POCKET SCAN

User Instructions

LINKABLE
FOR SYNCHRONIZING

DMX-512

American DJ
4295 Charter Street
Los Angeles Ca. 90058
www.americandj.com

Introduction:

Congratulations and thank you for purchasing the Pocket Scan™ from American DJ. The new Pocket Scan™ is part of American DJ's continuing pursuit for creating high quality affordable intelligent fixtures. The Pocket Scan™ is our most compact full featured scanner ever. The Pocket Scan™ is a DMX scanner with a built-in 5mW diode laser. Both the laser and the lamp can be operated at the same time.

Customer Support:

American DJ® provides a toll free customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.americandj.com for any comments or suggestions.
Service Hours are Monday through Friday 10:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice:	(800) 322-6337
Fax:	(323) 582-2610
E-mail:	support@americandj.com

Warning! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact your nearest American DJ dealer.

HALOGEN LAMP WARNING!

This fixture is fitted with a halogen lamp which is highly susceptible to damage if improperly handled. Never touch lamp with your bare fingers as the oil from your hands will shorten lamp life. Also, never move the fixture until the lamp has had ample time to cool. Remember, lamps are not covered under warranty conditions.

Model: Pocket Scan™

SPECIFICATIONS:

Working Position:	Any safe working position
Voltage:	120V
Lamp:	ZB-JCR 12V/100W
Weight:	10 lbs.
Dimensions:	11.5″ x 4.75″ x 6″
Fuse:	2A GMA
Colors:	15 plus white
Gobos:	13 plus spot

The Pocket Scan™ comes with a 1 year limited warranty. We recommend filling out the warranty registration card that came with your fixture to validate your warranty. You may also register your product on-line at www.americandj.com.

data transmission problems (which will show up as random or incorrect movements) for best result, use proper balanced data transmission cable.

Unit does not respond to sound;

1. Check to see if the unit is receiving DMX (the RED LED should be off).
2. Quiet or high pitched sounds will not activate the unit.

Unit blacks out in stand alone mode;

1. Some of the units' built-in patterns include special effects such as blackout sweeps. When connecting two units up, only one is ever blackened out at once, and the blackout 'swaps' between the units.

If problems are not resolved; Contact your American DJ® dealer for service.

Quick Start Stand Alone Mode

Connect all your units together via the XLR connector. You can connect up to 16 units together in Master/Slave mode. The master unit will run the slaves to the masters built in programs and internal microphone. Plug in all units. When the Pocket Scan™ is first turned on, it will run through an internal self test where it moves all motors to their zero position. After the self test the units will react to sound, and chase to the several built in programs.

FEATURES:

Pocket Scan™ features include:
- Scanner and Laser in one effect
- 5mW diode laser
- 15 colors plus white
- Split colors
- 13 gobos plus spot
- Separate color and gobo wheels
- High Speed Shutter with variable Speed
- 170 degree pan / 110 degree tilt
- Full Micro-stepping, with 4 stepper motors.
- Built in Microphone
- Auto switch to Stand-Alone (Master/Slave) operation when DMX signal is disconnected
- Run up to 16 heads without controller.
- DMX-512 protocol
- Full Focusing.
- Fan cooled
- Uses 4 DMX Channels.
- Optional RF-Wireless remote control
- Digital DMX display

Improvements and changes in specifications and design to this manual and unit may be made at any time without prior notice.

WARNINGS:

- Do not spill water or other liquids in to or on to your unit.
- Be sure that the local power outlet match that of the required voltage for your unit.
- Do not attempt to operate this unit if the power cord has been frayed or broken. Please route your power cord out of the way of foot traffic.
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Do not remove the top cover under any conditions. There are no user serviceable parts inside.
- Never plug this unit in to a dimmer pack
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6″ (15cm) between this device and a wall.
- Do not attempt to operate this unit, if it becomes damaged in any way.
- Never operate this unit when it's cover is removed.
- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- This unit is intended for indoor use only, use of this product outdoors voids all warranties.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.

Listed below are a few common problems the user may encounter, with solutions.

No light from the unit;

1. Check if the 'Power On' (red) LED is lit and the fan is running. If not, there is no main supply.
2. Check the fuse in the back panel.
3. Check if lamp is lit. The user should be able to see some light escape through the fan. If power is present but the lamp is not lit, lamp may need to be replaced.
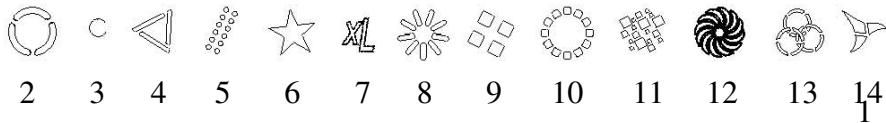
Note: The unit has been designed to shut the lamp down after 60 seconds of inactivity. This is a way of extending lamp life, be assured this is not a problem with the fixture.

Unit not responding to DMX;

1. If the RED LED in the LCD is flashing, the unit is definitely receiving DMX
2. Check for prper DMX addressing.
3. If the DMX LED is not lit, check that the DMX cables are connected properly and are wired correctly (pin 3 is 'hot'; on some other DMX devices pin 2 may be 'hot'). Also, check that all cables are connected to the right connectors; it does matter which way the inputs and outputs are connected.
4. If it is a bad connection, the RED LED may flash when cables are wiggled (but remember it may also be the unit sensing audio!)
5. If DMX connectors are fairly short, ordinary microphone cables may be used. For longer runs, this may cause

DMX CHANNEL

DMX512 LEVEL RANGE 0 - 255	1 PAN	2 TILT	3 COLOR	4 GOBO	5 SHUTTER	6 SPEED	7 LASER
255			AUDIO MODE	AUDIO MODE	OPEN	AUDIO MODE	UNIT RESET
			ROTATION CCW	ROTATION CCW		FAST	OPEN
200			ROTATION CW	ROTATION CW	FAST STROBE		
			WHITE	GOBO 14			FAST STROBE
99			ORANGE 306	GOBO 13			
95			YELLOW 601	GOBO 12			
89			GREEN 204	GOBO 11			
85			UV108	GOBO 10			
79			MAGENTA 501	GOBO9			
75			MAGENTA 507	GOBO 8			
69			CYAN 104	GOBO 7			
65			RED304	GOBO 6			
59			TORQUES 208	GOBO 5		SLOW	
55			PINK 310	GOBO 4			
49			YELLOW 603	GOBO 3	SLOW STROBE		SLOW STROBE
45			BLUE 101	GOBO 2			
39			ORANGE 302	GOBO 1		RELATIVE	
35			GREEN 201				
29			BLACKOUT		CLOSED		CLOSED
25							
19							
15							
9							
5							
0							

2   3   4   5   6   7   8   9   10   11   12   13   14   1

Gobo layout. Note gobo one is Large Spot - Open Shutter.

Unpacking:

Every Pocket Scan™ has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your fixture for any damage. In the case damage has been found please contact our toll free customer support number for further instructions.

Power Supply:

Before plugging your unit in be sure the source voltage in your area matches the required voltage for your American DJ® Pocket Scan.™ The American DJ® Pocket Scan™ is available in a 115v and 230v version. Because line voltage may vary from venue to venue, you should be sure to plug your unit into a matching wall outlet before attempting to operate you controller.

Data Cable (DMX Cable) Requirements:

Your controller and packs require a standard 3-pin XLR connector for DMX data input and DMX data output (Figure 1). If you are making your own cables be sure to use standard two conductor shielded cable (This cable may be purchased at almost all pro sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and can not be "Y"ed or split.

Notice: Do not use the ground lug on the XLR connector. Do not connect the cable's shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR's outer casing. Grounding the shield could cause a short circuit and erratic behavior.
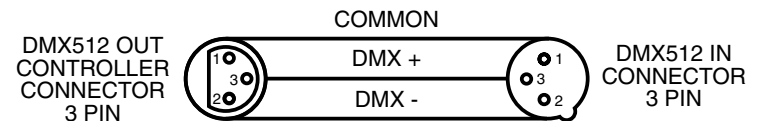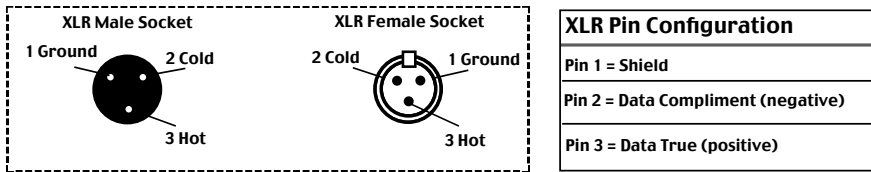
COMMON

DMX512 OUT CONTROLLER CONNECTOR 3 PIN

DMX +

DMX -

DMX512 IN CONNECTOR 3 PIN

Figure 2

Pocket Scan™ Set Up

XLR Pin Configuration
Pin 1 = Shield
Pin 2 = Data Compliment (negative)
Pin 3 = Data True (positive)

Notice: Be sure to follow figures two and three when making your own cables.

Special Note: Line Termination.

When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 90-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator will decrease the possibilities of erratic behavior.

Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

Figure 4

Mounting.

Be sure the yoke is firmly attached to the unit. Attach clamps to the yoke of the Pocket Scan.™ The Pocket Scan™ can be mounted to a wall or may hung from truss.

Pocket Scan™ Fuse Replacement

Fuse Replacement: Caution! Always disconnect the main power before attempting to replace the fuse. Remember always replace with the same type lamp and fuse.

1. With a flat screwdriver wedge the fuse holder out of the its housing
2. Remove the old fuse from the holder and replace with the exact same type fuse.
3. Replace the fuse holder in to the fuse holder housing.
4. Reconnect main power.

Pocket Scan™ Lamp Replacement

Lamp Replacement: Caution! Never open the unit when in use. Always disconnect the main power before attempting to replace the lamp. Remember always replace with the same type lamp and fuse.

1. Be sure to follow the proper procedures when handling halogen bulbs.
2. Lamp replacement has been made simple by incorporating the use of a removable lamp cover and a thumb screw.
3. Loosen the thumb screw on front lower cover.
4. Remove the lamp cover.
5. Remove and replace the bulb.
6. Reassemble.

Pocket Scan™ Focusing

1. To focus the Pocket Scan™ it is best to first turn down the music so the mirror stops moving.
2. Loosen the thumb screw on the front of the unit that hold the lens in place.
3. Adjust the focus by moving the lens up and down, until you reach proper focus.
4. Tighten the thumb screws after you achieve your desired focus.

Adjusting The DMX address:
The DMX address is adjusteded by using the "1, 10, and 100" keys directly below the LCD. Each press of a button will increase the selected value of one. Please note that each tap of the keys will only increase the displayed value, you may decrease the value.

Pocket Scan™ Reset Function

This function will reset all functions to their default setting. You may reset the fixture by turing the unit on and off. If your units are being controlled through a DMX controller, you may also reset the fixtures by adjusting DMX channel seven to a value of 240-255.

Pocket Scan™ Automatic Lamp Control

This function will automatically shut off the lamp if the shutter is closed for more than one minute in DMX mode. In Sound-Active mode the lamp will automatically shut off is their there is no music source for more than a minute. This function has been incorporated to extend lamp life.

Pocket Scan™ Cleaning

Due to fog residue, smoke, and dust cleaning the internal and external optical lenses must be carried out periodically to optimize light output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Use a brush to wipe down the fan grill.
3. Clean the external optics with glass cleaner and a soft cloth every 20 days.
4. Clean the internal optics with glass cleaner and a soft cloth every 30-60 days.
5. Always be sure to dry all parts completely before plugging the unit back in.

Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew).

Pocket Scan™ Operating Instructions

Operating Modes:
You can use the Pocket Scan™ in three ways:
• Stand alone mode - The unit will react to sound, chasing through the several built in programs. You can also use the optional Pocket Scan/RF Remote Control to set blackout, strobe or slow scan mode.
• Master/Slave mode - You can daisy chain up to 16 units together to get a synchronized light show that will react to sound chasing through several built in programs.
• DMX control mode - This function will allow you to control each individual fixtures traits with a standard DMX 512 controller such as the American DJ Show Designer.™

Stand Alone Mode:
The Pocket Scan™ has a sophisticated built-in light show that will run to sound when there is no DMX signal present. Plug the fixture in and it will chase through its programs via sound. You can also use the optional wireless remote to blackout, strobe, or slow scan the units.
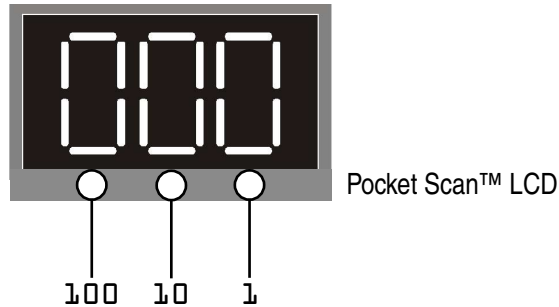
Master-Slave Operation:
This function will allow you to link up to 16 units together to run in a Master-Slave mode. In Master-Slave operation one unit will act as the controlling unit and the others will react to the controlling units built-in programs. Any unit can act as a Master or as a Slave however, units must be programmed to act as "Masters" or as "Slaves." There are two Master-Slave modes, Fast and Slow.

Master-Slave Connections:
1. Daisy chain your units via the XLR connector on the top of the unit. Use standard XLR microphone cables to link your units together. Remember that the Male XLR connector is the input and the Female XLR connector is the output. The first unit in the chain (master) will use the female XLR connector only. The last unit in the chain will use the male XLR connector only.

Pocket Scan™ LCD

100   10   1

Setting Units as Masters or Slaves:
This section will detail the procedure for switching units between Masters and Slaves. Each unit can function as a "Master" or as a "Slave" To adjust the settings:
1. Be sure the main power switch is set to the "OFF" position.
2. With the power off press and hold down the LCD "100-Key," and turn the power on.
3. When the power is applied, the LCD will display the current DMX address and then display the current Master-Slave mode. Master-Slave modes will be displayed as followed:
   "S-F" will equal Master/Send Fast Mode
   "S-S" will equal Master/Send Slow Mode
   "rEC" will equal Slave/Recieve Mode
4. To toggle between Master and Slave mode repeat steps one and two.

Adjusting the Speed of the internal Program:
This section will detail the procedure for changing the Master Unit operating mode. The master mode may be changed to operate in Fast or Slow modes.
1. Be sure your unit is in Master mode, see Setting Units as Masters or as Slaves, above.
2. Be sure the main power switch is set to the "OFF" position.
3. With the power off press and hold down the LCD "10-Key," and turn the power on.
4. When the power is applied, the LCD will display the current DMX address and then display the current Master-Slave mode. Master-Slave modes will be displayed as followed:

   "S-F" will equal Master/Send Fast Mode
   "S-S" will equal Master/Send Slow Mode
4. To toggle between Fast and Slow modes repeat steps one and two.

Note: The remote control only operates in Stand-Alone or Master-Slave modes. If the remote is used while the units are in DMX mode, the remote will not function. If the unit does not receive an active DMX signal, the unit will automatically react to sound in the Master/Slave mode.

DMX Mode:
Operating through a DMX controller give the user the freedom to create their own programs tailored to their own individual needs. This function also allows you to use your fixtures as spot lights.
1. This function will allow you to control each individual fixture's traits with a standard DMX 512 controller such as the American DJ® Show Designer™ or the American DJ® DMX Operator.™
2. The Pocket Scan™ uses seven DMX channels to operate; Channel 1 is mirror pan, channel 2 is mirror tilt, channel 3 is color, channel 4 is gobo, channel 5 is shutter, channel 6 is speed, and channel 7 controls the laser.
3. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any standard DMX controller. - Follow the set-up specifications that come with your DMX controller.

Pocket Scan™ LCD

100   10   1