



If you have any questions, please contact Lang-Mekra Technical Support.
www.lang-mekra.com Email: quality@lang-mekra.com
Tel: 1-888-MEKRA-4-U Fax: (803) 337 5265

Volvo 2005 Aero Mirror System Service Manual





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Product Features

- Replaceable Components
- Minimal Diagnosis & Repair Time
- Spring-Loaded Fold Away Bracket Feature
- Remote Control Main Mirror
- Self-Regulating Heaters
- Look-Down Mirror on Passenger Side

Customer Support

- Toll-Free Support Hotline: 1-888-635-7248
- Web-Accessible Service Manuals & Product Updates
www.lang-mekra.com
- E-Mail: quality@lang-mekra.com
- Fax: (803) 337-5265

Lang Mekra Mirror Test Box

Part # 90 472 0100-PDC

Diagnostic Tool for:

- Mirror Actuators
- Mirror Heaters



These Products may be the subject of Pending U.S. Patent Applications or may be covered by, but not limited to, one or more of the following U.S. Patents:

**4,991,950; 5,110,196; 5,196,965; 5,621,577; 5,615,054; 5,583,703; 5,687,035; 5,880,895; 5,938,166;
6,007,446; 6,092,778; 6,283,863; D460,393; 6,793,357; 6,814,336**

1.1 Removal of Mirror System

- Remove Antenna from Antenna Base
- Disengage Third Arm from Bracket Receiver (see **1.2** page 5).
- Loosen (do not remove) 2 Bolts from Upper Holder using a T-40 driver. Be sure to hold the Mirror steady to prevent damage or personal injury.

Important: DO NOT use the Third Arm as a handle to hold or carry the Mirror!

- Remove the 3 Bolts from the Lower Holder from inside the door hinge, using a T-40 driver.
- Gently pull the Lower Holder away from the door to expose the Control Harness & CB Cable, disconnect both
- Supporting the weight of the Mirror System carefully, remove the 2 loosened Bolts from the Upper Holder. The Mirror System is now free.

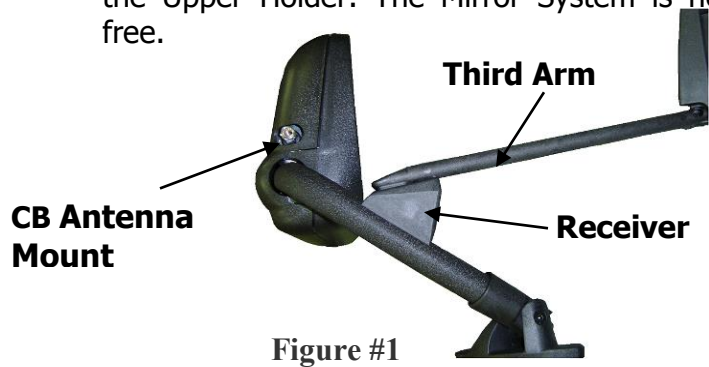


Figure #1

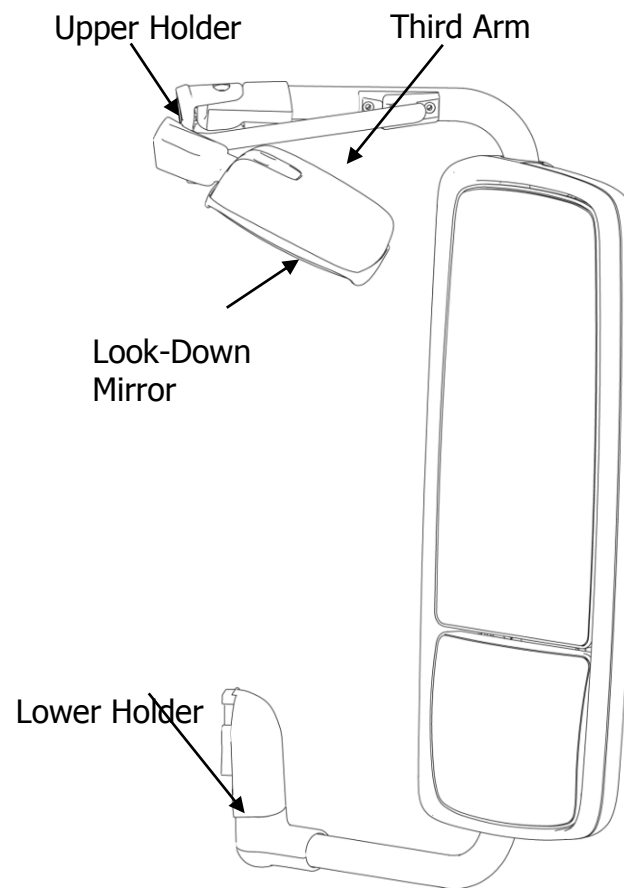


Figure # 2

Note: To re-install the complete Mirror System, follow the instruction above in the reverse order.

1.2 Removal of Third Arm Assembly

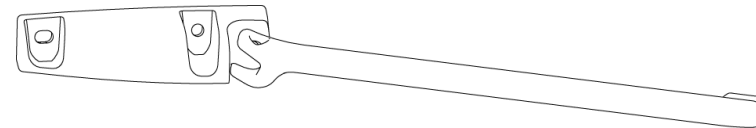
To disengage the Third Arm from the Mirror System, move the whole Mirror System forward until the Third Arm slides out of the Receiver.
To Remove the Third Arm Assembly from the truck, remove the two Bolts with a T-40 driver.
Be sure to hold the Third Arm steady to prevent damage or personal injury.

Important! DO NOT use the Third Arm as a handle to hold or carry the Mirror!

1.3 Removal of Look-Down Mirror Assembly

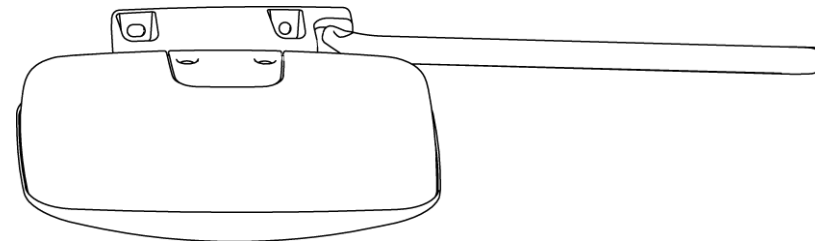
To remove the Look-Down Mirror Assembly, follow the same step as the Third Arm Assembly (1.2).

Note: No tools are required to adjust the Look-Down Mirror. When attached to the truck, you can adjust the Mirror Head manually (up/down and rotational).



Third Arm Assembly

Figure #3



Look Down Mirror

Figure #4

Note: To re-install the Third Arm or Look-Down Mirror, follow the instruction above in the reverse order.

1.4 Mirror Glass Plate Exchange

1.4.1 Removing Mirror Glass Plate

Your Lang-Mekra Mirror System is equipped with a durable Mirror Glass Plate. The Mirror Glass Plate is reinforced with anti-shatter material to minimize splintering in the event of breakage.

We strongly recommend the prompt replacement of damaged Mirror Glass.

To remove the Mirror Glass Plates follow the instructions to the right.

Note: It will be easier to begin with the Main Mirror Plate and then remove the Convex Mirror Plate.

Reminders:

- Be careful not to damage the electrical Wiring or the Heater Connections when changing the Mirror Glass Plate, especially when disconnecting Heater Wires from the Mirror Glass Plate.
- Make sure you pull or push on the Wire Terminal, rather than the Wire itself.

Note: The procedure is the same for both Main and Convex Mirror Plates.

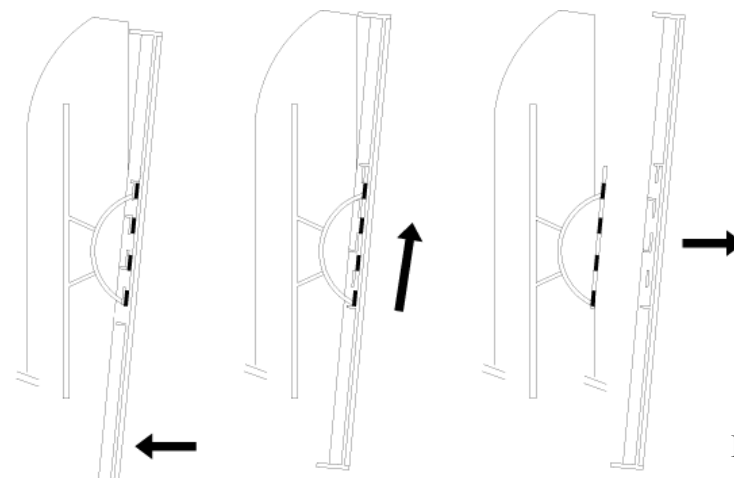
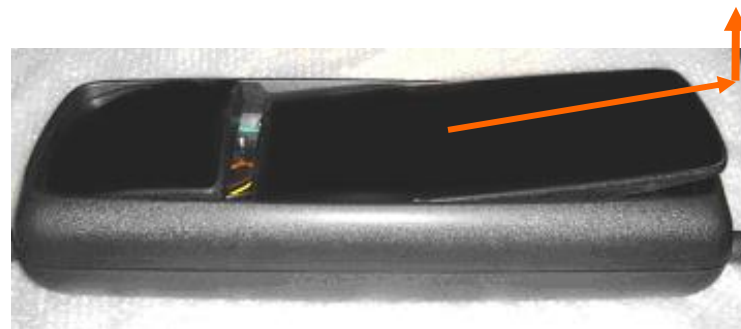


Figure #5

1. Actuate mirror down electrically or manually.
2. While applying firm steady pressure on mirror plate with your hand, slide it up.
3. When disengaged, carefully lift mirror plate to expose heater wires. Disconnect wires by pulling on wire terminal cover.



Way of Movement

1.4.2 Installing Mirror Glass Plate

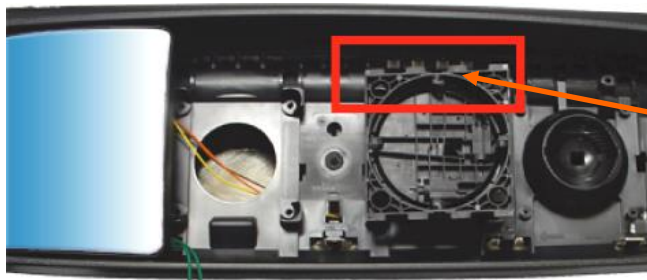
To install the Mirror Plates follow the instructions to the right (it is opposite of Mirror Plate removal).

Note: Always begin by installing the Convex Convex Mirror Plate and then attach the Main Mirror Plate.

Reminders:

- When attaching the Mirror Plate, be sure to match the Locking Teeth on the Socket Plate with the locking tabs on the mirror plate.
- When attaching the Heater Wires, be sure to push on the Wire Terminals. Do not push or pull on the Wires.
- Keep Wires free of Socket Plate; do not pinch them between Socket Plate and Mirror Plate

Note: The procedure is the same for both Main and Convex Mirror Plates.



Locking Teeth on Socket Plate

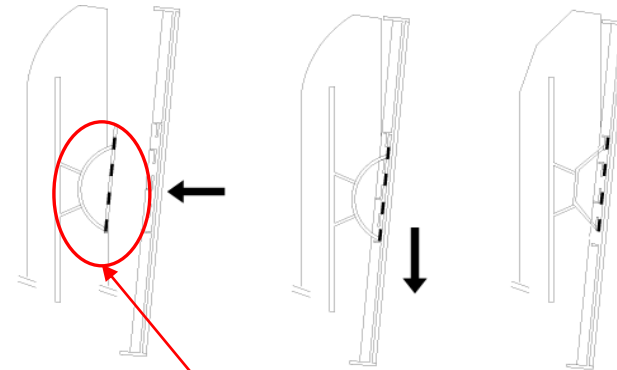


Figure #6

1. For Heated Mirror System, attach Wire Terminal to back of new Mirror Glass Plate. Actuate **Socket Plate down, install Mirror Plate (Align Teeth).**

2. While applying hand pressure on Mirror Plate, slide it down to engage locking teeth

3. Re-Position Mirror to driving position

Heater Wire Terminals

Locking Tabs on Mirror Plate



1.5 Removing or Installing the Back Cover

Removing the Back Cover

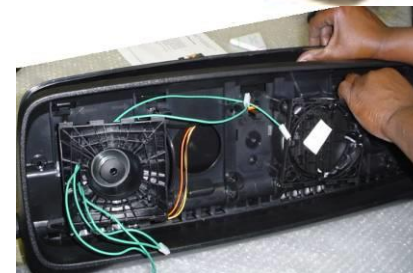
- Remove both Mirror Plates according to **1.4.1**.
- Disengage the 3 outboard and 3 inboard Retaining Clips (see picture below) by starting at one end and push each clip towards the edge of the mirror housing and down to create separation between the Back Cover and the Mirror Housing. Each Clip must be disengaged and enough separation created to not allow it to pop back into place. Separation between the Back Cover and the Mirror Housing along the outboard edge must be sufficient to allow grasping both parts along their edges with the fingertips of each hand.
- Pull both parts firmly away from each other until a loud "pop" is heard when the inboard Clips separate.
- The Back Cover may then need to be shifted away from the CB Coupling Nut if present to allow complete removal.



a.)



b.)



c.)

Installing the Back Cover

- Insert the CB Coupling Nut into the Back Cover hole if present.(see picture)
- Align the Back Cover with the Mirror Housing and begin pressing the Back Cover into place along the inboard or tube side edge engaging each of the 3 inboard Clips.
- Push the flange at each outboard corner of the Back Cover inward and tuck inside the outside edge of the Mirror Housing. After both corners are tucked in, squeeze both parts together along the outboard edge to engage the remaining 3 outboard Clips.
- Reinstall both Mirror Plates according to **1.4.2**.



1.6 Removing, Installing or Adjusting the Mirror Housing

1.6.1 To Remove Mirror Housing

- Remove the Mirror System from the truck according to **1.1**.
- Remove Mirror Glass Plates according to **1.4.1**.
- Remove Back Cover according to **1.5**.
- At first pull the ends of the CB Cable back through the Lower Tube section and out of the tube. Take in the same manner the Control Harness off.
- Using a 6 mm Allen Wrench, remove the 4 main Bolts (**a**) that go through the Tube section.
- From the backside of the Housing, using a T-25 driver, first remove the 4 Lower Clamp Screws (**d**) then hold the Actuator (**f**) in one hand and remove the 4 Upper Clamps Screws (**b**). The Actuator is now free. Unclip the Cables and remove the Actuator.
- Unclip the two Clamps (**e & c**), turn the tube slightly until you are able to fully disengage the Clamps from Housing and Tube. Remove both Clamps.
- Remove Mirror Housing from Tube

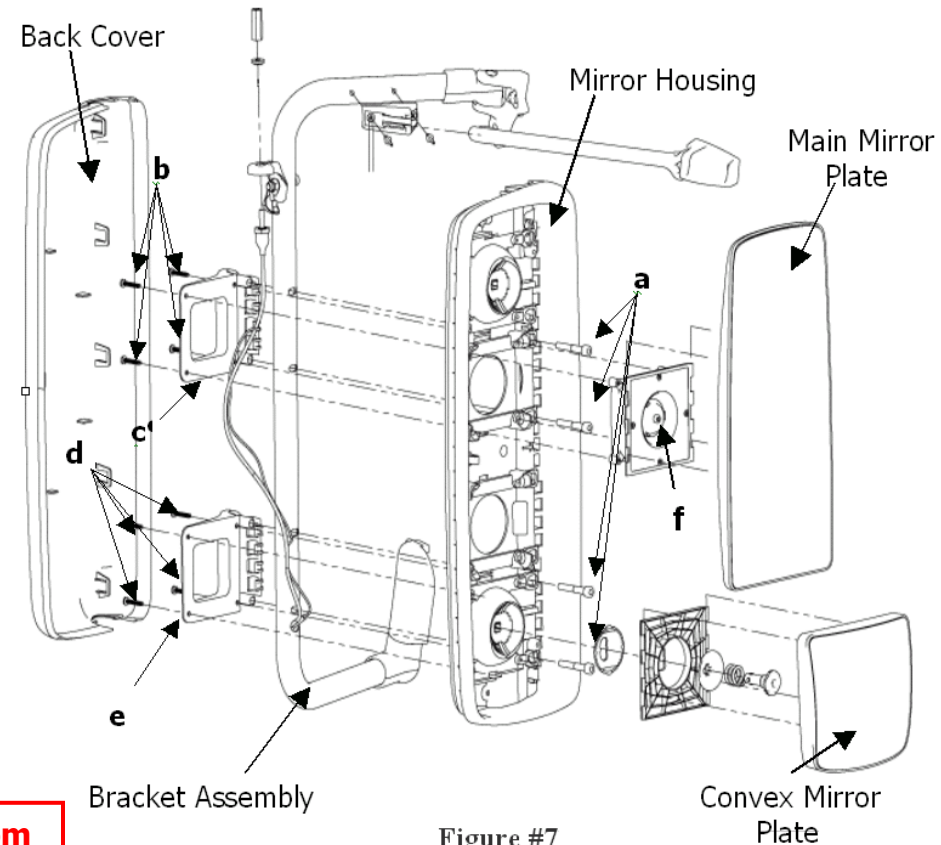


Figure #7

**To reuse the Actuator, manually unscrew it from the Housing (don't use an automatic screwdriver or drill new holes).
 This will strip the hole in the Actuator.**

1.6.2 To Install Mirror Housing

- Place the Bracket Assembly in the Mirror Housing and turn the tube slightly in order to install the Bottom Clamp (**e, Fig.#7**). Hand tighten the Clamp with the 4 Screws (**d, Fig.#7**) using a T-25 driver.
- Position the Actuator into Housing:
First pull the Cables through the Housing hole and line up the flat side on the back of the Actuator with the flat boss on the Housing. Install the Top Clamp (**c, Fig.#7**) and hand tighten the 4 Screws (**b, Fig.#7**) using a T-25 driver while holding the Actuator.
- Route first Control Cable and then CB Cable through Lower Tube Section.
- Re-install Convex and Main Mirror Plates according to **1.4.2**.
- Re-install the Mirror System to the truck according to **1.1**.
- Adjust Mirror Head to optimal driving position (see **3.5**).
- Tighten the 8 Clamp Screws (**b+d, Fig.#7**) at the back of the Housing to a torque of 3-5 Nm.
- Remove the Mirror Glass Plates and tighten the 4 Tube Bolts (**a, Fig.#7**) using a 6mm Allen Wrench to a torque of 18-22 Nm.
- Re-assemble the Back-cover and the Mirror Glass Plates according to 1.5 and 1.4.1.

NOTE: Re-adjustment for best view

To reuse the Actuator, manually unscrew it from the Housing (don't use an automatic screwdriver or drill new holes). This risks stripping threads in Actuator.



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1.6.3 To Adjust Mirror Head

Lang Mekra North America provides the possibility to adjust the Mirror Head plus or minus 10 degrees from its nominal position.

- Remove the Mirror Glass Plates according to **1.4.1.1.21.2**.
- Remove Back Cover according to **1.5**.
- Remove 4 Tube Bolts at the front of the Housing with 6mm Allen Wrench (**a, Fig #7**).
- Loosen 8 Clamp Screws at the back with a T-25 driver (**d+e, Fig #7**).
- Remove the self-drilling Metal Screw from CB Bracket with a 5/16" Socket Head driver and loosen the big CB Bracket Bolt with a 6mm Allen Wrench.
- Re-install the Mirror Glass Plates according to **1.4.2**.
- Turn Mirror Head to optimal driving position.
- Re-install the self-drilling Metal Screw and torque it with a 5/16" Socket Head driver to 7 Nm.
- Fasten CB Bracket Bolt (Torque= 9 Nm) with a 6mm Allen Wrench and the 8 Clamp Screws (Torque= 5 Nm) with a T-25 driver.
- Remove the Mirror Glass Plates and re-install the 4 Tube Bolts with a 6mm Allen Wrench (Torque= 20 Nm).
- Re-install Back Cover according to **1.5** and the Mirror Glass Plates according to **1.4.2**.

1.7 General Maintenance and Cleaning Tips

When cleaning the surface Mirror Glass, abrasive cleaners or brushes should be avoided. Excessive abrasion may damage the reflective surface.

A standard glass cleaner and a soft, clean cloth should be used to clean the Mirror surface.

2.1 Fold-Away Bracket Feature

The Mirror Brackets are equipped with a Fold-Away Feature, sometimes referred to as a Break-Away System. The Mirror System will fold forward or backward manually, or upon impact. This feature minimizes damage to the Mirror System and the vehicle door

Bracket does not fold back / is too difficult to fold back

If the Break-Away force is too high (difficult to fold back), you may loosen the Nut in the Lower Holder with a 9/16" Socket Head driver (The Torque should be between **15 Nm** and **20 Nm**). When the Mirror System is in the driving position, the Detent Spring should be almost fully compressed.

You may want to check the Upper Fastener Kit. The torque should be 5 Nm. If the Upper Fastener Kit is too tight, loosen the Nut with a 6mm Allen Wrench to reach the specified torque.

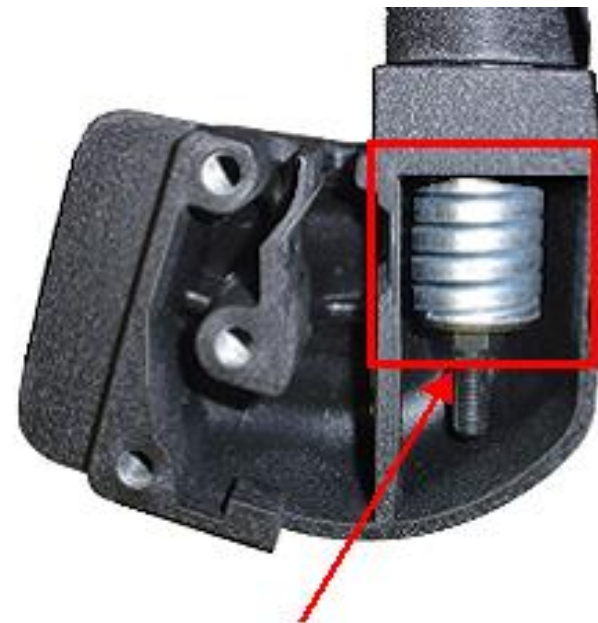
Bracket folds back too easily

If the Bracket folds back too easily, check the following:
Upper Fastener Kit should be torqued to **5 Nm**. If the Upper Fastener Kit is too loose, tighten it to the specified torque with a 6mm Allen Wrench.

Ensure the Lower Pivot is not too loose.

You may tighten it to the specified torque of **15 Nm – 20 Nm** using a 9/16" socket head driver.

Additionally, insure that the Flip Out Arm is properly engaged into the Receiver (**see picture in 1.1**)



Detent spring should be almost fully compressed



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2.2 Electrical Mirror Movement Analysis

You have a four-way adjustable Mirror, integrated with the design of your truck. The flat, top Mirror is adjustable via Remote Control or manually; the convex, bottom Mirror is always manually adjustable.

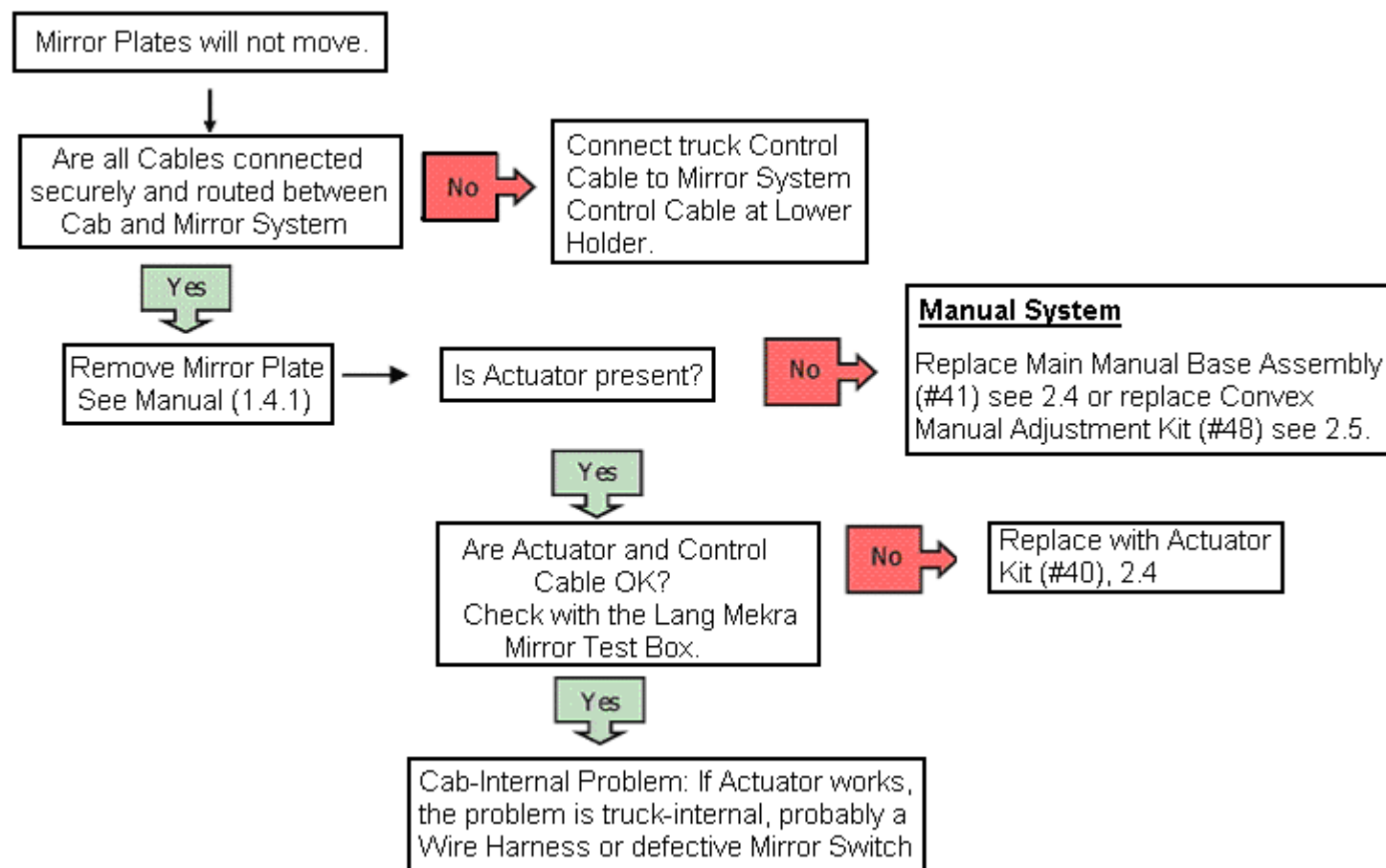
If you are having trouble moving the mirror via Remote Control or manually, check the following points:

- 1.) Mirror System and Cab at the truck door (under Lower Holder). (see **1.1.**)
Make sure all Cables and Connections are Tight.
Check electrical connection between.
- 2.) Remove the Mirror Glass Plate according to **1.4.1**. Check to ensure the Mirror is electrically operated (is an Actuator present) (see **2.8**). If there is no Actuator, the Mirror System is manual. Then replace the Main Manual Base Assembly (Item# 41) (see **2.4**).
The Convex Mirror (small Mirror at the bottom) is always manual.
If you have a problem with the Convex Mirror, just replace the Convex Manual Adjustment Kit (Item# 48) (see **2.5**).
- 3.) If your Mirror has an Actuator, is your Actuator and Wire Harness in good visual condition and function?
Check with the Lang Mekra Mirror Test Box (see page 3), if Actuator and Control Cable are OK. If the Actuator still does not function, replace with Actuator Kit (Item# 40) (see **2.4**)
If the Mirror System functions properly with test box, then the problem is truck internal, probably a Wire Harness or defective Mirror Switch.

Follow the flowchart in **2.3** to promptly diagnose Mirror Movement problems.

Note: If you have trouble with any part of the above procedure, please call our Service Line at 803-337-5264, and ask for Customer Service. Monday-Friday, 9:00 am – 4:00 p.m. EST

2.3 Mirror Movement Analysis Flowchart For Electrical Adjustment



2.4 Actuator or Main Manual Base Assembly Replacement (Infield Repair)

- Remove both Mirror Plates and disconnect Heater Wires from Mirror Plate (**1.4.1**).
- Take the Back Cover off (**1.5**)
- Remove the 4 Screws from the back of the Clamp with a T-25 driver, remove Actuator or Main Manual Base from Housing and discard.

Only for Actuator (Remote System):

Identify the actuator (see **3.4**)

- If it is actuator Ref 08 5751 112: remove the actuator and the control cable (see routing in 2.8)
- If it is actuator Ref 08 4803 997: unplug the control cable connector and remove only the actuator
- Plug the control cable connector in the back of the new Actuator
- Position the new Actuator (Item# 40) or Main Manual Base (Item #41) in Mirror Housing. Use 4 new Screws and secure part with a T-25 driver. (Torque: 2-3 Nm)
- Assemble the Back Cover (**1.5**) and the Mirror Plates (**1.4.2**) again.

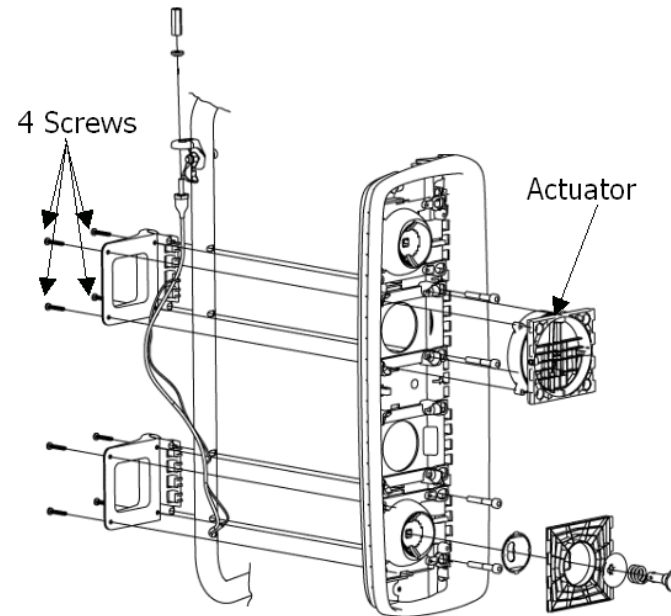


Figure #8

2.5 Convex Manual Adjustment Kit Replacement

The Pivot Assembly provides manual adjustment for the Convex Glass.

The Pivot Assembly should be clean, and free of dirt or debris that may inhibit proper movement.

To Replace Convex Pivot Assembly:

- Remove Convex Glass Mirror Plate (**1.4.1**).
- Use a 5/16" Allen wrench to compress the Locking Pin and Spring, make a quarter of a turn counterclockwise and remove assembly.

Warning: Assembly is spring loaded and may be Hazardous. Take appropriate safety measures! (e.g. Safety glasses)

- Using Replacement Kit (Item #48), assemble the parts in order according to the drawing.
- Compress the Spring and the Locking Pin and lock the Pin by twisting it a quarter of a turn clockwise using a 5/16" Allen wrench.
- Reassemble the Mirror Plate (**1.4.2**).

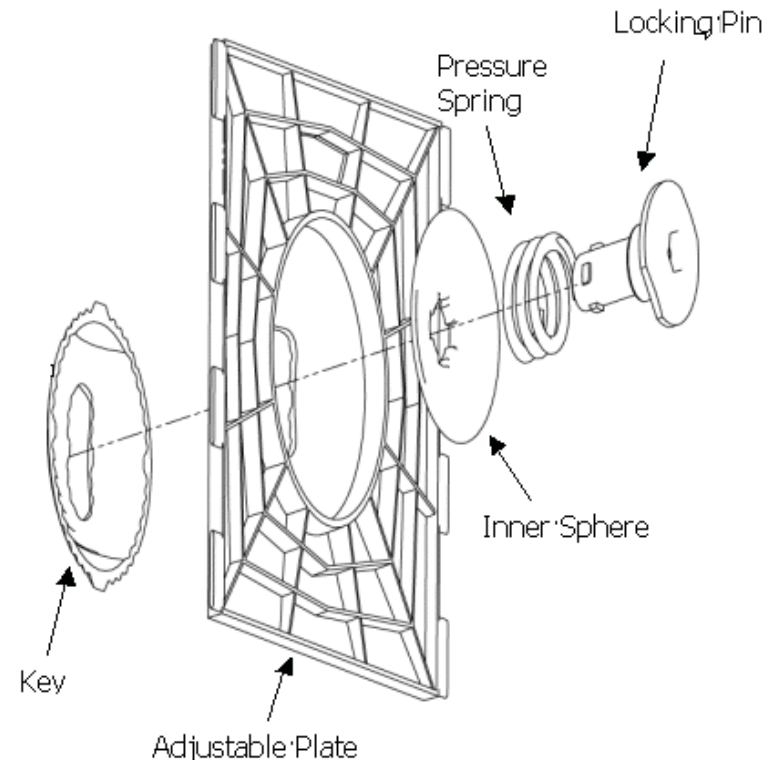


Figure #9

2.6 Bracket Assembly Replacement

- Disassemble Mirror System from truck according to **1.1**.
- Remove Mirror Plates according to **1.4.1**.
- Remove Back Cover according to **1.5**.
- Remove 4 Tube Bolts at the front.
- Remove 8 Clamp Screws at the back, detach Actuator from Housing and remove the 2 Aluminum Clamps.
- Remove CB and Control Cables from Tube.
- Remove old Bracket Assembly from Mirror Housing.
- Remove CB Cable and Hardware from old Bracket and discard old Bracket.
- Take new Bracket Assembly and re-install CB Cable Hardware (see **2.10**) and Mirror Housing to Tube following step **1.6.2** and **1.6.3**.

To reuse the Actuator, manually unscrew it from the Housing (don't use an automatic screwdriver or drill new holes). This risks stripping threads in Actuator.

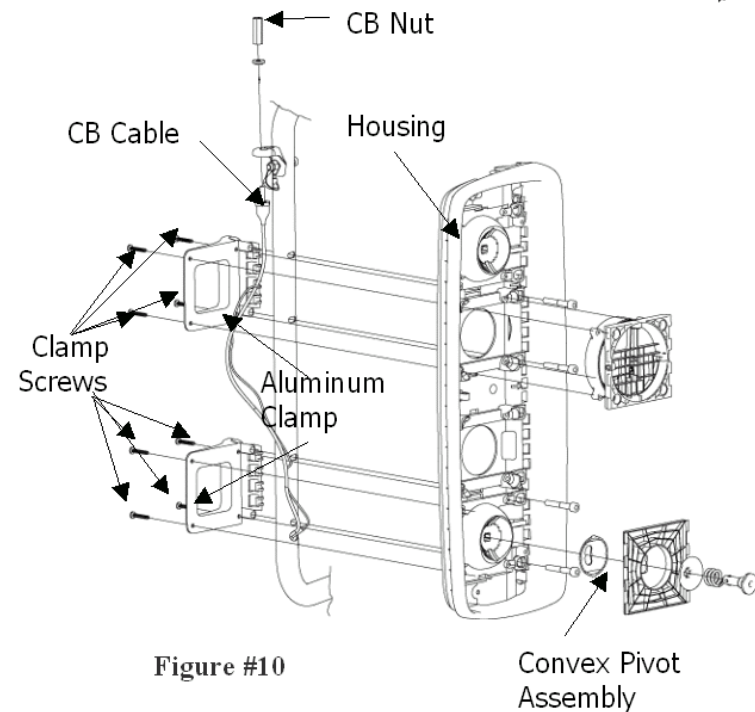


Figure #10



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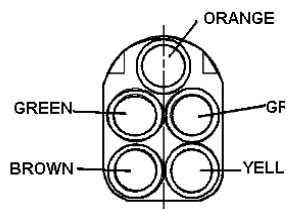
2.7 Wiring Diagram & Electrical Facts

Direction of Motion Table:

+	-	DIRECTION
yellow	orange	up
orange	yellow	down
orange	brown	right
brown	orange	left

Connector Wiring:

CONNECTOR BACK VIEW

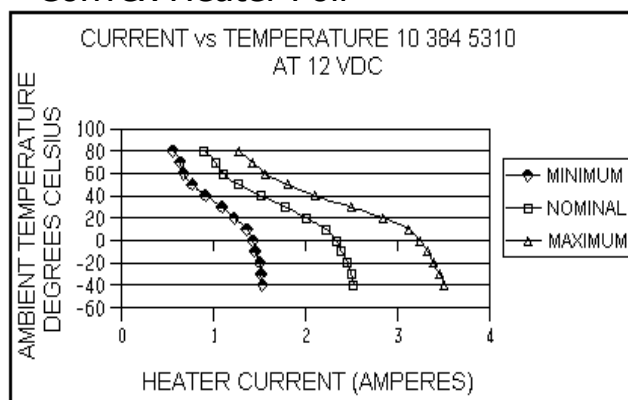


Test Voltage:

Nominal Operating Voltage	14 +/- 0.5 V DC
Running Current	≤ 500 mA
Stall Current	≤ 1000 mA

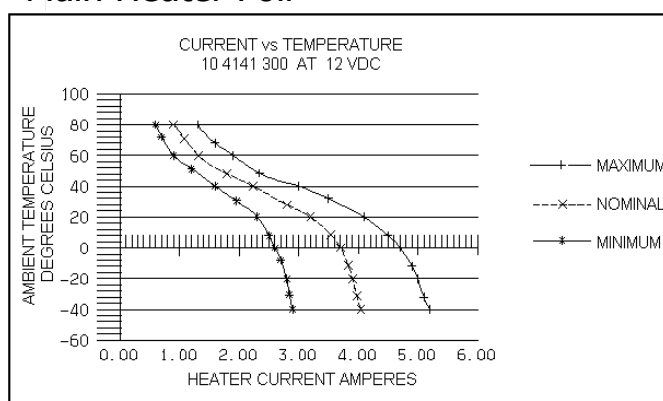
TYPICAL AMPERE-TEMPERATURE-CHART

Convex Heater Foil



TECHNICAL SPECS	
VOLTAGE RANGE	9 TO 16 VDC
TEST VOLTAGE	12 VDC
MAXIMUM CURRENT DRAW	3.5 AMPERES
OPERATING TEMPERATURE RANGE	-40 TO +85 DEGREES CELSIUS
MAXIMUM TEMPERATURE RANGE	-40 TO +120 DEGREES CELSIUS
WEIGHT	15±3 GRAMS

Main Heater Foil



TECHNICAL SPECS	
VOLTAGE RANGE	12VDC
TEST VOLTAGE	9 TO 16V
MAXIMUM CURRENT DRAW	5.5A
OPERATING TEMPERATURE RANGE	-40/+85°C
MAXIMUM TEMPERATURE RANGE	-40/+120°C
WEIGHT	app. 30g

2.8 Control Cable Replacement

For Remote System (a):

If there are problems with the Control Cable, identify which actuator is built-in (see **3.4**)

- If it is the actuator Ref 08 5751 112, replace the actuator (see **2.4**) and control cable (see routing below).
- If it is the actuator Ref 08 4803 997, change the control cable only (see routing below).

For Manual Heated System (b):

The Heater Cable must be changed: Use Cable Set Kit **#39**.

First remove the Mirror Plates according to **1.4.1** and disconnect the Wire Connectors from the Mirror Plates.

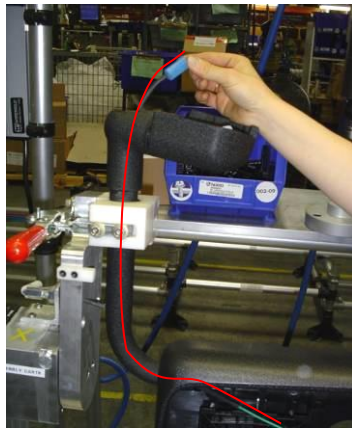
- Remove the Heater Cable from the Bracket and from the Socket Plate hole.
- Re-install the new Heater Cable to the Mirror System:

Route the new Heater Cable from the Housing to the Lower Holder (**1+2**). Route the 2 green Wires (short ones) as shown below through the Socket Plate hole (**3**) and position the long Wires as shown in picture (**4**). Re-connect the short Wires to the Convex Mirror Plate, the long ones to the Main Mirror Plate.

Re-assemble the Mirror Plates according to **1.4.2**.



①



②



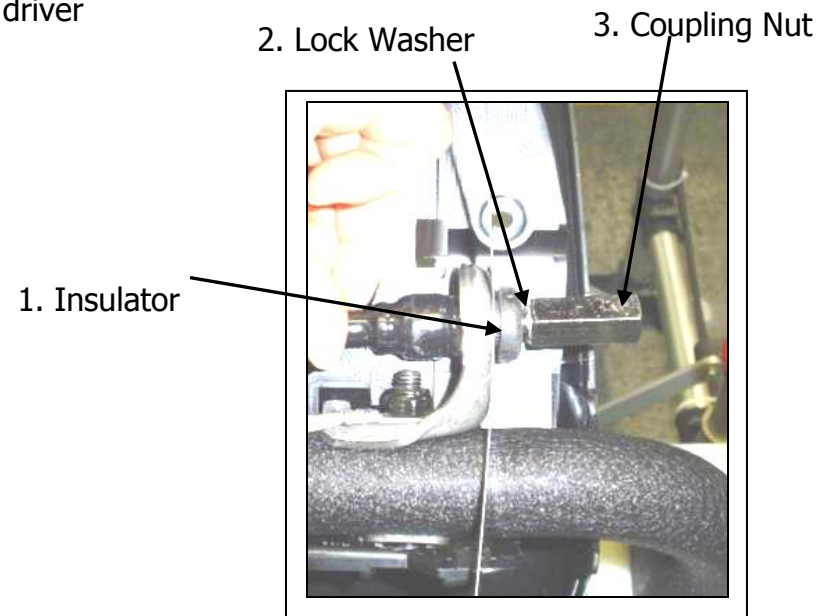
③



④

2.9 CB Cable Replacement

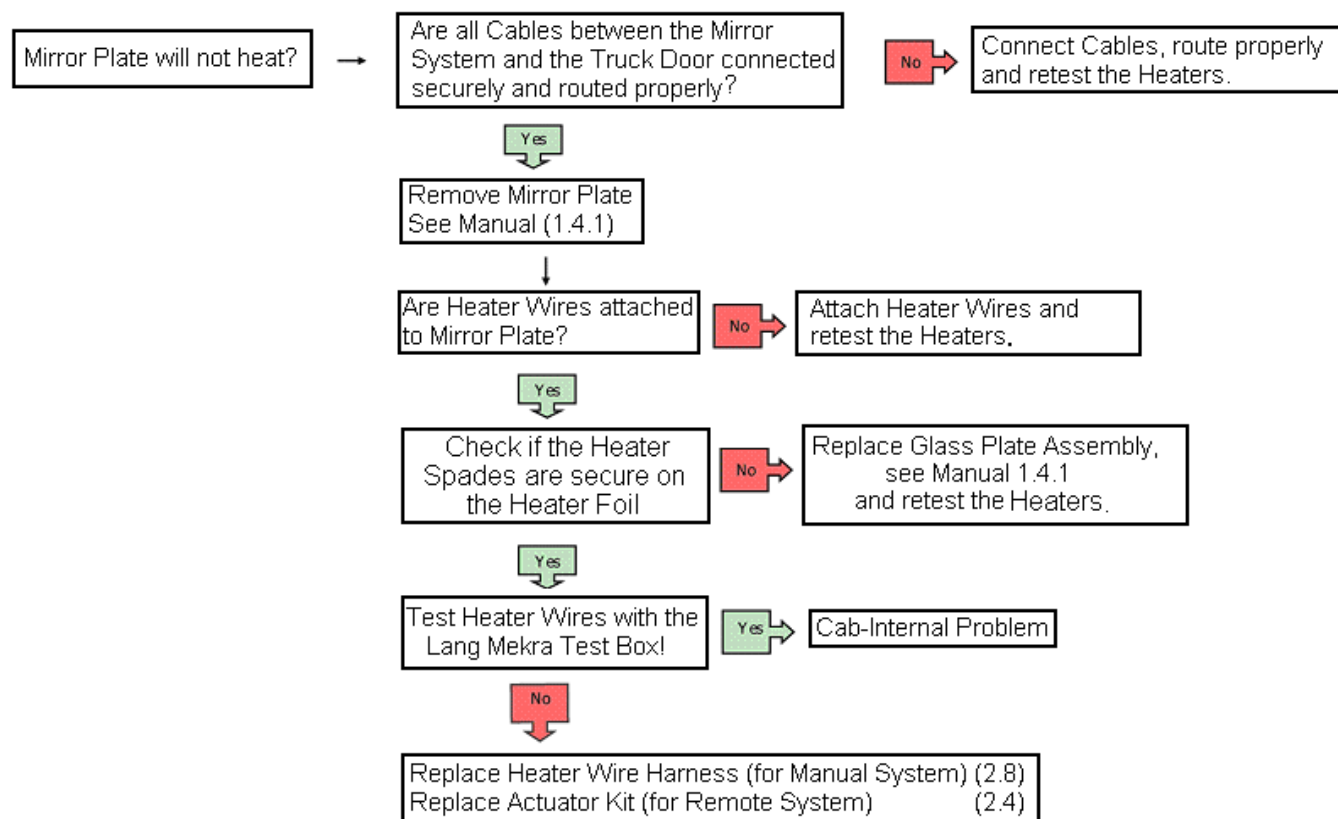
- Remove CB Antenna.
- Remove the Mirror System from the truck door (see **1.1**).
- Remove the Mirror Plates (**1.4.1**) and the Back Cover (**1.5**).
- Unscrew the Coupling Nut with a 9/16" Socket Head driver, remove the Lock Washer, the Insulator and pull the CB Cable out of the Tube.
- Reassemble the new CB Cable to the CB Bracket:
Put the Insulator, the Lock Washer and the Coupling Nut.
- Tighten the Coupling Nut with a 9/16" Socket Head driver and torque to 7 Nm.
- Route CB Cable through Tube.
- Re-assemble Back Cover (**1.5**).
- and Mirror Plates (**1.4.2**).
- Re-install Mirror System to the truck (see **1.1**).
- Re-assemble CB Antenna.





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2.10 Mirror Heat Analysis Flowchart



LMNA uses **PTC (Positive Temperature Coefficient)** heater foils for defrosting mirrors. These devices have the advantage of having lower resistance at lower temperatures. Lower resistance means increased wattage, which, in turn, means that more heat is available at lower temperatures to perform the defrosting function. When applying voltage to a heater foil, power supply current draw will decrease as the foil temperature rises. As the outside temperature increases, the heater foil temperature decreases.

2.11 Mirror Heat Analysis

Follow the flowchart in **2.10** to diagnose mirror heat problems.

1. Remove the Mirror Glass according to **1.4.1**. Check to ensure the Mirror is heated. (Heater terminals are present.)
2. Make sure all Cables and Connections are tight (see **2.7**).
3. Check to see if the Heater Terminals are securely attached. If not, replace the Glass Plate Assembly.
4. Using the Lang Mekra Mirror Test Box, or 12 V power source, test the Heat function of the Mirror System Control Cable at the truck door. If the Mirror Heat functions properly, the fault is cab-internal.
5. If the Mirror doesn't function properly, replace the Heater Wire Harness (see **2.8**) for Manual System or the Actuator Kit (see **2.4**) for Remote System.



Convex Mirror



Main Mirror

Heater
Terminals



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3.1 Warranty Coverage

Lang-Mekra provides a warranty for production and service parts per Volvo Supplier Warranty Agreement.

The warranty will cover:

- Functional Quality of Components
- Lang-Mekra Workmanship
- Confirmed Field Failures
- Labor Costs for Replacement
- Approved Administrative Costs

The warranty will not cover:

- Glass Breakage and Other Impact, Abuse, Mistreatment
- Minor Reassembly
- Unnecessary Service
- Unauthorized Product Alterations and/or Additions
- Unreasonable Costs

Please Do Not Submit Warranty Claims for Items That Have Suffered Impact!

Parts Returned Exhibiting Impact Damage Will Be Denied Coverage, and May Be Returned Freight-Collect

Lang-Mekra reserves the right to inspect submitted warranty claims. Upon satisfactory performance and history, dealers, fleets and other end users may be granted warranty coverage based on submitted description alone. Evaluation points will include:

- Complete and Accurate Claim Descriptions
- Use of appropriate Replacement Parts
- Absence of Rejected Claims



If you have any questions, please contact Lang-Mekra Technical Support.
www.lang-mekra.com Email: quality@lang-mekra.com
 Tel: 1-888-MEKRA-4-U Fax: (803) 337 5265

3.2 Available Service Parts

Item #	Part Description	Volvo Part #	LM Aftermarket Part #
1	SYS, LH, BLK, MAN/UHT, No CB	20701655	59 472 1032-PDC
2	SYS, RH, BLK, MAN/UHT, No CB	20701656	59 472 1042-PDC
3	SYS, LH, BLK, MAN/HTD, 12V, No CB	20701657	59 472 1132-PDC
4	SYS, RH, BLK, MAN/HTD, 12V, No CB	20701658	59 472 1142-PDC
5	SYS, LH, BLK, RMT/HTD, 12V, No CB	20701659	59 472 1332-PDC
6	SYS, RH, BLK, RMT/HTD, 12V, No CB	20701660	59 472 1342-PDC
7	SYS, LH, BLK, MAN/UHT, STD CB	20701661	59 472 1034-PDC
8	SYS, RH, BLK, MAN/UHT, STD CB	20701671	59 472 1044-PDC
9	SYS, LH, BLK, MAN/HTD, 12V, STD CB	20701673	59 472 1134-PDC
10	SYS, RH, BLK, MAN/HTD, 12V, STD CB	20701674	59 472 1144-PDC
11	SYS, LH, BLK, RMT/HTD, 12V, STD CB	20701676	59 472 1334-PDC
12	SYS, RH, BLK, RMT/HTD, 12V, STD CB	20701679	59 472 1344-PDC
13	SYS, LH, BLK, MAN/UHT, PRM CB	20701680	59 472 1036-PDC
14	SYS, RH, BLK, MAN/UHT, PRM CB	20701681	59 472 1046-PDC
15	SYS, LH, BLK, MAN/HTD, 12V, PRM CB	20701682	59 472 1136-PDC
16	SYS, RH, BLK, MAN/HTD, 12V, PRM CB	20701683	59 472 1146-PDC
17	SYS, LH, BLK, RMT/HTD, 12V, PRM CB	20701684	59 472 1336-PDC
18	SYS, RH, BLK, RMT/HTD, 12V, PRM CB	20701685	59 472 1346-PDC
19	SYS, LH, CHR, MAN/UHT, No CB	20701397	59 472 2032-PDC
20	SYS, RH, CHR, MAN/UHT, No CB	20701398	59 472 2042-PDC



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Item #	Part Description	Volvo Part #	LM Aftermarket Part #
21	SYS, LH, CHR, MAN/HTD, 12V, No CB	20701399	59 472 2132-PDC
22	SYS, RH, CHR, MAN/HTD, 12V, No CB	20701400	59 472 2142-PDC
23	SYS, LH, CHR, RMT/HTD, 12V, No CB	20701401	59 472 2332-PDC
24	SYS, RH, CHR, RMT/HTD, 12V, No CB	20701402	59 472 2342-PDC
25	SYS, LH, CHR, MAN/UHT, PRM CB	20701403	59 472 2036-PDC
26	SYS, RH, CHR, MAN/UHT, PRM CB	20701409	59 472 2046-PDC
27	SYS, LH, CHR, MAN/HTD, 12V, PRM CB	20701410	59 472 2136-PDC
28	SYS, RH, CHR, MAN/HTD, 12V, PRM CB	20701412	59 472 2146-PDC
29	SYS, LH, CHR, RMT/HTD, 12V, PRM CB	20701416	59 472 2336-PDC
30	SYS, RH, CHR, RMT/HTD, 12V, PRM CB	20701418	59 472 2346-PDC
31	BRACKET ASSY LEFT HAND W/CB BRKT	85108719	58 472 1034-PDC
32	BRACKET ASSY RIGHT HAND W/CB BRKT	85108720	58 472 1044-PDC
33	MIRROR HOUSING KIT (BEZEL)	85108721	14 472 0001-PDC
34	BACK COVER 472 BLACK w/ NO HOLE	85108722	13 472 0001-PDC
35	BACK COVER 472 CHROME w/ NO HOLE	85108723	13 472 0003-PDC
36	BACK COVER 472 BLACK w/ LH HOLE	85108724	13 472 0011-PDC
37	BACK COVER 472 CHROME w/LH HOLE	85108725	13 472 0013-PDC
38	BACK COVER 472 BLACK w/RH HOLE	85108726	13 472 0021-PDC
39	BACK COVER 472 CHROME w/RH HOLE	85108727	13 472 0023-PDC



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Available Service Parts

Item #	Part Description	Volvo Part #	LM Aftermarket Part #
40	FLAT MIRROR GLASS PLATE 12V HEATED	85108728	15 472 0102-PDC
41	CONVEX MIRROR GLASS PLATE 12V HEATED	85108729	15 472 0202-PDC
42	CABLE SET (WIRE HARNESS)	85108731	09 472 0001-PDC
43	ELECTRICAL ACTUATOR KIT 12V	85108732	61 473 0023-PDC
44	MAIN MANUAL ADJUSTMENT ASSY KIT	85108733	61 472 0002-PDC
45	STANDARD CB CABLE KIT	85108734	61 472 0004-PDC
46	PREMIUM CB CABLE KIT	85108735	61 472 0005-PDC
47	LH THIRD ARM ASSY.	20701688	20 472 0311-PDC
48	RH THIRD ARM ASSY.	20701689	20 472 0312-PDC
49	RECEIVER KIT	85108738	20 472 0305-PDC
50	RH THIRD ARM ASSY. W/ ROOF MIRROR	20701698	59 412 1171-PDC
51	CONVEX MANUAL ADJUSTMENT KIT	85108730	61 472 0003-PDC
52	LANG MEKRA MIRROR TEST BOX		90 472 0100-PDC
53	WIRE HARNESS KIT 473 VOLVO	85109540	09 4730 009-PDC

NOTE: If you have trouble with any part of this Service Manual, please call our Service line at 803-337-5264 and ask for Customer Service Monday – Friday, 9:00 am – 4:00 pm EST.

3.3 Illustrations

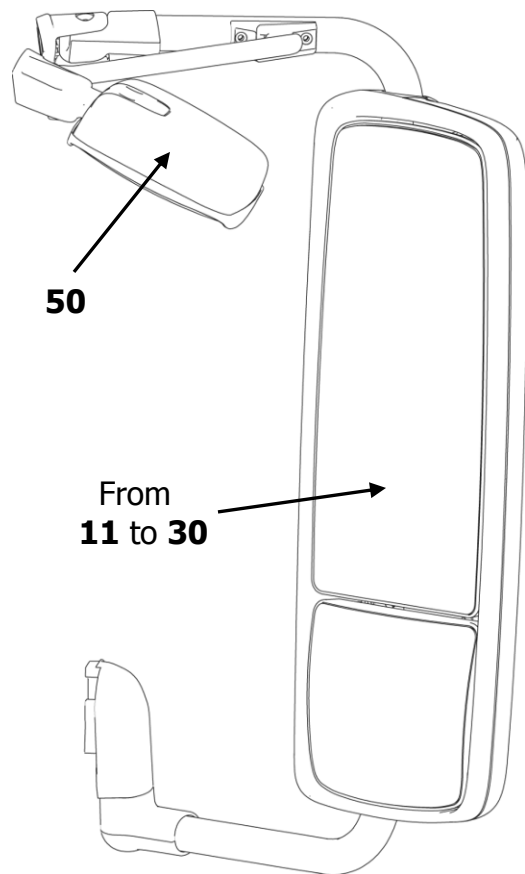


Figure #11

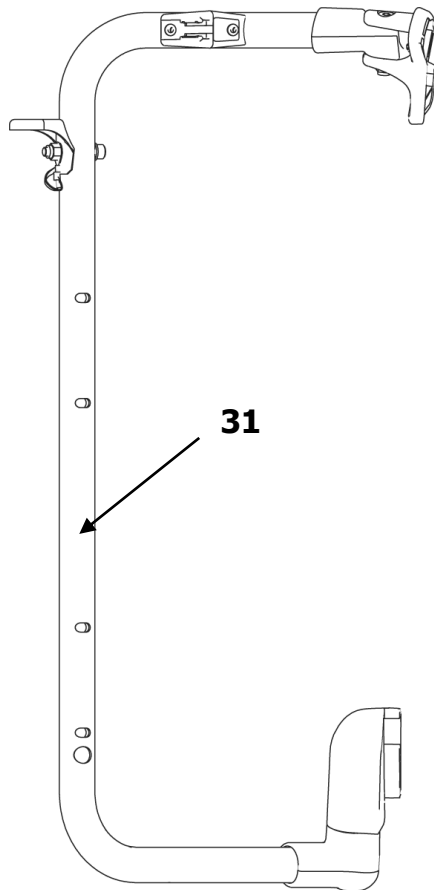


Figure #12

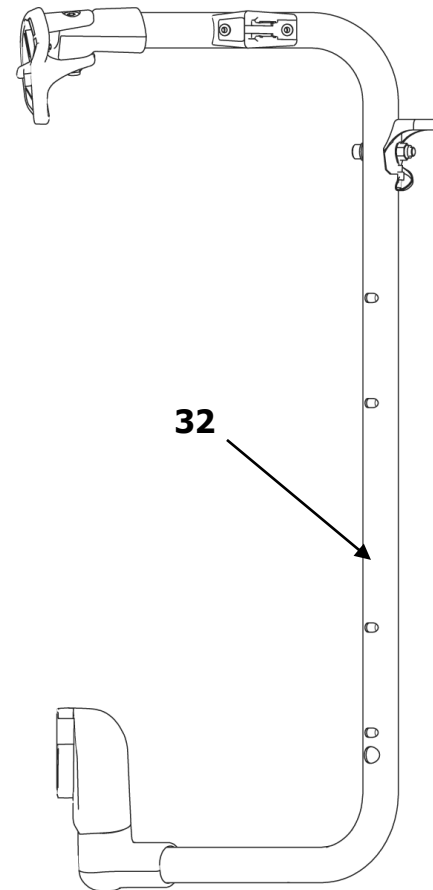


Figure #13

Illustrations

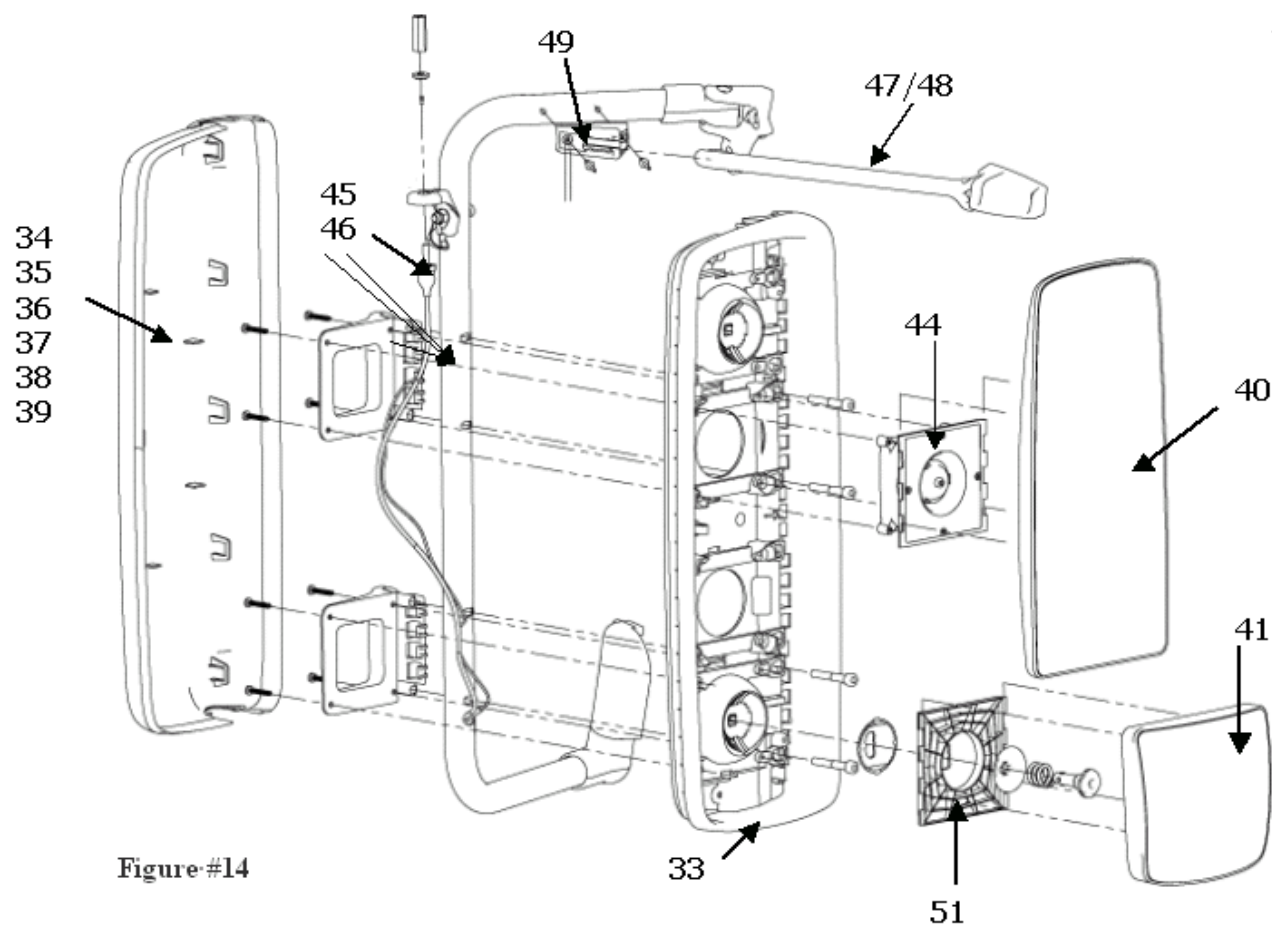


Figure #14

Illustrations

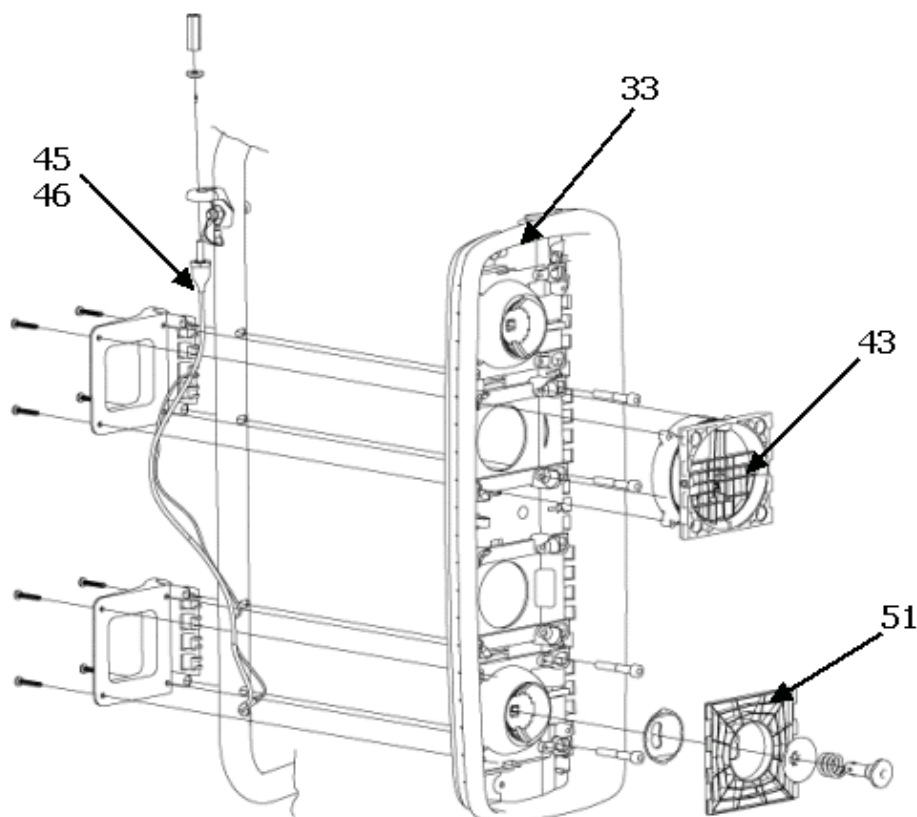
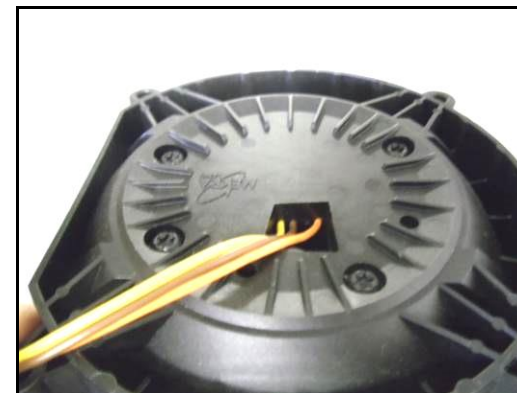
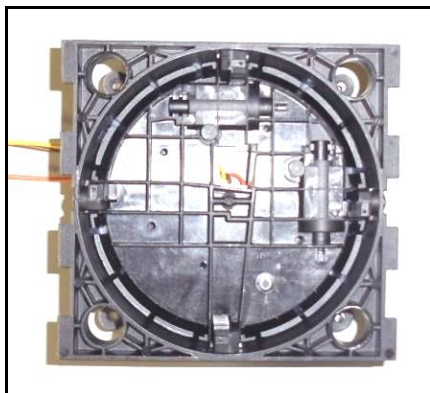


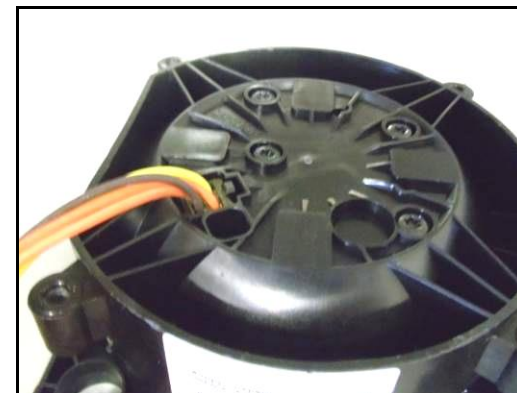
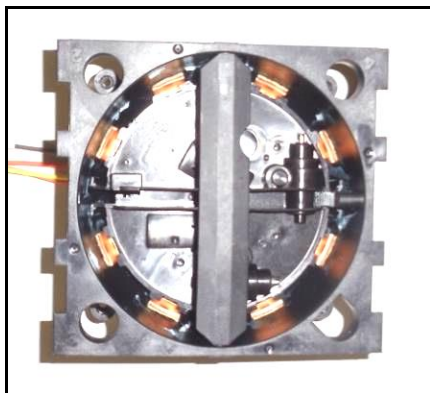
Figure #15

3.4 Actuator Identification

Actuator Ref 08 5751 112



Actuator Ref 08 4803 997



3.5 Optimal driving position

