

U.S. ARMY TANK AUTOMOTIVE COMMAND		
WARREN, MICHIGAN 48090		
LIGHTING KIT - UPGRADED (M151A2 & M825)		
SIZE A	CODE IDENT. NO. 19207	11660545

NSN No. 2540-00-152-1869
Contract No. DAAE07-88-C-0213

MANUFACTURED BY
AURORA CORD & CABLE COMPANY

205 Beaver Street
Yorkville, Illinois 60560-0429

PURPOSE: TO ADD A SPECIAL LIGHTING SYSTEM TO THE VEHICLES LISTED BELOW FOR EUROPEAN THEATER USE.

VEHICLES AFFECTED:

- (1) TRUCK, UTILITY 1/4 TON ~~4X4~~ M151A2
(FSN: 2320-177-9258)
- (2) TRUCK, UTILITY 1/4 TON 4X4 M825 WITH 106 MM
RECOILLESS RIFLE
(FSN: 2320-177-9257)

MATERIAL: LIGHTING KIT UPGRADE 11660545 CONSISTS OF THE FOLLOWING PARTS AND MATERIALS:

<u>ITEM</u>	<u>ORD PART</u>	<u>NOMENCLATURE</u>	<u>QTY PER KIT</u>
1	11660536	MOUNTING BRACKET, MARKER LAMP	2
2	MS-35423-1	MARKER LAMP, AMBER	2
3	MS-35423-2	MARKER LAMP, RED	2
4	MS-90726-5	SCREW, CAP, HEX HEAD 1/4-28 UNF-2A X 5/8	4
5	MS-35333-40	WASHER, INTERNAL TOOTH 1/4	10
6	MS-51968-2	NUT, PLAIN HEX 1/4-28 UNF-2B	4
7	11663067	REFLECTOR, AMBER - FRONT	2
8	11614174-4	REFLECTOR-RECTANGULAR-RED	2
9	MS-35224-64	SCREW MACHINE, PAN HEAD, SLOTTED #10-32 UNF-2A X 5/8 LG	16
10	MS-35333-39	WASHER, INTERNAL TOOTH #10	32
11	MS-35650-302	NUT, PLAIN HEX - 10 - 32 UNF-2B	16
12	8338566	SHELL, SINGLE, FEMALE	4

PART NO.

CONTRACT NO. DAAG7-71-C-0009		U. S. ARMY TANK AUTOMOTIVE CENTER WARREN, MICHIGAN 48290	
CONTRACTOR FORD MOTOR CO. <input checked="" type="checkbox"/>		INSTALLATION INSTRUCTIONS FOR LIGHTING KIT UPGRADED - 11660545	
OWNED BY	DATE 12/18/64	M151A2, M825	
CHECKER	ENGINEER	SIZE CODE IDENT. NO.	
APPROVAL <i>[Signature]</i>		A 19207 11660565	
SCALE		UNIT WT.	SHEET 1 of 33

13	8338567	WASHER, TERMINAL, RETAINING	4
14	8338561	SHELL, MALE, SINGLE	16
15	8338562	SLEEVE	16
16	8338564	TERMINAL ASSEMBLY, CRIMPED FEMALE	16
17	MS-39020-1	BAND MARKER, BLANK	32
18	M13486/1-5	CABLE, ELECTRICAL 14 AWG	5 FT
19	11677498-14	CABLE ASSEMBLY *	8
20	MS-27147-1	ADAPTER, CONNECTOR, 3-way	4
21	11660554	TEMPLATE, SIDE MARKER	3
22	MS-21333-97	CLAMP, CABLE	1
23	7725697	CLAMP, CABLE	1
24	MS-35225-79	SCREW, MACHINE, PAN HEAD SLOTTED 1/4 - 20 UNC-2A X 1/2	1
25	MS-51967-2	NUT, PLAIN HEX 1/4 - 20 UNC-2B	1
26	MS-17821-1-0	STRAP-CABLE ADJUSTABLE, SELF-CLINCHING PLASTIC	1
27	7331197-1	CLIP, CABLE RETAINING	1
28	11599001 - 1	SLEEVE, CHAFING	1


* SEE SHEET 19 FOR MAKE UP OF WIRING HARNESS ASSEMBLIES, PRIOR TO AND IF REQUIRED AFTER APPLICATION TO THE VEHICLE. BULK WIRE, LOOSE TERMINALS, SLEEVES, SHELLS AND BAND MARKERS ARE PACKED IN THE KIT.

INSTALLATION INSTRUCTIONS FOR LIGHTING KIT UPGRADED 11660545.

TRUCK, UTILITY: 1/4 TON, 4X4, M151A2

TRUCK, UTILITY: 1/4 TON, 4X4, M825 WITH 106 MM RECOILLESS RIFLE

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CONTRACTOR		WARREN, MICHIGAN 48290	
DRAWN BY	DATE 12/18/70		
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APPROVAL		SIZE	CODE IDENT. NO.
		A	11660565
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SCALE		UNIT WT.	SHEET 2 of 33

A.

VEHICLE PREPARATION FRONT

- (1) DISCONNECT ELECTRICAL CONNECTOR FROM BLACKOUT LAMP.
- (2) REMOVE THREE SCREWS, THREE WASHERS AND REMOVE BLACKOUT LAMP. RETAIN BLACKOUT LAMP AND THE MOUNTING HARDWARE.
- (3) REMOVE AND RETAIN TWO EXISTING NUTS, WASHERS, SCREWS AND FOOTMAN LOOP FROM THE TOP OUTBOARD EDGE OF THE RIGHT FRONT FENDER. M825 VEHICLE ONLY

B.

DRILLING INSTRUCTIONS

(1) FRONT LEFT FENDER

(a) SCRIBE A LINE ON THE FENDER 11 3/4 INCH FORWARD OF THE EDGE OF THE SIDE PANEL (WHERE THE PANEL JOINS THE FENDER, AND 1 5/8 INCHES FROM THE OUTBOARD EDGE OF THE FENDER, AS SHOWN ON SHEET 10

(b) SCRIBE A SECOND HOLE LOCATION 3.0 INCHES FORWARD OF THE FIRST HOLE LOCATION AND 1 5/8 INCHES FROM THE OUTBOARD EDGE OF THE FENDER.

(c) CENTER PUNCH AND DRILL TWO 5/16 INCH DIAMETER HOLES AT THE SCRIBED LOCATIONS, AS SHOWN ON SHEET 10

(2) RIGHT FRONT FENDER

(a) REPEAT STEPS (a) THRU (c) FOR MARKER LAMP LOCATION OF ITEM B1 ABOVE.

(b) SCRIBE A LINE ON THE FENDER 9 3/8 INCHES FROM THE FRONT EDGE AND AN INTERSECTING LINE 6 1/4 INCHES FROM THE OUTBOARD EDGE OF THE FENDER.

(c) DRILL ONE 5/16 INCH HOLE AT THE SCRIBED LOCATION, AS SHOWN ON SHEET 11 .

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<i>[Signature]</i>		SIZE CODE IDENT. NO.	11660565
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(d) USING FOOTMAN LOOP AS A TEMPLATE, LOCATE FOOTMAN LOOP 3/4 INCHES FROM EXISTING HOLES AND DRILL TWO 7/32 INCH HOLES, AS SHOWN ON SHEET 12 . M825 VEHICLE ONLY.

(3) RIGHT FRONT FENDER - WITH CHEMICAL DETECTOR KIT
(a) CUT OUT TEMPLATE 11660554, FURNISHED IN THE KIT.

(b) LOCATE REAR EDGE OF TEMPLATE 10 7/8 INCH FROM EDGE OF THE SIDE PANEL, (WHERE THE PANEL JOINS THE FENDER) AND TOP EDGE OF TEMPLATE 3/16 INCH BELOW THE TOP EDGE OF THE FENDER, AS SHOWN ON SHEET 13 .

NOTE: CEMENT TEMPLATE TO BODY USING AN ADHESIVE WHICH IS AVAILABLE.

(A RUBBER TYPE PAPER ADHESIVE IS PREFERRED.)

(c) DRILL FOUR 7/32 INCH DIAMETER HOLES AT THE SCRIBED LOCATIONS, AS SHOWN ON SHEET 13 .

(d) DRILL ONE 3/8 INCH DIAMETER LOCATING HOLE, AS SHOWN ON SHEET 13 .

(e) DRILL ONE 1.0 INCH DIAMETER CENTER MOUNTING HOLE (USING A HOLE SAW), AS SHOWN ON SHEET 13 .

NOTE: REMOVE PAPER TEMPLATE. USING O. D. PAINT, TOUCH UP ALL DRILLED HOLES WHERE BARE METAL HAS BEEN EXPOSED.

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C.

INSTALLATION

(1) RIGHT AND LEFT FRONT FENDERS

(a) DISASSEMBLE TWO MARKER LAMPS (AMBER MS 35423-1) BY REMOVING EXISTING SCREWS AND TWO LENS COVERS. RETAIN SCREWS AND LENS COVERS.

(b) ASSEMBLE MARKER LAMP BASES AND MOUNTING PAD TO RIGHT AND LEFT MOUNTING BRACKETS 11660536 WITH EIGHT SCREWS MS35224-64 (16) WASHERS MS 35333-39 AND EIGHT NUTS MS35650-302, AS SHOWN ON SHEET 14

NOTE: INSTALL MARKER LAMP BASE TO BRACKET WITH MOUNTING SCREW HEADS TO THE INSIDE OF THE MARKER LAMP LENS COVER. PLACE ONE WASHER UNDER THE HEAD AND ONE UNDER THE NUT OF EACH MOUNTING SCREW.

(c) REASSEMBLE THE MARKER LAMPS USING EXISTING HARDWARE.

(d) INSTALL EACH MARKER LAMP AND MOUNTING BRACKET ASSEMBLY ON THE FENDERS USING TWO SCREWS MS90726-5 FOUR WASHERS MS35333-40 AND TWO NUTS MS51967-8, AS SHOWN ON SHEET 15

NOTE: PLACE ONE WASHER UNDER THE HEAD AND ONE UNDER THE NUT OF EACH MOUNTING SCREW FOR GROUNDING PURPOSES

(e) REINSTALL FOOTMAN LOOP ON RIGHT FRONT FENDER 3/4 INCH REARWARD OF THE ORIGINAL POSITION, AS SHOWN ON SHEET 12 M825 VEHICLE ONLY.

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(f) REINSTALL BLACKOUT LAMP USING EXISTING HARDWARE, CONNECT ELECTRICAL TERMINALS.

(g) CLEAN SURFACE ON OUTBOARD EDGE OF FENDER TO REMOVE ALL DIRT, GREASE AND OIL

(h) REMOVE PAPER BACKING FROM REFLECTOR 11663067 AND LOCATE TOP EDGE OF REFLECTOR 5/8 INCH FROM THE TOP EDGE OF THE FENDER AND 8 1/2 INCHES FORWARD OF THE SIDE PANEL WHERE THE PANEL JOINS THE FENDER, AS SHOWN ON SHEET 16

(i) ROLL OR PRESS REFLECTOR FIRMLY INTO POSITION.

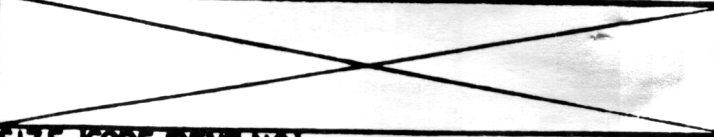
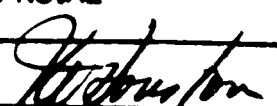
(2) VEHICLES WITH CHEMICAL DETECTOR KIT

(a) FABRICATE MARKER LIGHT PLATE 11660555 PER INSTRUCTION ON SHEET 17

(b) DISASSEMBLE MARKER LAMP MS 35423-1 BY REMOVING TWO EXISTING SCREWS AND LENS COVER. RETAIN SCREWS AND LENS COVER.

(c) ATTACH MARKER LAMP BASE, MOUNTING PAD AND FABRICATED BRACKET 11660555 TO THE OUTBOARD EDGE OF THE RIGHT FRONT FENDER USING FOUR SCREWS MS 35224-64 EIGHT WASHERS MS 35333-39 AND FOUR NUTS MS 35650-302, AS SHOWN ON SHEET 18

NOTE: INSTALL MARKER LAMP BASE TO BRACKET MOUNTING SCREW HEADS TO THE INSIDE OF THE MARKER LAMP. PLACE ONE WASHER UNDER THE HEAD AND ONE UNDER THE NUT OF PART NO.

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EACH MOUNTING SCREW.

(d) REASSEMBLE MARKER LAMP USING EXISTING SCREWS AND LENS COVER.

(e) REMOVE PAPER BACKING FROM AMBER REFLECTOR 11663067 AND LOCATE REFLECTOR ON MOUNTING BRACKET 11660555, 3/32 INCH FROM TOP EDGE AND 3/16 INCH FROM THE FRONT EDGE OF THE BRACKET, AS SHOWN ON SHEET 18

(f) PRESS OR ROLL REFLECTOR FIRMLY INTO POSITION.

D. INSTALL ELECTRICAL FRONT

(1) VEHICLES WITHOUT CHEMICAL DETECTOR KIT

NOTE: REFER TO SHEET 19 FOR FABRICATION AND MAKE UP OF CABLE ASSEMBLY 11677498-14, FROM BULK WIRE M13486/1-5, SLEEVES, TERMINALS, SHELLS AND BAND MARKERS FURNISHED IN THE KIT. SEE SHEET 20 FOR ELECTRICAL SCHEMATIC - FRONT.

(a) DISCONNECT LEAD NO. 491 FROM THE COMPOSITE LIGHT ON THE RIGHT FRONT FENDER.

(b) CONNECT 491 TERMINAL OF THE VEHICLE HARNESS TO ADAPTER MS27147-1 AS SHOWN ON SHEETS 20 AND 21

(c) CONNECT NEW CABLE ASSEMBLY 11677498-14 TO THE ADAPTER AND TO LEAD NO. 491 OF THE COMPOSITE LIGHT AS SHOWN ON SHEET 21

PART NO.

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LABEL THIS LEAD WITH BAND MARKER AS NO. 491.

(d) ASSEMBLE SHELL 8338566 TO LEAD OF MARKER LAMP AND RETAIN WITH WASHER 8338567.

(e) CONNECT A SECOND NEW CABLE ASSEMBLY 11677498-14 TO ADAPTER MS 27147-1 AND TO MARKER LAMP LEAD, AS SHOWN ON SHEET 21 . LABEL THIS LEAD WITH BAND MARKER AS NO. 489.

(f) ROUTE THE WIRE ON TOP OF FENDER AND THROUGH EXISTING NOTCH IN HOOD, AS SHOWN ON SHEET 21 .

(g) RETAIN THE MARKER LAMP LEAD TO THE FENDER USING CABLE CLAMP MS 21333-97, ONE SCREW MS35225-79 TWO WASHERS MS 35333-40 AND ONE NUT MS51967-2, AS SHOWN ON SHEET 21 .

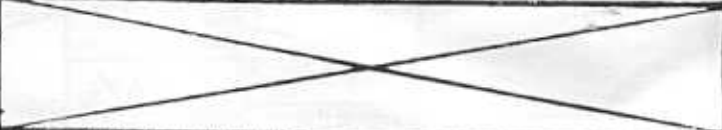
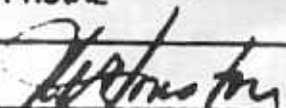
(h) REPEAT STEPS (a) THRU (f) OF ITEM D1 ABOVE, FOR LEFT FENDER. AS SHOWN ON SHEET 22.

(i) RETAIN BLACKOUT LIGHT LEAD AND MARKER LAMP LEAD TO THE LEFT FENDER USING CABLE CLAMP 7725697 AND EXISTING HARDWARE, AS SHOWN ON SHEET 22 .

(2) VEHICLE WITH CHEMICAL DETECTOR KIT

(a) ROUTE MARKER LAMP CABLE BENEATH THE RIGHT FENDER THROUGH EXISTING WIRE GUARD AND THROUGH EXISTING GROMMET IN ENGINE COMPARTMENT SIDE WALL, AS SHOWN ON SHEET 23 .

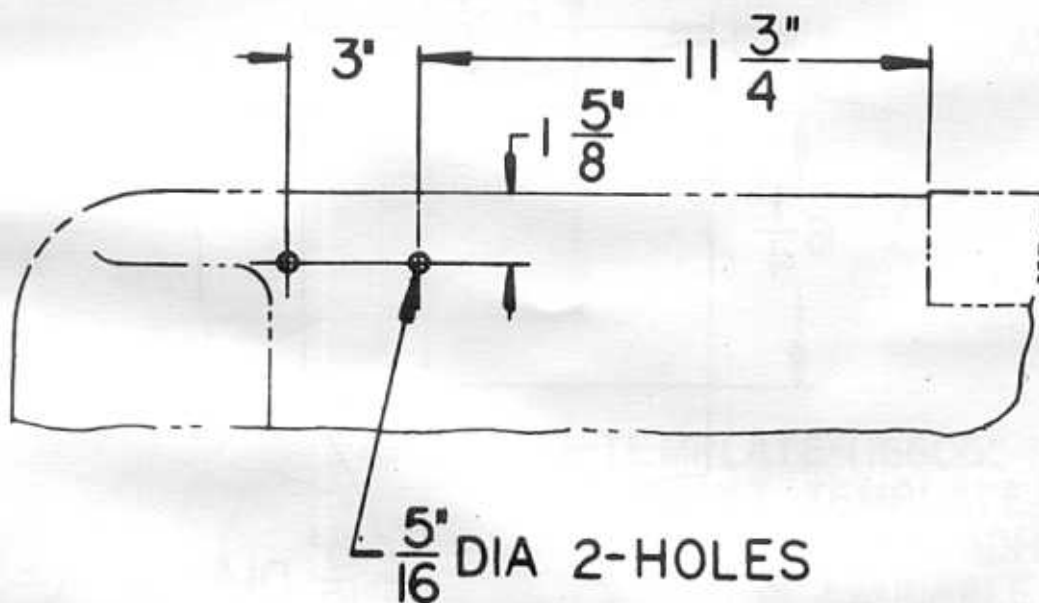
PART NO.

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CHECKER	ENGINEER		
APPROVAL			
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(b) REPEAT STEPS (a) THRU (e) OF ITEM D1 ABOVE FOR ELECTRICAL CONNECTIONS.

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APPROVAL			
SIZE		CODE IDENT. NO.	11660565
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SCALE		UNIT WT.	SHEET 9 of 33



FRONT

DRILLING INSTRUCTIONS - MARKER LIGHTS

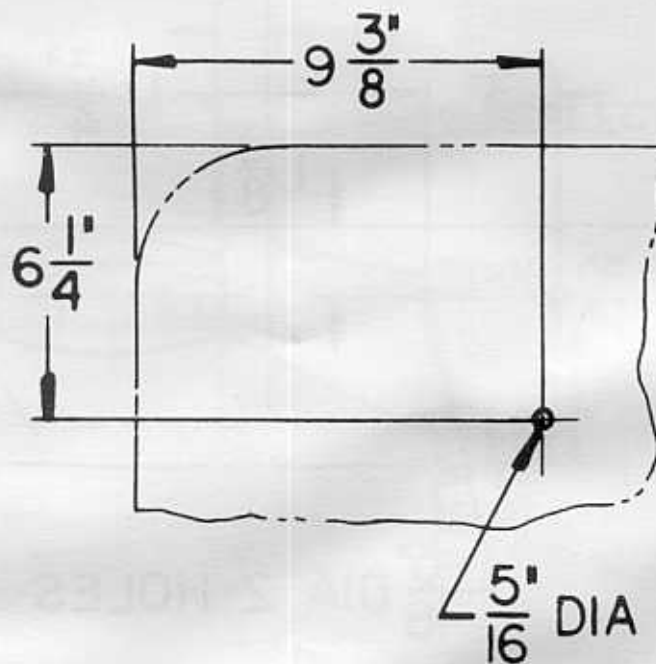
R.H. SHOWN
L.H. OPPOSITE

PART NO.

M825 & M151A2

CONTRACT NO.		U. S. ARMY TANK AUTOMOTIVE CENTER	
CONTRACTOR		WARREN, MICHIGAN 48290	
DESIGNED BY	DATE <i>n/14/60</i>	X	
CHECKED	ENGINEER		
APPROVAL			
		SIZE CODE IDENT. NO. A 19207 11660565	
		SCALE ——— UNIT WT. ——— SHEET 10 of 34	

FRONT



DRILLING INSTRUCTIONS - CABLE CLAMP

R.H. SHOWN

PART NO.

M825 & M151A2

CONTRACT NO.

CONTRACTOR

U. S. ARMY TANK AUTOMOTIVE CENTER
WARREN, MICHIGAN 48290

DRAWN BY

DATE 12/18/76

CHECKER

ENGINEER

APPROVAL

SIZE CODE IDENT. NO.

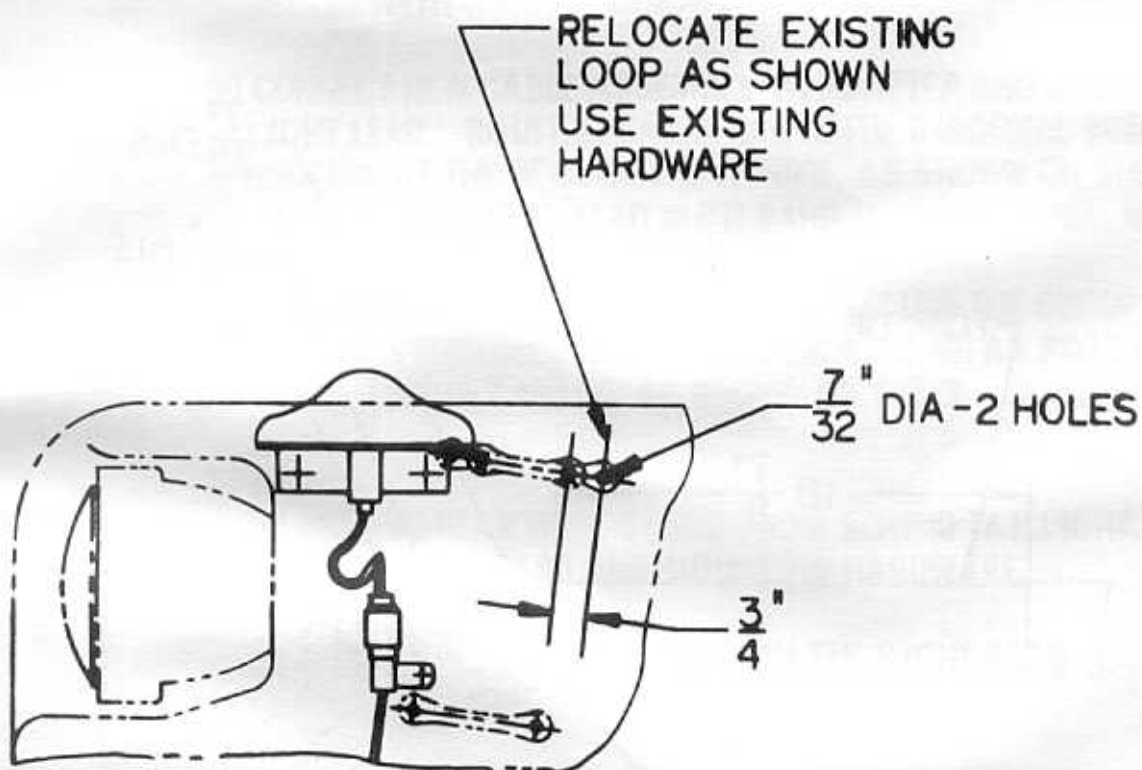
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SCALE

UNIT WT.

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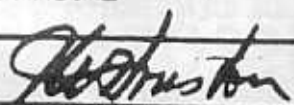
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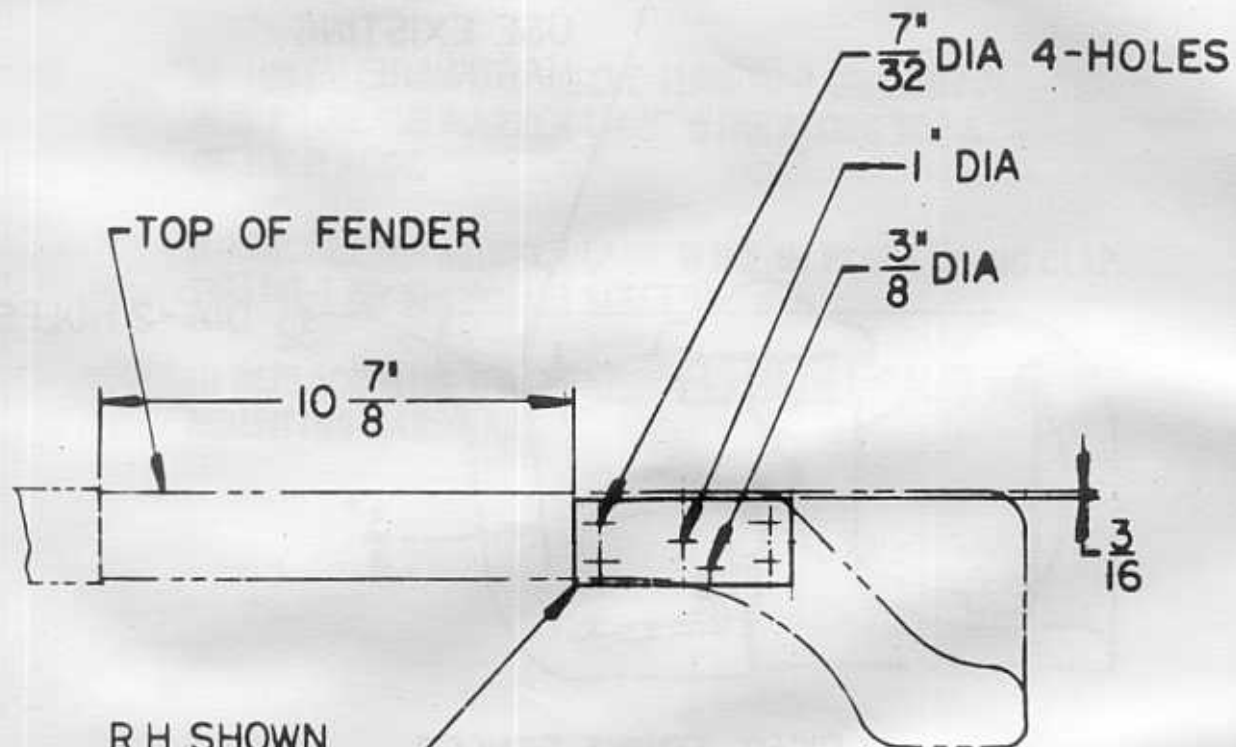
RIGHT FRONT FENDER

RELOCATION - FOOTMAN LOOP
FOR M825 ONLY

PART NO.

CONTRACT NO.		U. S. ARMY TANK AUTOMOTIVE CENTER	
CONTRACTOR		WARREN, MICHIGAN 48290	
DESIGNED BY	DATE	X	
CHECKER	ENGINEER		
APPROVAL			
		SIZE	CODE IDENT. NO.
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SCALE		UNIT WT.	SHEET
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FRONT →



R.H. SHOWN

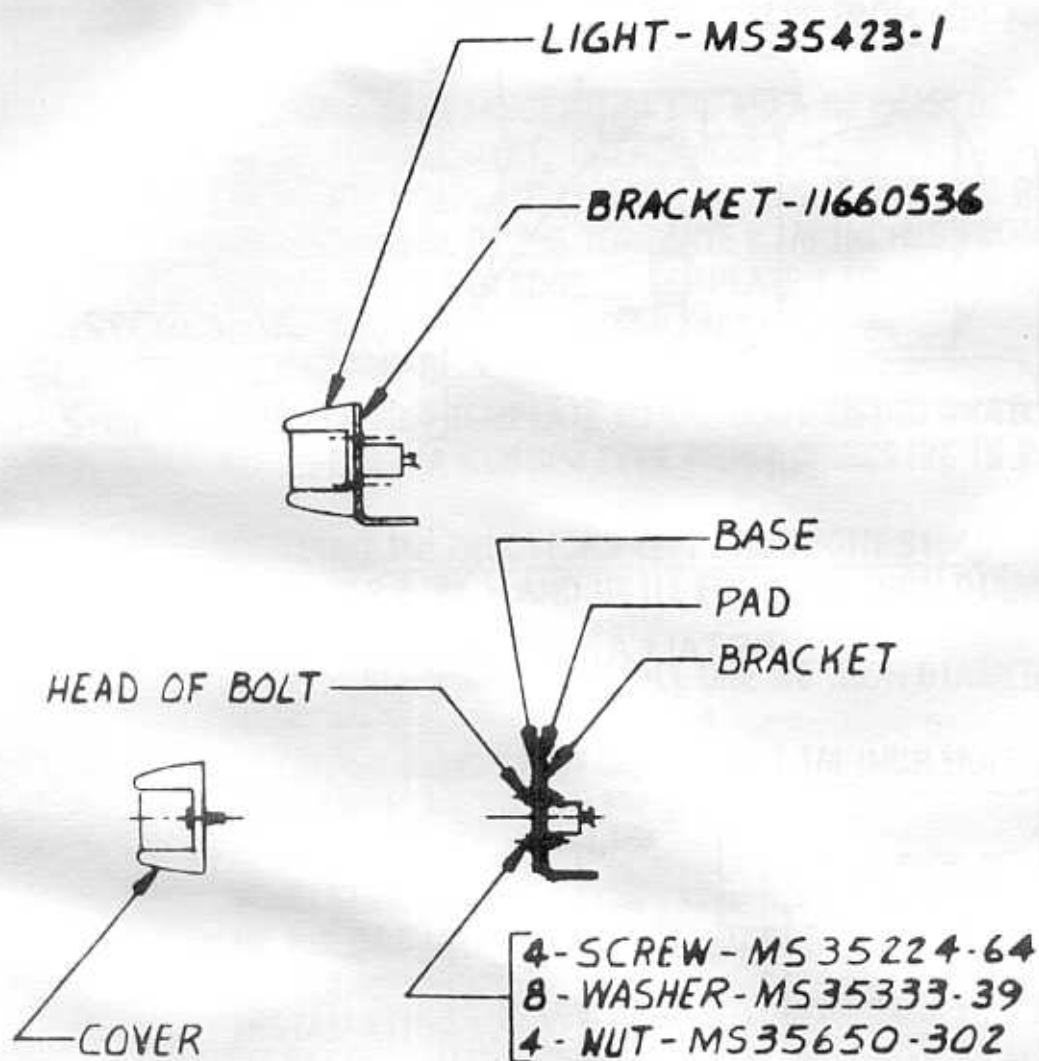
TEMPLATE-11660554
 CEMENT TEMPLATE TO BODY
 USING AN ADHESIVE WHICH IS
 AVAILABLE, (A RUBBER TYPE
 PAPER ADHESIVE IS PREFERRED)

FOR CHEMICAL DETECTOR
 KIT ONLY

DRILLING INSTRUCTIONS -
 MARKER LIGHT

PART NO.

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APPROVAL			
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		A	19207
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SCALE		UNIT WT.	SHEET 13 of 3



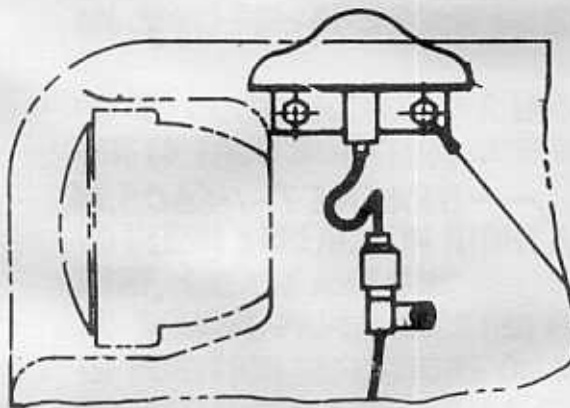
MARKER LAMP & BRACKET ASSY

PART NO.

M825 & M151A2

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APPROVAL			
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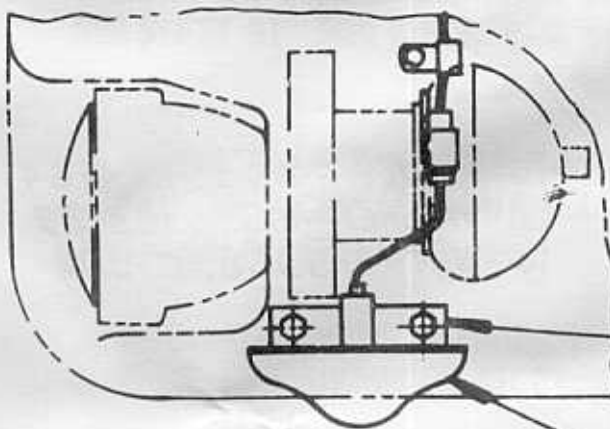
FRONT



4-SCREW-MS90726-5
8-WASHER-MS35333-40
4-NUT-MS51968-2

R.H.

INSTALLATION - MARKER LAMP



2-BRACKET-11660536

2-LIGHT-MS35423-1
(AMBER)

L.H.

PART NO.

M825 & M151A2

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CONTRACTOR

U. S. ARMY TANK AUTOMOTIVE CENTER
WARREN, MICHIGAN 48290

DRAWN BY

DATE 12/18/70

CHECKER

ENGINEER

APPROVAL

[Signature]

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11660565

SCALE

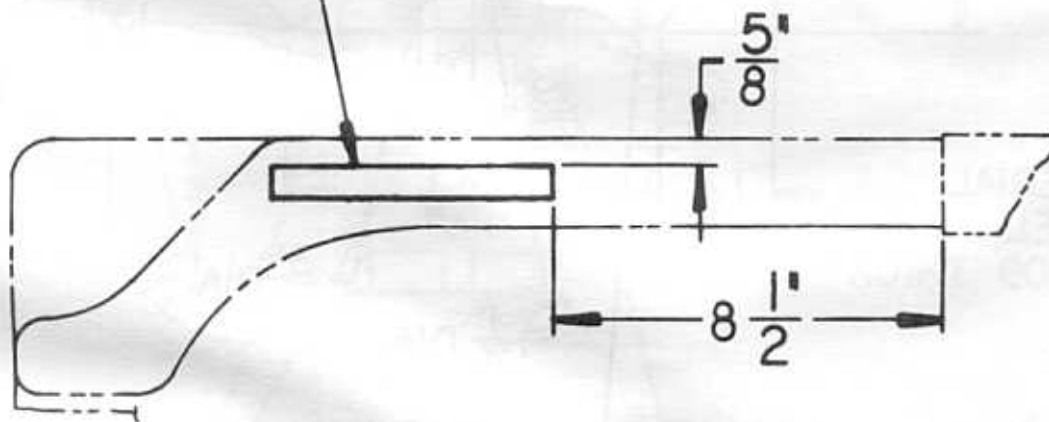
UNIT WT.

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FRONT

2-REFLECTOR-11663067



L.H. SHOWN

R.H. OPPOSITE

INSTALLATION - REFLECTOR

PART NO.

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DATE 12/18/70

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ENGINEER

APPROVAL

[Signature]

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WARREN, MICHIGAN 48290

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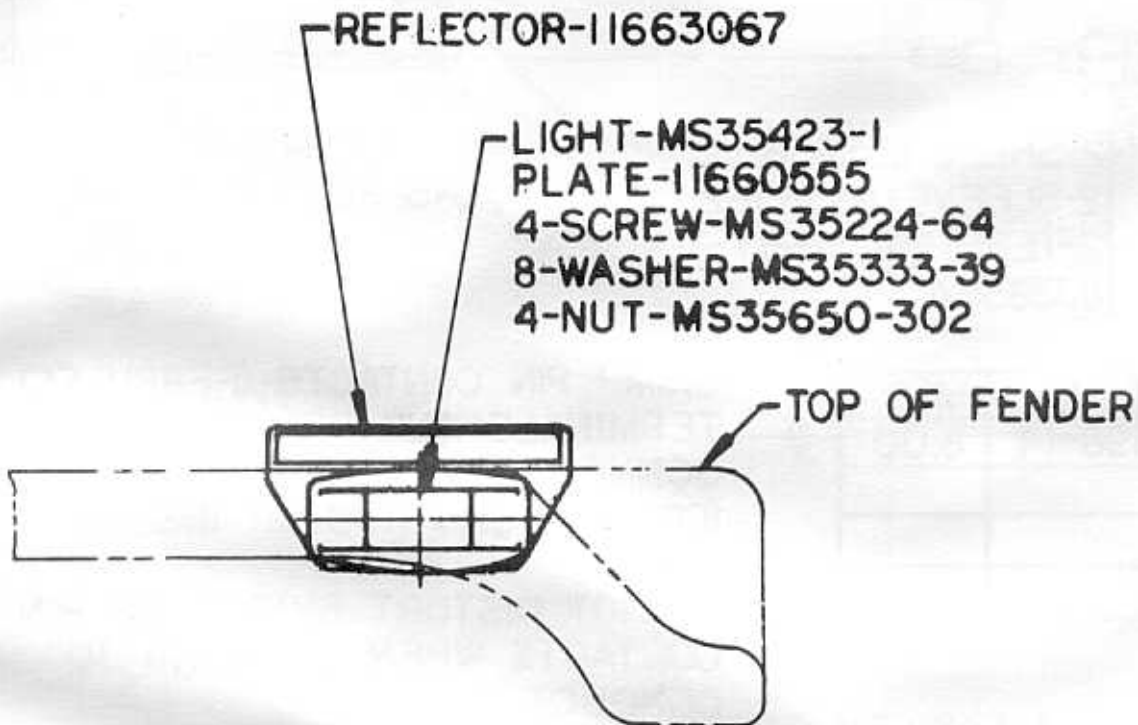
SCALE

UNIT WT.

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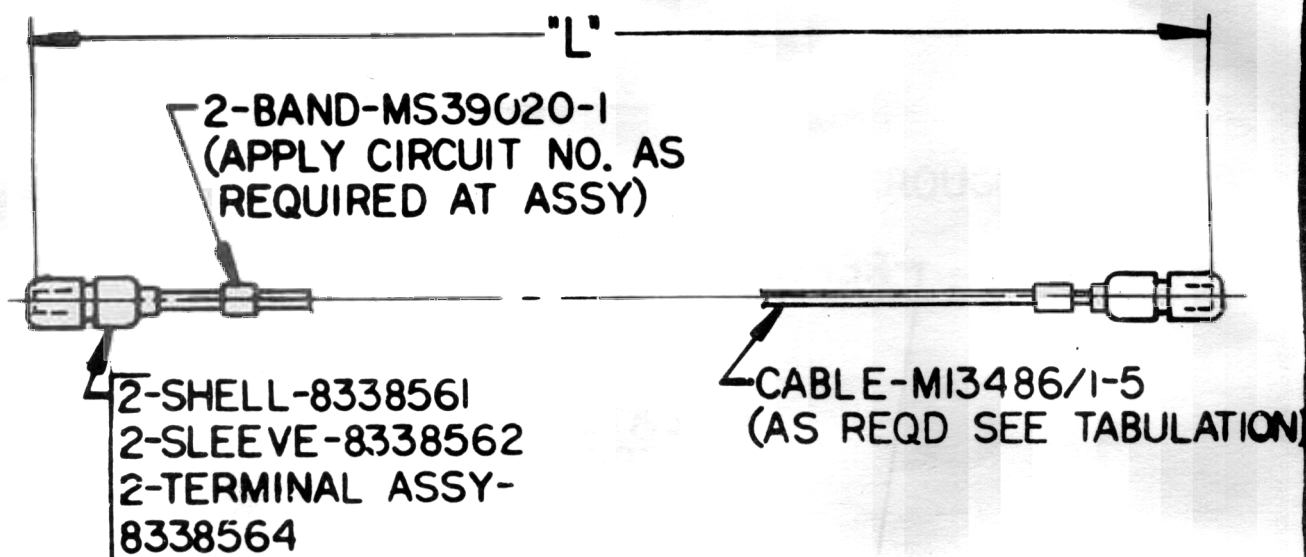
FRONT



FOR CHEMICAL DETECTOR KIT ONLY

R.H. SHOWN
INSTALLATION-MARKER LIGHT & REFLECTOR
PART NO.

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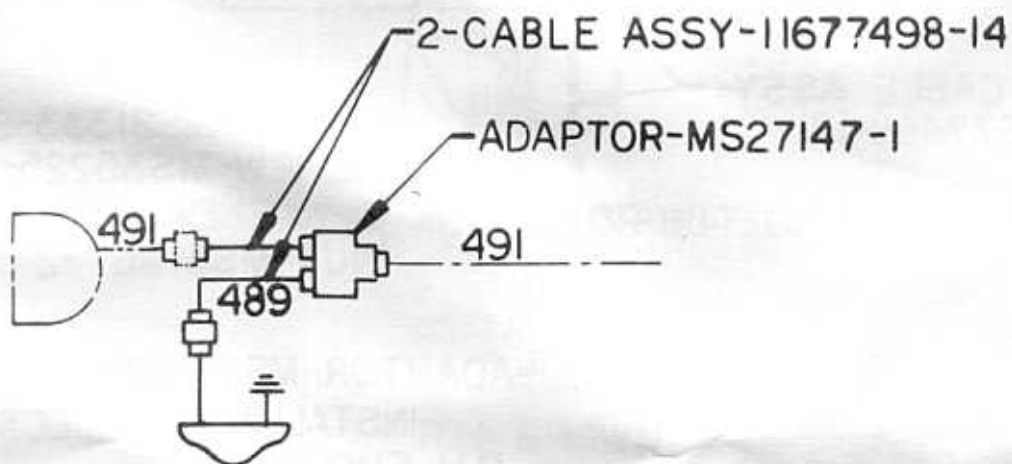
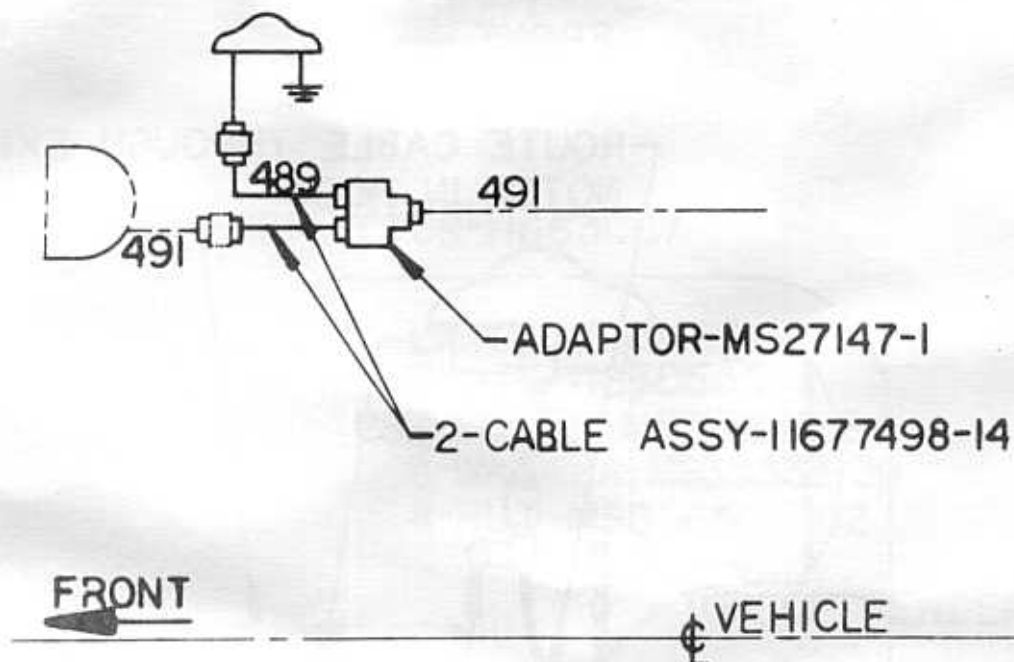
PART NO.	"L"
116.7498-14	6.00

CRIMP PIN CONTACTS (FERRULES)
 TERMINALS AND SPLICING
 CONNECTORS TO CABLES
 (CONDUCTORS AND/OR INSULATION)
 NOTE:
 DO NOT DISTORT SKIRTS OF PIN
 CONTACTS WHEN CRIMPING TO
 CONDUCTORS.

REFER TO THE WIRING INSTRUCTIONS
 INCLUDED IN THIS DOCUMENT FOR THE
 FRONT AND REAR OF THIS VEHICLE
 PRIOR TO CABLE FABRICATION

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SCHEMATIC - ELECTRICAL

PART NO.

M825 & M151A2

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CONTRACTOR

U. S. ARMY TANK AUTOMOTIVE CENTER
WARREN, MICHIGAN 48290

DRAWN BY
CHECKER

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ENGINEER

APPROVAL

[Signature]

SIZE CODE IDENT. NO.

A 19207

11660565

SCALE

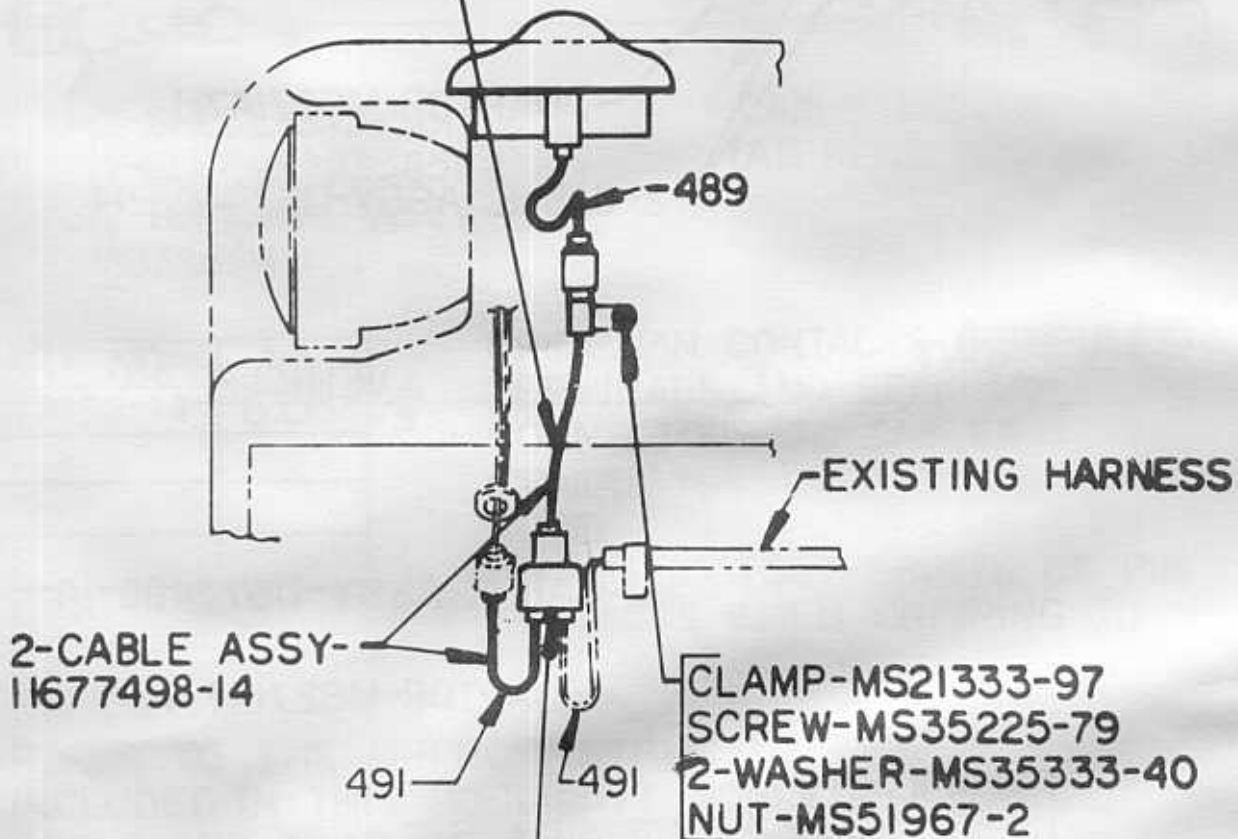
UNIT WT.

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FRONT

ROUTE CABLE THROUGH EXISTING NOTCH IN HOOD



ADAPTOR-MS27147-1

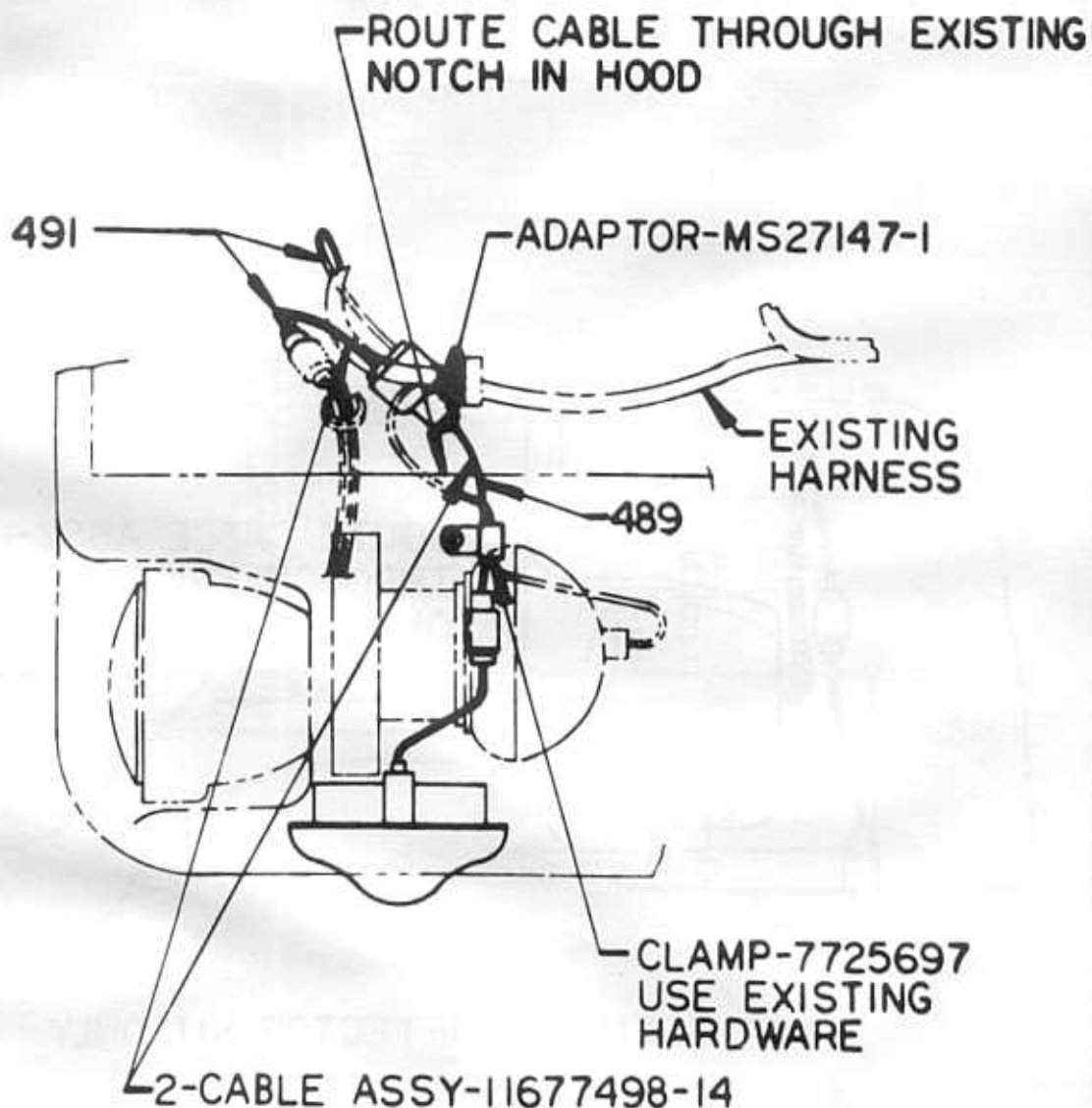
INSTALLATION-ELECTRICAL

R.H. SHOWN

PART NO.

M825 & M151A2

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A 19207			
SCALE	UNIT WT.	SHEET 21 of 33	

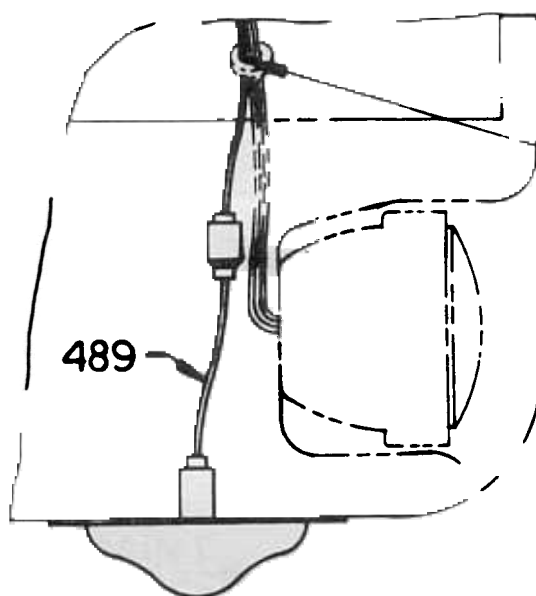


FRONT

L.H. SHOWN
INSTALLATION - ELECTRICAL
PART NO. M825 & M151A2

CONTRACT NO.		U. S. ARMY TANK AUTOMOTIVE CENTER	
CONTRACTOR		WARREN, MICHIGAN 48290	
DRAWN BY	DATE 12/18/70	X	
CHECKER	ENGINEER		
APPROVAL			
		SIZE CODE IDENT. NO.	11660565
SCALE		UNIT WT.	SHEET 22 OF 33

FRONT



ROUTE CABLE ASSY-11677498-14
THROUGH EXISTING GROMMET
ON UNDERSIDE OF FENDER

FOR CHEMICAL DETECTOR KIT ONLY

INSTALLATION - ELECTRICAL
PART NO.

CONTRACT NO.		U. S. ARMY TANK AUTOMOTIVE CENTER	
CONTRACTOR		WARREN, MICHIGAN 48290	
DRAWN BY	DATE 12/18/70		
CHECKER	ENGINEER		
APPROVAL		SIZE	CODE IDENT. NO.
		A	19207
		SCALE	UNIT WT. — SHEET 23 of 33

11660565

E.

VEHICLE PREPARATION - REAR

- (1) REMOVE EXISTING REFLECTOR TAPE FROM LEFT AND RIGHT REAR FENDERS.
- (2) CLEAN REAR FENDERS IN THE AREA OF EXISTING REFLECTORS TO REMOVE ALL DIRT, GREASE AND OIL.
- (3) LOCATE TEMPLATE 11660554 ON RIGHT AND LEFT REAR FENDERS WITH TOP EDGE OF THE TEMPLATE 8 1/8 INCHES FROM TOP OF THE FENDER AND REAR EDGE OF TEMPLATE 1 1/8 INCH FORWARD OF THE REAR PANEL, AS SHOWN ON SHEET 28.

NOTE: CEMENT TEMPLATE TO THE BODY USING AVAILABLE ADHESIVE. (A RUBBER TYPE PAPER ADHESIVE IS PREFERRED.)

F.

DRILLING INSTRUCTIONS LEFT AND RIGHT SIDES

- (1) CENTER PUNCH AND DRILL FOUR 7/32 INCH DIAMETER HOLES, AS SHOWN ON SHEET 28 .
- (2) CENTER PUNCH AND DRILL ONE 3/8 INCH DIAMETER LOCATING HOLE, AS SHOWN ON SHEET 28 .
- (3) CENTER PUNCH AND DRILL ONE 1 1/4 INCH HOLE (USING A HOLE SAW), AS SHOWN ON SHEET 28 .

NOTE: ~~REMOVE~~ PAPER TEMPLATE. USING O. D. PAINT, TOUCH UP ALL DRILLED HOLES WHERE BARE METAL HAS BEEN EXPOSED.

G.

INSTALLATION MARKER LAMPS REAR

- (1) DISASSEMBLE MARKER LAMPS (RED MS35423-2) BY REMOVING EXISTING SCREWS AND LENS COVERS. RETAIN SCREWS AND LENS COVERS.
- (2) INSTALL MARKER LAMP BASES AND MOUNTING PADS ON RIGHT AND LEFT REAR FENDER AND RETAIN USING EIGHT

PART NO.

CONTRACT NO.		U. S. ARMY TANK AUTOMOTIVE CENTER	
CONTRACTOR		WARREN, MICHIGAN 48290	
DRAWN BY	DATE 12/18/79	X	
CHECKER	ENGINEER		
APPROVAL			
		SIZE	CODE IDENT. NO.
		A	19207 11660565
SCALE		UNIT WT.	SHEET 24 of 33

SCREWS MS35224-64, (16) WASHERS MS 35333-39 AND EIGHT NUTS MS 35650-302, AS SHOWN ON SHEET 29 .

NOTE: PLACE ONE WASHER UNDER THE HEAD AND ONE UNDER THE NUT OF EACH MOUNTING SCREW FOR GROUNDING PURPOSES.

(3) CLEAN SURFACE ON RIGHT AND LEFT REAR FENDERS TO REMOVE DIRT, GREASE AND OIL.

(4) REMOVE PAPER BACKING FROM REFLECTORS 11614174-4.

(5) POSITION REFLECTORS ON REAR FENDERS WITH TOP EDGE OF THE REFLECTOR 4 7/8 INCHES FROM TOP EDGE OF THE FENDER AND REAR EDGE OF REFLECTOR 1 1/4 INCHES FORWARD OF THE REAR PANEL. PRESS OR ROLL REFLECTOR FIRMLY INTO POSITION, AS SHOWN ON SHEET 29 .

H.

INSTALLATION, ELECTRICAL REAR

NOTE: REFER TO SHEET 30 FOR FABRICATION AND MAKE UP OF CABLE ASSEMBLY 11677498-14 FROM BULK WIRE M13486/1-5, SLEEVES, TERMINALS, SHELLS AND BAND MARKERS FURNISHED IN THE KIT. SEE SHEET 31 FOR ELECTRICAL SCHEMATIC.

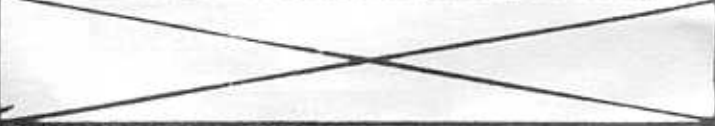
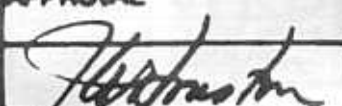
(1) LEFT

(a) DISCONNECT VEHICLE HARNESS LEAD NO. 21 FROM THE TRAILER RECEPTACLE ON THE LEFT SIDE OF VEHICLE, AS SHOWN ON SHEET 32 .

(b) CONNECT VEHICLE HARNESS LEAD NO. 21 TO ADAPTER MS 27147-1 AS SHOWN ON SHEET 32 .

(c) CONNECT NEW CABLE ASSEMBLY 11677498-14 TO THE ADAPTER AND TO THE TRAILER RECEPTACLE, AS SHOWN ON SHEET 32 .

PART NO.

CONTRACT NO.		U. S. ARMY TANK AUTOMOTIVE CENTER	
CONTRACTOR		WARREN, MICHIGAN 48290	
DRAWN BY	DATE 12/18/70		
CHECKER	ENGINEER		
APPROVAL			
		SIZE CODE IDENT. NO.	11660565
		A 19207	
SCALE		UNIT WT.	SHEET 25 of 33

LABEL THIS LEAD WITH BANK MARKER AS NO. 21.

(d) ASSEMBLE SHELL 8338566 TO CLEARANCE LIGHT LEAD AND RETAIN WITH WASHER 8338567.

(e) CONNECT NEW CABLE ASSEMBLY TO ADAPTER AND MARKER LIGHT LEAD. ROUTING CABLE ABOVE THE DIAGONAL BODY SECTION AT THE REAR OF THE FENDER, AS SHOWN ON SHEET 32 . LABEL THIS LEAD WITH BAND MARKER AS NO. 489.

(f) USE ONE CABLE STRAP MS17821-1-0, SECURE THE GROUP OF WIRES TOGETHER AND HOLD THEM AS HIGH AS POSSIBLE IN THE FENDER CAVITY, AS SHOWN ON SHEET 32 .

(2) RIGHT

(a) REMOVE REAR WIRE GUARD FROM BEHIND TAILLIGHT. RETAIN WIRE GUARD AND MOUNTING HARDWARE

(b) DISCONNECT LEAD NO. 21 FROM THE RIGHT REAR COMPOSITE LIGHT.

(c) CONNECT VEHICLE HARNESS LEAD NO. 21 TO ADAPTER MS 27141-1 AS SHOWN ON SHEET 33 .

(d) CONNECT CABLE ASSEMBLY 11677498-14 TO THE ADAPTER AND LEAD NO. 21 OF THE COMPOSITE LIGHT, AS SHOWN ON SHEET NO. 33 . LABEL THIS LEAD WITH BAND MARKER AS NO. 21.

(e) ASSEMBLE SHELL 8338566 TO MARKER LAMP LEAD AND RETAIN WITH WASHER 8338567.

PART NO.

CONTRACT NO.		U. S. ARMY TANK AUTOMOTIVE CENTER	
CONTRACTOR		WARREN, MICHIGAN 48290	
DRAWN BY	DATE 12/18/70		
CHECKER	ENGINEER		
APPROVAL		SIZE	CODE IDENT. NO.
		A	19207 11660565
SCALE		UNIT WT.	SHEET 26 of 33

(f) CONNECT A SECOND NEW CABLE ASSEMBLY 11677498-14 TO THE ADAPTER AND TO THE MARKER LAMP LEAD. AS SHOWN ON SHEET 33. LABEL THIS LEAD WITH BAND MARKER AS NO. 489.

(g) INSTALL CHAFING SLEEVE 11599001-1 ON BODY FLANGE AND ROUTE THE MARKER LIGHT WIRE ALONG TOP SURFACE OF THE FLANGE.

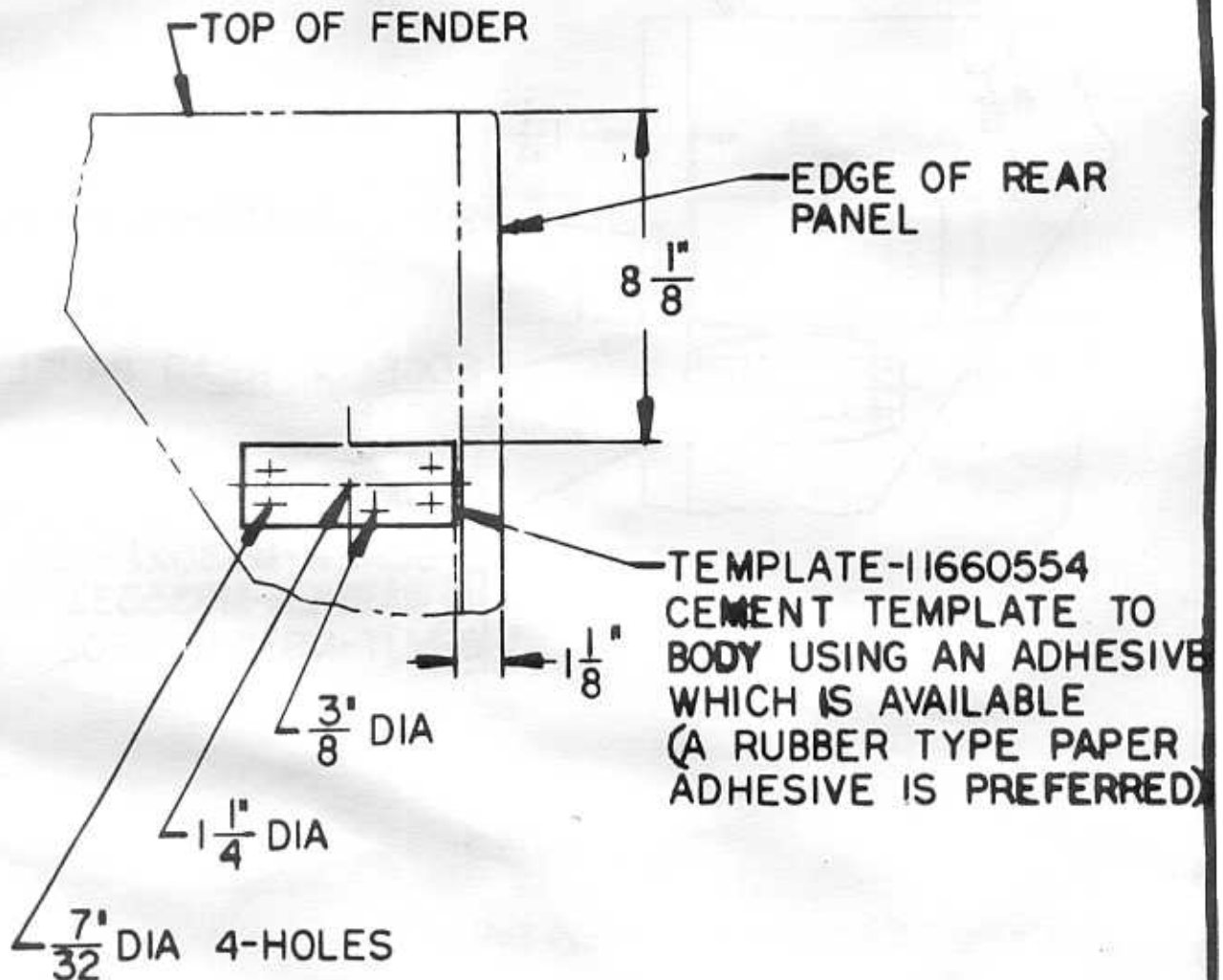
(h) SECURE THE MARKER LAMP WIRE IN PLACE USING CLIP 7331197-1 AS SHOWN ON SHEET 33.

(i) REPLACE WIRE GUARD USING EXISTING GUARD AND MOUNTING HARDWARE.

PART NO.

CONTRACT NO.		U. S. ARMY TANK AUTOMOTIVE CENTER		
CONTRACTOR		WARREN, MICHIGAN 48290		
DRAWN BY	DATE 12/18/70			
CHECKER	ENGINEER			
APPROVAL				
		SIZE A	CODE 19207	IDENT. NO. 11660565
		SCALE	UNIT WT.	SHEET 27 of 33

FRONT



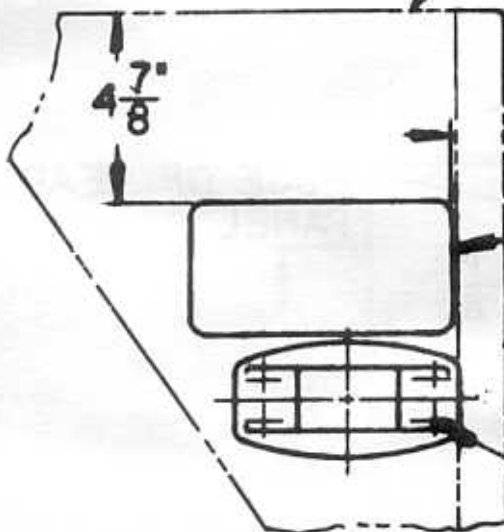
L.H. SHOWN
R.H. OPPOSITE

PART NO. TEMPLATE LOCATION
M825 & M151A2

CONTRACT NO.		U. S. ARMY TANK AUTOMOTIVE CENTER	
CONTRACTOR		WARREN, MICHIGAN 48290	
DRAWN BY	DATE 12/18/70		
CHECKER	ENGINEER		
APPROVAL			
SIZE CODE IDENT. NO.		11660565	
A 19207			
SCALE		UNIT WT.	SHEET 28 of 33

FRONT

TOP OF FENDER



1 1/4"

2-REFLECTOR-11614174-4

EDGE OF REAR PANEL

2-LIGHT-MS35423-2 (RED)
8-SCREW-MS35224-64
16-WASHER-MS35333-39
8-NUT-MS35650-302

INSTALLATION-MARKER LIGHT & REFLECTOR

PART NO.

M825 & M151A2

CONTRACT NO.

CONTRACTOR

U. S. ARMY TANK AUTOMOTIVE CENTER
WARREN, MICHIGAN 48290

DRAWN BY

DATE 12/18/70

CHECKER

ENGINEER

APPROVAL

[Signature]

SIZE CODE IDENT. NO.

A 19207

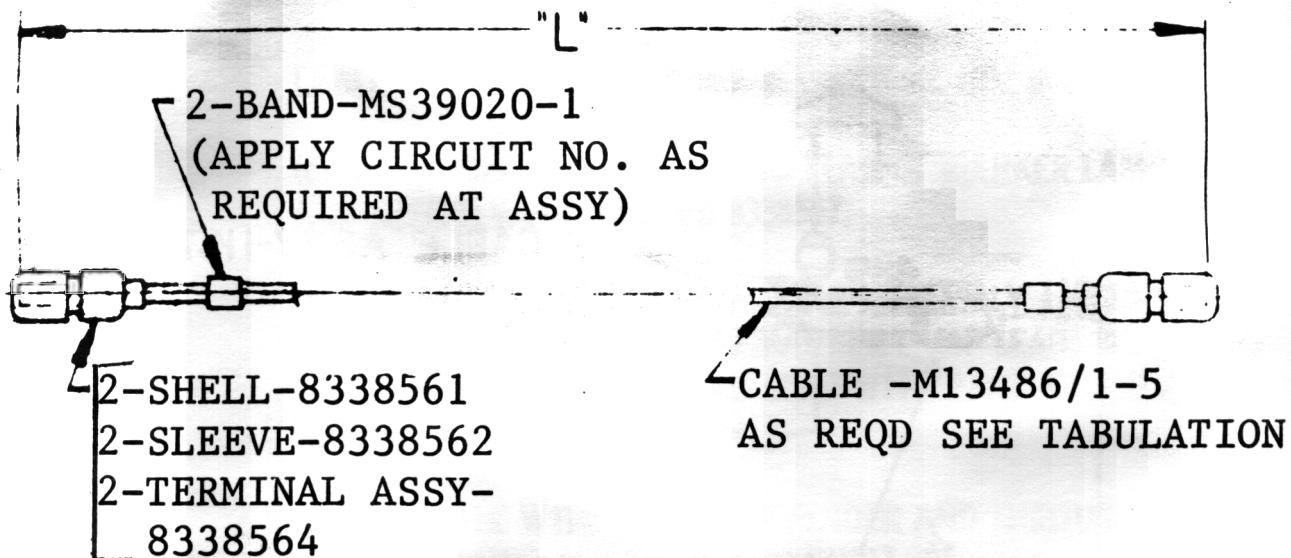
11660565

SCALE

UNIT WT

SHEET

29 of 33



PART NO.	"L"
1677498-14	6.00

CRIMP PIN CONTACTS (FERRULES)
TERMINALS AND SPLICING
CONNECTORS TO CABLES
(CONDUCTORS AND/OR INSULATION)

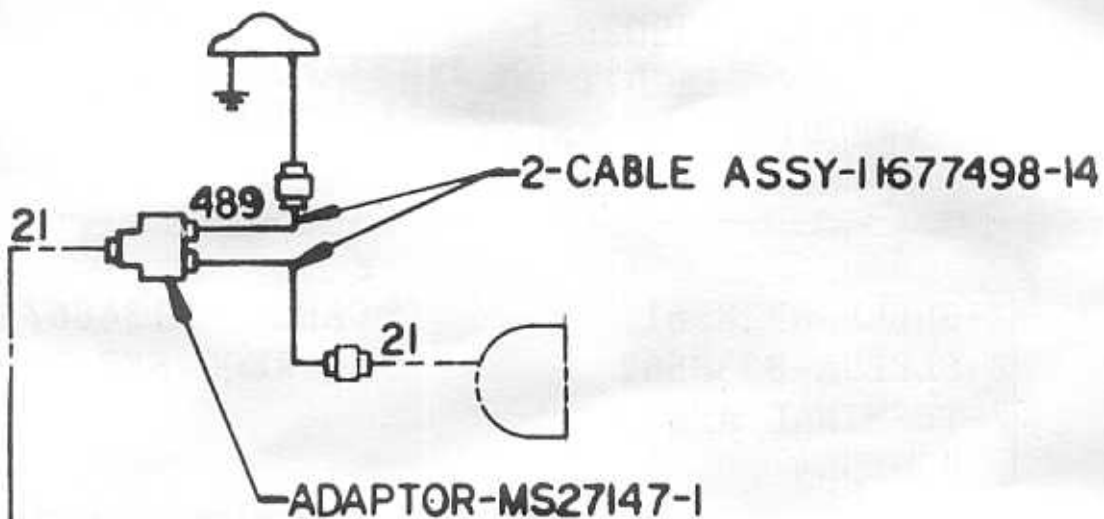
NOTE:

DO NOT DISTORT SKIRTS OF PIN
CONTACTS WHEN CRIMPING TO
CONDUCTORS.

REFER TO THE WIRING INSTRUCTIONS
INCLUDED IN THIS DOCUMENT FOR THE
FRONT AND REAR OF THIS VEHICLE
PRIOR TO CABLE FABRICATION

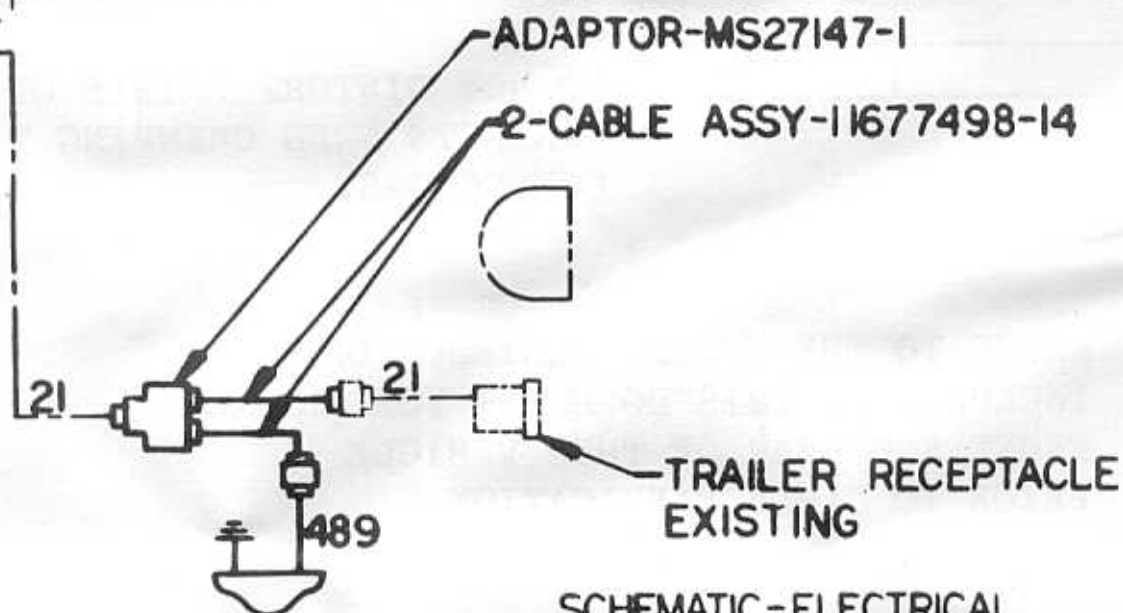
PART NO

CONTRACT NO.		U S ARMY TANK AUTOMOTIVE CENTER	
CONTRACTOR		WARREN, MICHIGAN 48290	
DRAWN BY	DATE		
CHECKER	DATE		
APPROVAL			
		SIZE CODE IDENT NO	
		A 19207	11660565
		SCALE	UNIT WT
		30 of 33	



FRONT

VEHICLE



SCHEMATIC - ELECTRICAL

PART NO.

M825 & M151A2

CONTRACT NO.

CONTRACTOR

U. S. ARMY TANK AUTOMOTIVE CENTER
WARREN, MICHIGAN 48290

DESIGN BY

DATE 12/1/70

CHECKED

ENGINEER

APPROVAL

[Signature]

SIZE CODE IDENT. NO.

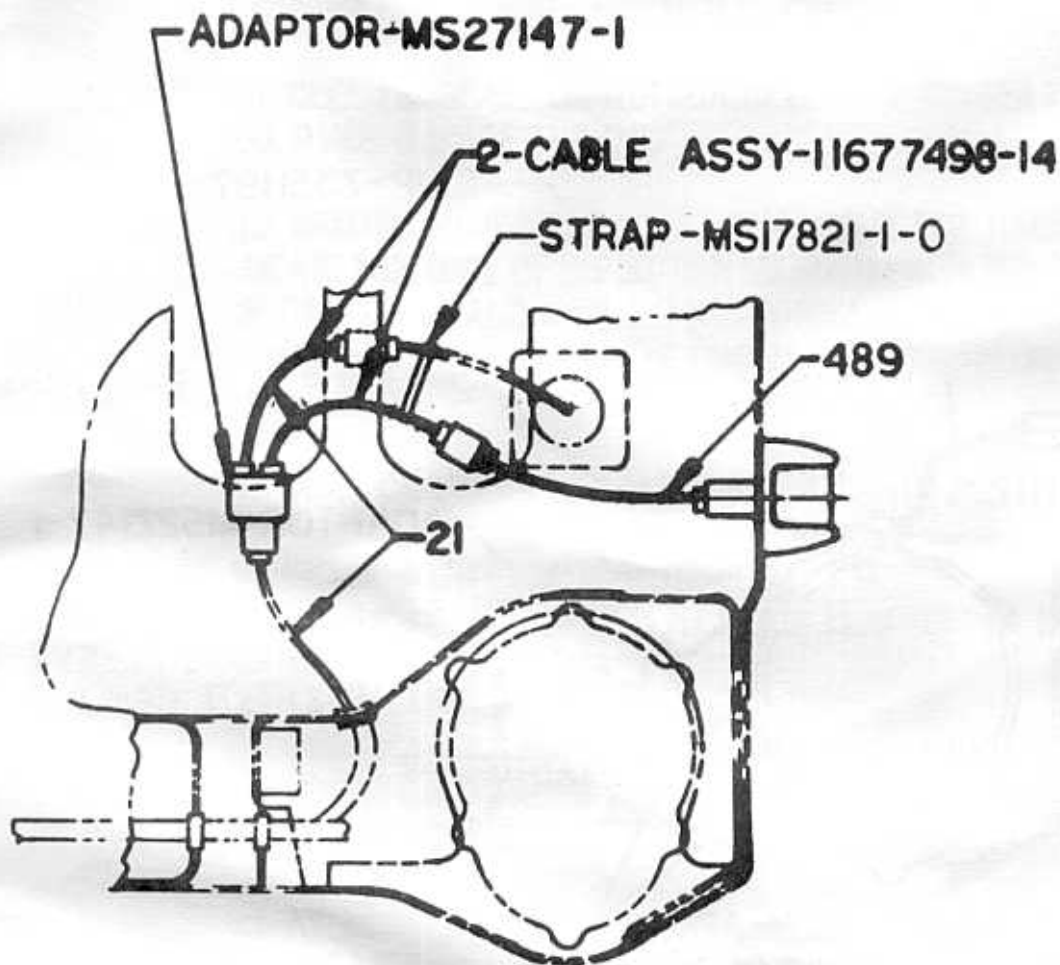
A 19207

11660565

SCALE

UNIT WT.

SHEET 31 of 33



LEFT REAR

INSTALLATION-ELECTRICAL

PART NO.

M825 & M151A2

CONTRACT NO.

CONTRACTOR

U. S. ARMY TANK AUTOMOTIVE CENTER
WARREN, MICHIGAN 48290

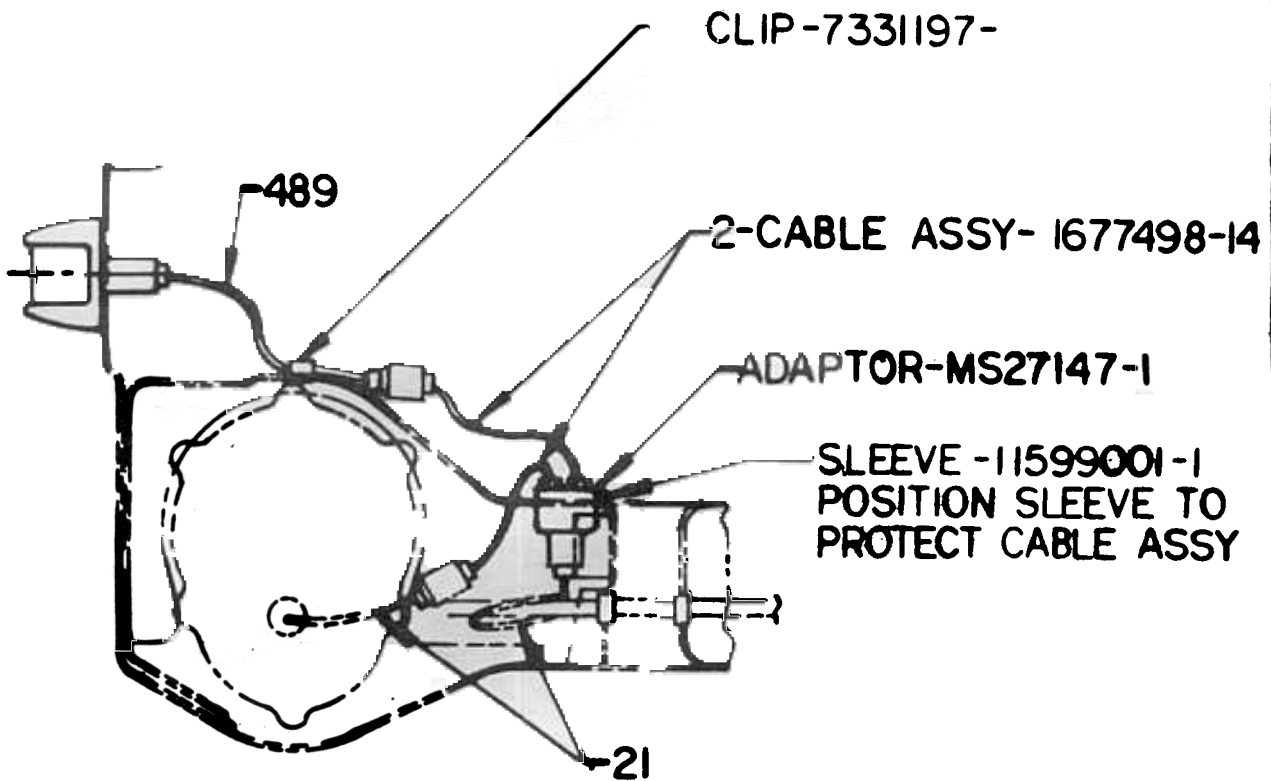
DESIGNED BY DATE *1/1/78*
DRAWN BY *ENGINEER*
APPROVAL *[Signature]*

SIZE CODE IDENT. NO.

A 19207

11660565

SOLEY — DIM. WT. — SHEET 32 of 33



RIGHT REAR

INSTALLATION - ELECTRICAL

PART NO.

M825 & M151A2

CONTRACT NO.
CONTRACTOR

U. S. ARMY TANK AUTOMOTIVE CENTER
WARREN, MICHIGAN 48290

DRAWN BY

DATE 12/18/60

CHECKER

ENGINEER

APPROVAL

[Signature]

SIZE CODE IDENT. NO.

A 19207 11660565

SCALE

UNIT WT.

SHEET

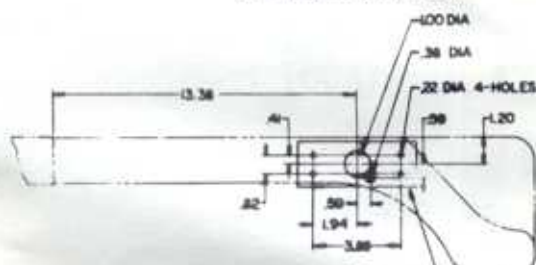
33 of 33



ROUTE CABLE THROUGH EXISTING GROMMET ON UNDERSIDE OF FENDER OTHERWISE SAME AS M51A2 & M52



VIEW C-C
LOOKING INTO R.H. SIDE
OF VEHICLE
CHEMICAL DETECTOR KIT ONLY



VIEW C-C
SHOWING LOCATION OF
MOUNTING HOLES FOR LIGHT
CHEMICAL DETECTOR KIT ONLY

NOTE
CABLE ASSY TO CONSIST OF
WIRE M13486/1-5 (AS REQD)
2-SLEEVE-8338562
2-TERMINAL ASSY-8338564
2-BAND-M539020-1
THESE ARE TO BE ASSEMBLED AT
TIME OF INSTALLATION IN ACCORDANCE
WITH DRAWING C-11677498 & C-87722729

NOTE
ALL DIMENSIONS ARE REFERENCE
SEE INSTALLATION INSTRUCTIONS
11660565

ADHESIVE NOTE
CEMENT TEMPLATE TO BODY
USING AN ADHESIVE
WHICH IS AVAILABLE A RUBBER
TYPE PAPER ADHESIVE IS PREFERRED

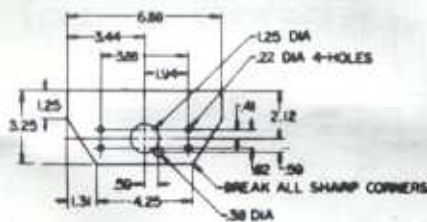
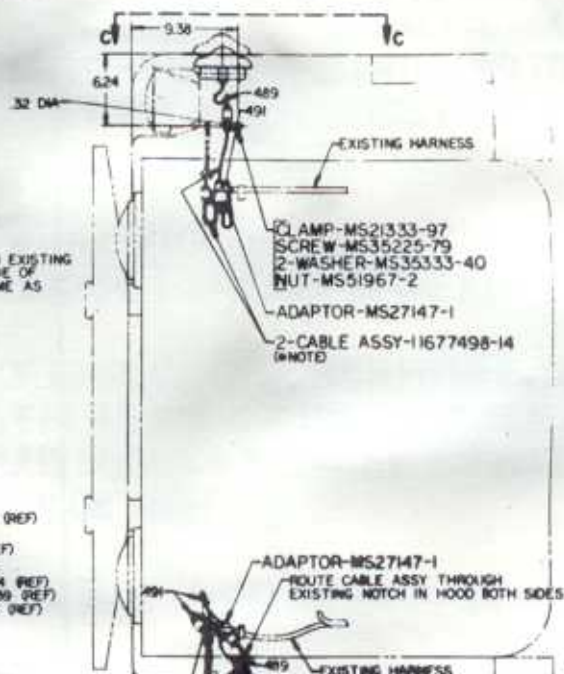


PLATE-11660555 (REF)
SCALE 1/2

MATERIAL STEEL
COMPOSITION OPTIONAL
.08-.09 THICK
FINISH O.D.

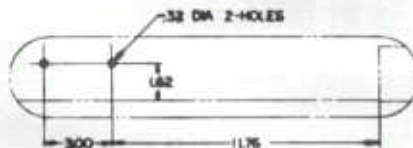
NOTE
PUNDRICATE IN THE FIELD
SEE INSTALLATION INSTRUCTIONS
11660565



CLAMP-MS21333-97
SCREW-MS35225-79
2-WASHER-MS35333-40
NUT-MS51967-2
ADAPTOR-MS27147-1
2-CABLE ASSY-11677498-14
(NOTE)

ADAPTOR-MS27147-1
ROUTE CABLE ASSY THROUGH
EXISTING NOTCH IN HOOD BOTH SIDES

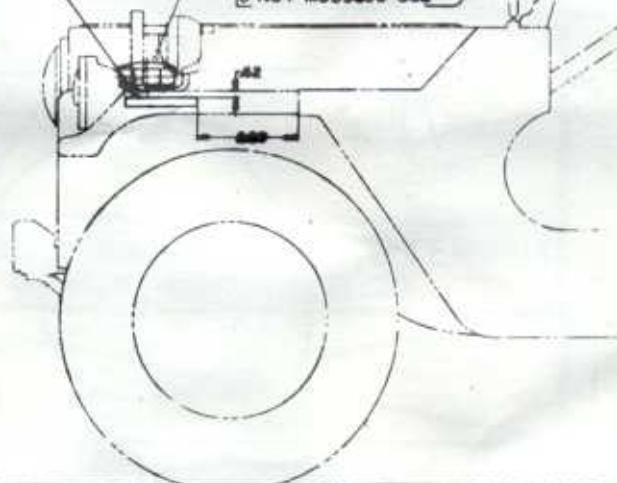
CLAMP-7725697
USE EXISTING HARDWARE
SHOWN ON 7752586
2-CABLE ASSY-11677498-14 (NOTE)

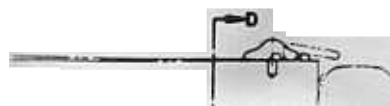


VIEW B
SCALE 1/2
2 PLACES

2-LIGHT-MS35423-1
2-SHELL-8338566
2-WASHER-8338567
2-BRACKET-11660536
4-SCREW-MS90726-5
8-WASHER-MS35333-40
4-NUT-MS51968-2
8-SCREW-MS35224-64
16-WASHER-MS35333-39
8-NUT-MS35450-302

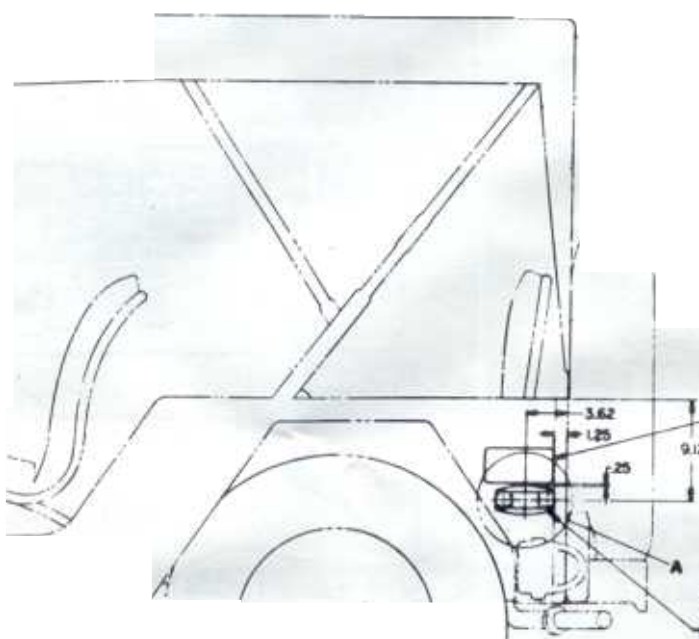
2-REFLECTOR-11663067





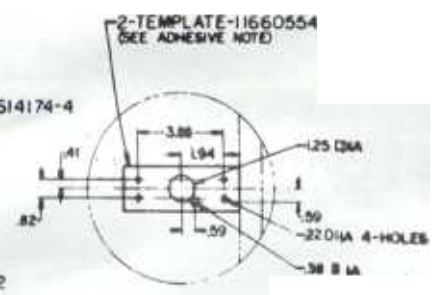
PLAN VIEW - RIGHT FRONT
M825 VEHICLE ONLY

A2 & M825
W/ C-C FOR CHEMICAL
DN KIT

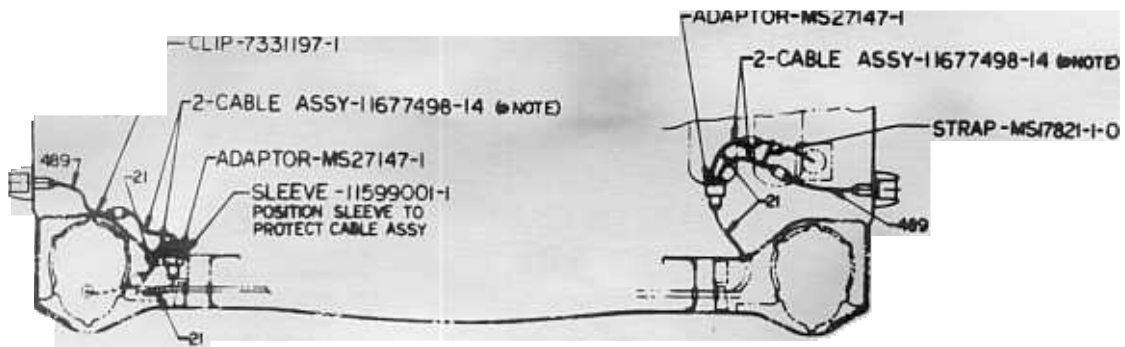


2-REFLECTOR-11614174-4

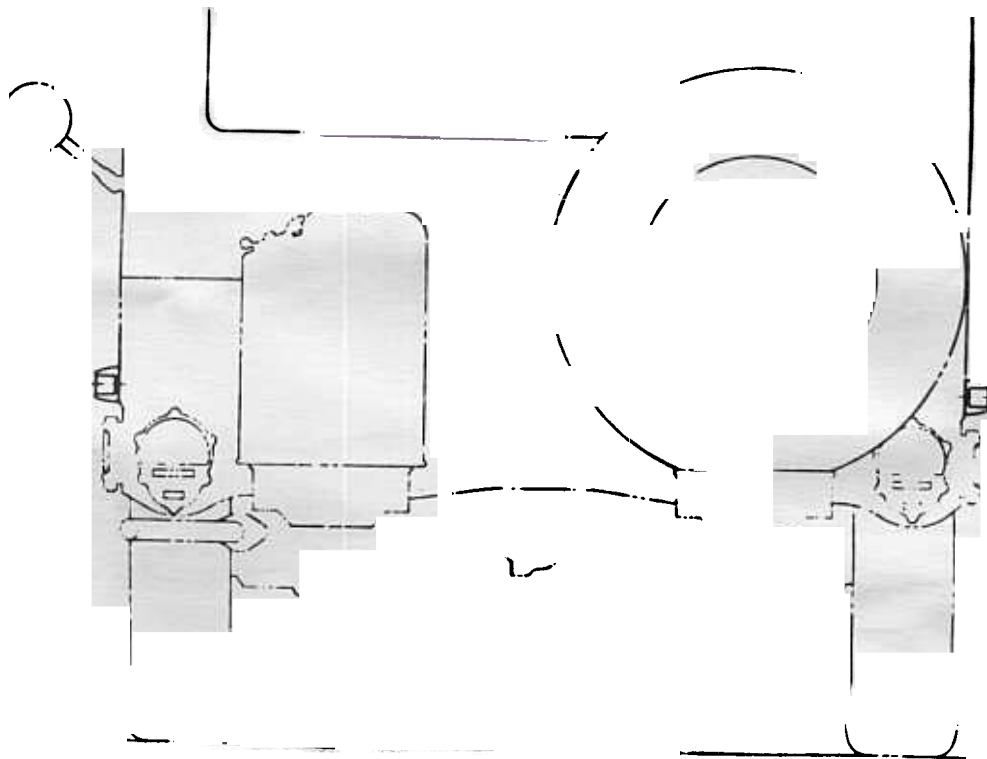
- 2-LIGHT-MS35423-2
- 2-SHELL-8338566
- 2-WASHER-8338567
- 8-SCREW-MS35224-64
- 16-WASHER-MS35333-39
- 8-NUT-MS35650-302

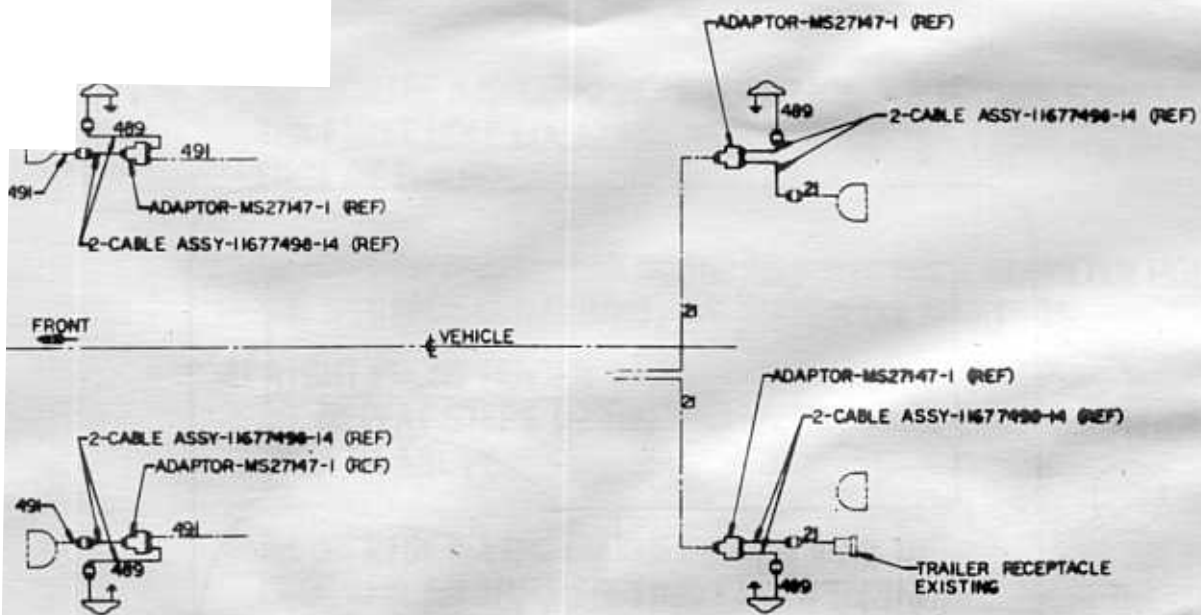


VIEW IN CIRCLE A
SCALE: 1/2
2 PLACES



SECTION D-D
SHOWN OUT OF POSITION





WIRING SCHEMATIC

SEE PL 11660545

PART NO 11660545

U.S. ARMY TANK AUTOMOTIVE CENTER WHEELS STREET, WHEELS, MISSOURI 64601		DAAE07-71-C-0009 FORD MOTOR CO	
TITLE: LIGHTING KIT-UPGRADED (M151A2 & M825)		DATE: 11-6-70 BY: 11-6-70	
101 ENGINEERING DIVISION 101 ENGINEERING DIVISION		101 ENGINEERING DIVISION 101 ENGINEERING DIVISION	
101 ENGINEERING DIVISION 101 ENGINEERING DIVISION		101 ENGINEERING DIVISION 101 ENGINEERING DIVISION	

2-BAN
'APPL'

A RE



2-SHELL-83
2-SLEEVE-2 18
2-TERMINAL AS Y-8338564

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	1) - J. 00 & 18.00 DIM 1-48-42 ADDED	10-28-70	FR. EK.
B	1) - 34-37-38 PART NOS & DIM'S ADDED REF NO. E7451	11/9/71	WR. WPH
C	(1) ADDED -39 PART NO. (2) WAS MIL-STD-100 (AMG L6627) 5-11-84	7/10/84	JR. 5-11-84

CABLE-M13486/1-5
(AS REQD. SEE TABULATION)
PER SPEC MIL-C-13486

PART NO.	"L"
11677498-1	78.00
11677498-2	5.00
11677498-3	85.00
11677498-4	8.00
11677498-5	62.00
11677498-6	36.00
11677498-7	136.00
11677498-8	110.00
11677498-9	9.00
11677498-10	22.00
11677498-11	55.00
11677498-12	23.00
11677498-13	37.00
11677498-14	6.00
11677498-15	11.00
11677498-16	64.00
11677498-17	131.00
11677498-18	56.00
11677498-19	24.00

PART NO.	"L"
11677498-20	20.00
11677498-21	90.00
11677498-22	176.00
11677498-23	26.00
11677498-24	96.00
11677498-25	150.00
11677498-26	31.00
11677498-27	105.00
11677498-28	39.00
11677498-29	76.00
11677498-30	158.00
11677498-31	46.00
11677498-32	48.00
11677498-33	84.00
11677498-34	50.00
11677498-35	18.00
11677498-36	252.00
11677498-37	318.00
11677498-38	228.00
11677498-39	384.00

(A)

(B)

(C)

NOTE:

CABLE ASSY TO BE ASSEMBLED
PER PARA. 2 OF DWG. 8722729

INTERPRET DRAWING IN ACCORDANCE WITH
STANDARDS PRESCRIBED BY DOD-STD-100

(C2)

PART NO. SEE TABULATION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		CONTRACT NUMBER		U.S. ARMY TANK AUTOMOTIVE COMMAND WARREN, MICHIGAN 48090	
		CONTRACTOR		CABLE ASSY JUMPER	
TOLERANCES ON: 2 PLACE 3 PLACE ANGLES + .50 ± ±		DRAWN BY SCHNEIDER		DATE SEPT 25 1970	
MATERIAL		CHECKER VC		ENGINEER KH	
SEE ENGINEERING RECORDS		DRAWING APPROVAL [Signature]		SIZE CODE IDENT. NO. C 19207 11677498	
NEXT ASSY USED ON		DESIGN APPROVAL [Signature]		SCALE GRAPHIC UNIT WT. SHEET	
APPLICATION		MATERIAL ENG'G			