

**MITSUBISHI
ELECTRIC**

DIGITAL RECORDER

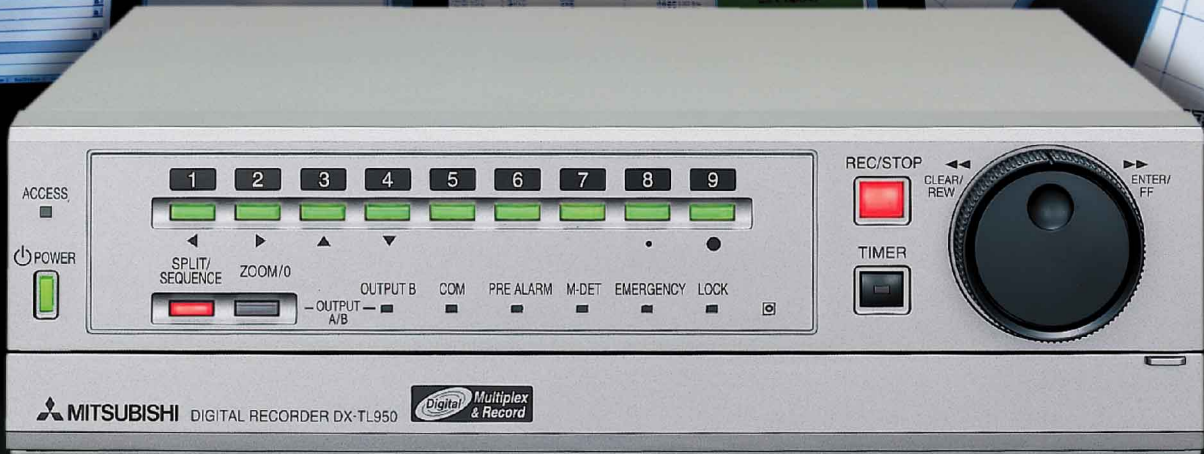
Changes for the Better



ISO 9001
JQA-0521

*Highly efficient and compact digital recorder
with networking capability*

DX-TL950E



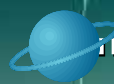
Network Monitoring: Key to Greater

PC Networking, for Remote Monitoring and Control.

Standard ethernet connection provides live and recorded viewing on a networked PC via web pages using a standard internet browser.

The Network Software provides additional functions, as well as live and recorded viewing.

Internet



Network PC Software

- Viewing of live image in full and split screen
- Search and playback
- Alarm Notification by e-mail
- Remote Set up
- Recorder Control
- Image File Download
- Playback Images From Copy Media by PC



Built-in Web Server

- Viewing of live images in full and split screen.
- Search and playback
- Password Authentication
- Multiple user access
(Live 10 people, Search / Playback 1 person / Total 10)

NETWORK PC SOFTWARE

Alarm Notification (Resident software)



The machine notifies a networked PC. When the PC receives an alarm or malfunction, an alarm pop-up notice appears on the PC screen.

Password Authentication

Password Authentication controls level access to the machine. User name, password and level access are registered in the machine in advance.

Alarm Notification by e-mail



The machine can notify "Alarm" or "malfunction" to up to 5 e-mail addresses. (through SMTP server)

Image File Download

Digitally signed images can be downloaded to a networked PC. This data can be copied to PC compatible external archiving media, CD-R/RW, DVD-RAM, HDD, DDS2/3 or ZIP. Downloaded images can be converted to AVI format.

Remote Set up

One user may connect to the unit in a password protected admin mode, that allows access to the menus as they appear on the unit themselves. System adjustments can be made remotely over the network, such as change of record rate, set up the motion mask, timer etc.

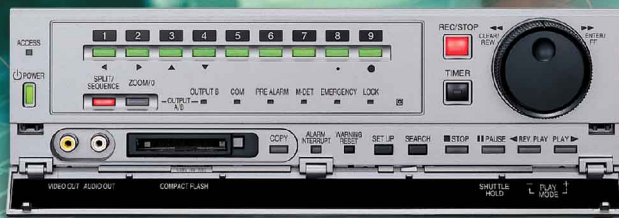
Playback Images From Copy Media by PC

Network PC Software enables playback by PC of images from copy media, CompactFlash™ card which is downloaded the image data from the TL950E.

Recorder Control

Any of the front button functions of the machine can be controlled over the network.

Control and Confidence



MITSUBISHI DIGITAL RECORDER **DX-TL950E**

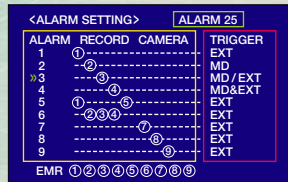
RECORDING

Alarm Recording

Very flexible and easy alarm recording setting can meet the various demands of surveillance.

- Easy setting
Both Normal and Alarm setting appears on the same screen.
- Flexible setting
3 kinds of Alarm Recording setting meet various alarm situations.

1. Recording Camera Selection / Alarm Trigger Setting



EXT: External Alarm
MD: Motion Detection
MD/EXT: if one of the alarms, either MD or EXT, occurs then alarm recording starts.
MD&EXT: if both of the alarms, MD and EXT, occur together then alarm recording starts.

2. Pre Alarm recording



Pre Alarm is available regardless of whether the cameras are in normal recording or are just in alarm recording.

Recording rate 50pps

50 pps capture rate makes it possible for 5 pps for all 9 cameras.
* Maximum 25pps/ch (when only one camera is connected).

Built-in one large capacity HDD

One large capacity HDD is built-in. Additional 1 large capacity HDDs can be added internally. (ATA 6 IDE Interface for up to 2Tb / HDD)
* Mitsubishi recommends model names of HDD.

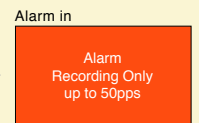
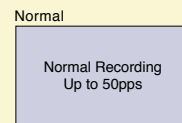
Various record setting for each camera

Individual recording interval and picture grade for each camera, both in normal and alarm recording.

3. Alarm mode selection

Alarm Channel

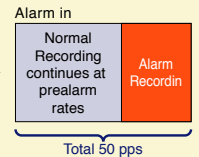
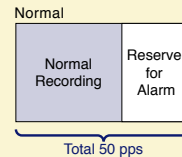
All recording capacity is changed to alarm recording.



*Maximum 25 pps/ch

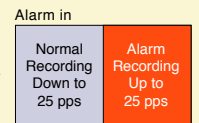
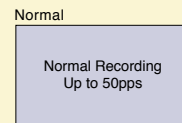
Alarm Plus

Alarm recording is done in addition to normal recording.



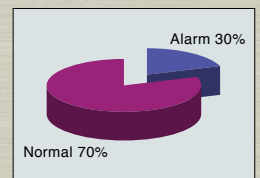
Alarm 25

Alarm recording can be done up to 25 pps by reducing normal recording rate.



Alarm Partition Recording

Alarm images are recorded in a partition area to keep alarm images. Alarm images can not be erased automatically in repeat rec. off mode. The partition area can be set from 10% to 90% of HDD capacity.



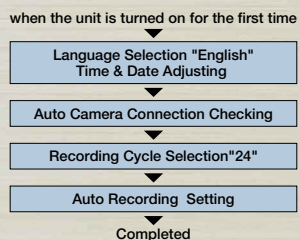
Mirror Recording

By saving the data in duplicate on two HDD's with the same capacity the risk of data loss due to an HDD crash is greatly reduced.

EASE OF USE

Auto Set-up

After installed, powered on and setting clock / language, the unit can be set up automatically: All connected camera numbers are detected automatically and only by selecting recording period (24hr, 96hr, a week, a month, year), the unit assigns interval and picture grade for all cameras.



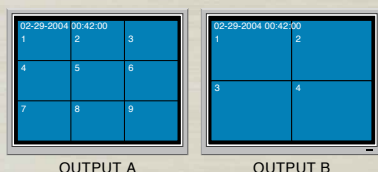
Spot Monitor (Dual Multiplexer built-in)

OUTPUT A for Live, Playback and Menu

- Single / 4-Split / 9-Split
- Alarmed Camera Output

OUTPUT B for Live

- Single / 4-Split / 9-Split



Password Lock

A three-level password (Operator, Manager, Security Manager) can be set up to limit access to settings and controls.



- Level1** functions of all operations can be locked
- Level2** Only the SPLIT/SEQUENCE button, ZOOM button and camera number buttons are operable
- Level3** It is operable except the SET UP button and ALARM INTERRUPT button

CompactFlash™ slot

- The image data in the digital recorder can be downloaded to a CompactFlash™ card and then played back by a PC.
- The contents, such as menu setups, can also be recorded onto a CompactFlash™ card so the data can be exchanged. Multiple digital recorders can then be used under the same setup conditions, with no need to set the digital recorders from the beginning.
- Analogue output terminal on the front panel for VCR dubbing.

DX-TL950E DIGITAL RECORDER

Advanced digital functions

Digital I/O Terminals

Dedicated terminals for interfacing with external devices and alarm systems

Built-in Motion detection

High activity detection is achieved by the detection area of 192 dots

Covert camera setting

The picture of a specified camera can be recorded without the image being displayed on the monitor screen

Various Search Functions

Date & time search, alarm list search, skip search, index search and camera filtering search

Image-alteration recognition function

Processing of each image recorded using a proprietary image-alteration recognition technology

Auto daylight saving time

The clock is put forward one hour by activating this function

Recording capacity

The below table shows the approximate recording time with a 250Gb HDD. The camera operation setting is set to the same interval for all cameras. (without audio recording)

D:Days H:Hours

Picture Grade	SUPER	HIGH	STANDARD	BASIC	LONG
50.0 Pictures/sec.	1D 4H	1D 13H	2D 16H	3D 17H	8D 3H
25.0 Pictures/sec.	2D 8H	3D 2H	5D 8H	7D 10H	16D 6H
12.5 Pictures/sec.	4D 18H	6D 6H	10D 16H	14D 20H	32D 14H
8.333 Pictures/sec.	7D 2H	9D 10H	16D	22D 6H	48D 22H
6.25 Pictures/sec.	9D 12H	12D 14H	21D 8H	29D 16H	64D 6H
5.00 Pictures/sec.	11D 20H	15D 18H	26D 16H	37D 2H	81D 14H
4.167 Pictures/sec.	14D 6H	18D 20H	32D 2H	44D 12H	97D 22H
3.125 Pictures/sec.	19D	25D 4H	42D 18H	59D 8H	130D 12H
2.5 Pictures/sec.	23D 18H	31D 12H	53D 10H	74D 4H	163D 4H
1.00 Pictures/sec.	59D 12H	76D 18H	133D 16H	185D 10H	408D

*50 pictures/sec recording is only possible with more than one camera.

Specifications

Item	Description
Main Recording Medium	One large capacity HDD is built-in. Additional 1 HDD can be added internally to increase on-board storage.
Colour system	Standard PAL system
Signal Compression System	Wavelet: Sampling 13.5 MHz Compression unit: Field
Number of Picture Elements Processed	720×288 pixels
Video Terminal	Input 9-channel input BNC: 1.0Vp-p 75Ω Output 9-channel through output BNC: 1.0Vp-p 75Ω (during AC power supply) Monitor output 1 BNC: 1.0Vp-p 75Ω, RCA plug: 1.0Vp-p 75Ω S terminal: Y 1.0Vp-p 75Ω/C 0.3Vp-p 75Ω Spot Monitor output 1 BNC: 1.0Vp-p 75Ω
Audio Terminal	Input: 3.5φ Microphone 0.346mVrms 600Ω RCA plug 380mVrms 50KΩ Output: RCA plug on front and rear 308mVrms 1KΩ
Horizontal Resolution	More than 450 lines (Super and High picture grade)
Recording Interval	Can be set for each camera with function to estimate recording possible time
Alarm Recording	Recording time: 2sec, 5sec, 10sec, 15sec, 30sec, 45sec, 1min, 2 min, 5min, 10min, 20 min, 30min, 60 min and contact input
Alarm Partition Recording	The partition area can be set from 10% to 90% of HDD capacity
Pre-alarm Recording	Can be set from 1 sec. to 180 sec.
Mirror Recording	Prevent data loss due to the HDD crash is available
Emergency Recording	Emergency input terminal (rear)

Item	Description
Power Failure Recovery Recording	Auto-re-start of unit after power failure
Menu Language	English, German, French, Spanish, Italian and Russian
Digital Zoom	The screen is magnified by 100%, 200%, and 400%
Motion Detection Function	16(H)×12(V) detection area setting, 5 steps detection sensitivity setting, recoding start dot number setting
Retrieval	Date & Time search, index search, skip search, alarm list search, camera filtering search
Multiplexer Function	Split display: 4/9 split display Sequential display: 1/4 display
Ethernet	10 BASE-T (RJ-45)
Simultaneous Users Access	Monitoring: Max. 5 users (PC Software) Playback: Max. 1 user
Security	Password lock for operation control (level 1 to level 3) and for HDD data clear
Remote Access Interface	RS-232C (D-SUB 9pins)
Power Supply	AC100-240V 50/60Hz
Power Consumption	0.6-0.3A (100-240V)
Operational Conditions	Temperature: 5°C-40°C Humidity: Max 80% Altitude: Max 2000m
Dimensions (W×D×H)	300×350×88mm
Weight	5kg
Accessories	AC power code (UK and Continental plug) CompactFlash™ slot cover Instruction manual (English) Quick Guide (English, German, French, Spanish, Italian and Russian)

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