DCJET-X

Quick Reference Guide

David Clark

WWW.DAVIDCLARK.COM

Thank you for purchasing the DC JET-X

DCJET-X

Congratulations on your purchase of the most technologically advanced electronic noise-cancelling headset available.
As with all of our products, DC JET-X Series, Active Noise Reduction (ANR) headsets are backed by extraordinary customer service and support.

David Clark Company assumes full responsibility for the quality and performance of our products. We are committed to a policy of service whereby we will respond in a prompt and positive manner to any question or issue regarding one of our products.

David Clark Company products have set the standards of performance and excellence for pilots throughout the world. Your new DC JET-X continues this legacy. We have earned a reputation for excellence; we intend to keep it by continuing to deserve your confidence.

Richard M. Urella, President

DC JET-X MODELS

Standard Dual Plug

Approved
FAA TSO-C139a

The **DC JET-X, Dual Plug Model (P/N 43107G-01)** features standard aviation dual plugs. Power is provided by a single 'AA' battery within the control module.

Aircraft Powered/5-Pin XLR

Approved
FAA TSO-C139a

The **DC JET-X Aircraft-Powered Model (P/N 43107G-02)** receives power directly from the aircraft, when power is provided at pin 5 of the XLR connector.

Note: Not all aircraft with XLR-5 connectors provide power at pin 5. The battery provided with the headset is only required when no power is available at pin 5, or when the headset is disconnected from the aircraft panel.

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DCJET-X

Control Module

DC JET-X Features

1. Ultra lightweight, yet rugged polymer headband and suspension
2. Fully adjustable suspension assembly for personalized comfort and perfect fit
3. Outlast® technology, heat-absorbing head pad with breathable, vented design
4. Plush, 'rest on ear', Dura-Stitched leatherette ear seals reduce heat build up and enhance comfort
5. Digital Signal Processing (DSP) Technology provides ANR and high-fidelity audio for superior communications
6. M-5B Electret Microphone with enhanced noise cancelling
7. Full flex boom for precise microphone placement
8. Control Module On/Off Power Button
9. The Control Module is powered by one (1) "AA' battery for up to 50 hours of continuous use
10. USB-C Interface - Powers the headset via USB-C cable (sold separately); charges the headset (if rechargeable battery installed)
11. David Clark Headset Bag - Compact, durable, nylon bag fits all DC JET-X Series headsets

DC JET-X MODELS

Model Part Number	Description	Aircraft Powered
43107G-01	ENC Headset-Mic., Dual Plug	
43107G-02	ENC Headset-Mic., 5-Pin XLR	✓

Control Module Features

Power

Press and hold for 2 seconds to turn unit on or off:

- Solid Green: Initializing
  – External or USB Power
- Solid Orange: Power down or Charging
  – External USB-C Cable
- Flashing Red: ON, Low Battery

Note: LED will flash only three times. To check power/battery status, momentarily press and release the power button.

LED will flash 3X per the above descriptions ("Dark Mode" is always enabled)

Control Module Operation

1. **Fail Safe** - if battery is dead or the unit is turned off, microphone and earphones will function when connected to aircraft intercom.

2. **Enhanced Auto Shutoff**

   DC JET-X Series headsets are designed with a patented Enhanced Auto Shutoff feature. With Enhanced Auto Shutoff the headset will function as follows:

   A. **If the headset is connected to the aircraft audio panel when powered on**, the headset will automatically turn off after 5 minutes under the following conditions:
      - aircraft audio panel is turned off
      - headset is disconnected from the aircraft panel

   B. **If the headset is not connected to the aircraft audio panel when powered on**, headset power is controlled by the Power Button.

3. **USB-C Interface**
   - The USB-C interface may be used to power DC JET-X Series headsets via the USB-C cable (sold separately).
   - The USB-C interface may also be used for charging of rechargeable battery (if installed in the control module).

Proper Fitting

The suspension system of the DC JET-X is designed for a simple and comfortable fit. Proper fit is necessary for maximum effectiveness. The headset should be worn so that the head pad lightly touches the top of the head. Adjust the sliding assembly on each side as necessary (see Fig. 1), keeping slide positions equal on either side, until the center of the ear phone aperture within the ear seal is directly aligned with the ear canal.

The ultra-soft memory foam of the ear seal will conform to the contours of the ear to provide an adequate seal. While in the presence of noise, turn on the ANR circuitry and then adjust headset and ear seal position for lowest noise heard, allowing optimum ANR performance for clear communications.

To adjust microphone placement, adjust boom up/down by rotating and flexing the boom as necessary. Microphone placement should be 1/8" from the lips, as this will provide maximum intelligibility and ambient noise rejection.

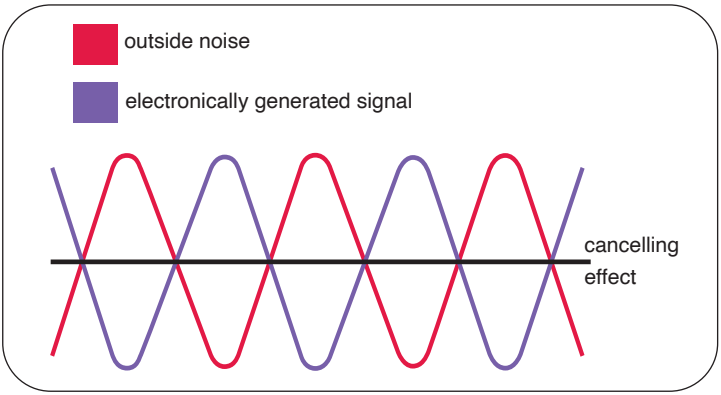
Fig.1

Active Noise Reduction (ANR)

ENC

DC JET-X Series ANR headsets with Electronic Noise Cancelling (ENC) technology use an electronically produced signal to cancel offending noise. Ambient noise is sensed and an opposing signal of the same sound is generated, cancelling the offending noise before it reaches your ears (see Fig. 2). You'll hear essential communications clearly, and with less strain.

Fig.2



Replaceable Parts

M-5B Microphone (P/N 09168P-85)

- To remove microphone: Gently pull off foam cover. Grasp microphone firmly and pull straight out.
- To install microphone: Align keyway on microphone with keyway on boom. “TALK” should be inward towards the user’s face. Push until microphone snaps into place.

Microphone Foam Cover (P/N 40062G-02)

- Slide foam cover over top of microphone. Barbs will retain foam cover and hold securely in place.

Leatherette Ear Seals, Pair (P/N 15976P-09)

- To remove: Gently pull off.
- To install : Stretch ear seal over lip of dome until completely seated on dome.

Outlast® Technology Head Pad (P/N 15977P-07)

- To remove: Gently pull off.
- To install : Align head pad with headband assembly and push all around the perimeter to engage hook-and-loop fasteners.

Control Module Mounting Clip (P/N 41068G-07)

- Place Control Module into mounting clip and snap in place.
- Use clip to attach Control Module to apparel or any convenient location within the aircraft.

USB-C Cable (P/N 43029G-01)

- Connect to DC JET-X USB-C port on controller for powering or charging the headset with rechargeable battery (if rechargeable battery is installed). Sold separately.

Customer Service and Support

DC JET-X Series headsets are covered by a 3-year warranty. We make every effort to prevent problems and the need for repairs. In the unlikely event that you experience a problem, David Clark Company qualified representatives are available to answer your questions and provide the best customer service in the industry. Many repairs are covered under warranty. Contact Customer Service:

Tel. 800-298-6235 • 508-751-5800 (outside the USA)

Visit our website at **www.davidclark.com**

DC JET-X - Environmental Test Summary

RTCA			Airbus Directive		DC JET-X Part Numbers	
DO-214A 18-Dec-13	DO-160G, 08 Dec-10		ABD0100.1.8.1 Issue C, 2009	**Test Description**	43107G-01	43107G-02
Section	**Section**	**Comment**				
2.1.4		FAR Part 25, Appendix F, Para 5		**Horizontal Flame**	Y	Y
2.3.9		12 drops onto concrete floor from 1-m		**Drop Resistance**	Y	Y
2.5.1	4.0			**Temperature and Altitude Tests**		
2.5.1.1b	4.5.1 4.5.2	Per Category B1 (-55/-40 C)		Short-Time Operating Low, Ground Survival Low Temperature. Operating	Y	Y
2.5.2.2b	4.5.3	Per Category B1 (+85/+70)		Ground Survival High Temperature, Short-Time Operating High Temperature	Y	Y
2.5.1.3b	4.5.4	Per Category B1 (+70)		Operating High Temperatures	Y	Y
2.5.1.4b	4.6.1	Per Category B1		Altitude	Y	Y
2.5.1.5b	4.6.2	Per Category A2		Decompression	Y	Y
2.5.1.6b	4.6.3	Per Category A2		Overpressure	Y	Y
2.5.2b	5.3.1	Per Category B		**Temperature Variation**	Y	Y
2.5.3b	6.3.1	Per Category A		**Humidity**	Y	Y
2.5.4.1	7	**Test not applicable to headsets**		**Shock**	NA	NA
2.5.5b	8.5.1	Sine Vibration, Curve M, 5-500 Hz, 1-hr./axis, 3 axes		**Vibration**	Y	Y
	8.5.2	Random Vibration, Curve B2, 10-2000 Hz, 1-hr./axis, 3 axes			Y	Y
2.5.6b	15	Per Category Z		**Magnetic Effect**	Y	Y
2.5.7	16.0	**VDC Power Output**		**Operational Temperature Range (-40 - +55C)**		
2.5.7.1b	16.6.1.1.b	Per Category A, 28 VDC Equipment	LDC 101	Normal Operation (Steady State, 22.0 - 31.7 VDC)	NA	Y
2.5.7.2b	16.6.2.1.b	Per Category A, 28 VDC Equipment	LDC 201	Abnormal Operation (Steady State, 20.5 - 32.5 VDC)	NA	Y
	16.6.1.1.b	Per Category A, 28 VDC Equipment	LDC 301	Emergency Operation (Steady State , 18.0 - 32.5 VDC)	NA	Y
				Voltage Ripple	NA	Y
	16.6.1.2	Per Category A, 28 VDC Equipment	LDC 103	Normal Operation (Mean level 31.7 VDC followed by 24.5 VDC)	NA	Y
	16.6.1.2	Per Category A, 28 VDC Equipment	LDC 302	Normal Operation (Mean level 32.5 VDC followed by 18.5 VDC)	NA	Y
				Voltage Transients	NA	Y
	16.6.1.4.b	Per Category A	LDC 102-1	Normal Operations	NA	Y
	16.2.2.3.b	Per Category A	LDC 202-1	Abnormal Operation	NA	Y
	16.6.2.4.c				NA	Y
2.5.8b	17.4	Per Category A/B		**Voltage Spike Conducted**	NA	Y
2.5.9b	18.3	Per Category B		**Audio Frequency Conducted Susceptibility**	NA	Y
2.5.10b	19.3	Per Category B/C		**Induced Signal Susceptibility**	Y	Y
2.5.11	20.4	Per Category R		**RF Conducted Susceptibility**	Y	Y
	20.5			**RF Radiated Susceptibility**	Y	Y
2.5.12	21.4	Per Category M		**RF Emissions, Conducted**	Y	Y
	21.5			**RF Emissions, Radiated**	Y	Y
2.5.13b	22.5	Per Category B2K2L2		**Lightning Induced Transient Susceptibility**	Y	Y
2.5.14	2.2.2			**Final Distortion**	Y	Y
2.5.15	NA	**Test Not Applicable to this headset**		**Push-to-Talk Life**	NA	NA
2.6.16b	25.5	Per Category A		**Electrostatic Discharge (ESD)**	Y	Y

COMPLIANCE

FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Changes and modifications not expressly approved by David Clark Company, Inc. can void your authority to operate this equipment under Federal Communications Commission rules.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

Important Safety Information

- Make sure portable devices do not interfere with the aircraft's navigation and communication systems. Reference FAA AC 91.21-1D or later revision for installation approval.
- It is the pilot's responsibility to ensure that portable devices do not interfere with the aircraft's navigation and communication systems, as well as to determine if the portable device is suitable for use with the headset.
- Do NOT attempt to repair this headset. Contact David Clark Company for specific care, return and shipping instructions (see page 10 for contact information).

FAA Technical Standard Order

The David Clark Company, DC JET-X headsets, P/Ns 43107G-01, 43107G-02 are approved to TSO and ETSO C139a and are marked to indicate this approval. This family of headsets has been designed to perform and withstand exposure to the environmental conditions summarized on page 11. This article meets the minimum performance and quality control standards required by the technical standard order (TSO). Installation of this article requires separate approval. Reference FAA AC 91.21-1D, or later version, for installation guidance.

The conditions and tests required for TSO approval of this article are minimum performance standards. Those installing this article either on or within a specific type or class of aircraft must determine that the aircraft installation conditions are within the TSO standards which include any accepted integrated non-TSO functions. TSO articles and any accepted integrated non-TSO function(s) must have separate approval for installation in an aircraft. The article may be installed only according to 14 CFR part 43 or the applicable airworthiness requirements (see table on page 11).

RSS-Gen, Sec. 7.1.3

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FAA TSO-C139a
Approved

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