

Power Distribution Center

PD-1



Instruction Manual

www.datavideo-tek.com

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Disclaimer of Product and Services

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Warnings and Precautions

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 slightly damp cloth for cleaning.
4. Do not use this unit in or near water.
5. Do not place this unit on an unstable surface, cart, stand, or table. The unit may fall, causing serious damage.
6. Any slots and openings on the case 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 may become blocked. This unit should never be placed near or over a heat source 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, damaged 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's 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 case 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 case 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-tek.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 the 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.

Packing List

Item	Description	Q'ty
1	PD-1 Power Distribution Center	1
2	AC Power cord	1
3	Instruction Manual	1

Product Overview

The Datavideo PD-1 is a 1U high 19" Rack Mountable Power Distribution Center. It is specifically designed to provide steady power supply in Datavideo Mobile Video Studio applications. It is able to supply a variety of power outputs from a single AC (100~240V) or DC (12V 300W) Input.

Together with a Datavideo Mixer, Talkback system, Recorder and Monitors, the PD-1 makes the integration of a Mobile Video Studio set up easier, more professional and reliable. With built-in timed delay for power on, the Datavideo PD-1 starts each DC output terminal in sequence with a 1 second interval between each. The Datavideo PD-1 is also installed with an auto-recover fuse at every output terminal to safely protect each working device supplied by it.

Features

- Standard 1U high 19" rack mount case design
- Switchable between AC or 12V DC input
- Can be used with 110V or 220V AC supplies
- Power rating up to 300 Watts Max
- Sequential Power-On of each DC output at 1 second intervals
- Power indicator and Auto-Recover fuse protection for each DC output connector
- Three looped through AC (two 5A Max, one 1A Max) power outputs**

*** The loop through AC outputs are redundant when the PD-1 unit is powered from DC Input.*

Front Panel

- Backlit Power On/Off button
- AC or DC input selector switch
- IEC 3pin type AC power input socket (100~240V 50/60Hz AC, Fused 5A, Max 10A)
- XLR 4pin type 12V DC power input socket (300W Max)
- Two loop through** IEC 3pin type AC power output sockets (5A Max)
- Twin cooling fans – Please ensure the unit has some airflow space

Rear Panel

- One 2.1mm, 5V DC (1A Max) Power output connector
- Two 2.1mm, 12V DC (2A Max) Power output connector
- Four 2.1mm, 12V DC (3A Max) Power output connector
- One 2.1mm, 12V DC (10A Max) Power output connector
- Power indicator LED and Auto-Recover fuse protection for each DC output connector
- Each 2.1mm DC connector is centre positive and has a 5.5mm screw locking thread
- One XLR 4pin type, 12V DC (10A Max) Power output connector
- One XLR 4pin type, 12V DC (3A Max) Power output connector
- One loop through** IEC 3pin type AC power output socket (1A Max)

Connections & Controls

Front Panel



On / Off Switch

Powers the PD-1 On / Off when using AC Power.

N.B. From DC Power the On / Off Switch is redundant



AC In with built-in fuse

AC Inlet for connecting to suitable mains power outlet – 100~240VAC. The socket contains a fuse holder fitted with a 5A fuse.



Cooling Fan

The PD-1 has two built-in cooling fans, please ensure that these are not blocked, and that some airflow is available.



AC Outlet 100~240V Max 5A

2 x AC Outlet at same voltage as AC Input (110~240VAC)

These sockets are redundant when PD-1 is powered from DC In



DC In

The PD-1 can be powered from a suitable 12V power source. When working from DC the PD-1 will not regulate the power outlets.

Please ensure that the 12V power source that you use is regulated. If you intend to run the PD-1 from a car or van power outlet make sure that a suitable regulator is used on the power feed.

Pin 4 should be wired positive and Pin 1 should be ground.

N.B. The AC Outlets are not active when the PD-1 is powered via the DC In.

N.B. The On / Off switch is redundant when the PD-1 is powered from a DC supply.



Input Select AC / DC

The Input select switch can be set to AC or DC according to the power input that you intend to use.

N.B. Do not connect AC and DC power inlets at the same time.

Rear Panel



DC Out 5V 1A

5V 1A DC Output via 2.1mm In-Line Socket (Centre Positive)



DC Out 12V 2A

2 x 12V 2A DC Output via 2.1mm In-Line Sockets (Centre Positive)



DC Out 12V 4A

4 x 12V 4A DC Output via 2.1mm In-Line Sockets (Centre Positive)



DC Out 12V 10A

2 x 12V 10A DC Outputs.

1 x 2.1mm In-Line Sockets (Centre Positive),

1 x 4 Pin XLR Socket (Pin 4 Positive, Pin 1 Ground)



DC Out 12V 3A

1 x 12V 3A Output via 4 Pin XLR Socket

(Pin 4 Positive, Pin 1 Ground)



AC Outlet 100-240V Max 1A

AC Outlet at same voltage as AC Input (100~240V)

This socket is redundant when PD-1 is powered from DC In



Ground Terminal

When connecting this unit to any other component, make sure that it is properly grounded by connecting this terminal to an appropriate point. When connecting, use the socket and be sure to use wire with a cross-sectional area of at least 1.0 mm².

PD-1 in MS-900 Mobile Studio Example



Datavideo Product Voltage Requirements

This table is a guideline for Datavideo Products, if you are using products from other manufacturers please check their voltage requirements carefully before connecting to the PD-1.

Output	Datavideo Product
DC 5V 1A	DAC-8, DAC-9, AD-100, DN-200
DC 12V 2A	TLM-404H, TLM-702, TLM-702PD, TLM-702HD, TLM-700, TLM-700HD SE-500, AM-100, DAC-7, DAC-7L,
DC 12V 3A	TLM-170H, TLM-170HR, TLM-170HM, TLM-434H
DC 12V 4A	DN-400, DN-500, HDR-50, HDR-40
DC 12V 10A	SE-600, SE-900, SE-2000, SE-2800, SE-3000

Specifications

ITEM		Specification
INPUT	VOLTAGE (AC)	100 - 240V AC
	RANGE	100~120V AC or 220~240V AC
	FREQ.	50Hz, 60Hz
	VOLTAGE (DC)	12V +/- 5%
	POWER	12V 300W
OUTPUT	VOLTAGE (DC)	+5V, +12V (load dependant see range below)
	CURRENT	+5V/1A, +12V/2A, +12V/4A, +12V/3A, +12V/10A
	AC OUTPUT	Rear panel IEC type outlet rated 100~240VAC Max 1A Front panel IEC type outlets rated 100~240VAC Max 5A
4 pin XLR DC connector		Pin 4 positive, Pin 1 Ground, Pins 2 & 3 NC
EFFICIENCY		>80%
INDICATOR		LED
NOISE		DC 12V Output Noise +5%, -3% DC 5V Output Noise +/- 3%
OVERLOAD PROTECTION		DC overload protection – auto recovery fuse on each AC overload protection – non-recovery fuse on input
WORKING TEMPERATURE		0 ~ 40°C
DIMENSION		440mm * 214mm * 46 mm (1U height 19" rack)
WEIGHT		4.25Kg

Service and 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-tek.com for answers to common questions, support requests or contact your local office below.

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