

High-Quality Video Surveillance Codec

## TCS-200 Recording

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**TRUEN**

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# 1. Introduction

## 1. Information

This manual provides how to use the recording function of TCS-200 (Encoder) and TCAM series.

## 2. USB Device

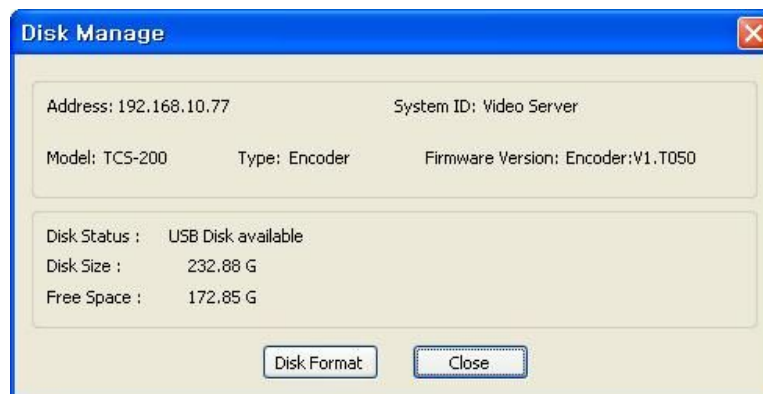
USB hard disk or memory stick can be used, and at least 1GB size is recommended. Either EXT3 or FAT32 file system can be used. A disk with either EXT3 or FAT32 file system can be read in Linux PC. However, only memory stick with FAT32 file system can be read in Windows PC. In case of formatting through True Manager, the disk is formatted as EXT3. File system could be unstable and easy to be broken if you format the disk in FAT32 on Windows PC.

## 2. Connecting Disk and Checking Status

Be sure to restart the system after connecting a USB disk. During booting, the system reads status of disk and initializes it. Once the initialization of a disk is finished, the status of disk is shown on **Record** page of web-based setup.



The status of a disk can be checked from the **Disk Manage** menu of True Manager as well.



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Refer to the chart for checking the status of disk.

Disk status	Description
Disk error detected	Error
No disk	Disk is not connected to the system.
Searching Disk information	Checking the status of disk. Refresh the page and wait until the status is changed.
Mounting and Recovering Disk...	Performing recovery process when disk damage is found. It takes from seconds to minutes for recovering.
Disk format needed	Disk is attached, but the type of the file system is unknown or damaged.
Unknown disk type detected	
USB Disk available - (format is recommended)	Disk is available, but formatting is recommended.
USB Disk available	Available to be used for recording
Disk formatting – Start	Disk is being formatted. System should not be turned off during formatting.
Disk formatting – Progressing.....	
Disk formatting – Writing inode tables 63/619	
Disk formatting – Creating journal.....	
Disk formatting – Writing Superblocks.....	
Disk format done, please wait for reboot.	
Disk removed or in abnormal state	Disk is detached during operation or there is damage on the file system. If it happens while disk is connected, it is recommended to format the disk.

### 3. Recording Setup

Refer to the following figure for configuration of recording. After changing any configuration, press **Apply** button.

**TRUEN Setup** [Live View](#) [Change User](#)

[System](#) [Video](#) [Audio](#) [Network](#) [Serial](#) [Event](#) [Preset](#) **Record** [User](#)

**Record** [Apply](#) [Search Page](#)

**Disk Information**

USB Disk available  
Disk Size : 232.88 G  
Free Space : 172.49 G

**General**

Use Record ☐ Off ☒ On  
Overwrite ☐ Off ☒ On  
Max File Size  [v](#)

**Event Type**

Event Type 1 ☐ Sensor1 ☐ Sensor2 ☐ Motion ☐ Video Loss  
Event Type 2 ☐ Sensor1 ☐ Sensor2 ☐ Motion ☐ Video Loss  
Event Type 3 ☐ Sensor1 ☐ Sensor2 ☐ Motion ☐ Video Loss  
Event Type 4 ☐ Sensor1 ☐ Sensor2 ☐ Motion ☐ Video Loss  
Pre-event Time  [v](#)  
Post-event Time  [v](#)

**Schedule Table**

☒ Record Off ☐ Continuous ☐ Disconnect  
Select ☐ Event Type 1 ☐ Event Type 2  
☐ Event Type 3 ☐ Event Type 4

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SUN																								
MON																								
TUE																								
WED																								
THU																								
FRI																								
SAT																								

#### General

- It can be configured whether recording function will be used or not.
- The action on disk full situation can be configured also. Recording stops automatically when **Overwrite** is **Off** and there are less than 100MB free space

in the disk. If **Overwrite** is **On**, the oldest data is deleted first on disk full situation. Free space of 300MB is maintained without recording data on it for normal operation.

- **Max File Size** is the menu for limiting the size of AVI file. If it is set a small size, file is created in small size and but numbers of file will be increased. If the recording time is over 10 minutes, new file will be created even though file size is smaller than size of file set in **Max File Size**.

### Event Type

- Three recording modes are supported in TCS-200: **Full-time**, **Event**, **Disconnect**. In case of Event recording, event types can be selected among several events. Selected event type is used for configuring the schedule table. Up to 4 event types can be configured and each event type can be a combination of sensor, video loss and motion event.
- **Pre / Post Event Time** specifies the duration of recording before and after an event happens and they are applied to 4 event types commonly.

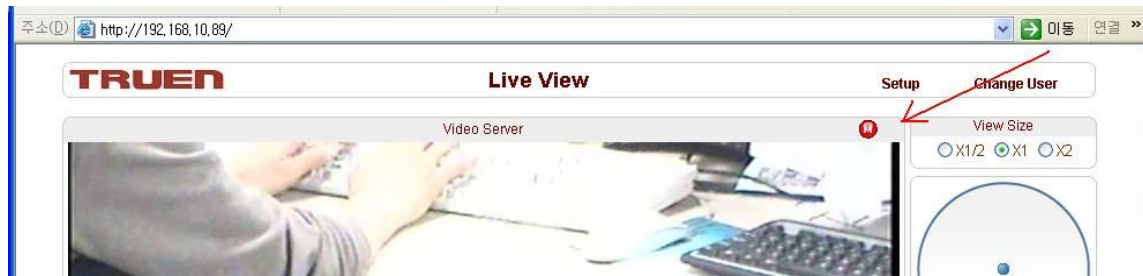
### Schedule Table

- Actual recording mode is determined by **Schedule Table**, where recording mode configured by day(of a week) and time.
- Each of recording mode configures the recording operation as follows:
  - **Record off** : No recording
  - **Continuous** : Records continuously
  - **Disconnect** : Data is recorded when the system loses the connection to its client(Decoder, CMS/NVR) etc. When one of its multiple clients system is disconnected, this doesn't happen.
  - **Event Type** : Records when an event configured in **Event Type** setting happens.

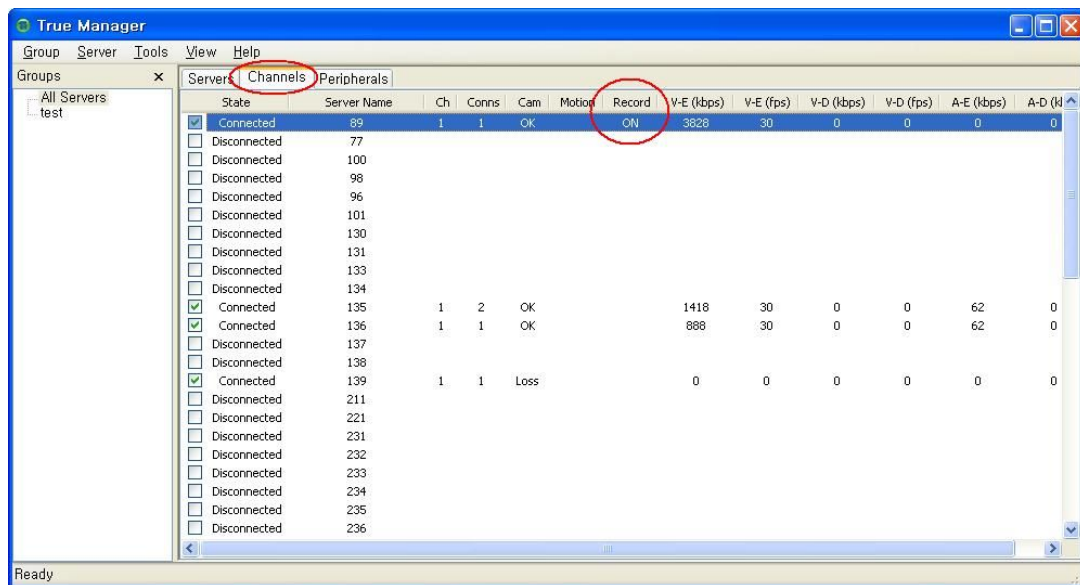
### Checking the status of recording

- Recording status can be shown on the main view page.

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- Recording status can be also shown in True Manager. When data is being recorded, **Record** column displays **ON** sign.





# 4. Search and Playback

## Recorded File

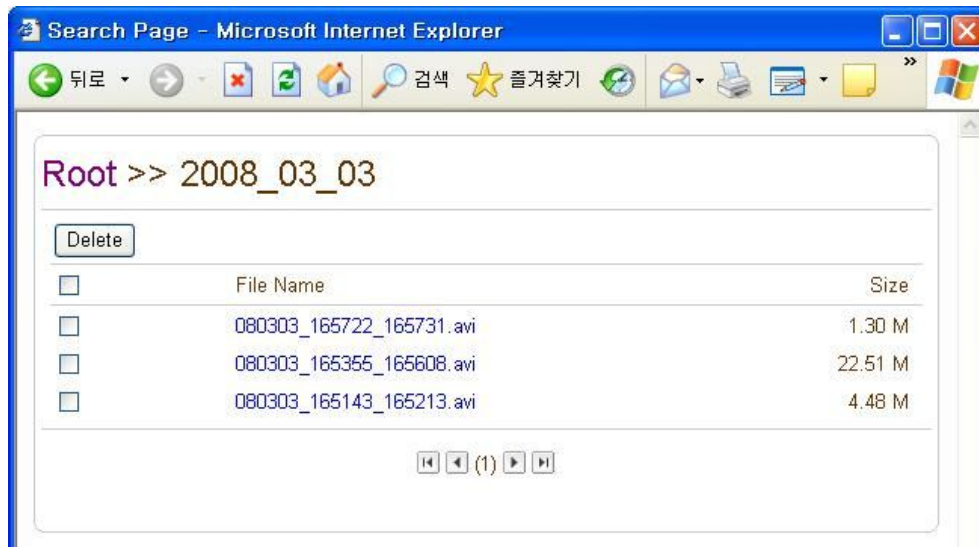
- Recorded video and audio data can be saved as AVI format in the disk.
- In general, one AVI file is created for an event in case of event-based recording. However, it is possible that recorded data by serious of events happening continuously can be merged to a single AVI file depending on pre/post event time setting. The size of file is limited to 10 ~ 200MB or 10 minutes.
- In case of continuous recording, AVI files are created in series and the size of each is limited to 10 ~ 200MB or 10 minutes.

## Search

- A file currently being recorded doesn't appear until it is completed. In case of Continuous recording, a file will be shown after 10 minutes from the start of recording, for a file is generated every 10 minutes.
- Press **Search Page** button on the **Record** setup page. Dates with recording data will be shown as follows.



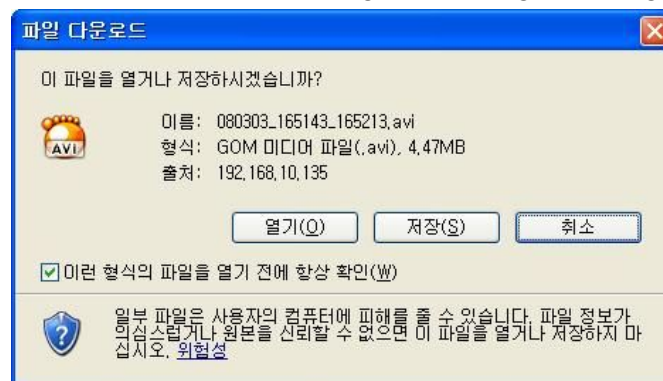
- First, choose the date for search and the list of AVI files will be shown.
- The file name shows the date and time: "**Date\_Begin Time\_End Time.avi**".



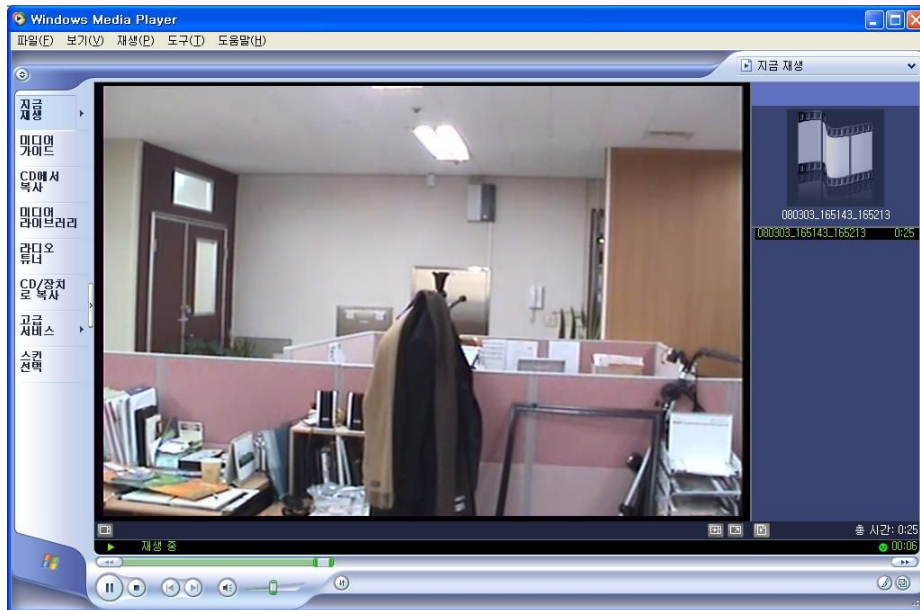
- Press **Root** to move back to the page with date list.

### Playback

- Selecting an AVI file will show a dialog for opening or saving the file.



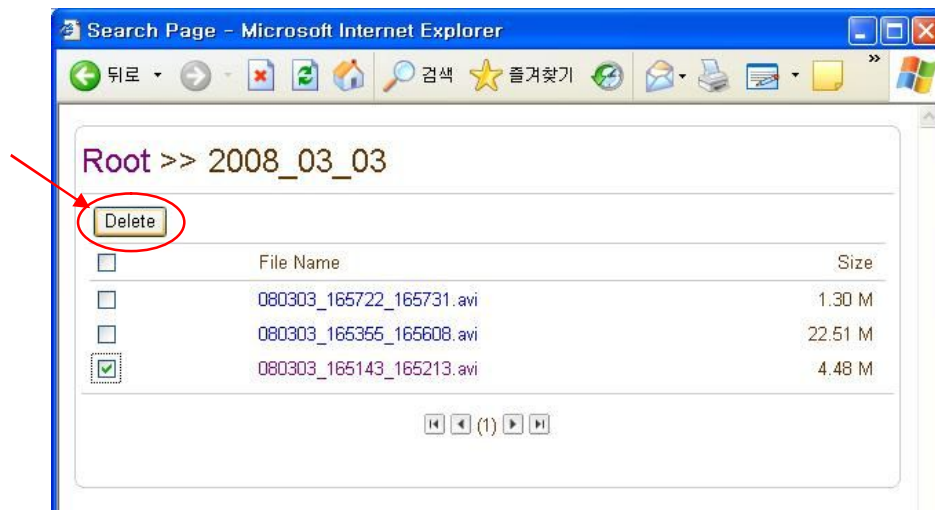
- Pressing **Save** button, the file will be stored in the PC. The AVI file can be played with Windows Media Player.



- If you press **Open** in the dialog, the file will be downloaded and played automatically with Media Player.
- Another connection through web is disabled during downloading and it is also not allowed to download two AVI files at the same time.

### Deletion

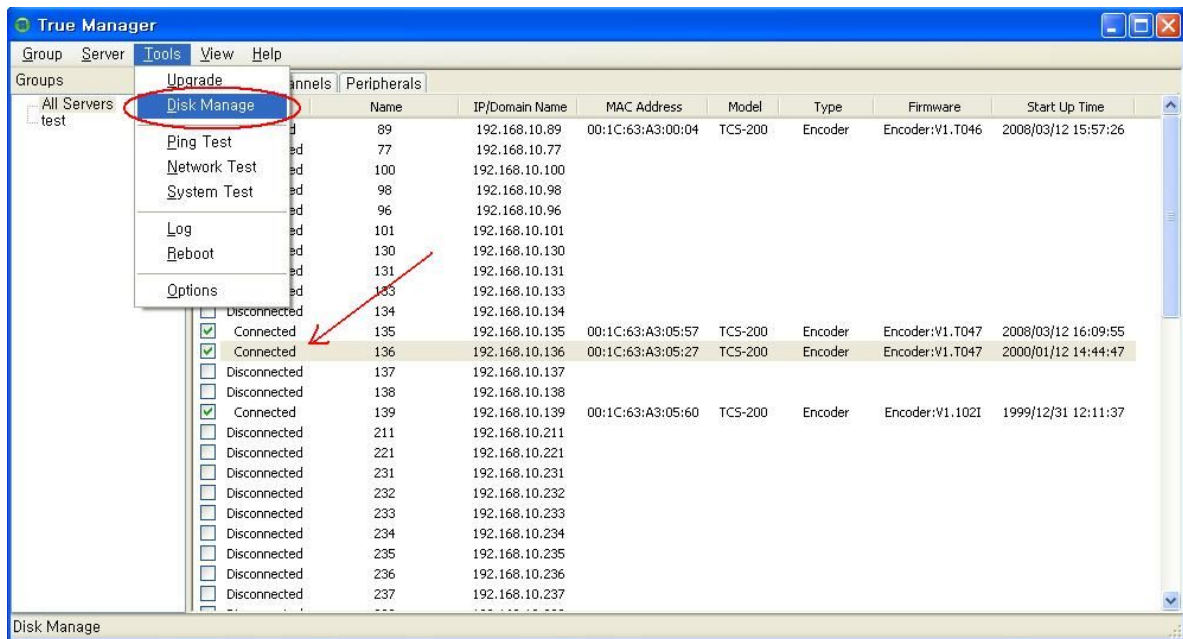
- If you want to delete recorded files, select the files by checking the item in front of each file and press **Delete** button.



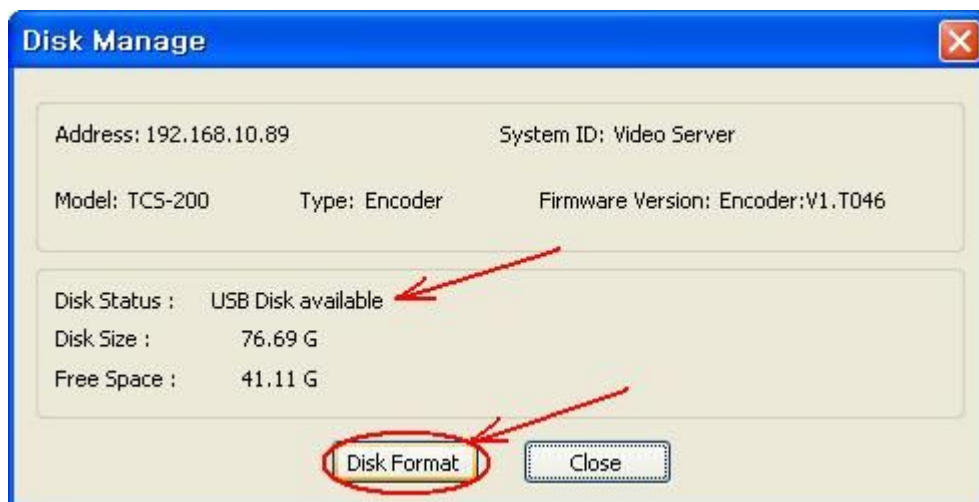
- It is possible to delete multiple files at once.

## 5. Formatting Disk

- True Manager is used to format a disk which is connected to the system.
- After connecting True Manager to a system, choose **Disk Manage** on **Tools** menu.



- Check the status of the disk in the dialog and press **Disk Format** to format the disk.



- During formatting a disk, the progress will updated on **Disk Status** item. The system may be rebooted depending on the situation. Once **USB Disk**

- available** is displayed, it means that formatting is completed successfully.
- Once formatting is started, it is not allowed to cancel. Even if you close **Disk Manage** dialog, formatting is continued.

### 6. Trouble Shooting

- There may be a damage in the file system if you turn off the power of TCS-200 or disconnect USB memory stick or USB HDD while data is being written.
- In case of FAT32, recording can't be done normally if the file system is damaged. If this happens, the disk or memory stick should be reformatted on the PC.
- In case of EXT3, if the trouble in the file is not serious, it can be recovered by itself. The recovery is executed at initialization of the system. Recording is not performed while recovery is in progress.

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