DAKOTA MICRO

OVERVIEW
a new degree of vision

Users Manual

Digital Wireless Two Camera Monitoring System
Part Number: DMOV-DW7MC2

Table of Contents

MORE
Reliable
Profitable
Capable

Always read the manual prior to operating this equipment. Also, please follow all safety signs and precautions.

I. INCLUDED WIRELESS KIT COMPONENTS

Description	Picture
OverView Digital Wireless Monitor with attached monitor wire harness also includes: Monitor bracket w/ attachment washers & nuts, 5dBi antenna, and monitor sun shade	
(Qty 1) Cigarette Lighter Power Adaptor (for monitor) w/ 2amp fuse	
(Qty 2) OverView Digital Wireless Camera with 5dBi antenna, camera bracket w/ attachment washers & bolts and Allen wrench	
(Qty 2) Hardwire Power Adaptor (for cameras) w/ t-tap adaptor clips	

II. OPTIONAL WIRELESS KIT COMPONENTS

Description	Picture
A/C Power Adaptor, North American(>3 amp): *Allows for A/C Power input into OverView wireless cameras and monitor. Each component requires its own AC Power supply.* **Part number: DM-PA3**	

III. <u>**STANDARD FEATURES**</u>

   A. Cameras
- Minimum focal distance of 5"
- Built-in, high quality CCD camera with high performance infrared (IR) illuminator modules.
- IR has effective range of 45'+ in complete darkness
- Built-in CDS light-source sensor automatically turns the IR's on/off by detecting the light intensity of the environment
- 2.8mm Camera lens provides 120-degree field of view

   B. Monitor
- 7" LED Backlit Monitor
- Capable of displaying 2 digital wireless cameras
- Capable of auto scan between Camera 1 and Camera 2
- View cameras one at a time or side by side
- Manual image switching modes

IV. <u>**WARNINGS**</u>

- Please read entire manual before using our products
- Before you power your rear-view monitoring system, ensure that all cables are properly connected to avoid damage to the system
- Monitor IS NOT WATERPROOF, please do not place the monitor outdoors
- Ensure that all cables are routed a sufficient distance from high temperature areas and rotary objects
- To ensure proper heat dispersal, ensure that vent holes in monitor remain clear
- Do not open the monitor or camera casing, doing so will void the warranty
- DO NOT watch DVDs etc. while driving
- Please do not use caustic chemicals to wipe the camera and/or monitor

⚠ **WARNINGS**

System is intended for light use and is not intended to be utilized in harsh conditions such as high vibration, high moisture, use in or around corrosive substances or other high impact or corrosive situations. Should a heavy-duty camera be required for your application, an AgCam or EnduraCam camera from Dakota Micro should be utilized and is warranted for this type of use. Warranty will be void on this system should it be utilized outside of its recommended applications.

V.   MONITOR ASSEMBLY

Sunshade Install
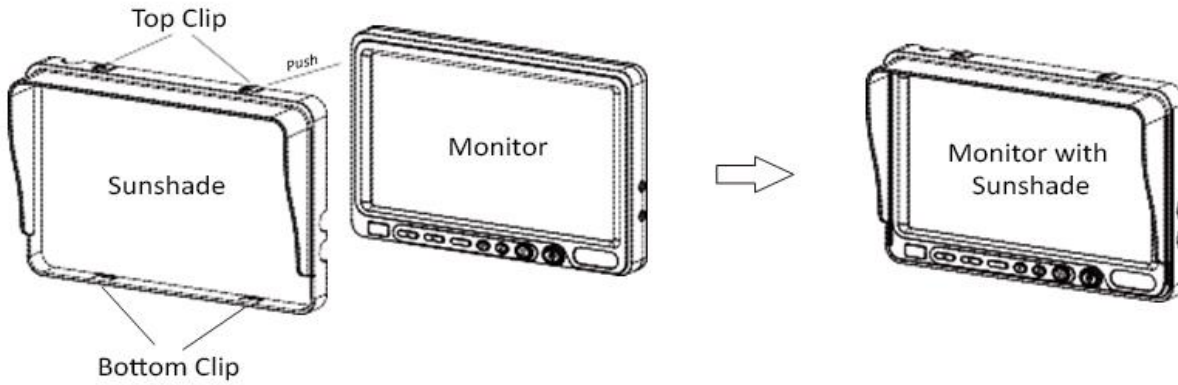
Sunshade Removal
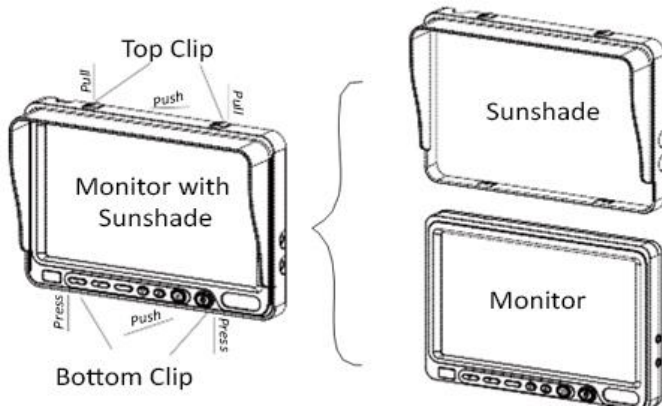
Installation of Monitor Bracket

VI.   **POWER**

    A.   Supplying power to your OverView wireless monitor with provided 12v power adaptor
   1.   Attach the power input connector on monitor to your included 12v cigarette lighter power adaptor.
   2.   Plug cigarette lighter adaptor into 12v power source.

    B.   Supplying power to your OverView wireless cameras with provided hardwire power adaptors
   1.   Attach the power input connector on camera to your included hardwire power plug.
   2.   Attach t-tap power clips as follows:

   a.   Hardwire power adaptors include two sets of wire tap and female disconnects for both power (red) and ground (blue)

   b.   The wire tap clamps onto the wire you're connecting to; the female disconnect crimps onto the Hardwire power adaptor: RED for power, BLUE for ground

   c.   The female disconnect slides firmly into the end of the wire tap, making a secure connection

   3.   **WARNING:** Hardwire MUST be attached to a MAX 7.5A fused circuit or damage will occur. Warranty void if instructions are not followed.

    C.   Supplying power to your OverView wireless kit via A/C power
   1.   If you would like to provide power to your OverView wireless kit via A/C power, you will need to purchase the accessory A/C power adaptors from your local Dakota Micro, Inc. Dealer, part number: DMAC-PA.
   2.   IMPORTANT: Each unit will need an A/C power adaptor.

VII.   **EVENT TRIGGER WIRE OPERATIONS**

    A.   Event Trigger Wire Color Guide
   1.   Camera 1 – Brown
   2.   Camera 2 – Blue

    B.   Event Trigger Wires Explained

Event trigger wires can be attached to any 12v positive event. This will cause the monitor to change to that camera, regardless of the state of the monitor (i.e. ON/OFF or channel selection). The most recent event will be the primary display. So, if two (2) video channels (AV1 & AV2) are attached to an event output, the event that happens last will change the monitor to its respective camera view.

The wires can be attached to any positive output 10.5v to 16.9v switch or supply to cause the monitor to automatically switch the unit to its respective channel camera. *Example:* If you were to attach the AV1 wire to a positive output from an unloading auger on a combine, the monitor would switch from channel 2 to channel 1 when the auger is extended. The event circuit should be neutral in its normal state and change to HIGH (+12v) when the event is considered to be active.
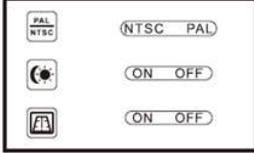
VIII.   MONITOR OPERATION
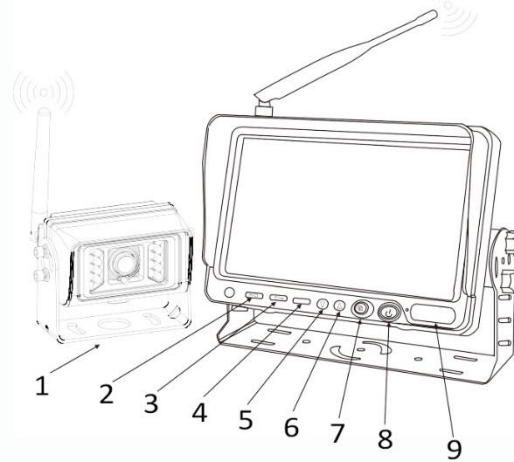
1. Digital Wireless Camera	4. Menu/Esc	7. OK/Camera Toggle
2. Left (Volume -/Menu)	5. Down (CH switch)	8. Power
3. Right (Volume +/Menu)	6. Up (CH switch)	9. Name Plate

IX.   SETTING UP/PAIRING YOUR CAMERAS

a. Plug monitor into chosen power source. With no cameras connected, monitor will display "No Signal" message, press "MENU" button to enable menu selection. **IMPORTANT: Menu NOT accessible in split screen mode.**
b. Use Left/Right arrows to select the "Pair" icon pictured below
c. HINT: The selected menu option will be highlighted in yellow. Press "OK" (7 on image above) button to select.
d. Once selected, your monitor will display the message "PAIRING START 50", which means your monitor will scan for available camera signals.
e. While your monitor is scanning, power your cameras to allow your monitor to "find" them.
f. If camera signal cannot be found, unplug camera for 10 seconds and try again.
g. **WARNING**: If you own multiple OverView Digital Wireless systems, make sure you are pairing ONLY a "Camera 1" and a "Camera 2" Attempting to pair multiple "Camera 1" or "Camera 2" will confuse the system.

X.   ADDITIONAL MENU OPTIONS

Icon	Screen Image	Functionality
	PAIRING SART 50	**Pair:** Establishes the connection between the monitor and camera. ***IMPORTANT: To pair, your monitor should be powered but your cameras SHOULD NOT. See next instruction.*** Press "PAIR". Your monitor will display "PAIRING START 50". Your monitor will search for your camera(s) for 50 seconds. You can now power your camera(s) to allow your monitor to find it and pair with them. You should see your camera(s) appear in 5-10 seconds. When the monitor is in **SCAN** mode, the CAM1 and CAM2 image will switch automatically according to the setting time. Press ▼/▲ to quit the switch.
	☀ -‖‖‖ 5 + ◐ -‖‖‖ 5 + ✳ -‖‖‖ 5 +	**Picture Setting:** Allows adjustment of brightness, contrast and color (adjusts monitor, so this setting affects both cameras). Brightness: 0-10 (Press left/right arrows to adjust) Contrast: 0-10 (Press left/right arrows to adjust) Color: 0-10 (Press left/right arrows to adjust)
	▯ ▭ ▭ ▭	**Normal/Mirror image setting:** Allows users to adjust viewing of cameras. 4 modes available

		Auto Scan: Allows your monitor to automatically scan for available cameras. Set CAM1 auto scan mode on/off Set CAM2 auto scan mode on/off Set the amount of time the monitor will auto scan for cameras
		Other Functions: • Choice of NTSC or PAL video system • LED screen ambient light sensor on/off • Grid Overlay on/off (available for camera 1 only)

XI. SPECIFICATIONS

A. Camera	
Video System	NTSC
Image Pick-up Device	CMOS 1/3" Super HAD CCD Sensor
Horizontal Resolution	500 Horizontal lines
Minimum Illumination	0 LUX @ F2.0
Lenses Furnished	Board Lens 2.8mm (120 degree field of view)
Synchronous System	Internal Synchronization
Operating Temp.	-4°F~122°F (-20°C~50°C)
Waterproofing criteria	IP 69K
B. LCD Monitor	
Screen Size	7" (16:9) digital panel
Overall Size	235(L)X155(W)X36.5(H)mm
Weight	400g
Power Input	AC 10.5-16.9, DC 10.5-16.9V, >1,200 ma
Operating Temp.	-4°F~122°F (-20°C~50°C)
Brightness	400cd/m^2
Contrast	500:1
Viewing Angle	L/R: 70° Up: 70° Down: 60°
Number of Camera Inputs	2
Number of Camera Triggers	2

XII. PRODUCT WARRANTY/REPAIR PROCESS

1. For Technical Support call 1 701-538-4403 OR email techsupport@dakotamicro.com
2. Technician will assist in troubleshooting product malfunction.
3. If product malfunction cannot be remedied and a repair is deemed necessary, Technician will issue a Repair Authorization (RA) number.
4. To ensure fast and effective repairs, customer is required to send:
   - Dakota Micro Product that Technician has requested/deemed necessary in the proper diagnosis and repair of malfunction. This may include some or all components of the kit.
   - Original/Copy of purchase receipt.
   - For serialized items ONLY, If a copy of the original purchase receipt cannot be provided, then DAKOTA MICRO will use the product manufacture date.
   - Customer information, including return addresses & phone number. If the phone number is not included, the customer will be sent a letter requesting the needed information.
   - RA Number provided by Dakota Micro Technical Support
   - Shipping and associated costs to ship product to DM factory to be borne by the customer unless otherwise specified.
5. Customer should mail product to:
   Dakota Micro, Inc.
   RA # XXXXX
   8659 148 ½ Ave. SE
   Cayuga, ND 58013
6. Upon receipt and evaluation of product at Dakota Micro Factory, it will be established if the repair is warranty or non-warranty. If requested, customer will be called and notified of any applicable charges.
7. If the repairs are deemed non-warranty and require a service/repair fee of any kind, a credit card number will be requested by Order Processing after the repair is completed.

8. If customer is unable to be contacted over the course of 3 weeks regarding required non-warranty repairs, product will be returned, unrepaired, to the customer.
9. Any product returned without proper documentation may be returned at customer's expense.
10. Product returned with unconfirmed problems will be assessed a $60 evaluation fee per unit
11. Return shipping costs will be borne by the party at fault; in other words, if Dakota Micro determines that the defective product was covered under warranty, Dakota Micro pays the shipping charges. If Dakota Micro determines that it was the customers fault, the customer will pay shipping charges. If a particular circumstance cannot be determined than the cost of shipping charges will be decided on a discretionary basis depending on the situation at hand.

XIII. CONSUMER LIMITED WARRANTY

Subject to the disclaimer, limitations and other directions stated hereafter, Dakota Micro, Inc. warrants that the Product will be free from defects in material and workmanship for periods as stated hereafter from the date of original purchase. **THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS. THE EXCLUSIVE REMEDY OF THE BUYER IS LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT. EXCEPT AS STATED IN THIS WARRANTY, DAKOTA MICRO SHALL NOT BE LIABLE FOR ANY LOSS, INCONVENIENCE, OR DAMAGE, INCLUDING DIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, RESULTING FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER RESULTING FROM BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY OF ANY OTHER LEGAL THEORY.** Any oral statements or representations made by anyone which are contrary to or at variance with the terms stated in this **LIMITED WARRANTY** are void.

Dakota Micro will, at its option, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the purchaser for parts or labor for the period of three (3) years for AgCam® /EnduraCam® and InnoPro® cameras; two (2) years for AgCam®/ EnduraCam® monitors, and Wireless components; Twelve Months (12) for all Overview Cameras & Monitors, cables and all other accessories.

The Dakota Micro limited warranty periods outlined above apply throughout the United States and Canada only. A one (1) year maximum limited warranty for all Products applies to all other geographic locations unless otherwise stated in writing by Dakota Micro.

This limited warranty does not apply to any issues connected with appearance that have no relation to the performance of the Product nor to any Product the exterior of which has been damaged or defaced, which has been subjected to improper voltage or other misuse, abnormal service, or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth in the complete Dakota Micro "Warranty & Repair Policy" listed on page 11 - section XI and provide proof of purchase to Dakota Micro.

Neither the sales personnel of Dakota Micro nor any dealer or any other person is authorized to make any warranties other than those described herein, or to extend the duration of any warranties beyond the time periods described herein.

The warranties described herein shall be the sole and exclusive warranties and remedies provided by Dakota Micro. Correction of defects, in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of Dakota Micro to the purchaser with respect to the Product, and shall constitute full satisfaction of all claims. In no event shall Dakota Micro be liable or in any way responsible for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than Dakota Micro.

Some states do not allow the limitation or exclusion of incidental or consequential damages, so said limitation may not apply to you.

Any action at law, suit in equity, or other judicial proceeding for the enforcement of any right provided for herein or otherwise, or with respect to any claim that a purchaser may have against Dakota Micro shall be instituted only in the Courts of the State of North Dakota, either in the state district court located in Wahpeton, North Dakota or in Federal District Court location in Fargo, North Dakota. Without regard to conflicts of law principles, the laws of the state of North Dakota shall govern the interpretation and enforcement of the terms of this Limited Warranty and all aspects of the relationship between Dakota Micro and the purchaser.

This warranty gives you specific legal rights and you may also have other rights, which may vary from state to state.

XIV. DISCLAIMER

Dakota Micro Inc. products, specifications, pricing, and programs are subject to change without prior notice. Dakota Micro Inc. reserves the right to make design changes at any time without obligation to retroactively install them on previously sold units.

XV. CONTACT US

Dakota Micro, Inc.

8659 148 ½ Ave. SE.
Cayuga, ND 58013

www.dakotamicro.com