Table of Contents

1. DESCRIPTION..........................................................................................................1
   1.1. STANDARD CAB, EXTENDED CAB AND CREW CAB...............................................1
   1.2. VEHICLE IDENTIFICATION NUMBER (VIN) TAG LOCATION.......................................3
   1.3. ELECTRIC WINDSHIELD WIPERS.......................................................................4
   1.4. WINDSHIELD WASHER...................................................................................5

2. OPERATION.............................................................................................................6
   2.1. ELECTRIC WINDSHIELD WIPERS.......................................................................6
   2.2. WINDSHIELD WASHER...................................................................................7

3. MAINTENANCE.........................................................................................................7
   3.1. WINDSHIELD WASHER...................................................................................7

4. REMOVE.................................................................................................................7
   4.1. ONE PIECE ENCAPSULATED WINDSHIELD..........................................................7
       Remove One Piece Encapsulated Windshield....................................................7
   4.2. REAR WINDOW GLASS ON VEHICLES WITHOUT VAN BODY................................13
       Remove Rear Window Glass on Vehicles without Van Body..............................13
   4.3. REAR WINDOW GLASS ON VEHICLES WITH VAN BODY.........................................16
       Remove Rear Window Glass on Vehicles with Van Body.....................................16
   4.4. HOOD SEAL...............................................................................................25
       Remove Hood Seal............................................................................................25
   4.5. SUN SHADE...............................................................................................26
       Remove Sun Shade.............................................................................................26
   4.6. SUN VISOR AND CLIP...................................................................................27
       Remove Sun Visor and Clip................................................................................27
   4.7. IGNITION SWITCH AND IGNITION SWITCH CYLINDER............................................28
       Remove Ignition Switch...................................................................................29
       Remove Ignition Switch Cylinder....................................................................31
   4.8. INSTRUMENT PANEL....................................................................................33
       Remove Instrument Panel.................................................................................33
   4.9. CAB DOORS...............................................................................................37
       Remove Front Cab Door....................................................................................37
       Remove Rear Cab Door on Crew Cab..................................................................41
   4.10. CAB DOOR HINGE......................................................................................46
       Remove Front Cab Door Hinge..........................................................................46
       Remove Rear Cab Door Hinge on Crew Cab....................................................47
   4.11. CAB DOOR STRIKER PIN..............................................................................49
       Remove Front Cab Door Striker Pin...................................................................49
       Remove Rear Cab Door Striker Pin on Crew Cab................................................49
   4.12. CAB DOOR CHECK BRACKET.......................................................................51
       Remove Front Cab Door Check Bracket............................................................51
       Remove Crew Cab Rear Door Check Bracket on Crew Cab.................................52
   4.13. CAB DOOR CHECK LINK..............................................................................52
       Remove Front Cab Door Check Link...................................................................52
       Remove Rear Door Check Link on Crew Cab........................................................53
   4.14. CAB DOOR TRIM PANEL..............................................................................55
4.15. CAB DOOR INNER DOOR PANEL WATER SHIELD ............................................. 63
  Remove Front Cab Door Inner Panel Water Shield ............................................. 63
  Remove Rear Cab Door Inner Panel Water Shield on Crew Cab .......................... 65

4.16. CAB DOOR WINDOW SLIDE BLOCK ................................................................. 66
  Remove Front Cab Door Window Slide Block ..................................................... 66
  Remove Rear Cab Door Window Slide Block on Crew Cab ................................. 67

4.17. CAB DOOR GLASS ....................................................................................... 69
  Remove Front Cab Door Glass ........................................................................... 69
  Remove Rear Cab Door Glass on Crew Cab ......................................................... 73

4.18. MODULAR DOOR HARDWARE ASSEMBLY ...................................................... 77
  Remove Front Cab Door Modular Door Hardware Assembly ............................. 77
  Remove Rear Cab Door Modular Door Hardware Assembly on Crew Cab .......... 81

4.19. CAB DOOR VENT WINDOW ................................................................. 83
  Remove Front Cab Door Vent Window ............................................................... 83

4.20. CAB DOOR VENT WINDOW HINGE .............................................................. 85
  Remove Front Cab Door Vent Window Hinge ....................................................... 85

4.21. CAB DOOR VENT WINDOW SEAL ............................................................... 87
  Remove Front Cab Door Vent Window Seal ......................................................... 87

4.22. CAB DOOR LOCK CYLINDER ...................................................................... 87
  Remove Cab Door Lock Cylinder on Front Cab Door of Standard Cab or Extended Cab Models and on Front and Rear Cab Doors of Crew Cab Models ....................... 87

4.23. CAB DOOR WINDOW ELECTRIC MOTOR ...................................................... 89
  Remove Front Cab Door Window Electric Motor .................................................. 89
  Remove Rear Cab Door Window Electric Motor on Crew Cab ............................ 90

4.24. CAB DOOR WINDOW REGULATOR ARM ASSEMBLY .................................. 91
  Remove Front Cab Door Window Regulator Arm Assembly ............................. 91
  Remove Rear Cab Door Window Regulator Arm Assembly on Crew Cab ........... 95

4.25. OUTER CAB DOOR HANDLE ...................................................................... 96
  Remove Front Cab Door Outer Cab Door Handle ............................................... 96
  Remove Rear Cab Door Outer Cab Door Handle on Crew Cab ......................... 100

4.26. CAB DOOR LATCH ..................................................................................... 101
  Remove Front Cab Door Latch .......................................................................... 101
  Remove Rear Cab Door Latch on Crew Cab ....................................................... 103

4.27. INNER CAB DOOR HANDLE ...................................................................... 104
  Remove Front Cab Door Inner Cab Door Handle ............................................... 104
  Remove Rear Cab Door Inner Cab Door Handle on Crew Cab ........................... 106

4.28. CAB DOOR WINDOW RUN CHANNELS .......................................................... 107
  Remove Front Cab Door Window Run Channels ............................................... 107
  Remove Rear Cab Door Window Run Channels on Crew Cab ............................ 110

4.29. CAB DOOR ELECTRIC WINDOW AND DOOR LOCK SWITCH .................... 111
  Remove Front Cab Door Electric Window and Door Lock Switch ....................... 111
  Remove Rear Cab Door Electric Window and Door Lock Switch on Crew Cab .... 112

4.30. CAB DOOR ELECTRIC MIRROR SWITCH .................................................... 113
  Remove Front Cab Door Electric Mirror Switch ................................................ 113

4.31. SEATS .......................................................... 114
  Remove Passenger Bucket Seat .................................................................... 114
  Remove Fixed Passenger Seat ........................................................................ 116
Remove Two Man Fixed Bench Seat without Tool Box ........................................ 118
Remove Two Man Fixed Bench Seat with Tool Box ........................................ 118
Remove Full Width Rear Bench Seat on Extended Cab and Crew Cab .......... 118

4.32. CAB DOOR OPENING SCUFF PLATE AND SEAT BELT RETRACTOR COVER .. 120
  Remove Cab Door Opening Scuff Plate and Seat Belt Retractor Cover .......... 120

4.33. EXTENDED CAB BUNK/STORAGE UNIT ....................................................... 121
  Remove Bunk/Storage Unit on Extended Cab ........................................... 121

4.34. SIDE AND CORNER INTERIOR TRIM PANEL .............................................. 122
  Remove Side and Corner Interior Trim Panel .......................................... 122
  Remove Side and Corner Interior Trim Panel on Extended Cab ................ 123
  Remove Side and Corner Interior Trim Panel on Crew Cab ...................... 124

4.35. EXTENDED CAB REAR SIDE WINDOW ....................................................... 126
  Remove Rear Side Window on Extended Cab .......................................... 126
  Remove Rear Side Window Latch from Rear Side Window on Extended Cab .... 128

4.36. REAR INTERIOR TRIM PANEL .................................................................. 129
  Remove Rear Interior Trim Panel .............................................................. 129

4.37. HEADER CONSOLE PANEL .................................................................... 129
  Remove Header Console Panel ................................................................. 129

4.38. HEADLINER TRIM PANEL ....................................................................... 133
  Remove Headliner Trim Panel ................................................................. 133
  Remove Front Headliner Trim Panel on Extended Cab ............................. 134
  Remove Rear Headliner Trim Panel on Extended Cab .............................. 136
  Remove Front Headliner Trim Panel on Crew Cab ................................... 137
  Remove Rear Headliner Trim Panel on Crew Cab .................................... 139

4.39. CREW CAB B - PILLAR TRIM PANEL ....................................................... 140
  Remove B - Pillar Trim Panel on Crew Cab .............................................. 140

4.40. CAB DOOR OPENING WEATHER SEALS .................................................... 140
  Remove Front Cab Door Opening Weather Seals ...................................... 140
  Remove Rear Cab Door Opening Weather Seals on Crew Cab ................. 141

4.41. WINDSHIELD WIPER ARM AND BLADE ASSEMBLY .................................. 142
  Remove Windshield Wiper Arm and Blade Assembly ............................... 142

4.42. CAB COWL TRAY .................................................................................... 143
  Remove Cab Cowl Tray on Models before September 2000 ...................... 143
  Remove Cab Cowl Tray on Models after September 2000 ....................... 145
  Remove Cab Cowl Tray on Models after February 2002 .......................... 147

4.43. WINDSHIELD WIPER ASSEMBLY ............................................................. 149
  Remove Windshield Wiper Assembly ....................................................... 149

4.44. ELECTRIC WINDSHIELD WIPER MOTOR ................................................. 151
  Remove Electric Windshield Wiper Motor .............................................. 151

4.45. WINDSHIELD WASHER BOTTLE AND/OR PUMP MOTOR .......................... 153
  Remove Windshield Washer Bottle and/or Pump Motor ......................... 153

4.46. ENGINE COVER AND CUP HOLDER ........................................................ 157
  Remove Cup Holder .............................................................................. 157
  Remove Engine Cover ........................................................................... 157

4.47. CAB ........................................................................................................ 160
  General Procedures for Cab Removal ....................................................... 160
  Remove Cab with Low Mount Front Cab Mounting and Low Mount Rear Cab Mounting for Standard Cab and Extended Cab Models .......... 162
  Cab with Low Mount Front Cab Mounting for Standard Cab and Extended Cab Models .......................................................... 162
  Cab with Low Mount Rear Cab Mounting for Standard Cab and Extended Cab Models .......................................................... 163
5. INSTALL..............................................................................................................171

5.1. ONE PIECE ENCAPSULATED WINDSHIELD.......................................................171

Install One Piece Encapsulated Windshield using Two Part U216 Urethane Adhesive
(adhesive A and curative B) .................................................................171

Install One Piece Encapsulated Windshield using One Part U400HV Urethane
Adhesive.........................................................................................188

5.2. REAR WINDOW GLASS ON VEHICLES WITHOUT VAN BODY..................................192

Install Rear Window Glass on Vehicles without Van Body..................................192

5.3. REAR WINDOW GLASS ON VEHICLES WITH VAN BODY.......................................207

Install Rear Window Glass on Vehicles with Van Body......................................207

5.4. HOOD SEAL..............................................................................................226

Install Hood Seal....................................................................................226

5.5. SUN SHADE..............................................................................................226

Install Sun Shade...................................................................................226

5.6. SUN VISOR AND CLIP..................................................................................226

Install Sun Visor and Clip.........................................................................226

5.7. IGNITION SWITCH AND IGNITION SWITCH CYLINDER..........................................227

Install Ignition Switch Cylinder...................................................................227

Install Ignition Switch..............................................................................227

5.8. INSTRUMENT PANEL...................................................................................228

Install Instrument Panel...........................................................................228

5.9. CAB DOORS.............................................................................................230

Install Front Cab Door..............................................................................230

Install Rear Cab Door on Crew Cab.............................................................231

5.10. CAB DOOR HINGE....................................................................................232

Install Front Cab Door Hinge.....................................................................232

Install Rear Cab Door Hinge on Crew Cab.....................................................233

5.11. CAB DOOR STRIKER PIN............................................................................233

Install Front Cab Door Striker Pin................................................................233

Install Rear Cab Door Striker Pin on Crew Cab................................................234

5.12. CAB DOOR CHECK BRACKET......................................................................234
Install Front Cab Door Check Bracket .......................................................... 234
Install Crew Cab Rear Door Check Bracket on Crew Cab .............................. 234

5.13. CAB DOOR CHECK LINK
Install Front Cab Door Check Link ............................................................. 234
Install Crew Cab Rear Door Check Link on Crew Cab ................................. 235

5.14. CAB DOOR TRIM PANEL
Install Front Cab Door Trim Panel with Electric Door Window and Locks ...... 235
Install Front Cab Door Trim Panel with Manual Door Window and Locks .......... 236
Install Crew Cab Rear Cab Door Trim Panel with Electric Door Window and Locks ... 236
Install Crew Cab Rear Cab Door Trim Panel with Manual Door Window and Locks ... 237

5.15. CAB DOOR INNER DOOR PANEL WATER SHIELD
Install Front Cab Door Inner Door Panel Water Shield ................................ 237
Install Rear Cab Door Inner Door Panel Water Shield on Crew Cab ............... 238

5.16. CAB DOOR WINDOW SLIDE BLOCK
Install Front Cab Door Window Slide Block ................................................ 238
Install Rear Cab Door Window Slide Block on Crew Cab ............................. 239

5.17. CAB DOOR GLASS
Install Front Cab Door Glass ...................................................................... 240
Install Rear Cab Door Glass on Crew Cab .................................................... 244

5.18. MODULAR DOOR HARDWARE ASSEMBLY
Install Front Cab Door Modular Door Hardware Assembly ....................... 248
Install Rear Cab Door Modular Door Hardware Assembly on Crew Cab ....... 249

5.19. CAB DOOR VENT WINDOW
Install Front Cab Door Vent Window ............................................................ 251

5.20. CAB DOOR VENT WINDOW HINGE
Install Front Cab Door Vent Window Hinge ................................................ 251

5.21. CAB DOOR VENT WINDOW SEAL
Install Front Cab Door Vent Window Seal .................................................... 251

5.22. CAB DOOR LOCK CYLINDER
Install Cab Door Lock Cylinder ................................................................... 252

5.23. CAB DOOR WINDOW ELECTRIC MOTOR
Install Front Cab Door Window Electric Motor ............................................. 252
Install Rear Cab Door Window Electric Motor on Crew Cab ....................... 252

5.24. CAB DOOR WINDOW REGULATOR ARM ASSEMBLY
Install Front Cab Door Window Regulator Arm Assembly ......................... 253
Install Rear Cab Door Window Regulator Arm Assembly on Crew Cab .......... 256

5.25. OUTER CAB DOOR HANDLE
Install Front Cab Door Outer Cab Door Handle .......................................... 257
Install Rear Cab Door Outer Cab Door Handle on Crew Cab ....................... 258

5.26. CAB DOOR LATCH
Install Front Cab Door Latch ...................................................................... 260
Install Rear Cab Door Latch on Crew Cab .................................................... 261

5.27. INNER CAB DOOR HANDLE
Install Front Cab Door Inner Cab Door Handle .......................................... 261
Install Rear Cab Door Inner Cab Door Handle on Crew Cab ....................... 262

5.28. CAB DOOR WINDOW RUN CHANNELS
Install Front Cab Door Window Run Channels ............................................. 264
Install Rear Cab Door Window Run Channels on Crew Cab ....................... 265

5.29. CAB DOOR ELECTRIC WINDOW AND DOOR LOCK SWITCH
Install Front Cab Door Electric Window and Door Lock Switch .................... 266
Install Rear Cab Door Electric Window and Door Lock Switch on Crew Cab .... 266

5.30. CAB DOOR ELECTRIC MIRROR SWITCH
Install Front Cab Door Electric Mirror Switch ............................................. 266
5.31. SEATS
- Install Passenger Bucket Seat
- Install Fixed Passenger Seat
- Install Two Man Fixed Bench Seat without Tool Box
- Install Two Man Fixed Bench Seat with Tool Box
- Install Full Width Rear Bench Seat

5.32. CAB DOOR OPENING SCUFF PLATE AND SEAT BELT RETRACTOR COVER
- Install Cab Door Opening Scuff Plate and Seat Belt Retractor Cover

5.33. EXTENDED CAB BUNK/STORAGE UNIT
- Install Bunk/Storage Unit on Extended Cab

5.34. SIDE AND CORNER INTERIOR TRIM PANEL
- Install Side and Corner Interior Trim Panel
- Install Side and Corner Interior Trim Panel on Extended Cab
- Install Side and Corner Interior Trim Panel on Crew Cab

5.35. EXTENDED CAB REAR SIDE WINDOW
- Install Rear Side Window Latch onto Rear Side Window on Extended Cab
- Install Rear Side Window on Extended Cab

5.36. REAR INTERIOR TRIM PANEL
- Install Rear Interior Trim Panel

5.37. HEADER CONSOLE PANEL
- Install Header Console Panel

5.38. HEADLINER TRIM PANEL
- Install Headliner Trim Panel on Standard Cab
- Install Front Headliner Trim Panel on Extended Cab
- Install Rear Headliner Trim Panel on Extended Cab
- Install Front Headliner Trim Panel on Crew Cab
- Install Rear Headliner Trim Panel on Crew Cab

5.39. CREW CAB B - PILLAR TRIM PANEL
- Install B - Pillar Trim Panel on Crew Cab

5.40. CAB DOOR OPENING WEATHER SEALS
- Install Front Cab Door Opening Weather Seals
- Install Rear Cab Door Opening Weather Seals on Crew Cab

5.41. WINDSHIELD WIPER ARM AND BLADE ASSEMBLY
- Install Windshield Wiper Arm and Blade Assembly

5.42. CAB COWL TRAY
- Install Cab Cowl Tray on Models before September 2000
- Install Cab Cowl Tray on Models after September 2000
- Install Cab Cowl Tray on Models after February 2002

5.43. WINDSHIELD WIPER ASSEMBLY
- Install Windshield Wiper Assembly

5.44. ELECTRIC WINDSHIELD WIPER MOTOR
- Install Electric Windshield Wiper Motor

5.45. WINDSHIELD WASHER BOTTLE AND/OR PUMP MOTOR
- Install Windshield Washer Bottle and/or Pump Motor

5.46. ENGINE COVER AND CUP HOLDER
- Install Engine Cover
- Install Cup Holder

5.47. CAB
- Cab Squaring
- Install Cab with Low Mount Front Cab Mounting and Low Mount Rear Cab Mounting for Standard Cab and Extended Cab Models
- Install Low Mount Front Cab Mounting Isolators for Standard Cab and Extended Cab Models Before January 2003
Install Low Mount Rear Cab Carriage Bolts and Compression Isolators for Standard Cab and Extended Cab Models Before January 2003 .......................................................... 285
Cab with Low Mount Front Cab Mounting and Low Mount Rear Cab Mounting for Standard Cab and Extended Cab Models .................................................. 286
Install Cab with Low Mount Front Cab Mounting for Models after January 2003 and Low Mount Rear Cab Air Suspension Mounting for all Crew Cab Models ......... 287
Install Low Mount Rear Cab Air Suspension Mounting Carriage Bolts for all Crew Cab Models ........................................................................................................... 287
Install Low Mount Rear Cab Air Suspension for all Crew Cab Models .......................................................... 287
Install Low Mount Rear Cab Air Suspension Mounting for all Crew Cab Models for City Tractor Applications .......................................................... 288
Install Mid High Mount Rear Cab Air Suspension Mounting Carriage Bolts for 4400 Model for City Tractor Applications .................................................. 288
Install Mid High Mount Rear Cab Air Suspension for 4400 Model for City Tractor Applications .......................................................................................... 289
Cab with Mid High Front Cab Mounting and Mid High Rear Cab Air Suspension Mounting for 4400 Model for City Tractor Applications .................................................. 289
General Procedures for Cab Installation .................................................................................. 289

6. TROUBLESHOOTING ........................................................................................................... 291
   6.1. ELECTRIC WINDSHIELD WIPER MOTOR ................................................................ 291
   6.2. WASHER PUMP MOTOR ....................................................................................... 292

7. LUBRICATION .................................................................................................................... 292
   7.1. 4000 MILES (6000 KM) OR MONTHLY ................................................................. 292
   7.2. AS REQUIRED ........................................................................................................... 292

8. ADJUSTMENTS ................................................................................................................... 293
   8.1. CAB DOOR .................................................................................................................. 293
   8.2. HINGE AT CAB HINGE PILLAR .......................................................................... 293
   8.3. STRIKER PIN AT LOCK PILLAR ......................................................................... 294
   8.4. WINDSHIELD WIPER ARM AND BLADE ASSEMBLY ............................................ 296
   8.5. CAB AIR SUSPENSION ............................................................................................ 297

9. FORMS .................................................................................................................................. 299
   9.1. BONDED WINDSHIELD REPLACEMENT REPORT .................................................. 299

10. TORQUE .............................................................................................................................. 301
    10.1. TORQUE CHART ..................................................................................................... 301
1. DESCRIPTION

1.1. STANDARD CAB, EXTENDED CAB AND CREW CAB

The cab for these models, including extended cab and crew cab Models, is made of double sided galvanized steel which provides a strong cab with less weight and excellent corrosion protection.

Figure 1 illustrates the standard cab for the model/series covered in this section.
Figure 2 illustrates the extended cab and crew cab for the model/series covered in this section.

Figure 2  Extended Cab and Crew Cab
1.2. VEHICLE IDENTIFICATION NUMBER (VIN) TAG LOCATION

Refer to Figure 3 for Items in parentheses.

VIN’s are necessary if the need for replacement parts should occur. For this reason, you will want to know the location for these important numbers. **Cab** and **Chassis** VINs (Items 1 and 2) are located on the face of cab door latch pillar (Item 3), driver’s side.

**Figure 3 VIN Tag Location**

1. CAB "VIN" TAG
2. CHASSIS "VIN" TAG
3. CAB DOOR LATCH PILLAR
1.3. ELECTRIC WINDSHIELD WIPERS

Refer to Figure 4 for Items in parentheses.

The windshield wiper system consists of a single unitized 12 volt electric wiper motor (Item 1) that operates the wiper arms (Item 2) through wiper linkage (Item 3). The motor has two speeds (low and high), and a park position which is controlled by a three-position switch.

Since the electric wiper motor is of unitized construction, there is no need for motor rebuild or adjustments. There are no serviceable parts; the complete assembly is replaced.

Figure 4  Electric Windshield Wipers

1. ELECTRIC WIPER MOTOR
2. WIPER ARM
3. WIPER LINKAGE
1.4. WINDSHIELD WASHER

The windshield washer consists of a washer bottle mounted, motor driven, displacement type pump that delivers washer solution to the windshield through hoses and nozzles in the wiper arms. The pump motor (Item 1) may be integral with washer bottle (Item 2) or removable Figure 5 (See Figure 5, page 5) and Figure 6 (See Figure 6, page 6).

Figure 5  Washer Bottle Location without Hood Access Hatch

1. PUMP MOTOR
2. WASHER BOTTLE
2. OPERATION

2.1. ELECTRIC WINDSHIELD WIPERS

The windshield wiper motor is a permanent magnet electric motor with a worm gear on the armature shaft which drives a follower gear on the crankshaft. A cam is molded on the output gear and operates against a switch mounted on the molded cover and is connected in the motor circuit.

When the motor is turned on, the switch floats in the circuit. When the motor is turned off, the switch continues to supply current to the motor until the molded cam reaches the switch. This opens the circuit in the motor and stops the wipers in the park position.

**CAUTION** – Do not attempt to move the blades through their sweep by grasping the wiper arm. This action may result in the teeth being broken off the drive gear or the linkage bent. If blades are frozen to windshield, do not operate control switch until they have been freed.

The three-position switch located on a knob at the end of the turn signal lever controls off, low speed, or high speed operation and intermittent wiper (five pre-set delay settings) by rotating the knob.
2.2. WINDSHIELD WASHER

The control knob located at the end of the turn signal lever controls the mist and windshield washer features by pressing in on the end of the knob. Pressing in and instantly releasing the knob activates the mist wipe feature (one pass only). Pressing in and holding momentarily will start the washer feature and activate the wipers.

3. MAINTENANCE

3.1. WINDSHIELD WASHER

A minimum of service is required to keep the windshield washer operating. Keep reservoir filled with windshield washer solvent and keep wiper nozzles clean. If dirt enters the reservoir, remove reservoir and flush out with clean water. Refill reservoir with specified solvent after re-installing.

4. REMOVE

4.1. ONE PIECE ENCAPSULATED WINDSHIELD

Remove One Piece Encapsulated Windshield

A one piece encapsulated windshield Figure 7 is standard.

Figure 7 One Piece Encapsulated Windshield