M3-200 User Guide

V 2.6

This brief guide explains how to use and set up your M3-200 decoder board. It is intended for system integrator who assemble ViewStream product or VideoFlyer product for customers.

1 Introduction

The M3-200 is an MPEG decoder board designed to use with TV and Video Monitors for playing MPEG-1/MPEG-2/MPEG-4 video and audio files.

- MPEG-1, MPEG-2, MPEG-4* video
- MPEG still picture output
- JPEG picture
- MP3 audio file
- Video signals of PAL & NTSC standard
- Composite and S-Video signal output
- VGA output
- Stereo audio output
- RS-232 port

* DivX MPEG-4 format

IMPORTANT USAGE NOTE

☞ All media filenames must be in 8.3 format (e.g. xxxxxxxx.xxx) though combinations with 7.3, 6.3 etc are fine.

Where: "8" is the maximum of alpha-numeric character to be used.
"3" is the file extension like .mpg / .jpg / .avi etc.

☞ Do not use any "Non alpha-numeric" characters like '~', '_', '-', '&', '^', etc.

NOTE: If 'Non alpha-numeric character' or the '8.3' format are not followed, the player will not recognize the playlist.

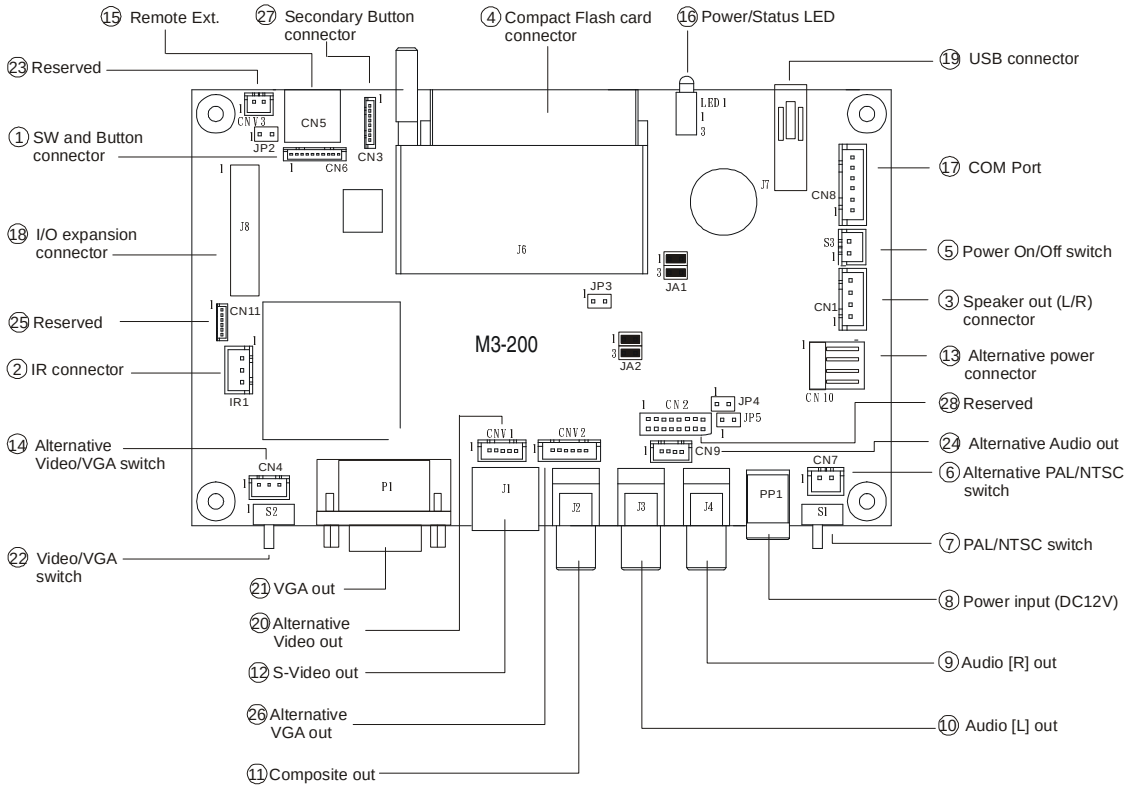
This equipment is for use by developers and integrators; the manufacturer accepts no liability for damage or injury caused by the use of this product. It is the responsibility of the developer, integrators or other users of this product to:

- Ensure that all necessary and appropriate safety measures are taken.
- Obtain suitable regulatory approvals as may be required.
- Check power settings to all component parts before connection.

DISCLAIMER
There is no implied or expressed warranty regarding this material.

2 System Design

A typical setup of a Video Monitor display with a M3-200 looks like this:



Summary:

1. Switches and Buttons connector
2. IR connector
3. Speaker out (L/R) connector
4. Compact Flash card connector
5. Power On/Off switch connector
6. Alternative PAL/NTSC switch
7. PAL/NTSC switch
8. Power input (DC12V)
9. Audio right out
10. Audio left out
11. Composite out
12. S-Video out
13. Alternative power connector
14. Alternative Video/VGA switch
15. Remote Ext. (8 buttons connection only)
16. Power/Status LED
17. COM port
18. I/O expansion connector
19. USB connector
20. Alternative Video out
21. VGA out
22. Video/VGA switch
23. Reserved
24. Alternative Audio out
25. Reserved
26. Alternative VGA out
27. Secondary Button connector
28. Reserved

A) Mechanical buttons

- Standard MV-switchmount with 8 buttons.
- Custom made switchmount for 1-8 buttons when connected to the buttons connector CN6 via the standard switchmount cable.
- Custom made switchmount kit for 1-8 buttons when connected to the Remote Ext. socket (CN5) for alternative remote control buttons.

B) Touch screen segments

- The M3-200 when connected with a LCD interface controller can output videos on to LCD screen. Button control can be performed via touch screen for panel sizes of 6.4", 8", 10", and 15"
- There are one types of button pattern layouts on the touch screen available: 8 buttons for the 6.4", 8", 10" and 15" panels. (For any special button layout, please contact local sales office.)

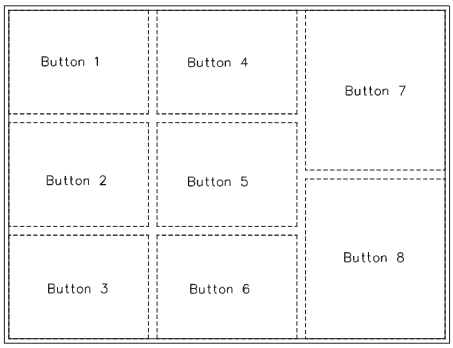


Fig.1 8-buttons for LCD screen sizes 6.4", 8", 10", 15"

C) Button function settings

- Whether the buttons are of the mechanical type (on the standard switchmount or custom made) or the touch screen segment type, each button function can be programmed with **the DV Studio Software program** to perform a VCD player mode function or specific track select function**. (See DV Studio Software user manual**).
- The DV Studio Software program is separately provided

3 Quick Start

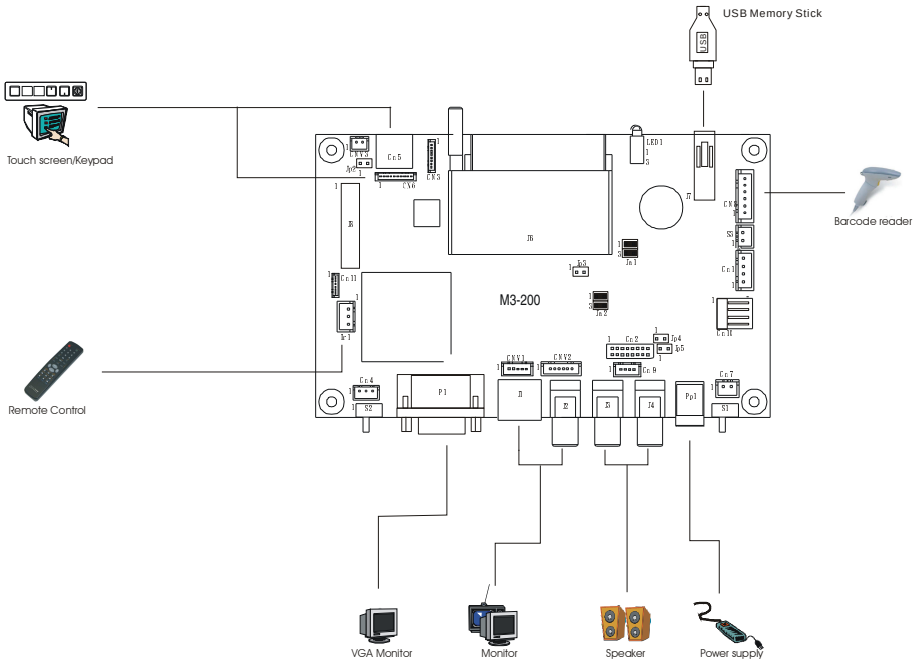
CAUTION: *Never connect or disconnect parts of the system when the system is powered up as this may cause serious damage.*

CONNECTION – Connection and usage are straightforward. However, care needs to be taken with the following:

- Ensuring parts have been correctly connected – both power & signal considerations.
- Checking that all switches and jumpers are set correctly.
- The input signal is compatible.
- Legal & safety requirements have been met.
- If you are using supplied cables & accessories, ensure they are correct for the model of video monitor.
- If you are making your own cables & connectors refer carefully to the video monitor specifications and the “Connectors, Pin outs & Jumpers” section in this user guide to ensure the correct pin-to-pin wiring.

Basic connection for M3-200 :

- Connect the keys pad to CN5 (if required)
- Set correct switch (S1) settings. (e.g. PAL/NTSC switch)
- Connect the video and audio ext. cables from the M3-200 to the AV monitor.
- Connect the power supply (DC 12V @ 1.2A minimum. - ensure correct + & - orientation) to the controller power input (PP1).
- Connect the on/off switch cable (p/n:426680401-3) or short Pin1-2 at S3 for “Auto power on”



4 General Notes

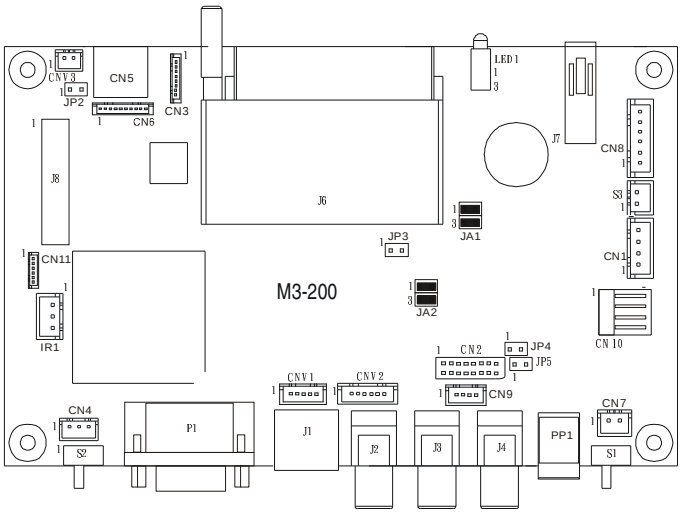
The M3-200 is designed for use with Video Monitors and other analogue signal input displays. Here are some notes for correct use:

- **Preparation -** Before you proceed, please familiarize yourself with the various connectors, jacks, switches and function buttons of the M3-200 unit (see the 'System Design' diagram).
- **The unit** - Handle the unit with care; any knocking may cause components to come loose and disconnect. Operate in a cool and dry place.
- **Power Input:** 12V DC, 1.2A (minimum) is required; this should be a regulated supply.
- **Digital Video -** use MPEG-1/2* video encoded at Video-CD standard. (See "Content Creation Guide" for proper encoding rate.)

  ** For MPEG-2 video, the encoding rate is limited to 5Mb/s (in normal CF card)*
- **Audio & Video output -** Video - displays PAL & NTSC signals with either Composite, S-video or Component signal. The PAL/NTSC switch should be set correctly. Audio - Stereo output. Volume is controlled by the switch mount buttons.
- **Remote Ext.** - Using the standard switch mount (p/n: 416101300-3) - 8 momentary buttons for OSD config and video playback control (standard functions (in simple play mode) being : Play, Stop, Pause, Next Track, Volume decrease, Volume increase, Mute). An optional function control device is a custom-made switch mount connected to the switches and buttons connectors(CN6 and CN3) with a maximum of 16 momentary buttons
- **Remote Ext. cable -** The cables (p/n: 426631800-3) to the switches and buttons connector should be of suitable quality and length so that impedance does not affect performance. Generally lengths up to 1 meter (3 feet) should be acceptable.
- **LED (LED1) -** The power LED indicator shows power is being supplied to the M3-200. The Status LED indicates the status of CF card.
- **COM port** – Requires DB-9 extend cable (p/n:426170800-3) for RS-232 connection. This serial port only supports barcode scanner. The baud rate must be set to (9600, n,8,1) and record suffix is set to CR (0DH).
- **USB –** USB Host. Use USB memory stick for content update without removing the CF card.
- **VGA out –** Supports VGA resolution 640x480.
- **Service & Warranty:** Warranty is invalidated if the unit is dismantled in any way. The unit is not user serviceable or repairable.

CAUTION: Do not attempt to remove any part of the casing or internal parts.

5 Connectors, pinouts & jumpers



The various connectors are:

Ref	Purpose	Description
CN1	Speaker out (L/R) connector	JST B4B-XH-A
CN2	Reserved	DF11-16DP-2DSA
CN3	Switches and buttons connector_B	Hirose 1.25mm, 8-pin, DF13-8P-1.25DSA
CN4	Alternative Video/VGA switch	JST B3B-PH-K
CN5	Remote Ext.	MINI DIN 8-way
CN6	Switches and buttons connector_A	Hirose 1.25mm, 9-pin, DF13-9P-1.25DSA
CN7	Alternative PAL/NTSC connector	JST B2B-XH-A
CN8	COM port	JST B6B-XH-A
CN9	Alternative audio output	JST B4B-PH-K
CN10	Alternative power connector	JS-1116-04WS
CN11	Reserved	Hirose 1.25mm, 6-pin, DF13-6P-1.25DSA
CNV1	Alternative S-Video/ Composite video output	JST B5B-PH-K
CNV2	Alternative VGA output	JST B6B-PH-K
CNV3	Reserved	JST B2B-PH-K
LED1	Power/Status LED	Stacked housing LED
J1	S-Video out	Mini DIN 4-way
J2	Composite video out	RCA jack (yellow)
J3	Audio Left out	RCA jack (white)
J4	Audio Right out	RCA jack (red)
J6	CF Card connector	CF-CARD, 25x2Ppin 3M CF-II socket
J7	USB connector	USB, A type USB connector, 4-way
J8	Reserved	25x2 pin socket
P1	VGA out	DB-15F Connector
PP1	Main power input	DC power jack, 2.5mm diameter (Center +)
S1	PAL/NTSC switch	4mm stem select switch
S2	VIDEO/VGA switch	4mm stem select switch
S3	Power On/Off switch connector	JST B2B-XH-A
JA1	5V Logic Power	2x2 header (2mm pitch)
JA2	3.3V Logic Power	2x2 header (2mm pitch)
IR1	IR Connector	JST B3B-XH-A
JP4	Audio Amp. mute	2x1 header (2mm pitch)
JP5	Ext. VR connector	2x1 header (2.54mm pitch)
BT1	Battery for Real time clock	CR1216 Type

Details:

CN1 – Speaker out (L/R)

PIN	SYMBOL	DESCRIPTION
1	GND	Ground
2	L	Left speaker out
3	GND	Ground
4	R	Right speaker out

CN2 – Reserved

CN3 – Switches and buttons connector_B

PIN	SYMBOL	DESCRIPTION
1	SW_ROW1	Row 1
2	SW_ROW2	Row 2
3	SW_ROW2	Row 3
4	SW_ROW4	Row 4
5	SW_ROW5	Row 5
6	SW_ROW6	Row 6
7	SW_ROW7	Row 7
8	SW_ROW8	Row 8

CN4 – Alternative Video/VGA switch

PIN	SYMBOL	DESCRIPTION
1	+3.3V	Reserved
2	MODE	VGA (short 2-3) Video (Open 2-3)
3	GND	GND

CN5 - Remote Ext.

PIN	SYMBOL	DESCRIPTION
1	SW1	Button 1
2	SW2	Button 2
3	SW3	Button 3
4	SW4	Button 4
5	SW5	Button 5
6	SW6	Button 6
7	SW7	Button 7
8	SW8	Button 8

CN6 – Switches and buttons connector_A

PIN	SYMBOL	DESCRIPTION
1	SW1	Button 1
2	SW2	Button 2
3	SW3	Button 3
4	SW4	Button 4
5	SW5	Button 5
6	SW6	Button 6
7	SW7	Button 7
8	SW8	Button 8
9	GND	Ground

CN7 – Alternative PAL/NTSC connector

PIN	SYMBOL	DESCRIPTION
1	SYSTEM	PAL/NTSC select 1-2 short: NTSC 1-2 open: PAL
2	GND	Ground

CN8 - COM port

PIN	SYMBOL	DESCRIPTION
1	NC	No connection
2	NC	No connection
3	VCC	+5V
4	RXD	Rx data
5	GND	Ground
6	TXD	Tx data

CN9 - Alternative audio output

PIN	SYMBOL	DESCRIPTION
1	GND	Ground
2	AUDIO_L	Audio left channel output
3	GND	Ground
4	AUDIO_R	Audio right channel output

CN10 - Alternative power

PIN	SYMBOL	DESCRIPTION
1	VCC	+5V out
2	GND	Ground
3	GND	Ground
4	+12V	+12V out

CN11 – Reserved

CNV1 - Alternative S-Video/Composite video output

PIN	SYMBOL	DESCRIPTION
1	CHROMA	S-Video : Chroma out
2	LUMA	S-Video : Luma out
3	GND	Ground
4	GND	Ground
5	CVBS	Composite video out

CNV2 - Alternative VGA output

PIN	SYMBOL	DESCRIPTION
1	GND	Ground
2	H_SYNC	Horizontal Sync Output
3	V_SYNC	Vertical Sync Output
4	B	Analog Blue
5	G	Analog Green
6	R	Analog Red

CNV3 - Reserved

J1 - S-Video Out

PIN	SYMBOL	DESCRIPTION
1	GND	Ground
2	GND	Ground
3	LUMA_OUT	Luma Out
4	CHROMA_OUT	Chroma Out

J2 - Composite video Out

PIN	SYMBOL	DESCRIPTION
1	CENTER	Center pin, composite out, 0.7Vp-p
2	GND	Ground

J3 - Audio left out

PIN	SYMBOL	DESCRIPTION
1	LEFT_AUDIO	Center pin, Audio Left output
2	GND	Ground

J4 - Audio right out

PIN	SYMBOL	DESCRIPTION
1	RIGHT_AUDIO	Center pin, Audio Right output
2	GND	Ground

J6 – Compact Flash card connector

PIN	SYMBOL	DESCRIPTION
1	GND	Ground
2	D3	Data bit 3
3	D4	Data bit 4
4	D5	Data bit 5
5	D6	Data bit 6
6	D7	Data bit 7
7	/CE1	Card enable 1
8	GND	Ground
9	GND	Ground
10	GND	Ground
11	GND	Ground
12	GND	Ground
13	VCC	+5V
14	GND	Ground
15	GND	Ground
16	GND	Ground
17	GND	Ground
18	A2	Address bit 2
19	A1	Address bit 1
20	A0	Address bit 0
21	D0	Data bit B3
22	D1	Data bit B4
23	D2	Data bit B5
24	IOCS16	IOCS16

25	/CD2	Card detect pin 2
26	/CD1	Card detect pin 1
27	D11	No connection
28	D12	No connection
29	D13	No connection
30	D14	No connection
31	D15	No connection
32	/CE2	Card enable 2
33	GND	Ground
34	/RD	Memory read strobe
35	/WR	Memory write strobe
36	/WE	No connection
37	IRQ	Interrupt request
38	VCC	+5V
39	/CSEL	Chip SEL
40	NC	No connection
41	RESET	System reset
42	IORDY	IO Ready
43	NC	No connection
44	NC	No connection
45	/DASP	DASP
46	/PDIAG	PDIAG
47	D8	No connection
48	D9	No connection
49	D10	No connection
50	GND	Ground

J7 - USB connector

PIN	SYMBOL	DESCRIPTION
1	UVCC	USB - VCC
2	D-	-VE USB Data
3	D+	+VE USB Data
4	GND	Ground

J8 - Reserved

P1 - VGA out

PIN	SYMBOL	DESCRIPTION
1	R	Red, analog
2	G	Green, analog
3	B	Blue, analog
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	NC	No connection
10	GND	Ground
11	NC	No connection
12	NC	No connection
13	H_SYNC	Horizontal sync
14	V_SYNC	Vertical sync
15	NC	No connection

PP1 - Main power input

PIN	SYMBOL	DESCRIPTION
1	+12_CENTER	+12V DC in center pin
2	GND	Ground

S1 - PAL/NTSC switch

PIN	SYMBOL	DESCRIPTION
1-2	PAL	PAL
2-3	NTSC	NTSC

S2 - Video/VGA switch

PIN	SYMBOL	DESCRIPTION
1-2	COMP_SVIDEO	Composite / S-Video Output
2-3	VGA	VGA Output

S3 – Power On/Off switch connect

PIN	SYMBOL	DESCRIPTION
1	12V_IN	+12V input
2	12V_OUT	+12V output

IR1 – Infra-red

PIN	SYMBOL	DESCRIPTION
1	GND	Ground
2	VCC	+5V
3	IR	IR Data

Jumper JA1: 1-2, 3-4 close (Factory default)

Jumper JA2: 1-2, 3-4 close (Factory default)

Jumper JP2: 1-2 Open (Factory default)

Jumper JP3: 1-2 Open (Factory default)

Jumper JP4: 1-2 Open Audio Amp. Mute OFF
Close Audio Amp. Mute ON

Jumper JP5: 1-2 Ext. VR Connection (use VR 47K ext. cable p/n:426893100-3)

6 System Setup

A) SELECT SWITCHES

Before powering on the M3-200:

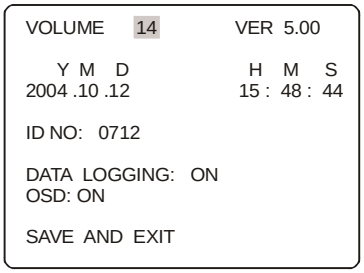
- Make sure the corresponding signal cables have been connected from the Composite or S-Video output jacks.
- Set the 'PAL/NTSC' switch (S1) to the chosen output format.

B) POWER UP

Config mode

In config mode, you may need either external buttons or 8-segmented touch screen to operate.

- Holding button 8 and power on. The OSD menu screen will be shown as follow:



- Press button 8 to select or press button 7/6 for up/dn.

- Press button 7or 6 for save and exit.

*Auto-Play start up mode**

- Plug in the external power supply
- Insert CompactFlash Card containing DV Studio Software exported ".pll / .prj" and other digital files. (e.g. .mpg, .mp3, .jpg) All filename should be in 8+3 format (i.e. xxxxxxxx.xxx) and avoid using any illegal characters like "~", "_", "-", etc
- Switch the power 'on/off' switch to 'on'.
- The first track of the collection of MPEG files will be auto-played.

*Sleep mode**

- Plug in the external power supply
- Insert CompactFlash Card containing DV Studio Software exported ".pll / .prj" and other digital files. (e.g. .mpg, .mp3, .jpg) All filename should be in 8+3 format (i.e. xxxxxxxx.xxx) and avoid using any illegal characters like "~", "_", "-", etc
- Switch the power 'on/off' switch to 'on'.

- Press the 'play' button'.
- The first track of the collection of MPEG files will be played.

Note: special specific track playback activated by assigned button can also be performed in sleep mode - contact local sales office.

*The Autoplay and Sleep playback mode are selected when writing the MPEG files on to the CompactFlash Card by using DV Studio Software.

C) AUTO-LOOP PLAYBACK

After Track 1 is set to play, it will play to the end, then Track 2 will start playing from beginning to end, then Track 3 etc. When the M3-200 plays to the end of the last track, it will automatically jump back to the beginning of Track 1, repeating tracks 1,2 then 3 etc. The M3-200 will play in auto-loop play mode, so long as none of the function buttons are pressed. (NOTE: Loop playback is the standard playback setting of the M3-200 but the track playback sequence can be changed as required: contact local sales office.)

7 Operating Instructions

OPERATING MODES

There are two operating modes in M3-200 – “playlist mode” and “simple play mode”
.

1. Playlist mode

When operating in playlist mode, both project file (*.prj) and playlist file (*.pll) must be present on the Compact Flash card. These are used to control the sequence for all video tracks.

The project and playlist file are created using **DV Studio** software. Using this software, you can set simple sequences or complex sequences including “jump track“ or “next track” actions. DV Studio can also program buttons with different function like “play”, “stop”, “pause”, “mute”, “previous”, “next” and “volume”.

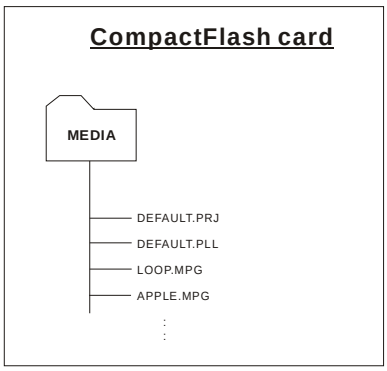
2. Simple play mode

In simple play mode, the user just copies all video files (.mpg) or JPEG files (.jpg) onto the Compact Flash card. The M3-200 will play these files in alphabetical sequence.

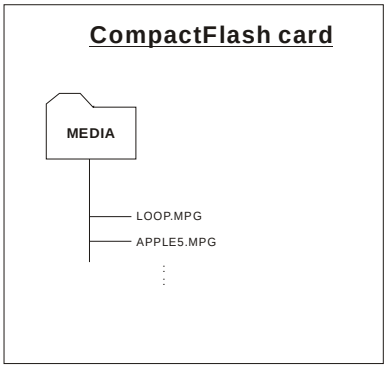
For MPEG still pictures or JPEG files, the play time can be set by the last digit of the filename. (For example: APPLE5.jpg, where “5” means the track will be displayed for 5 seconds.) *Note: Do not use the same filename on both MPEG and JPEG.*

Note: Make sure all capital letters in filename defined in playlist are consistence with the filename on CompactFlash card. All filename should be in 8+3 format (i.e. xxxxxxxx.xxx) and avoid using any illegal characters like “~”, “_”, “-“, etc

All files (including project file and playlist file) must be placed under a folder named “Media” on Compact Flash card. For example:



Playlist mode



Simple play mode

OPERATING FUNCTIONS

The following key buttons are default in “Simple Play mode” . (This operation requires button switchmount or 8-segments touch screen connection.)

PLAY (Button 1)

- Resumes playback of videos from track 1 after STOP has been pressed.
- Resumes playback of the track from the point that it has been set to PAUSE.
- Playback is reset back to the beginning of the specific track which is being played at the time the PLAY button is pressed.

STOP (Button 2)

- When STOP is pressed the video stops playing and a blank screen is displayed.

PAUSE (Button 3)

- When PAUSE is pressed the video image instantly freezes.
- Press Pause again or PLAY to resume normal playback from the position where it was paused.

REPEAT (Button 4)

- When REPEAT is pressed the current track loop back on itself continuously.
- To disable the repeat mode press REPEAT, PLAY, PREVIOUS TRACK or NEXT TRACK . When the track plays to the end it will playback the next track (and etc.) as normal.

NEXT TRACK (Button 5)

- The NEXT TRACK function can be activated only when a track is already playing. When NEXT TRACK is pressed the current video stops playing and jumps directly to the start of the next track.

VOLUME DECREASE (Button 6)

- Decreases audio output volume setting.

VOLUME INCREASE (Button 7)

- Increases audio output volume setting.

MUTE (Button 8)

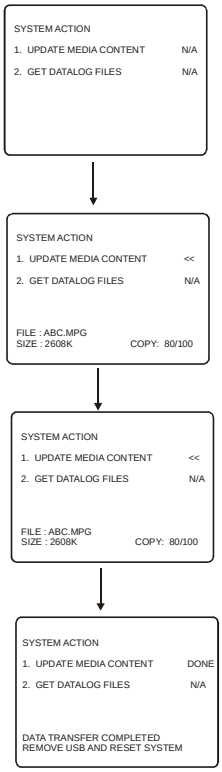
- When MUTE is pressed, all the tracks will have no sound.
- Press MUTE again to resume the normal sound in all tracks.

Note : All above buttons can be re-defined by DV Studio software if operating in playlist mode.

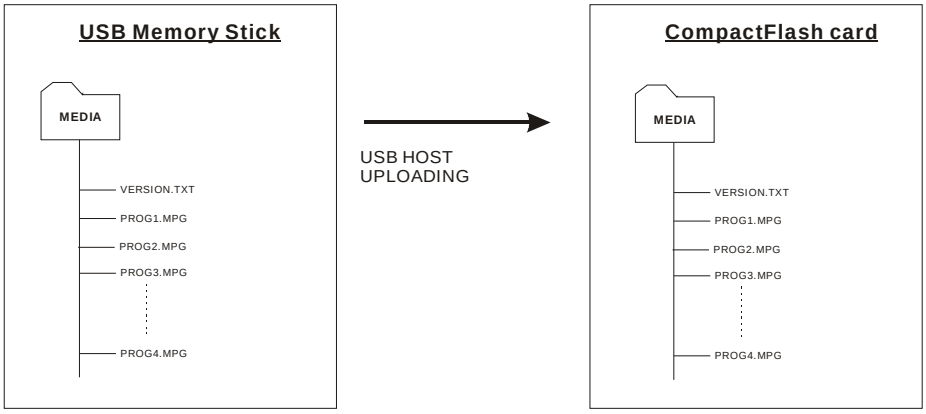
USB PORT

The M3-200 USB port provides the ability to connect a USB memory stick directly and to read and write data to and from the Compact Flash card. *(Please refer to Application Note for details)*

- Connect USB memory stick of your M3-200 unit. It will show the following screen sequences:



- A “Media” folder must be created on both USB memory stick and CF card.



EXPORTING YOUR PROJECT AND PLAYLIST

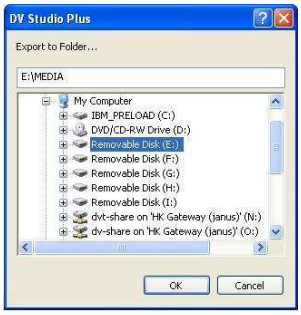
Using DV Studio Plus software to export your project file (.prj) and playlist file (.pll). Before writing to the CompactFlash card, make sure the CF card reader is connected and the driver is well installed. The CF card reader is auto-detected as the 'Removable Disk"

- Open DV Studio Plus software.
- Click **Project** from the menu and select **Open Project**.

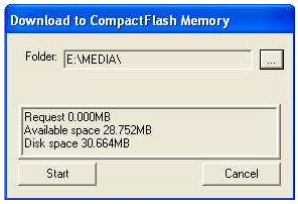
- In the **Project** pull down menu, select **Export** and click **Local Drives**

- Click  to select destination drive (i.e. Removable Disk).

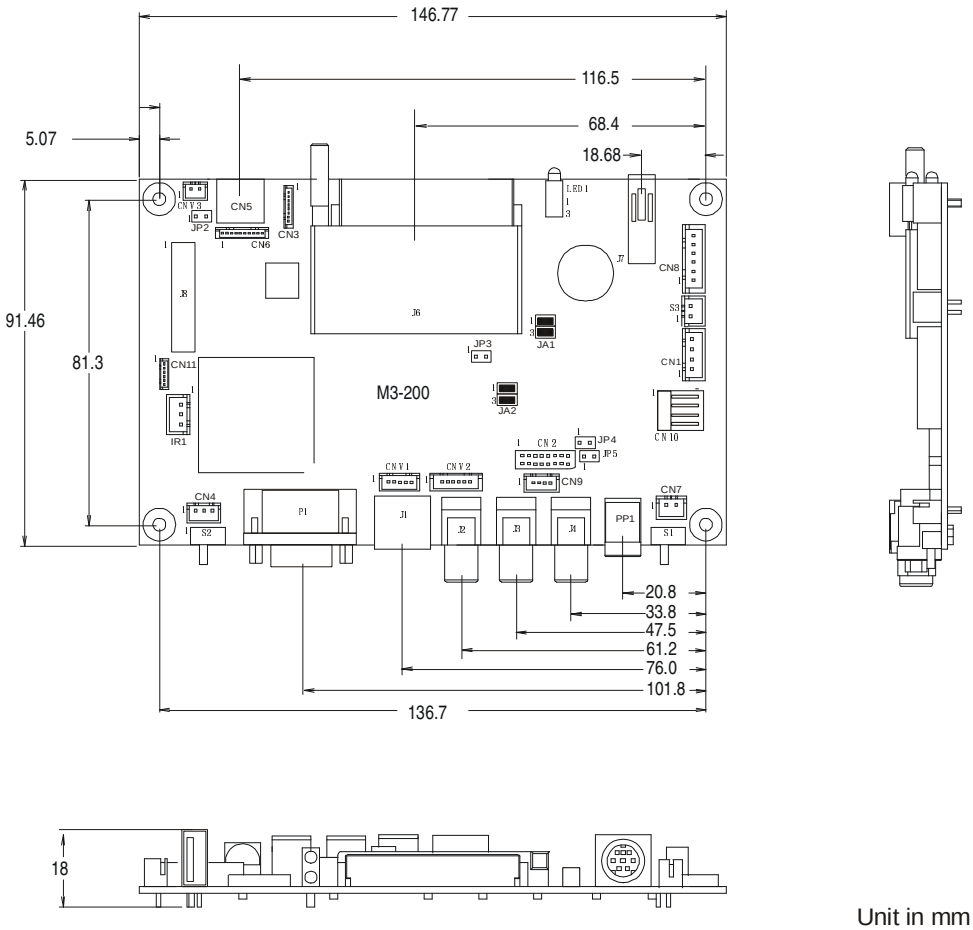
- Enter the file path including a **Media** folder to export on CF card (e.g. E:\MEDIA), then click **OK**



- Click **Start** to export.



8 Dimensions



Unit in mm

The maximum thickness of the controller is 20.6mm with or without add-on board (measured from bottom of PCB to top of components, including any underside components & leads). We recommend clearances of:

- 5mm from bottom of PCB - if mounting on a metal plate we also recommend a layer of suitable insulation material is added to the mounting plate surface.
- 10mm above the components
- 3~5mm around the edges

Any of the holes shown above can be used for mounting the PCB, they are 3.2mm in diameter.

CAUTION: Ensure adequate insulation is provided for all areas of the PCB with special attention to high voltage parts such as the inverter.

9 Specifications

Playable formats:	MPEG-1 video (Video CD) MPEG-2 video* (DVD) MPEG-4 video (DivX format) MPEG still picture MP3 audio JPEG still picture VGA (640x480)
Video Storage medium:	CompactFlash Memory Cards: Type 1 & Type 2
Output Display Systems:	TV and Video Monitors VGA monitors
Video Output:	Signal type: Composite and S-Video Output format: PAL and NTSC
Output Resolution:	Low resolution : 352 x 288 pixels (PAL) : 352 x 240 pixels (NTSC) High resolution : 720 x 576 pixels (PAL) : 720 x 480 pixels (NTSC) Still picture : 704 x 576 pixels (PAL) : 704 x 480 pixels (NTSC) JPEG picture : 800 x 600 pixels
Audio Outputs:	Stereo output, connector – RCA jack, 3.2 V p-p max. 5K ohm
Signal-to-Noise:	96 dB
Select Switches:	Power ON/OFF select PAL/NTSC select Video/VGA select
Indicators:	Power On/Off LED Status LED
Start-up Modes:	Autoplay (at power-on); Sleep mode (after power-on)
Power Input:	12V DC, 500mA typical
Power Consumption:	6 W
Environment:	0 °C to 50 °C, free air circulation
Relative Humidity	5% - 95% relative humidity, non-condensing
Dimensions:	146.8mm x 91.5 mm x 18mm (W x D x H)
Net Weight:	135g
External ports:	COM port – for barcode application. (9600, n,8,1) Remote Ext. – External buttons connection (8-buttons) USB - USB Host connection
Video Storage Accessories:	CompactFlash Card – various memory capacities available 2G, 4G, 8G, 16G

** For MPEG-2 video, the encoding rate is limited to 5Mb/s*

WARRANTY

The products are warranted against defects in workmanship and material for a period of three (3) years from the date of purchase provided no modifications are made to it and it is operated under normal conditions and in compliance with the instruction manual.

The warranty does not apply to:

- Product that has been installed incorrectly, this specifically includes but is not limited to cases where electrical short circuit is caused.
- Product that has been altered or repaired except by the manufacturer (or with the manufacturer's consent).
- Product that has subjected to misuse, accidents, abuse, negligence or unusual stress whether physical or electrical.
- Ordinary wear and tear.

Except for the above express warranties, the manufacturer disclaims all warranties on products furnished hereunder, including all implied warranties of merchantability and fitness for a particular application or purpose. The stated express warranties are in lieu of all obligations or liabilities on the part of the manufacturer for damages, including but not limited to special, indirect consequential damages arising out of or in connection with the use of or performance of the products.

CAUTION

Whilst care has been taken to provide as much detail as possible for use of this product it cannot be relied upon as an exhaustive source of information. This product is for use by suitably qualified persons who understand the nature of the work they are doing and are able to take suitable precautions and design and produce a product that is safe and meets regulatory requirements.
DISCLAIMER: There is no implied or expressed warranty regarding this material.

LIMITATION OF LIABILITY

The manufacturer's liability for damages to customer or others resulting from the use of any product supplied hereunder shall in no event exceed the purchase price of said product.

TRADEMARKS

The following are trademarks of Digital View Ltd:

- DigitalView
- M3-200

CompactFlash is a registered trademark of SanDisk Corporation.
Other brands and products are trademarks of their respective holder/s.

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