

TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	1/31

Title: Funai_NLC-3216 Level 1 Service Manual Without Tuner				Approved by: 潘強榮
				Prepared by: 張尚義
Doc. No. GSM-Funai-NLC-3216	Preparation Date 2006/02/10	Model T32127-11	Version V1.0	Page 1 of 31
<u>Version</u> V1.0	<u>Date of new version</u> 2006/02/10	<u>Contents (Revision)</u> New release		

Page	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Version	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Date	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10
Page	21	22	23	24	25	26	27	28	29	30	31									
Version	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0									
Date	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10	02/10									

TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	2/31

Funai_NLC-3216 TV



Service Manual
Model No: NLC-3216
Brand: FUNAI

TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	3/31

Table of content

1. Attention During Servicing.....	4
2. Purpose.....	5
3. Definition of Level 1 Service.....	5
4. Block Diagram.....	6
5. Disassembly/Assembly Procedures.....	7
6. Trouble Shooting Analysis.....	15
7. Update F/W.....	22
8. Explosion Diagram.....	29
9. Level 1 Spare Parts List.....	30

TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	4/31

1. Attention During Servicing

- 1-1. This TV should be operated from the type of power indicated on the using label. If you are not sure of the type of power available, consult your dealer or local power company..
- 1-2. The TV shall be placed at low humidity and low dust.
- 1-3. Place the TV on firm flat surface carefully. The surface of the TV is plastic material and thin glass, drop or sharp impact will cause damage to the TV.
- 1-4. Do not use alcohol or ammonia-based liquid to clean the TV. If necessary, clean with a slightly damp cloth. Disconnect the TV from the power supply before cleaning.
- 1-5. Remove the power supply immediately in case of abnormality occurred in the TV, especially strange noise or smell
- 1-6. Turn on power for testing only after completing the assembly of the TV include casing and tighten the screw while servicing the TV to prevent hazard.

TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	5/31

2. Purpose

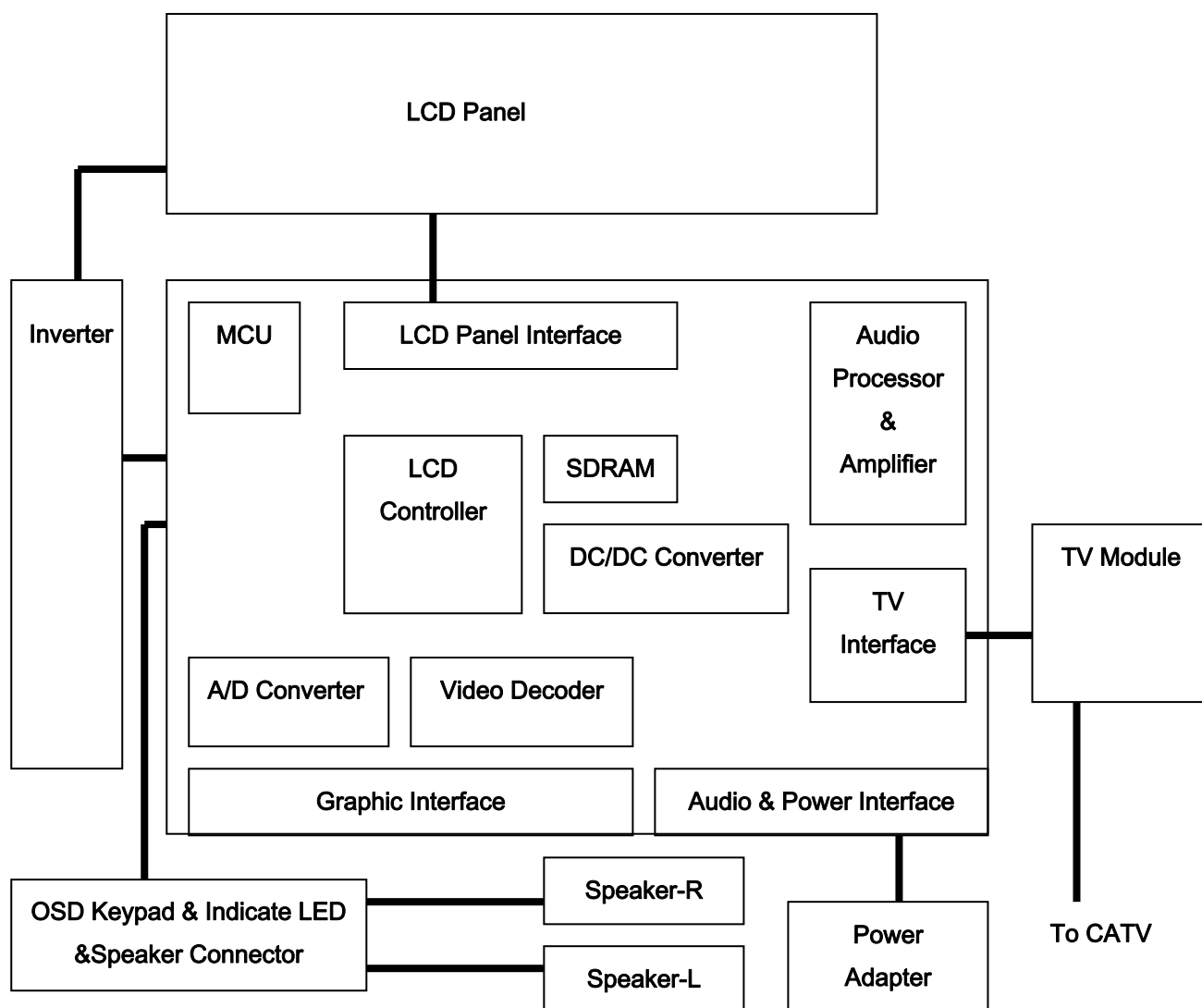
The purpose of this service manual is for the reference of Authorized Service Provider (ASP) while proceeding level 1 service for the product mentioned in this manual.

3. Definition Of Level 1 Service

The definition of “level 1 service” is defined by Service Provider (SP hereafter) based on service efficiency and effectiveness considerations. Normally level 1 means **PCBA 、 Mechanical Parts 、 Internal Cable 、 Accessory Component 、 Packing Material** for LCD TV, The concrete composition of level 1 spare parts will be mentioned in item 9, to show the level 1 list of materials.

TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	6/31

4. Block Diagram



TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	7/31

5. Disassembly Procedures

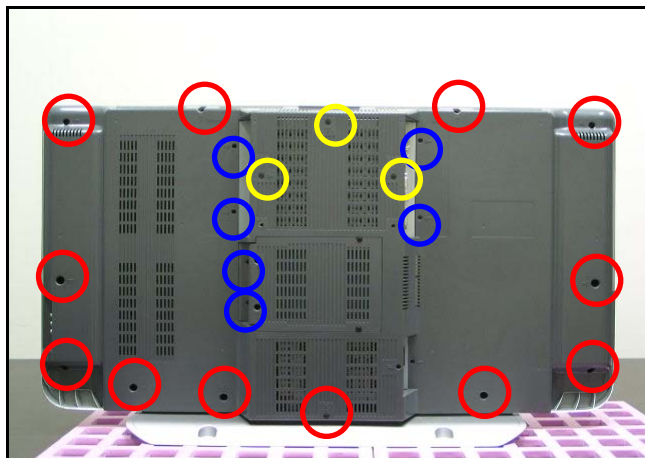
Tools.



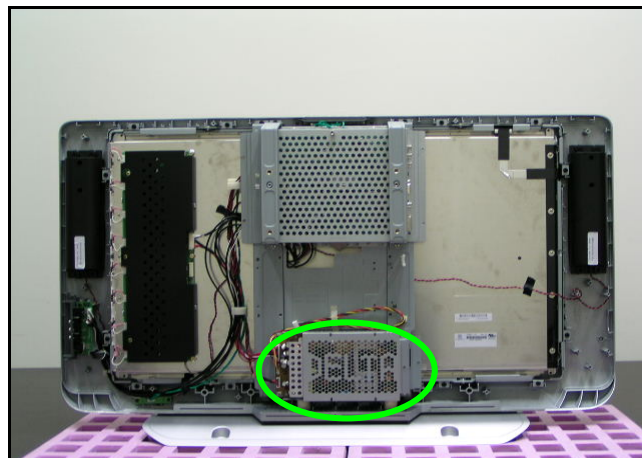
MODEL: NLC-3216



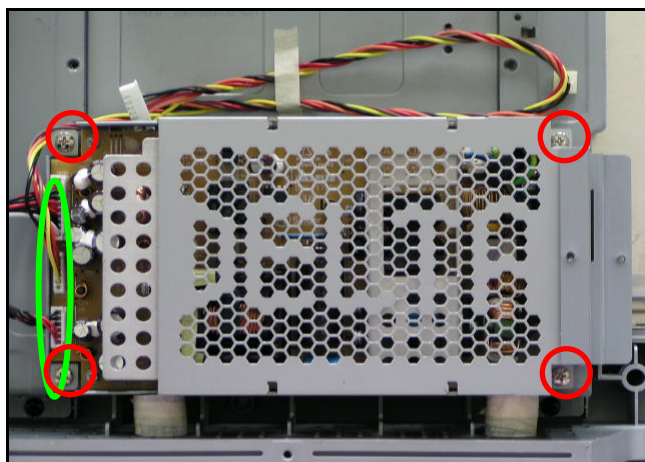
Remove screws



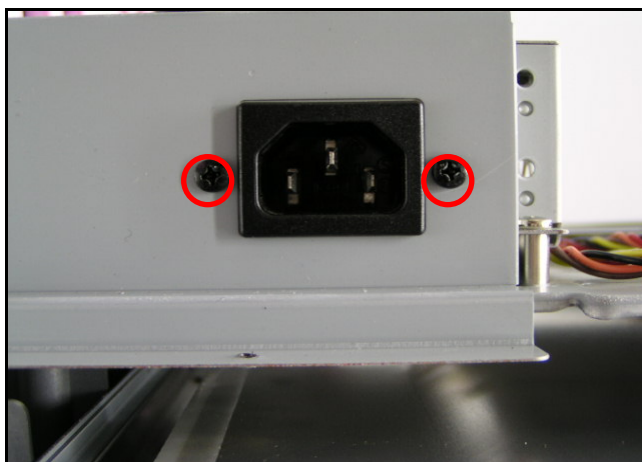
Remove Power 's screws



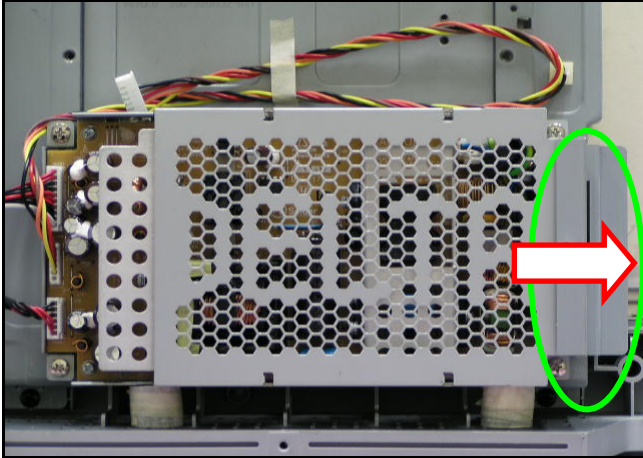
Remove Power's wires



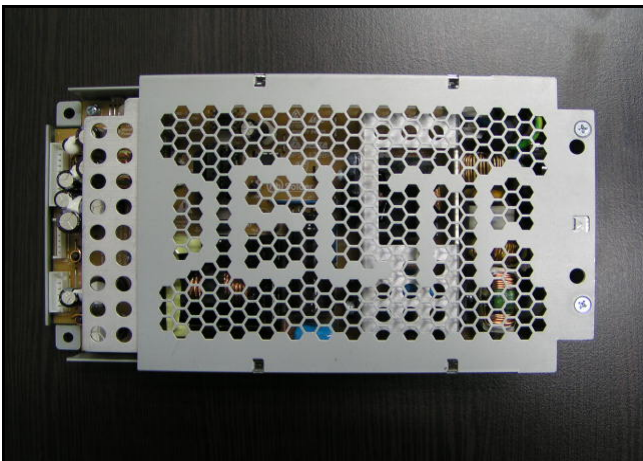
Remove AC Plug's screws



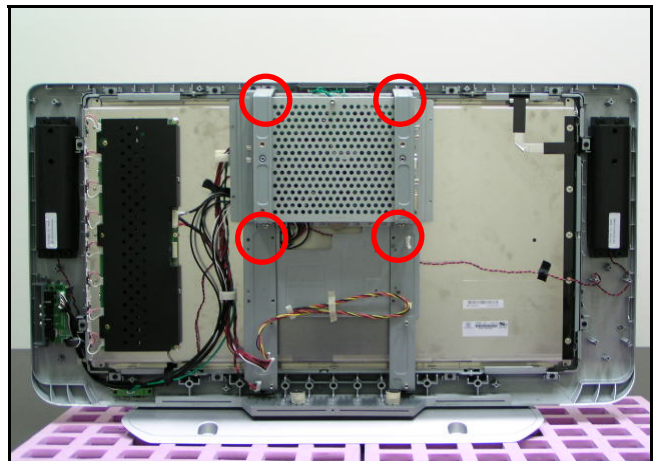
TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	8/31



Power supply



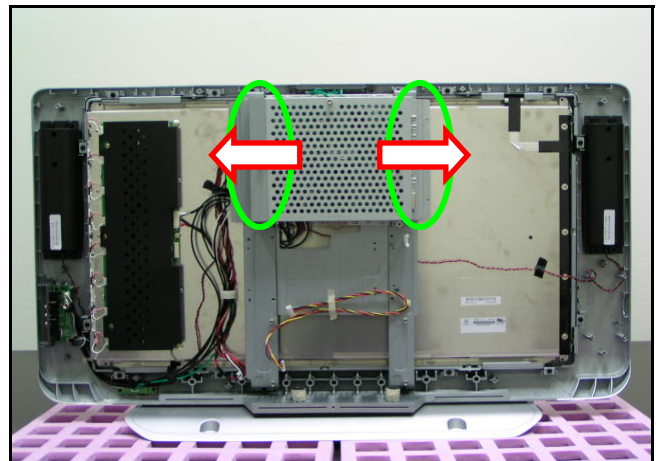
Remove wall mount screws



Wall mount

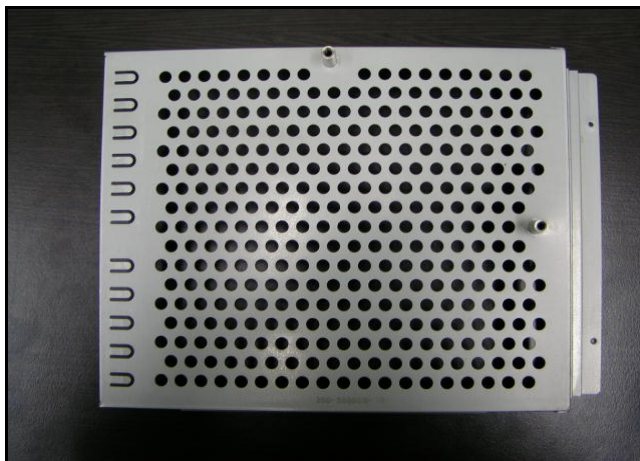
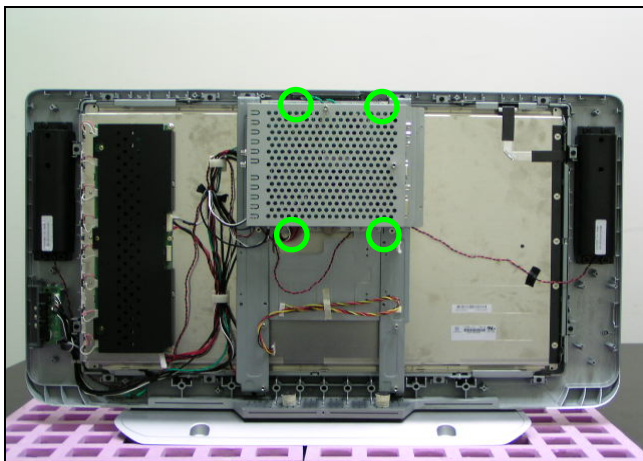


Remove M/B's EMI shelling

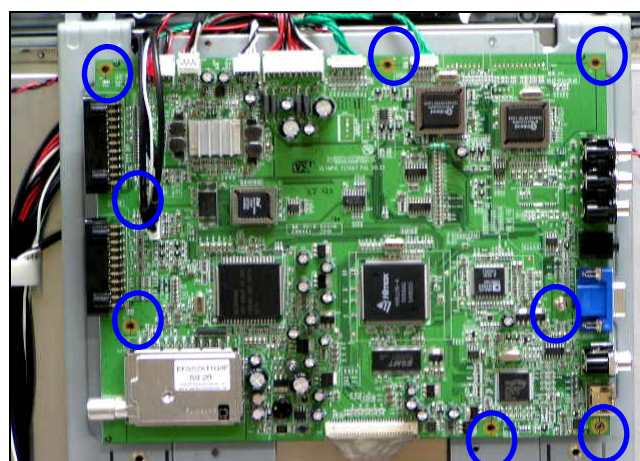
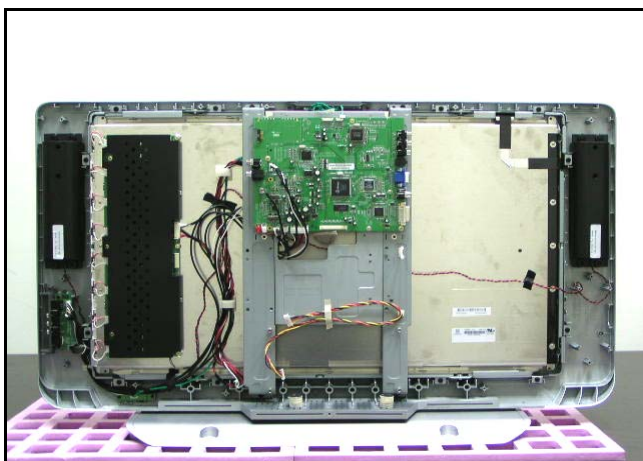


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	9/31

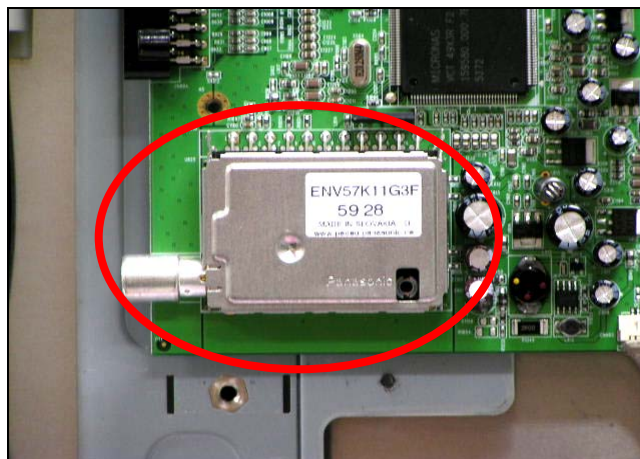
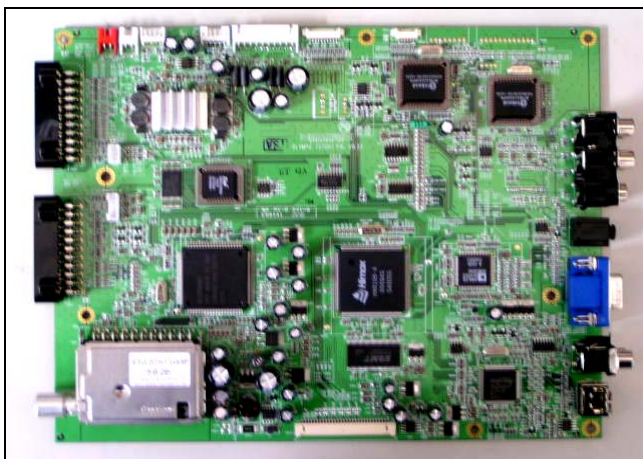
EMI shelling



Remove M/B

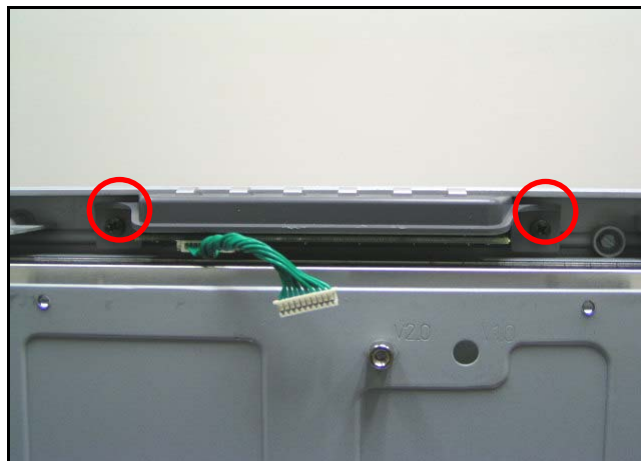
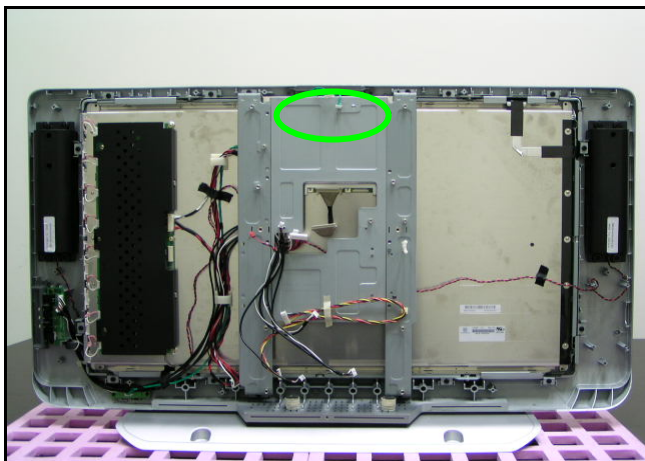


M/B with Tuner, Attention Please!!! This Model Without TUNER



TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	10/31

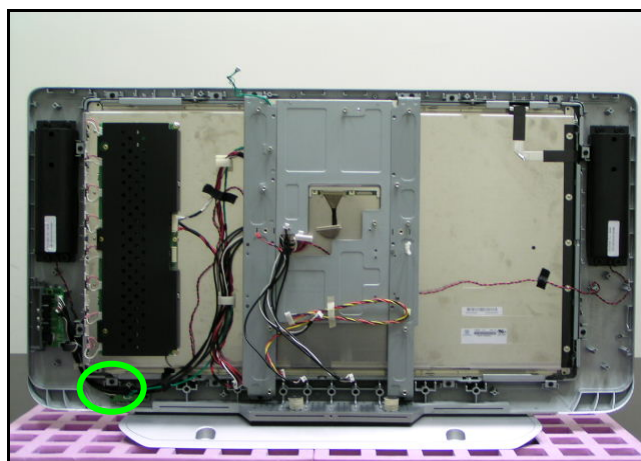
Remove Keypad kit



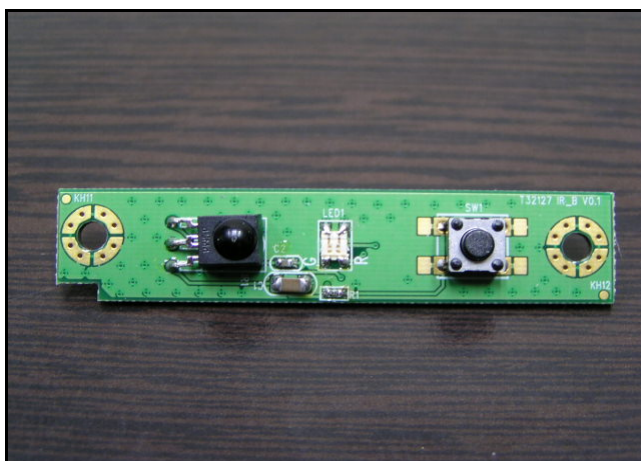
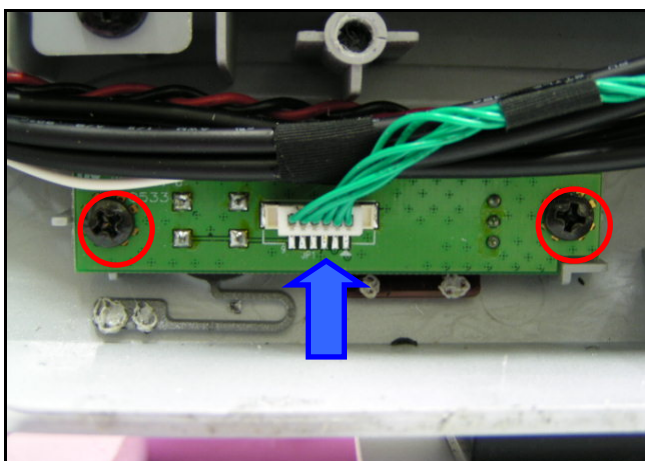
Keypad



Remove IR board

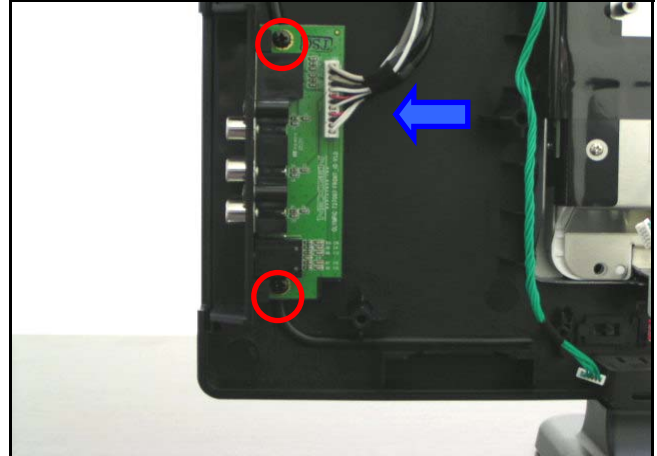
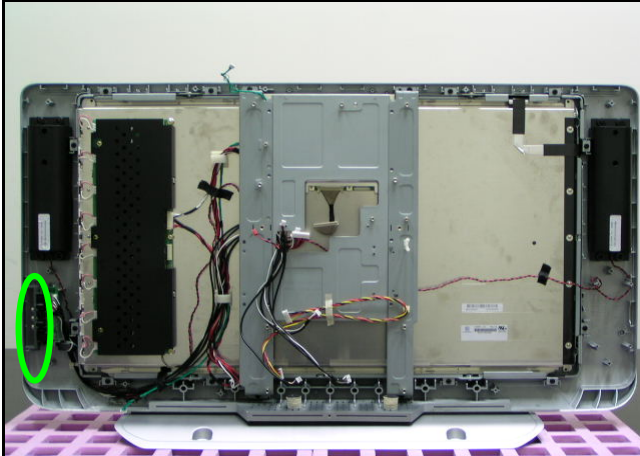


IR board

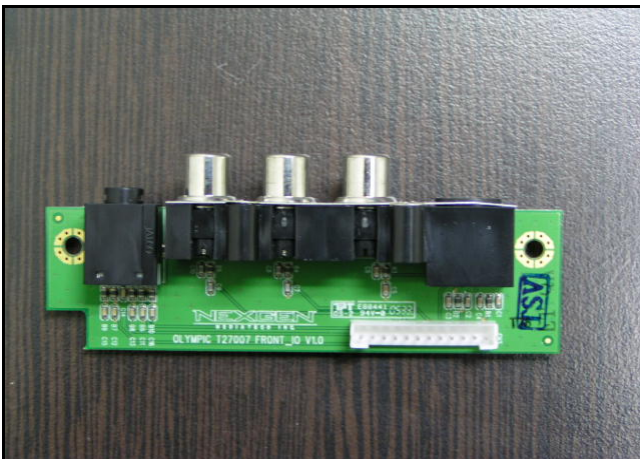


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	11/31

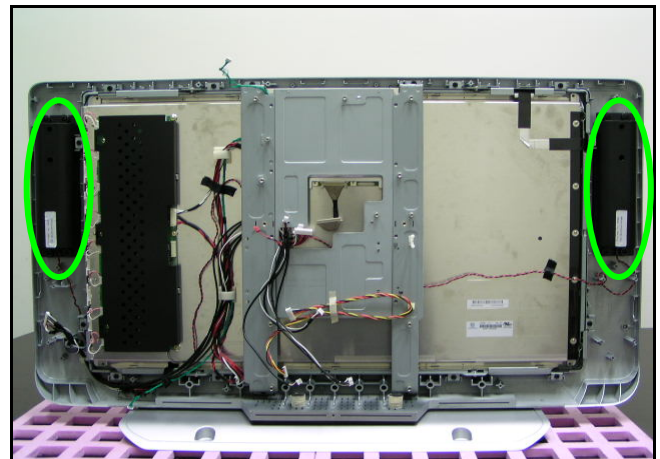
Remove front I/O



Front I/O PCBA

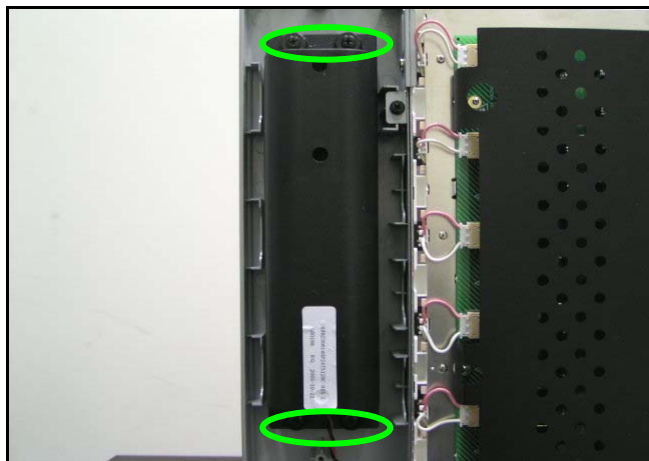


Remove Speak Kit

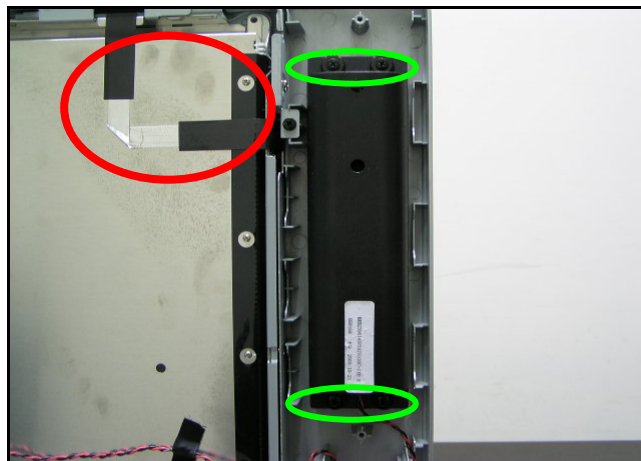


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	12/31

Speak R



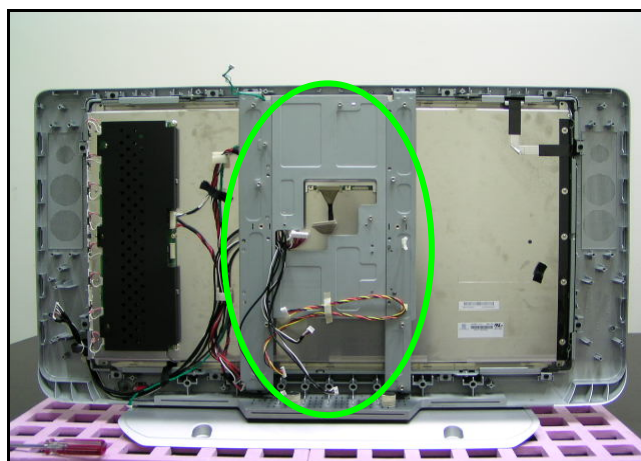
Speak L **Be careful this FFC**



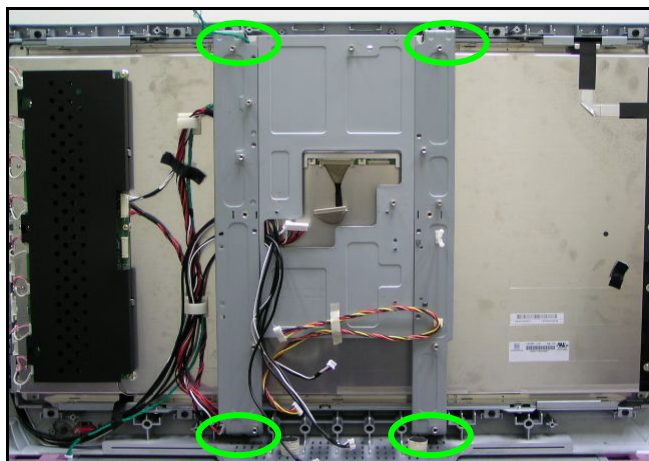
SPK



Remove PANEL

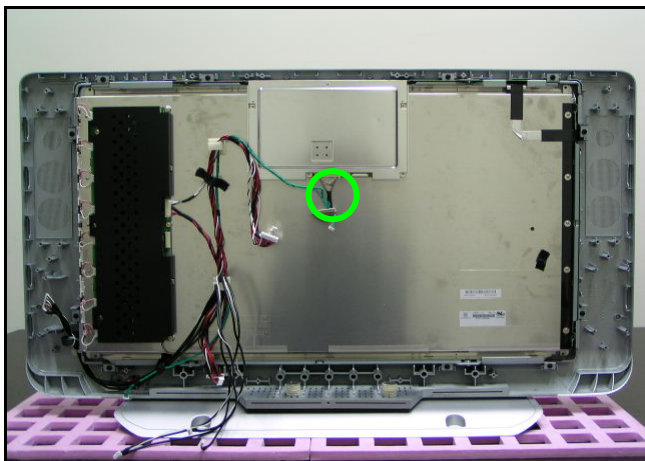


Panel bracket

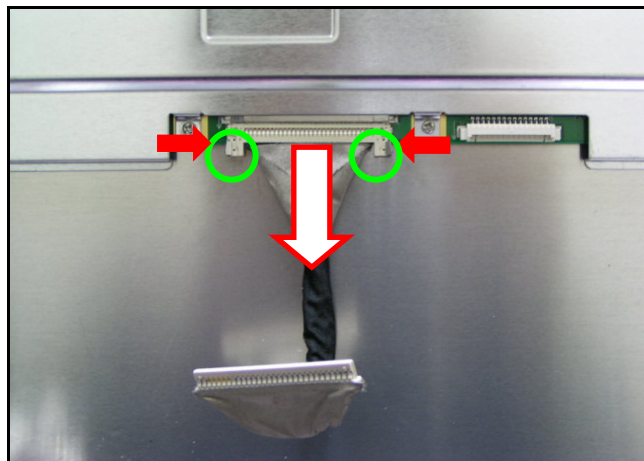


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	13/31

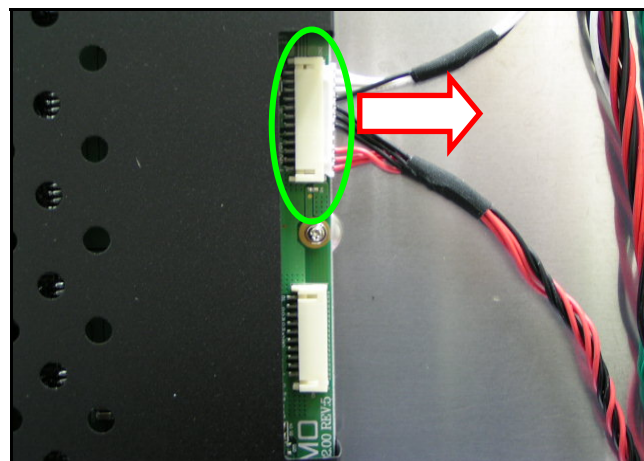
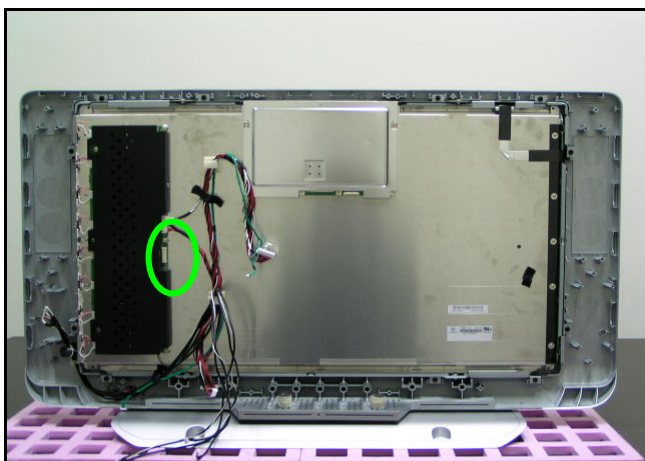
M/B to Panel's FFC



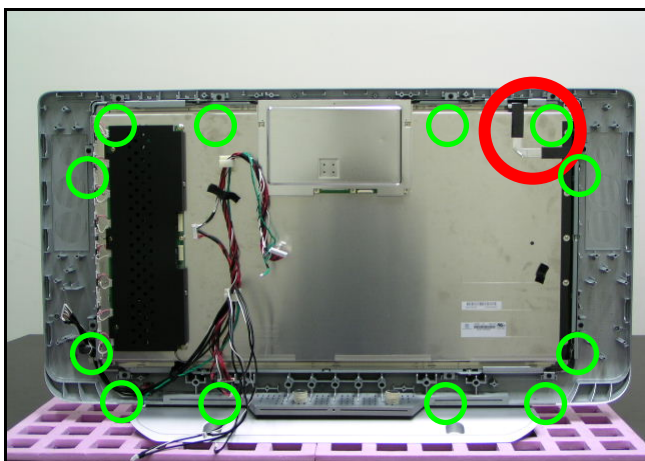
Be careful this lock



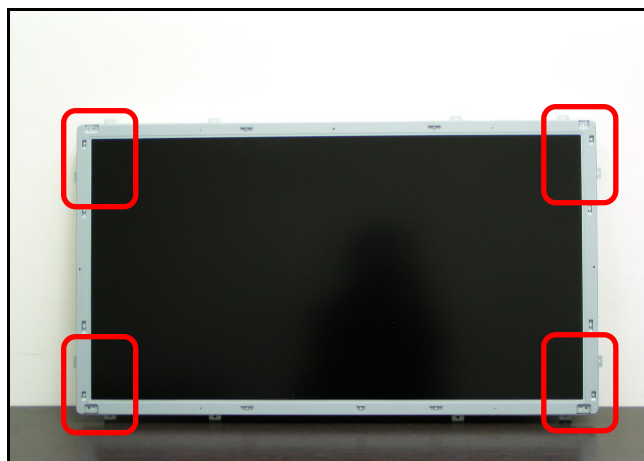
M/B to Inverter cable



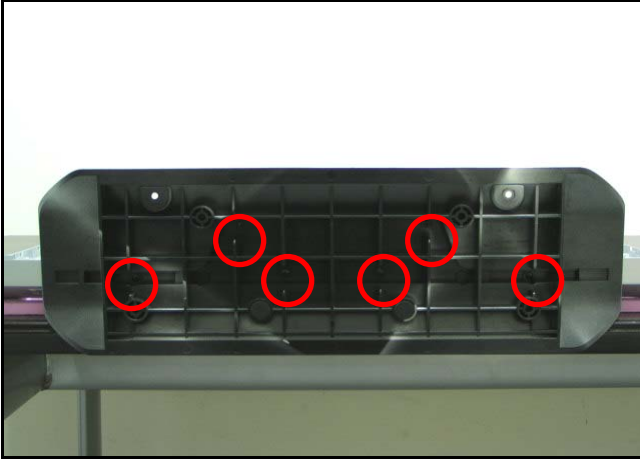
Remove Panel's screws



Panel's side bracket



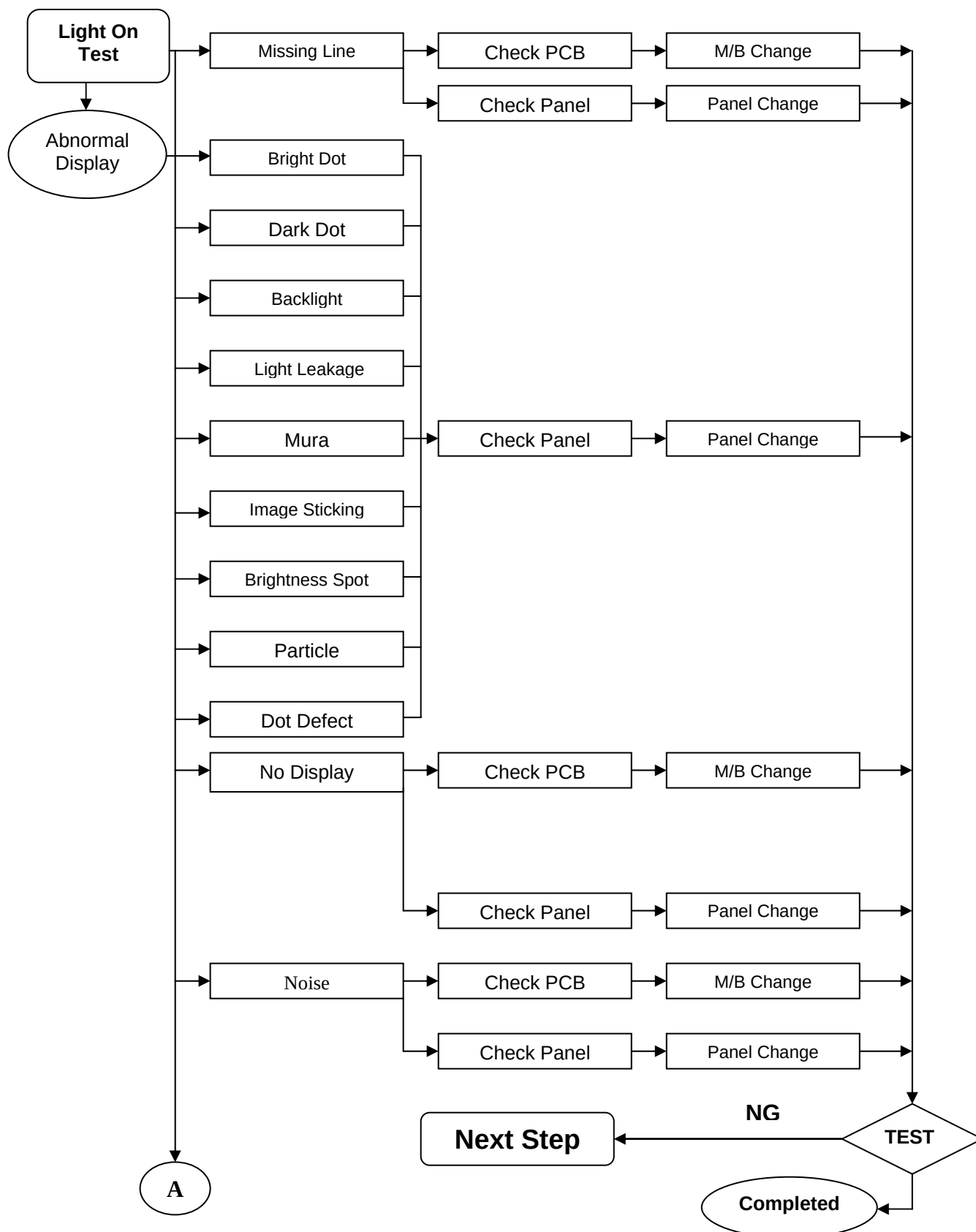
TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	14/31

Stand kit and screws**Front bezel**

TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	15/31

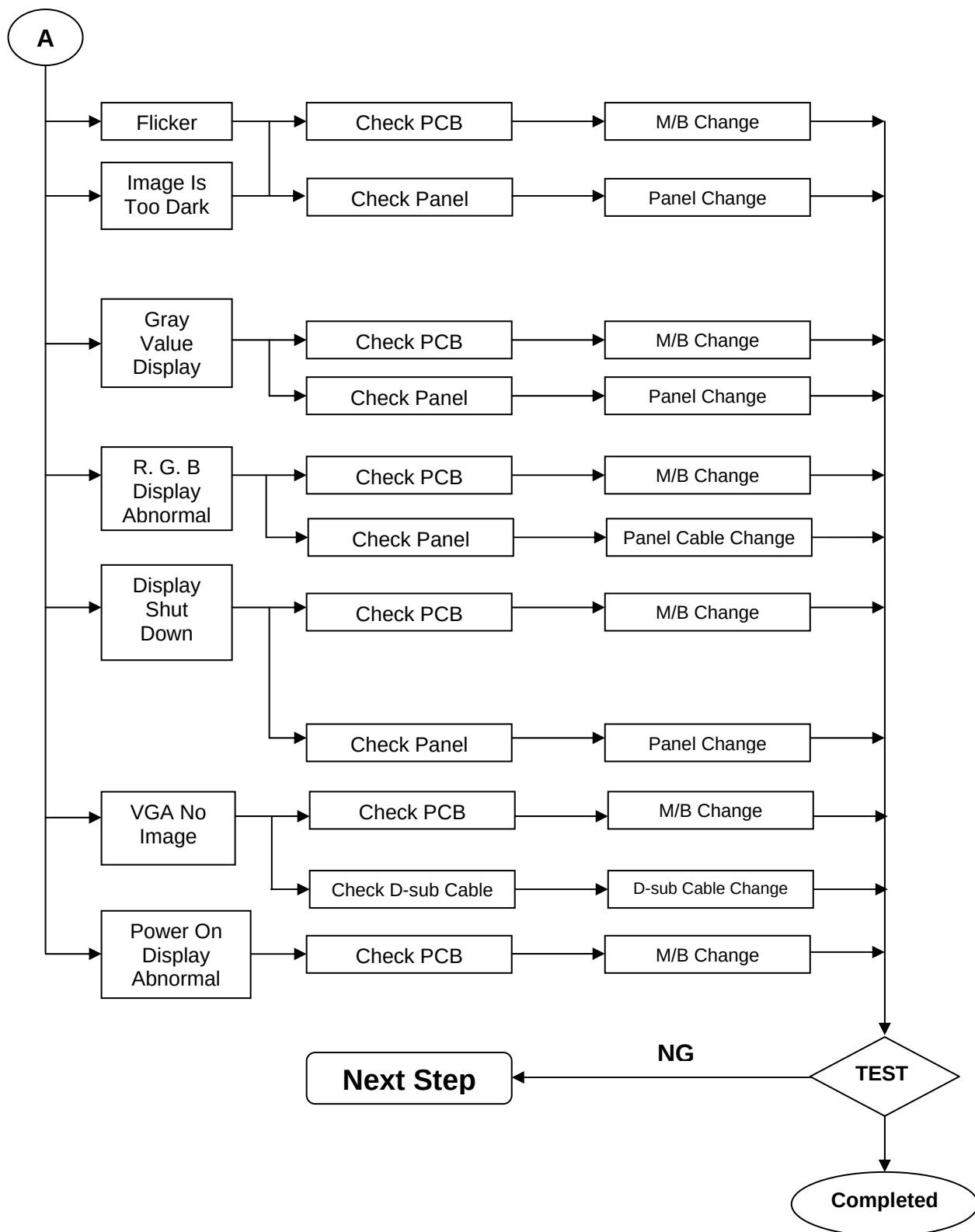
6. Trouble Shooting Analysis

Defect Mode	Failure Analysis	Repair	Testing
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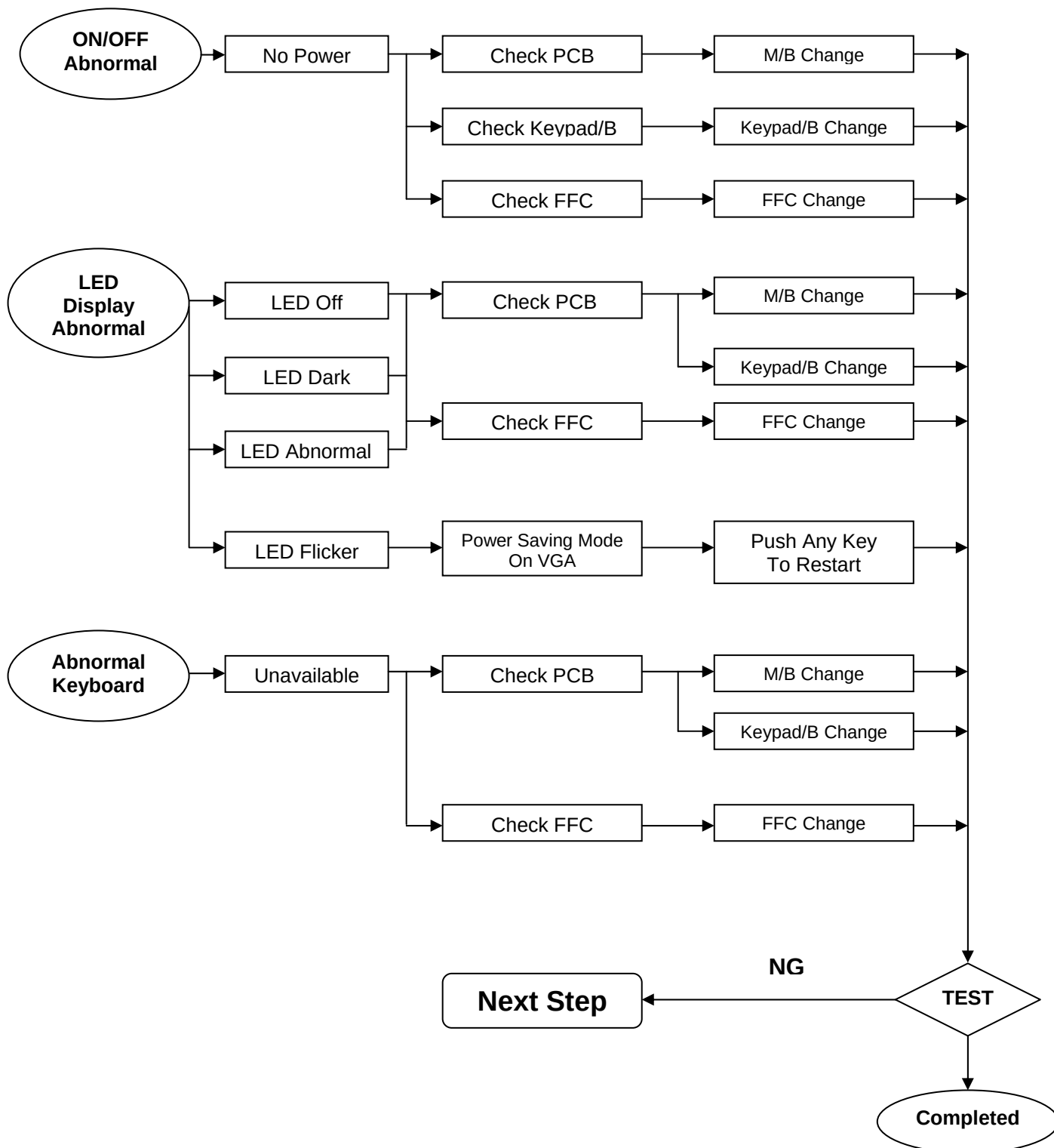
TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	16/31

Defect Mode	Failure Analysis	Repair	Testing
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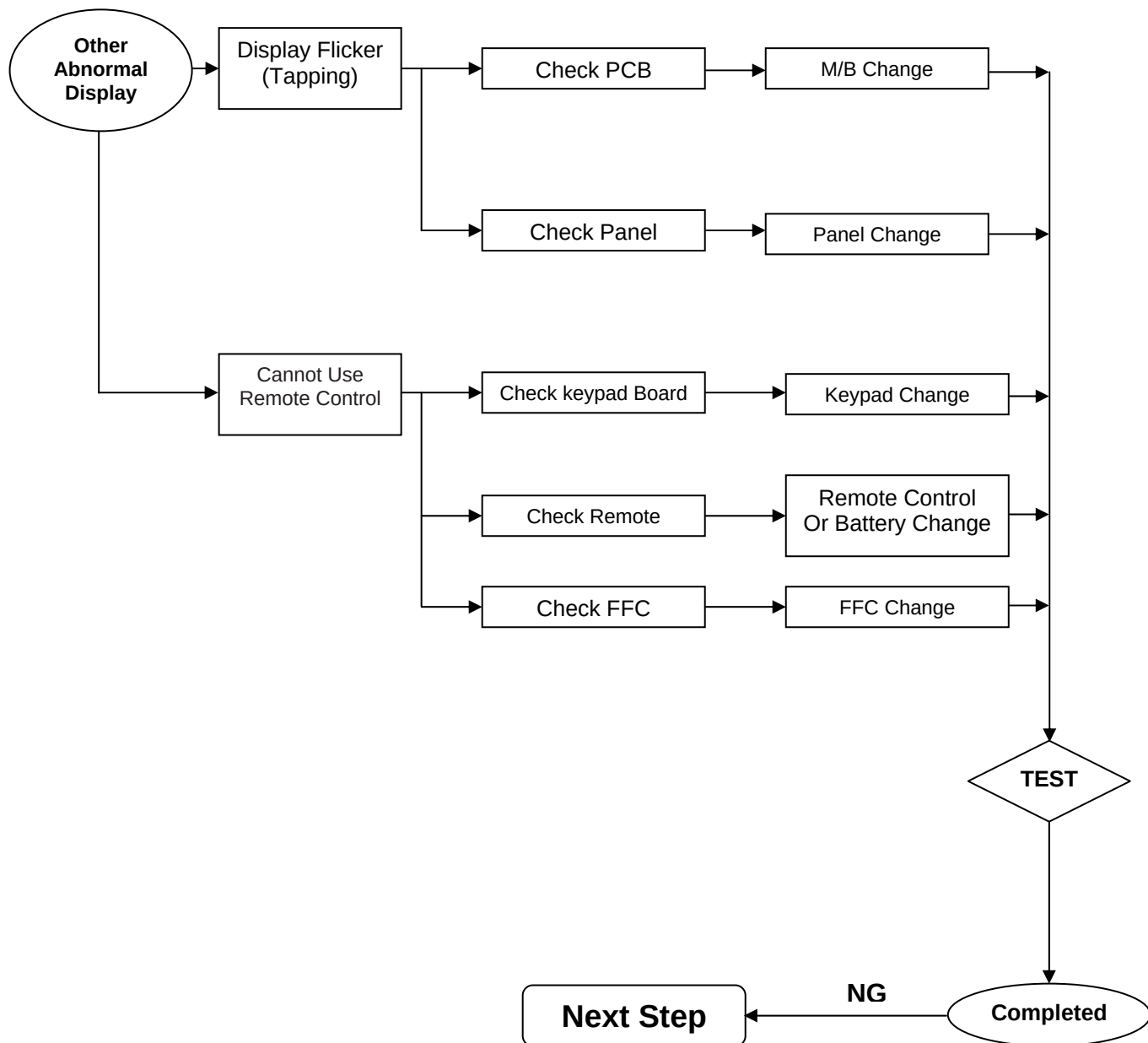
TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	17/31

Defect Mode	Failure Analysis	Repair	Testing
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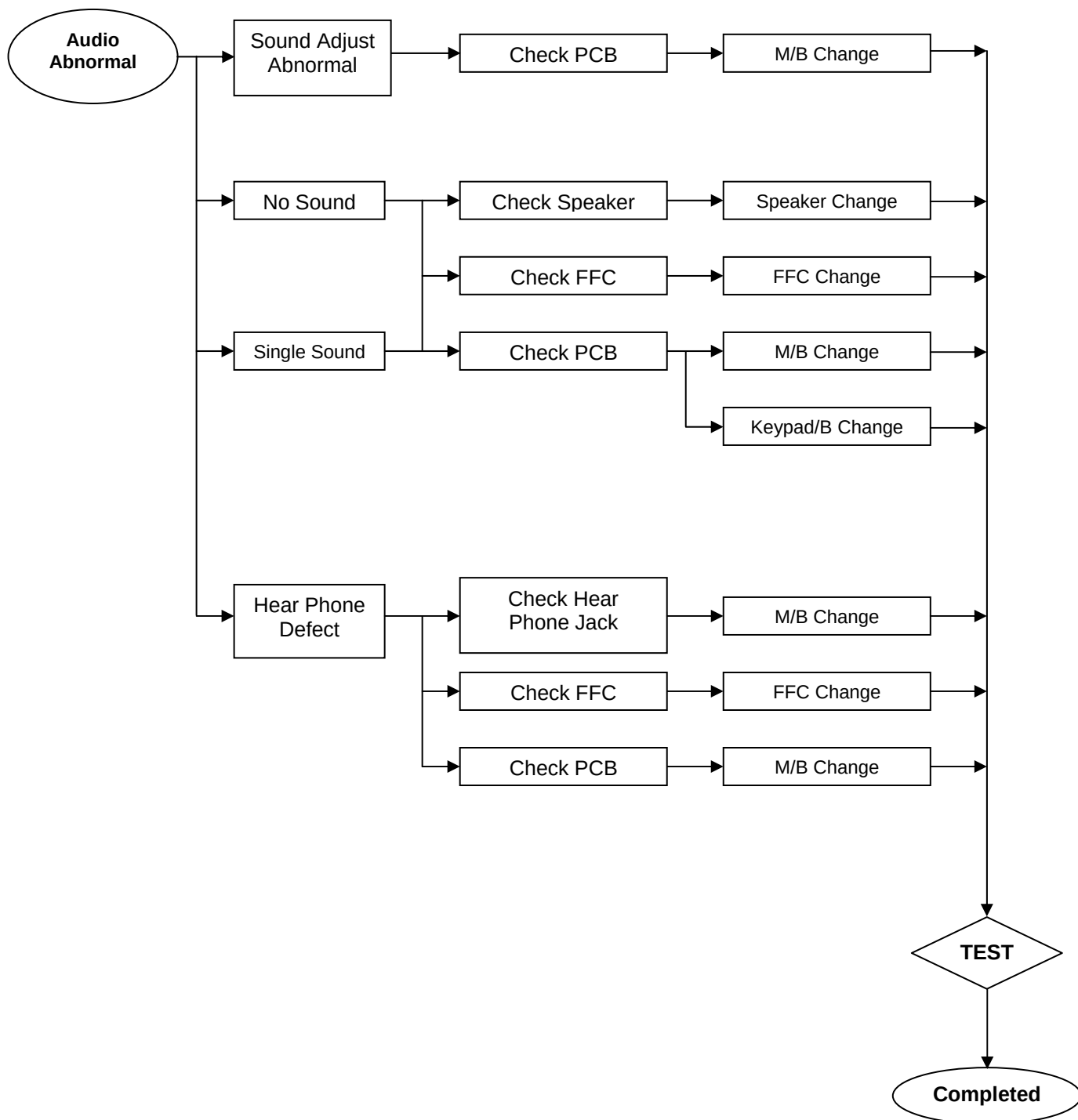
TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	18/31

Defect Mode	Failure Analysis	Repair	Testing
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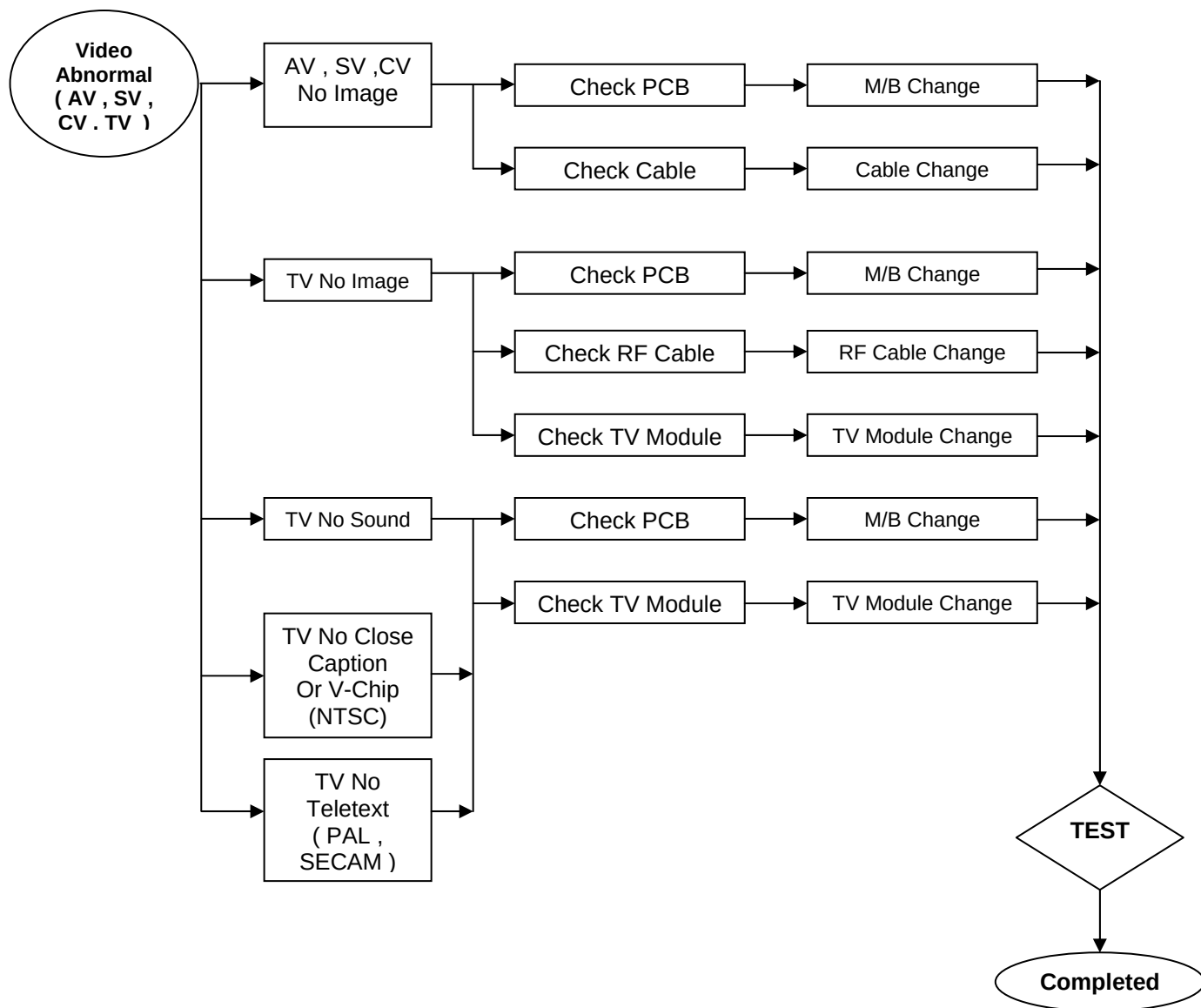
TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	19/31

Defect Mode	Failure Analysis	Repair	Testing
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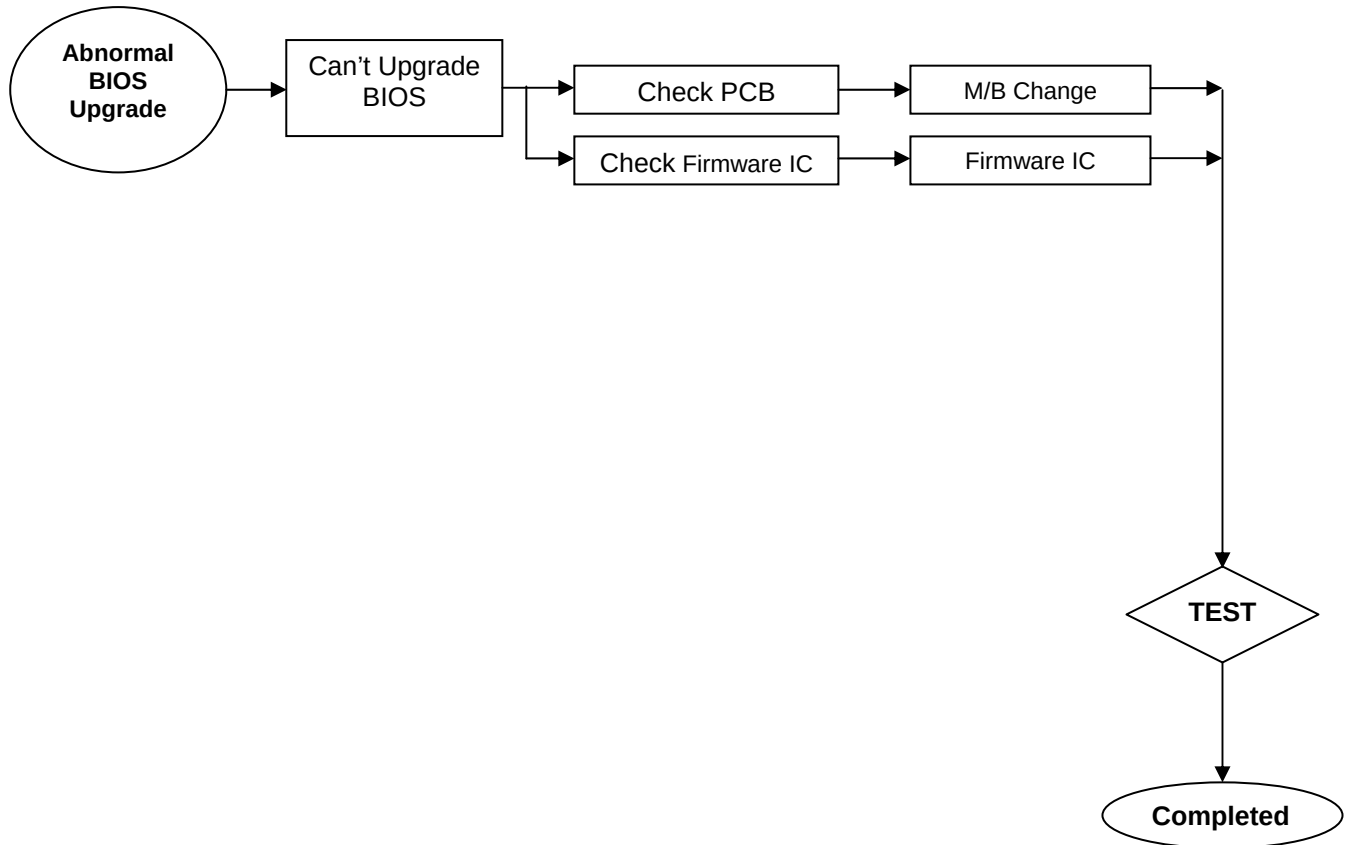
TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	20/31

Defect Mode	Failure Analysis	Repair	Testing
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TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	21/31

Defect Mode	Failure Analysis	Repair	Testing
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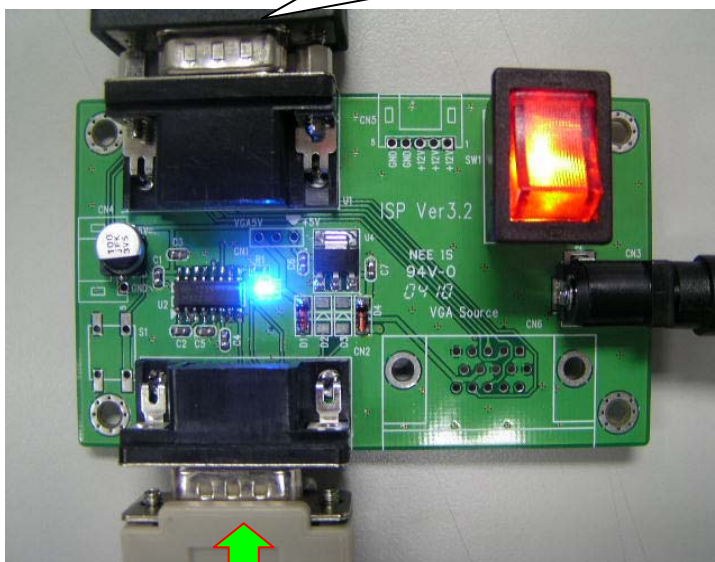


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	22/31

Update F/W.

Connect ISP tool

RS-232 to PC



VGA cable connect to this place

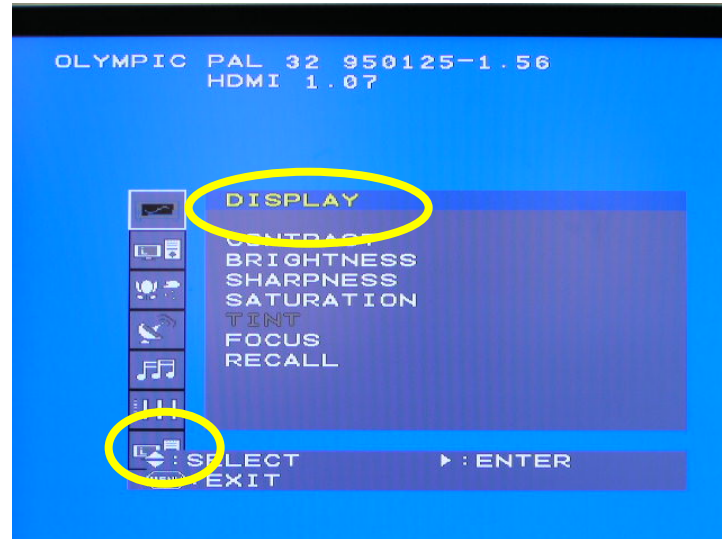


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	23/31

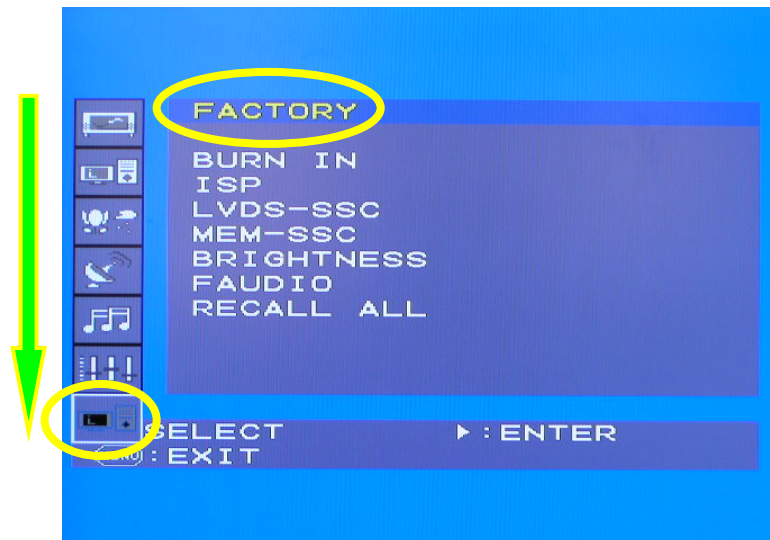
Press CH▲/ CH▼/VOL+ Buttons at same time, then press MENU Button.

Showing F/W Version in theFactory Mode.

(The Factory Mode picture is an example.)

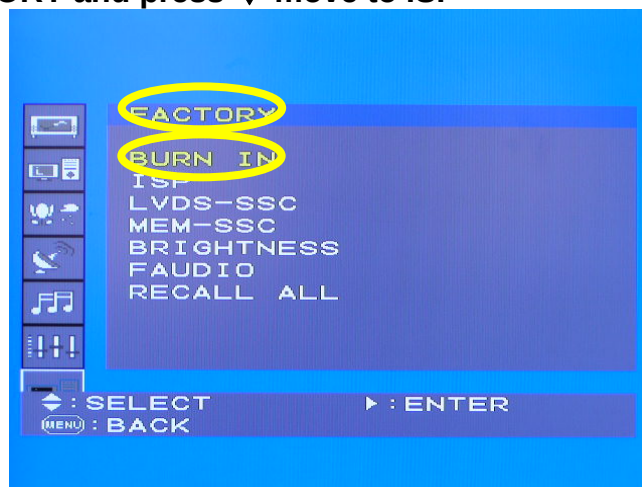


Press ▼ to FACTORY

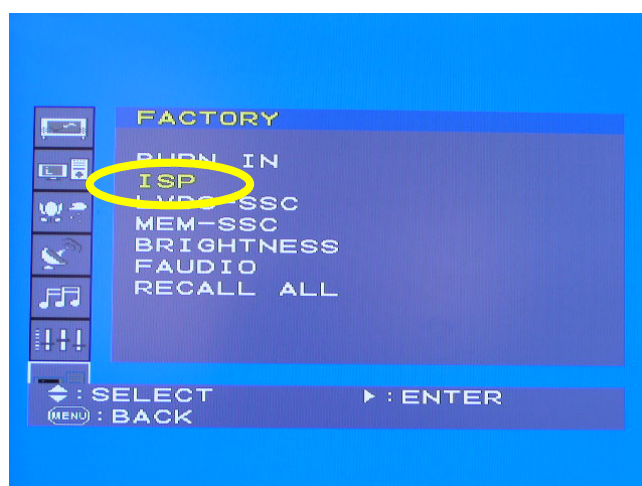


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	24/31

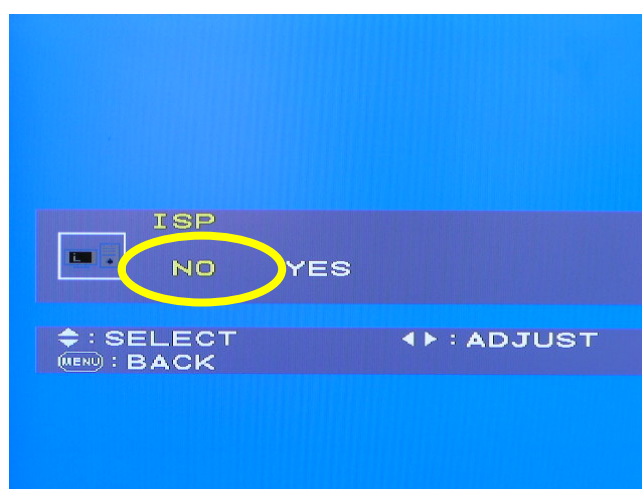
Press ► move to FACTORY and press ▼ move to ISP



Press ▼ move to ISP

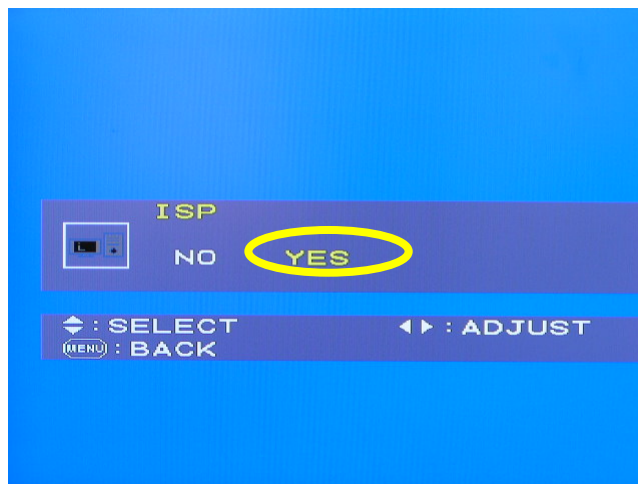


Press ► move to YES

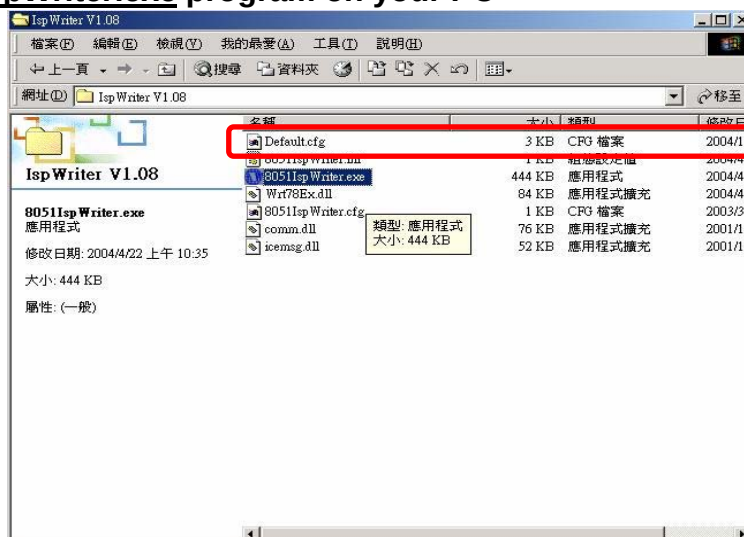


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	25/31

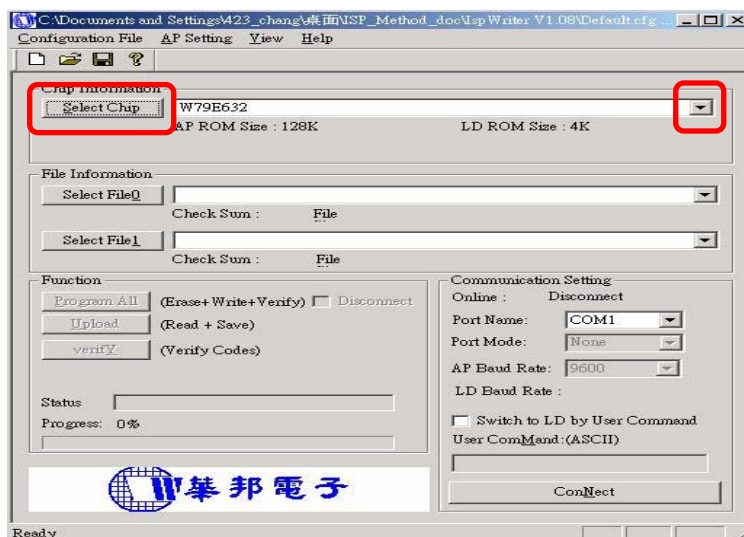
Press ► move to SELECT



To execute 8051 IspWriter.exe program on your PC

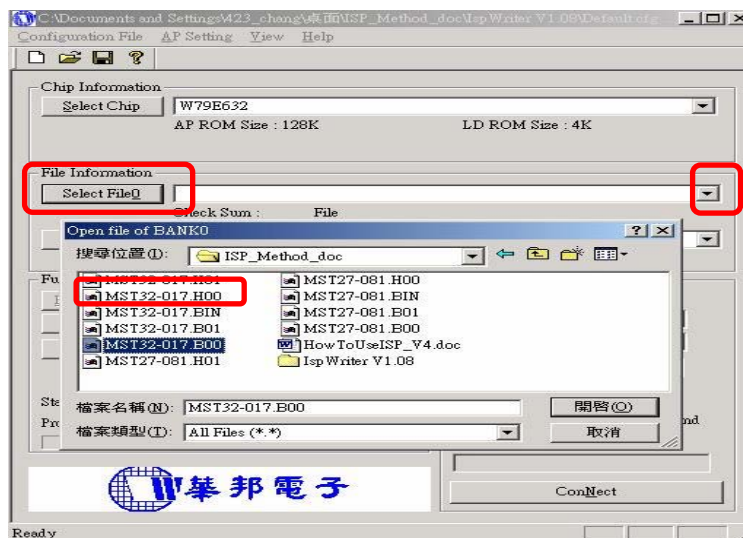


Click **【Select Chip】** or **【▼】** to select “W79E632”.

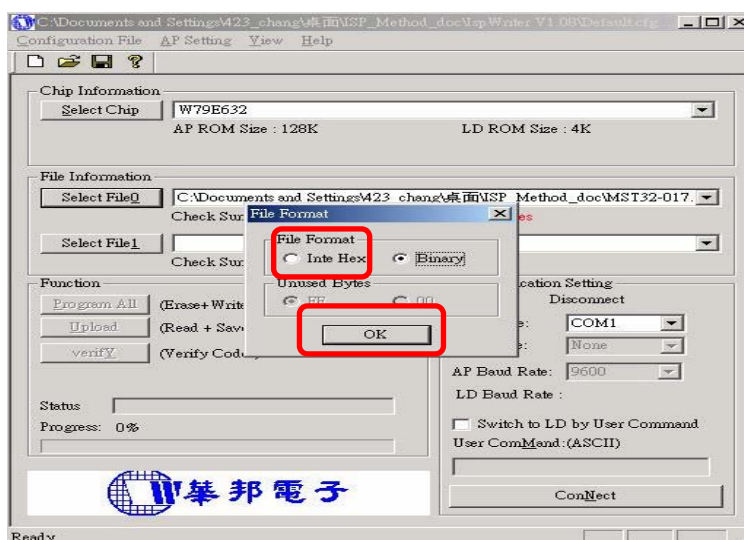


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	26/31

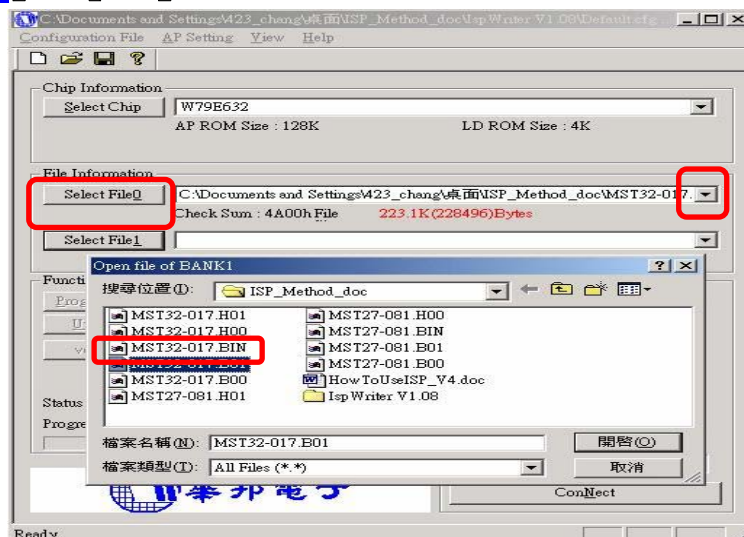
Clicking **【Select File0】** or **【 ▼ 】** to select “*.H00”.



Selecting “Inte Hex” , press “OK” next.

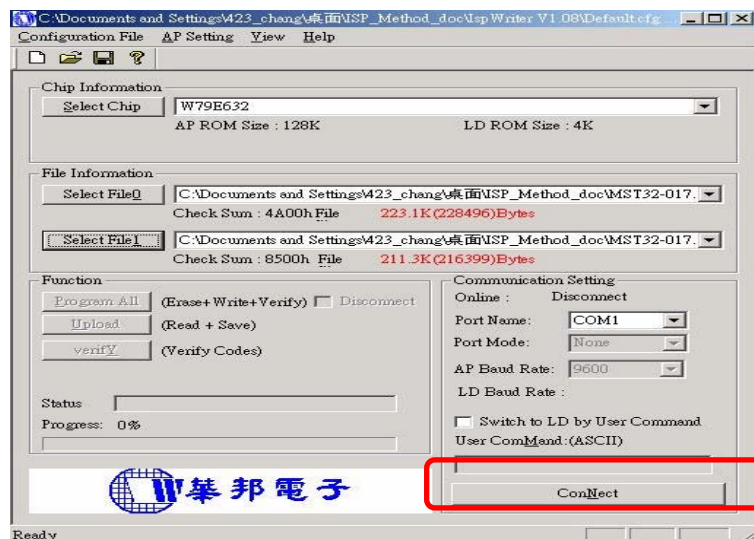


Pressing **【Select File1】** or **【 ▼ 】** to select “*.H01”.

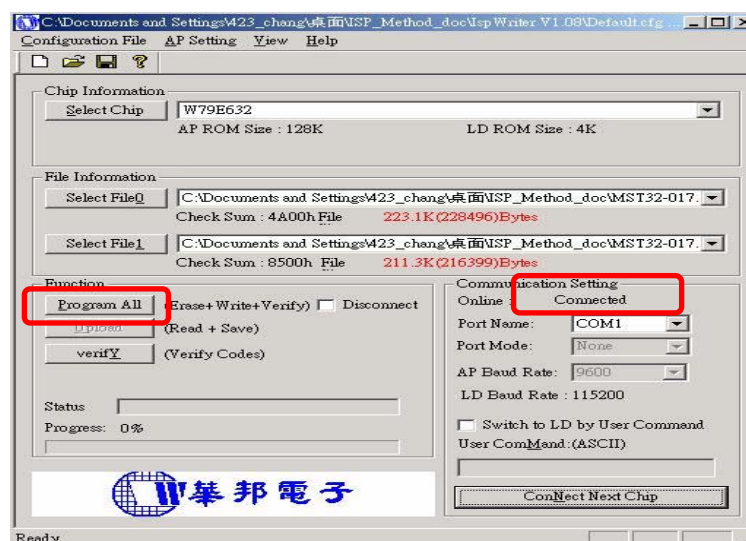


TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	27/31

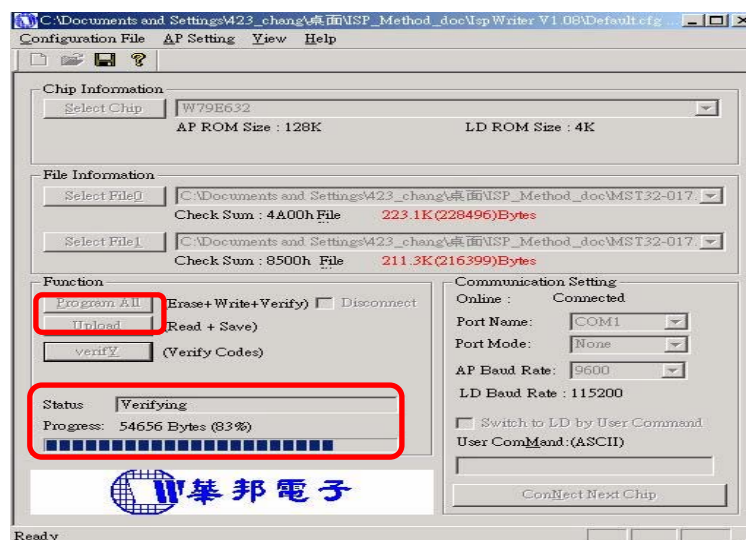
Confirming the connection RS-232 again, press **【ConNect】** next.



Showing **【Connected】** and **【Program All】**.

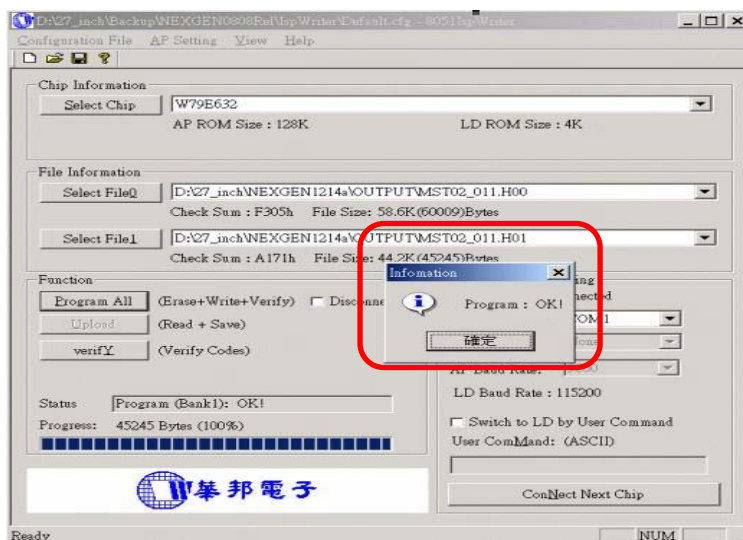


Pressing **【Program All】**, then start to update F/W.



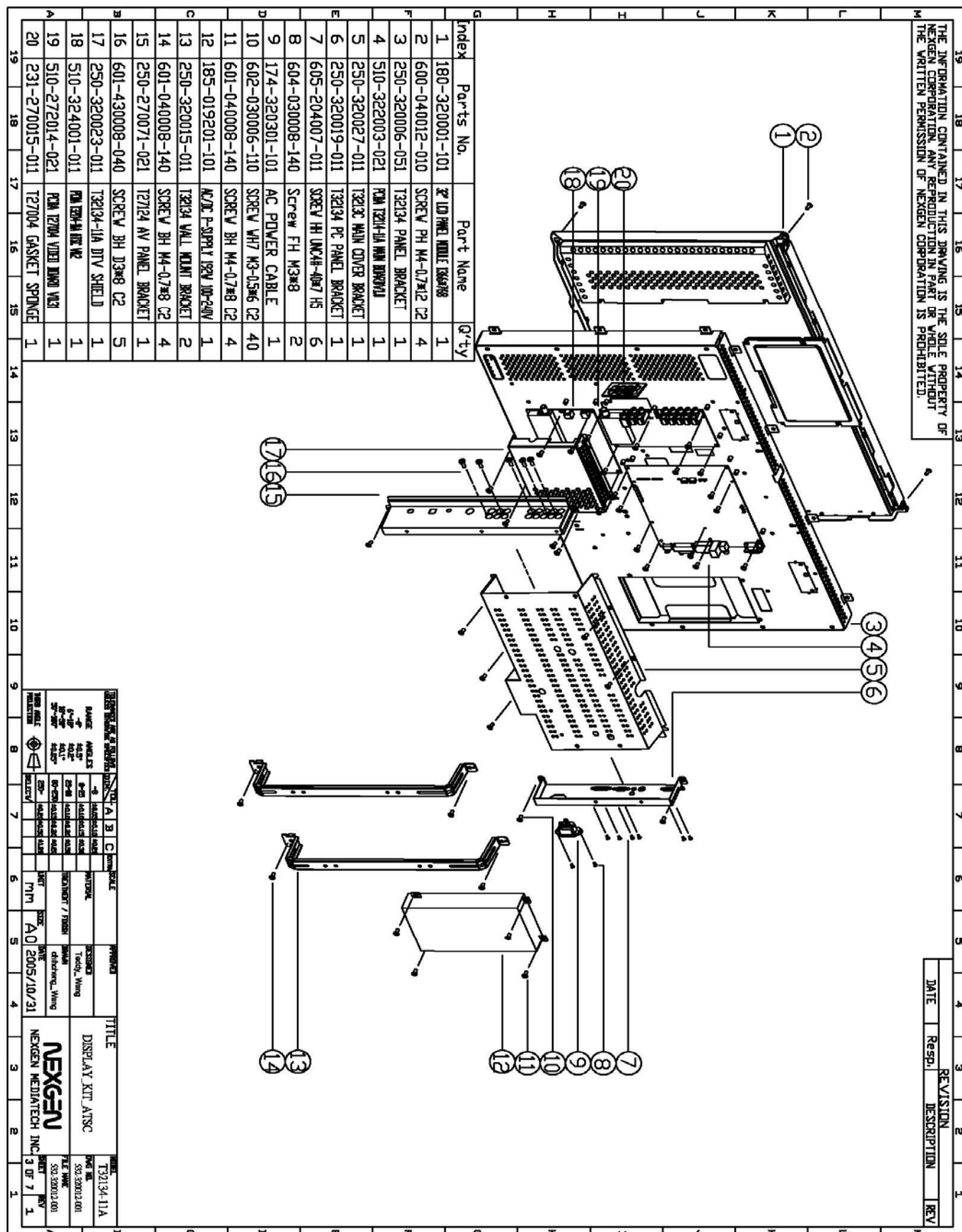
TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	28/31

Showing **【Program: OK!】** after update operation finished ,press “YES” next.



TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	29/31

Explosion Diagram



TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	30/31

818-321270-601 T32127-11 LCD SKD SET NPB_PAL for Funai

	P/N	Description	Unit
PCBA	510-270007-511	PCBA T27007-110 FRONT I/O BOARD	set
	510-271018-511	PCBA T27007 MAIN BOARD V1.0NPB	set
	510-320009-511	PCBA T32127 KEYPAD V1.0 NPB	set
	510-320010-511	PCBA T32127 IR BOARD V1.0 NPB	set
Internal cable	174-320609-601	WIRE T32127 IR 6P L=750 V2 N	pcs
	174-321009-601	WIRE T32127 KEYPAD 10P L55V1 N	pcs
	174-321009-601	WIRE T32127 KEYPAD 10P L55V1 N	pcs
	174-321012-601	WIRE T32127 DC_PO 10P L630 V2N	pcs
	174-321208-601	WIRE T32127 PANEL 12P L350 V2N	pcs
	174-321209-601	WIRE T32127 AV-SV 12P L950 NPB	pcs
	174-323006-601	WIRE T32127 PANEL 30P L90 V1N	pcs
Accessory	170-041501-601	P-CORD 250V 10A EU 3P BLK 1.5M	pcs
	210-320008-621	T32127 PC NAME PLATE NPB	pcs
	210-320009-621	T32127 AV NAME PLATE NPB	pcs
	210-320010-611	T32127 CARD READER NAME PLATE	pcs
	230-320007-611	T32001 PANEL MYLAR SHEET NPB	pcs
	290-270020-621	T27004 REMOTE CONTROL-PAL NPB	pcs
	404-000005-611	PE BAG #2 60*85MM NPB	pcs
	404-000009-611	RECLOSABLE BAG NPB	pcs
	404-270005-011	T27001 MEALIE BAG	pcs
	480-320038-611	T32127 USER'S MANUAL-FUNAI NPB	pcs
	482-000010-621	WARRANTY CARD-FUNAI NPB	pcs
	488-320002-611	T32127 APPL.GUIDE-STD NPB	pcs
Mechanical Part's	200-320059-6101	T32127 BACK COVER NPB	pcs
	200-320060-6101	T32127 WO ATSC PLATE NPB	pcs
	200-320061-6101	T32127 ATSC PLATE NPB	pcs
	460-320027-611	T32127 SAFETY LABEL-FUNAI NPB	pcs
	462-000010-011	LOGO FUNAI	pcs
	527-321270-501	T32127 STAND KIT NPB	set
	531-321270-505	T32127 SKD FRONT BEZEL KIT NPB	set
	533-321270-503	T32127 FUNCTION KEY KIT NPB	set
Packing Metial	401-320038-611	T32127 MAIN CARTON-FUNAI NPB	pcs
	405-320002-611	T32127 SIDE CUSHION-R NPB	pcs
	405-320003-611	T32127 SIDE CUSHION-L NPB	pcs
Screws	600-740006-610	SCREW PH D4*6 C2 NPB	pcs
	601-030005-610	SCREW BH M3-0.5*5 C2 NPB	pcs
	601-030005-610	SCREW BH M3-0.5*5 C2 NPB	pcs
	601-030005-610	SCREW BH M3-0.5*5 C2 NPB	pcs

TITLE	Funai_NLC-3216 Level 1 Service Manual Without Tuner	DATE	02/10/2006
		VER	V1.0
		PAGE	31/31

	601-030005-610	SCREW BH M3-0.5*5 C2 NPB	pcs
	601-030005-610	SCREW BH M3-0.5*5 C2 NPB	pcs
	601-040005-610	SCREW BH M4-0.7*5.5 C2 NPB	pcs
	601-040005-610	SCREW BH M4-0.7*5.5 C2 NPB	pcs
	601-040005-610	SCREW BH M4-0.7*5.5 C2 NPB	pcs
	601-040005-610	SCREW BH M4-0.7*5.5 C2 NPB	pcs
	601-040005-610	SCREW BH M4-0.7*5.5 C2 NPB	pcs
	601-730008-610	SCREW BH D3*8 C2 NPB	pcs
	601-730008-610	SCREW BH D3*8 C2 NPB	pcs
	601-730008-610	SCREW BH D3*8 C2 NPB	pcs
	601-730008-610	SCREW BH D3*8 C2 NPB	pcs
	601-730008-610	SCREW BH D3*8 C2 NPB	pcs
	601-730008-610	SCREW BH D3*8 C2 NPB	pcs
	601-730008-610	SCREW BH D3*8 C2 NPB	pcs
	601-730008-610	SCREW BH D3*8 C2 NPB	pcs
	601-740012-610	SCREW BH D4*12 C2 NPB	pcs
	601-740012-610	SCREW BH D4*12 C2 NPB	pcs
	601-740012-610	SCREW BH D4*12 C2 NPB	pcs
	601-740012-610	SCREW BH D4*12 C2 NPB	pcs
	603-040008-040	SCREW IH M4-0.7*8 C2	pcs
	603-040008-610	SCREW IH M4-0.7*8 C2 NPB	pcs
	605-204007-611	SCREW HH UNC4#-40*7 H5 NPB	pcs
Others	103-320010-001	T32127 EDID STD	pcs
	103-320012-001	T32127 EDID STD	pcs
	103-322006-001	T32127 F/W MCU STD PAL	pcs
	154-080806-501	SPK 8W 8R D66.8*H40 L=600 N	pcs
	180-320002-601	32" LCD PANEL MODULE 1366*768	pcs
	185-017901-611	AC/DC POWER SUPPLY 179W NPB	pcs
	195-130002-601	TUNER PAL IEC-MALE 11P	pcs