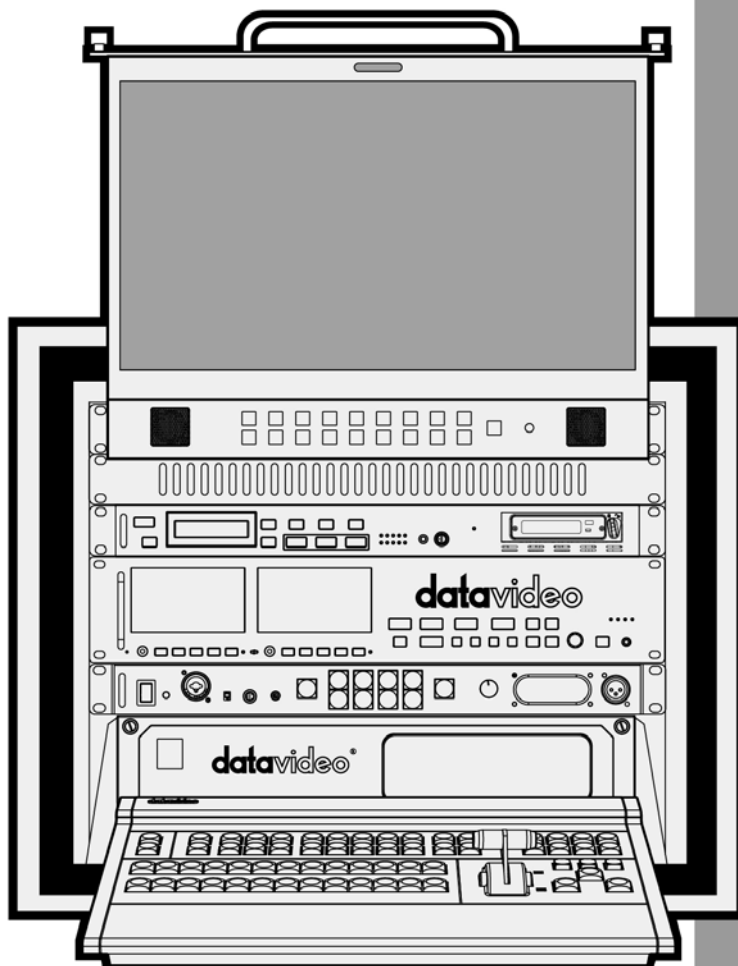


# datavideo®



**HD/SD 12-CHANNEL  
MOBILE VIDEO STUDIO  
MS-2800A/B  
Instruction manual**

[www.datavideo.com](http://www.datavideo.com)

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### Disclaimer of Product and Services

The information offered in this instruction manual is intended as a guide only. At all times, Datavideo Technologies will try to give correct, complete and suitable information. However, Datavideo Technologies cannot exclude that some information in this manual, from time to time, may not be correct or may be incomplete. This manual may contain typing errors, omissions or incorrect information. Datavideo Technologies always recommend that you double check the information in this document for accuracy before making any purchase decision or using the product. Datavideo Technologies is not responsible for any omissions or errors, or for any subsequent loss or damage caused by using the information contained within this manual. Further advice on the content of this manual or on the product can be obtained by contacting your local Datavideo Office or dealer.

## Warnings and Precautions



**The MS-2800 is HEAVY – approximately 70Kg. Two or more people are required to move this unit.**

The MS-2800 should be always moved and placed in an upright position; do not place or try to move the unit in any other position as damage or injury could result. There are two sets of carry handles on either side of the case, please use these handles to safely share the weight between the people lifting the unit.

***Always use a trolley to safely transport the unit over distances of 2 metres or more.***

1. Read all of these warnings and save them for later reference.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit in or near water.
5. Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious damage.
6. Slots and openings on the cabinet top, back, and bottom are provided for ventilation. To ensure safe and reliable operation of this unit, and to protect it from overheating, do not block or cover these openings. Do not place this unit on a bed, sofa, rug, or similar surface, as the ventilation openings on the bottom of the cabinet will be blocked. This unit should never be placed near or over a heat register or radiator. This unit should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should only be operated from the type of power source indicated on the marking label of the AC adapter. If you are not sure of the type of power available, consult your Datavideo dealer or your local power company.
8. Do not allow anything to rest on the power cord. Do not locate this unit where the power cord will be walked on, rolled over, or otherwise stressed.
9. If an extension cord must be used with this unit, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord rating.
10. Make sure that the total amperes of all the units that are plugged into a single wall outlet do not exceed 15 amperes.
11. Never push objects of any kind into this unit through the cabinet ventilation slots, as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind onto or into this unit.
12. Except as specifically explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks, and will void your warranty. Refer all service issues to qualified service personnel.
13. Unplug this product from the wall outlet and refer to qualified service personnel under the following conditions:
  - a. When the power cord is damaged or frayed;
  - b. When liquid has spilled into the unit;
  - c. When the product has been exposed to rain or water;
  - d. When the product does not operate normally under normal operating conditions. Adjust only those controls that are covered by the operating instructions in this manual; improper adjustment of other controls may result in damage to the unit and may often require extensive work by a qualified technician to restore the unit to normal operation;
  - e. When the product has been dropped or the cabinet has been damaged;
  - f. When the product exhibits a distinct change in performance, indicating a need for service.

## Warranty

### Standard Warranty

- Datavideo equipment is guaranteed against any manufacturing defects for one year from the date of purchase.
- The original purchase invoice or other documentary evidence should be supplied at the time of any request for repair under warranty.
- Damage caused by accident, misuse, unauthorized repairs, sand, grit or water is not covered by this warranty.
- All mail or transportation costs including insurance are at the expense of the owner.
- All other claims of any nature are not covered.
- Cables & batteries are not covered under warranty.
- Warranty only valid within the country or region of purchase.
- Your statutory rights are not affected.

### Two Year Warranty

- All Datavideo products purchased after 01-Oct.-2008 qualify for a free one year extension to the standard Warranty, providing the product is registered with Datavideo within 30 days of purchase. For information on how to register please visit [www.datavideo.com](http://www.datavideo.com) or contact your local Datavideo office or authorized Distributors
- Certain parts with limited lifetime expectancy such as LCD Panels, DVD Drives, Hard Drives are only covered for the first 10,000 hours, or 1 year (whichever comes first).

Any second year warranty claims must be made to your local Datavideo office or one of its authorized Distributors before the extended warranty expires.

## Disposal



### For EU Customers only - WEEE Marking.

This symbol on the product indicates that it should not be treated as household waste. It must be handed over to an applicable take-back scheme for the recycling of Waste Electrical and Electronic Equipment. For more detailed information about the recycling of this product, please contact your local Datavideo office or your local recycling centre.

## Packing List

The following items should be included in the box. If any items are missing please contact your supplier.

Item No.	Description	Quantity
1	MS-2800	1
2	Accessory kit *	1
3	Manual Binder (See Accessory List)	1

*\*The accessory kit also contains a packing list.*

## Introduction

The MS-2800 is an all-in-one HD/SD mobile video studio with a fold away 17" HD monitor. Built around the Datavideo SE-2800 switcher, the MS-2800 provides superb 10bit 4:2:2 broadcast quality video.

This mobile video studio, or portable production unit, is a ready to go solution; it will save a lot of crew time when setting up or breaking down in the field. The in-built Vectorscope and Waveform Monitor (MS-2800B only) allows your engineer to make sure all video is matched and legal before the production starts. The MS-2800 also enables you as a producer/director to direct and manage a live production when working with a crew of 8 camera operators, thanks to a bespoke tally and communication system. As well as monitoring and switching signals, the SE-2800 will also allow you to synchronise your cameras with an external reference signal. The MS-2800 can also match the live audio feed to the mixed video output thanks to an AD-100 audio delay unit. Add to this a removable HDD master recorder and you have the ability to watch or edit your footage at stunning 4:2:2 100Mbps I frame only quality, directly after the shoot.

*That's Datavideo; sharing the value!*

To get more value out of your equipment please take a few minutes to read through this overview manual, and the other associated user manuals supplied within the product Manual Binder. This will help you to familiarise yourself with all the aspects of the MS-2800 portable production unit.

### Features

- Available in 2 versions: **MS-2800A** or **MS-2800B**.

**MS-2800A** without VSM-100 Vectorscope and Waveform monitor,  
without DAC-50 SDI to analogue converter and without PD-3 Power distribution center.

**MS-2800B** with additional VSM-100 Vectorscope and Waveform monitor,  
with DAC-50 SDI to analogue converter and with PD-3 Power distribution center.

#### **Both also contain**

- SE-2800 - HD/SD 12 channel digital video switcher.
- TLM-170H - 17" HD/SD 1U rackmount LCD underscan/overscan monitor.
- HDR-70 - HD-SDI 4:2:2 I frame only recorder with removable drive enclosure.
- ITC-100 – 8 Channel talkback unit with integrated bi-colour tally system.
- AD-100 – Audio delay unit allows delay of program audio by up to 17 frames.
- PD-2A – Power Distribution Center with automatic AC to DC fall over switch.
- 8U flight case - Foam filled, impact protective, for secure and safe transport.

### Compatible Video Standards

- 1920 x 1080i 50
- 1920 x 1080i 59.94
- 1920 x 1080i 60
  
- 720 x 576i 50 (PAL)
- 720 x 480i 60 (NTSC)

## Installation

### Transport & Placement

**The MS-2800 is heavy – approximately 70Kg – Do not attempt to lift or move it on your own.**

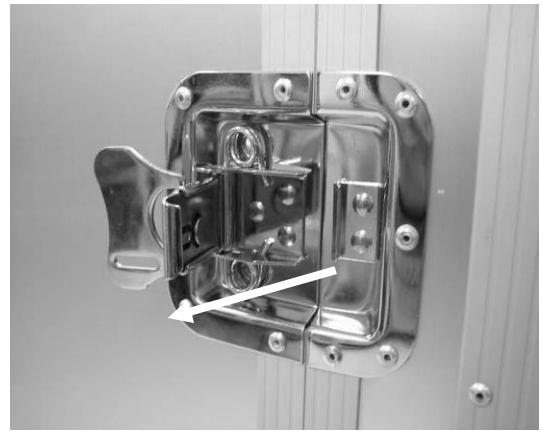
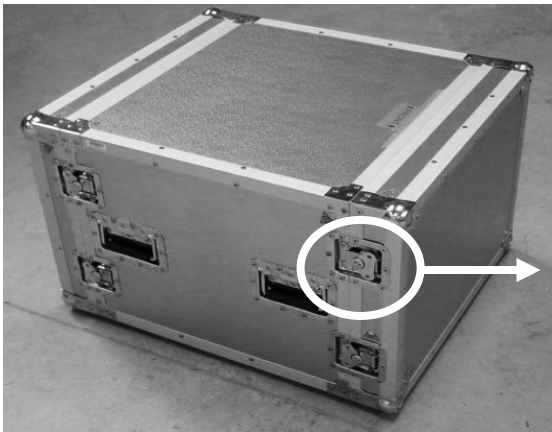
A minimum of two people are required to lift or move this product. There are two carry handles on either side of the product, please use these handles to safely share the weight between the people lifting the unit.

**Always use a trolley to safely transport the MS-2800 over distances of 2 Metres or more.** The unit should be always moved and placed in an upright position; do not place or try to move the unit in any other way as damage or injury could result.

**Place the MS-2800 on a strong, stable, flat surface that is capable of supporting the weight.** Do not use a folding or single leg table to support the MS-2800.

### Opening the case

On each side of the MS-2800 case there are wing nut clasps securing the front and rear covers.



Undo each clasp by folding the wing nut out and then rotating it. The clasp can then swing free of the catch.

Once undone you can then remove the front and rear covers.

## Unpacking the SE-2800 Control Panel Keyboard

The SE-2800 Control Panel Keyboard is held in its shipping position by a securing bolt on either side. To lower the Control Panel first remove the securing bolts as indicated below.



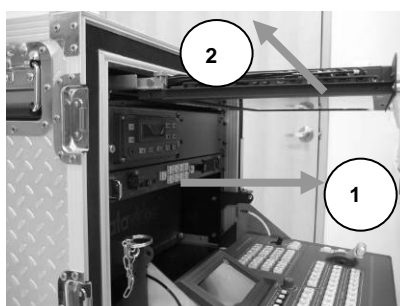
The bolts can then be stored on each hinge bracket before lowering the Control Panel Keyboard.



## Setting up the TLM-170HM - 17" LCD monitor

Follow the steps below to set up the LCD monitor:

- Unfasten the two silver screws on the Left and Right of the TLM-170HM drawer handle.
- Using the handle pull out the TLM-170HM monitor until it clicks into place at the end of its rail.
- Now bring the LCD panel into an upright viewing position.





## Front Panel

**TLM-170HM** : 17" HD / SD monitor which slides out from a 1 RU storage position. Connections for SDI / HD-SDI, HDMI, YPbPr and Composite. Display overlays for Timecode, Center Mark, 4:3 aspect, Cinema zone and embedded audio peak meter (SDI / HDMI only).

**HDR-70** : SDI / HD-SDI Removable HDD recorder. Records I-Frame only 100Mbps to m2t files.

**ITC-100** : Eight channel wired talkback system with integrated tally interface. Supplied with cables, belt packs, headsets and tally lights.

**SE-2800** : SD / HD Digital Video Switcher. Main unit and Control Panel. Provides 10bit 4:2:2 broadcast quality pictures.

## Rear Panel

**RP-50** : Rack panel with 3pin IEC type AC Power outlet (rated 12V 10A) from PD-2A (see below).

**RP-31**: ITC-100 talk back breakout panel. Rack panel for connection of ITC-100 belt pack cables (5pin XLR).

**AD-100** : Audio Delay Unit. Delay Program audio by up to 17 frames.

**PD-2A** : Power Distribution unit with automatic fall over from AC to DC input.

**SE-2800** : Main unit rear panel with power, control panel and multi-view outputs already connected for your convenience.





## Front Panel

**TLM-170HM** : 17" HD / SD monitor which slides out from a 1 RU storage position. Connections for SDI / HD-SDI, HDMI, YPbPr and Composite. Display overlays for Time code, Center Mark, 4:3 aspect, Cinema zone and embedded audio peak meter (SDI / HDMI only).

**HDR-70** : SDI / HD-SDI Removable HDD recorder. Records I-Frame only 100Mbps to m2t files.

**VSM-100** : Waveform and Vector scope monitor for video signal analysis.

**ITC-100** : Eight channel wired talkback system with integrated tally interface. Supplied with cables, belt packs, headsets and tally lights.

**SE-2800** : SD / HD Digital Video Switcher. Main unit and Control Panel. Provides 10bit 4:2:2 broadcast quality pictures

## Rear Panel

**RP-45A** : Rack mounted CVBS Distribution Amplifier. Provides 8x Program output.

**RP-31** : ITC-100 talk back breakout panel. Rack panel for connection of ITC-100 belt pack cables (5pin XLR).

**PD-3** : Power Distribution unit with user adjustable 4 pin XLR out. Ideal for powering cameras with DC voltage up to 24V.

**RP=51** : 1U Half Rack panel with Switcher SDI PGM outputs and HDMI Multi-view output 2.

**AD-100** : Audio Delay Unit. Delay Program audio by up to 17 frames.

**PD-2A** : Power Distribution unit with automatic fall over from AC to DC input.

**SE-2800** : Main unit rear panel with power, control panel and multi-view outputs already connected for your convenience.



## Powering On

Each product built into this Mobile Video Studio receives DC power from the PD-2A unit on the rear of the MS-2800.

Please ensure the PD-2A is fed with either an AC or DC feed before attempting to switch on the MS-2800.

For more information on the PD-2A please refer to its manual in the binder.

If a product within the MS-2800 fails to start after the PD-2A is switched on please locate the on/off switch for that product which has not yet started.

For further advice on using a product within the MS-2800 please refer to its manual in the binder.

## Powering Off

Before powering off the MS-900 via the PD-2A on/off switch please ensure the DN-500 has been stopped.

## Packing Away

Once the external source and camera cabling have been removed from the rear connection plates replace and secure the rear case cover.

Return the ITC-100 gooseneck mic, any ITC-100 cabling, tally lights and headsets etc to your accessory kit bag/box.

Carefully lower the 17" TLM-170HM monitor and slide it back into its horizontal 1U shipping position. Please remember to secure the silver screws so it cannot slide/move when in transit.

Now raise/tilt upwards the SE-2800 Control Panel Keyboard and secure it in its shipping position with the chained securing bolts.

Now return and secure the front cover and the MS-2800 is ready to be moved.

## Dimensions

All dimensions in mm.

	MS-2800 A	MS-2800 B
Height	800	800
Width	670	670
Depth	620	620
	Accessory Kit A	Accessory Kit B
Height	330	330
Width	520	520
Depth	280	280

## Weights

***The MS-2800 is heavy – approximately 70Kg – Do not attempt to lift or move it on your own.***

A minimum of two people are required to lift or move this product. There are two carry handles on either side of the product, please use these handles to safely share the weight between the people lifting the unit.

	MS-2800 A	MS-2800 B
Gross Weight (Packed/Pallet)	78 Kg	83 Kg
Nett Weight (unpacked unit only)	65 Kg	70 Kg
Accessory Kit (Gross packed)	10 Kg	10 Kg

***Always use a trolley to safely transport the MS-2800 over distances of 2 Metres or more.***

***The unit should be always moved and placed in an upright position; do not place or try to move the unit in any other way as damage or injury could result.***

***Place the MS-2800 on a strong, stable, flat surface that is capable of supporting the weight.***

Do not use a folding or single leg table to support the MS-2800.

## Specifications

The MS-2800 is a combination of Datavideo products, for the specifications of a particular product please refer to its manual within the supplied binder.

## Service & Support

It is our goal to make your products ownership a satisfying experience. Our supporting staff is available to assist you in setting up and operating your system. Please refer to our web site [www.datavideo.com](http://www.datavideo.com) for answers to common questions, support requests or contact your local office below.

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