

WinTera-1000 STORAGE BOX Manual

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INDEX

1. Storage box Setup

1-1 Front configuration	-----	3
1-2 Back configuration	-----	3
1-3 HDD Assembly	-----	4
1-4 Cable connection	-----	5

2. DIP SWITCH Setting ----- 6

2-1 SCSI ID Setting	-----	7
2-2 Terminator IC ON/OFF Setting	-----	8

3. SCSI BIOS Setting

3-1 ARC-29160 SCSI BIOS Setting	-----	9
3-2 AEC-67160 SCSI BIOS Setting	-----	12
3-3 LSI - 21040 SCSI BIOS Setting	-----	16

4. HDD Partition ----- 19

5. Caution ----- 23

1. Storage box Setup

1-1. Front Configuration



- a. HDD Fixing bolt
- b. HDD LED
- c. HDD Safety lock key

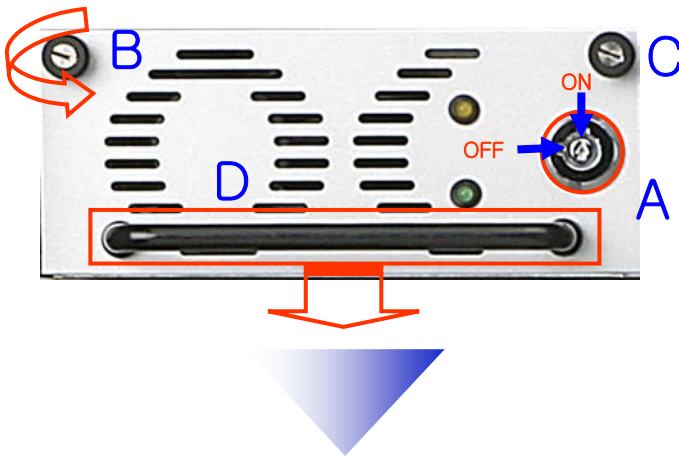
1-2. Back Configuration



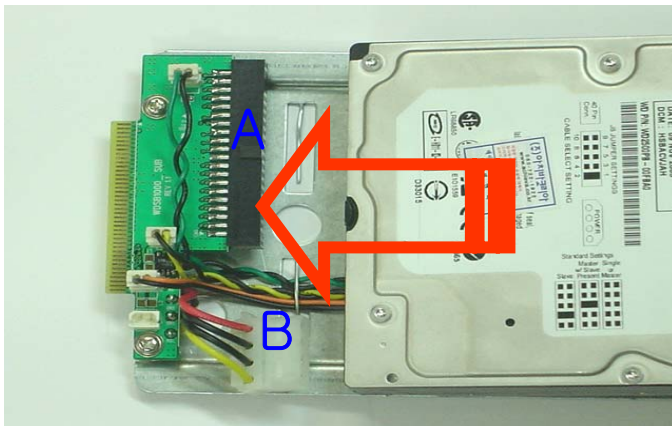
- a. Power input (AC 220)
- b. SCSI External input port
- c. DIP SWITCH
- d. SCSI External output port
- e. ON/OFF SWITCH

1. Storage box Setup

1-3 HDD Assembly



First, the safety lock – key (A) turns to set OFF, and screw the handle volts (B&C) all the way to left off. Next, pull the handle (D) out, the whole HDD case will be separated.



Connect the 4 lines–connector (B) and the 40 lines–connector (A) to a HDD with care according to the arrow direction.

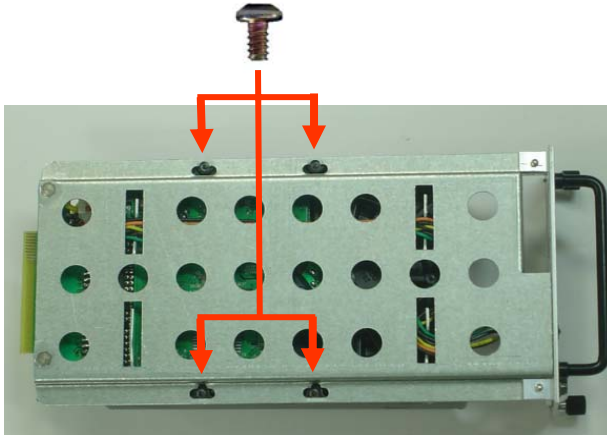
(When you connect HDD, should set jumper setting to 'Cable select'.)



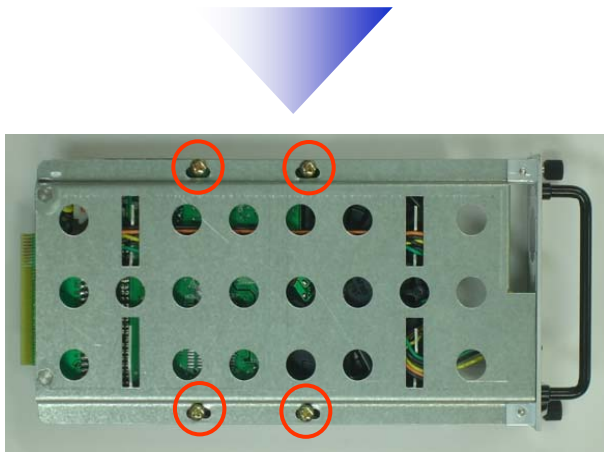
Make sure that 2 connectors are connected to the HDD in the right place.

1. Storage box Setup

1-3 HDD Assembly



Screw down tightly on the back side of the HDD case.



Make sure that 4 holes are tightened with bolts like the picture.

1-4 Cable Connection



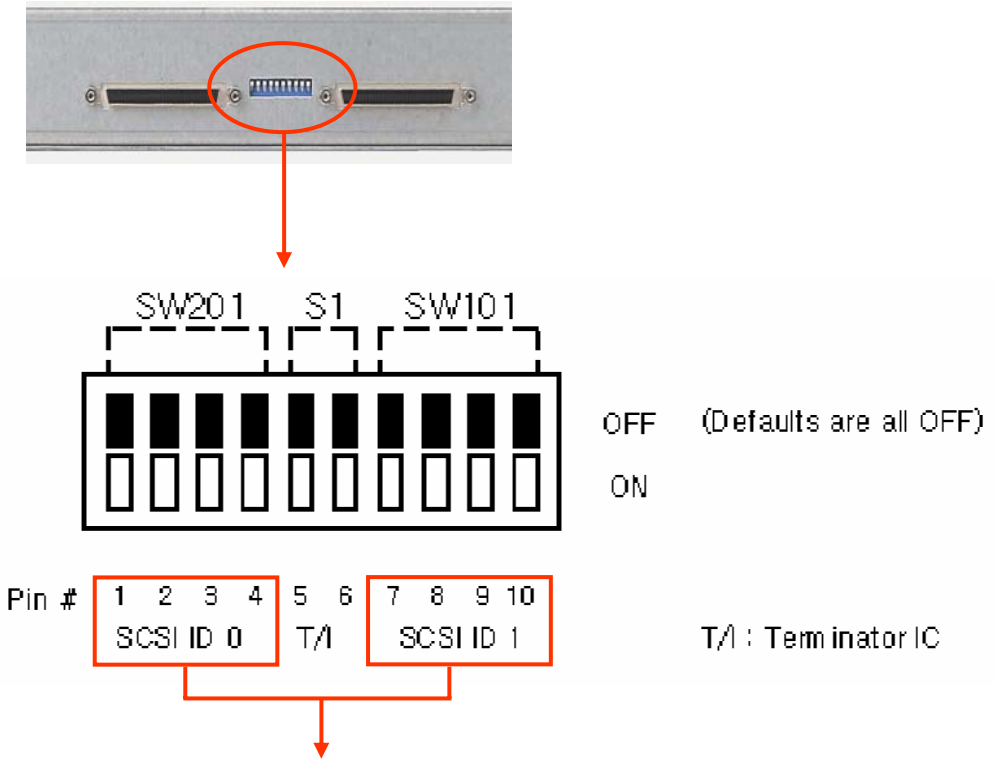
Connect the cable between SCSI Card on the back of DVR and a storage box.



Connect the cable between Input port on the back of storage box and DVR.

2. DIP SWITCH SETTING

You can set 7 storage boxes maximum. Each storage box has two 'SCSI's which have own SCSI ID number with DIP SWITCH.



One 'SCSI ID 0' has 4 pins (from 1 to 4), and the other 'SCSI ID 1' has also 4 pins (from 7 to 10). Each ID is granted from SCSI host adapter in order. (from 0 to 7)

(ref> DIP SWITCH setting table in next page)








- SCSI ID '7' can't be used in because SCSI host adapter holds the number.
- There shouldn't be same code (array).

Example) When using 'SCSI ID 0' and 'SCSI ID 1',

Pin #	1	2	3	4	Pin #	7	8	9	10
	OFF	OFF	OFF	OFF		ON	OFF	OFF	OFF

2. DIP SWITCH SETTING

2-1 DIP SWITCH Setting (except Terminator IC Setting)

<p>① Dip Switch Setting (When 1 storage box is connected to DVR, set the DIP switch like picture on the right.)</p>	
<p>② Dip Switch Setting (When 2 storage boxes are connected to DVR, set the first box like picture ① and the second box like picture on the right.)</p>	
<p>③ Dip Switch Setting (When 3 storage boxes are connected to DVR, set the first and second box like picture ①, ②, and set the third box like picture on the right.)</p>	
<p>④ Dip Switch Setting (When 4 storage boxes are connected to DVR, the fourth storage box DIP set like picture on the right. Other boxes set same way of the above.)</p>	
<p>⑤ Dip Switch Setting (When 5 storage boxes are connected to DVR, the fifth storage box DIP set like picture on the right. Other boxes set same way of the above.)</p>	
<p>⑥ Dip Switch Setting (When 6 storage boxes are connected to DVR, the sixth storage box DIP set like picture on the right. Other boxes set same way of the above.)</p>	
<p>⑦ Dip Switch Setting (When 7 storage boxes are connected to DVR, the seventh storage box DIP set like picture on the right. Other boxes set same way of the above.)</p>	

★ Caution!

- Do not change DIP switch setting while storage boxes are working.
(To change the DIP switch setting, you have to turn off both DVR and storage boxes.)
- Do not connect SCSI cable to the SCSI output port of last storage box.
- If you change the DIP switch setting while working, the stored data will be gone or operating system won't work properly.

Ref>

If you want to set 7 storage boxes, each storage box has to be set like pictures as next page.

2. DIP SWITCH SETTING

2-2 Terminator IC ON/OFF Setting

	Pin # 5~6 ON	Pin # 5~6 OFF
Condition	Terminator ON	Terminator OFF

Terminator IC ON/OFF is related to the DIP Switch setting that a SCSI host adapter finds the final port which is connected to SCSI. Therefore, **the terminal IC setting should be ON in the last connected storage box among them.**

(While using 3 storage boxes, if the terminal IC is ON both the second storage box and third storage box, the third storage box will be malfunction or working improperly.)

- Caution!** :
- 1) Do not change DIP switch setting while storage boxes are working.
 - 2) You have to turn off both DVR and storage box to change the DIP switch setting.

3. SCSI BIOS Setting

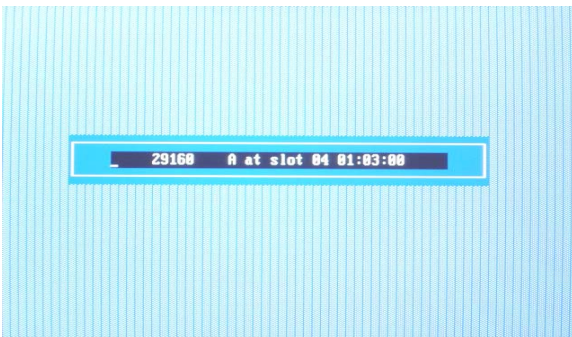
The most stable SCSI host adapters in a storage box are 'ARC-29160', 'AEC-67160', 'LSI-21040'.

See each CMOS setup below.

3-1 ARC 29160 SCSI BIOS setup



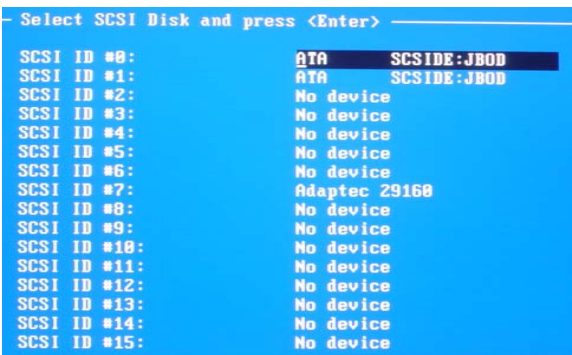
1. First, turn on a storage box. 10 seconds later, turn on DVR system, then press [Ctrl] and [A] key on your keyboard.



2. Select 29160 A at slot xx xx:xx:xx'.



3. Select 'SCSI Disk Utilities'.

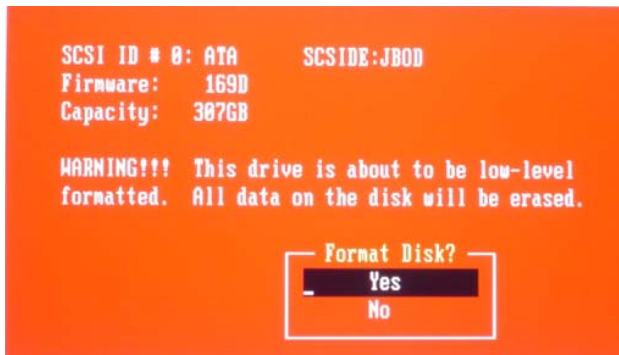


4. Make sure that all HDDs are set in the system after HDD SCANNING. (You can check the capacity of each HDD if you select a IDX.)

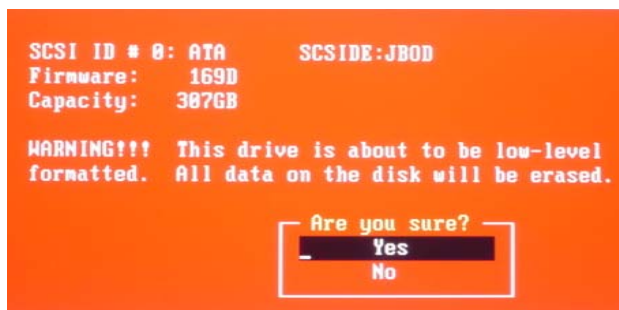
3. SCSI BIOS setting



5. To format, select each IDX.
Then, press 'Enter' key.



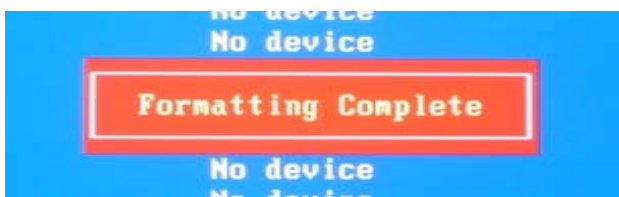
6. The system will show this message to make sure of format.



7. Press 'Yes' to start format.

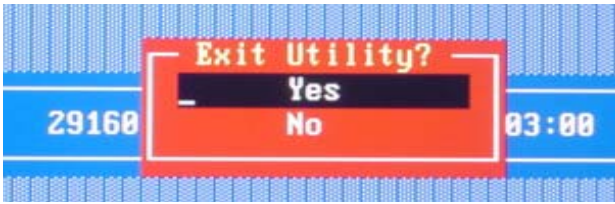


8. This message will come out during process.



9. This message will come out after it finishes formatting.

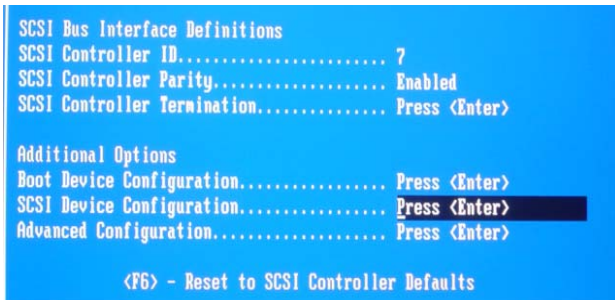
3. SCSI BIOS Setting



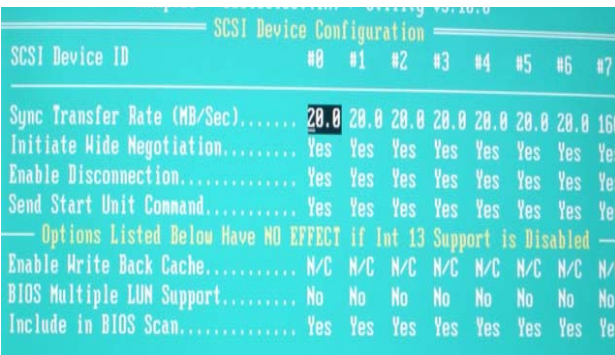
10. To exit this utility, press 'Enter' key on 'yes'



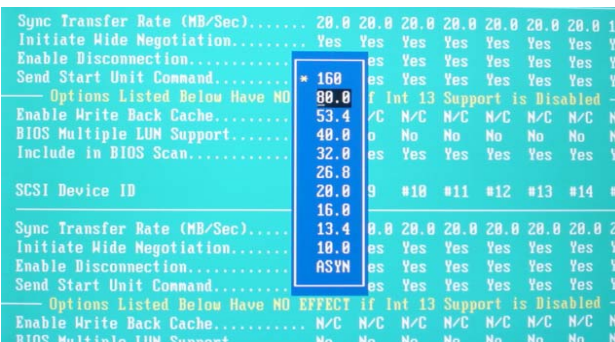
11. Select 'SCSI Controller Setting' in options.



12. Press 'Enter' key on 'SCSI Device Configuration' in Additional Options.



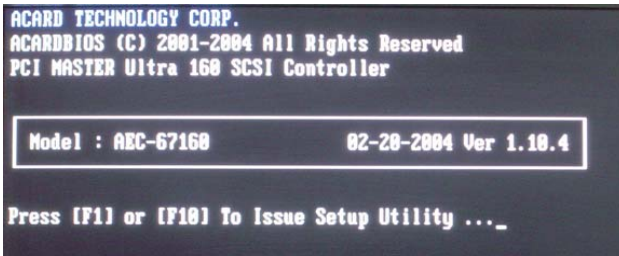
13. To set 'Sync Transfer Rate', press 'Enter' Key.



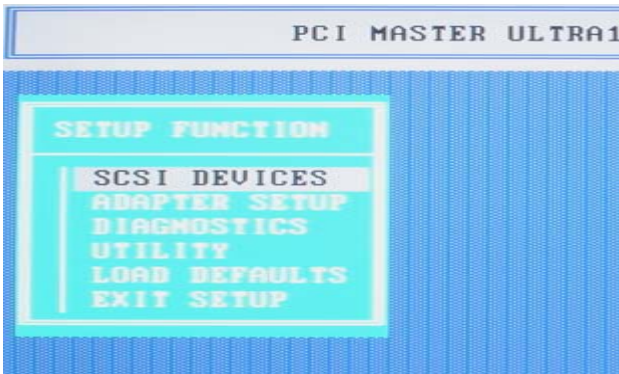
14. If the blue window comes out, set 'Sync Transfer Rate'
 (It depends on the number of Storage Box.)
 < 1 box ~ 3 box : 80 >
 < 4 box ~ 7 box : 40 >

3. SCSI BIOS Setting

3-2 AEC-67160 SCSI BIOS Setup.



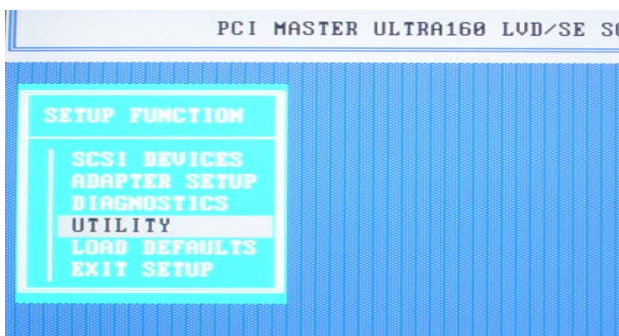
1. Turn on a storage box first.
10 seconds later, turn on DVR system.
Then press [F1] or [F10] to set SCSI.



2. Select 'SCSI DEVICES' in SETUP FUNCTION.

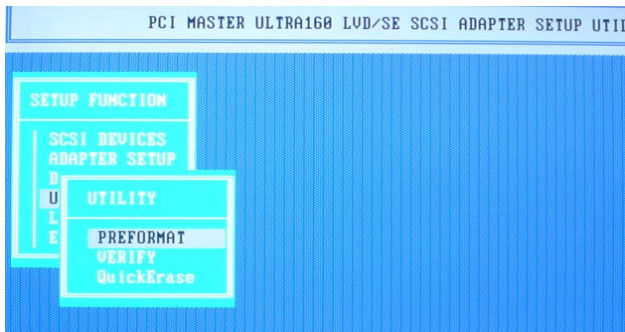
ID	DEVICE TYPE	CAPACITY	DEVICE INFORMATION
0	00(HARD DISK)	307GB ATA	SCSIDE:JBOD 169D
1	00(HARD DISK)	345GB ATA	SCSIDE:JBOD 169D
2	no device		
3	no device		
4	no device		
5	no device		
6	no device		
7	*Host Adapter		

3. Make sure that all HDDs are set in the system after HDD SCANNING.
(You can check the capacity of each HDD if you select any IDX.)

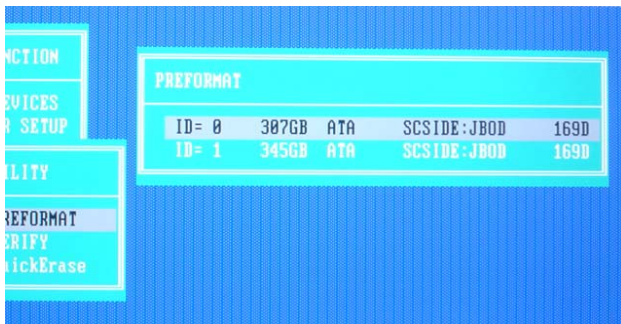


4. To exit, press 'Esc' key.
Then, select 'UTILITY' in SETUP FUNCTION.

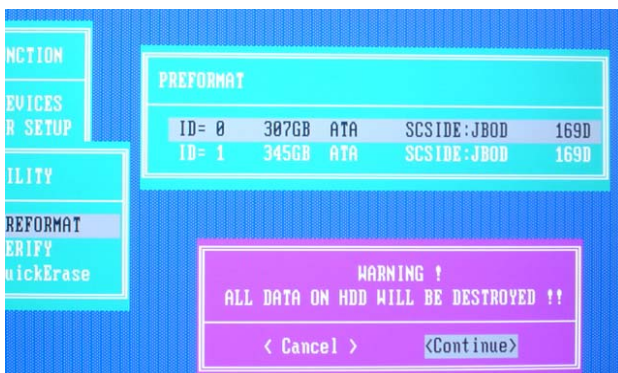
3. SCSI BIOS Setting



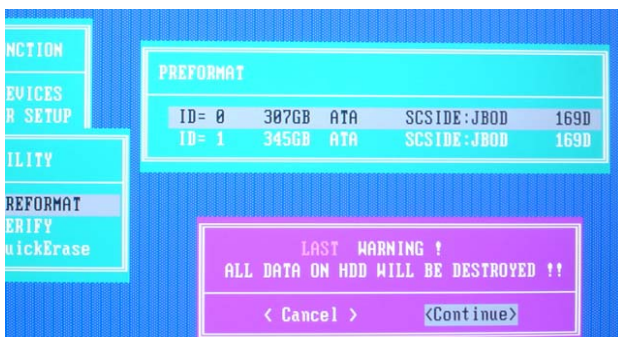
5. Select 'PREFORMAT' in 'UTILITY'.



6. To start format, press 'Enter' key on SCSI

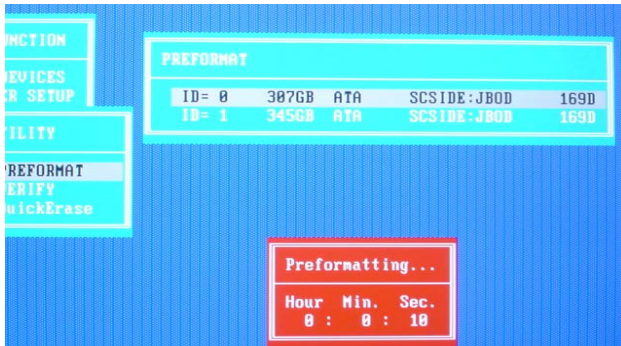


7. Select 'Continue' after the 'WARNING!' message comes out.

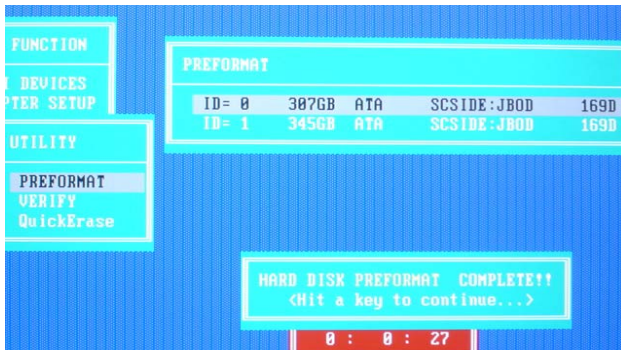


8. Select 'Continue' again, after the 'LAST WARNING' message comes out.

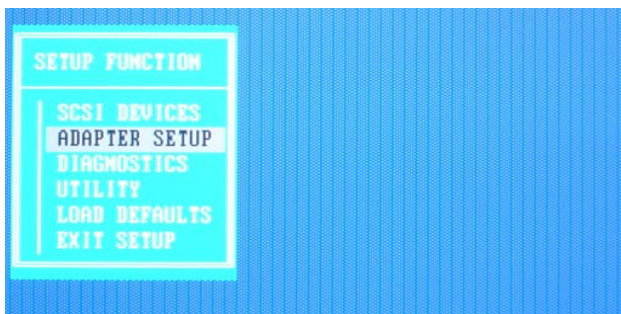
3. SCSI BIOS Setting



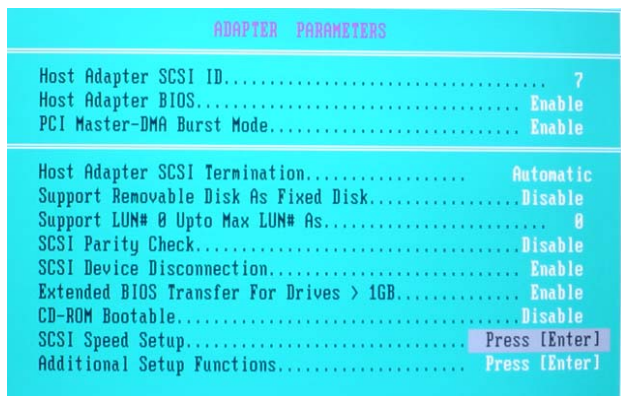
9. The red window will come out in the process of preformatting.



10. This message will be shown after it completes preformatting.

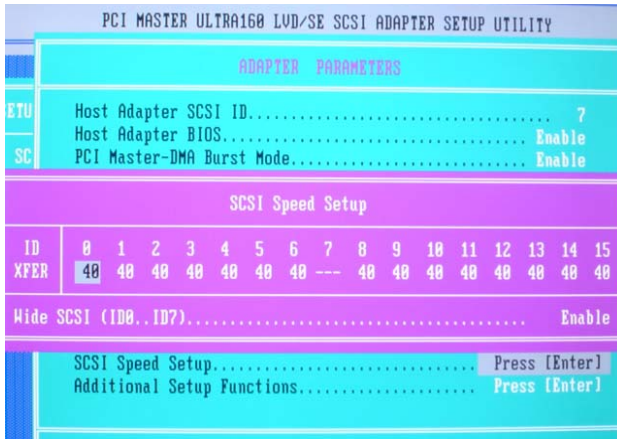


11. To exit, press 'Esc' key then, select 'ADAPTER SETUP' in SETUP FUNCTION.



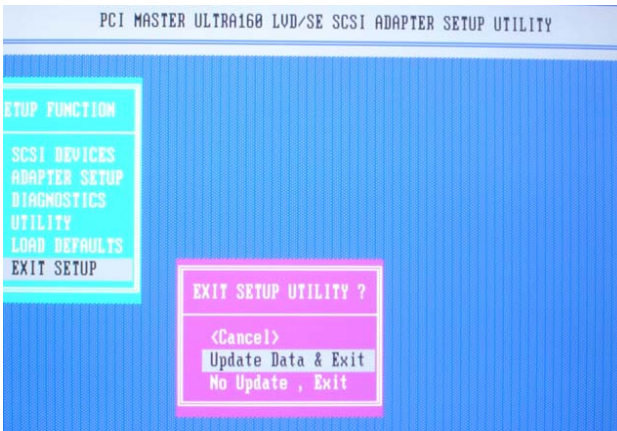
12. Select 'SCSI Speed Setup', and press 'Enter' key.

3. CMOS Setting



13. Set the speed of SCSI
(It depends on the number of storage box in use.)

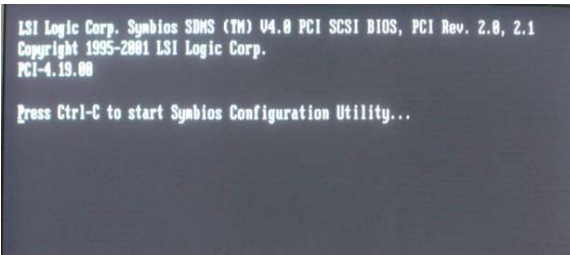
<1 box ~ 3 box : 80 >
<4 box ~ 7 box : 40 >



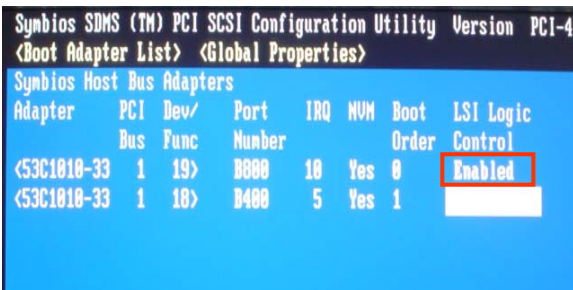
14. Press 'Esc' key to exit.
Then, select 'EXIT SETUP'
in SETUP FUNCTION and
'Update Data & Exit' in 'EXIT SETUP UTILITY'

3. SCSI BIOS Setting

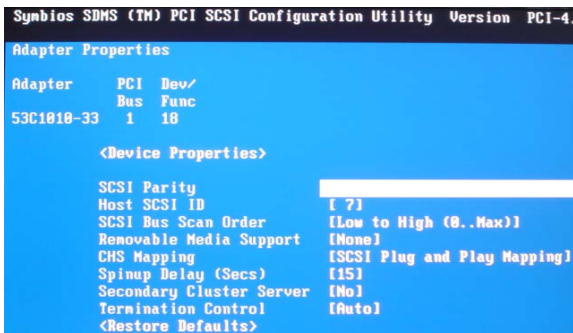
3-3 LSI-21040 SCSI BIOS SETUP



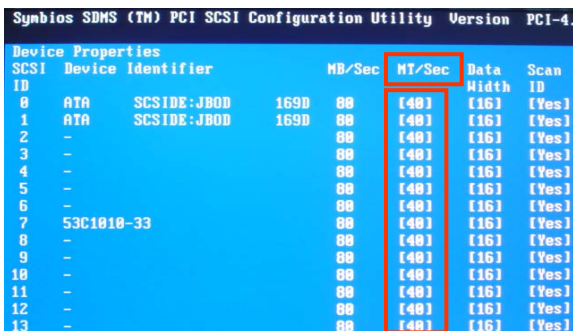
1. First, turn on a storage box. Then, 10 seconds later turn on DVR system. Press both [Ctrl] and [C] to set SCSI.



2. Make sure that all HDDs are set in the system properly after HDD SCANNING. Then, press 'Enter' key.



3. Press 'Enter' key on 'SCSI Parity' in 'Device Properties'



4. Move a cursor to 'MT/Sec', then set the speed on each ID. (It depends on the number of Storage Box.)

<1 box ~ 3 box : 80 >

<4 box ~ 7 box : 40 >

3. SCSI BIOS Setting

```
Symbios SDMS (TM) PCI SCSI Configuration Utility Version PCI-4.
Device Properties
SCSI Device Identifier      Boot      Format      Verify
ID                           Choice
0 ATA   SCSIDE:JBOD  169D [No]  <Format> <Verify>
1 ATA   SCSIDE:JBOD  169D [No]  <Format> <Verify>
2 -     -             [No]  <Format> <Verify>
3 -     -             [No]  <Format> <Verify>
4 -     -             [No]  <Format> <Verify>
5 -     -             [No]  <Format> <Verify>
6 -     -             [No]  <Format> <Verify>
7 53C1010-33 [No]  <Format> <Verify>
8 -     -             [No]  <Format> <Verify>
9 -     -             [No]  <Format> <Verify>
10 -    -            [No]  <Format> <Verify>
11 -    -            [No]  <Format> <Verify>
12 -    -            [No]  <Format> <Verify>
13 -    -            [No]  <Format> <Verify>
```

5. After moving the position to 'Format' with '→' key, format all 'ID's one after another.

```
Symbios SDMS (TM) PCI SCSI Configuration Utility Version PCI-4.
Format

SCSI Device Identifier
ID
0 ATA   SCSIDE:JBOD  169D

Status
WARNING! Format will change the sector size to 512 bytes.
Format will permanently erase all data on this device.
Format may take hours to complete and cannot be stopped.
Hit Enter to continue or any other key to cancel.
```

6. Press 'Enter' key to start format.

```
Symbios SDMS (TM) PCI SCSI Configuration Utility Version PCI-4.
Format

SCSI Device Identifier
ID
0 ATA   SCSIDE:JBOD  169D

Status
Formatting...
00:00:04
Please wait for completion message.
```

7. This message comes out in the processing.

3. CMOS setting

```
Symbios SDMS (TM) PCI SCSI Configuration Utility Version PCI-4.
Format

SCSI Device Identifier
ID
0 ATA SCSIID:JBOD 169D

Status
Formatting...
00:00:26
Format completed successfully.
Press any key
```

13. Press any key to go next step when finished format.

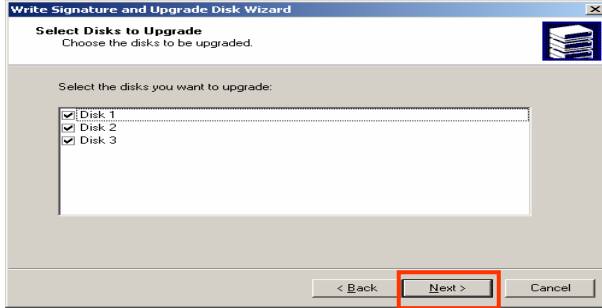
```
(TM) PCI SCSI Configuration Utility Version PCI-4.19.00

Adapter and/or device property changes have been made.
Exit the Configuration Utility
<Save changes then exit this menu>
<Discard changes then exit this menu>
```

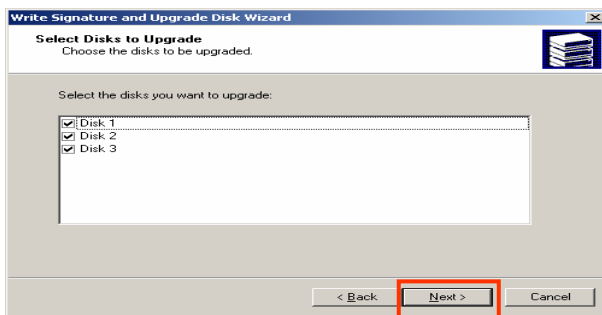
14. Select 'Save changes', and exit this menu' to finish setup.

4. HDD Partition

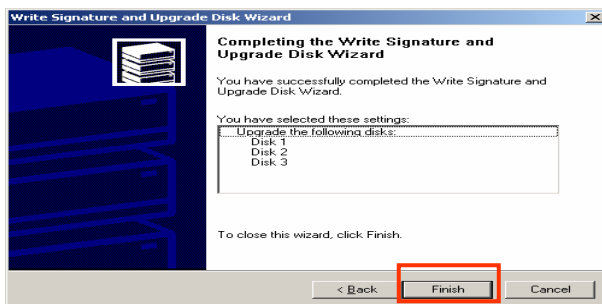
4-1 HDD Partition



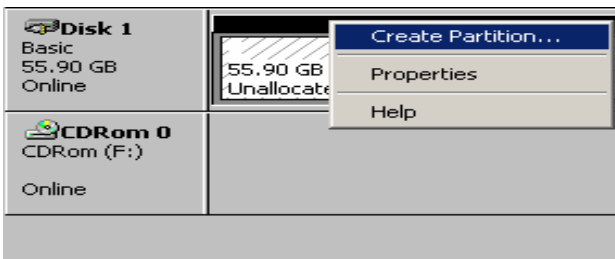
1. Select a HDD which is set on storage box system.
example) Disk1, Disk2, Disk3.....
Then, click 'Next' button after checking.



2. If 'Select Disks to Upgrade' menu is shown, Do not choose any disk, then just click 'Next' button.

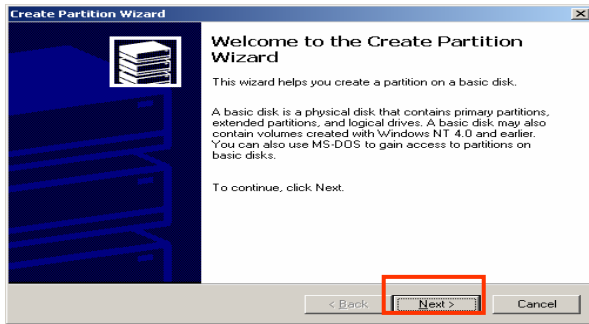


3. Click 'Finish' button after upgrade is over.

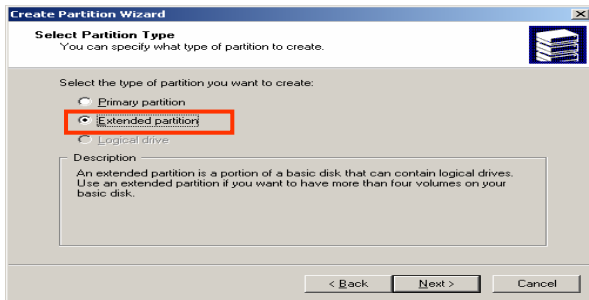


4. After moving the cursor on the upgraded disk, click right button and select 'Create Partition'.

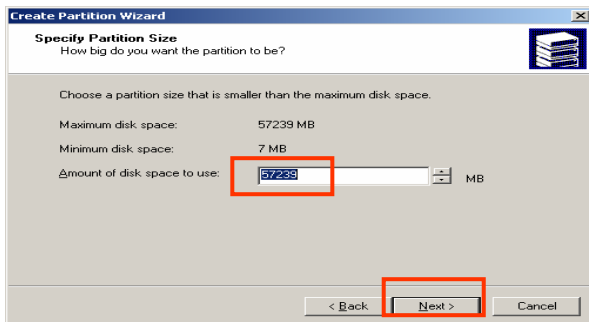
4. HDD Partition



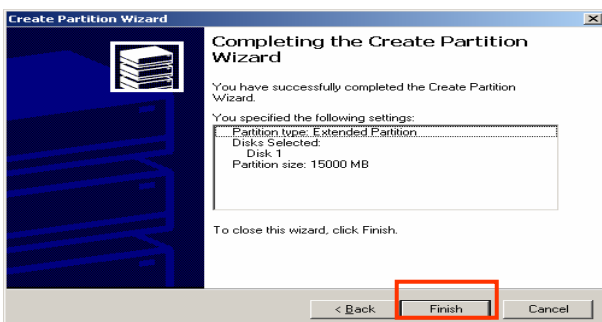
5. Click 'Next' button when the 'Welcome to the Create Partition Wizard' is shown..



6. Click 'Extended Partition' button, then click 'Next' button.

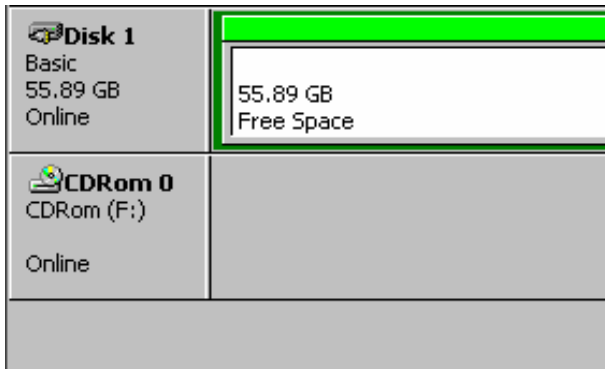


7. Click 'Next' button without any change.
(Whole space is used usually.)

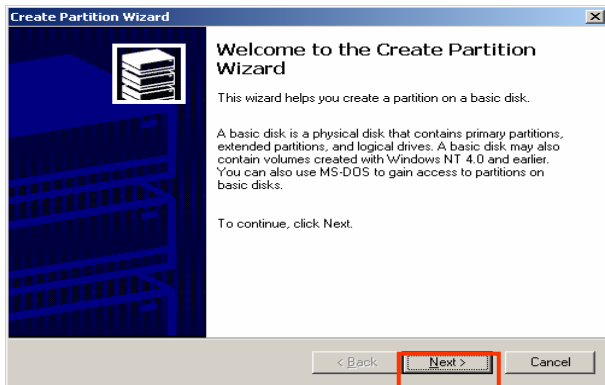


8. When it completes, click 'Finish' button.

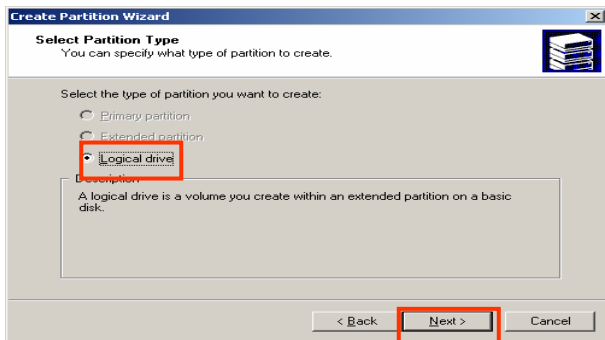
4. HDD Partition.



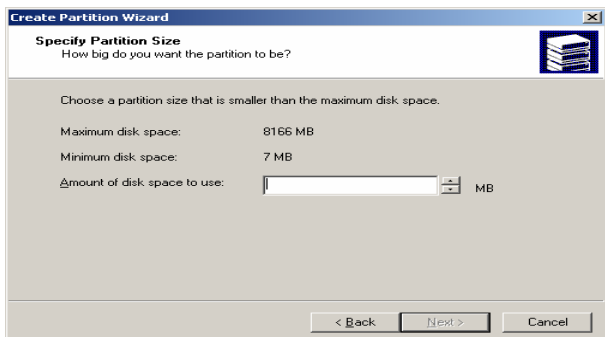
9. Click right button of your mouse, and choose 'Create Logical Drive'.



10. Click 'Next' button to begin.

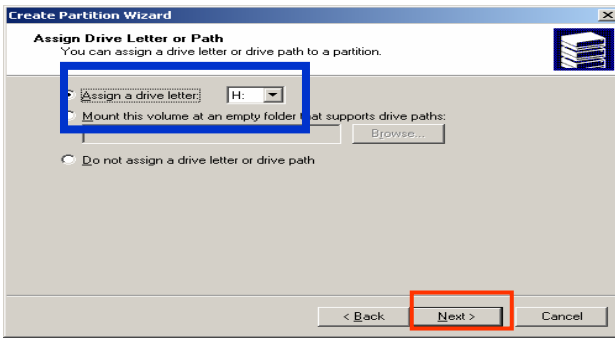


11. Click 'Next' button after selecting 'Logical Drive'

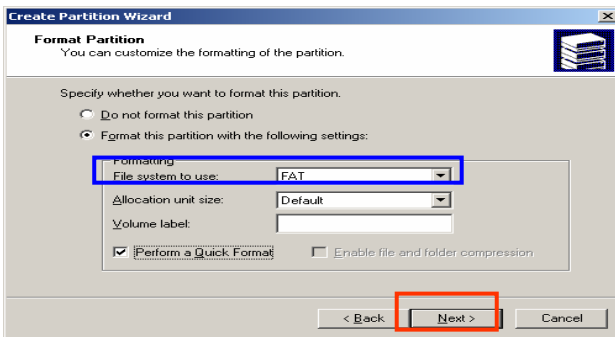


12. Click 'Next button' after choosing the size of HDD space.
(Usually, 4 HDDs (D, E, F, G) are used in DVR System and C drive is allotted to operating system.)

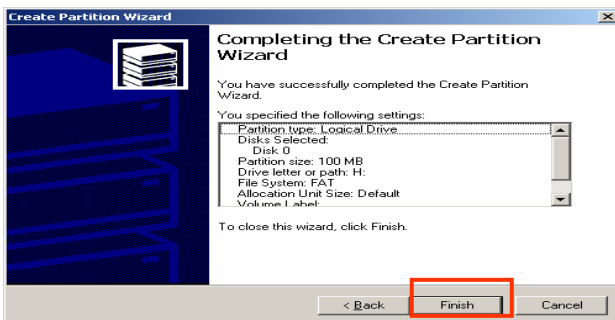
4. HDD Partition



13. Assign drive letter.
(you'd better use assigned drive letter automatically by computer.)



14. Choose NTFS as 'file system to use' and leave empty space 'Volume label' then, choose 'Perform a Quick Format'. After that, click 'Next' button.



15. Click 'Finish' button.

<Caution and Recommendation>

- * Basically, 24 alphabet letters in Windows system are assigned to drive letters from C to Z, and DVR has 5 Drive letters. (A is assigned for a floppy disk and B is not available.)
- * By the way, If 7 storage boxes (14 HDDs) are set and used in system, don't try to make a partition in every storage box because of lack of the driver letters.

5. Caution

When you set a storage box on 'Rack mount', you should use two handles on the both side (red circle mark). If you try to use handles (red X mark) on HDD rack of storage boxes, HDD racks might be broken. Therefore, use two handles on the both side of storage box.

