SERVICE MANUAL

AUDIO TIMER

SANSUI AT-15B
AT-15S

SPECIFICATIONS

Clock type ............... 24-hour digital clock
Indication accuracy .... Within ±10 seconds a month
       (AC power supply synchronizing system)
On/off preset timer     On/off time can be preset at will by units of minute.
Preset .................. Time of up to 1 hour 59 minutes can be set at will by units of minute.
Timer accuracy .......... Within ±0.02 second of the set time
Sleep timer .............. Time of up to 1 hour 59 minutes can be set at will by units of minute.
Timer counter .......... Capable of counting up to 1 hour 59 minutes 59 seconds 1 count for 1 second.
AC outlet ............... 2 outlets, 700 W in total.
Power supply voltage ... 110 to 120 V/220 to 240 V
       (with the power supply voltage selector switch).
Power supply frequency ... 50/60 Hz (with the frequency selector switch).
Power consumption ....... 7 W
Dimensions .............. 270 mm (10-11/16") W
                     71 mm (2-13/16") H
                     121.5 mm (4-13/16") D
Weight ................. 1.2 kg (2.6 lbs.) net
                     1.5 kg (3.3 lbs.) packed

*S* Design and specifications subject to change without notice for improvements.
1. PARTS LOCATION & PARTS LIST

Photo-1
- AC Outlet
- LSI-1
- Display Unit
- AT-15-001
- AT-15-002
- RS1
- RS2
- (+)
- (-)

Photo-2
- Front Panel Ass’y
- Knob Guide
- Push Switch knob
- Selector Switch knob

Photo-3
- Display Unit Holder
- Push Switch
- Relay
- SS2 Power Supply Voltage Selector
- SS1 AC Frequency Selector Switch
- T1
- Strain Relief
- Leg
- Power Cord
1-1. IC & Display Unit Circuit Board (AT-15XX-001)

Conductor Side

![Circuit Diagram]

Note: The circuit board, AT-15-001/AT-15-002 are not supplied as the assembled, the individual parts on the circuit board, however, are provided for orders.


Conductor Side

![Circuit Diagram]

Parts List (Phot-1, 2, 3/ Circuit Board 1-1, 1-2)

<table>
<thead>
<tr>
<th>Parts No.</th>
<th>Stock No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR1, 2</td>
<td>0365902</td>
<td>2SC345</td>
</tr>
<tr>
<td>IC LSI 1</td>
<td>0361230</td>
<td>MN6076</td>
</tr>
<tr>
<td>Diode D 01 = 02</td>
<td>03117100</td>
<td>1N4002</td>
</tr>
<tr>
<td>D 04 = 14</td>
<td>03111800</td>
<td>1N1888</td>
</tr>
<tr>
<td>2001</td>
<td>03163900</td>
<td>RD121EB</td>
</tr>
<tr>
<td>OS1</td>
<td>09000306</td>
<td>Display Unit</td>
</tr>
<tr>
<td>RY</td>
<td>11550900</td>
<td>Relay</td>
</tr>
<tr>
<td>SS 1</td>
<td>11034700</td>
<td>AC Frequency Selector Switch</td>
</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>RS1</td>
<td>11019400</td>
<td>Function Switch</td>
</tr>
<tr>
<td>RS2</td>
<td>11019500</td>
<td>Outlet Control Switch</td>
</tr>
<tr>
<td>T 1</td>
<td>40033900</td>
<td>Power Transformer</td>
</tr>
<tr>
<td>PS 1 ~ 4</td>
<td>11132540</td>
<td>Push Switch</td>
</tr>
<tr>
<td>CN1, 2</td>
<td>24051100</td>
<td>AC Outlet</td>
</tr>
<tr>
<td>RS 1, 2</td>
<td>30000813</td>
<td>AC Cord</td>
</tr>
<tr>
<td>07152700</td>
<td>Front Panel Assy. B</td>
<td></td>
</tr>
<tr>
<td>07152800</td>
<td>Front Panel Assy. S</td>
<td></td>
</tr>
<tr>
<td>15967900</td>
<td>Knob GUIDE B</td>
<td></td>
</tr>
<tr>
<td>15967400</td>
<td>Knob GUIDE S</td>
<td></td>
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<tr>
<td>LED</td>
<td>07152900</td>
<td>Selector Knob B</td>
</tr>
<tr>
<td>07152000</td>
<td>Selector Knob S</td>
<td></td>
</tr>
</tbody>
</table>

Note: Since there are AT-15B & AT-15S in the parts list above, please pay attention when ordering Parts.
Parts marked (B) in parts list . . . . . . for AT-15B only
Parts marked (S) in parts list . . . . . . for AT-15S only

◊ Block Diagram of LSI-1 MN6076

50/60Hz INPUT

wave shaping

0 Hz

stop switch

S M T

fundamental clock

FT output

for timer ON

inclusive OR circuit

Time Output

for timer OFF

reset

time for setting ON time

M H

Time for setting OFF time

Sleep Output

SHU

V5 V6 MS1 MS2 MS3 FAST SLOW

FAST SLOW SEL B UIA UIN

REVERSE EMERGENCY

BLANKING JS DJ H

PM AM

Segment Decoder

Segment Driver

+ 1

− 1

REPLACEMENT OF IC & DISPLAY UNIT

1. Remove bonnet and front panel assy.
2. Take out IC and display unit to this side.
3. Take off display unit holder at both sides then replace the IC to lean display unit toward this side. (The leads of display unit do not break off if the bending is within few times).
2. SCHEMATIC DIAGRAM

Push Switch
PS1: second check/second reset
PS2: reverse/time check
PS3: slow/fast/hold
PS4: reset
Function RS1
Count: counter
Te: time elapsed
Pr: present time
St: stop
Om: on-set
Off: off-set
Outlet Control RS2
Off: off
Auto: auto on/off
On: on

Input terminal voltage of LSI-1
No. 39 80 31 11 grounded
1 grounded
2 grounded through Does
3 grounded
No. 35 34 1 grounded
2 grounded through Does
LSI-1

MEN076

55V ~ 60V

MEN076

MEN076

Display Unit DS-1

SANSUI ELECTRONICS CORPORATION: 1250 Valley Brook Ave, Lyndhurst, N.J. 07071 U.S.A.
333 West Alondra Blvd, Gardena, California 90247 U.S.A.

SANSUI AUDIO EUROPE N.V.: 3036 Koksake St, Honolulu, Hawaii 96819 U.S.A.
North Trade Bldg (9th floor) Noorderlaan 133-Bus 1,2030 Antwerp, Belgium

SANSUI ELECTRIC COMPANY LTD.: 14-1, Iizumi 2-chome, Suganaminu, Tokyo 168 Japan PHONE: (03) 323-1111/TELEX: 232-2076
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