MAINTENANCE MANUAL

MII/SK SERIES

MODELS: MII-600, 1200, 3000, 6000 (1/6000)
MII-2500, 5000 (1/2500)
SK-600, 1200, 3000, 6000 (1/6000)
SK-600, 1500, 3000, 6000 (1/3000)

CONTENTS

OCT 2005

Specifications and Function Subject to Change without Notice

1. INTRODUCTION

This maintenance manual contains of certain information that may result in fraudulent use. Do not release any part of this manual to any end users or un-authorized persons.

Ender users should be advised not to undertake any trouble shooting except those listed on the operation manual.

The internal **mini switch** should be so set to prevent un-authorized settings or alternations.

Should a load cell has been replaced, make sure that the protection devices are properly set.

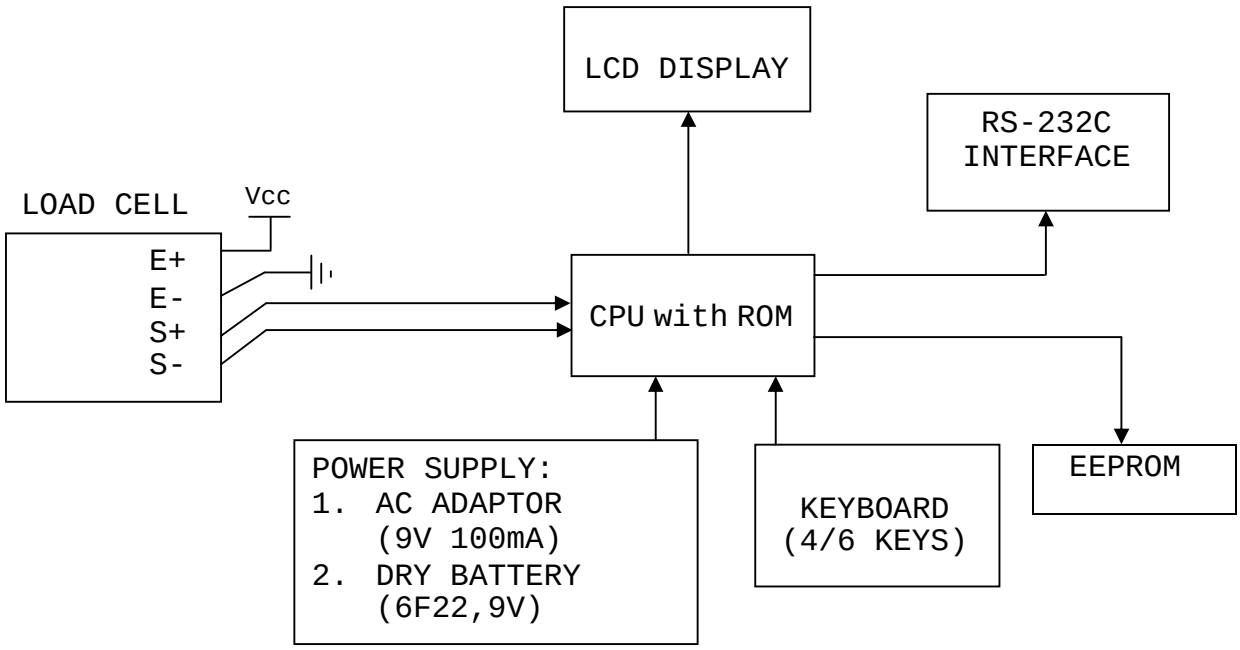
After servicing, it is necessary to go through all tests and procedures to ensure the scale meets all the metrological and approval requirements.

Here are some features of the MII/SK series

1. Zero, Tare, Negative value indicators
2. Subtractive tare function.
3. Power on zero function.
4. Manual zero function.
5. Auto Power Saving Function
6. Low battery warning signal
7. Counting & checking functions included (SK series)
8. 1/6000 or 1/2500 display resolution (MII series)
   1/6000 or 1/3000 display resolution (SK series)
9. $5\ _{1/2}$ x 20mm LCD display (MII series)
   $5\ _{1/2}$ x 10mm LCD display (SK series)
10. Dual power: By 6F22(9V) dry battery and external AC/DC power adaptor.
11. Dual(Metric and Avoirdupois) weight units
12. 2 Types of Calibration
13. Overload protection against positive and negative force
14. AC/DC power adaptor and S/S platter cover included.
15. Hidden mini switch to prevent end-user calibration
16. Optional RS-232C interface

2. SPECIFICATION

2.1 SYSTEM BLOCK DIAGRAM



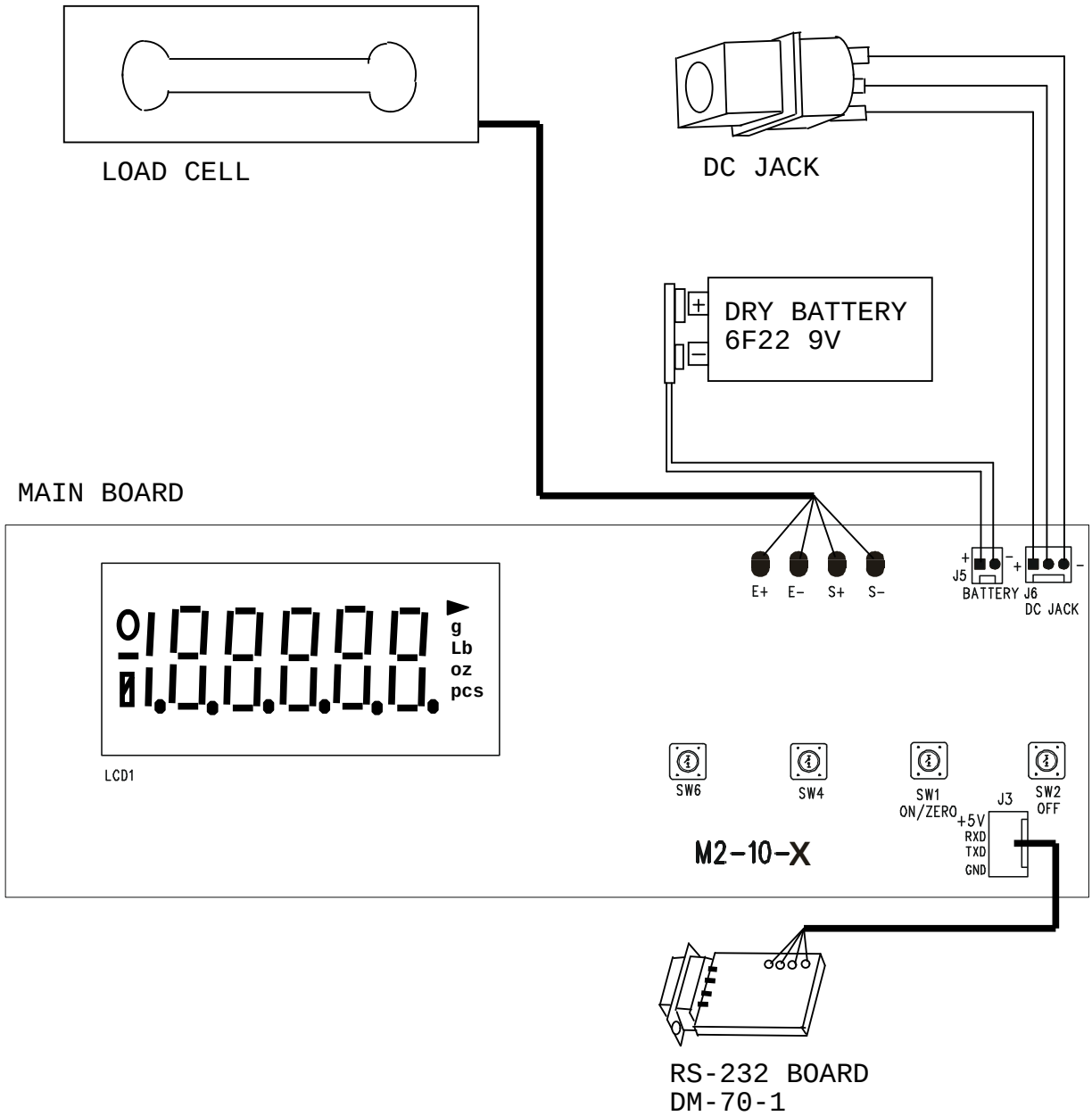
Description:
When an article is placed on the platter, the load of the article is applied to the load cell inside the scale.

The resistance to the excitation current in the strain gauge will then changed and the analog output signal varies.

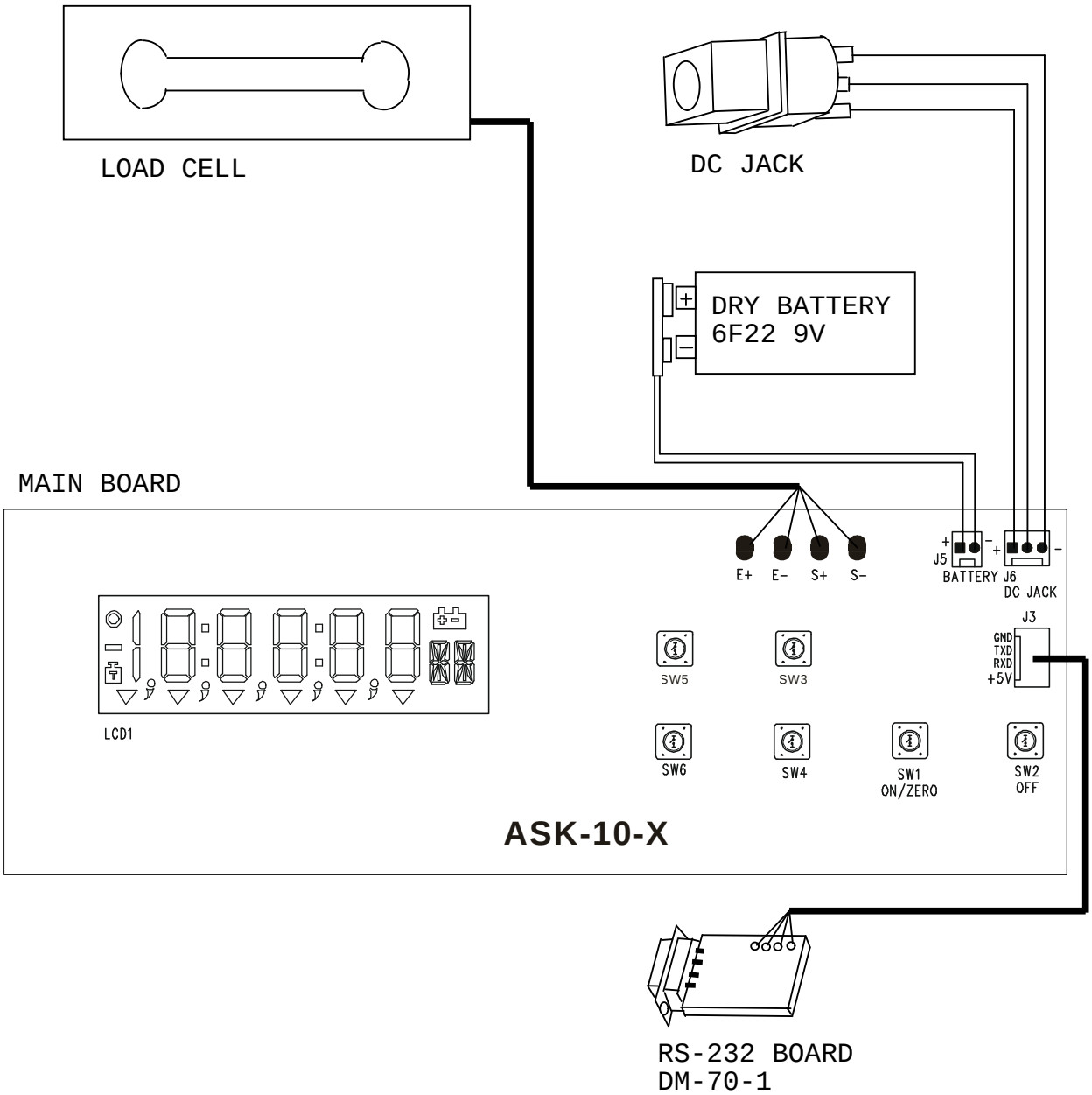
It is amplified and digitized continuously by the A/D converter into a digital signal. Subsequently, the resulting count is processed and managed by the CPU. The CPU refers to the instructions from the keyboard, and then conveys the output data to LCD driver, which formats the data into readout on the display panels.

2.2 PHYSICAL LAYOUT OF ELECTRICAL CONNECTION

MII SERIES



SK SERIES


LOAD CELL
DC JACK
DRY BATTERY
6F22 9V
MAIN BOARD
E+
E-
S+
S-
J5
BATTERY
J6
DC JACK
J3
GND
TXD
RXD
+5V
LCD1
SW5
SW3
SW6
SW4
SW1
ON/ZERO
SW2
OFF
ASK-10-X
RS-232 BOARD
DM-70-1

2.3 GENERAL SPECIFICATION

2.3.1 Overall View

MII SERIES

SK SERIES

2.3.2 Overall Dimension:

210(W) X 205(D) X 70(H) mm

2.3.3 Platter Size:

205 X 130 mm

2.3.4 Model Specifications

Model Number	Capacity	Min. Division	Display Resolution
MII-600	600g	0.1g	1/6000
MII-1200	1200g	0.2g	1/6000
MII-3000	3000g	0.5g	1/6000
MII-6000	6000g	1g	1/6000
MII-2500	2500g	1g	1/2500
MII-5000	5000g	2g	1/2500
SK-600	600g	0.1g	1/6000
		0.2g	1/3000
SK-1200	1200g	0.2g	1/6000
SK-1500	1500g	0.5g	1/3000
SK-3000	3000g	0.5	1/6000
		1g	1/3000
SK-6000	6000g	1g	1/6000
		2g	1/3000
Tare Range	Full Tare Range		
Platter	205 x 130 mm		
Display Type	LCD Display		
Power Source	By 6F22(9V) dry battery or power adaptor		
Operation Environment	0^{o}~40^{o}C (32^{o}~104^{o}F), Non-condensed. R.H.≦ 85%		
Standard Package	Individually Packed Dimension: 360(L) x 270(W) x 100(H) mm Net/Gross Weight: 1.0/1.5kg		

2.3.5 Main Components Used

Microprocessors: SN8P1908
Crystal Oscillator: 4.0MHz
Display Device: $5\ _{1/2}$ x 20mm LCD display (MII series)
$5\ _{1/2}$ x 10mm LCD display (SK series)
Load Cell Used: SSA type load cell(1/6000)
SS-22 type load cell(1/2500 or 1/3000)

Load Cell Capacity:

MII-600 = 0.7kg (1/6000)	SK-600 = 0.7kg (1/6000)
MII-1200= 1.5kg (1/6000)	SK-600 = 1kg (1/3000)
MII-3000= 3kg (1/6000)	SK-1200= 1.5kg (1/6000)
MII-6000= 6kg (1/6000)	SK-1500= 2kg (1/3000)
MII-2500= 4kg (1/2500)	SK-3000= 3kg (1/6000)
MII-5000= 6kg (1/2500)	SK-3000= 4kg (1/3000)
	SK-6000= 6kg (1/6000)
	SK-6000= 6kg (1/3000)

2.3.6 Analog Specification

Input sensitivity: 2mV/V

Zero Drift: 0.2% R.O./10 ºC

Zero Balance Range: ±1% of rate capacity

Load Cell Excitation Voltage: DV5V

A/D Conversion Speed: 25 times/second (Max.)

Internal Resolution: 65536 counts

3. INITIAL SETUP

3.1 INTERNAL FUNCTIONS AND SETTING METHODS

INTERNAL FUNCTION TABLE

Function	Symbol	Description
1	Fun-1	Span value reading and dealer calibration
2	Fun-2	Full display segment and max. capacity check
3	Fun-3	Check offset value and scale configuration
4	Fun-4	Auto power off setting
5	Fun-5	Select RS-232 baud rate & protocol
6	Fun-6	Motion filter speed setting
7	Fun-7	RS-232 transmission mode
8	Fun-8	UTP label format selection
9	Fun-9	Auto tare setting
12	Fun-12	Copies of UTP label printing
15	Fun-15	UTP time/date setting
19	Fun-19	EC verification(For qualified personnel only)

HOW TO ENTER THE REQUIRED FUNCTION MODE

a. Turn scale off.
b. Press and hold TARE, then turn scale on. Scale display Fun-1
c. Press TARE until the required function number appears.
d. Press MODE
e. Press MODE until the required setting appears.
f. Press TARE to confirm.
g. Repeat step c to f for other function setting, or
h. Press ON/ZERO to save settings and return to normal operation.

Fun-1 <u>Span Value Reading and Dealer Calibration</u>

a. Simply enter Fun-1 to read the A/D counts.
b. Press ON/ZERO to clear the A/D counts, apply test mass onto platter, the span value of test mass will be displayed.
c. Refer to Dealer Calibration procedures for dealer calibration.

Fun-2 <u>Display Segment and Rated Capacity & Division Check</u>

When function is entered, all segments will be displayed. Check and make sure that no segments are missed.

Fun-3 <u>Total Internal Count Checking and Scale Configuration</u>

a. Enter Fun-3, scale displays the Offset Value when unloaded.
b. Apply extra load onto platter, the total internal count value will be displayed.

SELECT WEIGHT UNITS

a. Press MODE, scale will display weight units that have been chosen.
b. To employ all (metric and pound/oz) weight units, press MODE until 'g', 'lb/oz' indicators appear. To disable pound/oz weight units, press MODE until 'g' indicator appears only.
c. Press ON/ZERO to save setting and back to normal operation status.

SELECT CAPACITY AND MIN. DIVISION

a. Enter Fun-3, press MODE once to display capacity and min. division, press and hold MODE to choose desired number of scale interval(6000d/2500d for MII, 6000d/3000d for SK).
b. Press and hold MODE, available scale capacity and min. division appears.
c. Press MODE until desired scale capacity appears.
d. Press TARE to save setting.
e. Re-calibration will be required after scale capacity changed.

Fun-4 Auto Power Off Setting

Five modes are available: (Default=4_OFF)

0._OFF = Auto Power Off function is disabled.
4._OFF = Scale will automatically be turned off after 4 minutes unused.
10._OFF = Scale will automatically be turned off after 10 minutes unused.
20._OFF = Scale will automatically be turned off after 20 minutes unused.
30._OFF = Scale will automatically be turned off after 30 minutes unused.

Fun-5 Select RS-232 baud rate & protocol

a. Enter Fun-5, the default setting is 9600, N81
b. Press MODE to select baud rate of 4800, 9600 or 19200
c. Press and hold MODE to enter protocol setting
d. Press MODE until desired protocol (P=n81 or P=E71) appears.
e. Press ON/ZERO to save setting and return to normal operation.

Fun-6 Motion filter speed setting

Motion filter is used to give a more stable display when the working environment is affected by motion or airflow interference. Refer to the below table for motion filter speed setting

Symbol	Strength of Motion Filter
Filt.0	Disable (Normal)
Filt.1	Medium
Filt.2	High

Fun-7 RS-232 transmission mode

a. Enter Fun-7, there are two modes to be selected(trAn1 or trAn2).
b. Press MODE to shift between them
   - For Sending data once when weight is stabilized, press TARE to save when display shows “trAn1”.
   - For continuous transmission, press TARE to save when display shows “trAn2”.

Fun-8 UTP label format selection

a. Fun-8 can only appear when choosing “UTP” in Fun-5 (48 -> .. -> **UtP**).
b. Press MODE until desired label format appears(Form0~Form9). (there must be several label formats stored in UTP printer, See UTP manual to design the label format.)
c. Press ON/ZERO to save setting and return to normal operation.

Fun-9 Auto tare setting

Two modes are available: (Default=TroFF)
TroFF = Auto tare function is disabled.
Tr-on = Scale will automatically tare off the initial weight that places on the platter.

Fun-12 Copies of UTP label printing

a. Enter Fun-12, press MODE until desired quantity appears (up to 9 copies of UTP label can be set).
b. Press ON/ZERO to save setting and return to normal operation.

Fun-15 UTP time/date setting

It must be a UTP printer installed and connected to scale Properly when trying to set up UTP’s date/time data.
a. Enter Fun-15, press MODE to show present date data(mm/dd/yy).
b. Enter correct date data by utilizing MODE(shift right) and ON/ZERO(up) keys.
c. Press and hold MODE to save setting, then scale displays present time data(hh:mm:ss).
d. Enter correct time data by utilizing MODE(shift right) and ON/ZERO(up) keys.
e. Press TARE to save setting and then press ON/ZERO to restart.

Fun-19 EC verification(For qualified personnel only)

According to test procedures of EC verification, enter this function to extend the display digits for high resolution mode. (up to 1/30000 resolution)

3.2 AUTO AND DEALER CALIBRATION PROCEDURES

ACCEPTABLE LOAD FOR AUTO AND DEALER CALIBRATION

Model Number	External Division	Acceptable Auto and Dealer Calibration Load	
		First point	Second point
MII-600 /SK-600	1/6000,1/3000	*200g	500g
MII-1200/SK-1200	1/6000	*500g	1kg
/SK-1500	1/3000	*500g	1kg
MII-2500	1/2500	*1kg	2kg
MII-3000/SK-3000	1/6000,1/3000	*1kg	2kg
MII-5000	1/2500	*2kg	5kg
MII-6000/SK-6000	1/6000,1/3000	*2kg	5kg

Dealer Calibration Procedures:

1. Turn scale off.
2. Press and hold TARE, then turn scale on.
3. Scale displays Fun-1
4. Press MODE
5. Scale displays offset value
6. Press and hold MODE, Scale displays CAL.-0.
7. Scale will self calibrate zero point before proceed to the first point calibration.
8. After zero point calibration is done, scale displays LOAD XXXX(first point)
9. Load calibration load as request.
10. Wait until scale displays LOAD XXXX(second point).
11. Load calibration load as request or press TARE to abandon second point calibration, wait until scale displays DONE.
12. Calibration completed and scale is ready for operation.

Auto Calibration Procedures:

1. Turn scale off
2. Press and hold MODE, then turn scale on.
3. Scale displays CAL.-0.
4. Scale will self calibrate zero point before proceed to the first point calibration.
5. After zero point calibration is done, scale displays LOAD XXXX(first point)
6. Load calibration load as request.
7. Wait until scale displays LOAD XXXX(second point).
8. Load calibration load as request or press TARE to abandon second point calibration, wait until scale displays DONE.
9. Calibration completed and scale is ready for operation.

3.3 DISABLE CALIBRATION WITH MINI SWITCH(SW7)

The mini switch(SW7) is used to control calibration. It is necessary to press the switch before entering calibration procedure.

3.4 OFFSET AND SPAN VALUE DATA

OFFSET AND SPAN VALUE DATA TABLE

Model Number	Offset Value (Thousand)	Span Value(Thousand) at Various Load Applied		Offset Control	Span Control
MII-600 /SK-600	3~25	16~25 at 200g	40~65 at 500g	R14,R19 R1,19(SK)	-
MII-1200/SK-1200 /SK-1500	3~25	20~32 at 500g	40~65 at 1kg	R14,R19 R1,19(SK)	-
MII-3000/SK-3000	3~25	17-26 at 1kg	35-53 at 2kg	R14,R19 R1,19(SK)	-
MII-6000/SK-6000	3~25	16~25 at 2kg	40~65 at 5kg	R14,R19 R1,19(SK)	-
MII-2500	3~25	17-26 at 1kg	35-53 at 2kg	R14,R19	-
MII-5000	3~25	16~25 at 2kg	40~65 at 5kg	R14,R19	-

READING OFFSET VALUE

1 Turn scale off
2 Remove all load from platter
3 Enter Fun-3 and read the offset value

READING SPAN VALUE

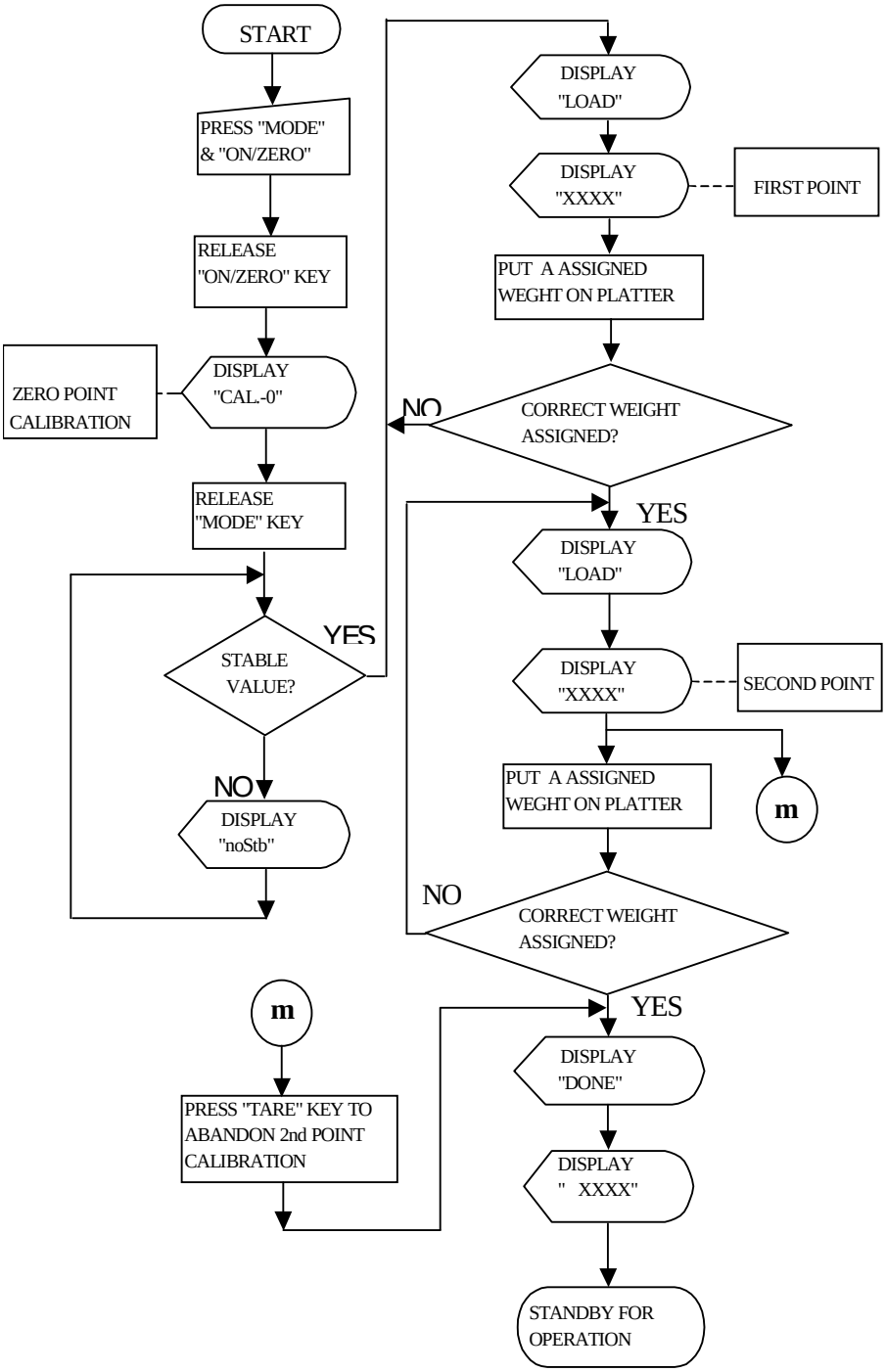
1 Turn scale off
2 Remove all load from platter
3 Enter Fun-1
4 Press ZERO
5 Apply load to platter. Span value according to load applied will be displayed.

HOW TO ADJUST OFFSET VALUE

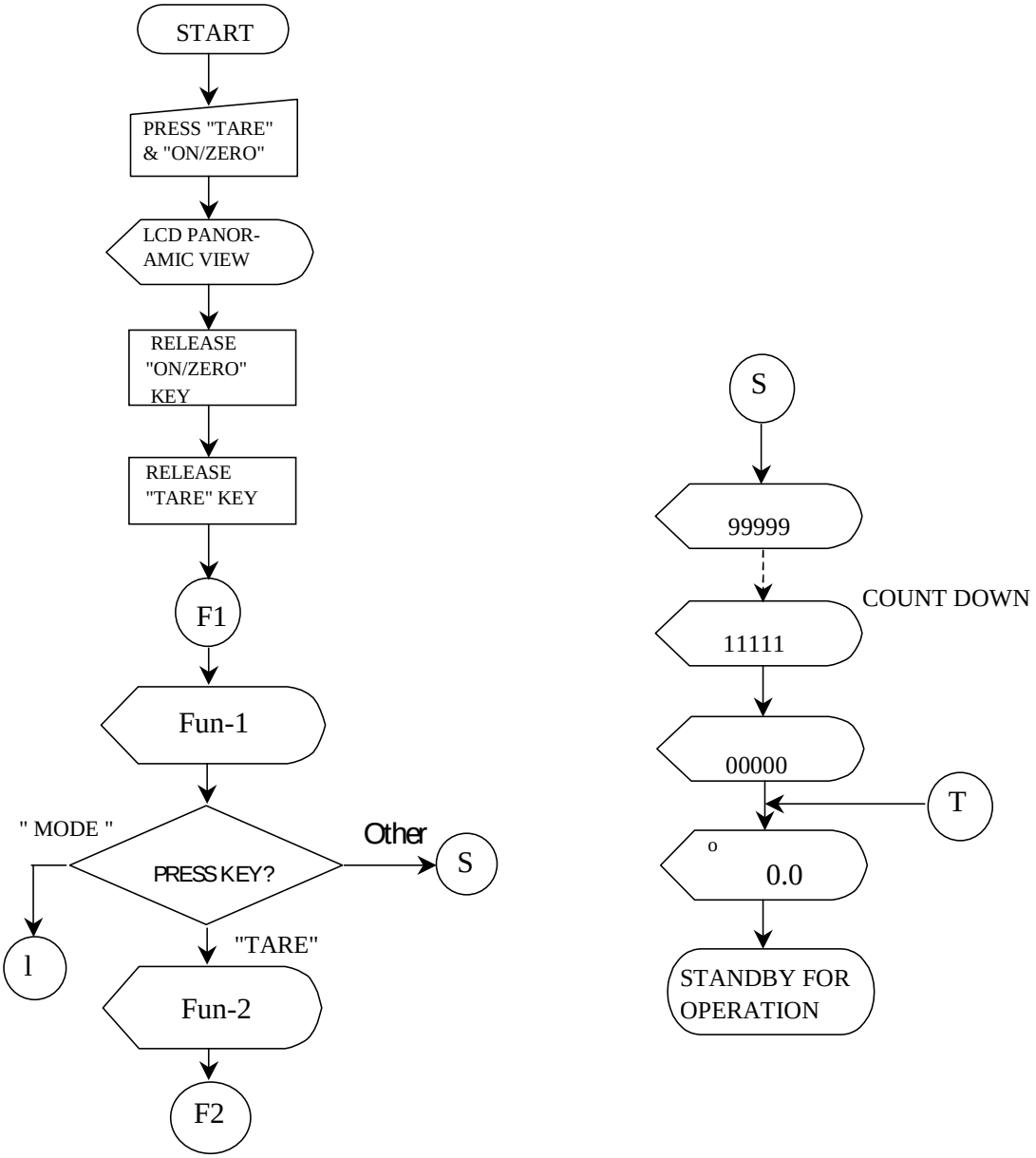
In case the offset value is out of range, insert the resistor located at R19(too low) or R14(too high)— for MII, R1 (too low) or R14 (too high)— for SK, on the main board to obtain correct offset value.

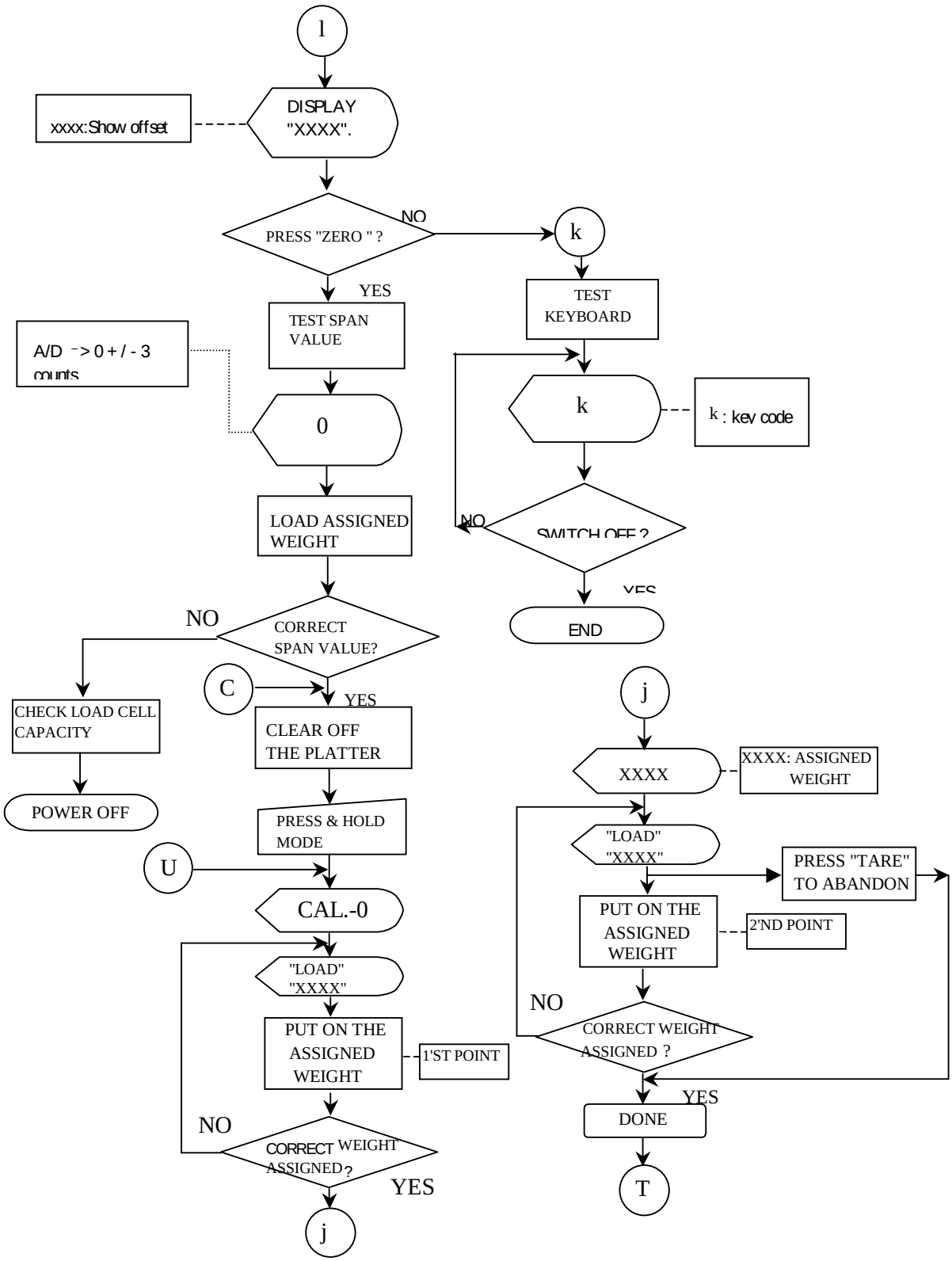
3.5 FLOW CHART

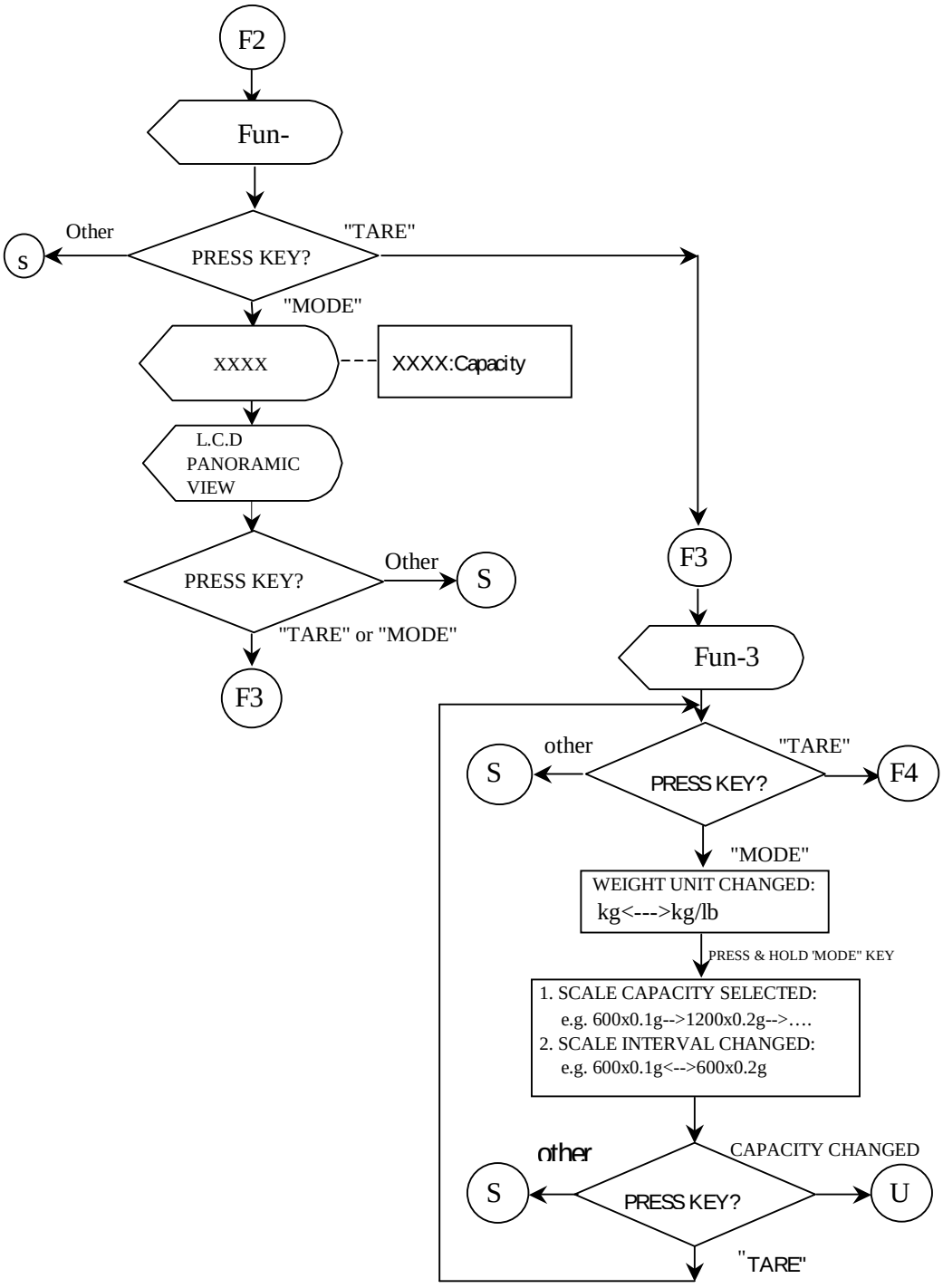
3.5.1 Auto Calibration (for end-user)

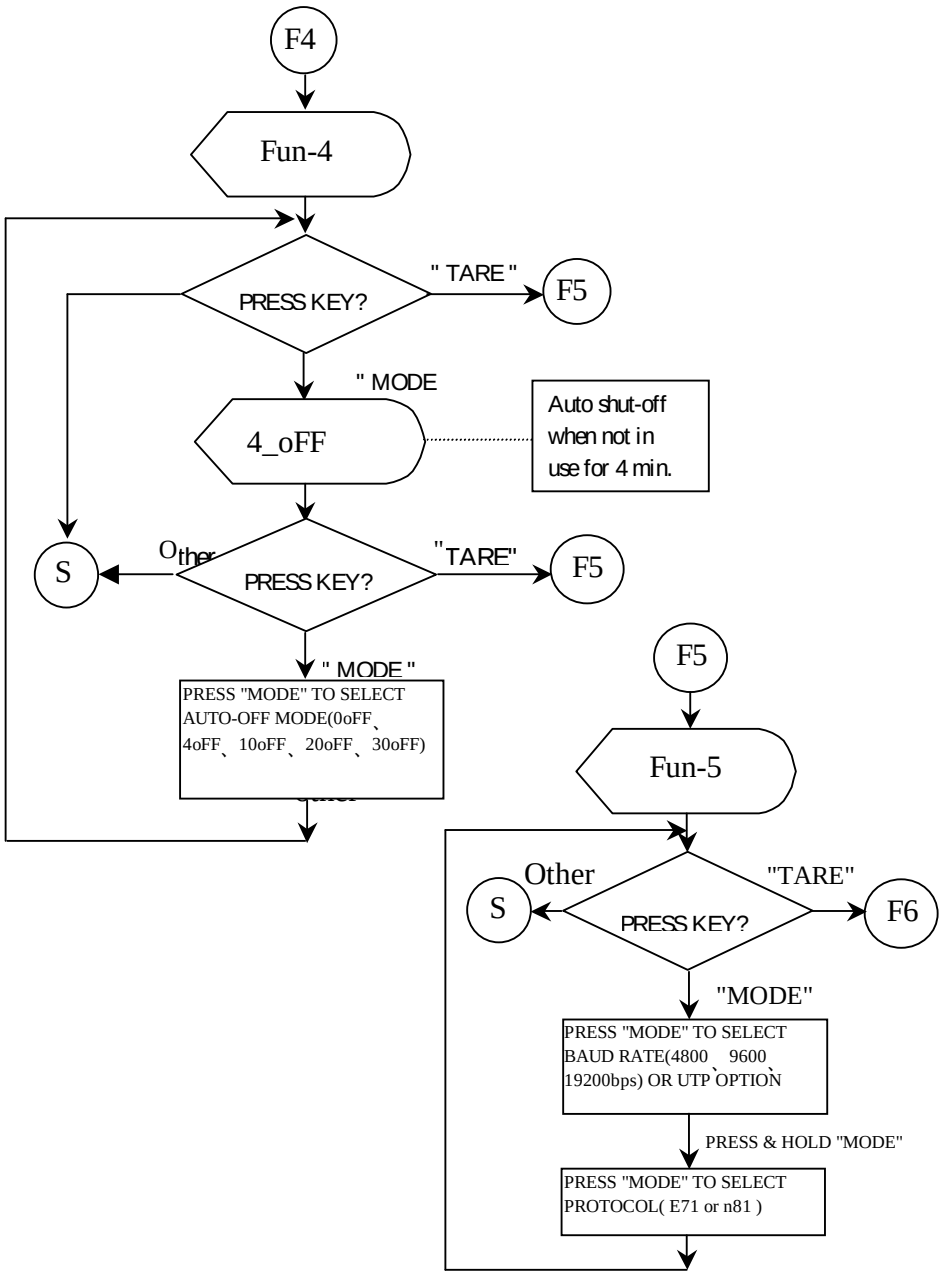


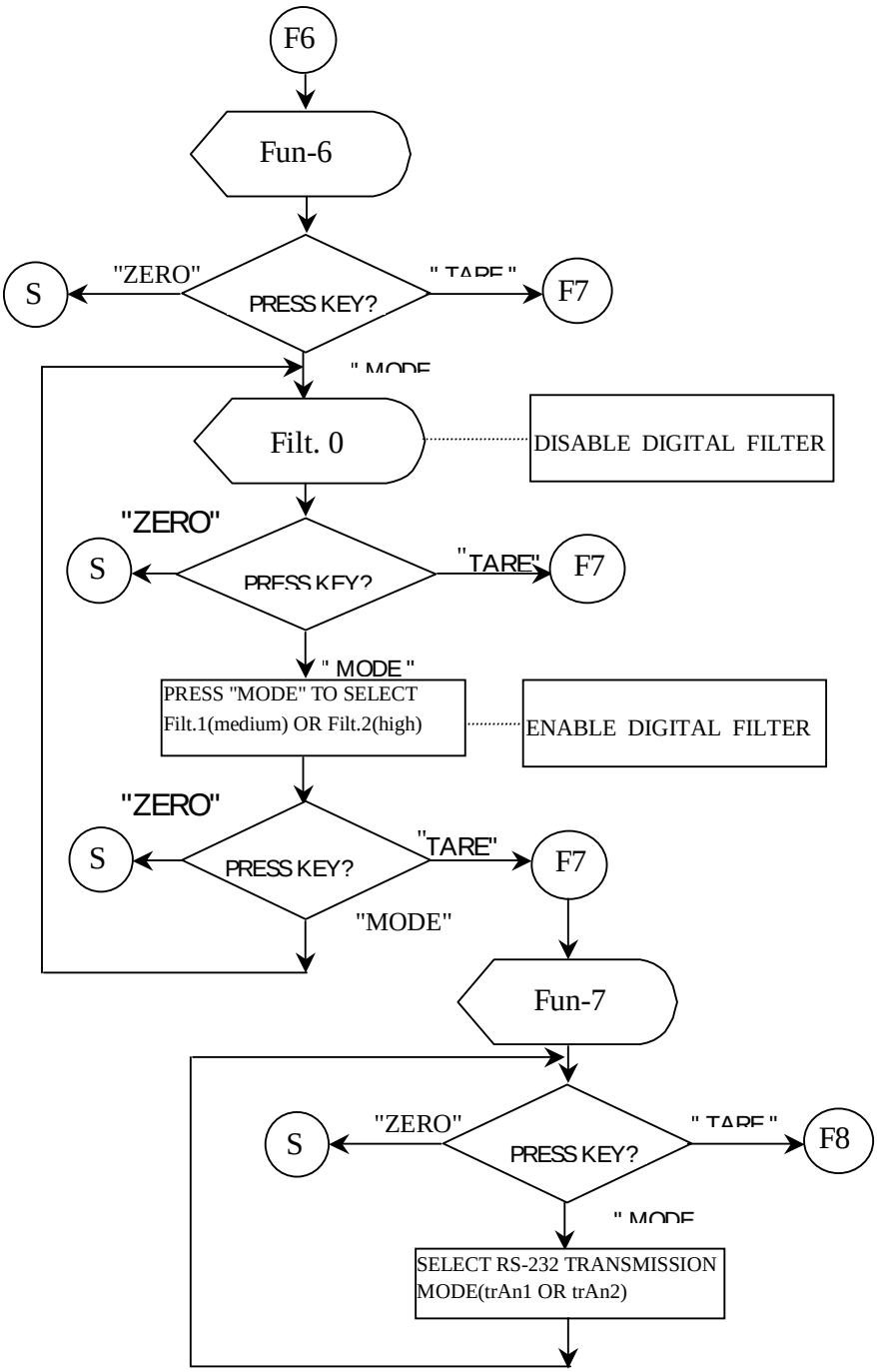
3.5.2 Function Test (for technicians only)

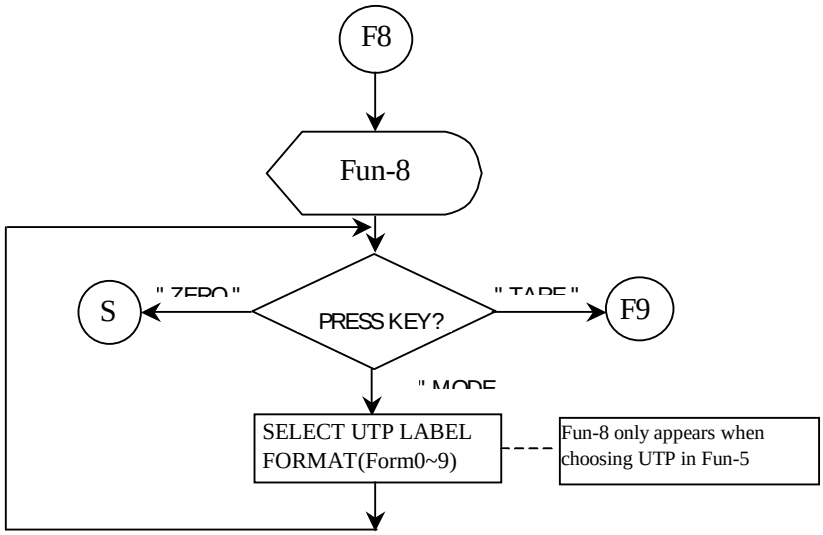


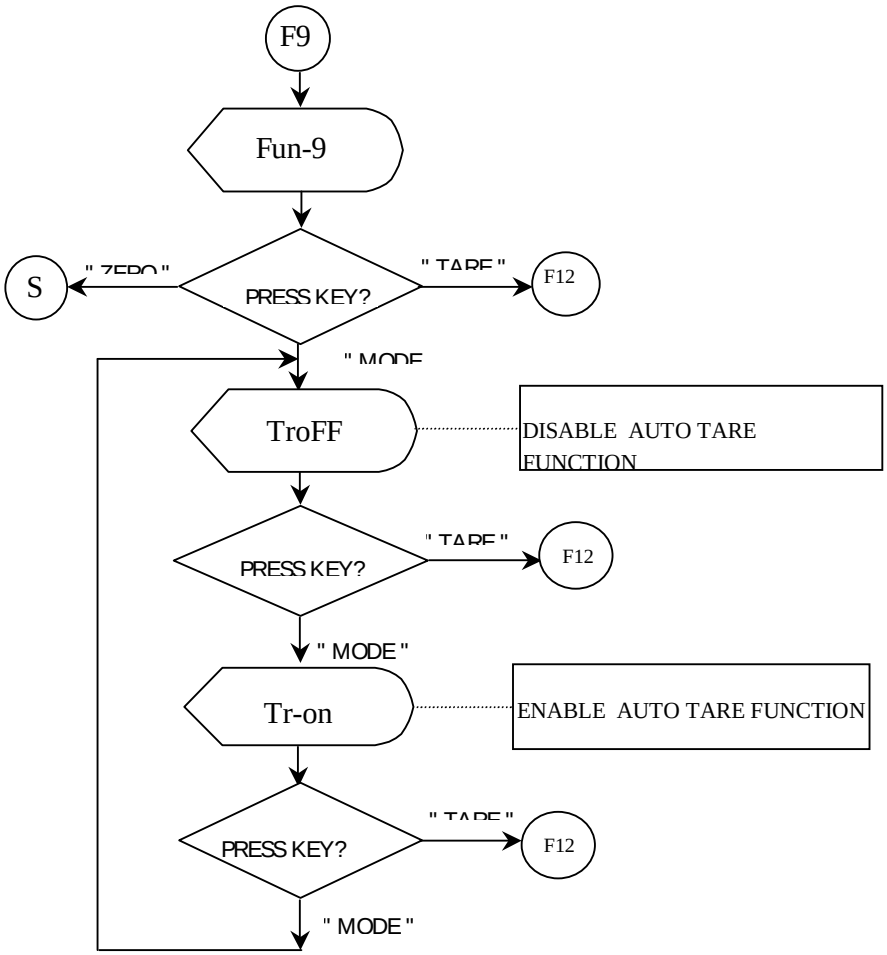

l
DISPLAY "XXXX".
xxxx:Show offset
PRESS "ZERO " ?
NO
k
YES
TEST KEYBOARD
TEST SPAN VALUE
A/D -> 0 + / - 3 counts
k
k : key code
0
NO
SWITCH OFF ?
LOAD ASSIGNED WEIGHT
YES
END
NO
CORRECT SPAN VALUE?
C
YES
j
CHECK LOAD CELL CAPACITY
CLEAR OFF THE PLATTER
XXXX
XXXX: ASSIGNED WEIGHT
POWER OFF
PRESS & HOLD MODE
"LOAD" "XXXX"
PRESS "TARE" TO ABANDON
U
CAL.-0
PUT ON THE ASSIGNED WEIGHT
2'ND POINT
"LOAD" "XXXX"
NO
PUT ON THE ASSIGNED WEIGHT
1'ST POINT
CORRECT WEIGHT ASSIGNED ?
YES
NO
DONE
CORRECT WEIGHT ASSIGNED ?
YES
T
j

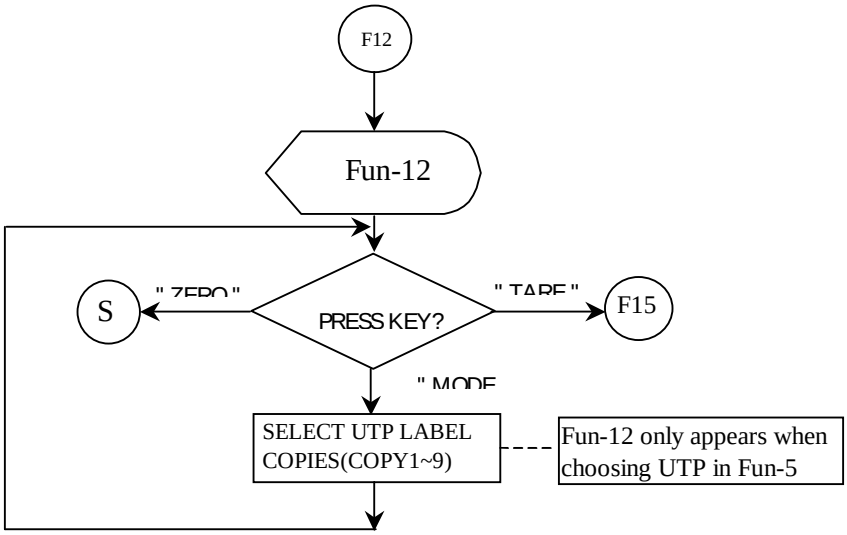

F2
Fun-
Other
s
PRESS KEY?
"TARE"
"MODE"
XXXX
XXXX:Capacity
L.C.D
PANORAMIC
VIEW
PRESS KEY?
Other
S
"TARE" or "MODE"
F3
F3
Fun-3
other
S
PRESS KEY?
"TARE"
F4
"MODE"
WEIGHT UNIT CHANGED:
kg<--->kg/lb
PRESS & HOLD 'MODE" KEY
1. SCALE CAPACITY SELECTED:
e.g. 600x0.1g-->1200x0.2g-->….
2. SCALE INTERVAL CHANGED:
e.g. 600x0.1g<-->600x0.2g
other
S
PRESS KEY?
CAPACITY CHANGED
U
"TARE"

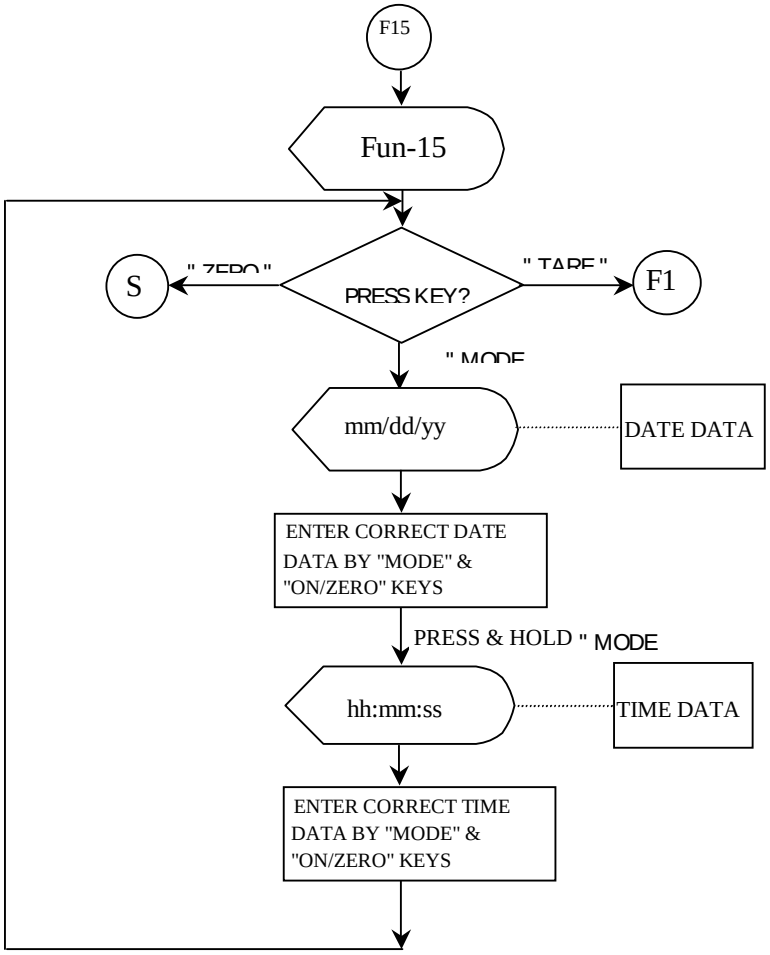

F4
Fun-4
PRESS KEY?
" TARE "
F5
" MODE
4_oFF
Auto shut-off
when not in
use for 4 min.
S
Other
PRESS KEY?
"TARE"
F5
" MODE "
PRESS "MODE" TO SELECT
AUTO-OFF MODE(0oFF、
4oFF、 10oFF、 20oFF、 30oFF)
F5
Fun-5
S
Other
PRESS KEY?
"TARE"
F6
"MODE"
PRESS "MODE" TO SELECT
BAUD RATE(4800 、 9600
19200bps) OR UTP、OPTION
PRESS & HOLD "MODE"
PRESS "MODE" TO SELECT
PROTOCOL(E71 or n81)


F6
Fun-6
"ZERO"
PRESS KEY?
" TARE "
S
F7
" MODE "
Filt. 0
DISABLE DIGITAL FILTER
"ZERO"
S
PRESS KEY?
"TARE"
F7
" MODE "
PRESS "MODE" TO SELECT
Filt.1(medium) OR Filt.2(high)
ENABLE DIGITAL FILTER
"ZERO"
S
PRESS KEY?
"TARE"
F7
"MODE"
Fun-7
"ZERO"
S
PRESS KEY?
" TARE "
F8
" MODE "
SELECT RS-232 TRANSMISSION
MODE(trAn1 OR trAn2)


F8
Fun-8
S
" ZERO "
PRESS KEY?
" TARE "
F9
" MODE
SELECT UTP LABEL FORMAT(Form0~9)
Fun-8 only appears when choosing UTP in Fun-5

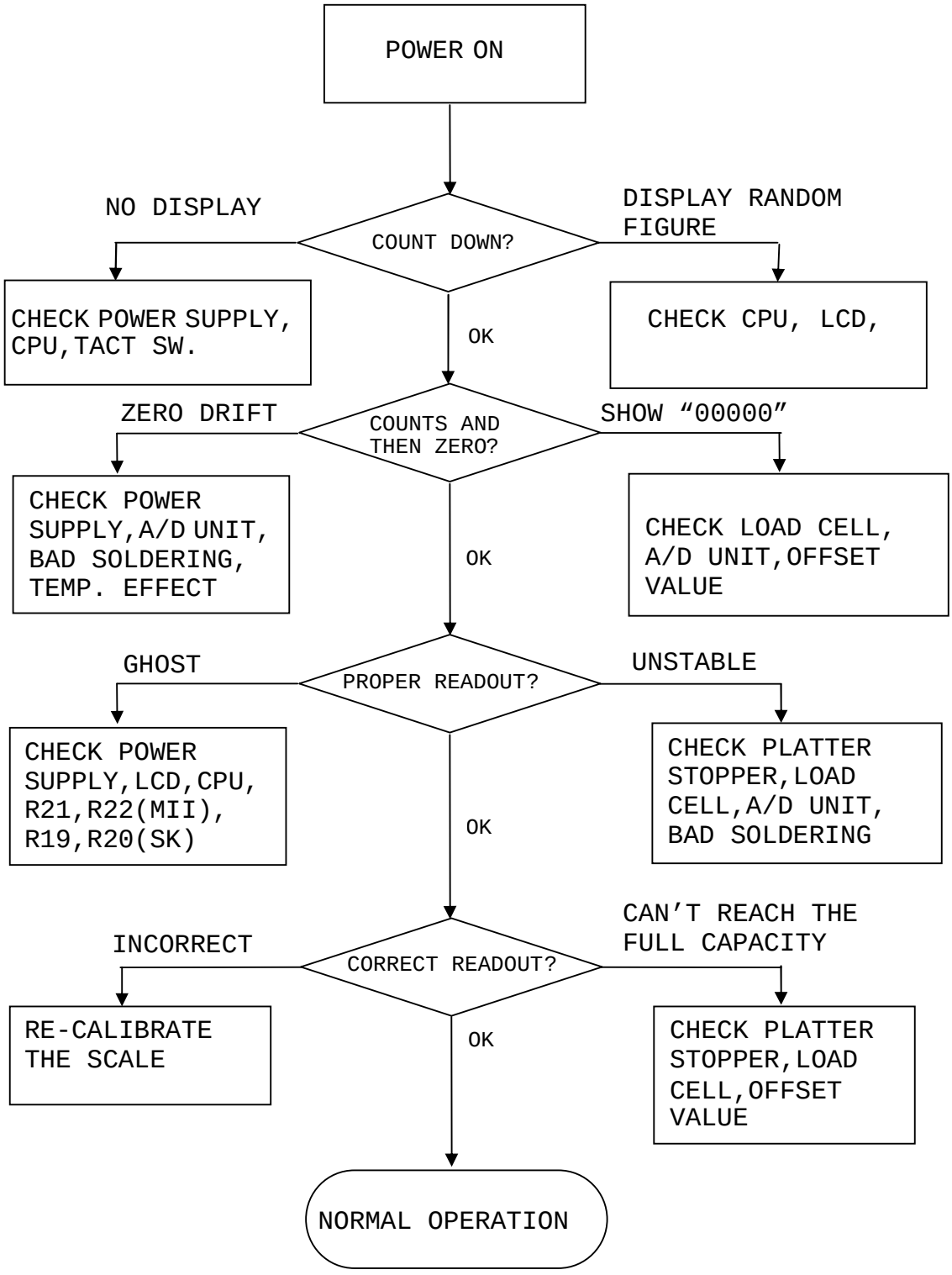

F9
Fun-9
S
" ZERO "
PRESS KEY?
" TARE "
F12
" MODE
TroFF
DISABLE AUTO TARE FUNCTION
PRESS KEY?
" TARE "
F12
" MODE "
Tr-on
ENABLE AUTO TARE FUNCTION
PRESS KEY?
" TARE "
F12
" MODE "


F12
Fun-12
S
" ZERO "
PRESS KEY?
" TARE "
F15
" MODE
SELECT UTP LABEL COPIES(COPY1~9)
Fun-12 only appears when choosing UTP in Fun-5


F15
Fun-15
S
" ZERO "
PRESS KEY?
" TARE "
F1
" MODE
mm/dd/yy
DATE DATA
ENTER CORRECT DATE DATA BY "MODE" & "ON/ZERO" KEYS
PRESS & HOLD " MODE
hh:mm:ss
TIME DATA
ENTER CORRECT TIME DATA BY "MODE" & "ON/ZERO" KEYS

4. TROUBLE SHOOTING

4.1 TROUBLE SHOOTING LOOP

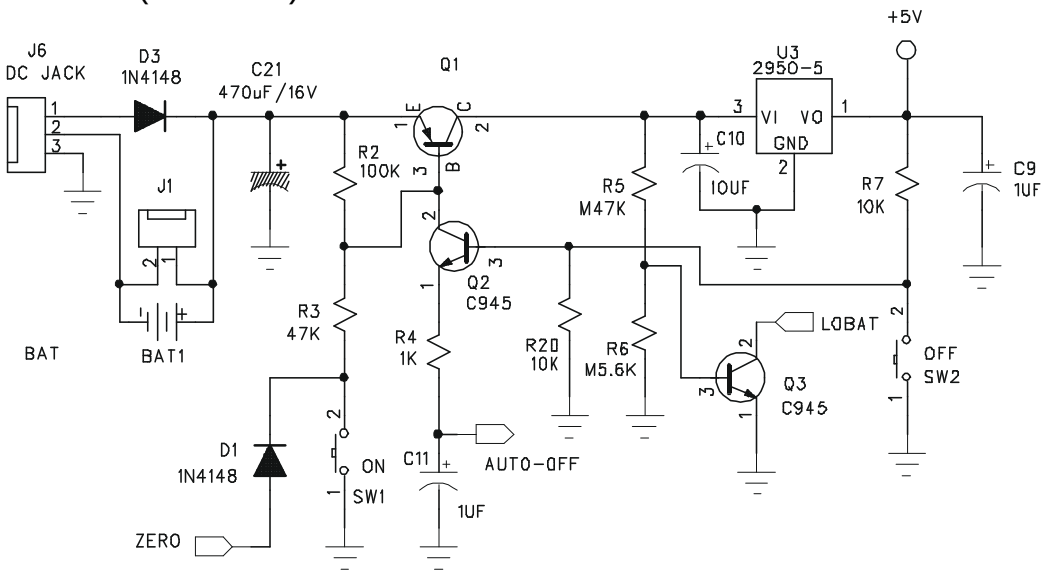


4.2 PARTS AND COMPONENTS TROUBLE SHOOTING

4.2.1 Power Supply Checking

4.2.1.1 Relevant parts:

Main Board (M2-10-X,ASK-10-X)
Q1 (A733)
D3 (1N4148)
Q2 (C945)
Q3 (C945)
U3 (2950-5)
DC JACK (SCD-022)



Description:

1) AC Adaptor: This AC Adaptor provides power of DC9~12V,100mA

2) Battery: Battery(9V, 6F22 TYPE)

3) +5V power drives analog/digital circuit system.
   U3 (2950-5) is a 5volts Voltage Regulator.

4) Auto-off:
   If the scale is set with XX_oFF(Fun-4) or even under LO-BAT situation, CPU will release a high potential signal to cut Q2 off after setting time reached. Without E-B biasing, Q1 will be off to shut down the scale immediately.

5) Low Power Detection:
   The Q3 (c945) is designed to detect the power level. When battery power is less than 5.5V, the collector pole of Q3 will become high potential level, mean while CPU detects the level changed then

CPU will light up LO-BAT indicator on the display.

4.2.1.2 Input voltage: 5.5V or higher

Check and replace battery if voltage less than 5.5V.
Check DC-JACK or AC Adaptor if been defective.

4.2.1.3 System voltage (Vcc): 5V +/- 10%

Check that the system voltage is within 5V +/- 10%
a) less than 4.5V, the CPU may not work properly.
b) more than 6V, it may damage some components .

4.2.2 Platter Stopper Checking

The platter device shall not touch anything around itself during operation. Check that the platter is not contacted with the upper (no load) and/or lower (with load) stopper.

4.2.3 LCD Display Checking

4.2.3.1 Check that it is soldered and connected properly between LCD and CPU.

4.2.3.2 Check whether LCD is broken.

4.2.4 CPU Checking

4.2.4.1 Check that all pins are properly soldered.

4.2.4.2 Check that the Crystal Oscillator works.

4.2.4.3 Check the RESET is normally high.

4.2.5 A/D Unit Checking

4.2.5.1 Check that the +5VA & +5V powers are correctly fed to the A/D unit.

4.2.5.2 Check that the signal output of loadcell is normal.

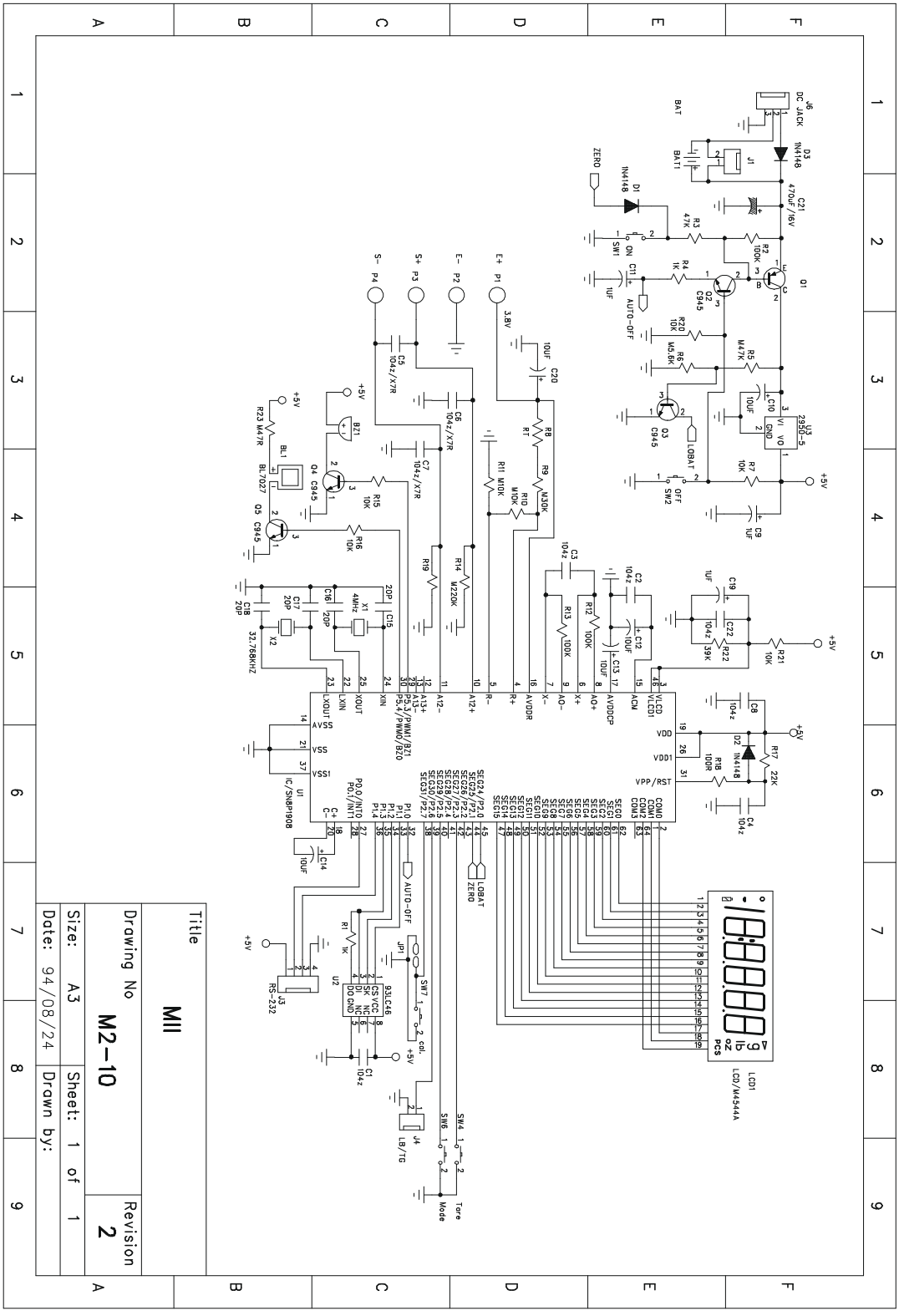
4.2.5.3 Check Micro-Controller(SN8P1908).

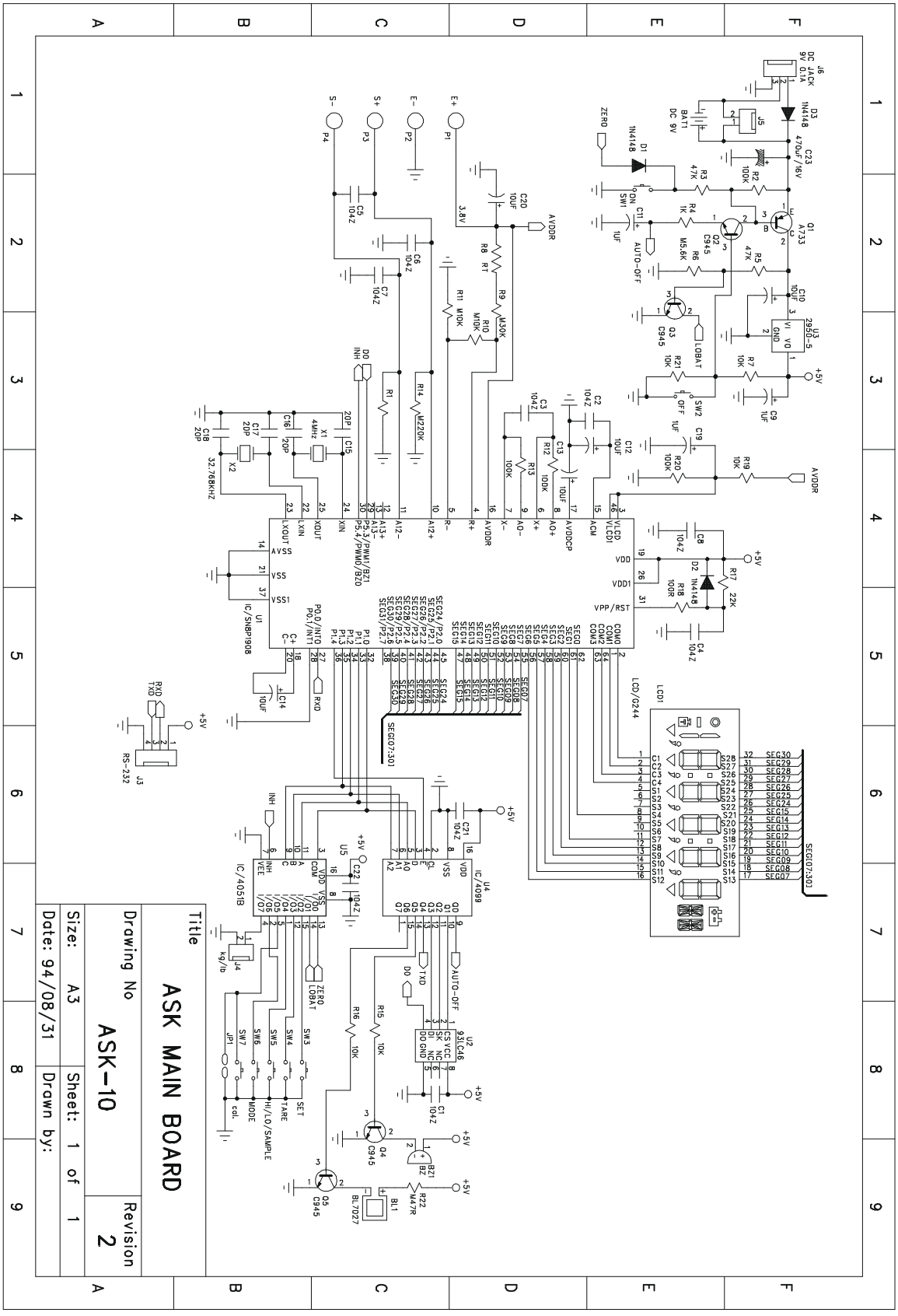
When no error is found with the above checking procedures, the trouble can be caused on the loadcell or the PCB itself. Replace a new one could be better to identify the defective.

In this way, the readout of weight would be varied because of the output voltage of loadcell and different span value, so re-calibration is required after this replacement.

5. ELECTRICAL CIRCUITRY

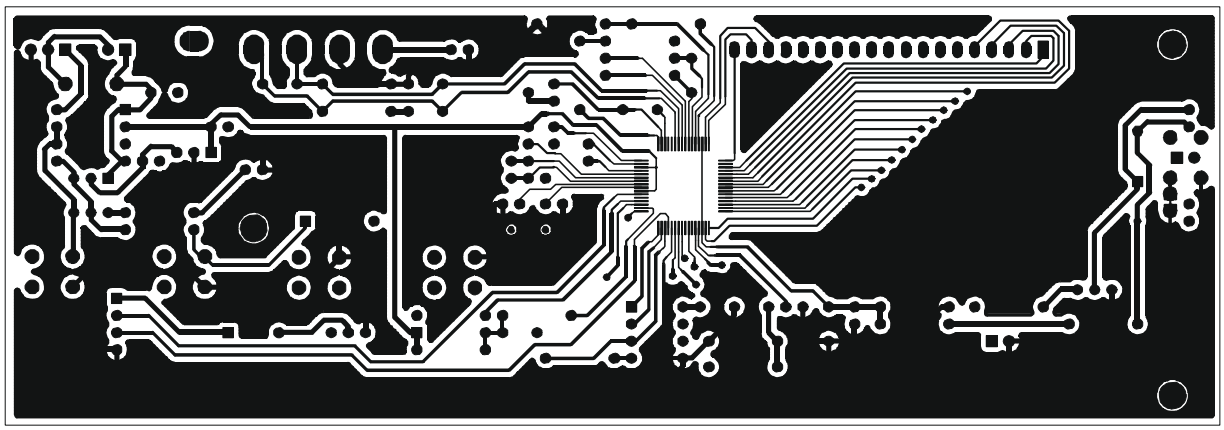
5.1 SCHEMATICS



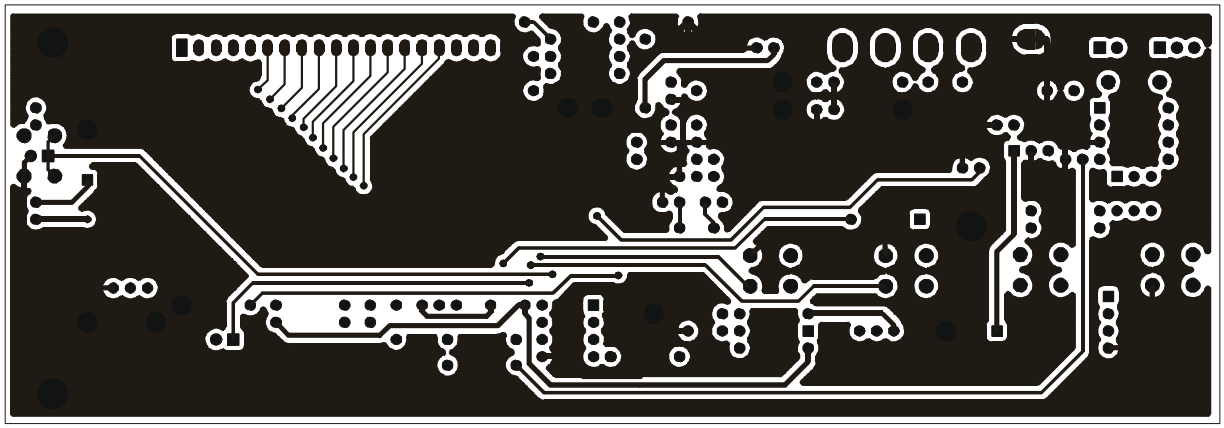

Title
ASK MAIN BOARD
Drawing No
ASK-10
Revision
2
Size: A3
Sheet: 1 of 1
Date: 94/08/31
Drawn by:

5.2 PCB LAYOUT

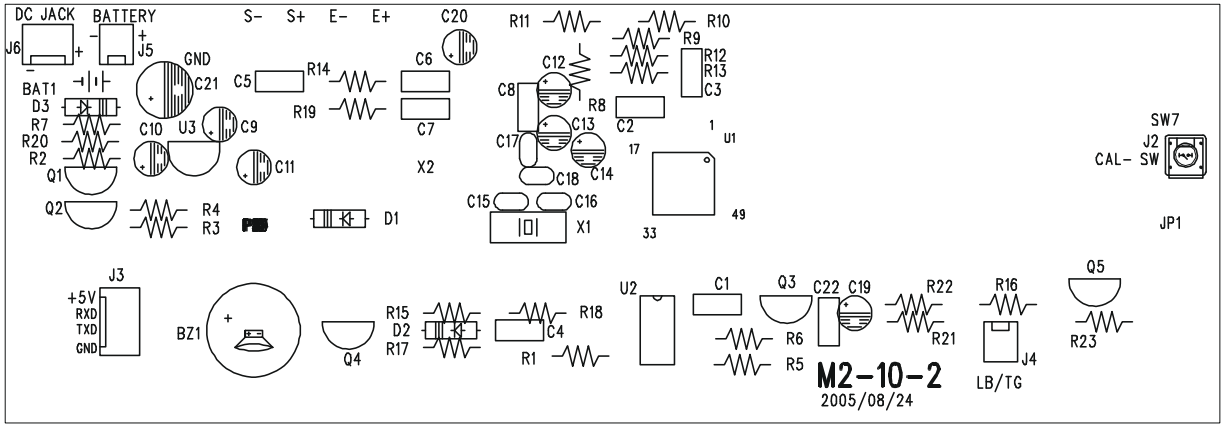
MII SERIES



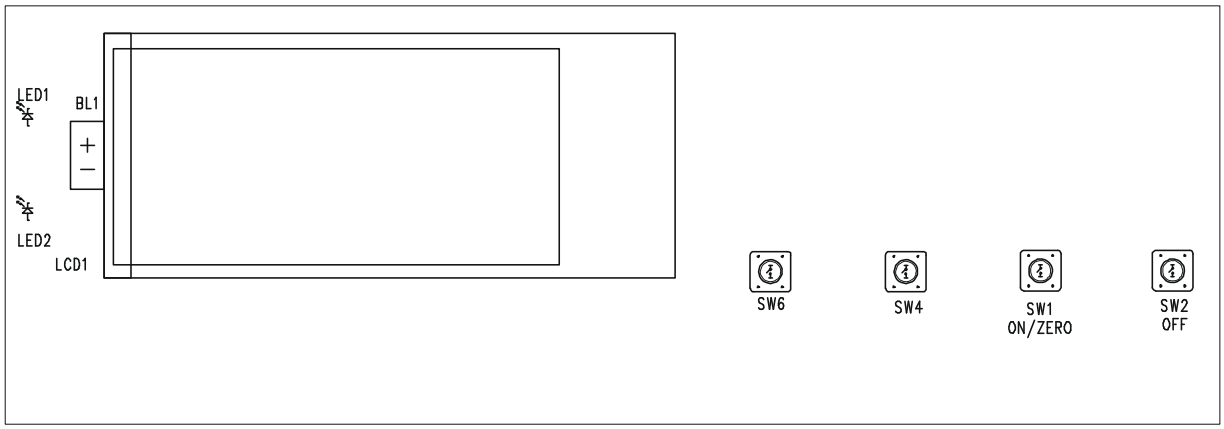
M2-10-2 TOP LAYER



M2-10-2 BOTTOM LAYER

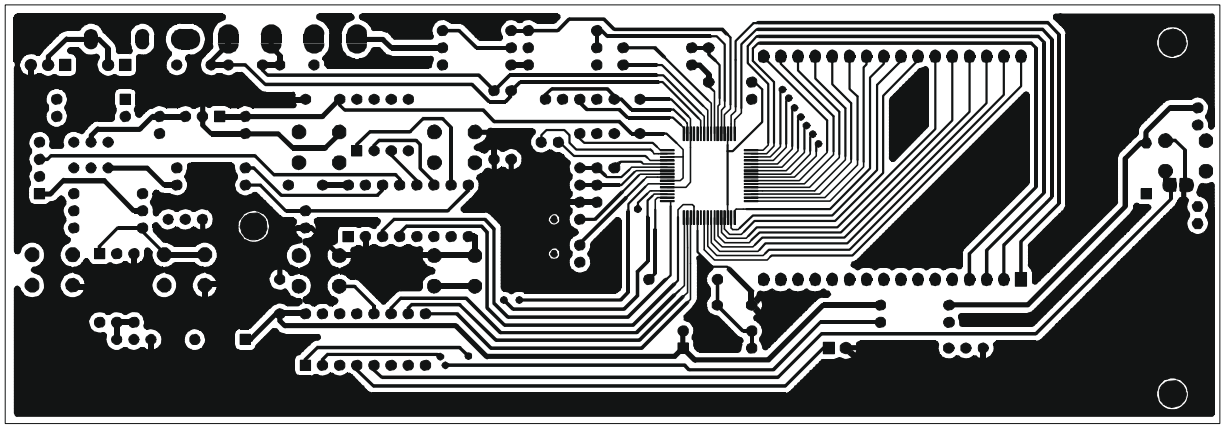


M2-10-2 TOP OVERLAY

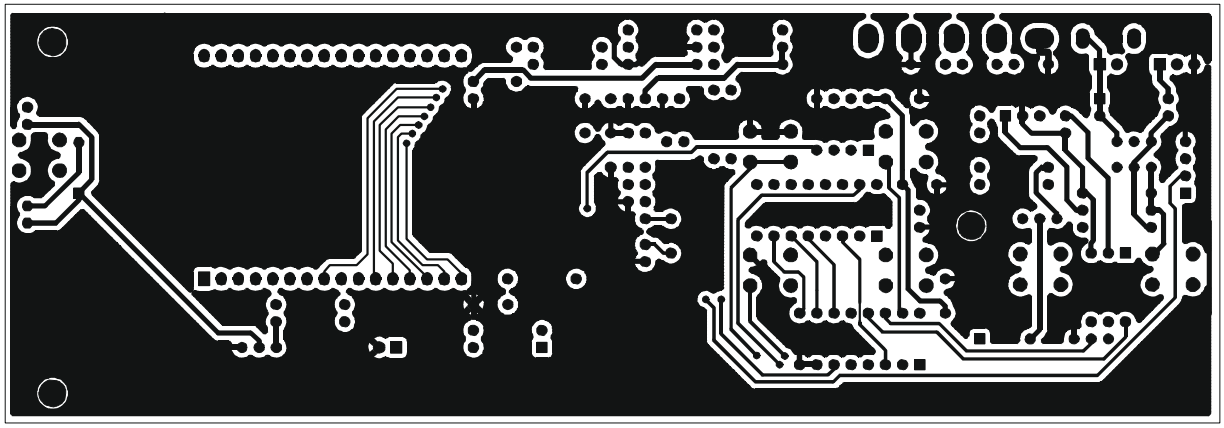


M2-10-2 BOTTOM OVERLAY

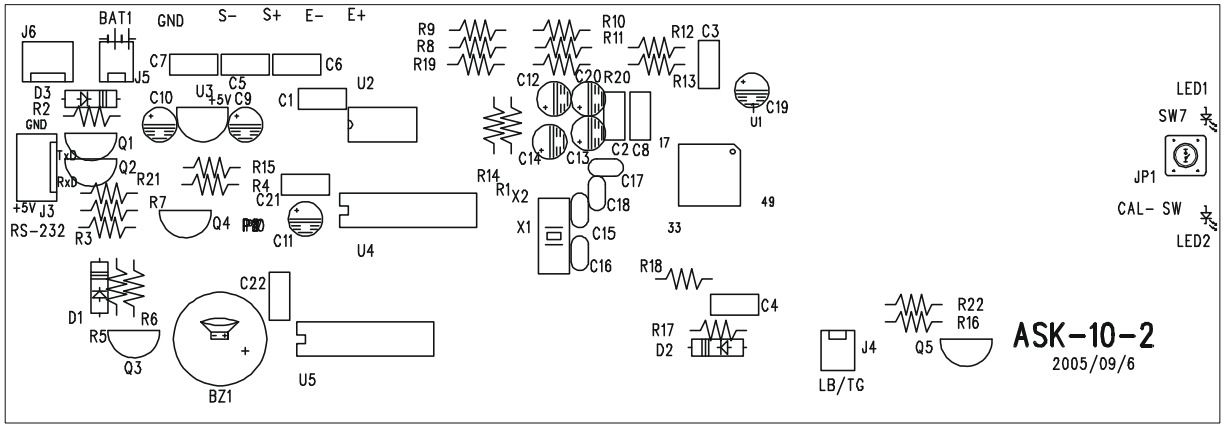
SK SERIES



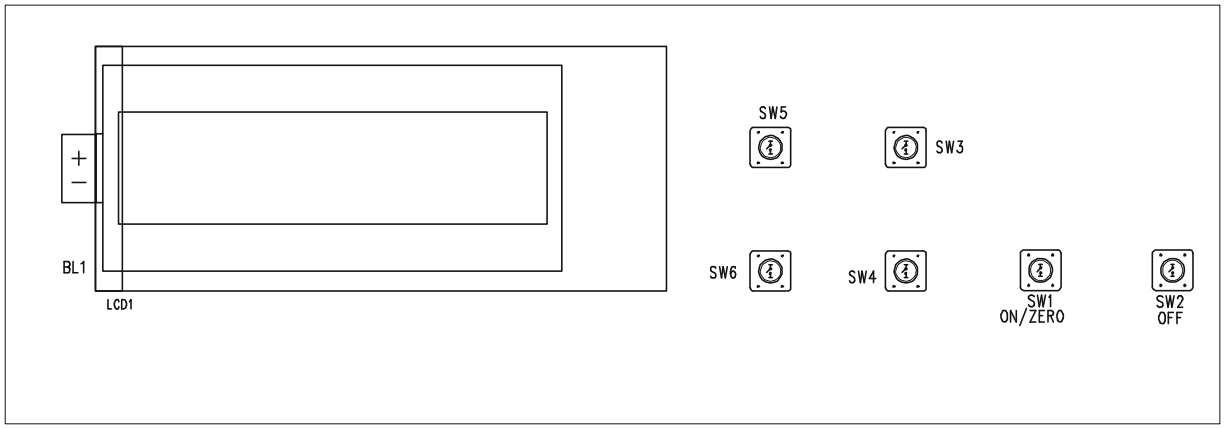
ASK-10-2 TOP LAYER



ASK-10-2 BOTTOM LAYER



ASK-10-2 TOP OVERLAY



ASK-10-2 BOTTOM OVERLAY

6. BILL OF MATERIAL

MII SERIES

STRUCTURE

Parts No.	Description	Specification	Qty	Remark
E1M20000010	P.C.B. KIT	M2-10-X MAINBOARD	1	
A0031******	LOAD CELL	SSA TYPE	1	1/6000
A0043******	LOAD CELL	SS-22 TYPE	1	1/3000
G0001M20001	UPPER CABINET	MII SERIES (WHITE)	1	
G0001M20000	UNDER CABINET	MII SERIES (GRAY)	1	
F0003M20000	ALUMINUM L/C SUPPORT	MII SERIES (UNDER)	1	
F0003M20001	ALUMINUM L/C SUPPORT	MII SERIES (UPPER)	1	
F0002MM0000	S/S PLATTER	MM SERIES	1	
G0002M20000	PLASTIC PLATTER	MII SERIES	1	
G0005000000	ADJUSTABLE FEET RUBBER	ϕ 10*3t	4	
G0004JW0001	PLASTIC ADJUSTABLE FEET	JW SERIES,ϕ 28*20h	4	OPTION
C1M20031***	OVERLAY	MII SERIES	1	
G0009M20000	BATTERY CAP	MII SERIES	1	
A0906000220	D.C. JACK	SCD-022	1	
G0008OPS000	BATTERY SOCKET	6F22 TYPE	1	
A1202030161	WIRE ARRAY	3PIN 16cm,SINGLE HOUSING	1	
A1202030251	WIRE ARRAY	3PIN 25cm,SINGLE HOUSING	1	
A60********	ADAPTOR	***V/9V 100mA	1	
C1M20000000	LIGHT GUIDE PANEL	70*28*3t	1	BACK LIGHT
A60********	ADAPTOR	***V/9V 100mA	1	

M2-10-X MAINBOARD

E0M20000010	P.C.B.	M2-10-X	1	
A0201019081	I.C.	SN8P1908	1	U1
A0202093462	I.C.	93C46PC27 OR 93LC46	1	U2
A0207029500	VOLTAGE REGULATOR I.C.	LP2950ACZ-5	1	U3
A0401009450	TRANSISTOR	2SC945	4	Q2-5
A0401007330	TRANSISTOR	A733	1	Q1
A0501004148	DIODE	1N4148	3	D1-3
A0600030000	L.E.D.	ϕ 3,ROUND,WHITE LIGHT	2	BACK LIGHT
A0701105050	CAPACITOR (EC)	1uF/50V	3	C9,11,19
A0701106017	CAPACITOR (EC)	10uF/25V (SS TYPE)	5	C10,12-14, 20
A0701477016	CAPACITOR (EC)	470uF/16V	1	C21
A0731104050	CAPACITOR (X7R)	0.1μF/50V(104)	9	C1-8,22
A0740020050	CERAMIC CAPACITOR (CC)	20pF	4	C15-18
A0804041002	METAL FILM RESISTOR	10KΩ 1/4W	2	R10,11
A0804042203	METAL FILM RESISTOR	220KΩ 1/4W	1	R14
A0804043002	METAL FILM RESISTOR	30KΩ 1/4W	1	R9
A0804045601	METAL FILM RESISTOR	5.6KΩ 1/4W	1	R6
A0805041101	CARBON FILM RESISTOR	100Ω 1/4W	1	R18
A0805041102	CARBON FILM RESISTOR	1KΩ 1/4W	2	R1,4
A0805041103	CARBON FILM RESISTOR	10KΩ 1/4W	5	R7,15-16, 20-21

A0805041104	CARBON FILM RESISTOR	100KΩ 1/4W	3	R2,12-13
A0805041470	CARBON FILM RESISTOR	47Ω 1/4W	1	R23
A0805041223	CARBON FILM RESISTOR	22KΩ 1/4W	1	R17
A0805041393	CARBON FILM RESISTOR	39KΩ 1/4W	1	R22
A0805041473	CARBON FILM RESISTOR	47KΩ 1/4W	2	R3,5
A0901010030	CONNECTOR	3PIN WAFER	1	J6
A0901010040	CONNECTOR	4PIN WAFER	1	J3
A1100032768	CRYSTAL	32.768KHZ	1	X2
A1100240001	CRYSTAL	4MHZ/us	1	X1
A1306000002	TACT SW	KPT-1105E	4	SW1,2,4,6
A1500000004	BUZZER	OBO-15210	1	BZ1
A0102004545	L.C.D.	M4544A(3.5V)	1	LCD1

RS-232 OPTION

E1DM0100000	P.C.B. KIT	DM-70-1	1	
A1202040221	WIRE ARRAY	4PIN 22cm,SINGLE HOUSING	1	
F0010005012	SCREW(WITH NUT)	5*5L+#4-40UNC*1/2"L	2	

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SK SERIES

STRUCTURE

Parts No.	Description	Specification	Qty	Remark
E1ASK000010	P.C.B. KIT	ASK-10-X MAINBOARD	1	
A0031******	LOAD CELL	SSA TYPE	1	1/6000
A0043******	LOAD CELL	SS-22 TYPE	1	1/3000
G0001M20001	UPPER CABINET	MII SERIES (WHITE)	1	
G0001M20000	UNDER CABINET	MII SERIES (GRAY)	1	
F0003M20000	ALUMINUM L/C SUPPORT	MII SERIES (UNDER)	1	
F0003M20001	ALUMINUM L/C SUPPORT	MII SERIES (UPPER)	1	
F0002MM0000	S/S PLATTER	MM SERIES	1	
G0002M20000	PLASTIC PLATTER	MII SERIES	1	
G0005000000	ADJUSTABLE FEET RUBBER	∮ 10*3t	4	
G0004JW0001	PLASTIC ADJUSTABLE FEET	JW SERIES,∮ 28*20h	4	OPTION
C1SK0010000	OVERLAY	SK SERIES	1	
G0009M20000	BATTERY CAP	MII SERIES	1	
A0906000220	D.C. JACK	SCD-022	1	
G0008OPS000	BATTERY SOCKET	6F22 TYPE	1	
A1202030161	WIRE ARRAY	3PIN 16cm,SINGLE HOUSING	1	
A1202030251	WIRE ARRAY	3PIN 25cm,SINGLE HOUSING	1	
A60********	ADAPTOR	***V/9V 100mA	1	
C1M20000000	LIGHT GUIDE PANEL	70*28*3t	1	BACK LIGHT
A60********	ADAPTOR	***V/9V 100mA	1	

ASK-10-X MAINBOARD

E0ASK000010	P.C.B.	ASK-10-X	1	
A0201019081	I.C.	SN8P1908	1	U1
A0202093462	I.C.	93C46PC27 OR 93LC46	1	U2

A0205040510	I.C.	CD4051BE	1	U5
A0205040990	I.C.	CD4099BE	1	U4
A0207029500	VOLTAGE REGULATOR I.C.	LP2950ACZ-5	1	U3
A0401009450	TRANSISTOR	2SC945	4	Q2-5
A0401007330	TRANSISTOR	A733	1	Q1
A0501004148	DIODE	1N4148	3	D1-3
A0600030000	L.E.D.	ϕ 3,ROUND,WHITE LIGHT	2	BACK LIGHT
A0701105050	CAPACITOR (EC)	1uF/50V	3	C9,11,19
A0701106017	CAPACITOR (EC)	10uF/25V (SS TYPE)	5	C10,12-14, 20
A0701477016	CAPACITOR (EC)	470uF/16V	1	C23
A0731104050	CAPACITOR (X7R)	0.1μF/50V(104)	10	C1-8,21-22
A0740020050	CERAMIC CAPACITOR (CC)	20pF	4	C15-18
A0804041002	METAL FILM RESISTOR	10KΩ 1/4W	2	R10,11
A0804042203	METAL FILM RESISTOR	220KΩ 1/4W	1	R14
A0804043002	METAL FILM RESISTOR	30KΩ 1/4W	1	R9
A0804045601	METAL FILM RESISTOR	5.6KΩ 1/4W	1	R6
A0805041101	CARBON FILM RESISTOR	100Ω 1/4W	1	R18
A0805041102	CARBON FILM RESISTOR	1KΩ 1/4W	1	R4
A0805041103	CARBON FILM RESISTOR	10KΩ 1/4W	5	R7,15-16, 19,21
A0805041104	CARBON FILM RESISTOR	100KΩ 1/4W	4	R2,12-13,20
A0805041470	CARBON FILM RESISTOR	47Ω 1/4W	1	R22
A0805041223	CARBON FILM RESISTOR	22KΩ 1/4W	1	R17
A0805041473	CARBON FILM RESISTOR	47KΩ 1/4W	2	R3,5
A0901010020	CONNECTOR	2PIN WAFER	1	J5
A0901010030	CONNECTOR	3PIN WAFER	1	J6
A0901010040	CONNECTOR	4PIN WAFER	1	J3
A1100032768	CRYSTAL	32.768KHZ	1	X2
A1100240001	CRYSTAL	4MHZ/us	1	X1
A1306000002	TACT SW	KPT-1105E	6	SW1-6
A1500000004	BUZZER	OBO-15210	1	BZ1
A0102000244	L.C.D.	UTS-G244JV	1	LCD1

RS-232 OPTION

E1DM0100000	P.C.B. KIT	DM-70-1	1	
A1202040221	WIRE ARRAY	4PIN 22cm,SINGLE HOUSING	1	
F0010005012	SCREW(WITH NUT)	5*5L+#4-40UNC*1/2"L	2	

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