Ibanez

SERVICE MANUAL

****
**
** INTELLIGENT FOOT CONTROLLER
** IFC60 (MANUAL No.056)
**
****

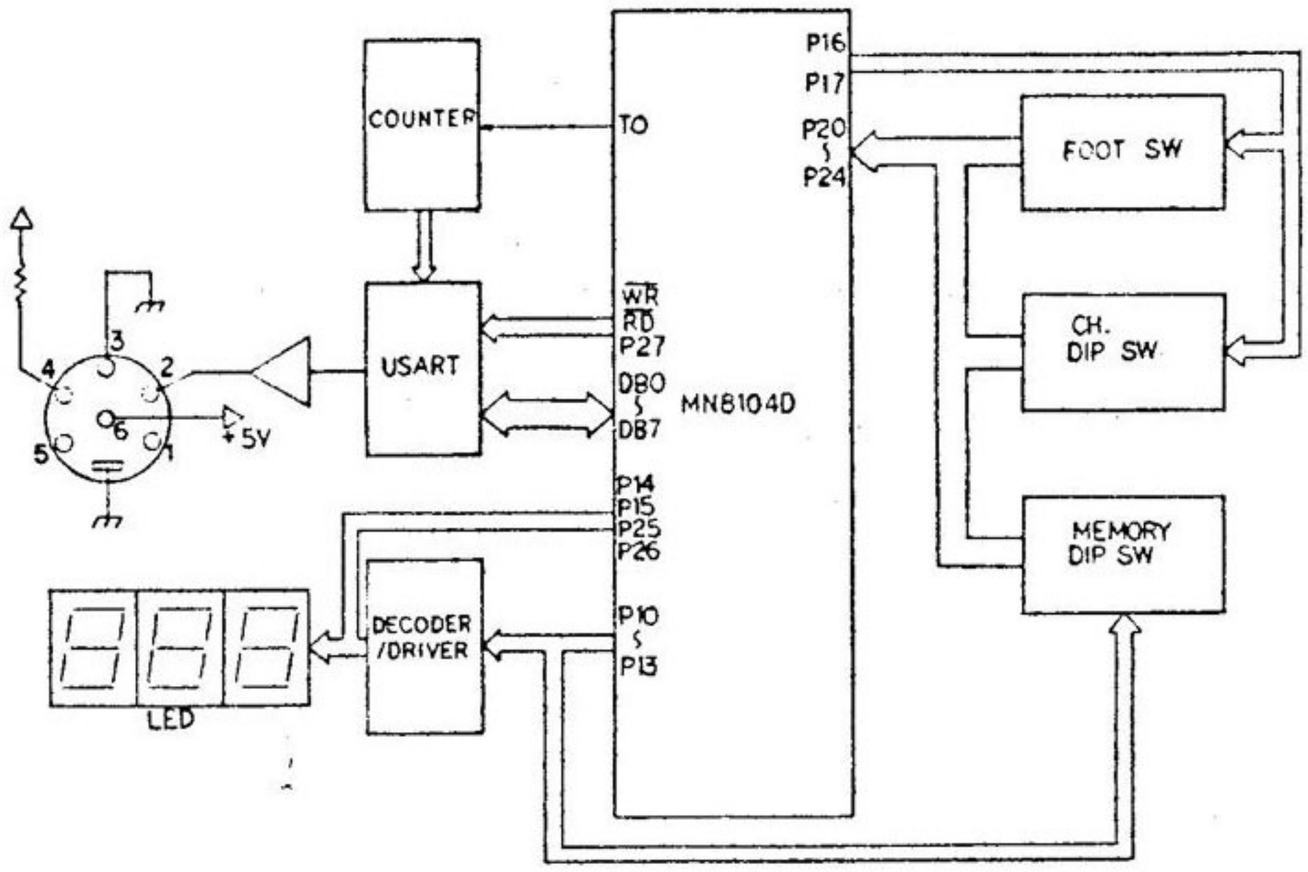
[INDEX] [PAGE]

SPECIFICATIONS ---------- 1
BLOCK DIAGRAMS ---------- 1
ADJUSTMENTS & CHECKS ---------- 2
TROUBLE SHOOTINGS ---------- 2
PARTS LIST ---------- 3
DISPOSITION OF PARTS ---------- 3
SCHEMATIC DIAGRAMS ---------- 4
P.C.B. ---------- 5

****
* SPECIFICATIONS *
****

1. Program Change		: 0 to 127
2. Channel		: 1 to 16
3. Display	:Bank	: 0 to 12
	:Patch	: 0 to 9
4. Memory Number		: 0 to 127
5. Dimensions (WxDxH)		: 454x112x44mm. (17.9x4.4x1.7in.)
6. Weight		: 1.4Kgrms. (3.1lbs.)
7. Accessories		: Cable 5m 1pc

****
* BLOCK DIAGRAM *
****



100-03-1985
MYSKHM

PRINTED IN JAPAN

http://www.joness.com/gr300/IFC60.htm

ADJUSTMENTS & CHECKS

[ADJUSTMENTS]

This equipment has no point of adjustment.
Please check as following procedures.
(Connect IFC60 with EPP400 or DUE400 by attached DIN cable.)

[CHECK LIST]

A. POWER-ON INITIAL DISPLAY
1. Just after power on, MIDI channel number flashes for 3 times.
(normal set display = 01)
2. Continued above, MEMORY number and MEMORY/BANK indicator flash for 3 times. (normal set display = 127)
3. After aboves, PROGRAM number is displayed.
(normal set display = 00)
Also MEMORY/BANK LED lights.

B. PATCH NUMBER CHANGE
1. Push PROGRAM 0/5 switch for more than 0.8sec., check indicated PATCH number changes '0' to '5'.
2. Push PROGRAM 1/6 switch for more than 0.8sec., check indicated PATCH number changes '1' to '6'.
3. As same procedures, check 2/7, 3/8 and 4/9.
In case of BANK='12'(in 3/8 and 4/9), the display of PATCH is '3' or '4' only.
4. Check display number of MIDI receiver(ex. EPP400, DUE400) for the same display compared with IFC60's one.

C. BANK NUMBER CHANGE
1. Push MEMORY/BANK switch, check MEMORY/BANK LED to light.
2. Push MEMORY/BANK switch continually, check BANK number changes '0' to '1' on and on, '11' to '12', and returns to '0'.
(change interval = 0.8sec.)

TROUBLE SHOOTINGS

[A] CURRENT CONSUMPTION

The current is approx. 170mA on regurated voltage of +5V.

[B] DIP SWITCH (4P) for MIDI CHANNEL

1. To set the mode of MIDI CHANNEL display, pushing PROGRAM 0/5 switch and on the power switch.
2. Check the channel number as following table.

CH. DIP SW.	1	2	3	4	CH.	1	2	3	4	CH.
	OFF	OFF	OFF	OFF	1	OFF	OFF	OFF	ON	9
	ON	OFF	OFF	OFF	2	ON	OFF	OFF	ON	10
	OFF	ON	OFF	OFF	3	OFF	ON	OFF	ON	11
	ON	ON	OFF	OFF	4	ON	ON	OFF	ON	12
	OFF	OFF	ON	OFF	5	OFF	OFF	ON	ON	13
	ON	OFF	ON	OFF	6	ON	OFF	ON	ON	14
	OFF	ON	ON	OFF	7	OFF	ON	ON	ON	15
	ON	ON	ON	OFF	8	ON	ON	ON	ON	16

3. Factory-shipping setting is all 'OFF' of the DIP SW.(1-4).
(i.e. MIDI CH. number is 1.)

[C] DIP SWITCH (8P) for MEMORY NUMBER

1. To set the mode of MEMORY NUMBER display, push PROGRAM 1/6 switch followed above [B].
2. Check the memory number as following table.

MEMO. DIP SW.	1	2	3	4	5	6	7	8	MEMO.No.
	ON	OFF	OFF	OFF	OFF	OFF	OFF	-	1
	OFF	ON	OFF	OFF	OFF	OFF	OFF	-	2
	OFF	OFF	ON	OFF	OFF	OFF	OFF	-	4
	OFF	OFF	OFF	ON	OFF	OFF	OFF	-	8
	OFF	OFF	OFF	OFF	ON	OFF	OFF	-	16
	OFF	OFF	OFF	OFF	OFF	ON	OFF	-	32
	OFF	OFF	OFF	OFF	OFF	OFF	ON	-	64
								(SW.8=no used)	
example 1:	ON	ON	OFF	OFF	OFF	OFF	OFF	-	3
example 2:	ON	ON	ON	ON	ON	ON	ON	-	127

3. Factory-shipping setting is all 'ON' of the DIP SW.(1-8).
(i.e. MEMORY number is 127.)

[D] MIDI SIGNAL TRANSMISSION TEST

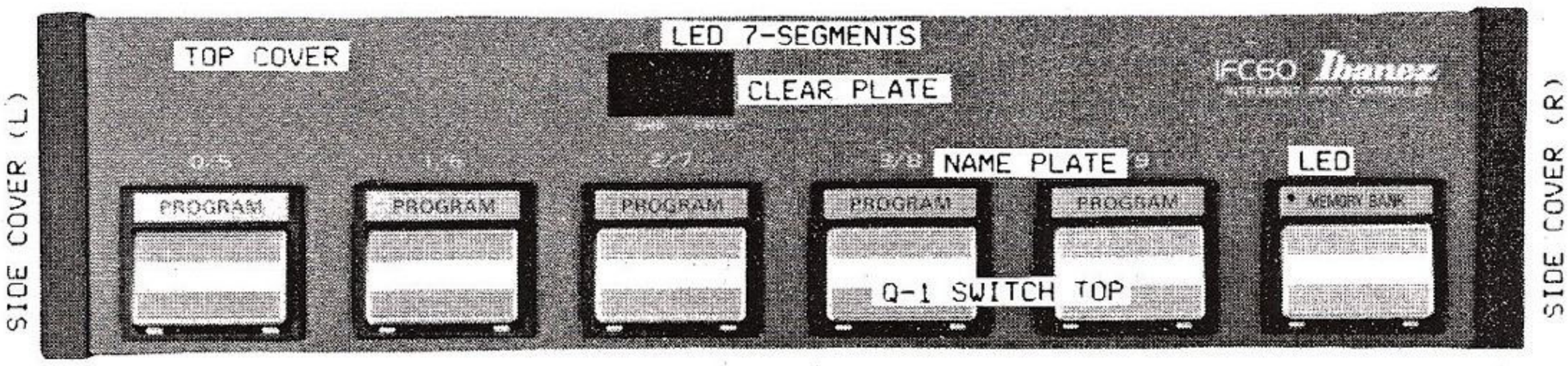
1. Followed above [B] and [C], push PROGRAM 2/7 switch.
2. Check the PROGRAM number increments 0 to 127 of channel 1 to 16.
Also check transmission of the MIDI signal send to MIDI receiver.
(ex. EPP400, DUE400)
Check display and function of the receiver.
3. To terminate the routine, off the power switch.

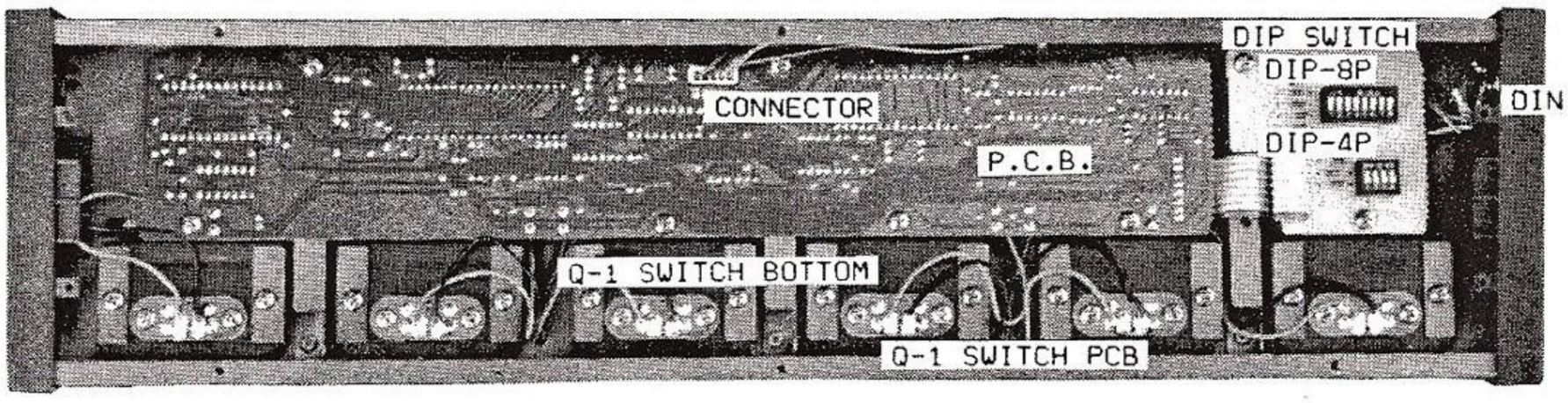
PARTS LIST

PARTS NAME	TYPE	PARTS No.	REF.No.	REMARKS
TOP COVER		MS-IF0101		
BOTTOM COVER		MS-PC0102		
SIDE COVER (L)		MS-PC0103		
SIDE COVER (R)		MS-PC0104		
STOPPER		BR-PC0101	x3	RUBBER
CLEAR PLATE		MS-IF0102	x1	SCREEN
Q-1 SWITCH TOP		MS-Q00301	x6	PEDAL
Q-1 SWITCH BOTTOM		131917150401	x6	ABS PLASTIC
Q-1 SWITCH SHAFT		MS-Q00303	x6	ROD
Q-1 SWITCH SPRING (L)		SC-Q00201	x12	for PEDAL
Q-1 SWITCH SPRING (S)		SC-Q00102	x6	for SWITCH
Q-1 SWITCH		KHD10901	x6	
Q-1 SWITCH PCB		MP-Q00301	x6	
CONNECTOR ASSY.(F)		5209-05	x1	290mm
NAME PLATE		MM-FC0101	x5	PROGRAM
NAME PLATE		MM-IF0101	x1	MEMORY/BANK
DIN CONNECTOR		TCS2260-01-1011	x1	
CABLE SET		CBL-IFC-0101A	x1	w/DIN PLUG
P.C.B.UNIT		UPCB-IFC-0101A		
P.C.B.only		MP-IF0101		
DIP SWITCH	DIP-4P	B-4A	DIPSW1	
DIP SWITCH	DIP-8P	B-8A	DIPSW2	
IC CPU	(NEC)	uPD8748HD	IC1 or MN8104D	x1
IC USART	(NEC)	uPD71051C	IC2	x1
IC INV	(TI)	74LS05	IC4	x1
IC AND	(TI)	74LS08	IC5	x1
IC COUNT	(TI)	74LS393	IC6	x1
IC SEG.DRIV	(NS)	MN4511B	IC3	x1
TRANSISTOR	(TO)	2SC2021S	TR1,2	x2
DIODE	(TO)	1S1588	D1-18	x18
CERAMIC RESONATOR	(TDK)	ECR6.0M	ECR	x1
LED		LN222RP	LED1	x1
LED 7-SEGMENTS		LN516RK	SEG1-3	x3
CONNECTOR	(MO)	5129-05A	CN1	x1

If you need these parts, please write clearly like ex. as follow.
ex. : PARTS IFC60 IC 74LS05 1pc

DISPOSITION OF PARTS





http://www.joness.com/gr300/IFC60.htm

IFC60

SCHEMATIC DIAGRAMS

CAUTION : This schematic diagram is a normal standard one. The parts rating and/or schematic diagram will be changed without notice.

[NOTES]
▲ : CERAMIC capacitor. All ceramic capacitors are above 25V rating.

And all capasitors are ELECTOLYTIC capacitors, unless otherwise marked.
Unless otherwise indicated:
Resistance in Ω, K=KΩ, M=MΩ.
Resistors, 1/4W or 1/8W, ±5% rating.
Capacitance in P=PF, μ=μF.

IC 1	: MN8104D OR μPD8748D
IC 2	: μPD71051C
IC 3	: MN4511B
IC 4	: 74LS05
IC 5	: 74LS08
IC 6	: 74LS393
SEG 1~3	: LN516RK
LED 1	: LN222RP
TR 1~2	: 2SC1815BL or 2SC2021S

SIDE VIEW
2SC1815BL or 2SC2021S

TOP VIEW

LN516RK

74LS05

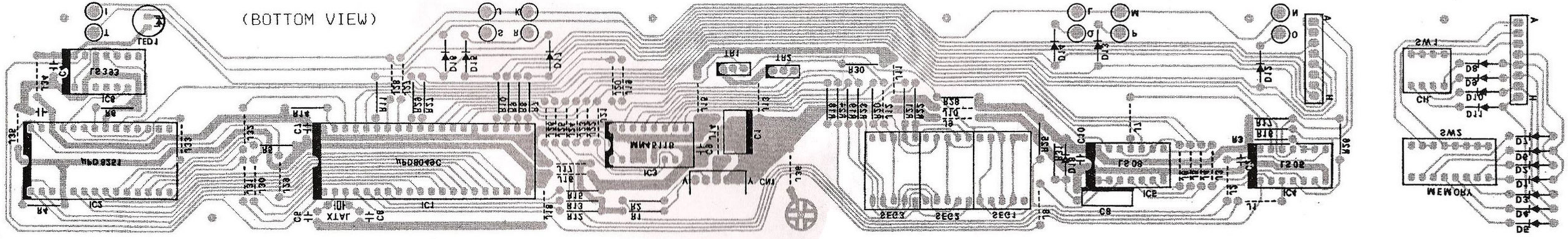
74LS393

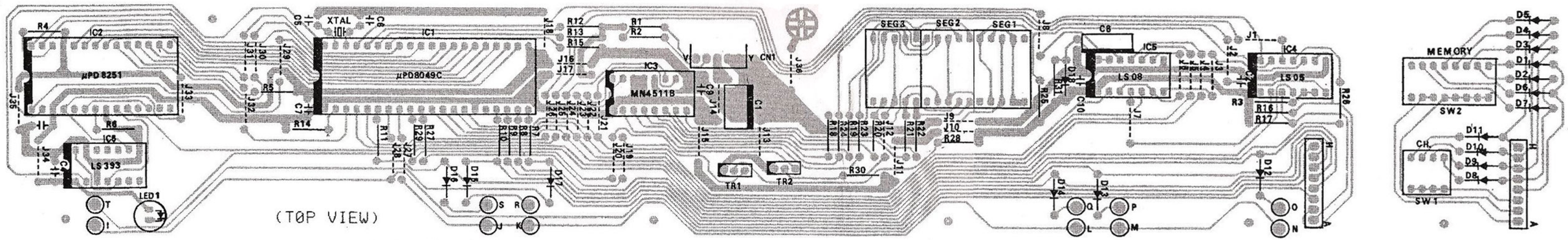
74LS08

MN4511B

μPD71051C

MN8104D/μPD8748D






```
**************************************
*                P.C.B.              *
**************************************
```

http://www.joness.com/gr300/IFC60.htm