

TECHNICAL BULLETIN

Bell Helicopter

A Textron Company

No. 206L-07-225

Date JUL 19, 2007

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DATE
REV

MODEL AFFECTED: 206L Series

SUBJECT: LANDING LIGHT RELAYS, REPLACEMENT OF

HELICOPTERS AFFECTED: 206L, S/N 45004 through 45153, and 46601 through 46617

206L-1, S/N 45154 through 45790

206L-3, S/N 51001 through 51612

206L-4, S/N 52001 through 52178

[Model 206L4 serial numbers 52179 and subsequent will have the intent of this bulletin accomplished prior to delivery.]

COMPLIANCE: At Customer's Option

DESCRIPTION:

The Landing Lights relay AN3320-1 is no longer procurable. This bulletin provides instructions to install the new M83536/33-003L relay with associated hardware.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada approved.

MANPOWER:

Approximately 4.0 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this bulletin.

MATERIALS:

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

Part Number	Nomenclature	Quantity
M22759/41-20-9	Wire	A/R
M22759/41-12-9	Wire	A/R
407-030-202-193	Bracket	1
MS18029-2S-2	Cover Assembly	1
MS21042L04	Nut	2
MS21042L3	Nut	2
MS21043-3	Nut	2
MS25036-103	Terminal Lug	2
MS25036-112	Terminal Lug	5
MS25036-156	Terminal Lug	4
MS25226-4-2	Bus Bar	1
MS27212-2-2	Terminal Board	1
MS3373-A2	Insulation Strip	2
MS35207-216	Screw	2
MS35207-263	Screw	2
M12883/48-04S	Relay Socket	2
M39029/1-101	Contact	2
M39029/5-116	Contact	4
M39029/5-118	Contact	4
M83536/33-003L	Relay	2
NAS1149C0332R	Washer	4
NAS1149DN416J	Washer	2
NAS1149D0332J	Washer	2
31-065-8K1	Decal	1
31-065-8K2	Decal	1
31-065-8TB4	Decal	1
31-065-1	Decal	1
31-065-2	Decal	1

Consumable Material:

The following material is required to accomplish this bulletin, however this material is considered consumable (bench stock) material and may not require ordering depending on the facility consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>	<u>Reference</u>
TT-N-95,TYII 1GAL	Naphtha	A/R	C-305
3950 Scotchcal	Sealer	A/R	C-349

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

BHT-206L-MM-1 Maintenance Manual
BHT-206L1-MM-10 Maintenance Manual
BHT-206L3-MM-10 Maintenance Manual
BHT-206L4-MM-10 Maintenance Manual
BHT-ELEC-SPM Electrical Standard Practice Manual
BHT-206L-SERIES-IPB Illustrated Parts Breakdown

PUBLICATIONS AFFECTED:

BHT-206L-SERIES-IPB Illustrated Parts Breakdown
BHT-206L-MM-1 Maintenance Manual
 Chapter 98 – Wiring Diagrams
BHT-206L1-MM-12 Maintenance Manual
 Chapter 98 – Wiring Diagrams
BHT-206L3-MM-10 Maintenance Manual
 Chapter 98 – Wiring Diagrams
BHT-206L4-MM-10 Maintenance Manual
 Chapter 98 – Wiring Diagrams

ACCOMPLISHMENT INSTRUCTIONS:

1. Prepare the helicopter for maintenance.
2. Ensure all electrical power is removed from the helicopter.
3. Disconnect the helicopter battery.
4. Gain access to the landing light relays area (refer to Chapter 96).
5. Gain access to the terminal board 4TB1 located between the pilot and copilot seats (Refer to BHT-206A/B-SERIES-IPB, Chapter 96).
6. Remove the landing lights access panel (refer to Chapter 96).
7. Using Table 1 below, determine which Figure is applicable to the helicopter serial number block. This Figure contains instructions for the electrical wiring modifications permitting incorporation of the relays.

	HELICOPTER SERIAL NUMBER			
	45001 through 45079 45154 through 45193	45194 through 45840 45080 through 45153 46601 through 46617	51001 through 51612 52001 through 52080	52081 through 52178
Figure 2	X			
Figure 3		X		
Figure 4			X	
Figure 5				X

Table 1

8. Refer to the applicable Figure.

-NOTE-

Actions specified in the "ACTION" column shown in the Wiring Modification instructions Table for each applicable Figure are as follow:

- i. **DELETE** – Remove the wire completely from the helicopter.

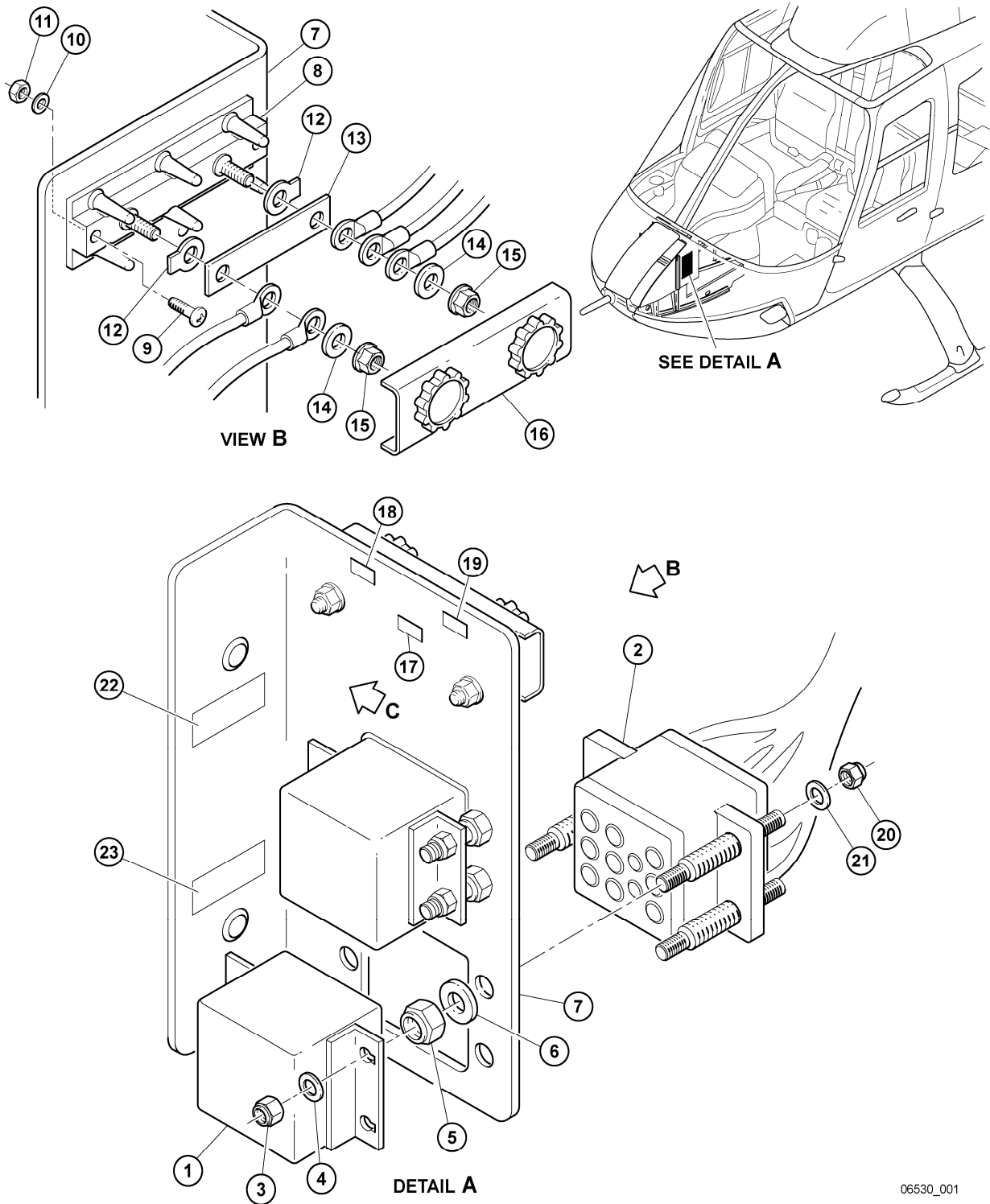
- ii. **RETERMINATE** – Reposition one end of the wire FROM its previous location TO a new location.
 - iii. **ADD** – A new wire is required.
9. Refer to the wiring modifications instructions table at the bottom of the applicable Figure to determine actions required.
 10. Perform all the “DELETE” actions listed in the appropriate wiring modifications table (refer to Chapter 98).
 11. Remove and discard diodes 8CR3 and 8CR4, if installed (refer to Chapter 98).
 12. Remove and discard bus bar MS25266-2-2 between X2 terminal of relay 8K1 and X1 of relay 8K2 (refer to Chapter 98).
 13. Remove and discard both landing light relays (8K1 and 8K2) with associated hardware (refer to Chapter 98).
 14. Using a plastic scraper, remove and discard decals, 8K1 and 8K2, if installed. Wipe surface clean with a clean damp cloth, dampened with Naptha (C-305).
 15. Install qty (2) relay sockets (2, Figure 1), on bracket (7) using supplied hardware. Do not install relays (1) at this time.
 16. Install terminal board (8, Figure 1, View B) on bracket (7) using screw (9), washer (10) and nut (11).
 17. Thoroughly wipe the surface of the support (7) with naphtha (C-305) before applying decal. Install decal (17), (18), (19), (22) and (23) (Figure 1).
 18. Seal all of the edges of the decals using edge sealer (C-349).
 19. Install bracket (7) assembly at existing inboard mounting holes previously used by AN3320-1 relay using screw (24), washer (25) and nut (26) as shown in Figure 1, sheet 2.
 20. Install qty (2) insulation strips (12, Figure 1) on terminal board (8).
 21. Install bus link (13, Figure 1) on terminal board (8).

-NOTE-

Refer to BHT-ELEC-SPM for wire termination procedures. Fabricate added wires using the following wire specifications:

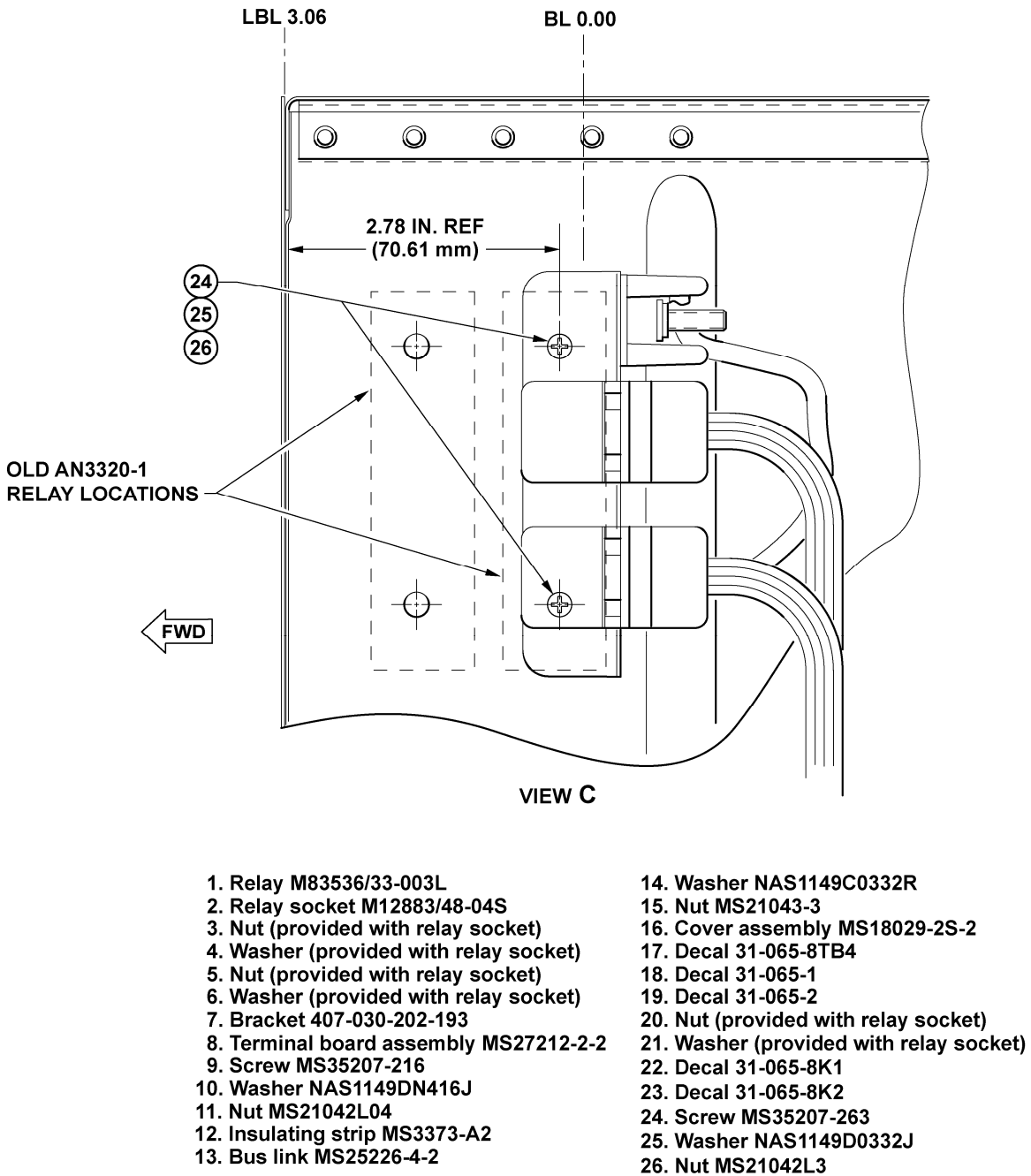
<u>Wire gauge</u>	<u>Wire Specifications</u>
AWG 12	M22759/41-12-9
AWG 20	M22759/41-20-9

22. Perform all the "RETERMINATE" and "ADD" actions listed in the appropriate Wiring Modifications Table.
23. Install washer (14), nut (15) and the cover assembly (16) on the Terminal Board (8).
24. Perform functional check on Landing Light System (refer to Chapter 96).
25. Make an entry in the helicopter historical records to show that you have completed this bulletin.



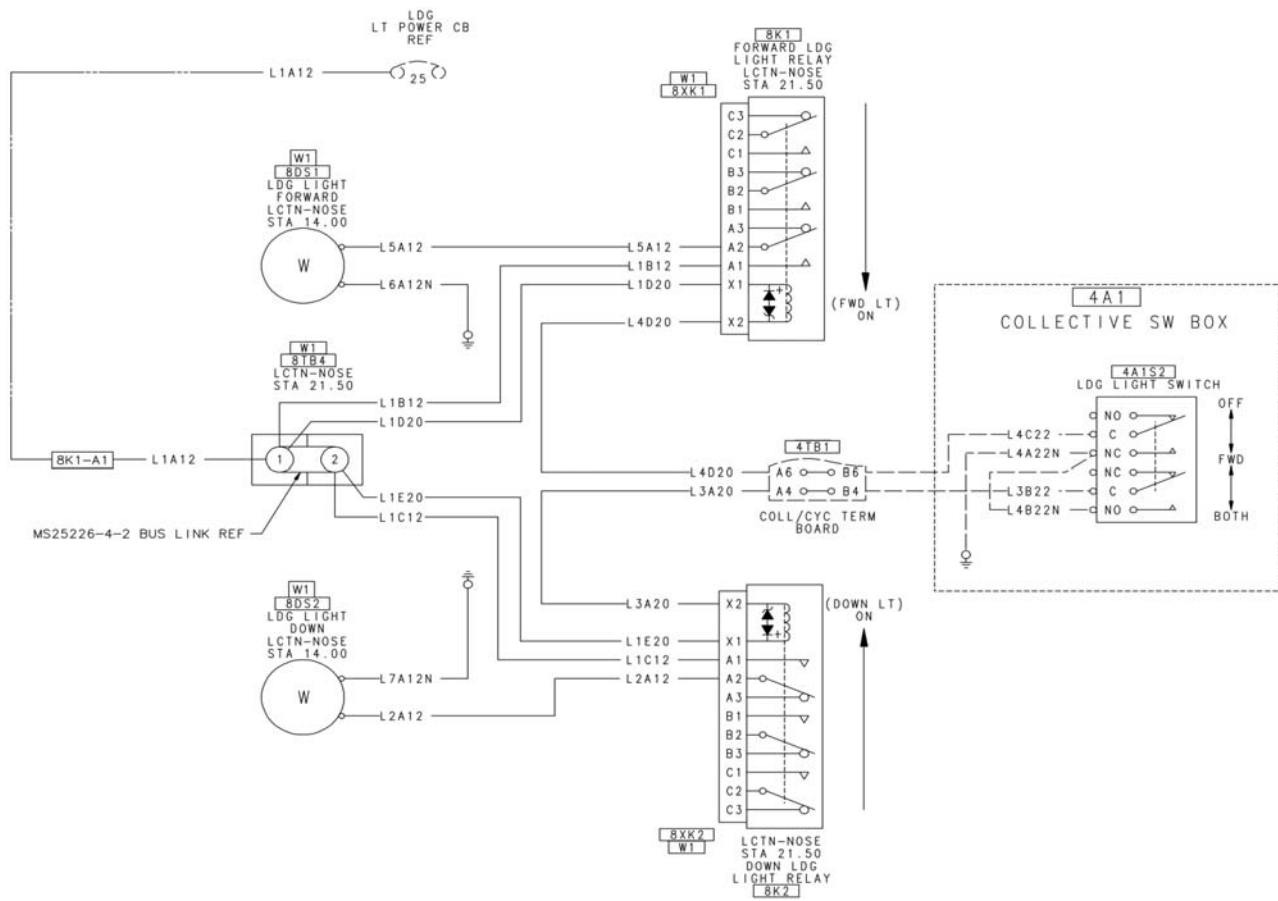
06530_001

Figure 1. Landing Light Relay installation (sheet 1)



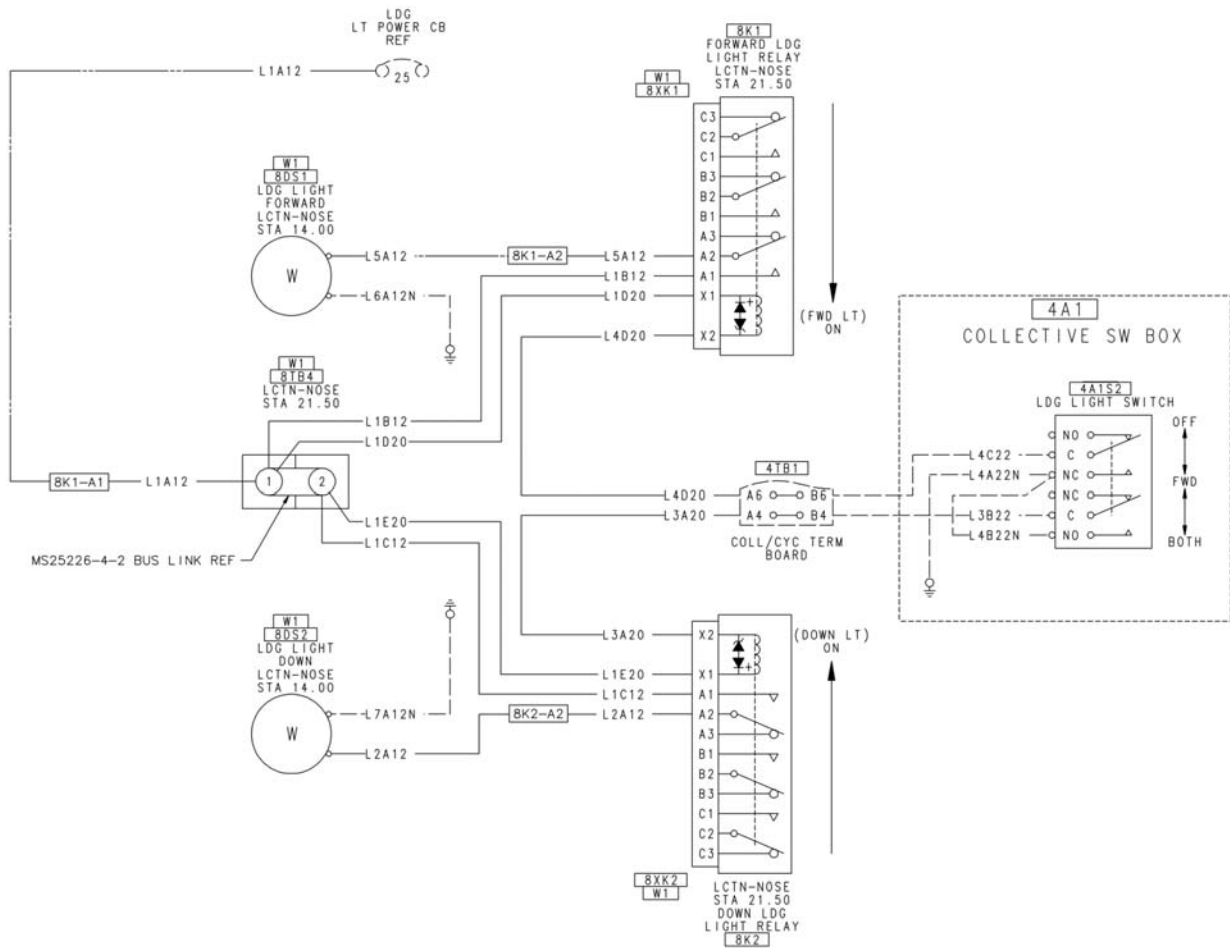
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Figure 1. Landing Light Relay installation (sheet 2)



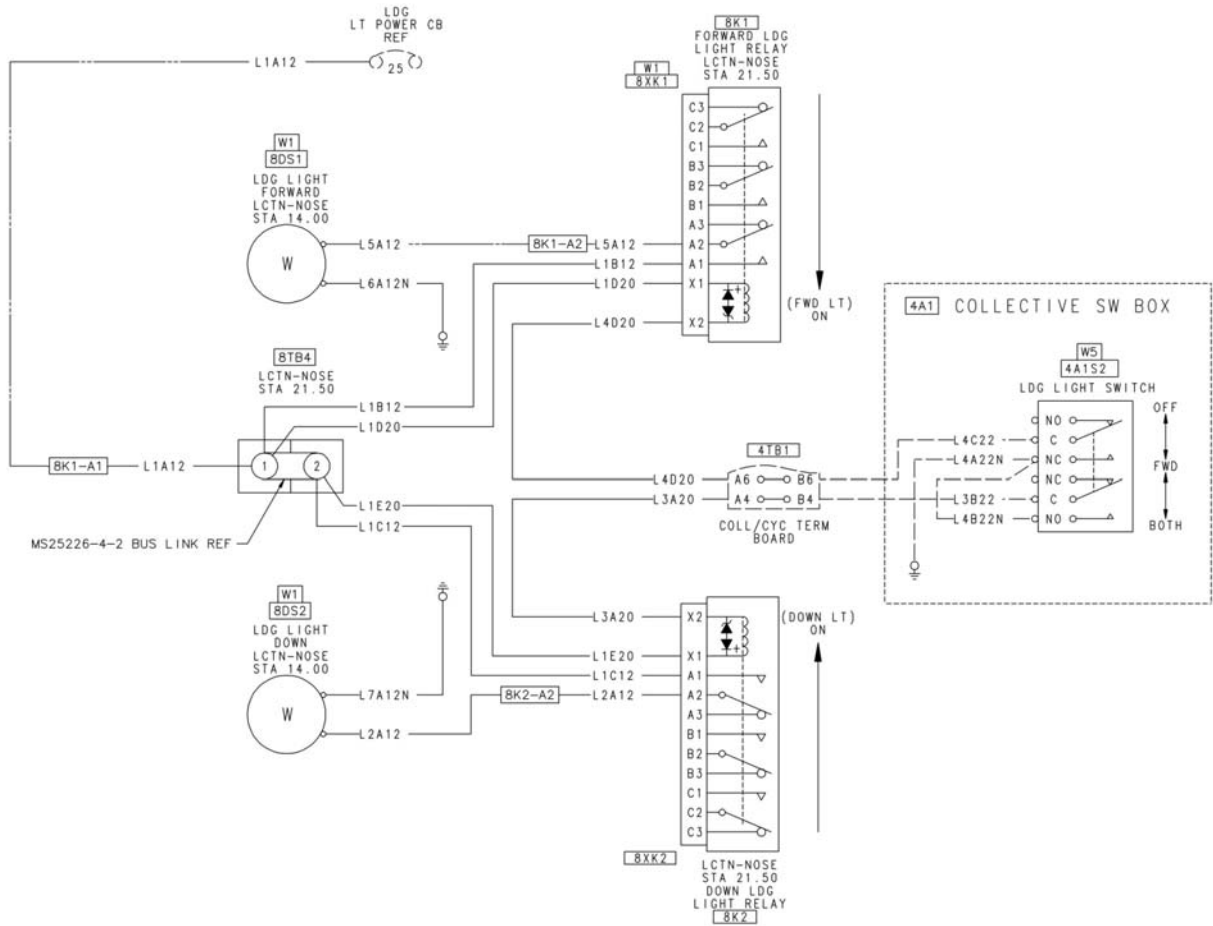
WIRING MODIFICATIONS INSTRUCTIONS TABLE						
ACTION	WIRE NUMBER	LENGHT (INCH)	FROM	HARDWARE	TO	HARDWARE
DELETE	L1C16	-	8K1-A1	-	8K2-A1	-
DELETE	L1D22	-	8K2-A1	-	8K2-X1	-
DELETE	L5A16	-	8DS1	-	8K1-A2	-
DELETE	L2A16	-	8DS2	-	8K2-A2	-
DELETE	L7A16N	-	8DS2	-	LOCAL GND	-
DELETE	L6A16N	-	8DS1	-	LOCAL GND	-
DELETE	L4D22	-	8K1-X1	-	4TB1-A6	-
DELETE	L3A22	-	8K2-X2	-	4TB1-A4	-
RETERMINATE	L1A12	-	8K1-A1	-	8TB4-1	MS25036-112
ADD	L1B12	6.50	8XK1-A1	M39029/5-118	8TB4-1	MS25036-112
ADD	L1C12	8.00	8XK2-A1	M39029/5-118	8TB4-2	MS25036-112
ADD	L1D20	6.50	8XK1-X1	M39029/5-116	8TB4-1	MS25036-103
ADD	L1E20	8.00	8XK2-X1	M39029/5-116	8TB4-2	MS25036-103
ADD	L2A12	36.00	8DS2	MS25036-156	8XK2-A2	M39029/5-118
ADD	L6A12N	36.00	8DS1	MS25036-156	LOCAL GRND	MS25036-112
ADD	L7A12N	36.00	8DS2	MS25036-156	LOCAL GRND	MS25036-112
ADD	L5A12	36.00	8DS1	MS25036-156	8XK1-A2	M39029/5-118
ADD	L3A20	48.00	8XK2-X2	M39029/5-116	4TB1-A4	M39029/1-101
ADD	L4D20	48.00	8XK1-X2	M39029/5-116	4TB1-A6	M39029/1-101

Figure 2. Helicopters S/N 45001 through 45079 and 45154 through 45193



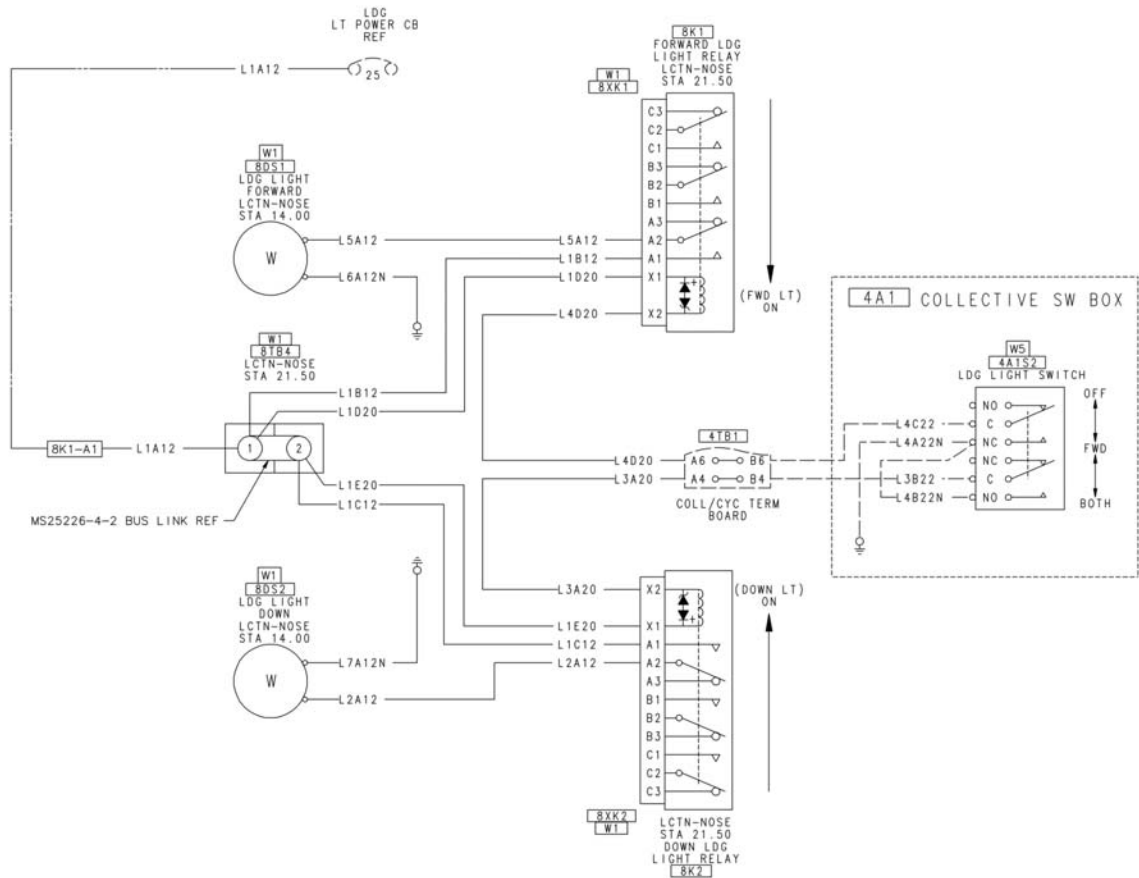
WIRING MODIFICATIONS INSTRUCTIONS TABLE						
ACTION	WIRE NUMBER	LENGHT (INCH)	FROM	HARDWARE	TO	HARDWARE
DELETE	L1C16	-	8K1-A1	-	8K2-A1	-
DELETE	L1D22	-	8K2-A1	-	8K2-X1	-
DELETE	L4D22	-	8K1-X1	-	4TB1-A6	-
DELETE	L3A22	-	8K2-X2	-	4TB1-A4	-
RETERMINATE	L1A12	-	8K1-A1	-	8TB4-1	MS25036-112
RETERMINATE	L5A12	-	8K1-A2	-	8XK1-A2	M39029/5-118
RETERMINATE	L2A12	-	8K2-A2	-	8XK2-A2	M39029/5-118
ADD	L1B12	8.00	8XK1-A1	M39029/5-118	8TB4-1	MS25036-112
ADD	L1C12	8.00	8XK2-A1	M39029/5-118	8TB4-2	MS25036-112
ADD	L1D20	8.00	8XK1-X1	M39029/5-116	8TB4-1	MS25036-103
ADD	L1E20	8.00	8XK2-X1	M39029/5-116	8TB4-2	MS25036-103
ADD	L3A20	48.00	8XK2-X2	M39029/5-116	4TB1-A4	M39029/1-101
ADD	L4D20	48.00	8XK1-X2	M39029/5-116	4TB1-A6	M39029/1-101

Figure3. Helicopters S/N 45194 through 45840, 45080 through 45153 and 46601 through 46617



WIRING MODIFICATIONS INSTRUCTIONS TABLE						
ACTION	WIRE NUMBER	LENGTH (INCH)	FROM	HARDWARE	TO	HARDWARE
DELETE	L1C16	-	8K1-A1	-	8K2-A1	-
DELETE	L1D22	-	8K2-A1	-	8K2-X1	-
DELETE	L4D22	-	8K1-X1	-	4TB1-A6	-
DELETE	L3A22	-	8K2-X2	-	4TB1-A4	-
RETERMINATE	L1A12	-	8K1-A1	-	8TB4-1	MS25036-112
RETERMINATE	L5A12	-	8K1-A2	-	8XK1-A2	M39029/5-118
RETERMINATE	L2A12	-	8K2-A2	-	8XK2-A2	M39029/5-118
ADD	L1B12	8.00	8XK1-A1	M39029/5-118	8TB4-1	MS25036-112
ADD	L1C12	8.00	8XK2-A1	M39029/5-118	8TB4-2	MS25036-112
ADD	L1D20	8.00	8XK1-X1	M39029/5-116	8TB4-1	MS25036-103
ADD	L1E20	8.00	8XK2-X1	M39029/5-116	8TB4-2	MS25036-103
ADD	L3A20	48.00	8XK2-X2	M39029/5-116	4TB1-A4	M39029/1-101
ADD	L4D20	48.00	8XK1-X2	M39029/5-116	4TB1-A6	M39029/1-101

Figure 4. Helicopters S/N 51001 through 51612 and 52001 through 52080



WIRING MODIFICATIONS INSTRUCTIONS TABLE

ACTION	WIRE NUMBER	LENGHT (INCH)	FROM	HARDWARE	TO	HARDWARE
DELETE	L1C16	-	8K1-A1	-	8K2-A1	-
DELETE	L1D22	-	8K2-A1	-	8K2-X1	-
DELETE	L5A10	-	8DS1	-	8K1-A2	-
DELETE	L2A10	-	8DS2	-	8K2-A2	-
DELETE	L7A10N	-	8DS2	-	LOCAL GRND	-
DELETE	L6A10N	-	8DS1	-	LOCAL GRND	-
DELETE	L4D22	-	8K1-X1	-	4TB1-A6	-
DELETE	L3A22	-	8K2-X2	-	4TB1-A4	-
RETERMINATE	L1A12	-	8K1-A1	-	8TB4-1	MS25036-112
ADD	L1B12	6.50	8XK1-A1	M39029/5-118	8TB4-1	MS25036-112
ADD	L1C12	8.00	8XK2-A1	M39029/5-118	8TB4-2	MS25036-112
ADD	L1D20	6.50	8XK1-X1	M39029/5-116	8TB4-1	MS25036-103
ADD	L1E20	8.00	8XK2-X1	M39029/5-116	8TB4-2	MS25036-103
ADD	L2A12	36.00	8DS2	MS25036-156	8XK2-A2	M39029/5-118
ADD	L6A12N	36.00	8DS1	MS25036-156	LOCAL GRND	MS25036-112
ADD	L7A12N	36.00	8DS2	MS25036-156	LOCAL GRND	MS25036-112
ADD	L5A12	36.00	8DS1	MS25036-156	8XK1-A2	M39029/5-118
ADD	L3A20	48.00	8XK2-X2	M39029/5-116	4TB1-A4	M39029/1-101
ADD	L4D20	48.00	8XK1-X2	M39029/5-116	4TB1-A6	M39029/1-101

Figure 5. Helicopters S/N 52081 through 52178