KDE DIRECT MULTI-ROTOR SERIES PROPELLER BLADE ADAPTERS (ML)
KDE-DPA-ML, KDE-TPA-ML (AL 7075-T6)
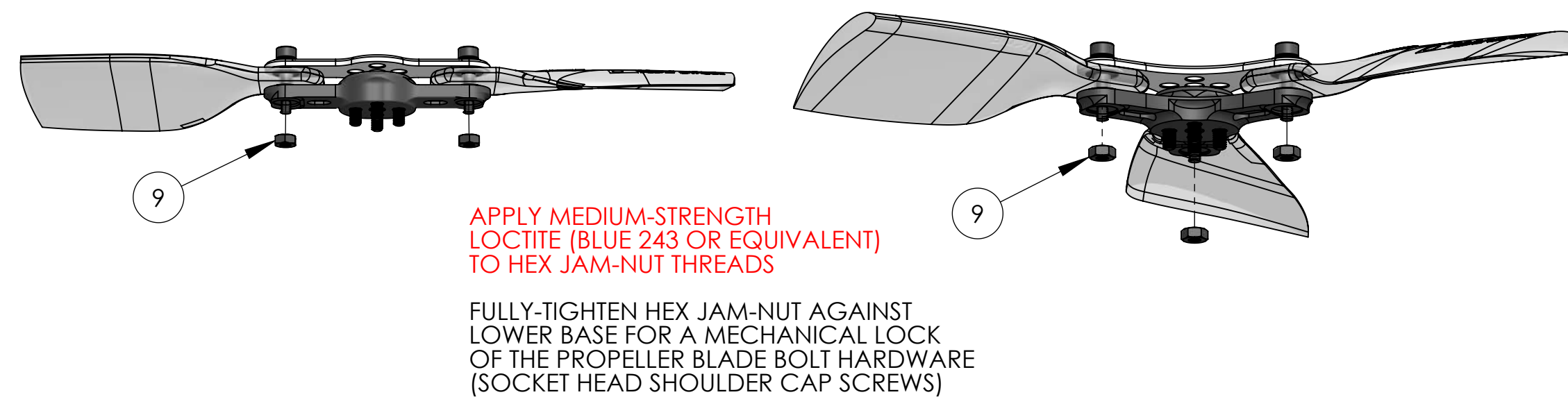
ITEM NO.	DESCRIPTION	QTY.
1	M3 x 0.5 x 15.5MM SOCKET HEAD SHOULDER CAP SCREWS (CLASS 12.9) (CUSTOM CNC MACHINED, PROPELLER BLADE BOLTS)	2/3
2	M3 x ⌀5.5MM BELLEVILLE SPRING LOCK WASHER (C60S)	2/3
3	KDE DIRECT MULTI-ROTOR SERIES DUAL-PROPELLER BLADE ADAPTER (ML) - UPPER PLATE, CLEAR-ANODIZE (M3 DELRIN INSERTS)	1
4	KDE DIRECT MULTI-ROTOR SERIES TRIPLE-PROPELLER BLADE ADAPTER (ML) - UPPER PLATE, CLEAR-ANODIZE (M3 DELRIN INSERTS)	1
5	KDE DIRECT CARBON-FIBER PROPELLER BLADE, 15.5" x 5.3 (SHOWN AS REFERENCE, SOLD-SEPARATELY, KDE-CF155-DP/TP)	2/3
6	M3 x 0.5 x 8MM SOCKET HEAD CAP SCREWS (CLASS 12.9)	4
7	KDE DIRECT MULTI-ROTOR SERIES DUAL-PROPELLER BLADE ADAPTER (ML) - LOWER BASE, BLACK-ANODIZE, AL7075-T6 (M3 DELRIN INSERTS)	1
8	KDE DIRECT MULTI-ROTOR SERIES TRIPLE-PROPELLER BLADE ADAPTER (ML) - LOWER BASE, BLACK-ANODIZE, AL7075-T6 (M3 DELRIN INSERTS)	2/3
9	M3 x 0.5 HEX JAM-NUT (CLASS 10.9 SS)	1
10	KDE DIRECT 5215XF-435 MULTI-ROTOR UAS BRUSHLESS MOTOR (SHOWN AS REFERENCE, SOLD-SEPARATELY, KDE5215XF-435)	1

STEP 1

ASSEMBLE MULTI-ROTOR SERIES PROPELLER BLADE ADAPTER (ML)

ALIGN "**KDE DIRECT**" AND "**KDE**" INSCRIPTIONS FOR PROPER ORIENTATION

ALIGN "**KDE DIRECT**" AND "**KDE**" INSCRIPTIONS FOR PROPER ORIENTATION

DUAL-PROPELLER VERSION QUAD-M3 THREAD MOUNTING

TRIPLE-PROPELLER VERSION QUAD-M3 THREAD MOUNTING

STEP 2

INSTALL M3 HEX JAM-NUTS FOR PROPELLER BLADE BOLT MECHANICAL LOCK

APPLY MEDIUM-STRENGTH LOCTITE (BLUE 243 OR EQUIVALENT) TO HEX JAM-NUT THREADS

FULLY-TIGHTEN HEX JAM-NUT AGAINST LOWER BASE FOR A MECHANICAL LOCK OF THE PROPELLER BLADE BOLT HARDWARE (SOCKET HEAD SHOULDER CAP SCREWS)

STEP 3

INSTALL PROPELLER BLADE ADAPTER TO MULTI-ROTOR UAS BRUSHLESS MOTOR
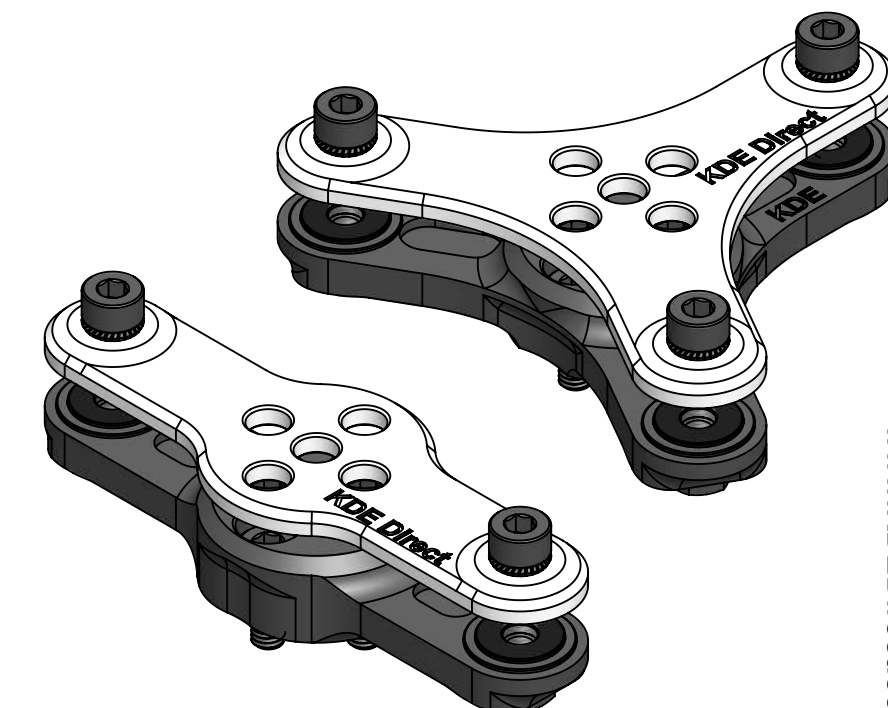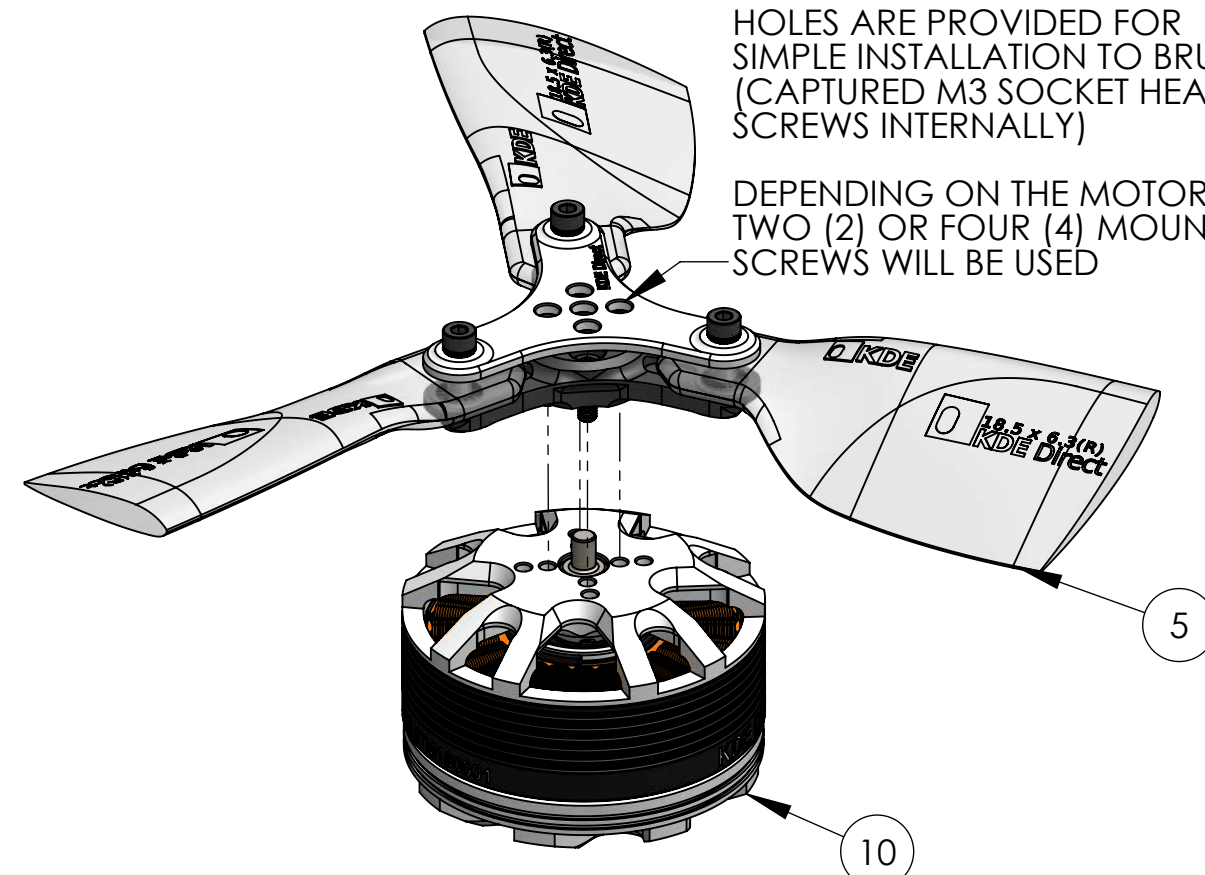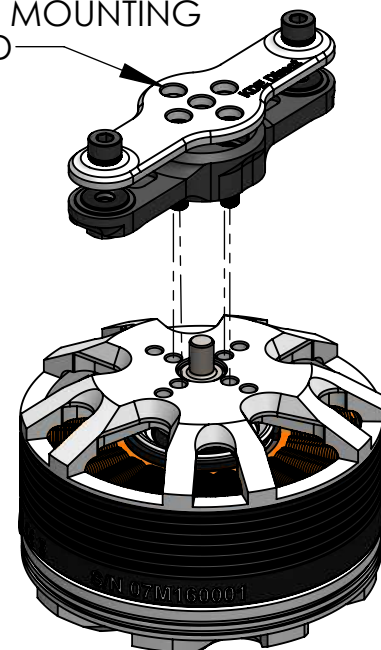
APPLY MEDIUM-STRENGTH LOCTITE (BLUE 243 OR EQUIVALENT) TO MOUNTING SCREWS

HOLES ARE PROVIDED FOR SIMPLE INSTALLATION TO BRUSHLESS MOTOR (CAPTURED M3 SOCKET HEAD CAP SCREWS INTERNALLY)

DEPENDING ON THE MOTOR EDITION, TWO (2) OR FOUR (4) MOUNTING SCREWS WILL BE USED

HOLES ARE PROVIDED FOR SIMPLE INSTALLATION TO BRUSHLESS MOTOR (CAPTURED M3 SOCKET HEAD CAP SCREWS INTERNALLY)

DEPENDING ON THE MOTOR EDITION, TWO (2) OR FOUR (4) MOUNTING SCREWS WILL BE USED

NOTE: THE KDE DIRECT MULTI-ROTOR SERIES PROPELLER BLADE ADAPTERS (ML) PROVIDE A PROFESSIONAL-QUALITY FOLDING-PROPELLER ASSEMBLY FOR MULTI-ROTOR BRUSHLESS MOTORS. DUAL- AND TRIPLE-PROPELLER ADAPTERS ARE AVAILABLE; PROVIDING THE PILOT THE ABILITY TO CHOOSE BETWEEN STANDARD TWO-BLADE SETUPS, OR UPGRADE TO THE THREE-BLADE SETUP FOR ADDED LIFT CAPACITY AND PERFORMANCE - A MAJOR PERFORMANCE BENEFIT IN FRAMES LIMITED TO SPECIFIC BLADE ROTOR DIAMETERS.

THE NEW (ML) VERSION UTLIZES M3 HEX JAM-NUTS AND BELLEVILLE SPRING LOCK WASHERS FOR A MECHANICAL LOCK AND CONSISTENT HOLD TO THE SOCKET HEAD SHOULDER CAP SCREWS DURING FLIGHT, REDUCING THE NEED TO READJUST AND CONTINUAL MAINTENANCE TO THESE CRITICAL SCREWS. MAKE SURE TO INSPECT ALL SCREWS BEFORE FLIGHT FOR PROPER INSTALLATION AND HOLDING TORQUE FOR SAFE OPERATION.

STEP 1: ASSEMBLE THE DUAL- OR TRIPLE-PROPELLER BLADE ADAPTER AS SHOWN, MAKING SURE TO ALIGN THE "KDE DIRECT" AND "KDE" INSCRIPTIONS FOR PROPER ORIENTATION BETWEEN MACHINED FEATURES. INSTALL THE M3 X 0.5 X 8MM SOCKET HEAD CAP SCREWS INTO THE PROVIDED COUNTERBORES BEFORE THE UPPER PLATE IS ATTACHED; CAPTURING THE SCREWS INTERNALLY FOR SIMPLE-INSTALLATION TO THE KDE DIRECT UAS BRUSHLESS MOTORS.

TORQUE PROPELLER BLADE BOLTS (SOCKET HEAD SHOULDER CAP SCREWS) TO THE SPECIFICATIONS TABULATED BELOW FOR PROPER BLADE TIGHTNESS AND IN-FLIGHT ROTATION. PRE-CALIBRATED TORQUE WRENCHES ARE AVAILABLE THROUGH KDE DIRECT (SOLD SEPARATELY):

KDE-CF125: 3.0 in-lb (48.0 oz-in, 0.34 N-m)   TORQUE WRENCH: **KDE-TW3025**
KDE-CF155: 3.5 in-lb (56.0 oz-in, 0.40 N-m)   TORQUE WRENCH: **KDE-TW3525**
KDE-CF185: 4.0 in-lb (64.0 oz-in, 0.45 N-m)   TORQUE WRENCH: **KDE-TW4025**
KDE-CF215: 4.5 in-lb (72.0 oz-in, 0.51 N-m)   TORQUE WRENCH: **KDE-TW4525**

STEP 2: APPLY MEDIUM-STRENGTH LOCTITE (BLUE 243 OR EQUIVALENT) TO THE THREADS OF THE M3 HEX JAM-NUTS AND ASSEMBLE TO THE ADAPTER, THREADING ONTO THE EXPOSED SOCKET HEAD SHOULDER CAP SCREW THREADS UNTIL THE HARDWARE IS FLUSH AGAINST THE LOWER BASE. FULLY TIGHTEN THE M3 HEX JAM-NUT WITH A 5.5MM METRIC NUT OR ADJUSTABLE CRESCENT WRENCH.

STEP 3: ASSEMBLE THE DUAL- OR TRIPLE-PROPELLER BLADE ADAPTER TO THE KDE DIRECT MULTI-ROTOR BRUSHLESS MOTOR, MAKING SURE TO APPLY MEDIUM-STRENGTH LOCTITE (BLUE 243 OR EQUIVALENT) TO ALL MOUNTING HARDWARE DURING ASSEMBLY. FULLY TIGHTEN ALL HARDWARE AND CHECK BLADE PRESSURE FOR APPROPRIATE PROPELLER LEAD-LAG ROTATION DURING FLIGHT. **DEPENDING ON THE MOTOR EDITION, TWO (2) OR FOUR (4) MOUNTING SCREWS WILL BE USED.**

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