# **Notes on handling HDD**

Be aware of the following at HDD installation and recovery:

The network disk recorder, WJ-ND400, is described as ND400 and the extension unit, WJ-HDE400, as HDE400.

### <Notes for HDD installation>

If an HDD unit is added during the operation described below, the ND400 and HDE400 do not recognize the HDD unit to be added.

- Process of HDD recognition
- Process of HDD removal
- Process of logging in the configuration using the Web browser
- Process of measurement using the Web browser

### **Solution**

Remove the unrecognized HDD unit once, and install the HDD unit again after completion of the operation described above. When installing 2 or more HDD units, perform HDD recognition unit by unit.

### <Notes for RAID5/RAID6 recovery>

Never turn off the power during the RAID5/RAID6 recovery. Failure to observe this may fail to retrieve the data.

The following cases obstruct the start of RAID5/RAID6 recovery.

- Case that the failed HDD unit is replaced in the power-off state and then the power of this unit is turned on
- Case that 2 HDD units are replaced and then the power of this unit is toggled on and off during the recovery of one HDD unit when 2 HDD units in the RAID6 fail

In this case, the recovery of one HDD unit will start, but the recovery of the other HDD unit will not start.

#### **Solution**

Remove the HDD unit the recovery of which will not start, and install the HDD unit again.

# Notes on using audio and VMD search

To use audio and VMD search, the total number of recording cameras plus channels for audio plus channels for VMD search shall be 64 or less.

Number of recording cameras + number of channels for audio + number of channels for VMD search  $\leq 64$ 

Failure to observe this may cause unrecorded images that should be recorded, undisplayed live images that should be displayed, unissued alarms that should be issued, depressed operational response, restart of ND400, etc.

Reference values for settings are indicated below.

Reference values at M-JPEG for com	pression method and 48 KB for image size

Number of cameras	Live image transmission rate (ips)	Recording rate (ips)	Number of channels for audio use	Number of channels for VMD search use	Number of PCs
64	5	5	0	0	4
48	5	5	0	16	4
48	5	5	16	0	4
32	5	5	16	16	4

Reference values at MPEG4 for compression method and 2 Mbps for bit rate, refresh interval: 1 sec.

Number of cameras	Live image transmission rate	Recording rate	Number of channels for audio		Number of PCs
			use	search use	
64	ALL	ALL	0	0	4
48	ALL	ALL	0	16	4
48	ALL	ALL	16	0	4
32	ALL	ALL	16	16	4

\* Measured values shall be used at 128 Mbps or less of the bit rate. (Refer to the Setup Instructions (PDF))

- \* The setting for PC is described at the case of 4-screen display. The total rate of recording, playing, and live image transmission shall be 200 Mbps or less.
- \* Refer to the operating instructions of the camera for how to set the VMD search.

# Notes on network connection

To connect between ND400 and PCs or between ND400 and cameras, use a gigabit-ready HUB.

Failure to observe this may cause unrecorded images that should be recorded, undisplayed live images that should be displayed, unissued alarms that should be issued, etc. resulting in collapsed live images or playback images.