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## 3 Alignments and Adjustments

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### 3-1 Service Instruction

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1. Usually, a color TV-VCR needs only slight touch-up adjustment upon installation.  
Check the basic characteristics such as height, horizontal and vertical sync.
2. Use the specified test equipment or its equivalent.
3. Correct impedance matching is essential.
4. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test result.
5. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.
6. Do not attempt to connect or disconnect any wire while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.
7. To protect against shock hazard, use an isolation transform.

## 3-2 How to Access Service Mode

### 3-2-1 Entering Factory Mode

- To enter "Service Mode" Press the remote -control keys in this sequence :  
 - If you do not have Factory remote - control



- If you have Factory remote - control



### 3-3 Factory Data

Service	
PC Auto Color	↺"
Video Auto Color	↺"
Reset	↺"
DLC/MWE Part	↺"
SFR PART	↺"
Sub Adjust	↺"
UOC Adjust	↺"
Option	↺"
Checksum	↺"
Panel Information	↺"
Bus Stop : OFF	↺"
2005/06/23	
T-pls25nus-0906	

- . OSD which the basic adjustment is added.

- PC Auto Color
- Video Auto Color
- Reset
- DLC/MWE Part
- SFR PART
- Sub Adjust
- UOC Adjust
- Option
- Checksum
- Panel Information
- Bus Stop : OFF

\*. 2005/06/23: MCU firmware date.

\*. T-PLUS25NUS-0906: MCU firmware version information  
 (this information must be appended due to a compatibility problem report.)

- 1) Reset: Factory reset
- 2) Bus Stop: The communication Line ON / OFF

Move to the ( - ) / ( + ) key, select the 'Enter' key.

- 3) Auto adjustment

- 4) PC Auto Color/ Video Auto Color :in case that color of all screen is wrong, excute the PC Auto color at 16 gray pattern(refer to attach left 16gray pattern)

- 5) Checksum: MCU firmware checksum information  
 (this information must be appended due to a compatibility problem report.)

Service	
PC Auto Color	↺"
Video Auto Color	↺"
Reset	↺"
DLC/MWE Part	↺"
SFR PART	↺"
Sub Adjust	↺"
UOC Adjust	↺"
Option	↺"
Checksum	↺"
Panel Information	↺"
Bus Stop : OFF	↺"
2005/04/20	
TM-BRHMS20WW-0714	



DLC/MWE Part		
NVRAM Reset		ç"
DLC-	0-10	0
MWE-	0-1	1
Demo	0-1	0
Brightness+	0-255	100
Contrast+	0-255	113
Sharpness+	-10-10	1
Hue+	0-100	50
Saturation+	0-255	125
R Offset		46
G Offset		50
B Offset		56
R Gain		58
G Gain		50
B Gain		51

## 6) Dynamic Luma Adjustment

" - " : RF, AV, S\_Video -> all store

" + " : RF, AV, S\_Video -> apart store

SFR Part		
DCXO Sel.		0
DCXO Tune		64
OVMADAPT	0-1	1
OVMTHR	0-3	2
IF Demod	0-63	38
F FI	0-1	0
R0:77	R1:71	R2:81
R3:18	R4:0	R5:1F

## 7) Special Function Register

Sub Adjust		
R Blk Lvl+	0-63	28
G Blk Lvl+	0-63	20
Peak Frq/DLY+	0-3	0
Peak+	0-63	40
Soft Clip Lvl-	0-3	0
W Limit-	0-15	8
R White Pnt+	0-63	37
G White Pnt+	0-63	31
B White Pnt+	0-63	31
AGC T-O-	0-63	23

### 3 Alignments and Adjustments

UOC Adjust						
BKS-	0-1	1				
WSx-	0-3	2				
	0 0 0 0 0	20 20	2			
	0 20 20	20 20 20	20 20	2		
	0 20 20	20 19 26	.....			

### 8) UOC Adjustment

BKS : Black stretch  
 Wsx : White stretch

Adjust		
R Offset		20
G Offset		20
B Offset		20
R Gain		20
G Gain		20
B Gain		20
Sclr Coring+	0-255	35
	0 0 0	FF DD BD

Service	
Suwon + America	
Samex + America	
.....	
.....	
.....	
Help Menu	: On
Auto-Auto	: Off

### 9) Option: Spread Step / Spread Span (for EMI test )

Service		
Monitor	:	3 Hr
Panel Cycle	:	249
		Time Ch. No
Panel	:	3 Hr 0
Upper Lamp	:	3 Hr 0
Lower Lamp	:	3 Hr 0

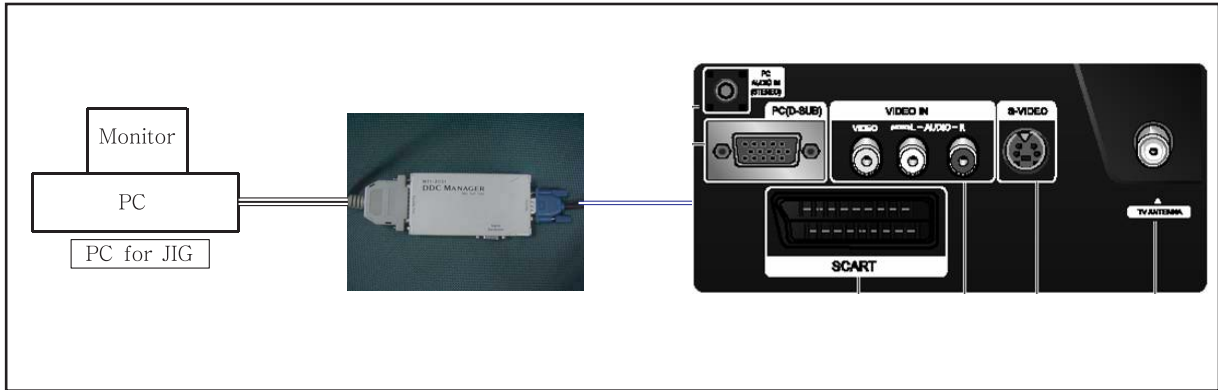
### 10) Panel Information

- various function are included in information.
- Monitor On Time : Power On Time
  - Panel Cycle : Panel On/off time (Power off, Mode change, DPMS on/off ...)
  - Panel : Panel on Time  
(when the panel is changed , select the Reset )
  - Lower lamp : Lower lamp on time  
(when the Lower lamp is changed , select the Reset )
  - Upper lamp : Upper Lamp on time  
(when the Upper Lamp is changed , select the Reset)

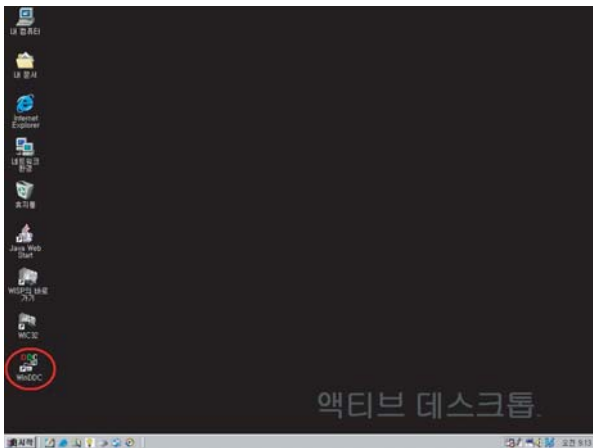
### 3-4 Service Adjustment

#### 3-4-1 EDID input method

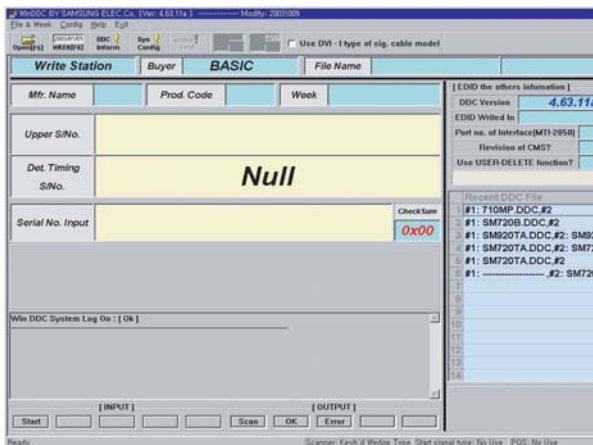
- SAMSUNG LCD TV support the DDC control JIG.
- You can see the connection between PC and LCD TV.



#### 3-4-2 EDID input method (Windows Program)

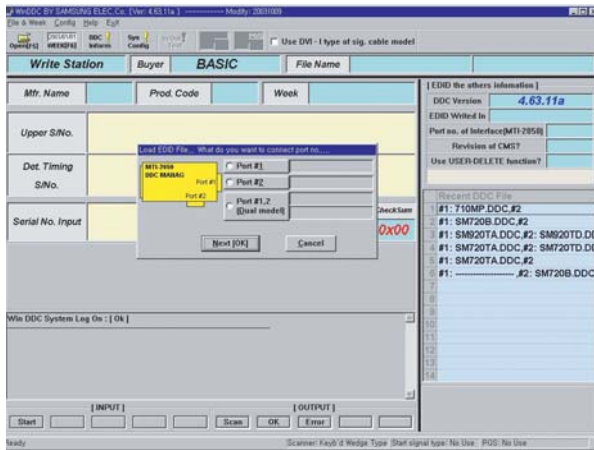


1. Execute "WinDDC.EXE"

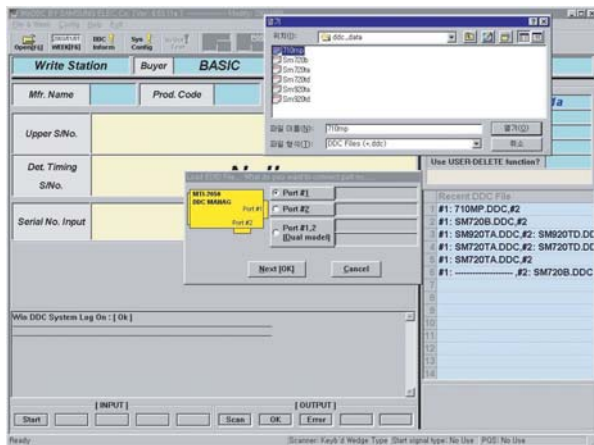


2. Click "Open[F5]"

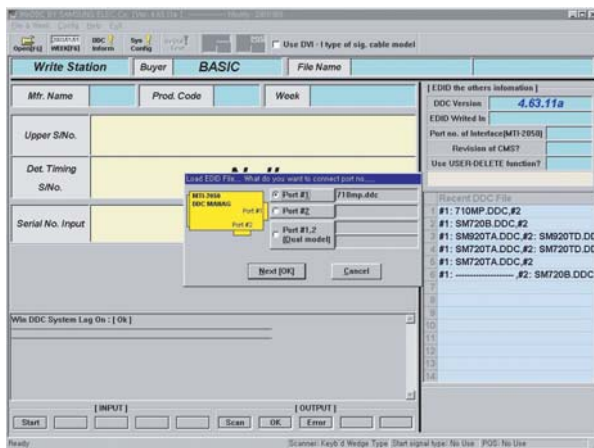
### 3 Alignments and Adjustments



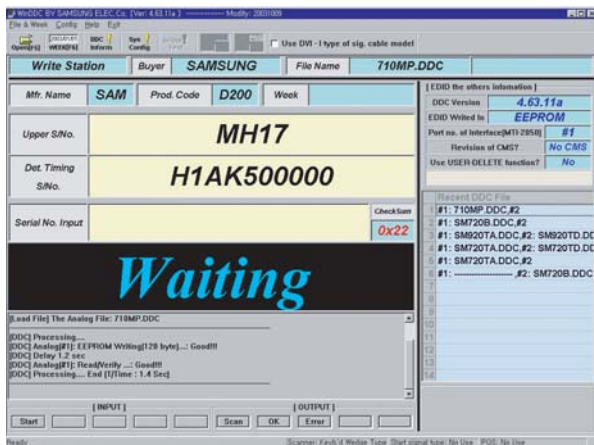
3. Select Connected Port#1 and Click Next OK.



4. Select Connected Port#1 and Click Next OK.  
Find file name : 15 inch : VE15  
17 inch : VC17  
20 inch : VC20

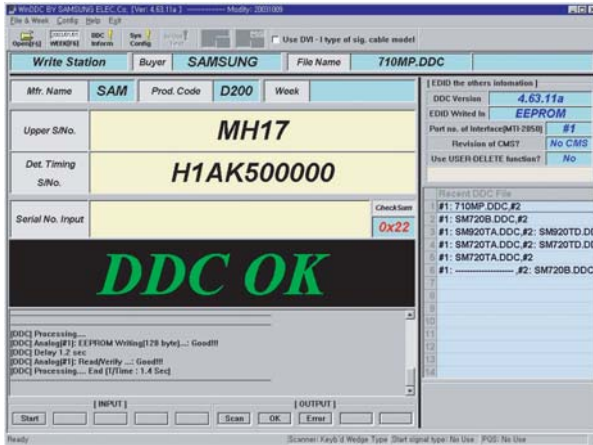


5. Click Next (OK) button.



6. Select enter button (on Key-Board) After Monitor S/N input.

8. Check "DDC OK".



### 3-4-3 Microm ( TDA15001H) Program Upgrade



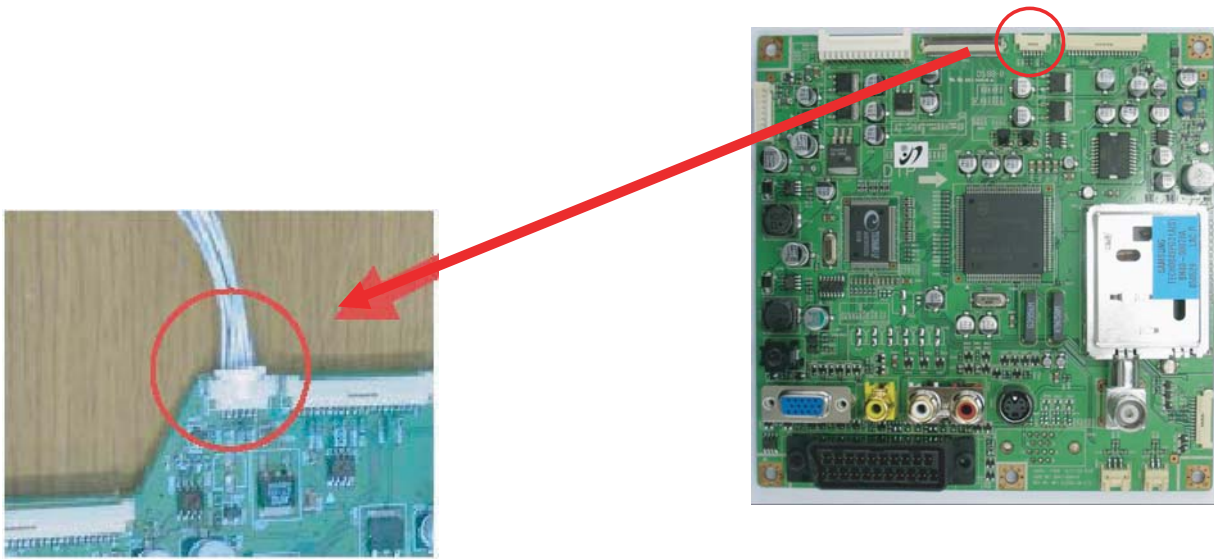
1. Program Upgrade Jig



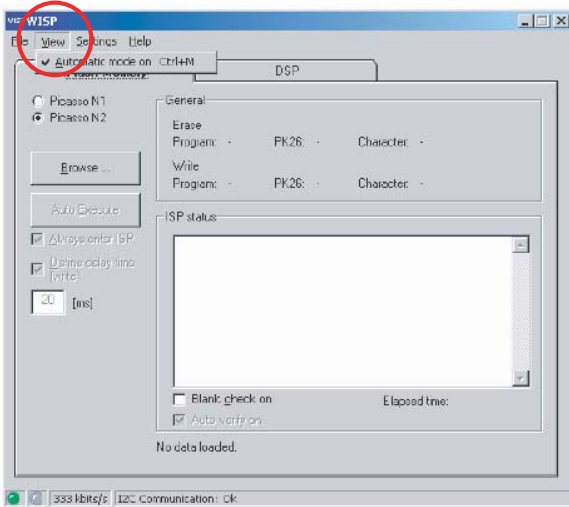
2. Connect the parallel Port

### 3 Alignments and Adjustments

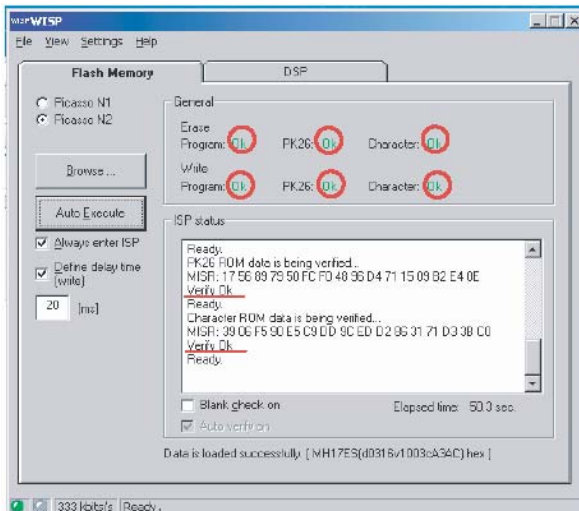
#### 3. Connect Jig to CN905 on PCB Ass'y



#### 4. Click "WISP" Icon on Computer.



#### 5. Check "Automatic mode on".



#### 6. Click "Browser" button : Select the Code , Click "Auto Execute" button Check Erase and Write OK In "General" window and check Verify OK in "ISP status" window.