Mentor Visual iQ Kit

Everest Mentor Flex Kit

Video borescope kits for GE Aviation F404 and F414 engines

Kit applicability

The video borescope kits described in this are based on the same 6.1mm x 2m probe diameter and length, camera system, and optical tip adapters as the NAVAIR XLGOB6120M-N kit. These kits have equal to, and in general, superior technical performance compared to the XLGOB6120M-N.

Video borescope kit options – Everest Mentor Flex and Mentor Visual iQ stereo measurement:

There are two video borescope kits which have been configured to functionally replace the XLGOB6120M-N, an Everest Mentor Flex kit and a Mentor Visual iQ kit. The Everest Mentor Flex is a high-value portable borescope which includes stereo measurement and a standard resolution imager (SD) and a non-interchangeable probe. The Mentor Visual iQ (MVIQ) product is an advanced feature product containing a multi-touch screen with 3D Phase Measurement and a high-definition (HD) camera system which supports interchangeable probes. See the technical description summary for additional details.

Kit part numbers

Mentor Visual iQ Kit – Part Number MVIQ6120N-F404F414

Everest Mentor Flex Kit – Part Number MFLAS6120-F404F414

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Technical description

Feature	MFLAS6120-F404F414 Kit	MVIQ6120N-F404F414 Kit
Product line	Everest Mentor Flex	Mentor Visual iQ Touch
Probe specifications	6.1mm Ø x 2m long	6.1mm Ø x 2m long
Optical tip set	Same as MFLAS6120-F404F414 tips in user manual (see below)	Same as MFLAS6120-F404F414 manual tip set – 3DPM substituted for stereo (see below)
Handset dimensions	13.7 cm x 19.7 cm x 38.1 cm (5.4" x 7.2" x 15")	6.75 x 7.75 x 15" (width-depth-tall)
Case dimensions	35.0 x 54.5 x 23.0 cm (13.78" × 21.46" × 9.05")	21.6" x 13.6" x 9"
Shipping box dimensions	23" x 15x 11" (width-depth-height)	23" x 15x 11" (width-depth-height)
Typical system weight in case	10.2 kg (22.4 lbs)	22.5 lbs.
Typical system weight in case in overpack box	11.2 kg (23.4 lbs)	23.5 lbs.
Measurement technology	Stereo and comparison	3D Phase Measurement with interactive Point-Cloud visualization
User interface	Joystick, touch-screen, and virtual keyboard	Joystick, touch-screen, and virtual keyboard
Ergonomic design	Unitized hand-held design, fixed probe	Unitized hand-held design, interchangeable probe
Illumination	Internally mounted White LEDs	Internally mounted white LEDs
Articulation	360º All-Way® tip articulation, menu access, and navigation	360º All-Way® servo driven articulation
Internal memory	32 GB	32 GB
Battery	3-hr Li-Ion	2-hr Li-Ion
LCD Display	Integrated (5.8") transmissive color TFT WXGA Advanced Wide View (AWV) LCD VGA, daylight readable	6.5" XGA, daylight readable
I/O Ports	(2) USB 2.0 "A" ports	(2) USB 3.0 "A" ports, (1) USB 3.0 "B" port
Video output	HDMI	Digital display port
Still image formats	JPEG (JPG)	Bitmap (.BMP) & JPEG (JPG)
Video format	MPEG4 AVC / H.264 (.MP4 file)	MPEG4 AVC / H.264 (.MP4 file)
IP Rating	Tested to IP 65	Tested to IP 65
Accessories	Handset holder mount kit, neck strap, 16.75" rigidizer and gripper	Handset holder mount kit, neck strap, 16.75" rigidizer and gripper
MIL Standards	MIL-STD-810H, MIL-STD-461G	MIL-STD-810G, MIL-STD-461G
Agency compliance	Group 1, Class A: EN61326-1, UL, IEC, EN CSA-C22.2:61010-1, UN/DOT T1-T8	Group 1, Class A: EN61326-1, UL, IEC, EN CSA-C22.2:61010-1, UN/DOT T1-T8

	MFLAS6120-F404F414 Kit			MVIQ6120N-F404F414 Kit		
Part Number	Color Code and direction	FOV (degrees)	DOF (inches)	Color Code	FOV (degrees)	DOF (inches)
Headguard	Silver – fwd	50	2.3 – inf	Silver – fwd	50	2.3 – inf
XLG3T61120FG	Black – fwd	120	0.2 – 4.7	Black – fwd	120	0.2 – 4.7
XLG3T6180FN	Orange – fwd	80	0.1 – 0.8	Orange – fwd	80	0.1 – 0.8
XLG3T6190FF	Yellow – fwd	90	0.8 – inf	Yellow – fwd	90	0.8 – inf
XLG3T61120SG	Blue – side	120	0.1 – 4.0	Blue – side	120	0.1 – 4.0
XLG3T6190SF	Gray – side	90	0.8 – inf	Gray – side	90	0.8 – inf
XLG3T6150SF	Brown – side	50	1.8 – inf	Brown – side	50	1.8 – inf
XLG3T6180SN	Red – side	80	0.04 – 0.8	Red – side	80	0.04 – 0.8
XLG3TM616060FG	Black – fwd	60/60-stereo	0.16 – 3.15			
XLG3TM615050SG	Blue – side	50/50-stereo	0.8 – 1.97			
XL4TM61105FG			0.3 – 9.8	Black – fwd	105-3DPM	0.3 – 9.8
XL4TM61105SG			0.3 – 9.8	Blue – side	105-3DPM	0.3 – 9.8

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