

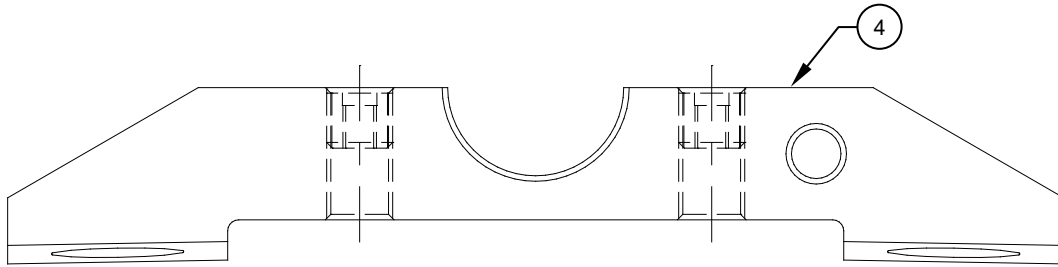
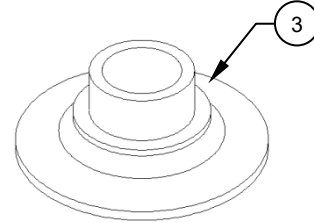
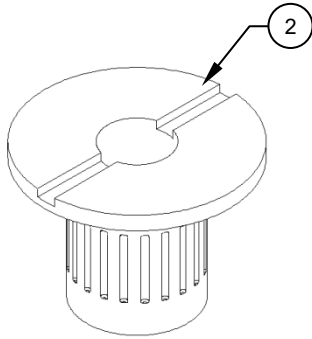
CARGO MIRROR/PULSE LIGHT, KIT ILLUSTRATED PARTS BREAKDOWN

MODELS: BELL 412, 412EP, 412CF

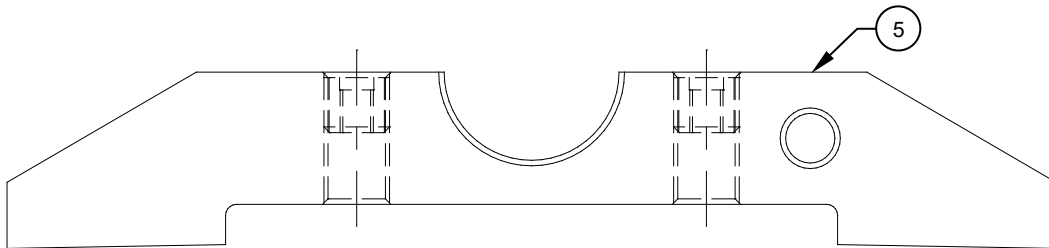


General Notes

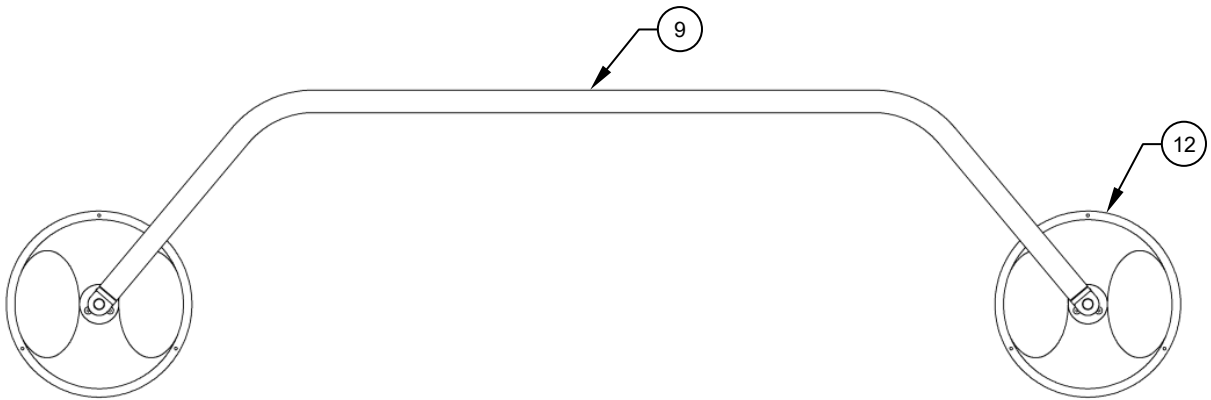
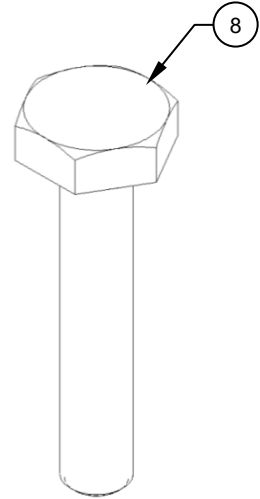
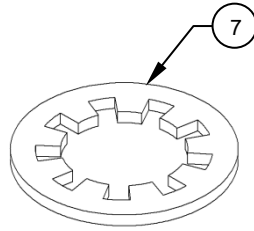
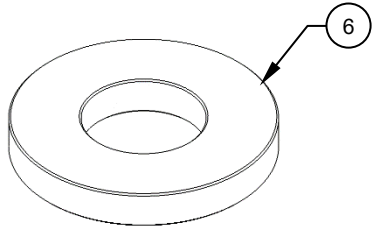
1. Alternate items listed.
 2. If changes to this document are required, Alpine Aerotech LP shall revise all pages and reissue the entire document.
 3. Alpine Aerotech LP shall make any subsequent revisions of this document available upon request. Alpine Aerotech LP also recommends that the end user of this product periodically verify the revision level of this document.
- △₁ Not supplied, procure item locally.
- △₂ Not Shown. See wiring diagram in Installation Instructions (AAL-290-015-005).

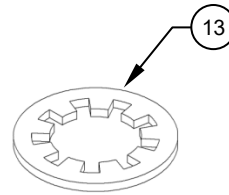
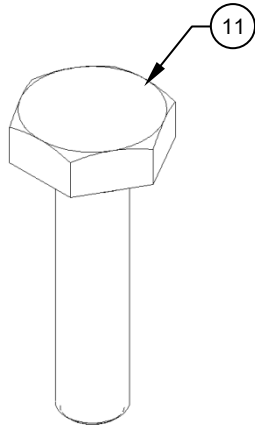
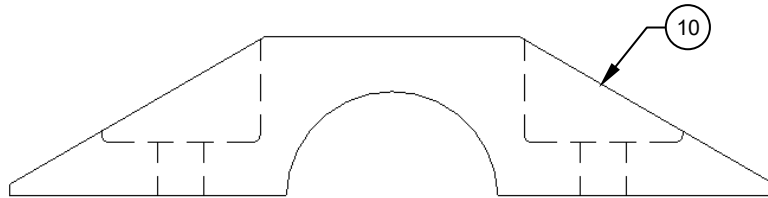


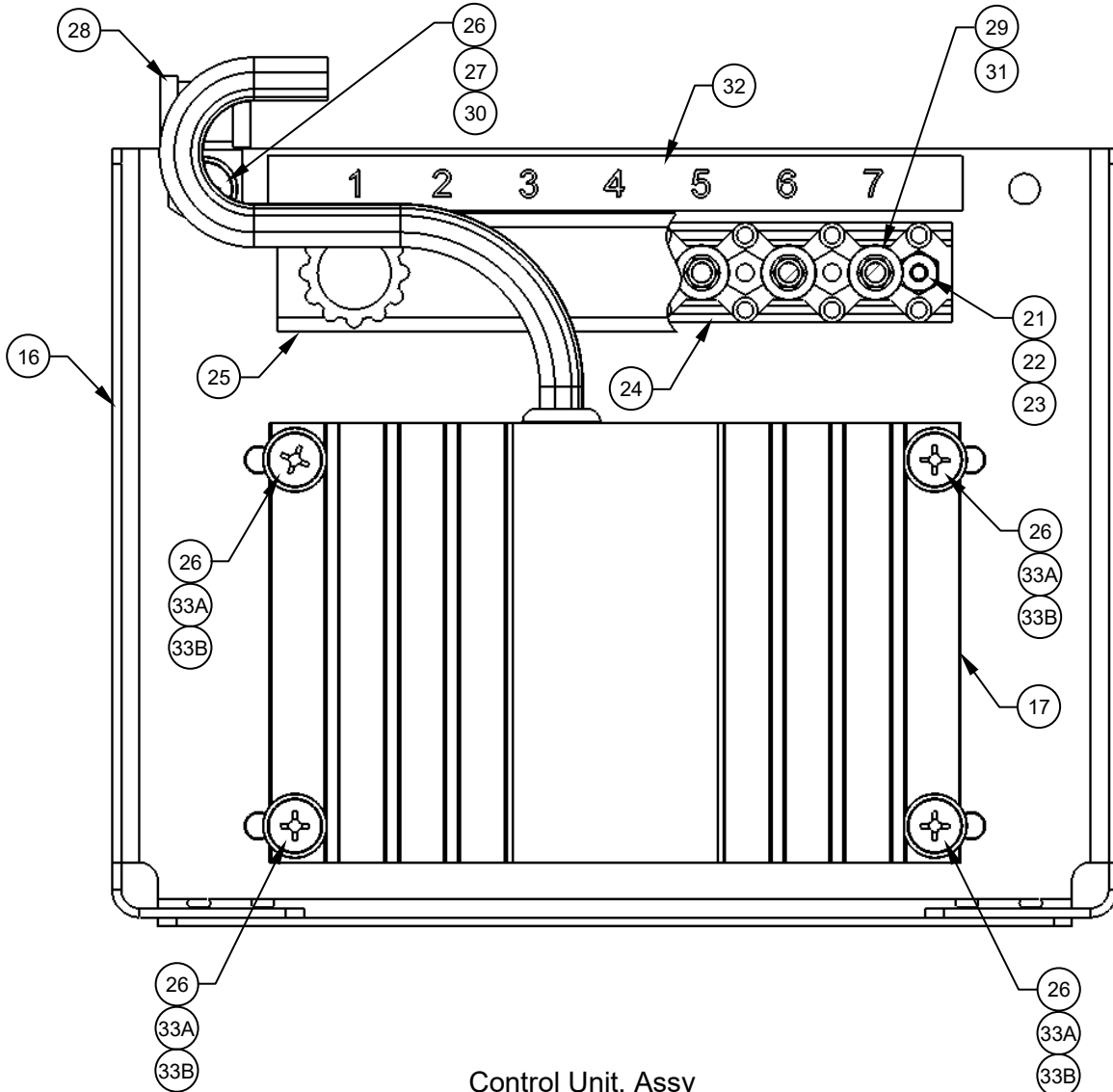
Mounting Block,
Assy, LHS Shown



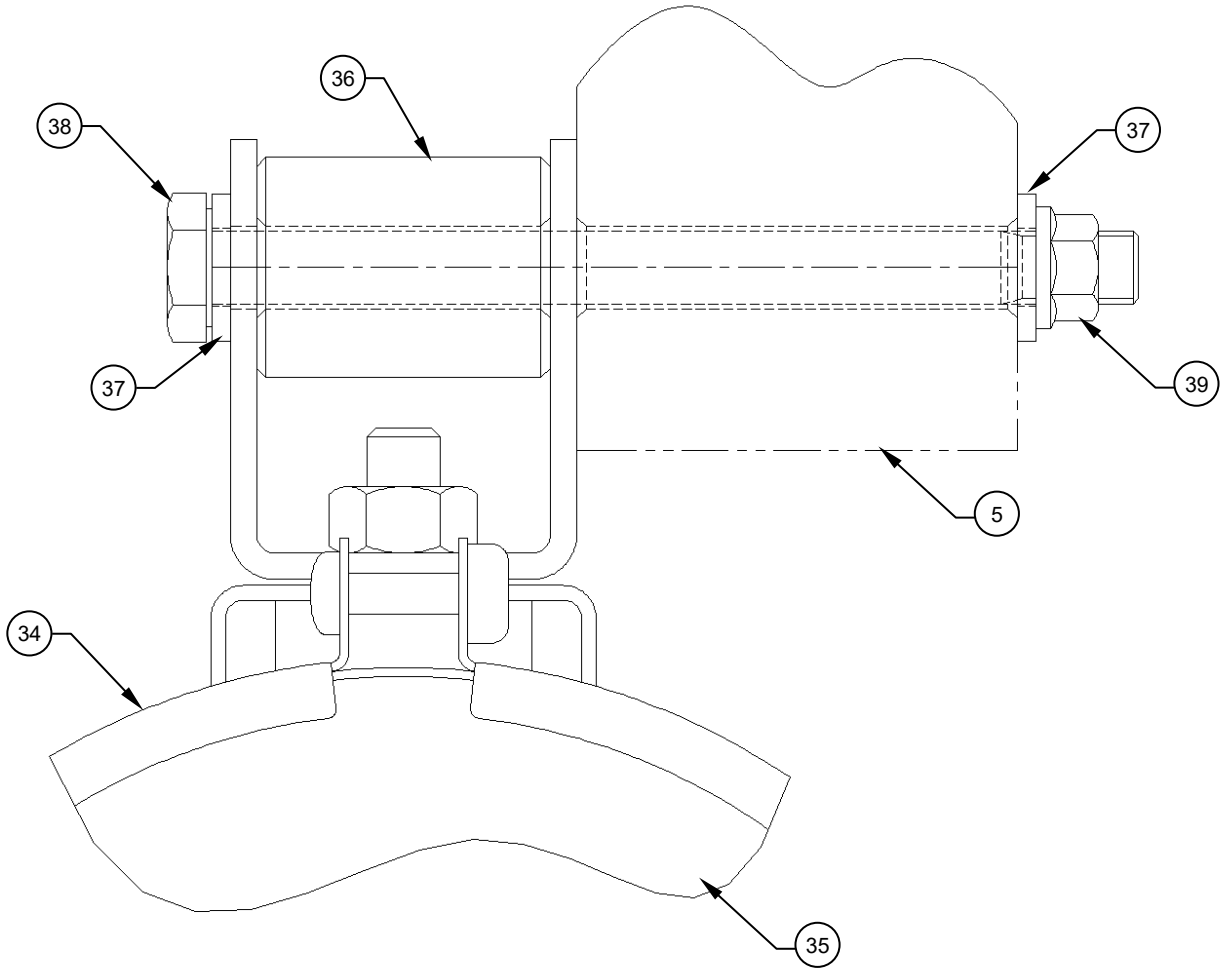
Mounting Block,
Assy, RHS Shown

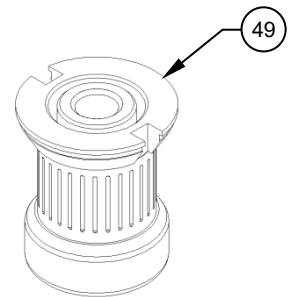
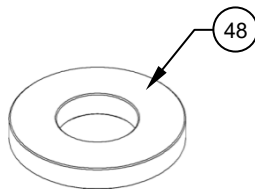
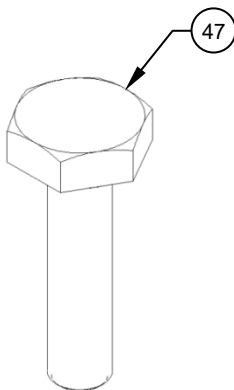
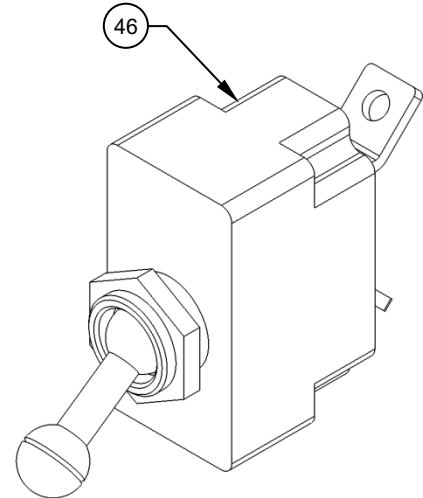
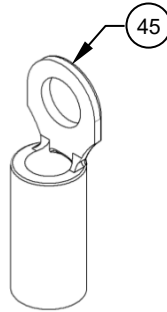
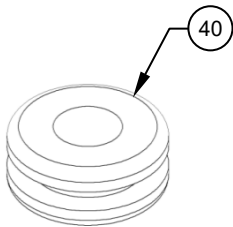


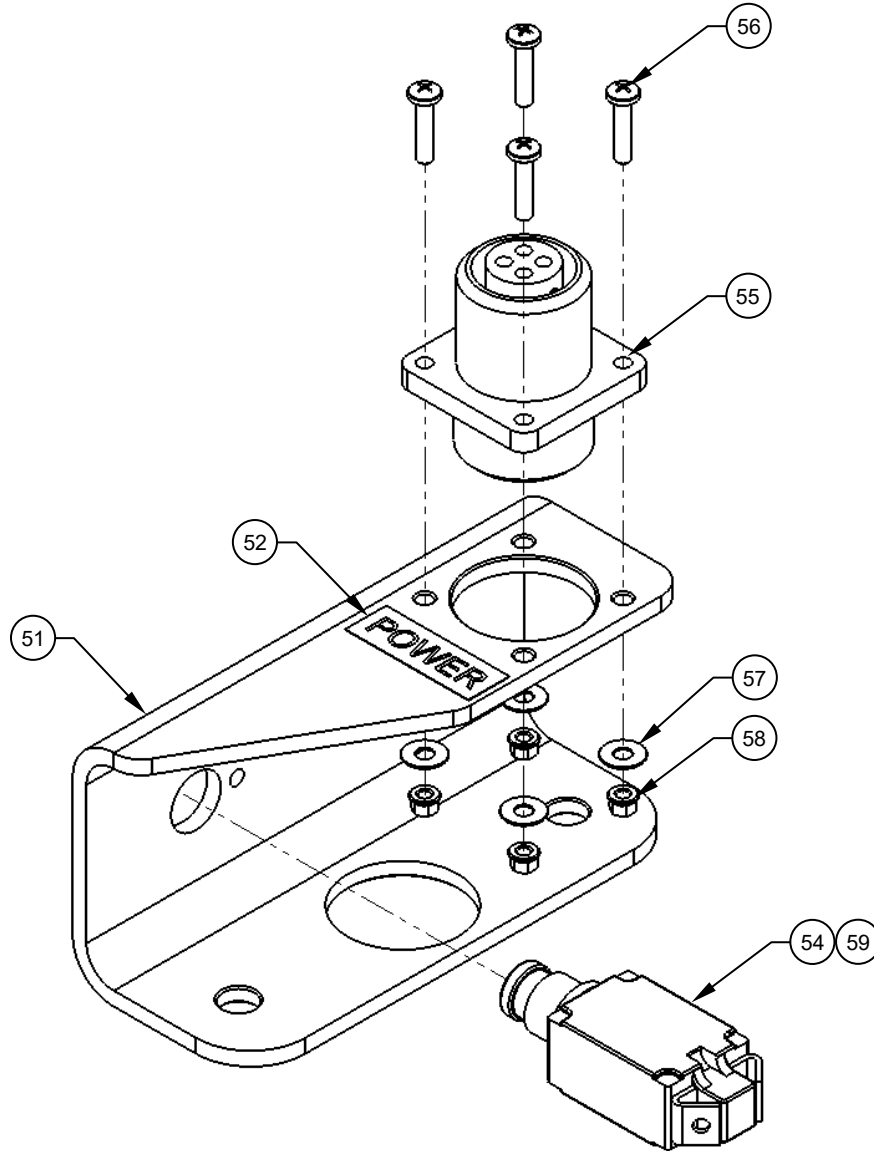




Control Unit, Assy
Item 15
Some items not shown for clarity

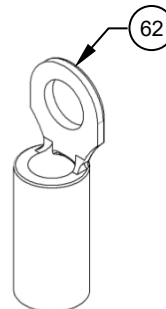
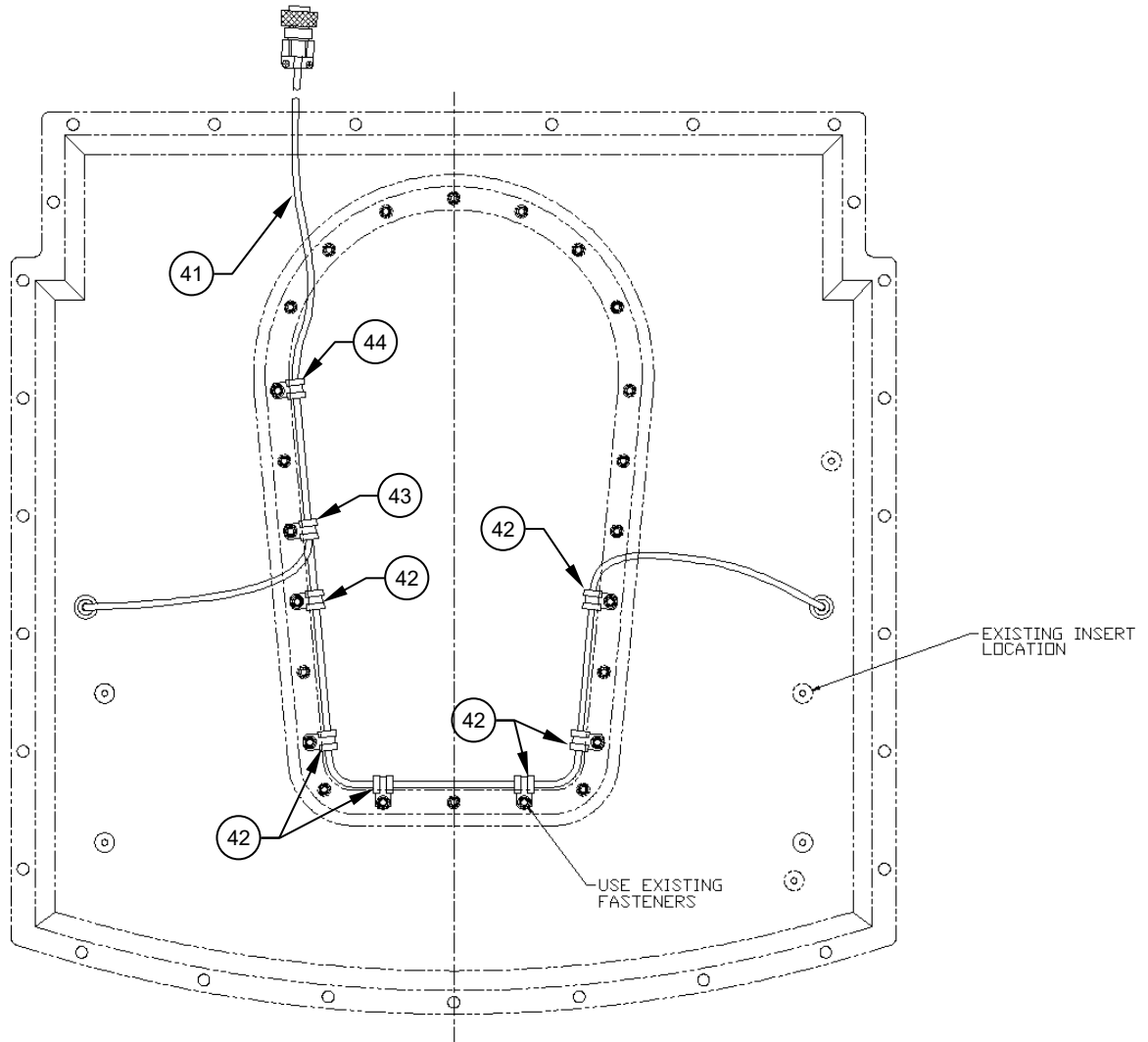






Bracket, Assy
Item 50
Some items not shown for clarity





Parts List - 412

ITEM	QTY	NUMBER	DESCRIPTION	MATERIAL	REF STOCK SIZE	SPEC	FINISH	MANUFACTURER	NCAGEC
-	-	AAL-290-010-902	412 CARGO MIRROR/PULSE LIGHT, KIT	C/O SHADED ITEMS ONLY					
1	1	AAL-706-103-001	CARGO MIRROR, KIT	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
2	3	>80-013-S3F08K-9	INSERT, SLEEVE	SEE MFR	SEE MFR	SEE MFR	SEE MFR	BELL HELICOPTER	97499
2	3	>SLS196FK1032-08	INSERT, SLEEVE	SEE MFR	SEE MFR	SEE MFR	SEE MFR	SHUR-LOK CORP.	98393
2	3	>TYES196F1032-08K	INSERT, SLEEVE	SEE MFR	SEE MFR	SEE MFR	SEE MFR	THE YOUNG ENGINEERS	56958
3	3	>80-013-P3D1-9	INSERT, PLUG	SEE MFR	SEE MFR	SEE MFR	SEE MFR	BELL HELICOPTER	97499
3	3	>P196D10-1	INSERT, PLUG	SEE MFR	SEE MFR	SEE MFR	SEE MFR	ALCOA GLOBAL FASTENERS INC.	83324
4	1	>AAL-290-011-001	MOUNTING BLOCK, ASSY, LHS	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
5	1	>AAL-290-011-002	MOUNTING BLOCK, ASSY, RHS	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
6	8	>NAS1149F0363P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SOURCE AS REQUIRED	NA
7	8	>MS35333-39	WASHER, LOCK	SEE SPEC	SEE SPEC	NASM35333	SEE SPEC	SOURCE AS REQUIRED	NA
8	4	>AN3-10A	BOLT, MACHINE	SEE SPEC	SEE SPEC	NASM3THRU20	SEE SPEC	SOURCE AS REQUIRED	NA
9	1	>AAL-290-011-005	CROSS TUBE, ASSY	SEE MFR	SEE MFR	SEE MFR	SEE MFR	ALPINE AEROTECH LTD.	L0171
10	2	>AAL-706-103-103	CAP, DETAIL	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
11	4	>AN3-6A	BOLT, MACHINE	SEE SPEC	SEE SPEC	NASM3THRU20	SEE SPEC	SOURCE AS REQUIRED	NA
12	2	>12182	MIRROR, ASSY	SEE MFR	SEE MFR	SEE MFR	SEE MFR	GROTE INDUSTRIES	NA
12	2	>12183	MIRROR, ASSY	SEE MFR	SEE MFR	SEE MFR	SEE MFR	GROTE INDUSTRIES	NA
13	2	>MS35333-40	WASHER, LOCK	SEE SPEC	SEE SPEC	NASM35333	SEE SPEC	SOURCE AS REQUIRED	NA
14	1	AAL-290-010-003	PULSE LIGHT, KIT	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
15	1	>AAL-290-011-014	CONTROL UNIT, ASSY	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
16	1	>>AAL-290-011-015	MOUNTING PLATE, ASSY	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
17	1	>>AAL-290-011-012	PULSELIGHT MODULE, ASSY	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
18	-	-	ITEM NUMBER NOT USED	-	-	-	-	-	-
19	-	-	ITEM NUMBER NOT USED	-	-	-	-	-	-
20	1	>>AAL-290-011-011	WIRNG HARNESS, ASSY	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
21	2	>>NAS1149FN416P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SOURCE AS REQUIRED	NA
22	2	>>MS35206-215	SCREW, MACHINE, PAN-HEAD	SEE SPEC	SEE SPEC	NASM35206	SEE SPEC	SOURCE AS REQUIRED	NA

Parts List – 412 (cont.)

ITEM	QTY	NUMBER	DESCRIPTION	MATERIAL	REF		FINISH	MANUFACTURER	NCAGEC
					STOCK SIZE	SPEC			
23	2	>>MS21044-N04	NUT, SELF-LOCKING	SEE SPEC	SEE SPEC	NASM21044	SEE SPEC	SOURCE AS REQUIRED	NA
24	1	>>MS27212-1-7	TERMINAL BOARD, ASSY	SEE SPEC	SEE SPEC	AS272121	SEE SPEC	SOURCE AS REQUIRED	NA
25	1	>>MS18029-1S-7	COVER, ASSY	SEE SPEC	SEE SPEC	MS18029	SEE SPEC	SOURCE AS REQUIRED	NA
26	6	>>NAS1149F0332P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SOURCE AS REQUIRED	NA
27	1	>>MS27039-1-07	SCREW, MACHINE	SEE SPEC	SEE SPEC	NASM27039	SEE SPEC	SOURCE AS REQUIRED	NA
28	1	>>AS21919WDG02	CLAMP, LOOP TYPE, CUSHIONED, SUPPORT	SEE SPEC	SEE SPEC	AS21919	SEE SPEC	SOURCE AS REQUIRED	NA
29	14	>>NAS1149FN632P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SOURCE AS REQUIRED	NA
30	1	>>NAS9926-3L	NUT, SELF LOCKING	SEE SPEC	SEE SPEC	NAS9926	SEE SPEC	SOURCE AS REQUIRED	NA
31	7	>>MS21043-06	NUT, SELF LOCKING	SEE SPEC	SEE SPEC	NASM21043	SEE SPEC	SOURCE AS REQUIRED	NA
32	1	>>AAL-706-103-242	DECAL, DETAIL	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
33	AR	>>MS3367-()-9	STRAP, TIE-DOWN, ELECTRICAL	SEE SPEC	SEE SPEC	AS33671	SEE SPEC	SOURCE AS REQUIRED	NA
33A	4	>>MS27039-1-12	SCREW, MACHINE	SEE SPEC	SEE SPEC	NASM27039	SEE SPEC	SOURCE AS REQUIRED	NA
33B	4	>>NAS42DD6-20N	SPACER	SEE SPEC	SEE SPEC	NAS42	SEE SPEC	SOURCE AS REQUIRED	NA
34	2	>01-0770155-00	HOUSING, ASSY	A715-1	SEE MFR	SEE MFR	SEE MFR	WHELEN ENGINEERING COMPANY INC.	10402
35	2	>01-0771833-25	LAMP, ASSY	SEE MFR	PAR-36 LED	SEE MFR	SEE MFR	WHELEN ENGINEERING COMPANY INC.	10402
36	2	>AAL-706-103-203	SPACER, DETAIL	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
37	4	>NAS1149F0463P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SOURCE AS REQUIRED	NA
38	2	>AN4-31A	BOLT, MACHINE	SEE SPEC	SEE SPEC	NASM3THRU20	SEE SPEC	SOURCE AS REQUIRED	NA
39	2	>NAS9926-4L	NUT, SEL-LOCKING	SEE SPEC	SEE SPEC	NAS9926	SEE SPEC	SOURCE AS REQUIRED	NA
40	2	>MS35489-4	GROMMET	SEE SPEC	SEE SPEC	MS35489	SEE SPEC	SOURCE AS REQUIRED	NA
41	1	>AAL-290-011-008	WIRING HARNESS, ASSY	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
42	6	>AS21919DG01	CLAMP, LOOP TYPE, CUSHIONED, SUPPORT	SEE SPEC	SEE SPEC	AS21919	SEE SPEC	SOURCE AS REQUIRED	NA
43	1	>AS21919WDG02	CLAMP, LOOP TYPE, CUSHIONED, SUPPORT	SEE SPEC	SEE SPEC	AS21919	SEE SPEC	SOURCE AS REQUIRED	NA
44	1	>AS21919WDG03	CLAMP, LOOP TYPE, CUSHIONED, SUPPORT	SEE SPEC	SEE SPEC	AS21919	SEE SPEC	SOURCE AS REQUIRED	NA
45	8	>36152	TERMINAL, RING TONGUE, PIDG	SEE MFR	SEE MFR	SEE MFR	SEE MFR	TYCO ELECTRONICS	00779
46	1	>7270-1-3	CIRCUIT BREAKER, AIRCRAFT, TRIP-FREE	SEE SPEC	SEE SPEC	AS58091	SEE SPEC	TEXAS INSTRUMENTS INC.	82647

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Parts List – 412 (cont.)

ITEM	QTY	NUMBER	DESCRIPTION	MATERIAL	REF	STOCK SIZE	SPEC	FINISH	MANUFACTURER	NCAGEC
47	4	>AN3-3A	BOLT, MACHINE	SEE SPEC	SEE SPEC	NASM3THRU20	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
48	4	>NAS1149F0332P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
49	4	>80-005-2-12	INSERT	SEE MFR	SEE MFR	SEE MFR	SEE MFR	SEE MFR	BELL HELICOPTER	97499
49	4	>445SF1032-12-1	INSERT	SEE MFR	SEE MFR	SEE MFR	SEE MFR	SEE MFR	ALCOA FASTENING SYSTEMS	83324
49	4	>TYE3005B3-12	INSERT	SEE MFR	SEE MFR	SEE MFR	SEE MFR	SEE MFR	THE YOUNG ENGINEERS INC.	56958
50	1	>AAL-290-011-021	BRACKET, ASSY	NA	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
51	1	>>AAL-290-012-010	BRACKET, DETAIL	NA	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
52	1	>>AAL-706-103-244	DECAL, DETAIL	NA	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
53	1	>>AAL-706-103-243	DECAL, DETAIL	NA	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
54	1	>>MS26574-3	CIRCUIT BREAKER, TRIP FREE, PUSH-PULL	SEE SPEC	SEE SPEC	AS26574	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
54	1	>>7274-2-3	CIRCUIT BREAKER, TRIP FREE, PUSH-PULL	SEE SPEC	SEE SPEC	AS26574	SEE SPEC	SEE SPEC	TEXAS INSTRUMENTS INC.	82674
55	1	>>AAL-290-011-017	WIRING HARNESS, ASSY	NA	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
56	4	>>MS35206-216	SCREW, MACHINE, PAN-HEAD			MS35206	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
57	4	>>NAS1149FN416P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
58	4	>>MS21043-04	NUT, SELF LOCKING	SEE SPEC	SEE SPEC	NASM21043	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
59	1	>>AAL-290-011-022	WIRING HARNESS, ASSY	NA	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
2	AR	>>MS3367-(-)-9	STRAP, TIE-DOWN, ELECTRICAL	SEE SPEC	SEE SPEC	AS33671	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
61	2	>36152	TERMINAL , RING TONGUE, PIDG	SEE MFR	SEE MFR	SEE MFR	SEE MFR	SEE MFR	TYCO ELECTRONICS	00779
62	2	>35149	TERMINAL , RING TONGUE, PIDG	SEE MFR	SEE MFR	SEE MFR	SEE MFR	SEE MFR	TYCO ELECTRONICS	00779
1	AR	NA	ADHESIVE	MAGNOBOND 6398	SEE MFR	SEE MFR	SEE MFR	SEE MFR	MAGNOLIA PLASTICS INC.	22121
1	AR	NA	SEALANT, FUEL TANK	PS 890 CLASS B	SEE MFR	AMS-S-8802	NA	NA	PRC-DESOTO INTERNATIONAL	83574
1	AR	NA	SEALANT, FUEL TANK	CS 3204 CLASS B	SEE MFR	AMS-S-8802	NA	NA	FLAMEMASTER CORPORATION	14439