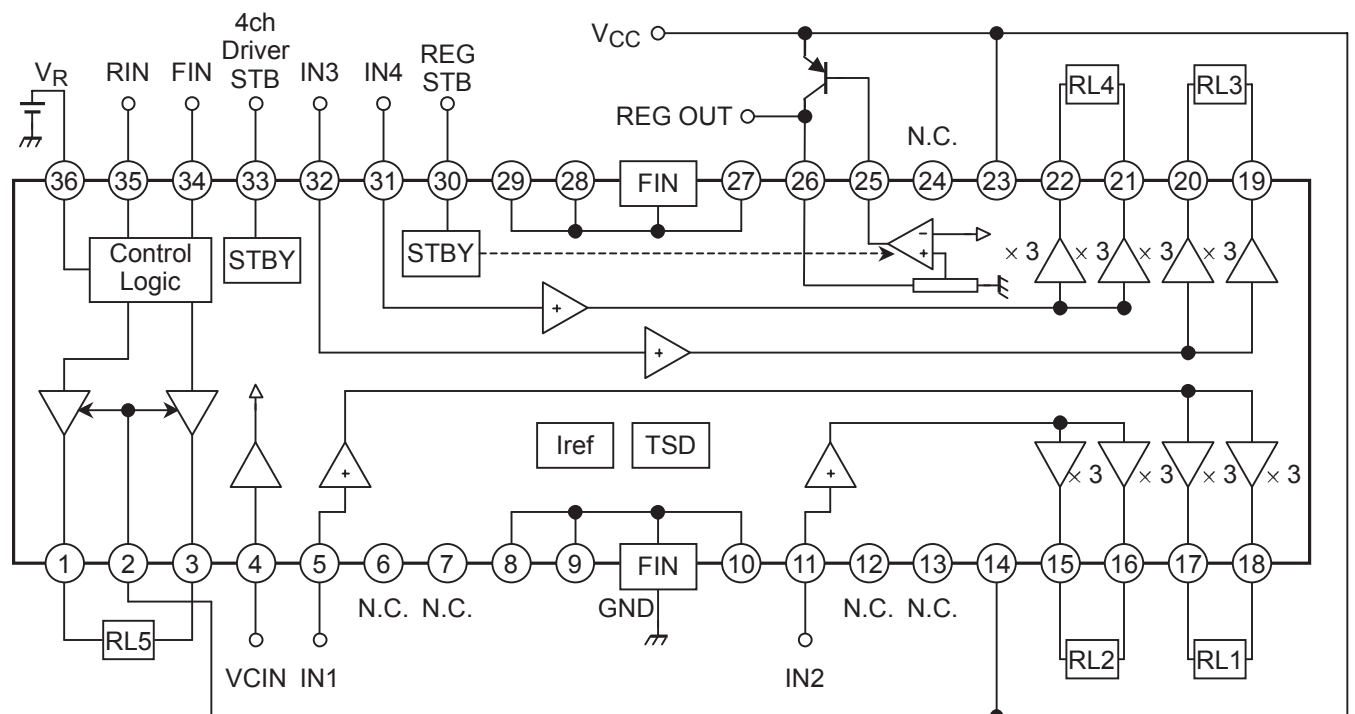
### Featuers

- 4 channel BTL linear drivers  
High output power:  $V_{out} = 5.1 V_{p-p}$  ( $V_{CC} = 8 V$ ,  $R_L = 8 \Omega$ )  
Stand-by switch for BTL drivers
- 1 channel H-Bridge:  $V_{CE} (H) + V_{CE} (L) = 1.3 V$  ( $V_R = V_M = 8 V$ ,  $I_O = 200 mA$ )  
Logic control (forward, revers, brake, stand-by)
- Punch through current restriction diode for H-bridge
- 5 V regulator reference amp (with external output Tr.)
- Thermal shut down protection
- Operating supply voltage range:  $V_{CC} = 5.0-9.0 V$

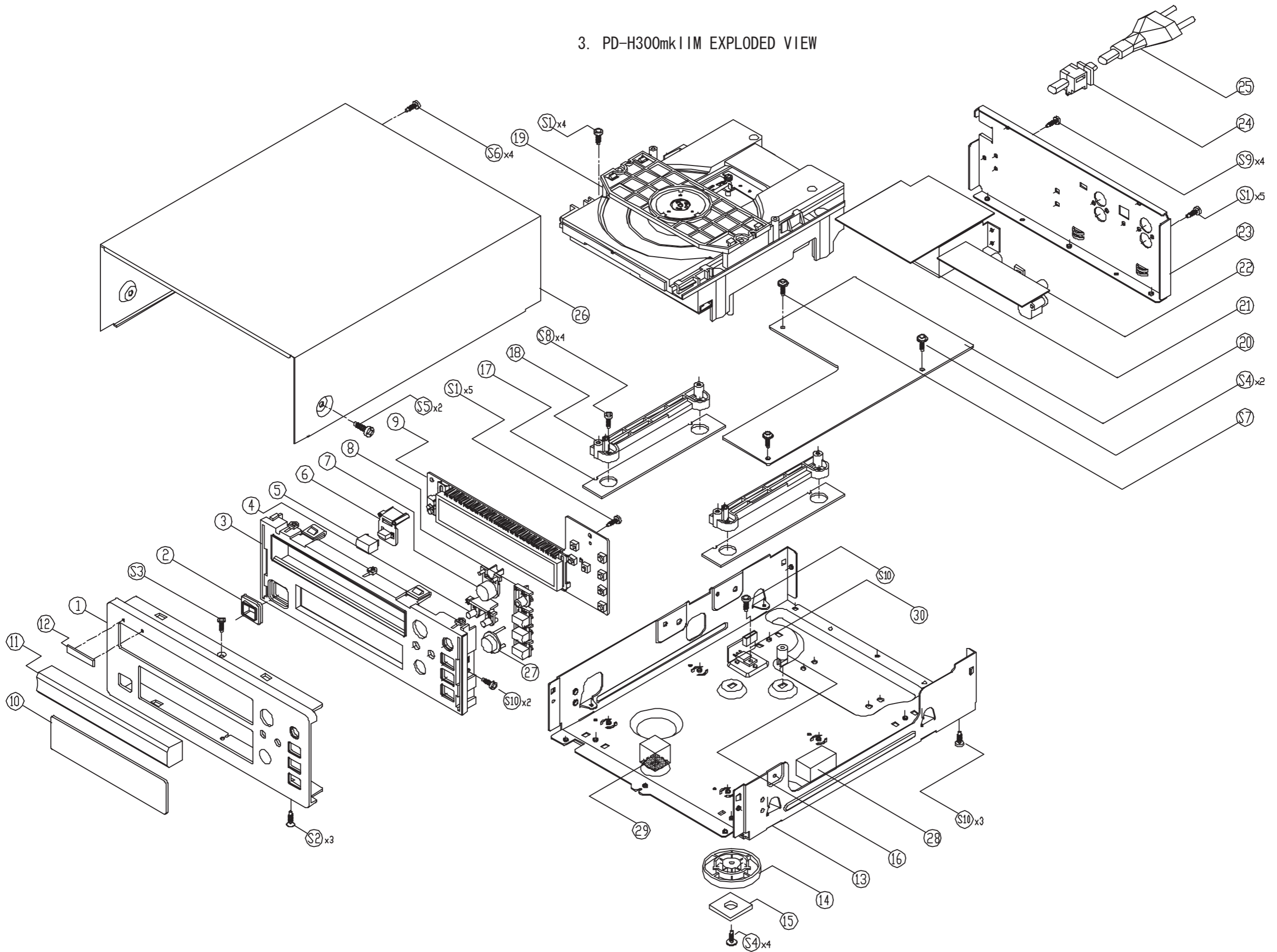


HSOP36-P-375-0.80

### Block Diagram



3. PD-H300mk IIM EXPLODED VIEW



# PD-H300mk II M

## EXPLODED VIEW LIST (PD-H300mk IIM)

| REF. NO. | PARTS NO.     | DESCRIPTION      | REMARKS |
|----------|---------------|------------------|---------|
| 1        | CKM2A073ZC35  | FRONT PANEL (AL) |         |
| 2        | CGL1A133      | LED INDICATOR    |         |
| 3        | CGW2A217M7ZG5 | SUB PANEL        |         |
| 4        | CBT1A493MBC22 | CPS KNOB         |         |
| 5        | CBT1A495M7G5  | STANDBY CAP      |         |
| 6        | CBT1A483      | STANDBY KNOB     |         |
| 7        | CBT1A385M7XG5 | OPEN CLOSE KNOB  |         |
| 8        | CBT1A494M7WG5 | OPERATION KNOB   |         |
| 9        | COP11851C     | FRONT PCB        |         |
| 10       | CGU1A154Y     | FIP WINDOW       |         |
| 11       | CGR1A350M7G5  | TRAY ORNAMENT    |         |
| 12       | KGB1A047Z     | BADGE            |         |
| 13       | CUA2A158      | BOTTOM CHASSIS   |         |
| 14       | CKL2A055H45   | FOOT             |         |
| 15       | KHG1A05DY     | FOOT CUSHION     |         |
| 16       | CHE1A023      | PCB SUPPORT      |         |
| 17       | KHG1A135      | RUBBER, SUPPORT  |         |
| 18       | CMH1A074      | MECHA SUPPORT    |         |
| 19       | CJDKSL2130CCM | MECHANISM        |         |
| 20       | COP11851C     | MAIN PCB         |         |
| 21       |               | PCB (TRANS)      |         |
| 22       |               | PCB (INOUT)      |         |
| 23       | GKF2A154Z     | REAR PANEL       |         |
| 24       | KHR1A02B      | AC CORD BUSHING  |         |
| 25       | ⚠ CJA2B043ZA  | AC CORD          |         |
| 26       | CKC1B089S35   | TOP CABINET      |         |
| 27       | CGU1A261A8    | SENSOR WINDOW    |         |
| 28       | CHG1A054      | CUSHION          |         |
| 29       | CHG1A157      | CUSHION          |         |
| 30       |               | IC PCB           |         |
| S1       | CTB3+10G      | SCREW            |         |
| S2       | CTS3+8JFC     | SCREW            |         |
| S3       | CTS3+10G      | SCREW            |         |
| S4       | CTW3+8J       | SCREW            |         |
| S5       | CTB4+6FFC     | SCREW            |         |
| S6       | CTB3+8JFC     | SCREW            |         |
| S7       | CTW3+16G      | SCREW            |         |
| S8       | CHD5A009      | SCREW            |         |
| S9       | CTB3+8JFZ     | SCREW            |         |
| S10      | CTB3+6J       | SCREW            |         |







MAIN PCB ASSY (1/4)

| REF. NO.       | PARTS NO.    | DESCRIPTION                         |
|----------------|--------------|-------------------------------------|
|                | COP11851B    | MAIN+FRONT PCB ASS' Y (PD-H300MK2M) |
|                | CUP11851Z    | PCB, MAIN+FRONT                     |
| C165, 207      | CCEA1AH101T  | CAP, ELECT                          |
| C123, 164, 226 | CCEA1CH101T  | CAP, ELECT                          |
| 235, 408, 410, |              |                                     |
| 412            |              |                                     |
| C218           | CCEA1CH220T  | CAP, ELECT                          |
| C125, 307      | CCEA1CH221T  | CAP, ELECT                          |
| C102, 109, 112 | CCEA1CH470T  | CAP, ELECT                          |
| 112, 139, 148  |              |                                     |
| 202, 205, 304  |              |                                     |
| C423, 424      | CCEA1CH471T  | CAP, ELECT                          |
| C505           | CCEA1CKS101T | CAP, ELECT                          |
| C220, 236      | CCEA1EH101T  | CAP, ELECT                          |
| C216-217, 223  | CCEA1HH100T  | CAP, ELECT                          |
| C416           | CCEA1HH101T  | CAP, ELECT                          |
| C107-419       | CCEA1HH220T  | CAP, ELECT                          |
| C405           | CCEA1HH470T  | CAP, ELECT                          |
| C105-106, 308  | CCEA1HH4R7T  | CAP, ELECT                          |
| C509, 517      | CCEA1HKS100T | CAP, ELECT                          |
| C504           | CCEA1HKS1ROT | CAP, ELECT                          |
| C414           | CCEA1JH470TS | CAP, ELECT                          |
| C212-213       | HCBS1C152MXT | CAP, CERAMIC                        |
| C103-104, 138  | HCBS1C222MXT | CAP, CERAMIC                        |
| 301-302        |              |                                     |
| C146, 208-209  | HCBS1C472MXT | CAP, CERAMIC                        |
| C222, 230-234  | HCBS1H101KBT | CAP, CERAMIC                        |
| C108-111, 137  | HCBS1H103ZFT | CAP, CERAMIC                        |
| 113-117, 121,  |              |                                     |
| 122, 142, 143, |              |                                     |
| 145, 219, 221, |              |                                     |
| 224            |              |                                     |
| C101-110, 124, | HCBS1H104ZFT | CAP, CERAMIC                        |
| 132, 136, 141, |              |                                     |
| 147, 149, 151, |              |                                     |
| 153, 203-204   |              |                                     |
| 206, 225, 303, |              |                                     |
| 306, 310-311,  |              |                                     |
| 401, 403, 406, |              |                                     |
| 409, 411, 413  |              |                                     |
| C415, 417-418, | HCBS1H104ZFT | CAP, CERAMIC                        |
| 420-422, 506   |              |                                     |
| 507-508, 512   |              |                                     |
| 513-514, 518   |              |                                     |
| C118-120, 133  | HCBS1H120JCT | CAP, CERAMIC                        |
| 134-135, 305   |              |                                     |
| C228-229       | HCBS1H150JCT | CAP, CERAMIC                        |
| C140, 152      | HCBS1H153KBT | CAP, CERAMIC                        |
| C210-211       | HCBS1H181KBT | CAP, CERAMIC                        |
| C214-215       | HCBS1H271KBT | CAP, CERAMIC                        |
| C130-131       | HCBS1H333ZFT | CAP, CERAMIC                        |
| C144, 501-503  | HCBS1H470JT  | CAP, CERAMIC                        |
| C510-511       | HCBS1H470JT  | CAP, CERAMIC                        |
| C128-129       | HCBS1H471KBT | CAP, CERAMIC                        |
| C126-127       | HCBS1H473ZFT | CAP, CERAMIC                        |
| C227           | HCBS1H561KBT | CAP, CERAMIC                        |
| C154           | HCBS1H680JT  | CAP, CERAMIC                        |
| C150           | HCBS1H681KBT | CAP, CERAMIC                        |
| D101-102, 204, | HVD1SS133MT  | DIODE                               |
| 205-206, 301,  |              |                                     |

MAIN PCB ASSY (2/4)

| REF. NO.        | PARTS NO.       | DESCRIPTION     |
|-----------------|-----------------|-----------------|
| 302-304, 306,   | HVD1SS133MT     | DIODE           |
| 411             |                 |                 |
| D202            | HVDMTZJ5. 1BT   | DIODE, ZENER    |
| D305            | HVDMTZJ9. 1BT   | DIODE, ZENER    |
| D501            | HVD342YCTB7T089 | L. E. D, YELLOW |
| D401-409, 413,  | KVD1N4003SRT    | DIODE           |
| 414             |                 |                 |
| D410            | HVDMTZJ30BT     | DIODE, ZENER    |
| D412            | HVDMTZJ6. 2BT   | DIODE, ZENER    |
| F401-402        | △ KJCFCS5       | HOLDER, FUSE    |
| L101            | HLQ02C100KT     | COIL, AXAIL     |
| Q101, 304       | HVTKTA1266YT    | T. R            |
| Q201            | HVTKTC3203YT    | T. R            |
| Q202            | HVTKSC2316YT    | T. R            |
| Q203            | HVTKSA1175YT    | T. R            |
| Q204            | HVTKSC2785YT    | T. R            |
| Q205, 303       | HVTKRA104MT     | T. R            |
| Q206, 501       | HVTKRC107MT     | T. R            |
| Q301-302        | HVTKTD1302T     | T. R            |
| Q401            | HVTKSA916YT     | T. R            |
| R101-103        | CRD20TJ183T     | RES, CARBON     |
| R104            | CRD20TJ471T     | RES, CARBON     |
| R107            | CRD20TJ682T     | RES, CARBON     |
| R108, 311, 506  | CRD20TJ332T     | RES, CARBON     |
| R111            | CRD20TJ105T     | RES, CARBON     |
| R112, 127-129,  | CRD20TJ104T     | RES, CARBON     |
| 131-134         |                 |                 |
| R113-114        | CRD20TJ271T     | RES, CARBON     |
| R115-116, 202,  | CRD20TJ103T     | RES, CARBON     |
| 206, 240, 508,  |                 |                 |
| 512             |                 |                 |
| R130, 234-235,  | CRD20TJ221T     | RES, CARBON     |
| 310, 502-504    |                 |                 |
| R139            | CRD20TJ154T     | RES, CARBON     |
| R140-149, 207-  | CRD20TJ1R0T     | RES, CARBON     |
| 209, 214        |                 |                 |
| R141, 145, 236  | CRD20TJ223T     | RES, CARBON     |
| R142, 228-229   | CRD20TJ153T     | RES, CARBON     |
| R143, 230-231,  | CRD20TJ473T     | RES, CARBON     |
| 237, 404        |                 |                 |
| R144            | CRD20TJ683T     | RES, CARBON     |
| R148, 239, 312  | CRD20TJ100T     | RES, CARBON     |
| R201, 203       | CRD20TJ222T     | RES, CARBON     |
| R204            | CRD20TJ101T     | RES, CARBON     |
| R205, 232, 233, | CRD20TJ102T     | RES, CARBON     |
| 238, 306, 401,  |                 |                 |
| 402, 501, 505,  |                 |                 |
| 511, 515        |                 |                 |
| R218-221        | CRD20TJ392T     | RES, CARBON     |
| R222-223, 226-  | CRD20TJ822T     | RES, CARBON     |
| 227             |                 |                 |
| R224-225        | CRD20TJ123T     | RES, CARBON     |
| R241-245        | CRD20TJ470T     | RES, CARBON     |
| R301, 304, 307- | CRD20TJ472T     | RES, CARBON     |
| 308             |                 |                 |
| R302-303, 309   | CRD20TJ474T     | RES, CARBON     |
| R117-125, 138,  | CRD20TJ562T     | RES, CARBON     |
| 251             |                 |                 |
| R305            | CRD20TJ224T     | RES, CARBON     |
| R403            | CRD20TJ122T     | RES, CARBON     |

# PD-H300mk II M

## MAIN PCB ASSY (3/4)

| REF.NO.   | PARTS NO.       | DESCRIPTION              |
|-----------|-----------------|--------------------------|
| R507      | CRD20TJ151T     | RES, CARBON              |
| R510-514  | CRD20TJ152T     | RES, CARBON              |
| R509-513  | CRD20TJ182T     | RES, CARBON              |
| S501-508  | CST1A012ZT      | SW, TACT                 |
|           | C8ESM800        | FLUX                     |
|           | H2K31161        | SOLDER, WIRE             |
|           | H2K50301        | SOLDER, BAR              |
|           | K4FH300         | TAPE, PROTECTIVE         |
|           | K4FM073         | TAPE, BOTH SIDE          |
| BK51-52   | CMD1A209        | BRACKET, FLT             |
| BK53      | CMD1A376        | SUPPORT, LED             |
| BN14      | CWB1C912160BM   | WIRE ASS'Y               |
| BN15      | CWZPDH300MKBN15 | WIRE ASS'Y (L, R-SHIELD) |
| BN19      | CWB1C904100BM   | WIRE ASS'Y               |
| CM16      | CJP15GA117ZY    | WAFER, CARD CABLE        |
| CN11      | CJP05GA19ZY     | WAFER, STRAIGHT, 5PIN    |
| CN12      | CJP06GA19ZY     | WAFER, STRAIGHT, 6PIN    |
| CN13      | CJP16GA117ZY    | WAFER                    |
| CN14      | CJP12GA01ZY     | WAFER                    |
| CN15      | CJP12GA19ZY     | WAFER                    |
| CN16      | CJP15GA117ZY    | WAFER, CARD CABLE        |
| CN17      | CJP07GA19ZY     | WAFER, STRAIGHT, 7PIN    |
| CN18      | CJP02KA060ZY    | WAFER                    |
| CN19      | CJP04GB03ZY     | WAFER                    |
| C402, 404 | CCEA1EH102E     | CAP, ELECT               |

## MAIN PCB ASSY (4/4)

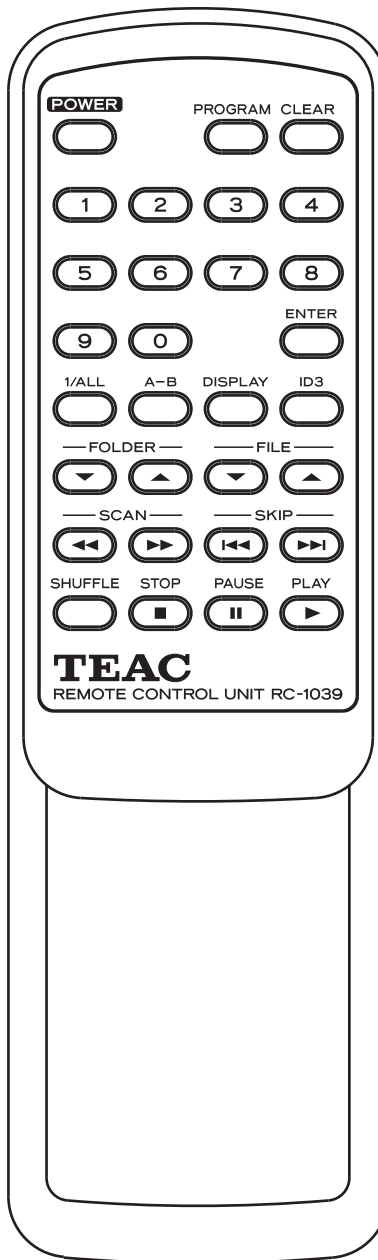
| REF.NO. | PARTS NO.       | DESCRIPTION                        |
|---------|-----------------|------------------------------------|
| C407    | CCEA1EH222E     | CAP, ELECT                         |
| FL51    | HFLHCA16SM11T   | F. I. P, DVD RECODER               |
| IC11    | HVITC94A54MFG01 | I. C, DIGITAL SERVO (CD/MP3/WMA)   |
| IC12    | HVITA2125AF     | I. C, MOTOR DRIVER                 |
| IC13    | HVIST92F124R9T6 | I. C, MCU (FLASH 64K , TQFP64)     |
| IC14-15 | HVINJM2068MDTE1 | I. C, OP AMP                       |
| IC16    | HVIRH5VT28C     | I. C, RESET                        |
| IC17    | HVILM1117S-3V3  | I. C, REGULATOR (3.3V)             |
| IC18    | HVILM1117S-1V5  | I. C, L. D. O REGULATOR 1.5V FIXED |
| IC41-42 | HVKA7908A       | I. C                               |
| IC43    | HVKA78R08       | I. C, REGULATOR                    |
| IC44-45 | HVIMC7805C      | I. C, REGULATOR                    |
| JK31    | HJSTOTX177L     | MODULE, OPTICAL (TX)               |
| JK32    | CJJ4N031Z       | JACK, BOARD                        |
| JK33    | CJJ4N032Z       | JACK, BOARD                        |
| RS51    | KRVHIMF802H3-2  | REMOTE CONTROL UNIT                |
| SW12    | KSS2B016Z       | SWITCH, SLIDE                      |
| TM41    | CMC1A111        | PLATE, EARTH                       |
| T401    | ⚠ CLT5M021YE    | TRNAS, POWER (EUR)                 |
| X101    | HOX16934A120C   | CRYSTAL                            |
| X102    | HOX04000E150C   | CRYSTAL, 4MHZ                      |

## 5 INCLUDED ACCESSORIES

### INCLUDED ACCESSORIES

| REF.NO. | PARTS NO.      | DESCRIPTION        | REMARKS               |
|---------|----------------|--------------------|-----------------------|
|         | CARTPDH300MK2M | REMOCON            | RC-1039               |
|         | CJS4M016Z      | CORD, PIN (1WAY)   | 1-WAY / RCA Black     |
|         | CJS4N001Y      | CORD, PIN          | 2-WAY / RCA Red/White |
|         | CQX1A1067Z     | INSTRUCTION MANUAL | 9A10356300 E/F/S      |
|         | CQX1A1068Z     | INSTRUCTION MANUAL | 9A10356400 G/I/NL     |
|         | CQX1A645X      | WARRANTY CARD      |                       |
|         | HABAAM1.5V     | BATTERY            | AA (R6) x2            |

## 6 REMOTE CONTROL LAYOUT




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---

TEAC MEXICO, S.A. De C.V. Campesinos N° 184, Colonia Granjas Esmeralda, Delegacion Iztapalapa, CP 09810, México DF Phone: (525) 581-5500

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TEAC UK LIMITE Unit 19 & 20, The Courtyards, Hatters Lane, Watford, Hertfordshire, WD18 8TE, U.K. Phone: (0845) 130-2511

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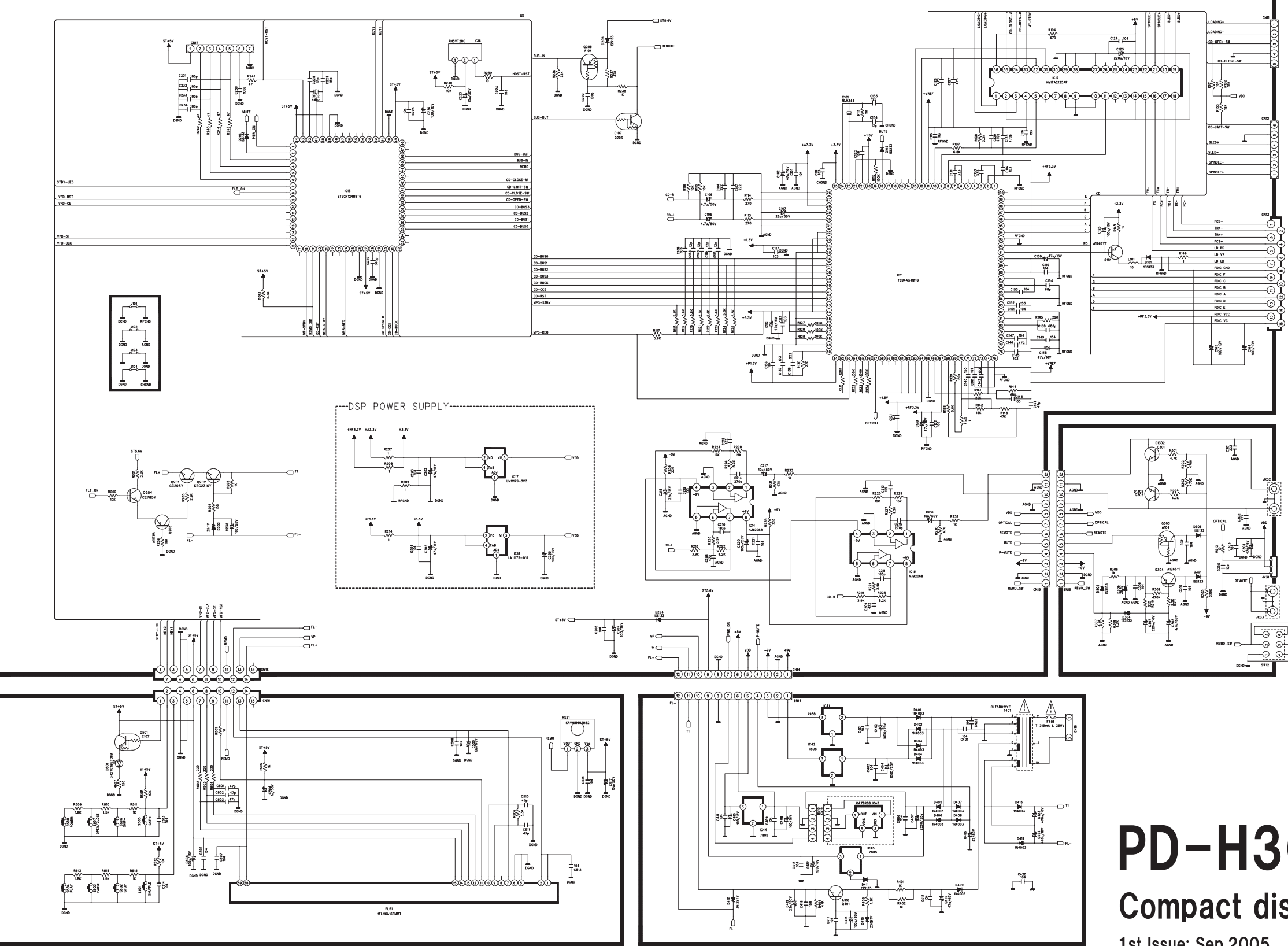
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A.B.N. 80 005 408 462

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SCHEMATIC DIAGRAM

A  
B  
C  
D  
E



# PD-H300mk II M

Compact disc player

1st Issue: Sep.2005

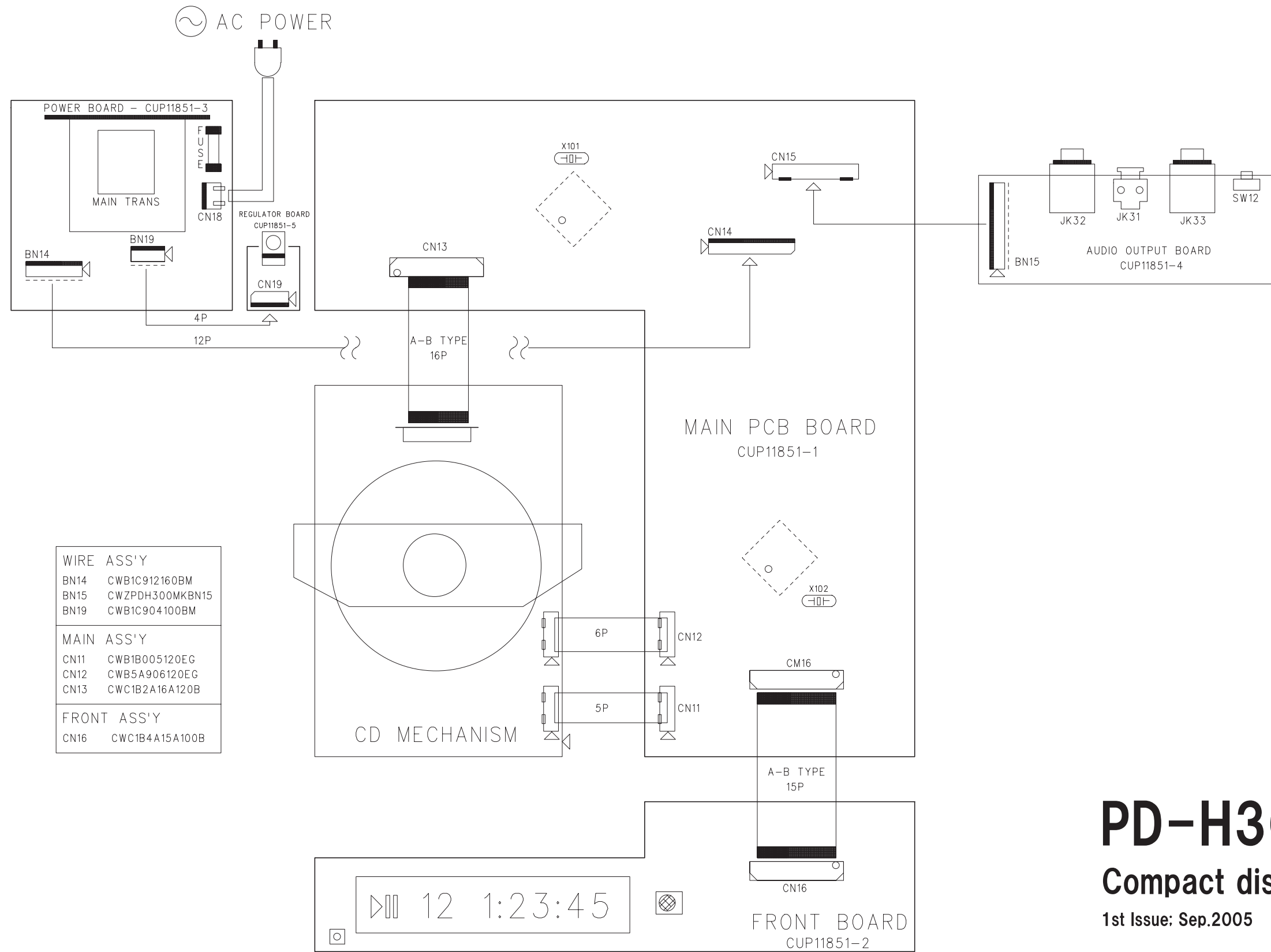
A

B

C

D

E



| WIRE ASS'Y  |                 |
|-------------|-----------------|
| BN14        | CWB1C912160BM   |
| BN15        | CWZPDH300MKBN15 |
| BN19        | CWB1C904100BM   |
| MAIN ASS'Y  |                 |
| CN11        | CWB1B005120EG   |
| CN12        | CWB5A906120EG   |
| CN13        | CWC1B2A16A120B  |
| FRONT ASS'Y |                 |
| CN16        | CWC1B4A15A100B  |

# PD-H300mk II M

## Compact disc player

1st Issue: Sep.2005