TM-2550
TM-2551
TM-2560

MAINTENANCE MANUAL

VITAL SENSOR

WT:PD4000052

A&D Company, Limited

This is a hazard alert mark.

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Product specifications are subject to change without any obligation on the part of the manufacture.

Contents

1. Introduction

1.1. About this manual

This manual describes the maintenance information of TM-2550, TM-2551 and TM-2560 for an authorized service engineer. Therefore, do not assemble the product without an authorized service engineer. And since these products are precision instruments, proper operation can not be guaranteed if the maintenance is performed under unsatisfactory condition. Keep the maintenance condition. The specification data is different from a factory specification.

Vital sensor product

TM-2550	Blood pressure monitor
TM-2551	Blood pressure monitor, Alarm function
TM-2560	Blood pressure monitor, Alarm function, SpO_2 monitor

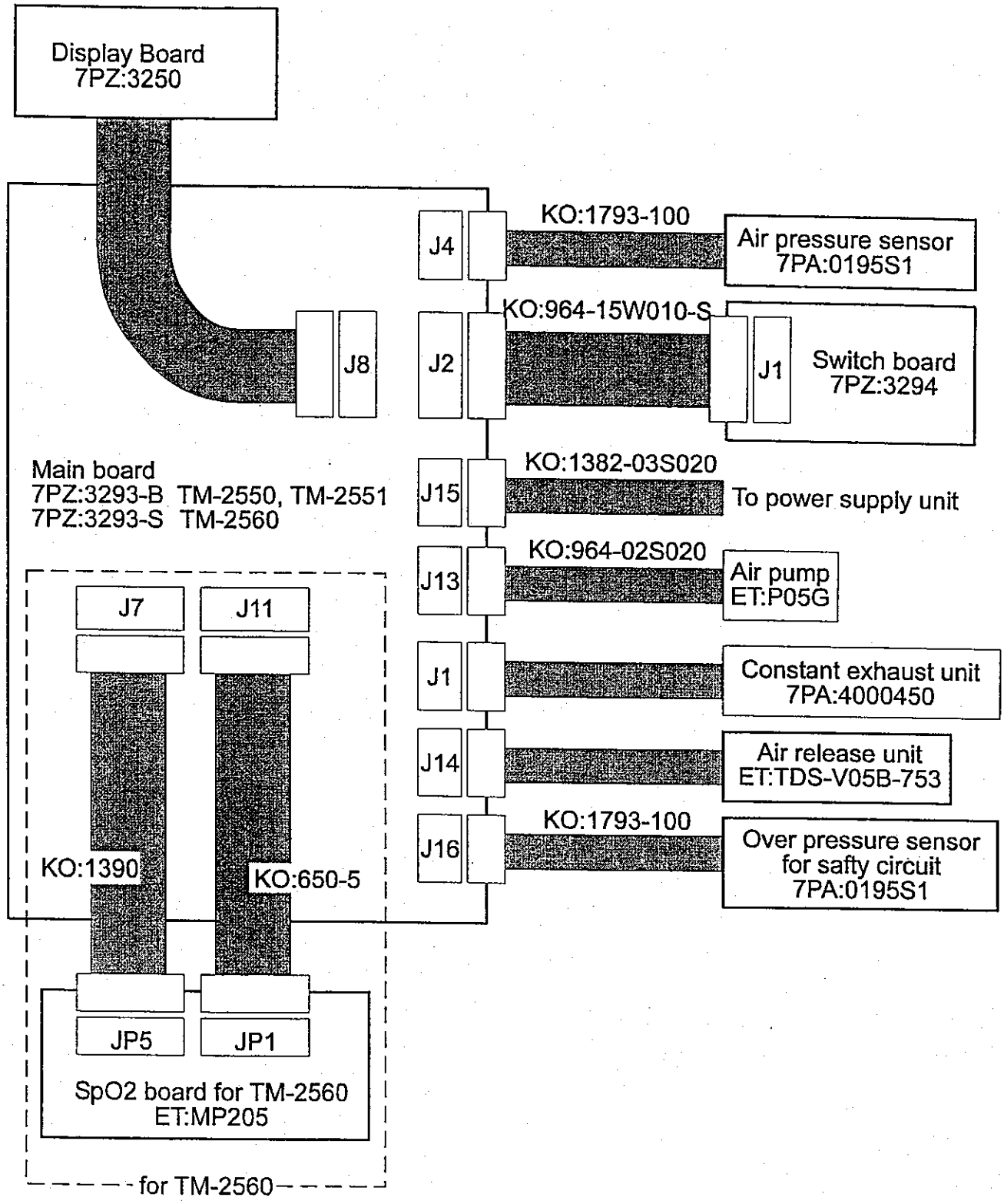
1.2. Equipment and Tools Required

Multimeter	DC voltage 5 V range / division 1mV DC current 1 A range / division 1μA	
AC adaptor	AX-TB-210 AX-TB-211	230V 120V
Manometer	0 mmHg ~ 330 mmHg	
Pressure generator	0 mmHg ~ 330 mmHg Air tank 500 cc	
Adult cuff	AX-TM9159A-2 AX-TM9112B-1	Personal 22-32cm Reusable 20-31cm
SpO_2 Pocket tester	PT-2500 made by Nellcor Puritan Benett, Inc.	
SpO_2 Dura sensor	DS-100A made by Nellcor Puritan Benett, Inc.	
TM-2550	TM-2550 series, Vital sensor	
Communication cable	The cable that is shorted between 2pin and 3pin, between 7pin and 8pin of the AX-K01742-3000 cable.	
Dummy arm	Example: The soft cylinder.	

1.3. Maintenance Parts and Units

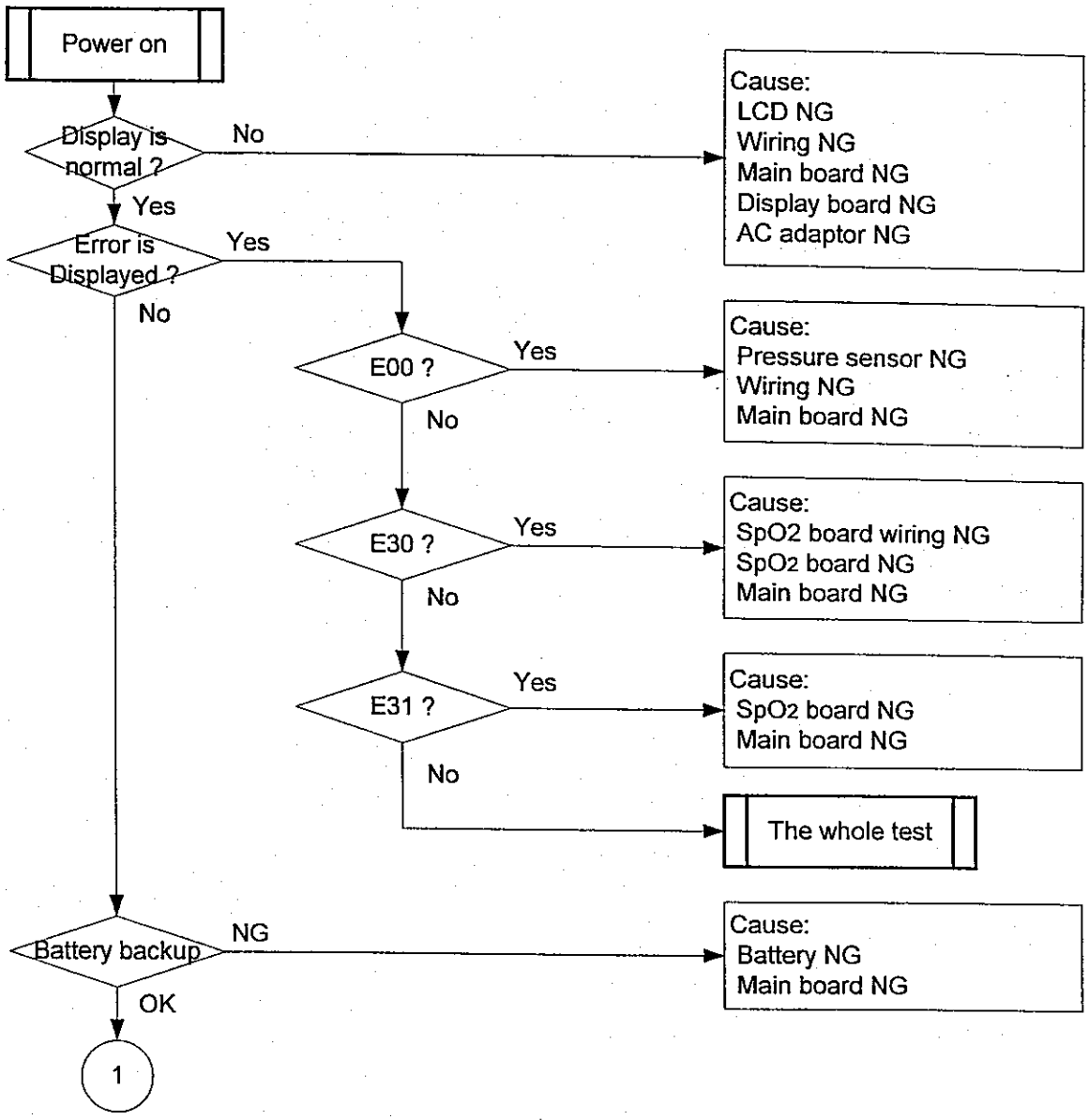
Parts Number	Description
7PZ:3293-B	Main board for TM-2550 and TM-2551
7PZ:3293-S	Main board for TM-2560
7PZ:3294	Switch board
7PZ:3250	Display board
ET:MP205	SpO_2 board
7PA:4000450	Constant exhaust unit
ET:TDS-V05B-753	Air release unit
7PA:0195S1	Air pressure sensor
ET:P05G	Air pump
08:4005941	Blank seal
7PA:4000551	Air tank

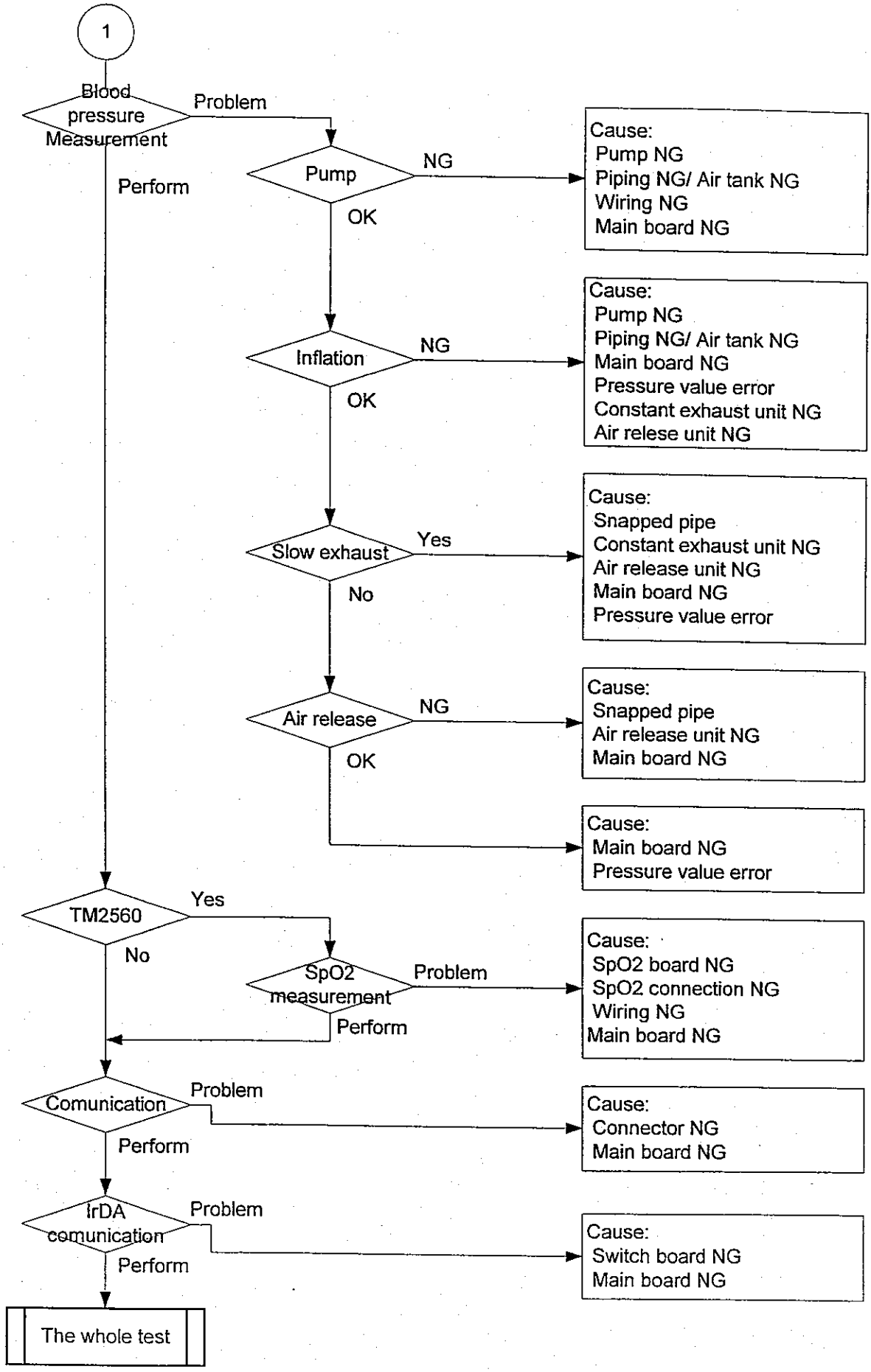
2. Block Diagram



3. Corrective Maintenance

3.1. Corrective Maintenance Flow Chart




1
Blood pressure Measurement
Problem
Perform
Pump
NG
OK
Cause:
Pump NG
Piping NG/ Air tank NG
Wiring NG
Main board NG
Inflation
NG
OK
Cause:
Pump NG
Piping NG/ Air tank NG
Main board NG
Pressure value error
Constant exhaust unit NG
Air relese unit NG
Slow exhaust
Yes
No
Cause:
Snapped pipe
Constant exhaust unit NG
Air release unit NG
Main board NG
Pressure value error
Air release
NG
OK
Cause:
Snapped pipe
Air release unit NG
Main board NG
Cause:
Main board NG
Pressure value error
TM2560
Yes
No
SpO2 measurement
Problem
Perform
Cause:
SpO2 board NG
SpO2 connection NG
Wiring NG
Main board NG
Comunication
Problem
Perform
Cause:
Connector NG
Main board NG
IrDA comunication
Problem
Perform
Cause:
Switch board NG
Main board NG
The whole test

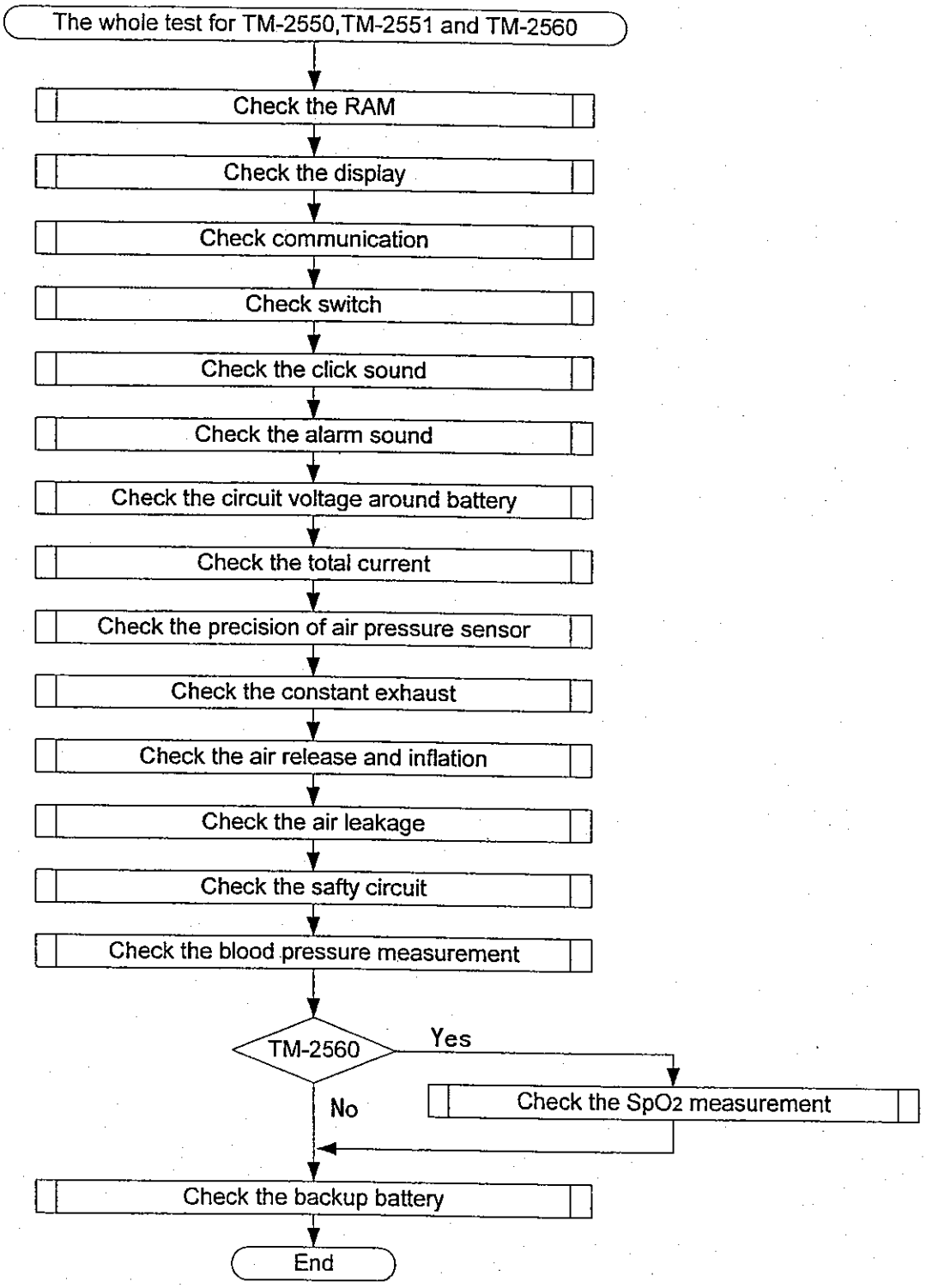
3.1.1. Troubleshooting Table

Problem	Remedy
No display	❑ Check the power code. ❑ Check the voltage of power source. ❑ Check the LCD for any damage. ❑ Remove the battery and use the AC adaptor. ❑ Change the AC adaptor or use new batteries.
Incorrect display	❑ Check the LCD for any damage. ❑ Check the voltage of the board. ❑ Remove the battery and use the AC adaptor. ❑ Change the AC adaptor or use new batteries.
Switches do not work.	❑ Check the connection around the switch board. ❑ Check the contact of switches.
Battery operation becomes shortly.	❑ Check the total of supply current. ❑ Check the air leakage.
No inflation	❑ Check the tube. (Snapped or disconneccted) ❑ Check the wiring and connection around the pump. ❑ Check the pump. ❑ Check the wiring and connection around the exhaust unit. ❑ Check the air leakage. ❑ Check the precision of air pressure sensor.
No deflation Slow or rapid exhaust	❑ Check the tube. (Snapped or disconnected) ❑ Check the wiring and connection around the exhaust unit. ❑ Check the air leakage. ❑ Check the constant exhaust velocity. ❑ Check the precision of air pressure sensor.
No communication	❑ Check the protocol. (Memory switch F10) Refer to " 5.5 The Combination of Memory Switches"

⚠ Caution for assembling the product

- ❑ It is necessary to care the tube connection and wiring, so the product is compact. It may causes a trouble, if the constant exhaust unit is strained above its specification.
- ❑ Check the product along " 3.2 The Whole Test and Periodical Check ", after the product is repaired and is assembled.

3.2. The Whole Test and Periodical Check



4. Test Mode

Caution **There is difference of test mode by software version of main board.**

In the test mode, the following test can perform.

Display No. of Test Mode	Description
L02	Check the RAM
L04	Check the display
L05	Check the communication
L06	Check the switch
L07	Check the click sound
L08	Check the alarm sound
L09	Check the voltage around battery
L 11	Check the precision of air pressure sensor
L 14	Check the constant exhaust velocity
L 16	Check the air leakage
L 17	Check the safety circuit
L 18	Adjustment of the safety circuit
L23	Adjust the constant exhaust unit

4.1. Entering to and exiting from Test Mode

4.1.1. Entering to Test Mode

Step 1 Press the power switch during the ▲ switch and the ▼ switch are pressed and held. Then " L00" is displyed in the "SYSTOLIC" indicator.

Step 2 Select the test mode using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 3 Press the "START/STOP" switch to enter the test mode.

4.1.2. Exiting from Test Mode

Step 1 Turn the power switch off to exit from test mode.

4.2. Checking the RAM

Step 1 Select the test mode " L02" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 2 Press the "START/STOP" switch to enter the test mode.

Step 3 The RAM status is displayed at the "DIASTOLIC" indicator.

" DIASTOLIC " indicator	Description
000	The RAM status is OK
Err	The RAM status is NG

Step 4 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure

Try to replace the main board.

4.3. Checking the Display

Step 1 Select the test mode " L04" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 2 Press the "START/STOP" switch to enter the test mode.

Step 3 The LCD becomes the full segment display, when the "START/STOP" switch is pressed.

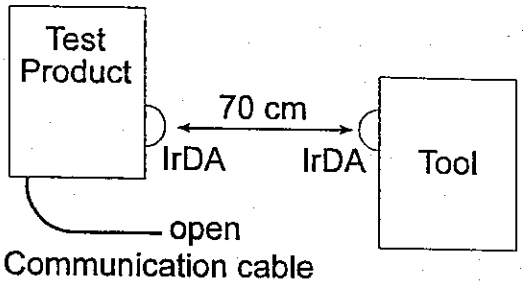
Step 4 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure

1 Try to check the wiring around the main board.
2 Try to replace the main board or display board, if the wiring is correct.

4.4. Checking the Communication

Step 1 Connect the communication cable to the test product. Make a space more than 70 cm between test product and TM-2550 of tool. Place face to face with the IrDA of them.



Step 2 Turn the tool product (TM-2550) on.

Step 3 Select the test mode "tOS" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 4 Press the "START/STOP" switch to enter the test mode.
Then the communication starts.

Step 5 The status of the extension terminal is displayed at the "DIASTOLIC" indicator.

" DIASTOLIC " indicator	Description
000	The extension terminal is OK
Err	The extension terminal is NG

Step 6 The status of the IrDA communication is displayed at the "PULSE" indicator.

"PULSE" indicator	Description
000	The IrDA communication is OK
Err	The IrDA communication is NG
no	The IrDA communication is NG

Step 7 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure of the extension terminal and "Err" display

1 Check the connector of any damage.
2 Try to replace the main board, if the connector is correct.

Major Repair Procedure of the IrDA communication and "Err" display

1 Clean up the IrDA window.
2 Try to replace the main board or the switch board after this cleaning.

Major Repair Procedure of the IrDA communication and " no" display

1 Check the wiring around the main board and the switch board.
2 Try to replace the main board or the switch board.

4.5. Checking Switches

Step 1 Select the test mode " L06" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 2 Press the "START/STOP" switch to enter the test mode.
Then the " 1--" or "0--" is displayed at the "PULSE" indicator

Step 3 Changing the position of the "DISPLAY" switch, the this switch status is displayed at the "PULSE" indicator. Check the switch.

"DISPLAY" switch	"PULSE" indicator
ON	1--
OFF	0--

When each switch is pressed on the product, these status are displayed at the "DIASTOLIC" indicator. Check these switches.

Switch	" DIASTOLIC " indicator
START/STOP	1
ALARM OFF CLEAR	3
SETTING	4
▼	5
▲	6

Caution **If the " START/STOP " switch is continuously pressed more than twice, the current mode is finished.**

Step 4 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure

1 Check the wiring around the main board and switch board.
2 Try to replace the main board or switch board, if the wiring is correct.

4.6. Checking the Click Sound

Step 1 Select the test mode " L07" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 2 Press the "START/STOP" switch to enter the test mode.
Then the buzzer sounds. Check this tone.

Step 3 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure

1 Check and arrange the wiring not to touch the buzzer.
2 Replace the main board, if the wiring is correct.

4.7. Checking the Alarm

Step 1 Select the test mode " L08" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 2 Press the "START/STOP" switch to enter the test mode.
Then the buzzer sounds. Check this tone that is not loudly like a dissonance.

Step 3 When the ▲ switch or the ▼ switch is pressed, the volume varies.

Step 4 Press the "START/STOP" switch to exit from the current test mode.

Major Repair Procedure

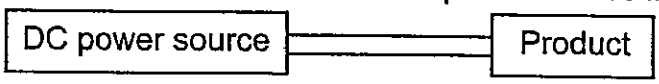
1 Check and arrange the wiring not to touch the buzzer.
2 Replace the main board, if the wiring is correct.

4.8. Checking the Battery Operation

Step 1 Remove the AC adaptor form the product and turn the product off.

Step 2 Adjust the voltage of power source to DC 5.0V±0.1V.

Step 3 Insert the connector of the DC power source into battery box.



Step 4 Select the test mode " L09" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 5 Press the "START/STOP" switch to enter the test mode.
Then the voltage of the connector in the battery box is displayed at the "DIASTOLIC" indicator.

Step 6 Check the value. The correct value is 150 ~ 170 .

Step 7 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure

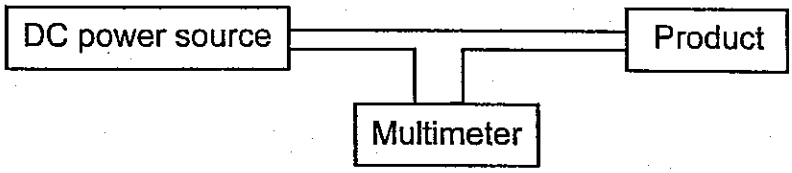
1 Check the wiring around the main board.
2 Replace the main board, if the wiring is correct.

4.9. Checking the Current (Consumption)

Step 1 Remove the AC adaptor form the product and turn the product off.

Step 2 Adjust the voltage of power source to DC 5.0V±0.1V.

Step 3 Insert the connector of the DC power source and the multimeter into battery box.



Step 4 Turn on the product.

Step 5 Measure the current, when the backlighting is used.

Step 6 Check the value. The correct value is as follows:

TM-2550, TM-2551:	less than 500 mA
TM-2560:	less than 500 mA

Step 8 Turn the product off.

Major Repair Procedure

1 Check the inside of the product about a foreign matter.

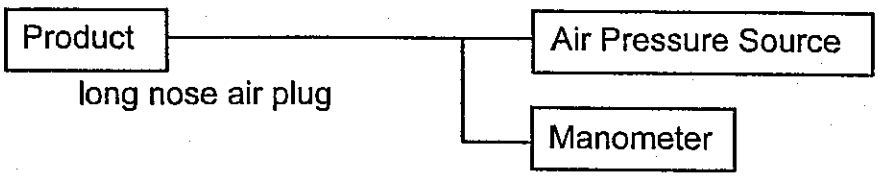
2 Replace the main board, if there is not any foreign matter.

4.10. Checking the Precision of Air Pressure Sensor

Step 1 Connect the air pressure source and manometer. Adjust the pressure of the air pressure source.

Air Pressure Source	Manometer
50 mmHg	50 ±0.3 mmHg
100 mmHg	100 ±0.3 mmHg
150 mmHg	150 ±0.3 mmHg
200 mmHg	200 ±0.3 mmHg
250 mmHg	250 ±0.3 mmHg
300 mmHg	300 ±0.3 mmHg

Step 2 Connect the air pressure source, manometer and product. And insert a long nose air plug into the product.



Step 3 Select the test mode " L I I" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 4 Press the "START/STOP" switch to enter the test mode.
Then the measurement value of the main sensor is displayed.

Indicator	Description
SYSTOLIC	A part of integer for main sensor
DIASTOLIC	A part of decimal fraction for main sensor

Step 7 Check the value.

Air Pressure Source	Main Sensor
50 mmHg	50 ±3.0 mmHg
100 mmHg	100 ±3.0 mmHg
150 mmHg	150 ±3.0 mmHg
200 mmHg	200 ±3.0 mmHg
250 mmHg	250 ±3.0 mmHg
300 mmHg	300 ±3.0 mmHg

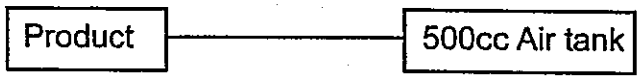
Step 8 Release the air and press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure

1 Refer to " 5.1 Adjusting the Pressure Sensor " and adjust the air pressure sensor.
2 When the measurement is not correct after this adjustment, perform " 5.2 Checking the Voltage".
3 If these voltage is normal, replace the pressure sensor.

4.11. Checking the Constant Exhaust Velocity

Step 1 Connect the product and air tank with normal air tube.



Step 2 Select the test mode " L 14" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 3 Press the "START/STOP" switch to enter the test mode.

Step 4 Check the constant exhaust velocity value on the "PLUSE" indicator.
5.0±1.5 (5.0±1.5 mmHg/sec)

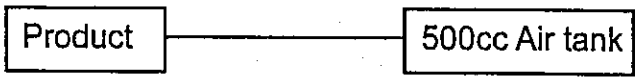
Step 8 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure

1 Check the piping of the air tube. (about snapped or disconnected)
2 If the piping is correct, adjust the constant exhaust velocity of " 5.3 Adjusting the Constant Exhaust Velocity".
3 If the velocity can not adjust, replace to an new constant exhaust unit.
4 If the velocity does not recover, replace the main board.

4.12. Checking the Inflation and Deflation

Step 1 Connect the product and air tank with normal air tube.



Step 2 Select the test mode " L 15" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 3 Press the "START/STOP" switch to enter the test mode.
Then the inflation time and deflation time (air release time) is automatically measured.

Step 4 Check the infaltion time on the "DIASTOLIC" indicator.
Less than 18.0 (sec)

Step 5 Check the deflation time (air release time) on the "PULSE" indicator.
Less than 3.0 (sec)

Step 6 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure for Inflation Time

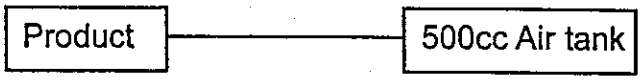
1 Check the piping of the air tube. (about snapped or disconnected)
2 If the piping is correct, replace the air pump.
3 If the time does not proper, replace the main board.

Major Repair Procedure for Deflation Time

1 Check the piping of the air tube. (about snapped or disconnected)
2 If the piping is correct, replace the air release unit.
3 If the time does not proper, replace the main board.

4.13. Checking the Air Leakage

Step 1 Connect the product and air tank with normal air tube.



Step 2 Select the test mode " L 15" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 3 Press the "START/STOP" switch to enter the test mode.
Then air leakage measurement is started.

Step 4 After approx. 90seconds, Check the air lakage value on the "PULSE" indicator.
Less than 5.0 (mmHg)

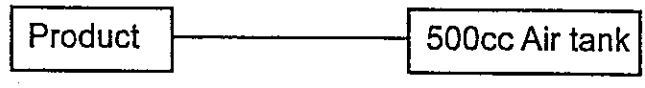
Step 5 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure

1 Check the piping of the air tube. (about snapped or disconnected)
2 If the piping is correct, using a forceps, search parts which are leaking air.

4.14. Checking the Safety Circuit

Step 1 Connect the product and air tank with normal air tube.



Step 2 Select the test mode " L 17" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 3 Press the "START/STOP" switch to enter the test mode.

Step 4 After air release, The pressure value that the safety circuit worked is displayed on the "PULSE" indicator.
310 ~ 330 (mmHg)

Step 5 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Major Repair Procedure

1 Check the piping of the air tube. (about snapped or disconnected)
2 Relpace the "over pressure sensor" of the safty cirucit.
3 If the piping is correct, replace the main board.

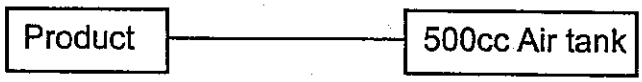
Major Repair Procedure by adjusting the safety circuit

1 Enter the check mode L 18. Input the value.
Refer to " 4.15 Adjusting the Safety Circuit ".
2 Enter the check mode L 17. Check the value that the safety circuit worked.

4.15. Adjusting the Safety Circuit

This mode uses to store the pressure value that the safety circuit worked.

Step 1 Connect the product and air tank with normal air tube.



Step 2 Select the test mode " L 18" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 3 Press the "START/STOP" switch to enter the test mode.

Step 4 Press the "START/STOP" switch to start the procedure and store the value. The inflation starts. The air is released around 320 mmHg and the value is stored. Then 000 is displayed at the pluse rate indocator.

Step 5 Press the ▲ switch or the ▼ switch to exit from the current test mode.

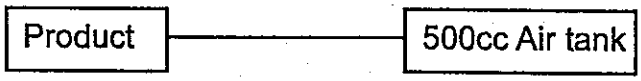
4.16. Checking the Blood Pressure Measurement

Step 1 Turn the product on.

Step 2 Attach the cuff on your upper arm and measure the blood pressure several times.

Step 3 If these measurement is no trouble, check is "OK".

Step 4 Connrct the product and air tank with normal air tube.



Step 5 Press the "START/STOP" switch to start normal blood pressure measurement.

Step 6 Check that the "E43" is displayed after this measurement.

Major Repair Procedure

1 Check the piping of the air tube. (about snapped or disconnected)
2 If the piping is correct, replace the main board.

4.17. Checking the SpO_2 Measurement

This is a test for TM-2560.

Step 1 Turn the product on.

Step 2 Connect the SpO_2 pocket tester to SpO_2 connector.

Step 3 The measurement value is displayed after a while.
Check the value.

Indicator	Check value
SpO_2	81±2
PULSE	40±2

Step 4 Attach the SpO_2 dura sensor to a person. Perform SpO_2 measurement.

Step 5 Check the value and remove the SpO_2 dura sensor form the product.
Then the "LF" is displayed on the "SpO2" indicator.

Major Repair Procedure

1 Check the wiring.
2 If these connection are correct, replace the SpO_2 board.

4.18. Checking the Backup Battery

Step 1 Connect the AC adaptor and turn the product on.

Step 2 Set the clock.

Step 3 Turn the product off for an hour

Step 4 Turn the product on and check the clock.

Major Repair Procedure

1 When time is shifted, replace the backup battery.
2 If the replacement is not effect, replace the main board.

5. Repairing and Adjusting the Product

⚠ **Caution for assemble**

- ☐ **It is necessary to care the tube connection and wiring, so the product is compact. It may causes a trouble, if the constant exhaust unit is strained above its specification.**
- ☐ **Check the product along " 3.2 The Whole Test and Periodical Check ", after the product is repaired and is assembled.**

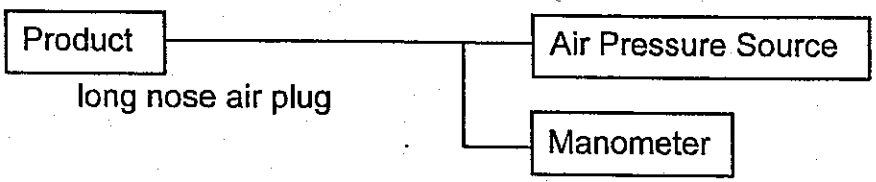
5.1. Adjusting the Pressure Sensor

Perform the adjustment on condition that the case is assembled.

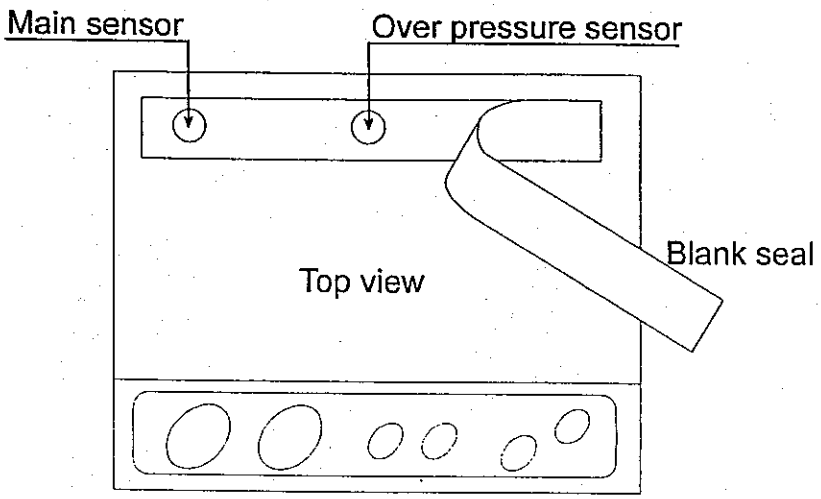
Step 1 Connect the air pressure source and manometer. Adjust the pressure of the air pressure source.

Air Pressure Source	Manometer
150 mmHg	150 ±0.3 mmHg
300 mmHg	300 ±0.3 mmHg

Step 2 Connect the air pressure source, manometer and product. Insert a long nose air plug into the product.



Step 3 There is adjustment volumes of sensors under the "Blank seal". Peel it to adjust the value.



Step 4 Select the test mode " L I I" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 5 Press the "START/STOP" switch to enter the test mode.
Then the pressure zero points are calibrated.And the measurement value of the main sensor is displayed.

Indicator	Description
SYSTOLIC	A part of integer for main sensor
DIASTOLIC	A part of decimal fraction for main sensor

Step 6 Supply a air pressure and adjust measurement value of sensor.

Air Pressure Source	Main Sensor
150 mmHg	150 ±3.0 mmHg
300 mmHg	300 ±3.0 mmHg

Example for adjustment
Turn the volume so as to display the value added current errer.

Air Pressure Source	Befor adjustment	Error	After adjustment
300 mmHg	280 mmHg	300 - 280 = 20	320 mmHg
300 mmHg	295 mmHg	300 - 295 = 5	305 mmHg
300 mmHg	310 mmHg	300 - 310 = -10	290 mmHg
300 mmHg	327 mmHg	300 - 327 = -27	273 mmHg

Step 7 Release the air and reset the air pressure to 0 mmHg.

Step 8 Calibrate the pressure zero point by pressing the "ALARM OFF" switch.

Step 7 Retry Step 6 to Step 8 until the measurement is correct.
If the value can not be adjusted after several adjustments, replace the sensor and adjust them again.

Step 8 Adjust main sensor at 150 mmHg, too.

Step 9 Release the air and press the ▲ switch or the ▼ switch to exit from the current test mode.

5.2. Checking the Voltage

Check the voltage on the main board according to the following steps.

Step 1 Set the output voltage of DC power source.

Step 2 Insert the connector into battery box.

Step 3 Turn the product off. Check the following voltage.

Test Point	Base Point	Specification
TP14	TP2	+4.85 ~ +5.15 V
TP1	TP2	Less than 1.0 V
BT1 of upper side	TP2	More than 3.0 V

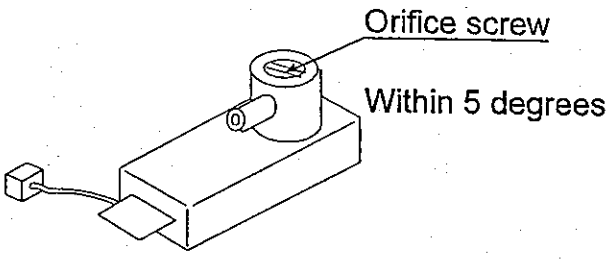
Step 4 Turn the product on. Check the following voltage.

Test Point	Base Point	Specification
TP1	TP2	+4.85 ~ +5.15 V
TP3	TP4	+4.70 ~ +5.50 V
TP5	TP6	+4.70 ~ +5.50 V
TP15	TP6	+3.90 ~ +4.10 V
TP8 of TM2560	TP10	+4.75 ~ +5.25 V
TP9 of TM-2560	TP10	-4.75 ~ -5.25 V
TP16	TP17	+4.90 ~ +5.10 V

Step 5 If a voltage is not correct, replace the main board.

5.3. Adjusting the Constant Exhaust Velocity

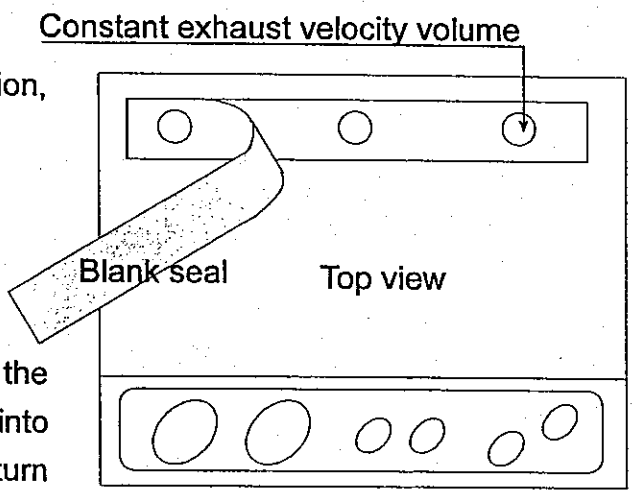
⚠ **Caution** **Do not turn the orifice screw more than ± 5 degrees, beacuse the operation of this screw is very sensitive.**



Step 1 Connect the product and 500cc air tank.

Step 2 Select the test mode " L23" using the ▲ switch or the ▼ switch. The selected test mode is displayed in the "SYSTOLIC" indicator.

Step 3 Press the "START/STOP" switch to enter the test mode.
Then the constant exhaust velocity value is displayed on the "DIASTOLIC" indicator.



Step 4 If the value is not within this specification, perform the following procedure.
"DIASTOLIC indicator" 300±50

Step 5 Peal the blank seal.

Step 6 Turn the orifice screw so that the constant exhaust velocity value does into the following specification. Do not turn the orifice screw needlessly.
300 ±25

Step 7 Turn the constant exhaust volume to adjust the value.

Adjustment	Turn
Decreasing value	Clockwise
Increasing value	Counterclockwise

Step 8 Press the "START/STOP" switch to read the value.

Step 9 Repeat step 6 and 8 until the value go into the specification.

Step 10 If the value is within the specification, check that the value at the "PLUSE" indicator is less than 300.

Step 11 Press the ▲ switch or the ▼ switch to exit from the current test mode.

Step 12 If the value is not into the specification of this procedure, replace the constant exhuast unit and adjust it.

5.4. Replacing the Main Board

Caution **If the main board is replaced, set memory switches.**

Step 1 Replace the main board.

Step 2 Turn the product on. The product is normal status or setting mode because the memory switches are undefined.

Step 3 Set the memory switches in the setting mode. Refer to " 5.5 The Settings of Memory Switches "

Step 4 Store an new pressure value refering to " 4.15 Adjusting the Safety Circuit "

5.5. The Settings of Memory Switches

5.5.1. Entering the setting mode

Step 1 Turn the product on while the "ALARM OFF" switch and the "SETTING" switch are pressed and held.

Step 2 The "F20" of memory switch is displayed at the "SYSTOLIC" indicator.

5.5.2. Storing Memory Switches

Step 1 When the ▲ switch or the ▼ switch is pressed, the memory switch number "F " changes.

Step 2 Press the "SETTING" switch. Then the parameter of the current memory switch number is displayed at the "DIASTOLIC" indicator.

Step 3 When the ▲ switch or the ▼ switch is pressed, the parameter changes.

Step 4 Press the "START/STOP" switch to store the parameter. Then "HH" is displayed at the "DIASTOLIC" indicator. When the parameter is stored, "000" is displayed.

Step 5 When the "SETTING" switch is pressed, the current parameter is displayed at the "DIASTOLIC" indicator.

Step 6 When the "SETTING" switch is pressed and the "DIASTOLIC" indicator becomes blank, press the ▲ switch or the ▼ switch to change the memory switch number.

Step 7 Repeat step2 ~ 6 to store each parameter of memory switches.

	F20	F21	F22	F23	F24	F25	F26	F27
TM-2550	50	Hg	Eng	oFF	oFF	C	on	oFF
TM-2551	51	Hg	Eng	oFF	oFF	C	on	oFF
TM-2560	60	Hg	Eng	oFF	oFF	C	on	oFF

	F10	F11	F12	F13	F14	F15	F16	F17	F18
TM-2550	1	96	AU	on	0	on	oFF	oFF	4
TM-2551	1	96	AU	on	0	on	oFF	oFF	4
TM-2560	1	96	AU	on	0	on	oFF	oFF	4

6. Error Codes (an extract)

Error Code	Problem	Description
E00	Pressure zero error	❑ Air pressure sensor error. ❑ The main board error. Refer to " 5.2 Checking the Voltage "
E11 E12 E21 E22	Inflation error Deflation error	❑ Snapped or disconnected tube. ❑ Air pressure error. Refer to " 4.10 Checking the Precision of Air Pressure Sensor ". ❑ Constant exhaust error. Refer to " 4.11 Checking the Constant Exhaust Velocity ". ❑ Pump, air release unit error. Refer to " 4.12 Checking the Inflation and Deflation ". ❑ Air leakage error. Refer to " 4.13 Checking the Air Leakage ". ❑ Circuit board error. Refer to " 4.15 Checking the Blood Pressure Measurement " and " 5.2 Checking the Voltage ".
E42 E43 E44 E45 E46 E48 E61 E63	Measurement error Repair it, if error frequently or often happens	
E23	To detect over pressure	❑ Air pressure error. Refer to " 4.10 Checking the Precision of Air Pressure Sensor " and " 4.14 Checking the Safety Circuit ".
E30	SpO_2 communication error	❑ Connection error between main board and SpO_2 board. ❑ SpO_2 board error.
E31	SpO_2 board error	❑ Connection error between main board and SpO_2 board. ❑ SpO_2 board error. Refer to " 4.17 Checking the SpO_2 Measurement ".

7. The List of Drawings

7.1. TM-2550

Kind	Unit No.	Unit Name	Drawing No.
Circuit	PZ:3293-B	Main board	QD-EC3-000492G
	PZ:3250	Display board	QD-EC3-000491C
	PZ:3294	Switch board	QD-EC4-000180F
Parts Layout	PZ:3293-B	Main board	QD-KZ3-000434C
	PZ:3250	Display board	QD-KZ3-000374E
	PZ:3294	Switch board	QD-KZ4000147F
Assembling	AD:TM2550EXB	TM-2550	QD-AS2-000237D

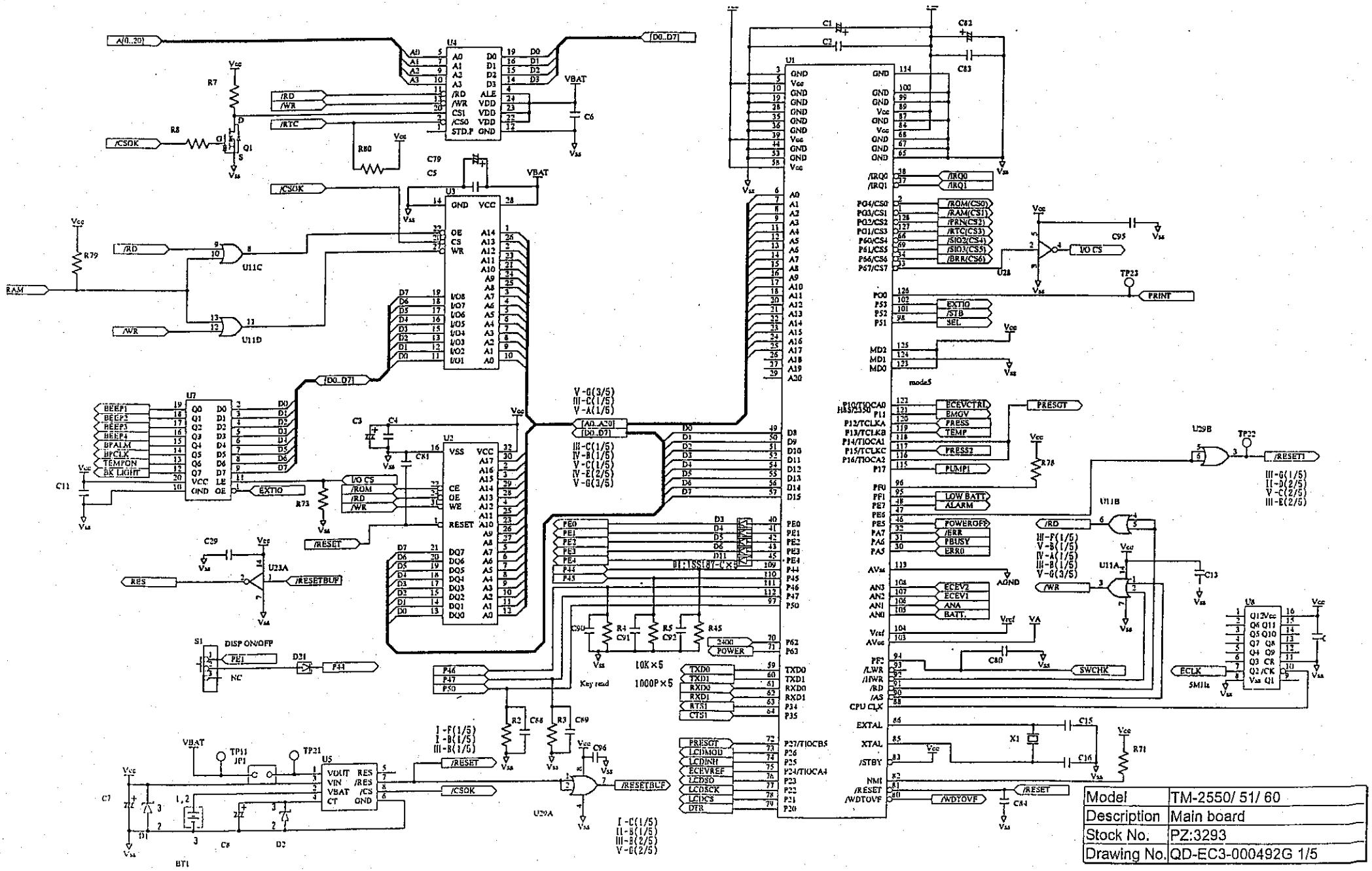
7.2. TM-2551

Kind	Unit No.	Unit Name	Drawing No.
Circuit	PZ:3293-B	Main board	same as TM-2550
	PZ:3250	Display board	
	PZ:3294	Switch board	
Parts Layout	PZ:3293-B	Main board	
	PZ:3250	Display board	
	PZ:3294	Switch board	
Assembling	AD:TM2551EXB	TM-2551	QD-AS2-000238D

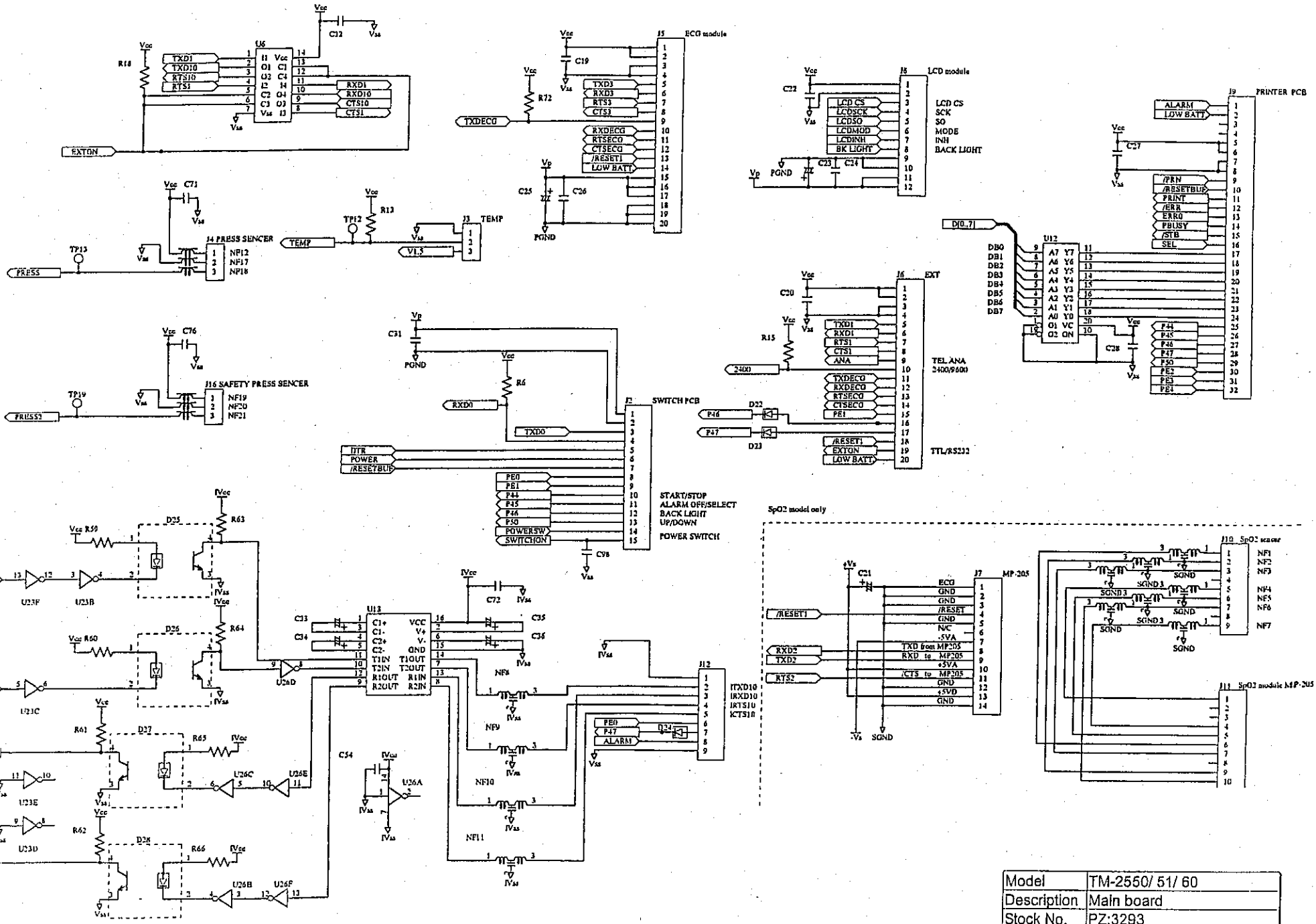
7.3. TM-2560

Kind	Unit No.	Unit Name	Drawing No.
Circuit	PZ:3293-S	Main board	same as TM-2550
	PZ:3250	Display board	
	PZ:3294	Switch board	
Parts Layout	PZ:3293-S	Main board	
	PZ:3250	Display board	
	PZ:3294	Switch board	
Assembling	AD:TM2560EXB	TM-2560	QD-AS2-000239D

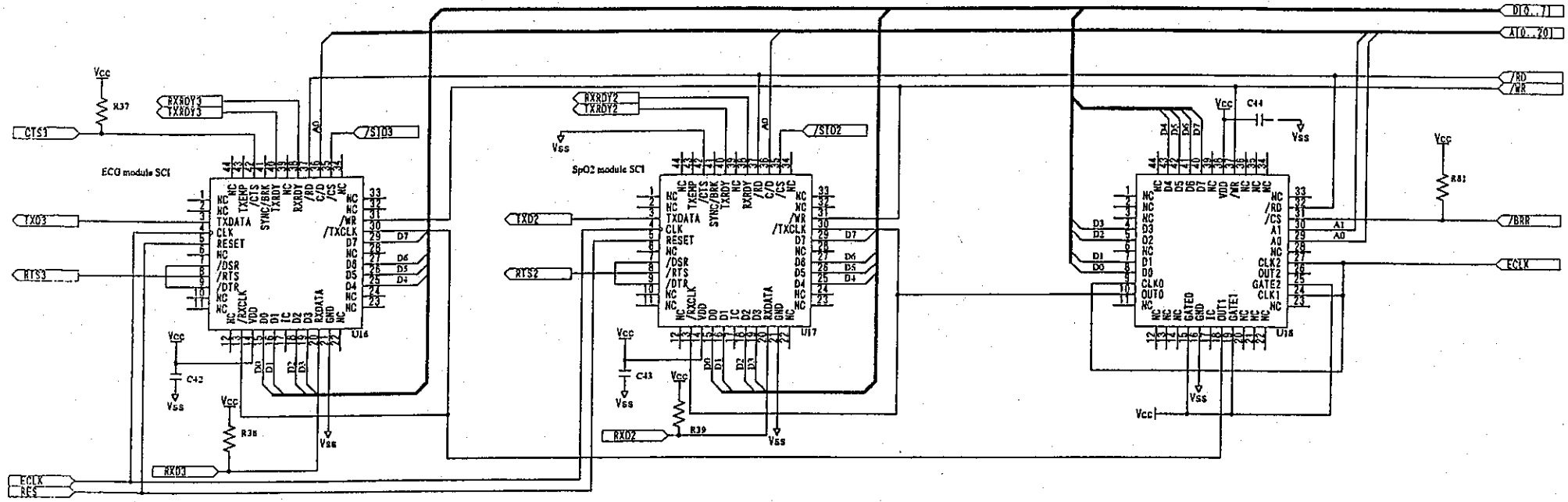
8. Circuit Diagrams

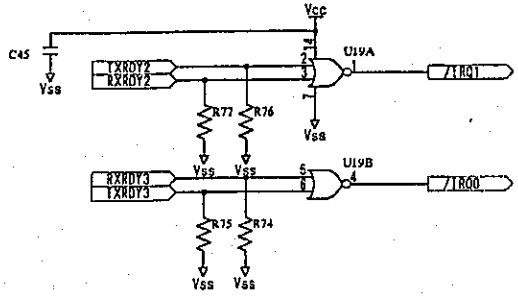


Model	TM-2550/ 51/ 60
Description	Main board
Stock No.	PZ:3293
Drawing No.	QD-EC3-000492G 1/5

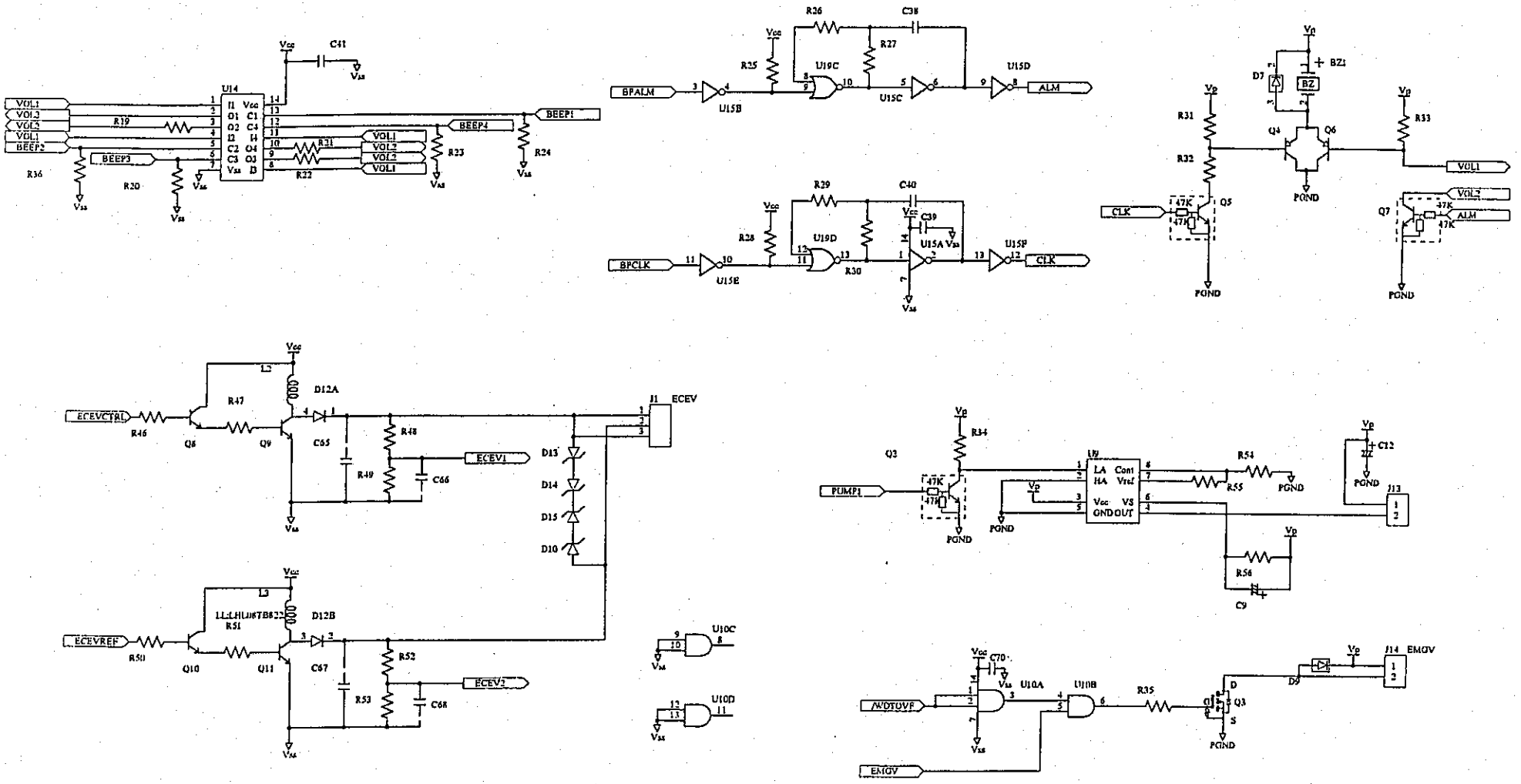


Model	TM-2550/ 51/ 60
Description	Main board
Stock No.	PZ:3293
Drawing No.	QD-EC3-000492G 2/5

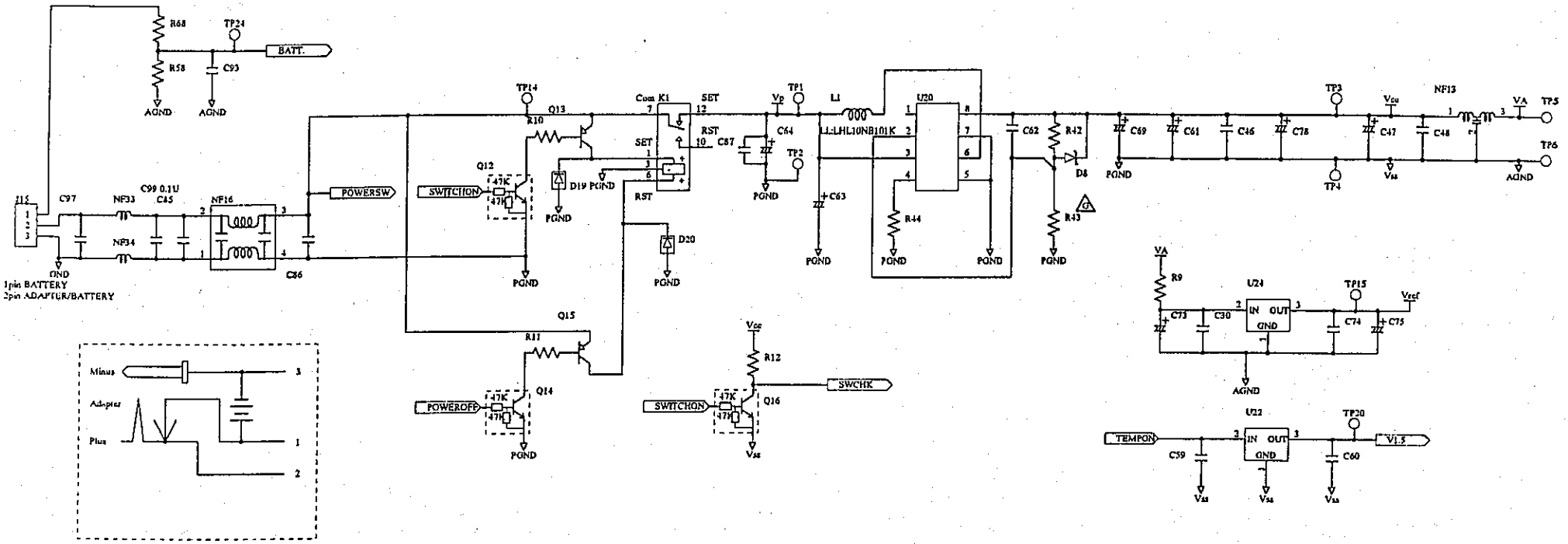


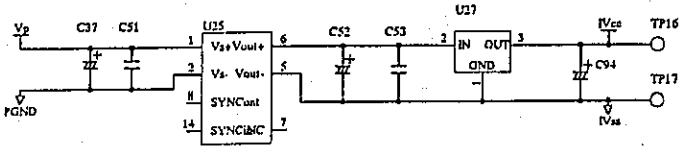


Model	TM-2550/ 51/ 60
Description	Main board
Stock No.	PZ:3293
Drawing No.	QD-EC3-000492G 3/5

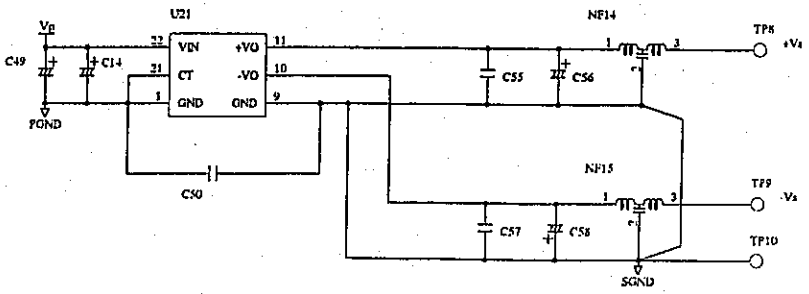


Model	TM-2550/ 51/ 60
Description	Main board
Stock No.	PZ:3293
Drawing No.	QD-EC3-000492G 4/5

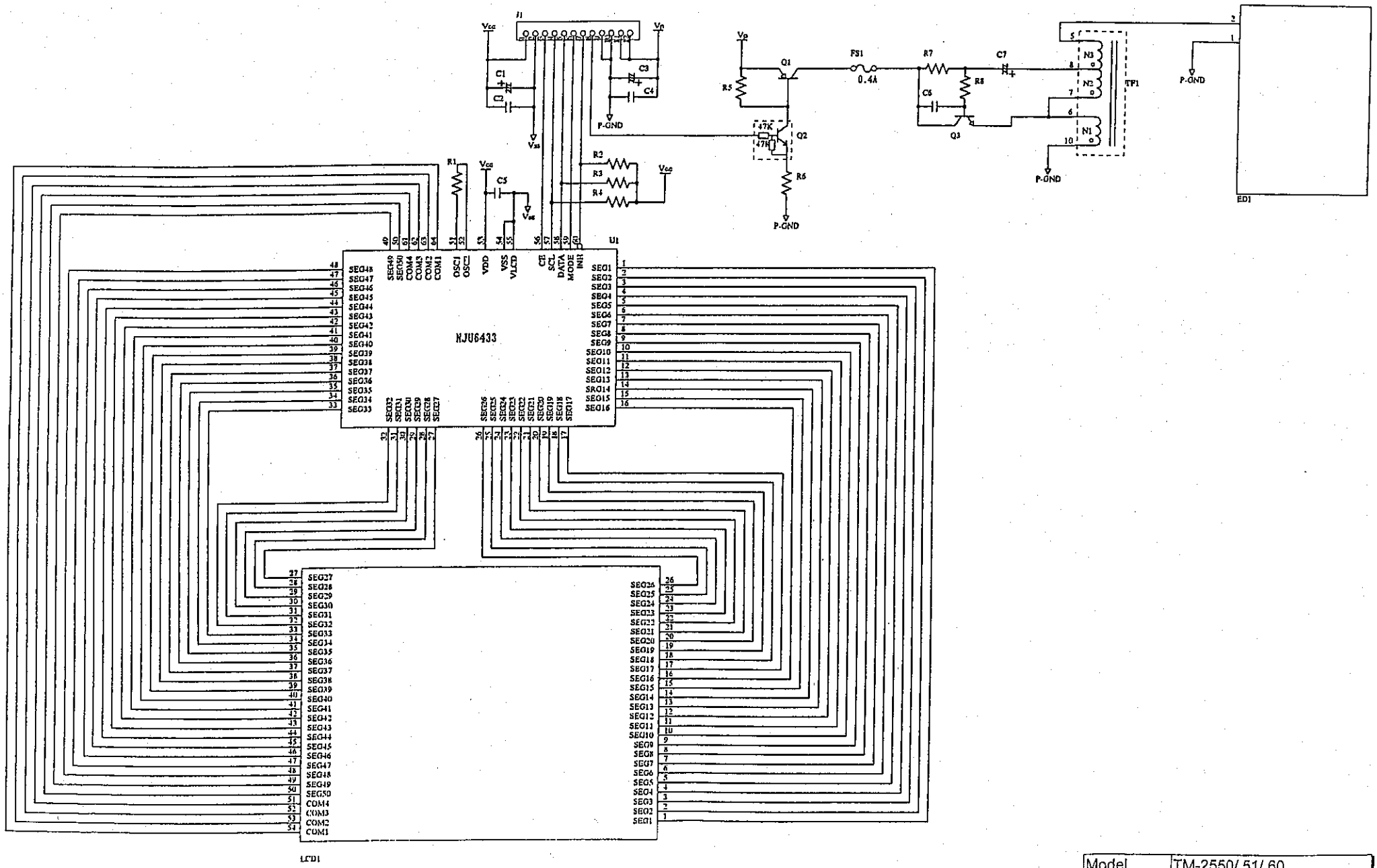




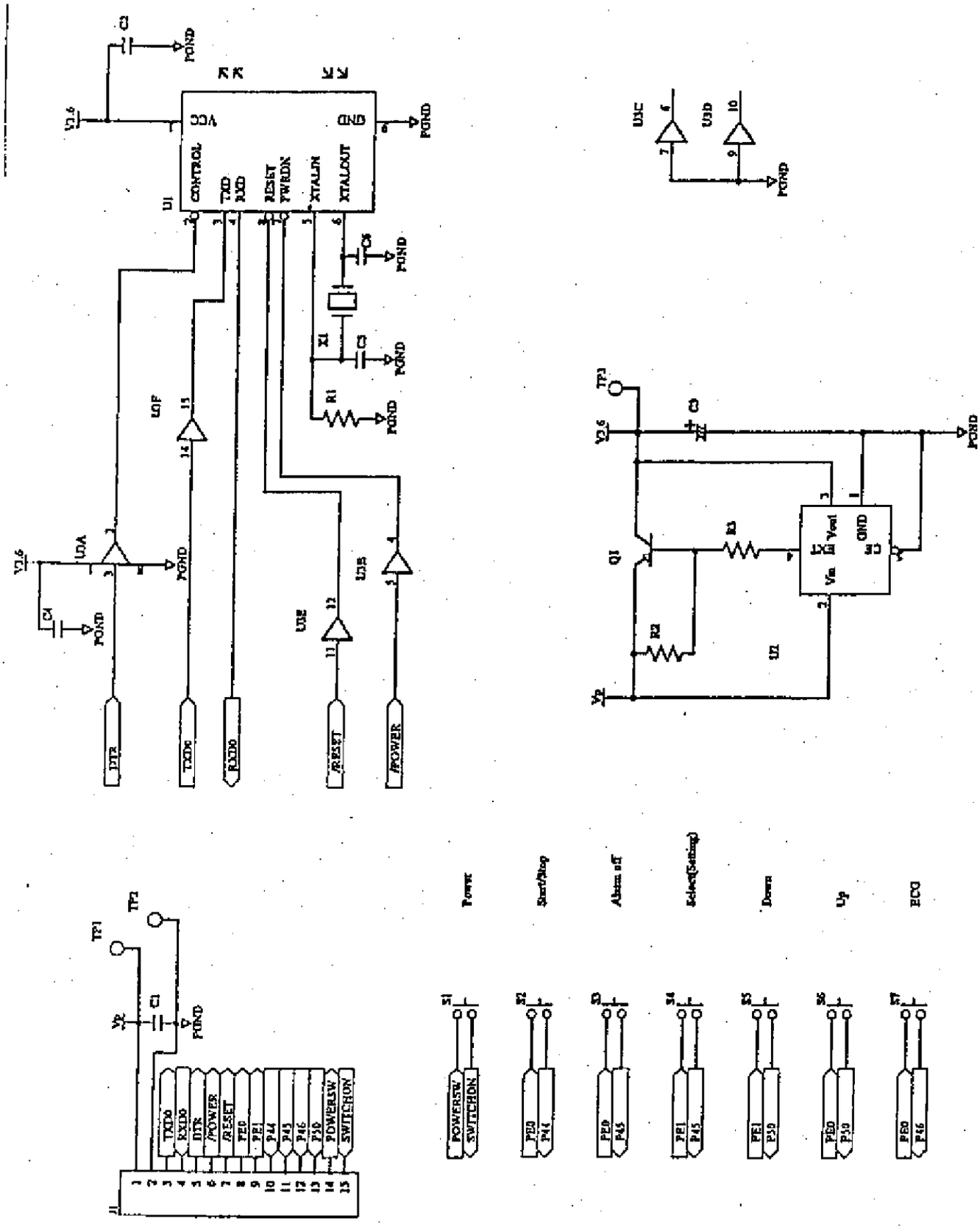
SpO2 model only



Model	TM-2550/ 51/ 60
Description	Main board
Stock No.	PZ:3293
Drawing No.	QD-EC3-000492G 5/5



Model	TM-2550/ 51/ 60
Description	Display board
Stock No.	PZ:3250
Drawing No.	QD-EC3-000491C



Model	TM-2550/ 51/ 60
Description	Switch board
Stock No.	PZ:3294
Drawing No.	QD-EC4-000180F

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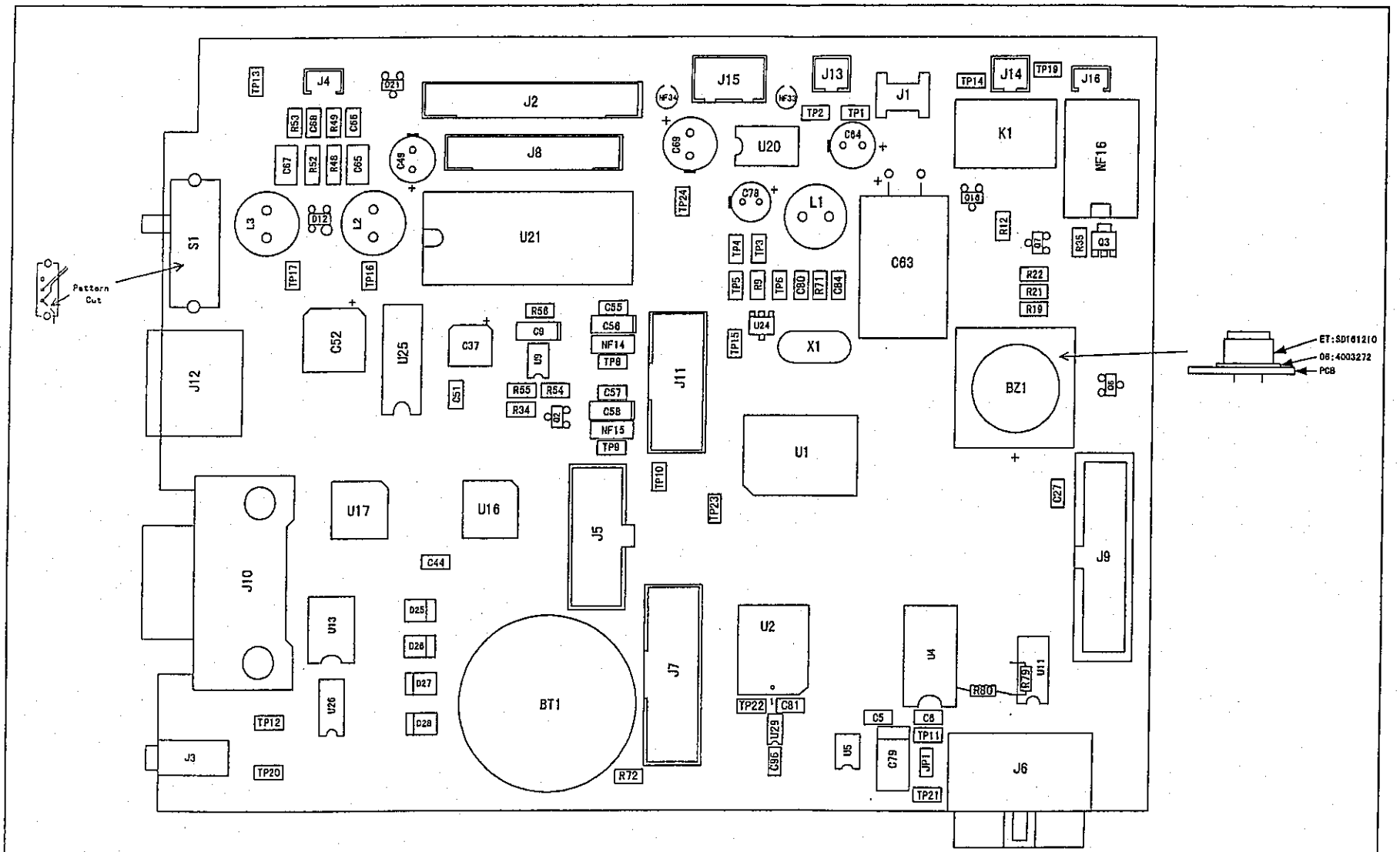
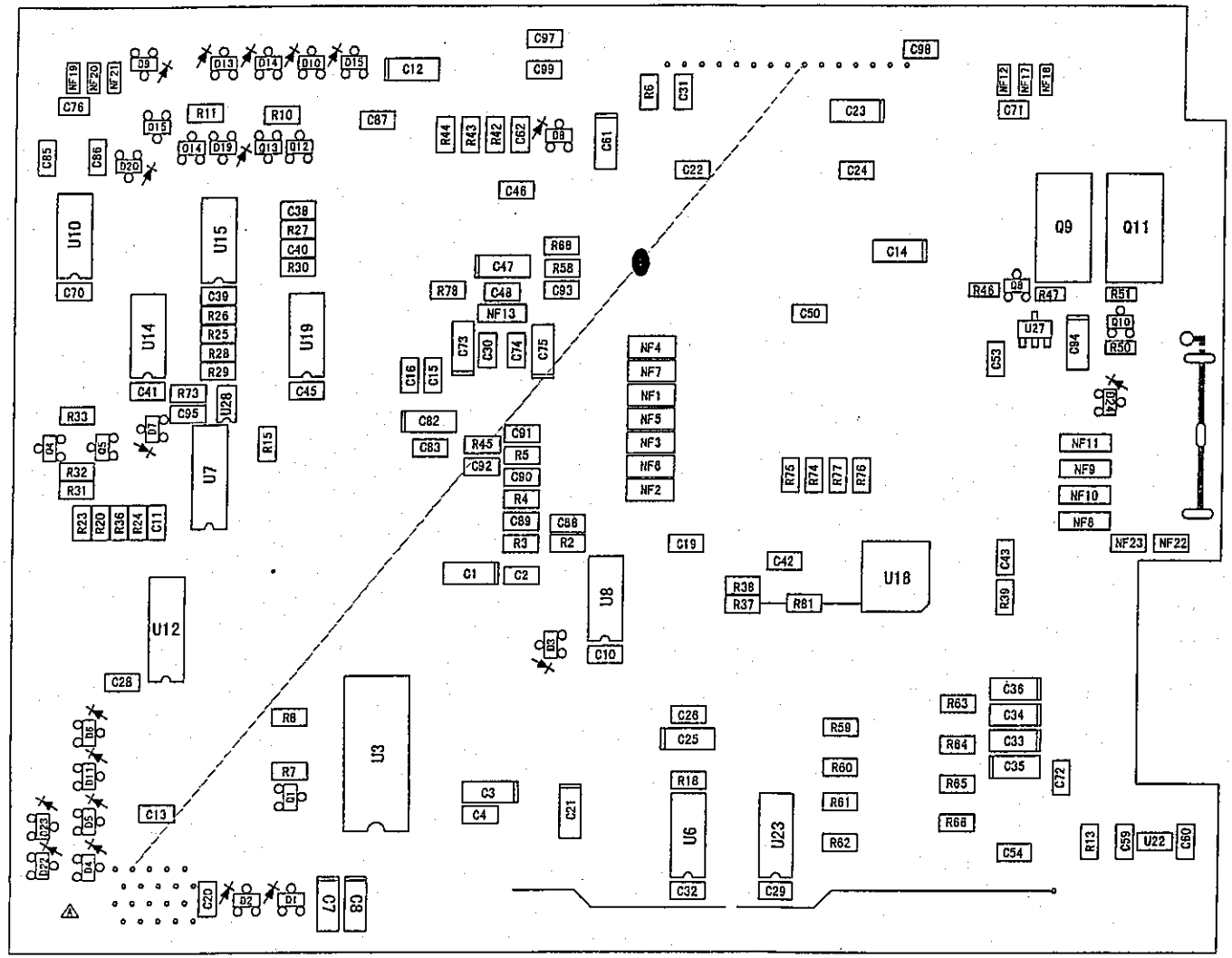
9. Parts Layout and Parts List of Circuit



SYMBOL	DATE	NAME	STOCK DATE	SCALE	TOLERANCES	MATERIAL	FINISH	MODEL	AD:TM2550
								PART LIST	
				APPROVAL			PART NAME	MAIN BOARD MOUNT DIAGRAM	
				CHECKED			STOCK No.	PZ:3293	
				DESIGN			DRAWING No.	ME-GD-KZ3-000434C (1/3)	
				DRAWN					



SYMBOL	DATE	NAME	STOCK DATE

SCALE	TOLERANCES	MATERIAL	FINISH	MODEL	AD:TM2550
APPROVAL			PART NAME	PART LIST	MAIN BOARD MOUNT DIAGRAM
CHECKED			STOCK No.		PZ:3293
DESIGN			DRAWING No.		ME-0D-KZ3-000434C (2/3)
DRAWN					

A&D CO., LTD.

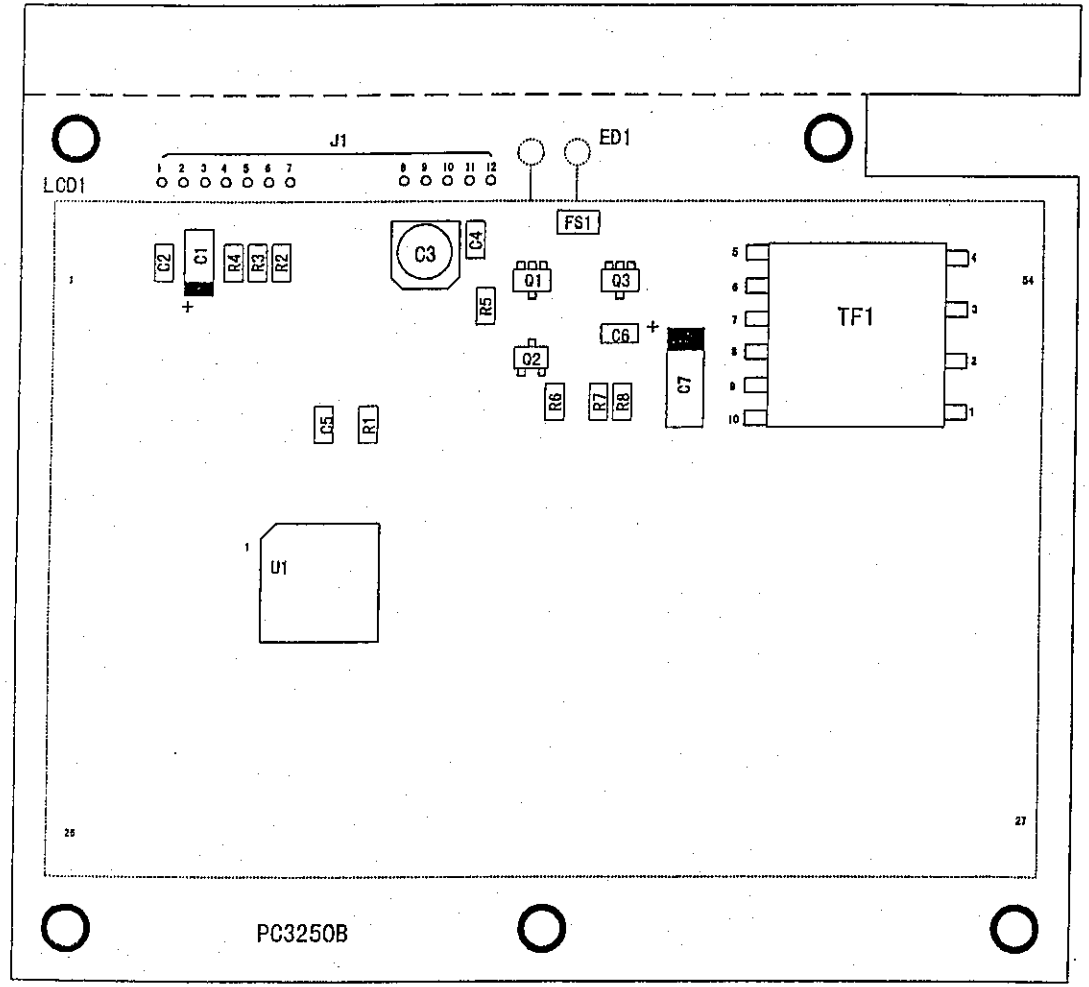
Circuit Symbol	Part No.	Part Name (Maker)	Q'TY
	PC:3293C	Printed Wiring Board	1
U1	UC:HD6412350F	MICROPROCESSOR	1
U2	UC:M29F002B-90	ROM	1
U3	UC:D43256AGU-15	RAM	1
U4	UC:62423A	REAL TIME CLOCK	1
U5	UA:M62021FP	RESET CONTROLER	1
U6, U14	UC:HC4066F	BILATERAL SWITCH	2
U7	UC:HC573F	D-TYPE TRANSPARENT LATCH WITH 2-STATE	1
U8	UC:HC4040F	12-STAGE BINARY RIPPLE COUNTER	1
U9	UC:LA5528NM	PUMP DRIVER	1
U10	UC:HC08F	AND GATE	1
U11	UC:HC32F	OR GATE	1
U13	UC:MAX232CWE	RS-232C DRIVER	1
U15, U23, U26	UC:HC04F	INVERTOR	3
U16, U17	UC:D71051G	SERIAL COMMUNICATION CONTROLER	2
U18	UC:D71054G	TIMER COUNTER	1
U19	UC:HC02F	NOR GATE	1
U20	UR:TL499ACP	VOLTAGE REGULATOR	1
U21	MP:CHG-0505DC	DC/DC CONVERTER	1
U22	UR:S81215SG	VOLTAGE REGULATOR	1
U24	UR:B1240AG	VOLTAGE REGULATOR	1
U25	MP:DCP010505P	DC/DC CONVERTER	1
U27	UR:RH5RL50AA-C	VOLTAGE REGULATOR	1
U28	UC:7S04F	INVERTOR	1
U29	UC:7W32F	OR GATE	1
NF1～NF11, NF13～NF15	NF:EXCCET102U	NOISE FILTER	14
NF16	NF:DFD-104S	NOISE FILTER	1
NF12, NF17～NF21	LR:ACB1608M-600	FERRITE CHIP	6
NF33, NF34	NF:ZBF253S-01	INDUCTOR	2
Q1	QF:K1133	FIELD EFFECT TRANSISTOR	1
Q3	QF:K1483-C	FIELD EFFECT TRANSISTOR	1
Q4, Q6, Q13, Q15	QT:A1162Y-C	TRANSISTOR	4
Q2, Q5, Q7, Q12, Q14, Q16	QT:FA1L4M-C	TRANSISTOR	6
Q9, Q11	QT:C3075LB	TRANSISTOR	2
Q8, Q10	QT:C2712Y-C	TRANSISTOR	2
D1, D8	DZ:RD5.6MB-C	ZENER DIODE	2
D2	DZ:RD2.7MB-C	ZENER DIODE	1
D3, D4, D5, D6, D7, D9, D11, D19, D20, D21, D22, D23, D24	DI:1SS187-C	DIODE	13
D12	DI:1SS306	DIODE	1
D10, D13, D14, D15	DZ:02CZ47-C	ZENER DIODE	4
D25, D26, D27, D28	DF:PS2801-1	PHOTO COUPLER	4
L1	LL:LHL10NB101K	INDUCTOR	1
L2, L3	LL:LHL08TB822J	INDUCTOR	2
S1	SS:SSSU112S06S0	SWITCH	1
K1	SL:AG2212	RELAY	1
J13, J14	JI:2P-S2T2-EF	CONNECTOR	2
J8	JI:12P-S2T2-EF	CONNECTOR	1
J2	JI:15P-S2T2-EF	CONNECTOR	1
J3	JJ:HSJ1169	CONNECTOR	1
J6	JI:CL631-0001-0	CONNECTOR	1
J12	JA:TCS7913-01	CONNECTOR	1
J15	JT:B3B-XH-A	CONNECTOR	1
J1	JI:Z-03PL-SMTY	CONNECTOR	1
J7	JI:CL616-0162-7	CONNECTOR	1
J11	JI:CL616-0121-0	CONNECTOR	1
J10	JA:DELC-J9SAF	CONNECTOR	1
J5	JI:CL631-0101-5	CONNECTOR	1
J4, J16	JI:DF13-3P-DSA	CONNECTOR	2

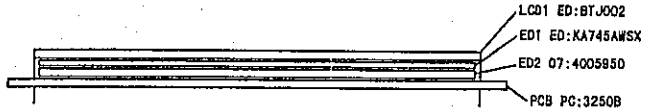
Circuit Symbol	Part No.	Part Name (Maker)	Q'TY
BT1	EB:CR2450-HE4	LITHIUM BATTERY	1
X1	XT:AT51-20.000M	QUARTZ CRYSTAL UNIT	1
BZ1	ET:SD161210	BUZZER	1
C8, C12, C14, C21, C23, C25, C47, C56, C58, C61, C73, C75, C82, C94	CT:1A4R7-C	TANTALUM CAPACITOR	14
C9, C33, C34, C35, C36	CT:1C010-C	TANTALUM CAPACITOR	5
C1, C3, C7	CT:ECST1AY106R	TANTALUM CAPACITOR	3
C83	CK:ECA1CM222	ALUMINUM ELECTROLYTIC CAPACITOR	1
C69	CK:ECA1CM331	ALUMINUM ELECTROLYTIC CAPACITOR	1
C49, C64, C78	CK:ECA1CM221	ALUMINUM ELECTROLYTIC CAPACITOR	3
C37	CK:ECEV1AA101SP	ALUMINUM ELECTROLYTIC CAPACITOR	1
C52	CK:ECEV1AA471P	ALUMINUM ELECTROLYTIC CAPACITOR	1
C15, C16	CC:22P-C	CERAMIC CAPACITOR	2
C66, C68	CC:100P-C	CERAMIC CAPACITOR	2
C38, C40, C88, C89, C90, C91, C92	CC:0.001U-C	CERAMIC CAPACITOR	7
C51, C53	CC:0.47U16V-C	CERAMIC CAPACITOR	2
C2, C4, C5, C6, C10, C11, C13, C19, C20, C22, C24, C26, C29, C30, C31, C32, C39, C41, C42, C43, C44, C45, C46, C48, C50, C54, C55, C57, C59, C60, C62, C70, C71, C72, C74, C76, C80, C81, C83, C85, C86, C87, C93, C95, C96, C97, C99	CC:0.1U25V-C	CERAMIC CAPACITOR	47
C65, C67	CC:GHM1535B104K	CERAMIC CAPACITOR	2
C79	CT:1C220	TANTALUM CAPACITOR	1
C84, C98	CC:0.01U	CERAMIC CAPACITOR	2
R9	RC:1/10W100J	RESISTOR	1
R8, R35	RC:1/10W101J	RESISTOR	2
R56	RC:1/10W151J	RESISTOR	1
R44	RC:1/10W331J	RESISTOR	1
R19	RC:1/10W431J	RESISTOR	1
R47, R51	RC:1/10W681J	RESISTOR	2
R22, R31, R32, R33, R59, R60, R61, R62, R63, R64, R65, R66	RC:1/10W1001F	RESISTOR	12
R21	RC:1/10W152J	RESISTOR	1
R7, R10, R11, R12, R34, R13, R43	RC:1/10W472J	RESISTOR	7
R46, R50	RC:1/10W512J	RESISTOR	2
R2, R3, R4, R5, R45, R54, R73	RC:1/10W103J	RESISTOR	7
R42	RC:1/10W153J	RESISTOR	1
R6, R15, R18, R20, R23, R24, R25, R28, R36, R37, R38, R39, R71, R72, R74, R75, R76, R77, R78	RC:1/10W104J	RESISTOR	19
R27	RC:1/10W1503F	RESISTOR	1
R49, R53	RC:1/10W184J	RESISTOR	2
R30	RC:1/10W2703F	RESISTOR	1
R26, R29	RC:1/10W105J	RESISTOR	2
R48, R52	RC:1/8W106F	RESISTOR	2
R55	RC:1/10W0	RESISTOR	1
R58, R68	RC:1/10W4703F	RESISTOR	2
R79, R80, R81	RC:NAT100K	RESISTOR	3

SYMBOL	DATE	NAME	STOCK DATE

SCALE	TOLERANCES	MATERIAL	FINISH	MODEL: AD:TM2550
APPROVAL			PART NAME	PART LIST: MAIN BOARD MOUNT DIAGRAM
CHECKED			STOCK No.	PZ:3293
DESIGN			DRAWING No.	ME-QD-KZ3-000434G (3/3)
DRAWN				

A&D CO., LTD.





Circuit Symbol	Part No.	Part Name (Maker)	Q'TY
	PC:3250B	Printed Wiring Board	1
U1	UC:NJU6433	LCD DRIVER	1
Q1	QT:A1314B-C	TRANSISTOR	1
Q2	QT:FA1L4M-C	TRANSISTOR	1
Q3	QT:C2873Y-C	TRANSISTOR	1
LCD1	ED:BTJ002	LIQUID CRYSTAL DISPLAY	1
ED1	ED:KA745AWSX	EL BACKLIGHT	1
ED2	07:4005950	LCD SPACER	1
TF1	TF:468	TRANSFORMER	1
J1	KO:984-12S020	MAIN-DISPLAY CABLE	1
FS1	FS:CCP2E10	CHIP FUSE	1
R1	RC:1/10W154J	RESISTOR	1
R2, R3, R4	RC:1/10W563J	RESISTOR	3
R5	RC:1/10W472J	RESISTOR	1
R6	RC:1/10W561J	RESISTOR	1
R7	RC:1/10W122J	RESISTOR	1
R8	RC:1/10W270J	RESISTOR	1
C1	CT:1D475-C	TANTALUM CAPASITOR	1
C7	CT:1E106-C	TANTALUM CAPASITOR	1
C5	CC:0.001U-C	CERAMIC CAPASITOR	1
C6	CC:0.047U-C	CERAMIC CAPASITOR	1
C3	CK:ECEV1AA471P	ALUMINUM ELECTROLYTIC CAPASITOR	1
C2, C4	CC:0.1U25V-C	CERAMIC CAPASITOR	2

SYMBOL	DATE	NAME	STOCK DATE

SCALE	TOLERANCES	MATERIAL	FINISH	MODEL	TM2550
APPROVAL			PART NAME	PART LIST	DISPLAY BOARD MOUNT DIAGRAM
CHECKED			STOCK No.		PZ:3250
DESIGN			DRAWING No.		ME-QD-KZ3-000374E
DRAWN					

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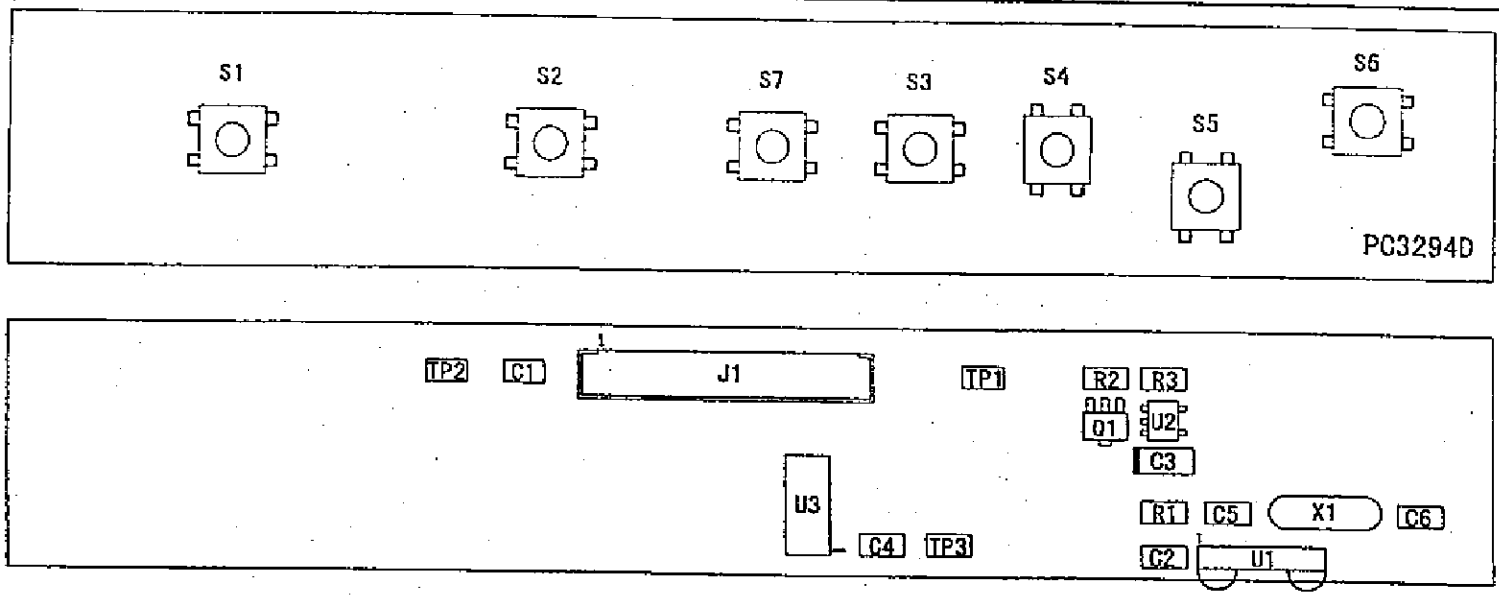
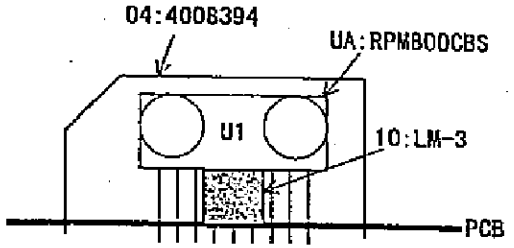
SYMBOL	DATE	NAME	STOCK DATE

DRAWN	
DESIGN	
CHECKED	
APPROVAL	
SCALE	
TOLERANCES	
MATERIAL	
FINISH	
DRAWING NAME	SWITCH BOARD MOUNT DIAGRAM
STOCK No.	PZ:3294
DRAWING No.	ME-QD-KZ4-000147F
MODEL	AD:TM2550
PART LIST	



Circuit Symbol	Part No.	Part Name (Maker)	Q'TY
	PC:3294D	Printed Wiring Board	1
U1	UA:RPM800CBS	IrDA DRIVER	1
U2	UR:RN5RG36AA-C	VOLTAGE REGULATOR	1
U3	UC:HC4050F	BUFFER/CONVERTER	1
Q1	QT:A1314B-C	TRANSISTOR	1
X1	XT:246C-6R	QUARTZ CRYSTAL UNIT	1
J1	JI:15P-S2T2-EF	CONNECTOR	1
S1~S7	SK:SKHHAK	SWITCH	7
R1	RC:1/10W225J	RESISTOR	1
R2	RC:1/10W103J	RESISTOR	1
R3	RC:1/10W101J	RESISTOR	1
C1, C2, C4	CC:0.1U25V-C	CERAMIC CAPASITOR	3
C3	CT:ECST1AY106R	TANTALUM CAPASITOR	1
C5, C6	CC:12P-C	CERAMIC CAPASITOR	2
TP1, TP2, TP3	TM:RCT00000C	CHECK PIN	3
ET1	10:LM-3	IrDA SPACER	1
	04:4008394	IrDA SEALED CASE	1



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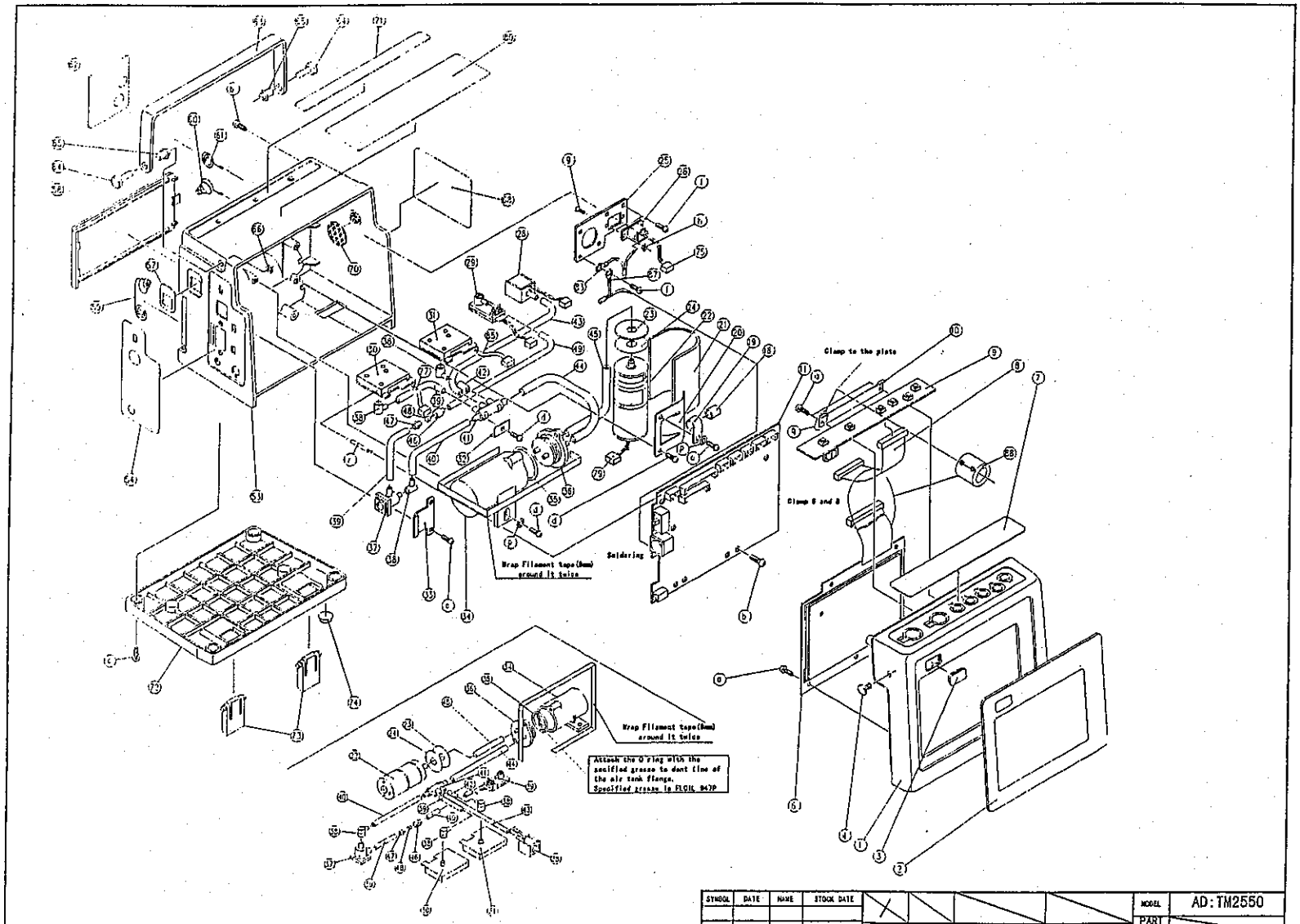
10. Exploded View and Parts List



SYMBOL	DATE	NAME	STOCK DATE

SCALE	TOLERANCES	MATERIAL	FINISH
APPROVAL			PART NAME: Assembly Diagram
CHECKED			STOCK No.
DESIGN			DRAWING No.: ME-QD-AS2-0002370 (1/2)
DRAWN			

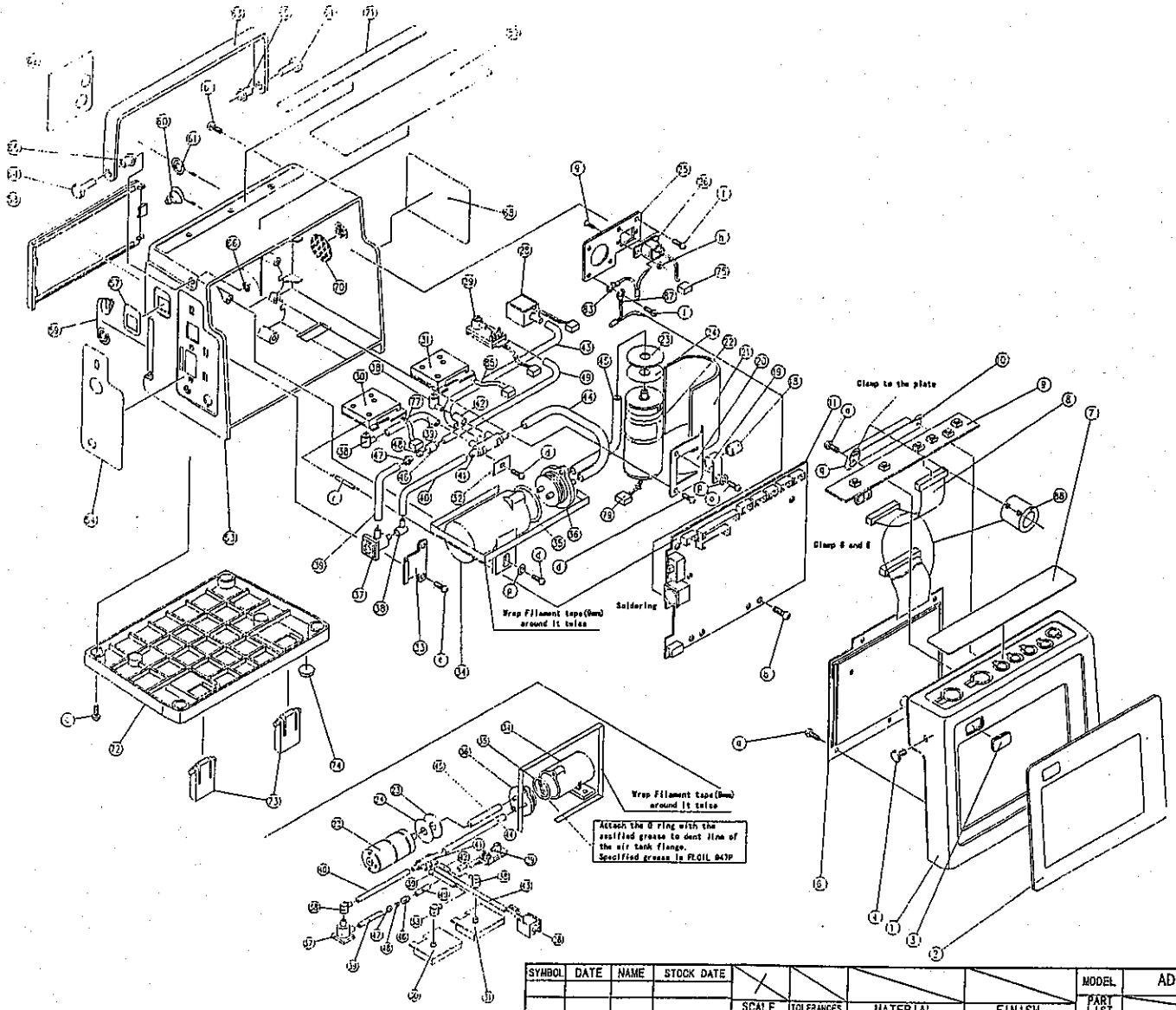
MODEL: AD:TM2550
PART LIST:

A&D CO., LTD.

No	Part No	Part Name (Maker)	Q'TY
1	07:1000052	Front Case	1
2	08:3002747A	Front Sheet (Type A)	1
3	07:4005936	IrDA Cover	1
4	10:SR-3545	SR Snap Rivet	1
5	------	------	---
6	BKZ:3250	Display Board	1
7	08:4006234	Switch Sheet (Type A)	1
8	K0:964-15W010-S	Main-Switch Cable	1
9	BKZ:3294	Switch Board	1
10	04:4005948	Switch Board Holder	1
11	BKZ:3293-B	Main Board	1
12	------	------	---
13	------	------	---
14	------	------	---
15	------	------	---
16	------	------	---
17	------	------	---
18	LR:HF70RH12x15	Ferrite Core	1
19	10:NK-8N	Ferrite Core Holder	1
20	04:4005944	Pump Holder	1
21	06:4003158	Pump Cushion	1
22	ET:P05G	Pump	1
23	07:C41443	Pump Filter	1
24	00:C41444	Pump Filter Seal	1
25	04:4005947A	AC Adapter Chassis	1
26	JE:0757-010030	AC Adapter Jack	1
27	------	------	---
28	ET:TDS-V05B-753	Electro Magnetic Valve	1
29	PA:4000450	Electronic Ceramic Exhaust Valve	1
30	BKA:0195S1	Pressure Transducer (1)	1
31	BKA:0195S1	Pressure Transducer (2)	1
32	04:4005949	Censer Stopper	1
33	04:4005946	Air Socket Chassis	1
34	07:4006212	Air Tank	1
35	10:S0-030-20	O-ring (ϕ 26×20×3)	1
36	07:4006213	Air Tank Flange	1
37	06:U42731B	Air Socket	1
38	06:U43242A	Sensor Joint	3
39	06:T101-040	Silicon Tube	2
40	06:T101-050	Silicon Tube	1
41	06:4007897	Joint	1
42	06:T101-015	Silicon Tube	1
43	06:T101-120	Silicon Tube	1
44	06:T103-130	Silicon Tube	1
45	06:T103-070	Silicon Tube	1
46	07:4001914	Air Filter Case	1
47	06:4001913	Air Filter Case	1
48	06:4003350	Air Filter	1
49	06:T101-100	Silicon Tube	1
50	------	------	---

No	Part No	Part Name (Maker)	Q'TY
51	------	------	---
52	------	------	---
53	07:1000051A	Rear Case	1
54	08:4006230A	Side Sheet (Type A)	1
55	------	------	---
56	------	------	---
57	08:4006236	Cuff Plate	1
58	07:3002308	Battery Cover	1
59	15:4005962	Electrode	1
60	15:4005961	Electrode (-)	1
61	15:4005960	Electrode (+)	1
62	08:4005942	Rear Sheet (Type A)	1
63	02:4005952	Handle	1
64	04:4005951	Handle Shaft	2
65	04:4005945	Handle Collar	2
66	10:CSTW-3.5	Handle Shaft Holder Ring	2
67	------	------	---
68	08:4007847	Rating Plate (TM2550)	1
69	------	------	---
70	10:NTF1033-K02	Waterproof sheet	1
71	08:4005941	Blank Seal	1
72	07:3002346	Bottom Case	1
73	07:4005934	Foot	2
74	10:SJ-5012	Rubber Foot	4
75	K0:1382-03S020	Power Cable	1
76	------	------	---
77	KO:1793-100	Pressure Transducer Cable	1
78	------	------	---
79	K0:964-02S020	Pump Cable	1
80	08:4007061	Error Codes Seal	1
81	------	------	---
82	------	------	---
83	KO:1745	Static Electricity Cable	1
84	------	------	---
85	KO:1793-100	Pressure Transducer Cable	1
86	------	------	---
87	KO:1805	Static Electricity Cable	1
88	LR:ZCAT2017	Ferrite Core	1

No	Part No	Part Name (Maker)	Q'TY
a	M2.3x6	Binding head P tight	7
b	M3x8	Pan head screw with spring and plain washer	4
c	M3x6	Pan head screw with spring and plain washer	4
d	M3x8	Pan head P tight	3
e	M2.6x8	Binding head P tight	2
f	M2.6x5	Binding head P tight	3
g	M2x6	Flat head screw	2
h	M2	Nut	2
i	------	------	---
j	------	------	---
k	------	------	---
l	------	------	---
m	------	------	---
n	------	------	---
o	M3x10	Pan head P tight	1
p	M3	plain washer	2
q	------	Unity strap	1
r	AWG20	AWG20 Cable(30mm)	1



SYMBOL	DATE	NAME	STOCK DATE

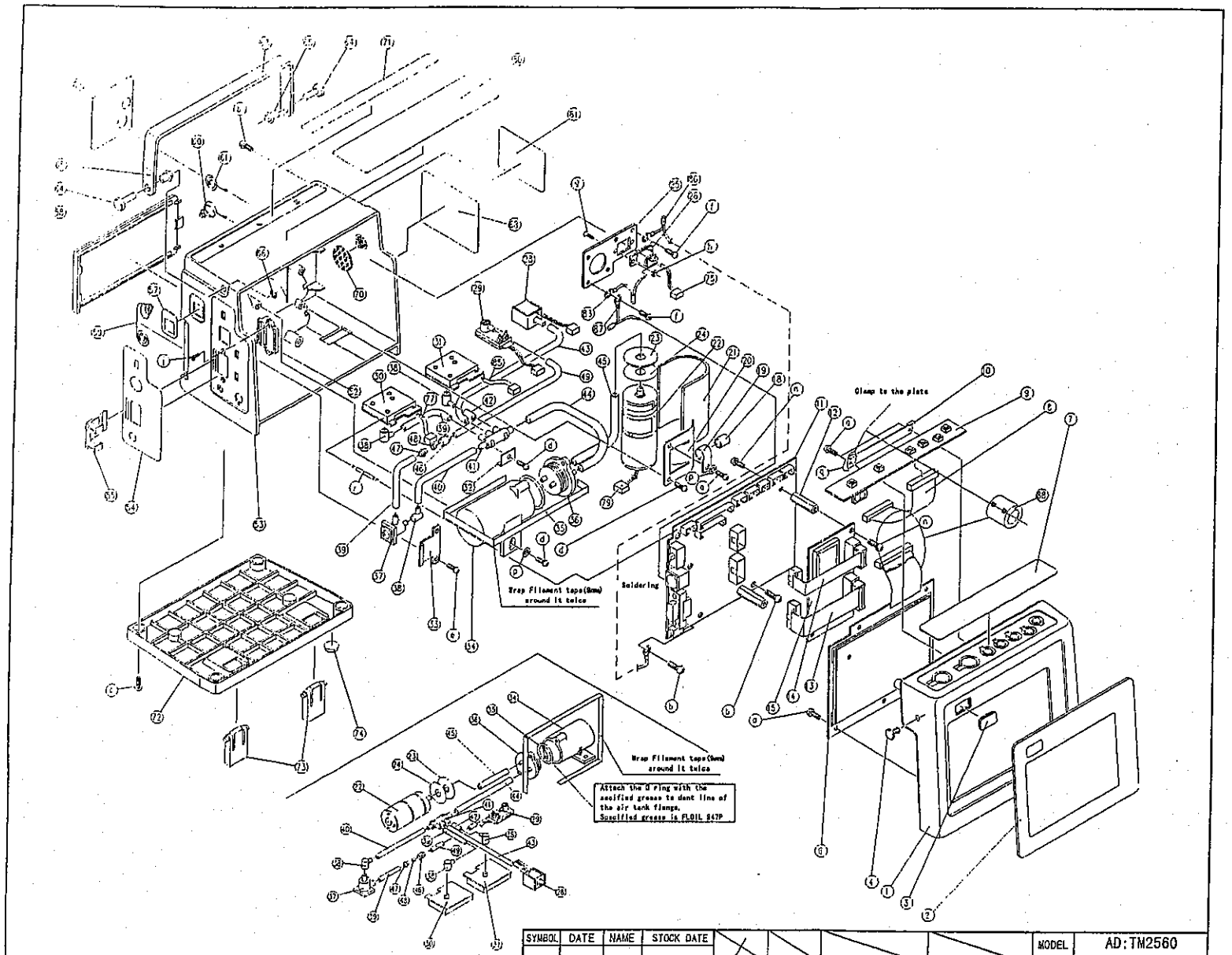
				MODEL	AD:TM2551
SCALE	TOLERANCES	MATERIAL	FINISH	PART LIST	
APPROVAL			PART NAME	Assembly Diagram	
CHECKED			STOCK No.		
DESIGN			DRAWING No.	ME-GD-AS2-000238D (1/2)	
DRAWN					

A&D CO., LTD.

No	Part No	Part Name (Maker)	Q'TY
1	07:1000052	Front Case	1
2	08:3002748A	Front Sheet (Type B)	1
3	07:4005936	IrDA Cover	1
4	10:SR-3545	SR Snap Rivet	1
5	------	------	---
6	BKZ:3250	Display Board	1
7	08:4006234	Switch Sheet (Type A)	1
8	K0:964-15W010-S	Main-Switch Cable	1
9	BKZ:3294	Switch Board	1
10	04:4005948	Switch Board Holder	1
11	BKZ:3293-B	Main Board	1
12	------	------	---
13	------	------	---
14	------	------	---
15	------	------	---
16	------	------	---
17	------	------	---
18	LR:HF70RH12x15	Ferrite Core	1
19	10:NK-8N	Ferrite Core Holder	1
20	04:4005944	Pump Holder	1
21	06:4003158	Pump Cushion	1
22	ET:P05G	Pump	1
23	07:C41443	Pump Filter	1
24	00:C41444	Pump Filter Seal	1
25	04:4005947A	AC Adapter Chassis	1
26	JE:0757-010030	AC Adapter Jack	1
27	------	------	---
28	ET:TDS-V05B-753	Electro Magnetic Valve	1
29	PA:4000450	Electronic Ceramic Exhaust Valve	1
30	BKA:0195S1	Pressure Transducer (1)	1
31	BKA:0195S1	Pressure Transducer (2)	1
32	04:4005949	Censer Stopper	1
33	04:4005946	Air Socket Chassis	1
34	07:4006212	Air Tank	1
35	10:S0-030-20	O-ring (ϕ 26×20×3)	1
36	07:4006213	Air Tank Flange	1
37	06:U42731B	Air Socket	1
38	06:U43242A	Sensor Joint	3
39	06:T101-040	Silicon Tube	2
40	06:T101-050	Silicon Tube	1
41	06:4007897	Joint	1
42	06:T101-015	Silicon Tube	1
43	06:T101-120	Silicon Tube	1
44	06:T103-130	Silicon Tube	1
45	06:T103-070	Silicon Tube	1
46	07:4001914	Air Filter Case	1
47	06:4001913	Air Filter Case	1
48	06:4003350	Air Filter	1
49	06:T101-100	Silicon Tube	1
50	------	------	---

No	Part No	Part Name (Maker)	Q'TY
51	------	------	---
52	------	------	---
53	07:1000051A	Rear Case	1
54	08:4006230A	Side Sheet (Type A)	1
55	------	------	---
56	------	------	---
57	08:4006236	Cuff Plate	1
58	07:3002308	Battery Cover	1
59	15:4005962	Electrode	1
60	15:4005961	Electrode (-)	1
61	15:4005960	Electrode (+)	1
62	08:4005942	Rear Sheet (Type A)	1
63	02:4005952	Handle	1
64	04:4005951	Handle Shaft	2
65	04:4005945	Handle Collar	2
66	10:CSTW-3.5	Handle Shaft Holder Ring	2
67	------	------	---
68	08:4007848	Rating Plate (TM2551)	1
69	------	------	---
70	10:NTF1033-K02	Waterproof sheet	1
71	08:4005941	Blank Seal	1
72	07:3002346	Bottom Case	1
73	07:4005934	Foot	2
74	10:SJ-5012	Rubber Foot	4
75	K0:1382-03S020	Power Cable	1
76	------	------	---
77	KO:1793-100	Pressure Transducer Cable	1
78	------	------	---
79	K0:964-02S020	Pump Cable	1
80	08:4007061	Error Codes Seal	1
81	------	------	---
82	------	------	---
83	KO:1745	Static Electricity Cable	1
84	------	------	---
85	KO:1793-100	Pressure Transducer Cable	1
86	------	------	---
87	KO:1805	Static Electricity Cable	1
88	LR:ZCAT2017	Ferrite Core	1

No	Part No	Part Name (Maker)	Q'TY
a	M2.3x6	Binding head P tight	7
b	M3x8	Pan head screw with spring and plain washer	4
c	M3x6	Pan head screw with spring and plain washer	4
d	M3x8	Pan head P tight	3
e	M2.6x8	Binding head P tight	2
f	M2.6x5	Binding head P tight	3
g	M2x6	Flat head screw	2
h	M2	Nut	2
i	------	------	---
j	------	------	---
k	------	------	---
l	------	------	---
m	------	------	---
n	------	------	---
o	M3x10	Pan head P tight	1
p	M3	plain washer	2
q	------	Unity strap	1
r	AWG20	AWG20 Cable(30mm)	1



SYMBOL	DATE	NAME	STOCK DATE

				MODEL	AD:TM2560
SCALE	TOLERANCES	MATERIAL	FINISH	PART LIST	
APPROVAL			PART NAME	Assembly Diagram	
CHECKED			STOCK No.		
DESIGN			DRAWING No.	ME-GD-AS2-000239D (1/2)	
DRAWN					

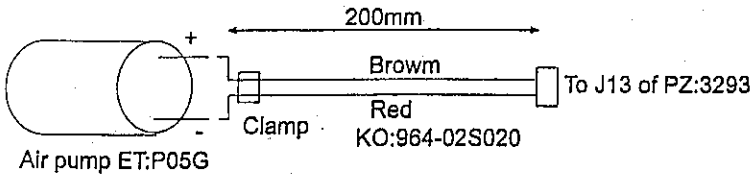
A&D CO., LTD.

No	Part No	Part Name (Maker)	Q'TY
1	07:1000052	Front Case	1
2	08:3002749A	Front Sheet (Type C)	1
3	07:4005936	IrDA Cover	1
4	10:SR-3545	SR Snap Rivet	1
5	------	------	---
6	BKZ:3250	Display Board	1
7	08:4006234	Switch Sheet (Type A)	1
8	K0:964-15W010-S	Main-Switch Cable	1
9	BKZ:3294	Switch Board	1
10	04:4005948	Switch Board Holder	1
11	BKZ:3293-S	Main Board	1
12	05:A40055	Spacer (19mm)	2
13	K0:1390	SP02-Main Board Cable (14 Pin)	1
14	K0:650-5	SP02-Main Board Cable (10 Pin)	1
15	ET:MP205	SP02 Board	1
16	------	------	---
17	------	------	---
18	LR:HF70RH12x15	Ferrite Core	1
19	10:NK-8N	Ferrite Core Holder	1
20	04:4005944	Pump Holder	1
21	06:4003158	Pump Cushion	1
22	ET:P05G	Pump	1
23	07:C41443	Pump Filter	1
24	00:C41444	Pump Filter Seal	1
25	04:4005947A	AC Adapter Chassis	1
26	JE:0757-010030	AC Adapter Jack	1
27	------	------	---
28	ET:TDS-V05B-753	Electro Magnetic Valve	1
29	PA:4000450	Electronic Ceramic Exhaust Valve	1
30	BKA:0195S1	Pressure Transducer (1)	1
31	BKA:0195S1	Pressure Transducer (2)	1
32	04:4005949	Censer Stopper	1
33	04:4005946	Air Socket Chassis	1
34	07:4006212	Air Tank	1
35	10:S0-030-20	O-ring (ϕ 26×20×3)	1
36	07:4006213	Air Tank Flange	1
37	06:U42731B	Air Socket	1
38	06:U43242A	Sensor Joint	3
39	06:T101-040	Silicon Tube	2
40	06:T101-050	Silicon Tube	1
41	06:4007897	Joint	1
42	06:T101-015	Silicon Tube	1
43	06:T101-120	Silicon Tube	1
44	06:T103-130	Silicon Tube	1
45	06:T103-070	Silicon Tube	1
46	07:4001914	Air Filter Case	1
47	06:4001913	Air Filter Case	1
48	06:4003350	Air Filter	1
49	06:T101-100	Silicon Tube	1
50	------	------	---

No	Part No	Part Name (Maker)	Q'TY
51	------	------	---
52	07:4005935A	SpO_2 Connector Stopper Holder	1
53	07:1000051A	Rear Case	1
54	08:4006231A	Side Sheet (Type B)	1
55	07:3000939A	SpO_2 Connector Stopper	1
56	------	------	---
57	08:4006236	Cuff Plate	1
58	07:3002308	Battery Cover	1
59	15:4005962	Electrode	1
60	15:4005961	Electrode (-)	1
61	15:4005960	Electrode (+)	1
62	08:4005942	Rear Sheet (Type A)	1
63	02:4005952	Handle	1
64	04:4005951	Handle Shaft	2
65	04:4005945	Handle Collar	2
66	10:CSTW-3.5	Handle Shaft Holder Ring	2
67	------	------	---
68	08:4007849	Rating Plate (TM2560)	1
69	------	------	---
70	10:NTF1033-K02	Waterproof sheet	1
71	08:4005941	Blank Seal	1
72	07:3002346	Bottom Case	1
73	07:4005934	Foot	2
74	10:SJ-5012	Rubber Foot	4
75	K0:1382-03S020	Power Cable	1
76	------	------	---
77	KO:1793-100	Pressure Transducer Cable	1
78	------	------	---
79	K0:964-02S020	Pump Cable	1
80	08:4007061	Error Codes Seal	1
81	08:4007062	Patent Seal	1
82	------	------	---
83	KO:1745	Static Electricity Cable	1
84	------	------	---
85	KO:1793-100	Pressure Transducer Cable	1
86	KO:1804	Static Electricity Cable	1
87	KO:1805	Static Electricity Cable	1
88	LR:ZCAT2017	Ferrite Core	1

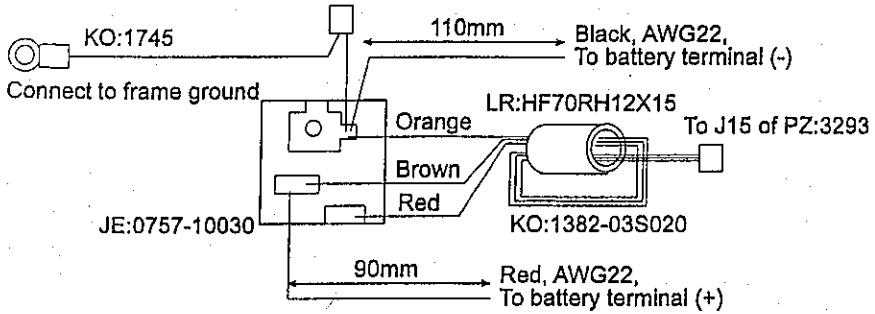
No	Part No	Part Name (Maker)	Q'TY
a	M2.3x6	Binding head P tight	7
b	M3x8	Pan head screw with spring and plain washer	5
c	M3x6	Pan head screw with spring and plain washer	4
d	M3x8	Pan head P tight	3
e	M2.6x8	Binding head P tight	2
f	M2.6x5	Binding head P tight	3
g	M2x6	Flat head screw	2
h	M2	Nut	2
i	------	------	---
j	M2x5	Flat head P tight	2
k	------	------	---
l	------	------	---
m	------	------	---
n	M3x6	Pan head screw with plain washer	4
o	M3x10	Pan head P tight	1
p	M3	plain washer	2
q	------	Unity strap	1
r	AWG20	AWG20 Cable(30mm)	1

Wiring the Air Pump



Do not use a contraction tube. Use the cable clamp of the pump after soldering.

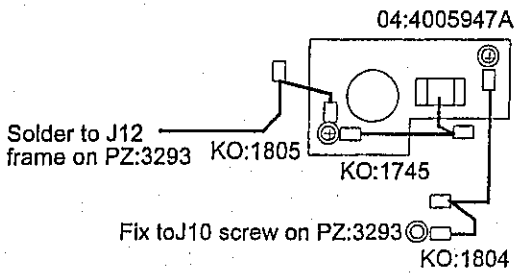
Wiring the AC Adaptor Jack



Use contraction tube after soldering.

Wiring anti-static electricity cable

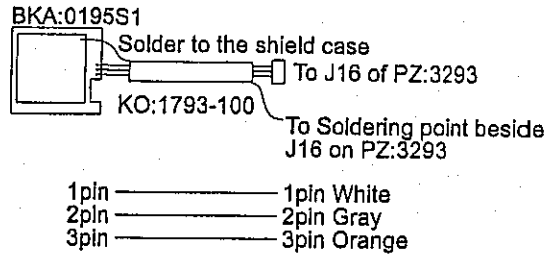
KO:1804 is used for TM-2560.



Wiring the Air Pressure Sensor

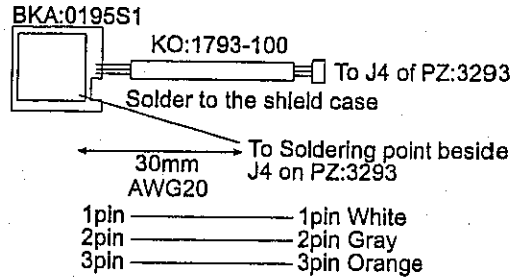
Main sensor

Cut the shield wire of KO:1793-100 and solder it to PCB.



Sub sensor

Change R3 to RC:1/10W563J on the BKA:019S1.



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