

Dakota Micro, Inc.

Users Manual

Dakota Micro Mini Digital Video Recorder Part Number: DMAC-1DVR



MORE

Reliable

Profitable






Capable

Table of Contents

I.	<u>Included DVR Kit Components</u>	2
II.	<u>Standard Features</u>	2
III.	<u>DVR Operation</u>	3
IV.	<u>DVR Installation</u>	4-7
V.	<u>Setup</u>	7-17
	A. <u>Main Menu</u>	7
	B. <u>Video Setup</u>	8-9
	C. <u>Record Settings</u>	9-12
	D. <u>Record Mode</u>	13
	E. <u>Playback</u>	13-14
	F. <u>System Settings</u>	14-17
VI.	<u>Specifications</u>	18
VII.	<u>Warnings</u>	18
VIII.	<u>Product Warranty/Repair Process</u>	19
IX.	<u>Consumer Limited Warranty</u>	20
X.	<u>Disclaimer</u>	20
XI.	<u>Contact Us</u>	20

*Always read the manual prior to operating this equipment. Also, please follow all safety signs and precautions.
See the Dakota Micro, Inc. website for installation training videos at www.dakotamicro.com.*

I. INCLUDED DVR KIT COMPONENTS (PER PN: DMAC-1DVR)

Description	Picture
8MB SD Card (manufacturer may vary)	
USB SD Card Reader	
RCA Cords (2 sets) PN: DMAC-RCA	
AV Adaptor PN: DMAC-AV-F	
Wall Plug Power Adaptor PN: DMAC-PA	

Description	Picture
TVA Adaptor (includes adaptor & wall plug power adaptor) PN: DMAC-TVA	
RCA to BNC adaptors (2 sets) PN: DMAC-BNC-RCA	
12v Cigarette Lighter Power Adaptor PN: DMAC-12V	
Dakota Micro Single Channel DVR IMPORTANT NOTE: Each DVR kit may only record from one camera.	

Thank you for purchasing the AgCam®. The AgCam® is a durable, reliable surveillance system with the innovative ability to be quickly moved from one application to the next.

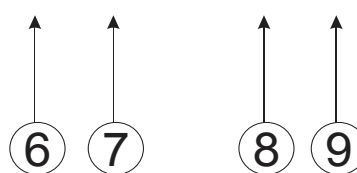
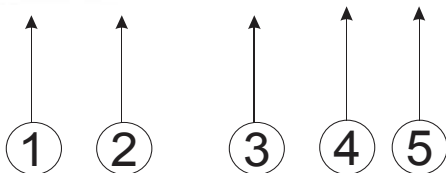
Training videos are available on the Dakota Micro website at: www.dakotamicro.com.

II. STANDARD FEATURES

- Fully Compatible with all AgCam components
- Records both NTSC and PAL video signals
- Able to record and play back video
- Includes all power and hookup cables needed
- Records to MPEG4 format

III. DVR OPERATION

KEY	Function
▲	Sel. Up
▼	Sel. Down
◀	Sel. Left Fast Reverse
▶	Sel. Right Fast Forward
OK	OK/Record
MENU	Menu Setting
P/P	Play/Pause/Delete Files
STOP	Stop recording/Stop Playback
ESC	ESC/ Playback



1. DC Power Plug
2. On Off Switch
3. SD Card Slot
4. Red Power Indicator Light
5. Green Record Indicator Light
6. Audio Input (Not used)
7. Video Input (Plug TVA into)
8. Audio Output (Not used)
9. Video Output (AV adaptor to Monitor)

IV. DVR INSTALLATION

STEP 1 Insert SD Card, with label down until it clicks.



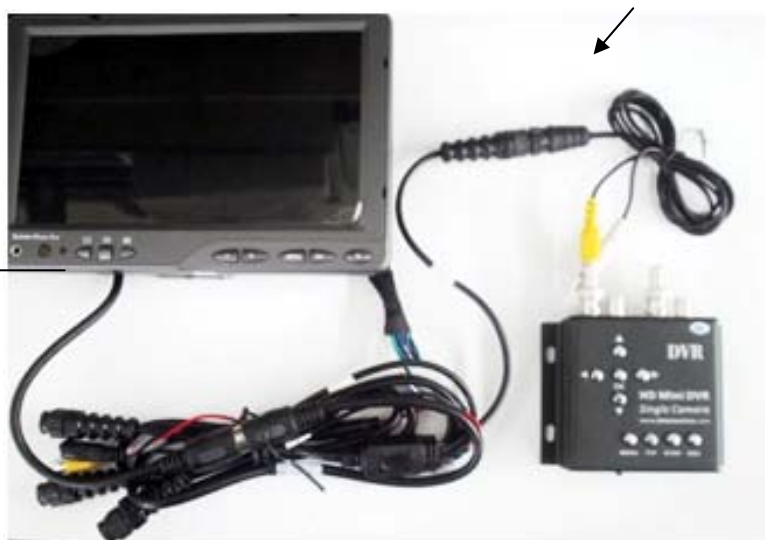
STEP 2 Attach RCA to BNC connectors into the video ports.

STEP 3 Insert yellow connector of the DMAC-AV into the video out port.



STEP 4 *If using Dakota Micro equipment insert DMAC-AV adaptor into camera connector on the monitor wire harness.

**If not using DM equipment, use RCA cables.*



STEP 5 Insert the yellow connector of the DMAC-TVA adaptor to your DVR yellow video In port.

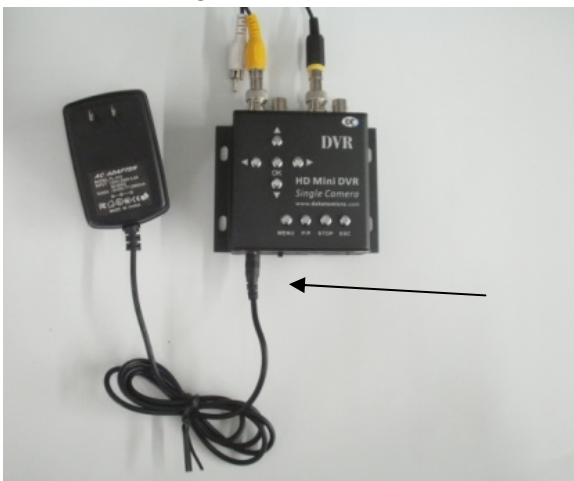
STEP 6 Connect the Dakota Micro camera to the DMAC-TVA adaptor.



STEP 7 Connect the provided power adaptor to the DMAC-TVA power cord.

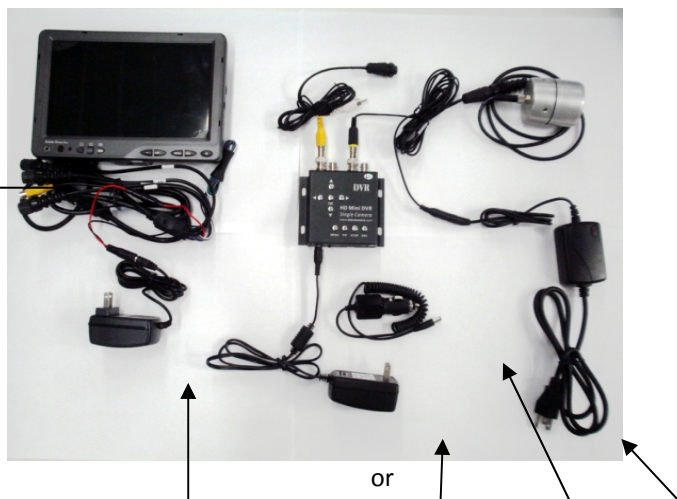


OR



STEP 8 Decide which power adaptor to use, either 12v or wall adaptor. Then plug into the DC port on the DMAC-1DVR.

STEP 9 At this point ,plug in all three power sources*.



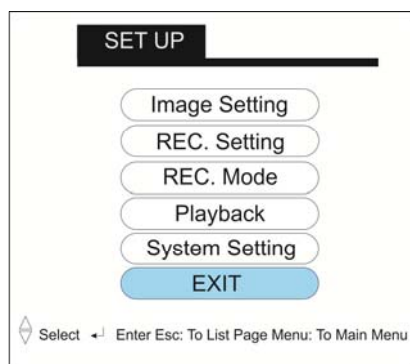
*** Power must be available for the DVR, monitor and camera. Use only the provided power supply or damage could occur.**



STEP 10 Turn on the ON/OFF switch.

V. SET UP

A. Main Menu



Press *Menu* on the top of DVR to enter the *Setup* screen. Use the *Up* and *Down* arrows to navigate to the *Image Setting*, then press "*OK*".

B. Video Setup



Use the *Up* and *Down* arrows to navigate to the *Quality* tab, then press "*OK*".

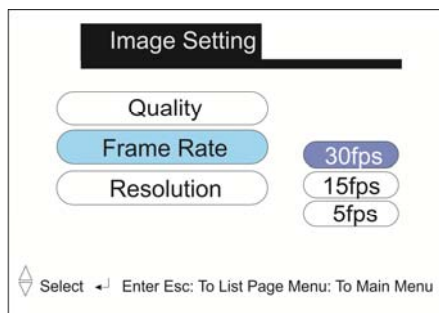


Use the *Up* and *Down* arrows to navigate, *High*, *Medium*, *Low*, then press "*OK*".

NOTE: The higher the quality, the more memory used.



Use the *Up* and *Down* arrows to navigate to the *Frame Rate* tab, then press "*OK*".



Use the *Up* and *Down* arrows to navigate to *30fps*, *15fps*, *5fps*. When *30fps* is selected, the recorded video is real time. Then press "*OK*".



Use the *Up* and *Down* arrows to navigate to the *Resolution* tab, then press "OK".

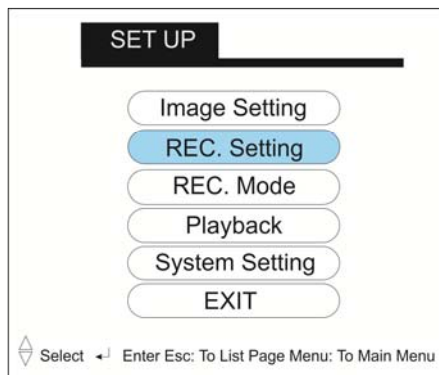


Use the *Up* and *Down* arrows to navigate to *D1*, *VGA*, *QVGA*.

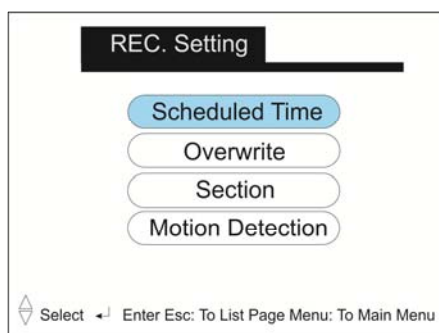
NOTE: The D1 video quality is better than VGA, VGA is better than QVGA.

Then press "OK". Press *ESC* to get back to the *Setup Main Menu*.

C. Record Settings

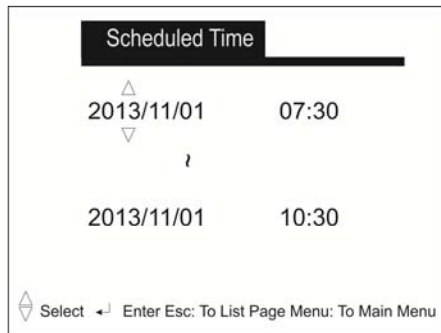


Use the *Up* and *Down* arrows to navigate to *REC Settings*. Then press "OK". Here you choose *Scheduled Time/ Section/ Motion Detection*.

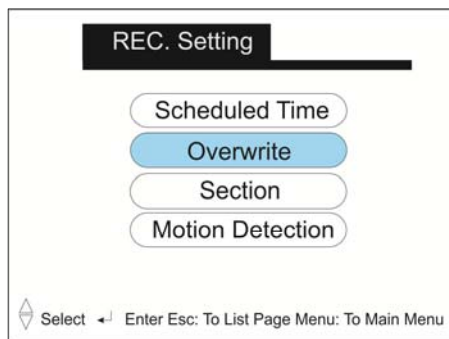


Use the *Up* and *Down* arrows and the *Left* and *Right* arrows to navigate and change the *Scheduled Time*. Then press "OK".

NOTE: Only set time if you want it to REC at that time. If you want to use Manual or Motion do not set schedule.

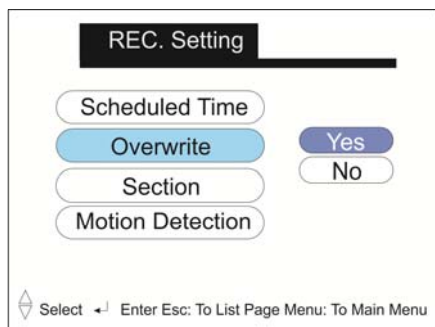


Use the *Up* and *Down* arrows to navigate to the *Scheduled Time* tab, then press "OK".



Use the *Up* and *Down* arrows and the *Left* and *Right* arrows to navigate and change the *Scheduled Time*. Then press "OK".

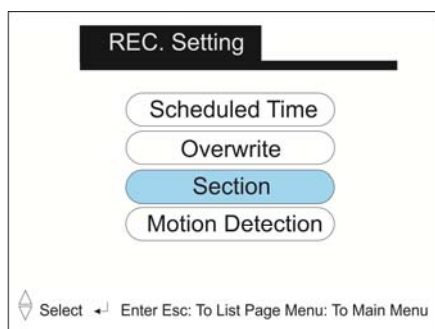
NOTE: Only set time if you want it to REC at that time. If you want to use Manual or Motion do not set schedule.



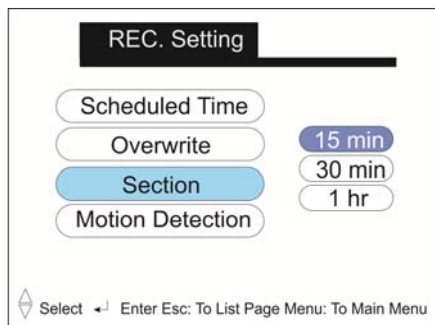
Use the *Up* and *Down* arrows to navigate to the *Overwrite* tab, Then press "OK".

Use the *Up* and *Down* arrows to navigate and change to *YES* or *NO*, Then press "OK".

NOTE: YES means it will overwrite the oldest video if memory is full. NO means it will stop REC if the memory is full.

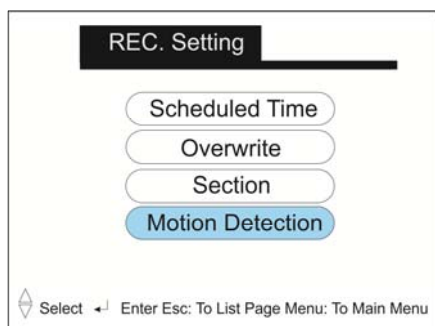


Use the *Up* and *Down* arrows to navigate to the *Section* tab, Then press "OK".

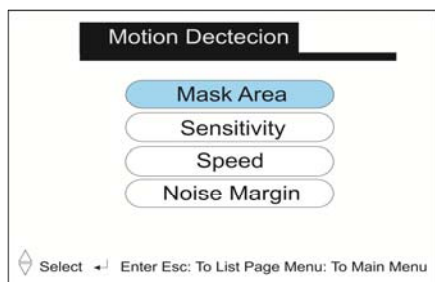


Use the *Up* and *Down* arrows to navigate and change *15 min*, *30 min*, *1HR*. Then press "OK".

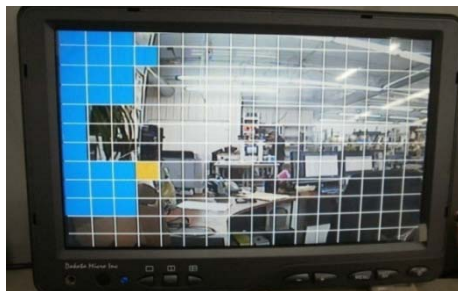
NOTE: Each option represents the length of time that each file is recorded before a new file is automatically created.



Use the *Up* and *Down* arrows to navigate to the *Motion Detection*. Then press "OK".

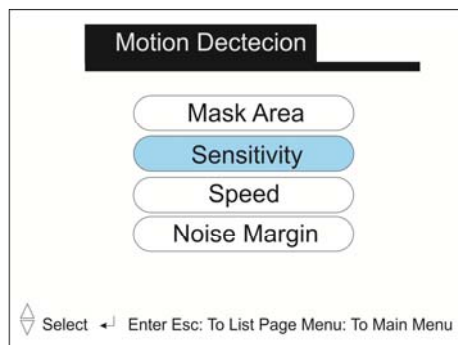


Use the *Up* and *Down* arrows to navigate to *Mask Area* tab, then press "OK".

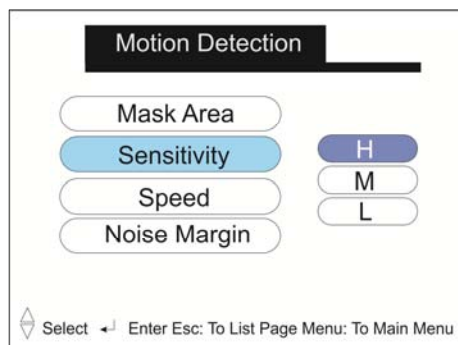


Use the *Up* and *Down* arrows to move the yellow block. Press the "OK" button to mask area. Continue the same step until desired area is masked. When done press the "ESC" key.

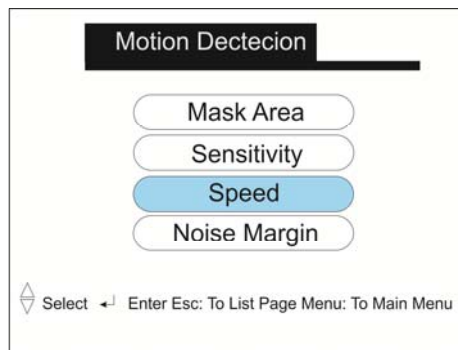
NOTE: You will want to mask any areas with continuous motion to prevent sense recording.



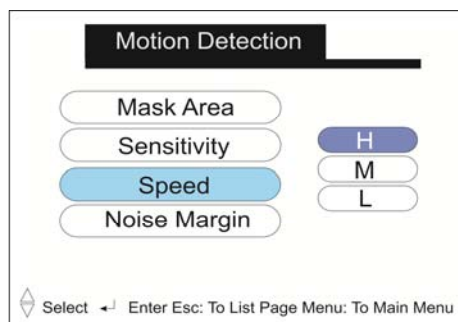
Use the *Up* and *Down* arrows to navigate to the *Sensitivity* tab, then press "OK".



Use the *Up* and *Down* arrows to navigate *High, Medium, Low* sensitivity. Then press "OK". **NOTE: Setting may vary depending on application.**



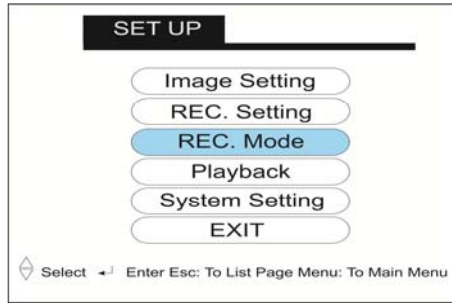
Use the *Up* and *Down* arrows to navigate to the *Speed* tab, then press "OK".



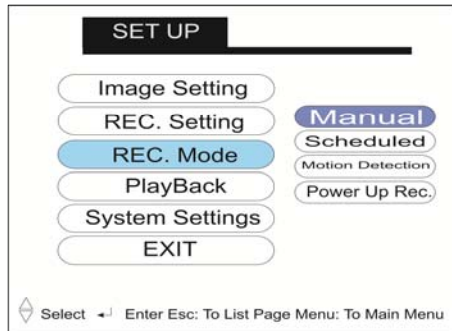
Use the *Up* and *Down* arrows to navigate *High, Medium, Low* detection speed. Then press "OK". **NOTE: Setting may vary depending on application.** Then press "ESC" twice to go to *Setup Menu*.

NOTE: Noise Margin selection not available with this DVR.

D. Record Mode

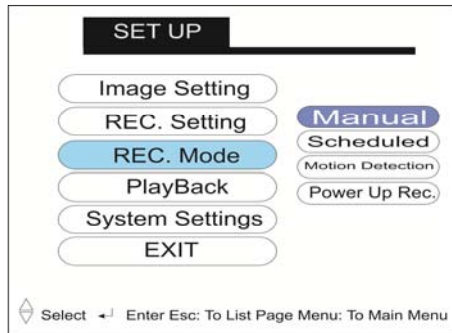


Use the *Up* and *Down* arrows to navigate to *REC Mode*. Then press "OK".



Use the *Up* and *Down* arrows to navigate .

- **Manual recording:** Press "OK" button to record
- **Scheduled recording:** Set a scheduled time to record. Refer to *REC Setting* tab for your preset time.

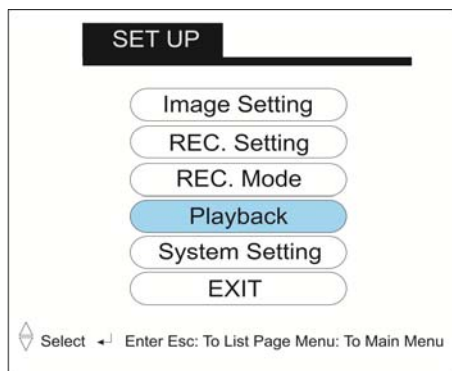


Use the *Up* and *Down* arrows to navigate

- **Motion detection recording:** Trigger to record by the motion detect.
 - When using motion detection the system will record for 2 minutes after first motion detected.
 - After 2 the minutes are up the system will start recording if another motion is detected.
- **Power-up recording:** Automatically recording when power up

NOTE: You must exit *Setup Menu* to start any of the four recording modes.

E. Playback



Use the *Up* and *Down* arrows to the navigate to the *Playback* tab, then press "OK".



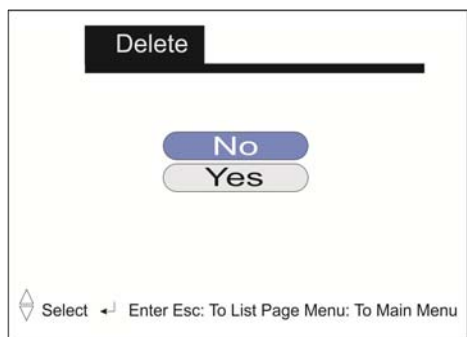
Use the *Up* and *Down* arrows to navigate to the file you would like to play back. Then press "*OK*".



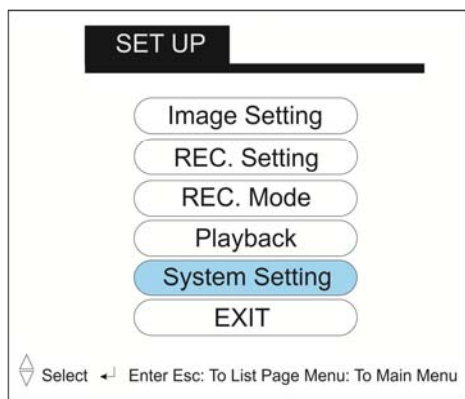
Press "*P/P*" to play file. Press "*P/P*" again to pause the file, or press "*STOP*" to stop the file. Then press "*ESC*".



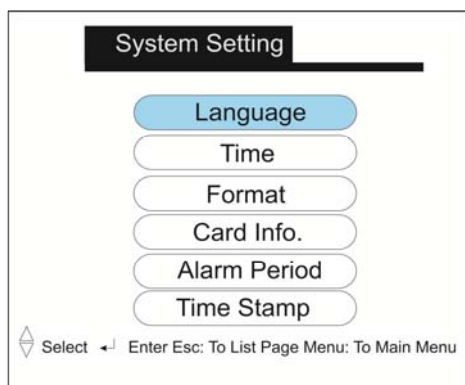
Use the *Up* and *Down* arrows to navigate to file you want to delete. Press "*P/P*".



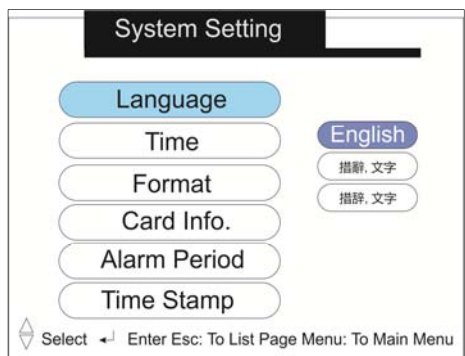
Use the *Up* and *Down* arrows to navigate **Yes** or **No**. Then press "*ESC*" to get back to main *Setup Menu*.

F. System Settings

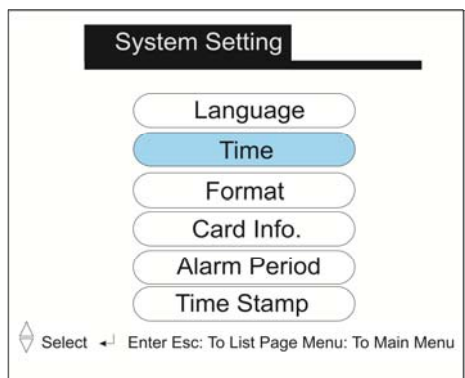
Use the *Up* and *Down* arrows to navigate to the *System Settings*. Then press "OK".



Use the *Up* and *Down* arrows to navigate to the *Language* tab. Then press "OK".



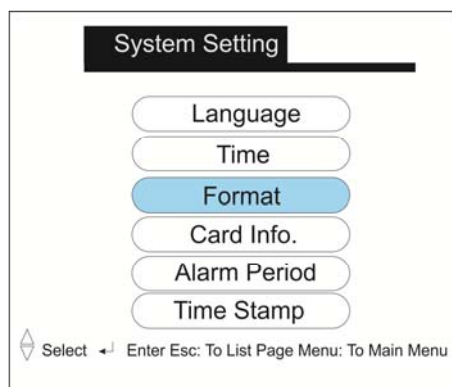
Use the *Up* and *Down* arrows to navigate to *Language* of choice. Then press "OK".



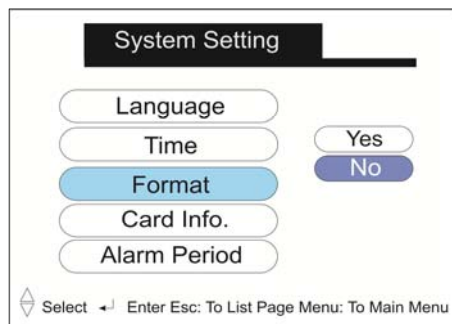
Use the *Up* and *Down* arrows to navigate to the *Time* tab. Then press "OK".



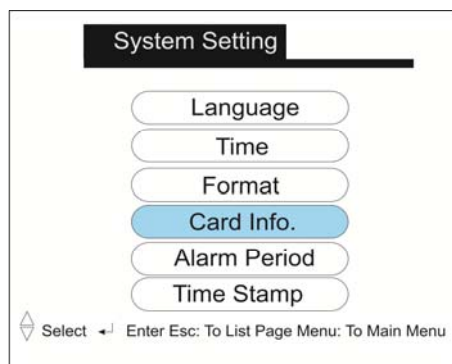
Use the *Up* and *Down* arrows and *Left* and *Right* arrows to change time. Then press "OK". **NOTE: Time is tracked on a 24 HR clock.**



Use the *Up* and *Down* arrows to navigate to the *Format* tab. Then press "OK".

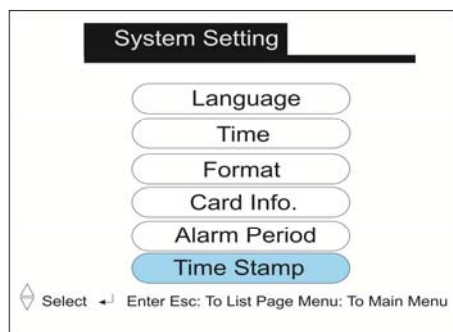


Use the *Up* and *Down* arrows to navigate *Yes* or *No*. Then press "OK".
NOTE: By selecting "Yes" you will delete all files on memory card.

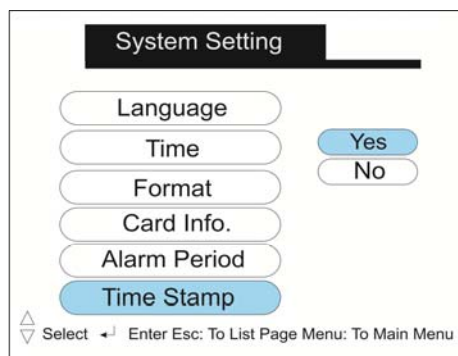


Use the *Up* and *Down* arrows to navigate *Card Info*. Then press "OK".
NOTE: The Card Info tab is a read only page. Press "OK" to return to the system settings page.

*** Note Alarm period tab not functional in this version.**

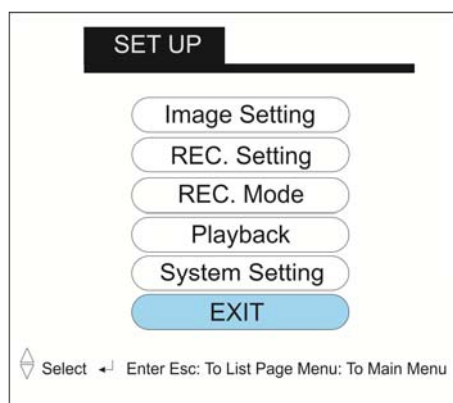


Use the *Up* and *Down* arrows to navigate to *Time Stamp* tab. Then press "OK".



Use the *Up* and *Down* arrows to navigate **Yes or No**. Then press "OK".

NOTE: By selecting yes the DVR will put a time stamp on your recordings.



Press the "ESC" button. Use the *Up* and *Down* arrows to navigate to the *EXIT* tab. Then press "OK".

Now you are ready to both start recording and to view your recordings.

Depending what you have selected in the *REC Mode* tab, use the following options to record.

Manual Mode	You will need to press "OK" to start recording. Press "STOP" to stop recording.
Sheduled Time	DVR will automaticaly record at your preset time.
Motion Detection	DVR will automaticaly record if motion is detected.
Power Up	DVR will automaticaly record when DVR is turned on.

VI. SPECIFICATIONS

Videos	
Format	Mpeg -4, Video for ASF (NTSC or PAL)
Resolution	704*576, 640*576, 320*288
Frame Rate	30f/s, 15f/s, 5f/s
Video input	1V/75Ω
Video output	1V/5Ω
Memory	
Media	SD/SDHC Card for 8GB
Settings on L, 5FPS, QVGA will record Approximately 136 hrs Poor Quality	
Settings on M, 15FPS, VGA will record Approximately 14 hrs Good Quality	
Settings on H, 30 FPS, D1 will record Approximately 4 1/2hrs Best Quality	
Working Theory	
Manual recording	Yes
Scheduled recording	Yes
Motion detective recording	Yes
Power up recording	Yes
Power	
Electricity input	DC-5V - 30V
Power expend	< 2w
Weight and size of DVR	.40lbs (.18kg) 4 1/8 W 3 7/8 L
G.W./ set	580g
Gift box size	20*13*6.5cm
Language	English, Traditional Chinese, Simple Chinese

VII. WARNINGS

- When selecting a camera system from Dakota Micro, be sure to utilize the appropriate system for your use. AgCam and EnduraCam cameras are designed for high impact, moisture, vibration and a variety of other rough conditions. OverView cameras and kit components are designed for light use, low vibration and low moisture. OverView equipment is not warranted when used in situations outside of the above mentioned parameters. We always request that customers keep in mind that our less expensive OverView product line is cheaper because it does not feature the reliability and durability of our AgCam and EnduraCam lines. The warranty available on these products reflect that durability.
- To avoid electrical shock and maintain optimal functionality, do not open the enclosures. High voltage may be present and there are no user serviceable parts inside. All warranties will be void should any enclosures be tampered with in any way.
- Do not use any harsh chemical solvents, cleaning agents or corrosive detergent to clean away dirt on the surface of the screen or lens.
- On AgCam and EnduraCam products, the photo-chromic camera lenses have been made impact-resistant and have been drop-ball tested according to Sec. 3.84,21 CRF BUT ARE NOT UNBREAKABLE. Because they have been hardened chemically, they show no stress pattern. Inspect your lenses frequently. Chipped or scratched surfaces will reduce protection. Such lenses should be replaced only by the manufacturer.
- Power to cameras is not interrupted by turning off monitor; 12v power source must be terminated when not in use to avoid battery drain. To avoid this problem be sure when hard wiring a unit, use a fused circuit.
- Do not use your Dakota Micro camera system for anything other than legal surveillance and observation uses. Dakota Micro, Inc. is not liable for any illegal or nefarious usage.

VIII. PRODUCT WARRANTY/REPAIR PROCESS

1. For Technical Support call 1 866 462-4226 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.

IMPORTANT NOTE:

The Technician will note on the RA form if the repair APPEARS to be a warranty or non-warranty issue based on customer description of the issues at hand. No final determination can be made until inspection and testing of the equipment is completed at the factory.

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 street addresses (**NO** PO Boxes) & 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 148th 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, unrepared, 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.

IX. 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® cameras, two (2) years for AgCam® /EnduraCam® monitors, quads and Wireless components, Twelve Months (12) for all Overview Cameras & Monitors and one (1) year for Mini DVR, 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 XVI, 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.

X. 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.

XI. CONTACT US

Dakota Micro, Inc.

8659 148th Ave. SE.
Cayuga, ND 58013

www.dakotamicro.com