Timespace Technology

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Mobile, Portable and Covert Surveillance

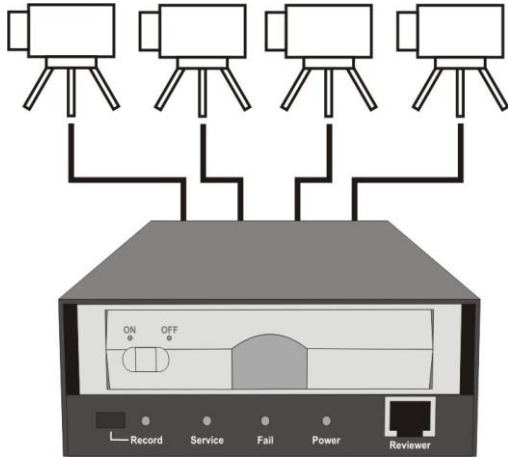# X200
Digital Video Recorder
And Product Family

Product Features

- **Small Size, Low Power Consumption**
- **4 or 16 video inputs and 2 audio inputs**
- **Proprietary MPEG format**
- **25 images/second**
- **4 levels of resolution**
- **Removable hard disk cartridges up to 250Gb**
- **GPS / GSM / 3G**
- **LAN/WLAN/Automatic Download**
- **RS232 Control / SMS notifications**
- **Normal, Alarm, Timer or Stills recording**
- **Motion activation recording**
- **Vehicle Brake/Indicator Monitoring**
- **2 live view video switcher outputs**
- **Watermarked Images**
- **Password protection**
- **Intuitive Controls**
- **Flexible Menu System with Help Screens**
- **Rapid Search of Recordings**
- **3 year Warranty**

PCLink200 Reviewing/Archiving Software
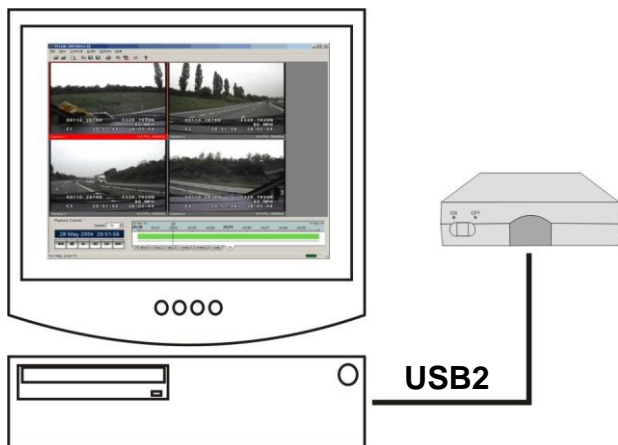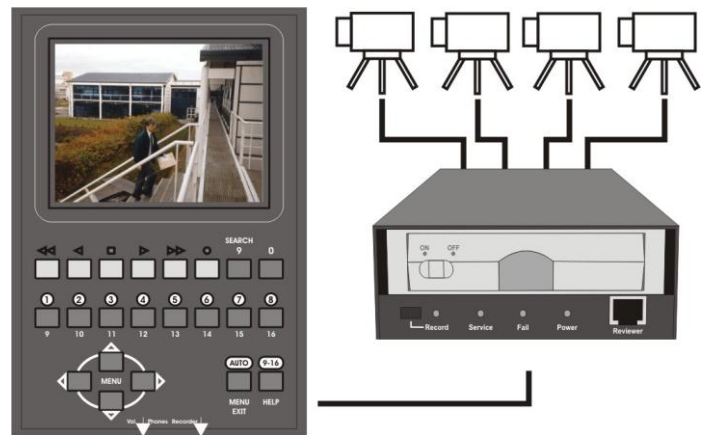- **GPS Mapping**
- **Image manipulation**
- **Individual / Multi view / Full screen playback**
- **Remote DVR configuration**

Using the X200 System

The X200 Digital Video Recorder is used With a removable Hard Disk Cartridge to record from multiple video and audio sources.

The X201 Reviewer is used for on-site reviewing of video/audio recordings and to configure the optional menu settings of the X200 Digital Video Recorder.

The removable Hard Disk Cartridge is connected to a PC (via USB Kit) to analyse, copy or archive video/audio recordings and to download new operating software.

USB2

A Wireless Local Area Network (WLAN) system can be used to download recordings from the X200 in a vehicle to a PC.
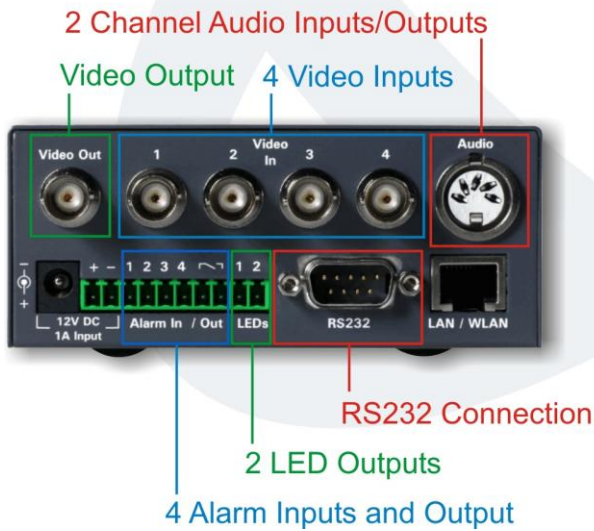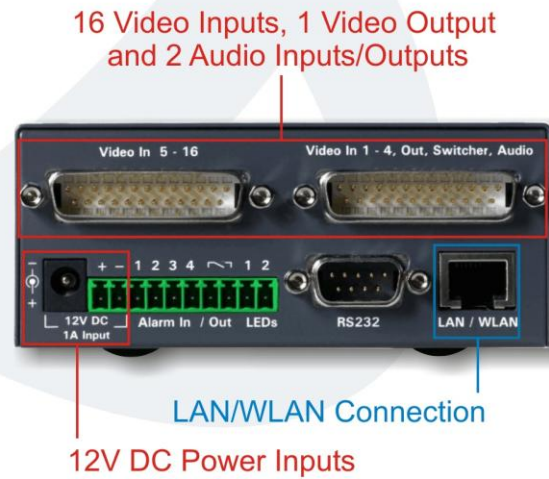
X200 Specifications

X200 front panel showing LED indicators, record button and X201 Reviewer connection

X200 4 and 16 camera versions showing the range of inputs and outputs

X200-04

2 Channel Audio Inputs/Outputs

Video Output   4 Video Inputs

RS232 Connection

2 LED Outputs

4 Alarm Inputs and Output

X200-16

16 Video Inputs, 1 Video Output and 2 Audio Inputs/Outputs

LAN/WLAN Connection

12V DC Power Inputs

Video Recording

Max Rate	25ips PAL, 30ips NTSC, shared; selectable by camera
Resolution	Low, Medium, High, V.High
TVL	540
Pixels	720 x 288 PAL; 720 x 240 NTSC
Format	MPEG - full image update or optional conditional refresh
Input Signal	4 or 16 inputs; composite video 1V p/p; colour/mono; PAL/NTSC auto-switching
Simultaneous Functions	Record, Playback, Live views, Ethernet
Recording Medium	2.5" IDE PC-compatible hard disk in customised cartridge
Recording Modes	Normal, timer, alarm, single/multi shot, loop or single pass
Alarm recordings	Post-trigger recording; show alarmed cameras live on video switcher, pre-trigger write protection of existing recordings
Timer recording	Weekly timer (7 day programmable) or interval timer, or both
Motion Activation	User configurable for cameras, areas and sensitivity
Embedded Text	Camera number, date and time plus 12 user characters for each camera; GPS* speed and position
Camera Focus Mode	External indication of relative camera focus

Audio recording

Type	Mono or Stereo
Connections	2 line inputs; 2 line outputs
Sampling Rate	16kHz/8kHz
Sampling Res.	16 bits/8 bits
Max Level	Selectable: 0.12V to 2V RMS (0.35V to 5.6V pk-pk)

Configuration

Entry	Menu system with help screens; accessed (with password) by X201 Reviewer
Password	4 user-definable levels
Date Options	dd/mm/yy; mm/dd/yy
Summertime Correction	UK; Europe; USA; Off

File System

File Type	Proprietary ".xba", convertible (with password) to AVI
File Name	Optional file text plus date/time, for example:"Bus0034 2004 month 08 day 16 12_30_00. xba"
File Size	10 min or 1 hour
File Protection	Write-protection via file menu; optional automatic write-protection of alarm/shot recordings

Playback

Functions	Rewind, Replay, Stop, Play, Fast Forward, Jog mode
Image Search	Time/date or by file

Remote Operation*

Systems	Ethernet (LAN/WLAN*) GSM*, RS232
Functions	File transfer to PC (LAN/WLAN*)
	Configuration of X200 (GSM*, RS232)
	Shuttle commands (GSM*, RS232)
	Live camera views (GSM*, RS232)
	Automatic file download (LAN/WLAN*)

* Additional hardware required - not supplied by Timespace Technology

GPS*

Embedded Text	Position (coordinates) and speed (kph or mph)
GPS Data	Files contain GPS position/speed/time for mapping
Clock Lock	Locks X200 clock to world GPS clock

Connections/Controls

Connector Type	Cable harness (X200-16) Individual connectors (X200-04)
Video Inputs	16 on 25-way "D" connectors (X200-16) 4 x BNC (X200-04)
Video Out	1 on 25-way "D" connector (X200-16) 1 x BNC (X200-04)
Video Switcher Out	2 on 25-way "D" connector (X200-16) 1 on BNC connector (X200-04)
Audio In	2 line on 25-way "D" connector (X200-16) 2 line on DIN 5 way audio socket (X200-04)
Audio Out	2 line on 25-way "D" connector (X200-16) 2 line on DIN 5 way audio socket (X200-04)
Alarm Inputs	4 on screw terminals
Alarm Output	1 on screw terminals
Power Inputs	2.5mm DC socket for PSU (2.5 x 5.5 x 9.5mm) 1 x pair screw terminals, 12V
GSM* /GPS* /RS232 Control	9-way "D" connector (RS232 serial)
LAN/ WLAN*/ 3G*	RJ45 (rear panel)
Reviewer (X201)	RJ45 (front panel)
Record On/Off	Push button (menu disable)
Indicators LED	Power, Recording, Service, Fail
LED Out	2 x screw terminals to duplicate Record, Service, Fail and Power LED

General

Security	Proprietary files; password protection; fragile watermark every image (MD5+DES); embedded camera text
Power [DC]	12V DC **
External PSU Specification	Output: 12V DC Regulated, 2A (Continuous) 3A (Peak)
Power Recording	0.60A, 12V (7.2W)
Power Not Recording	0.48A, 12V (5.8W)
Peak Current	2.8A peak start-up current @ 12V (X201 connected)
Power on until Recording	< 5 seconds
Clock	TCXO (+/- 1 min/year); optional GPS locked clock*
Case	Mild steel, grey painted
Dimensions (mm)	210 x 112 x 47 (case)
Dimensions (mm)	220 x 116 x 52 (overall)
Weight	965g (without cartridge)
Environment	Indoor use
Operating Temp. Range	+5C to + 40C, 20% to 80% RH
Storage Temp. Range	-40C to +65C
Mounting	Free-standing or screw-mounted
Warranty	36 months

Approvals

EMC	89/336/EEC Generic 95/54/EC Commercial Vehicles Specification 5 UK Home Office

** Designed to be powered from an external power source which complies with the Low Voltage Directive (73/23/EEC).

REMOVABLE HARD DISK CARTRIDGE

Access	X201 Reviewer/LAN/WLAN* while in X200, PC using Interface Kit (see below)
Hard Disk	2.5" IDE
Power Requirement	5V 1A (PSU supplied with USB Interface Kit)
Dimensions [mm max.]	143 x 84 x 23
Weight	~ 200g depending on type
Warranty	30 months

X201 REVIEWER

Functions	Program menus, check camera views, review live or recorded images
Operation	22 tactile keys with LED indicators
Power	Powered by X200
Power Consumption	0.35A, 12V (4.2W)
Display	3" LCD monitor, TFT, 960(H)]x234(V) pixels
Format	PAL/NTSC
Audio	Single channel via built-in speaker
Connectors	X200 interface: 8-way RJ45 (serial data; video; audio; DC supply); headphone jack
Case	Aluminium, grey painted
Dimensions [mm]	176 x 120 x 37
Supplied Accessory	Data link cable (X200 to X201)
Warranty	36 months (monitor 12 months)

PCLINK200 REVIEWING/ARCHIVING SOFTWARE

Availability	Supplied in Interface Kits; software available to law enforcement agencies
Compatibility	Recordings made by X200
Access	Cartridge or recordings on CD/DVD, PC hard disk (copied or LAN/WLAN* uploaded files). Direct LAN/WLAN* access of recordings on Hard Disk Cartridge installed in X200. Automatic LAN/WLAN* file download software (LANLink)
Operating Systems	Windows 98, ME, 2000, XP, Vista.
Hardware Requirements	2GHz Pentium, 256MByte RAM, Approx. 200Mb free disk space, USB2
Security	Optional password on PCLink software and on export video to AVI function
Playback Controls	Rewind, jog back, stop, play and fast forward, jump to time, rapid shuttle via timeline.
Playback Speed	Variable x0.1, x0.2, x0.5, x1, x2, x3, x4, x6, x8, x10 realtime for rapid playback.
Features	Realtime playback with audio Review archive files on single/ Multi-screen Full screen playback view Copy 10 min or 1 hour files from cartridge to PC Copy images into Microsoft Word etc. Activate and verify watermarks Export video in multiple CD/DVD sized files Stand-alone (no install reqd.) playback software Export video to AVI file

OTHER ACCESSORIES

<u>USB INTERFACE KIT</u>
For access to X200 recordings via USB2 socket of PC; includes software, cables, instructions, PCLink200 software.

<u>VEHICLE MOUNTING KIT</u>
Shock and vibration protection in mobile and portable applications.

* Additional hardware required - not supplied by Timespace Technology

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