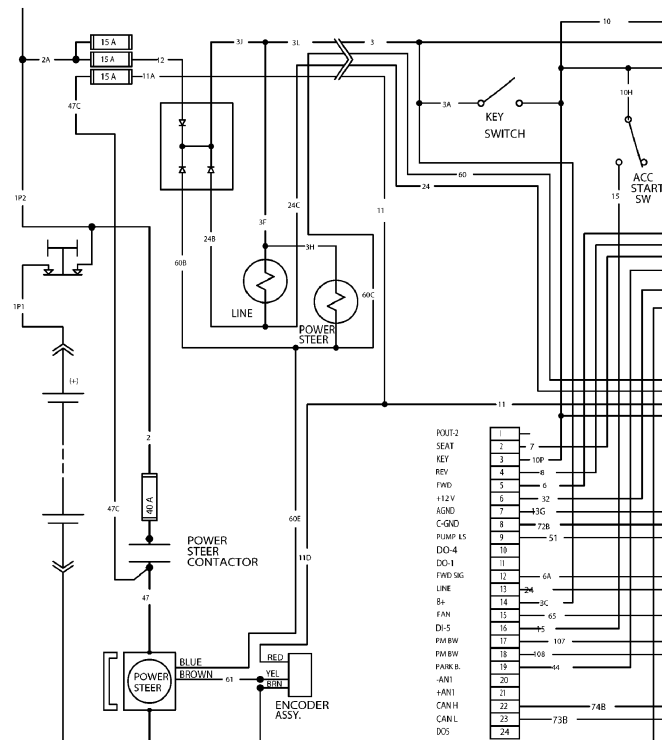


ELECTRICAL DIAGRAMS

AC MOTOR CONTROL SYSTEM

J2.00-3.20XM (J40-60Z) [A416]; V30ZD [D210];
E1.50-2.00XM (E25-35Z, E40ZS) [E114];
E2.00-3.20XM (E45-65Z) [G108]



HYSTER

SAFETY PRECAUTIONS MAINTENANCE AND REPAIR

- When lifting parts or assemblies, make sure all slings, chains, or cables are correctly fastened, and that the load being lifted is balanced. Make sure the crane, cables, and chains have the capacity to support the weight of the load.
- Do not lift heavy parts by hand, use a lifting mechanism.
- Wear safety glasses.
- **DISCONNECT THE BATTERY CONNECTOR** before doing any maintenance or repair on electric lift trucks.
- Disconnect the battery ground cable on internal combustion lift trucks.
- Always use correct blocks to prevent the unit from rolling or falling. See **HOW TO PUT THE LIFT TRUCK ON BLOCKS** in the **Operating Manual** or the **Periodic Maintenance** section.
- Keep the unit clean and the working area clean and orderly.
- Use the correct tools for the job.
- Keep the tools clean and in good condition.
- Always use **HYSTER APPROVED** parts when making repairs. Replacement parts must meet or exceed the specifications of the original equipment manufacturer.
- Make sure all nuts, bolts, snap rings, and other fastening devices are removed before using force to remove parts.
- Always fasten a **DO NOT OPERATE** tag to the controls of the unit when making repairs, or if the unit needs repairs.
- Be sure to follow the **WARNING** and **CAUTION** notes in the instructions.
- Gasoline, Liquid Petroleum Gas (LPG), Compressed Natural Gas (CNG), and Diesel fuel are flammable. Be sure to follow the necessary safety precautions when handling these fuels and when working on these fuel systems.
- Batteries generate flammable gas when they are being charged. Keep fire and sparks away from the area. Make sure the area is well ventilated.

NOTE: The following symbols and words indicate safety information in this manual:



WARNING

Indicates a condition that can cause immediate death or injury!



CAUTION

Indicates a condition that can cause property damage!

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This section is for the following models:

J2.00-3.20XM (J40-60Z) [A416];
V30ZD [D210];
E1.50-2.00XM (E25-35Z, E40ZS) [E114];
E2.00-3.20XM (E45-65Z) [G108]

**"THE
QUALITY
KEEPERS"**

**HYSTER
APPROVED
PARTS**

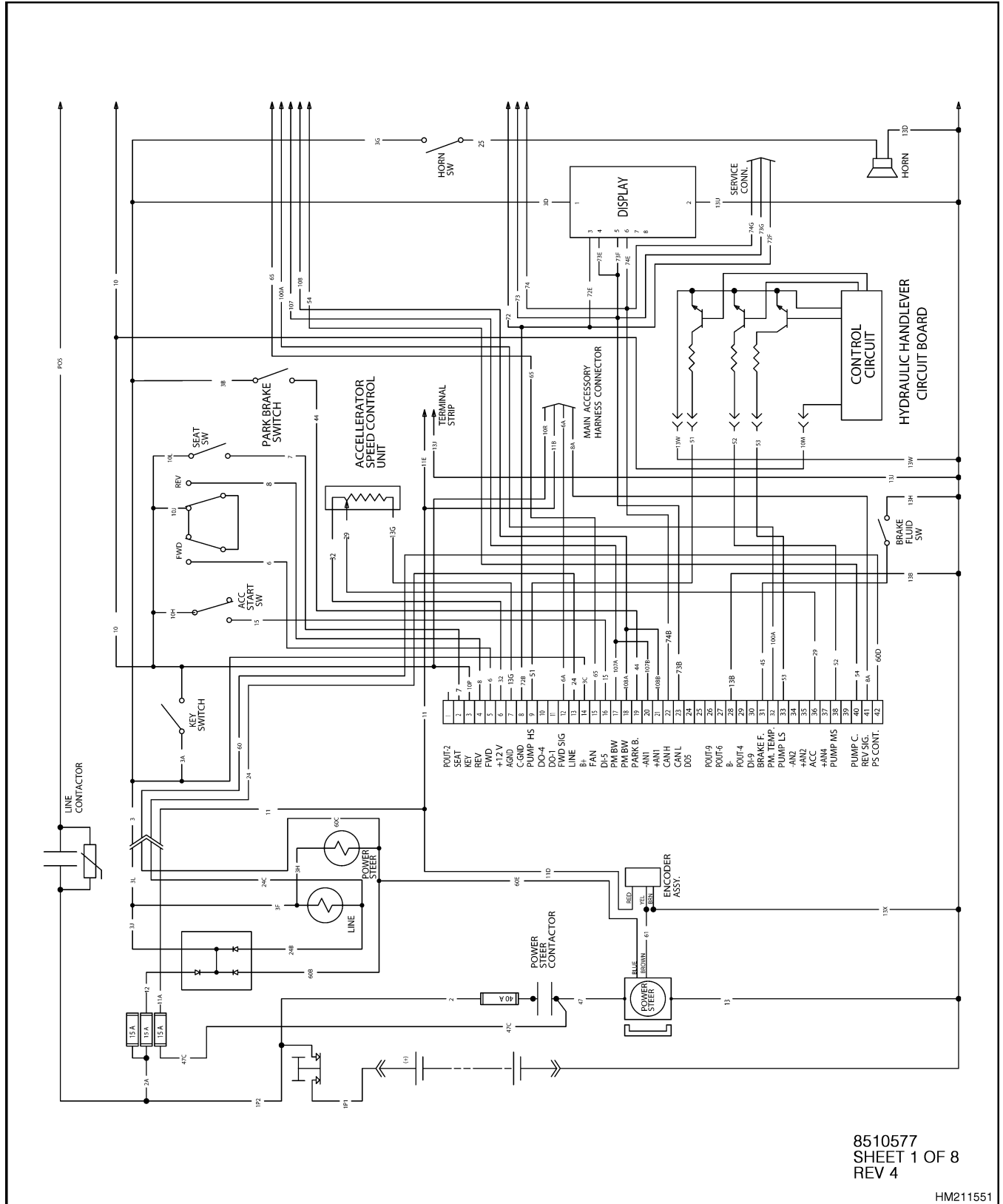
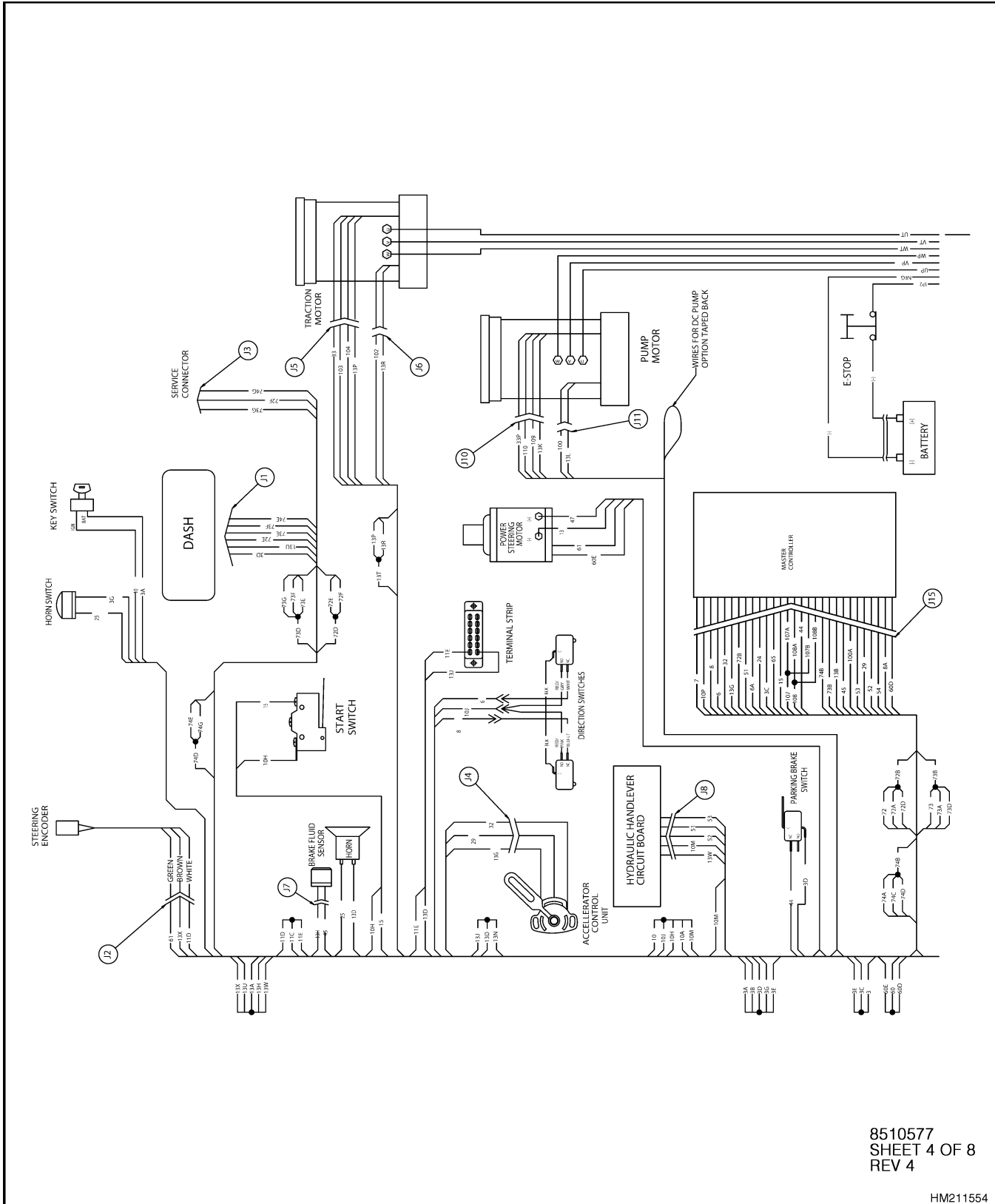


Figure 1. Wiring Schematic Diagram for J2.00-3.20XM (J40-60Z) (A416) (Sheet 1 of 8)







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SHEET 4 OF 8
REV 4

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Figure 1. Wiring Schematic Diagram for J2.00-3.20XM (J40-60Z) (A416) (Sheet 4 of 8)

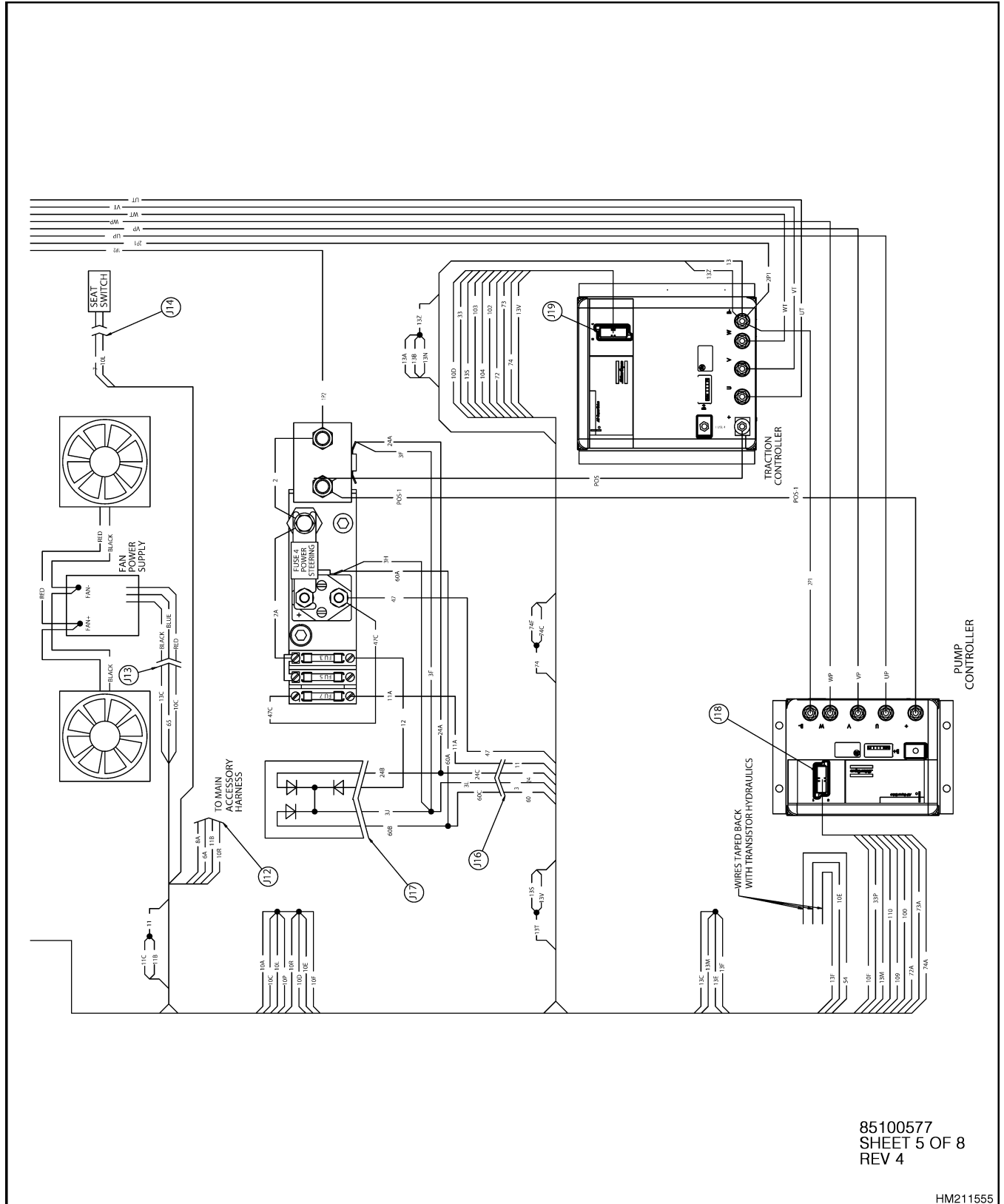


Figure 1. Wiring Schematic Diagram for J2.00-3.20XM (J40-60Z) (A416) (Sheet 5 of 8)

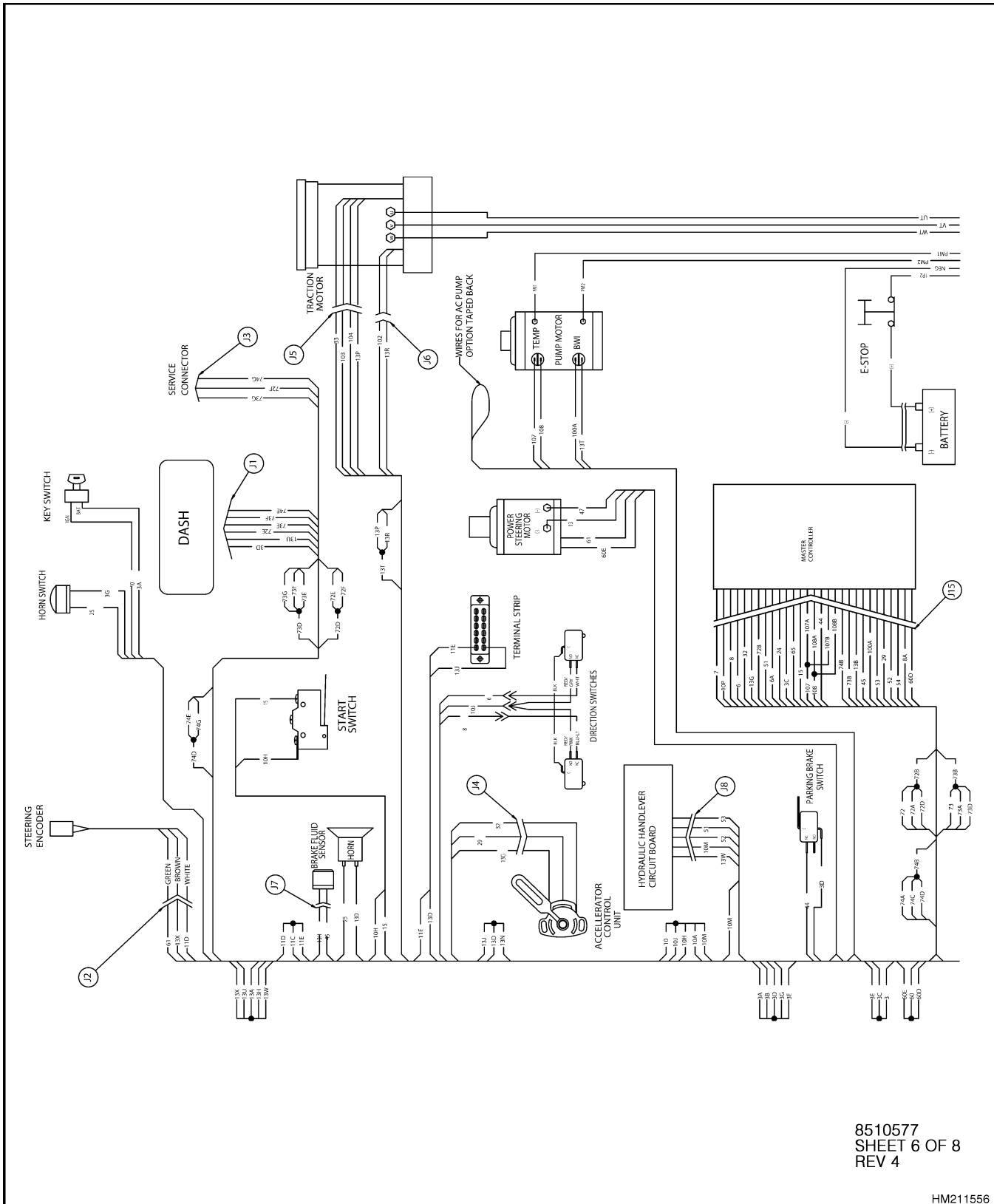


Figure 1. Wiring Schematic Diagram for J2.00-3.20XM (J40-60Z) (A416) (Sheet 6 of 8)

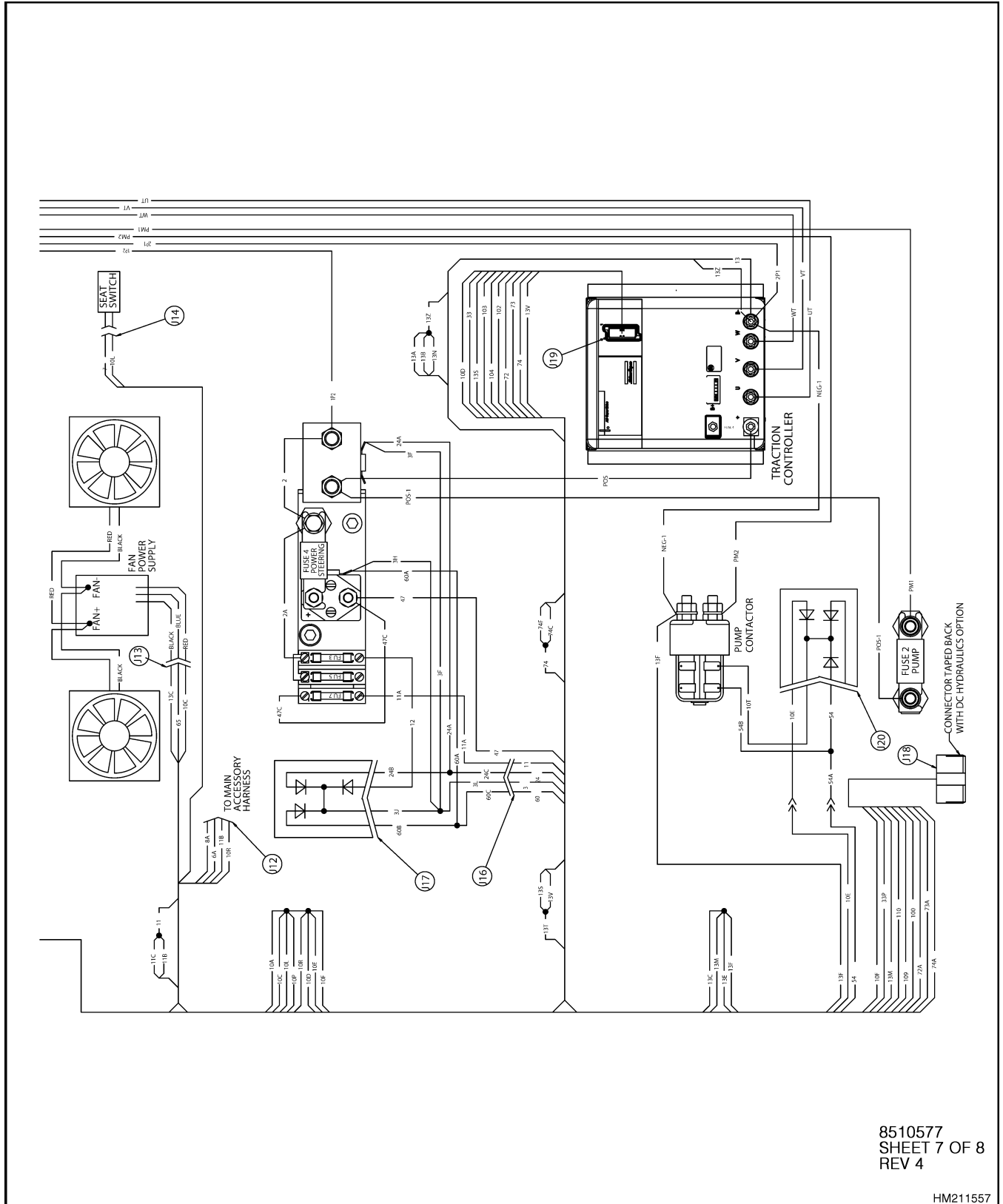
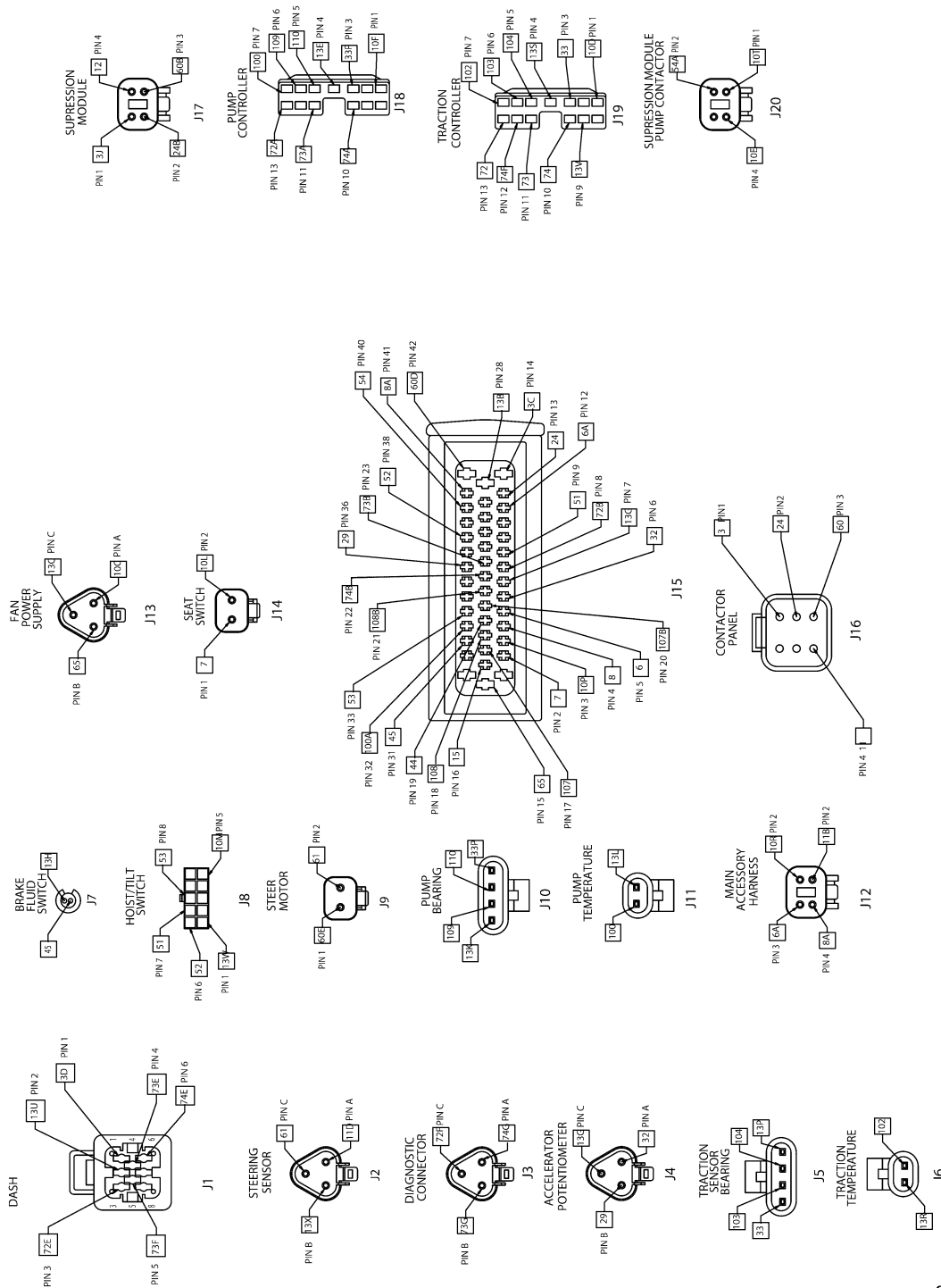


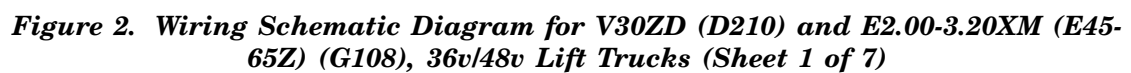
Figure 1. Wiring Schematic Diagram for J2.00-3.20XM (J40-60Z) (A416) (Sheet 7 of 8)



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SHEET 8 OF 8
REV 4

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Figure 1. Wiring Schematic Diagram for J2.00-3.20XM (J40-60Z) (A416) (Sheet 8 of 8)



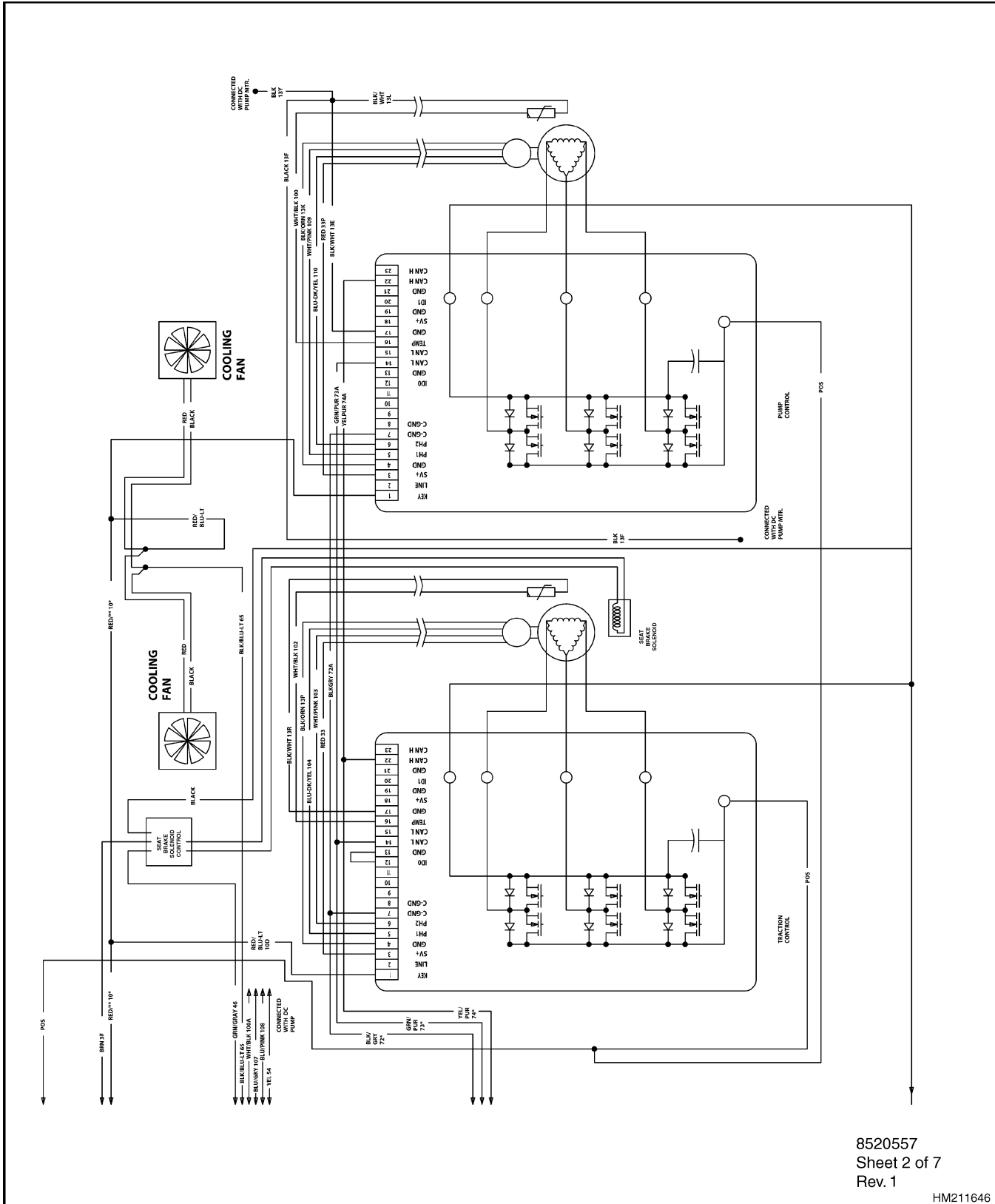


Figure 2. Wiring Schematic Diagram for V30ZD (D210) and E2.00-3.20XM (E45-65Z) (G108), 36v/48v Lift Trucks (Sheet 2 of 7)

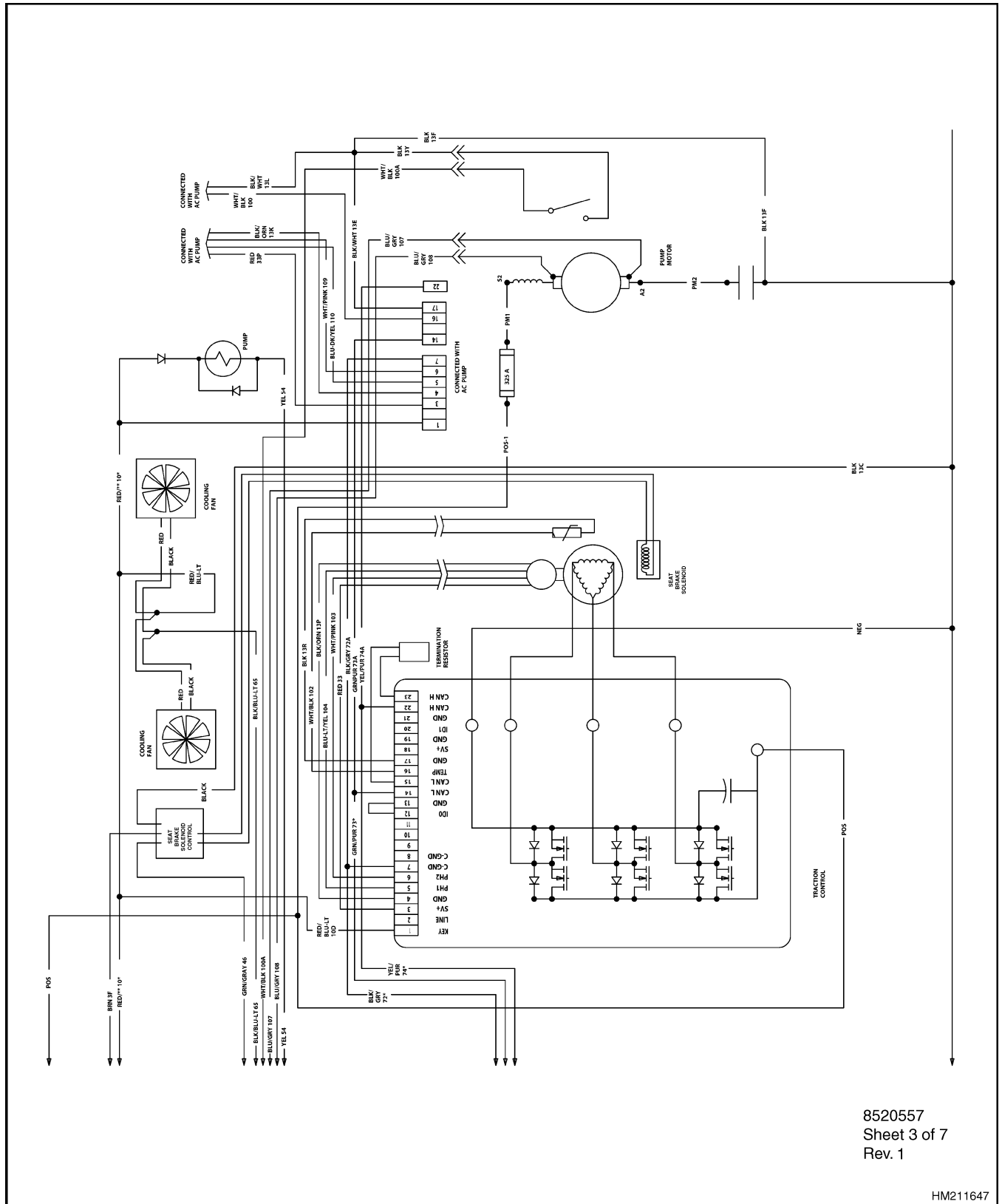


Figure 2. Wiring Schematic Diagram for V30ZD (D210) and E2.00-3.20XM (E45-65Z) (G108), 36v/48v Lift Trucks (Sheet 3 of 7)

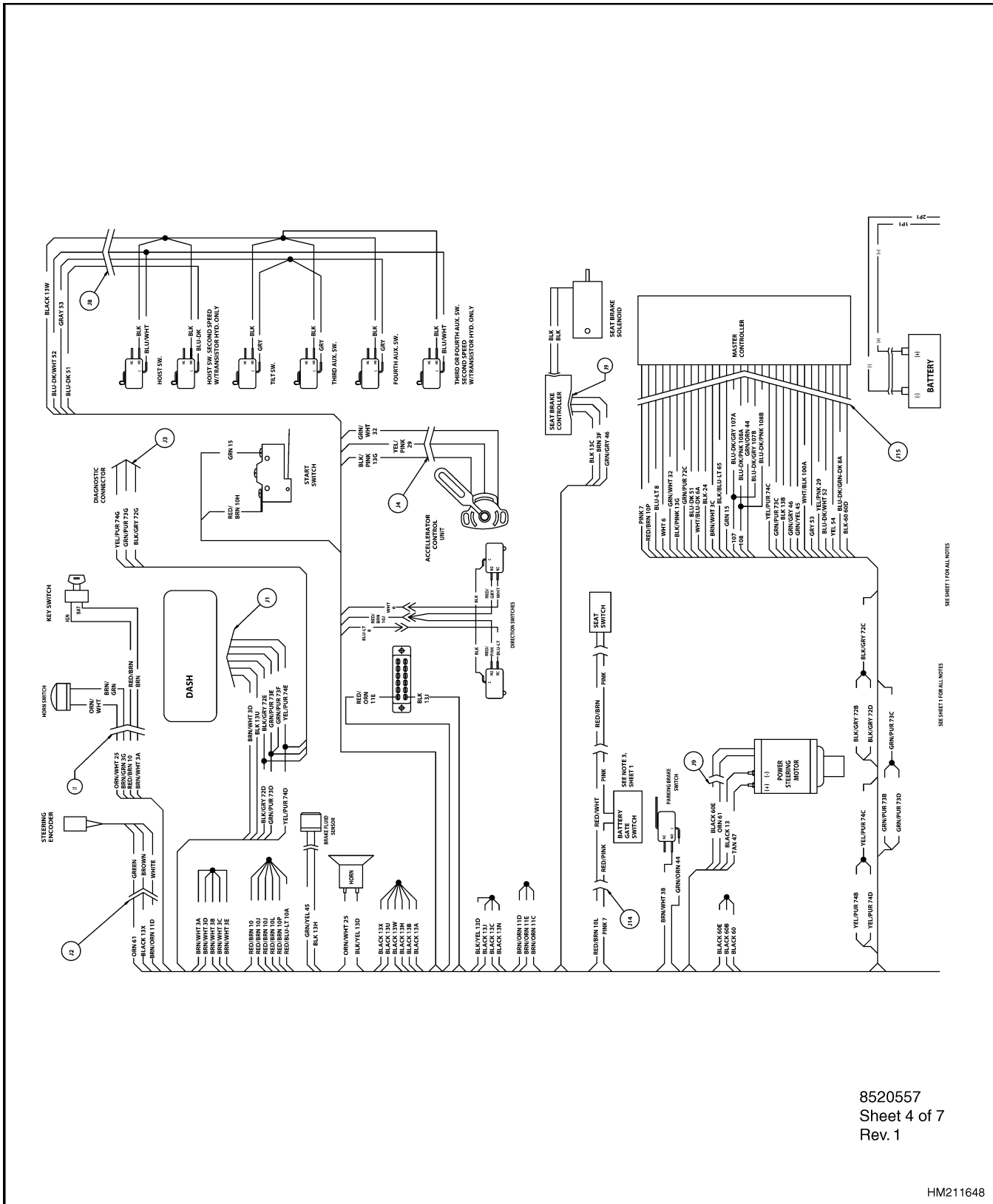


Figure 2. Wiring Schematic Diagram for V30ZD (D210) and E2.00-3.20XM (E45-65Z) (G108), 36v/48v Lift Trucks (Sheet 4 of 7)

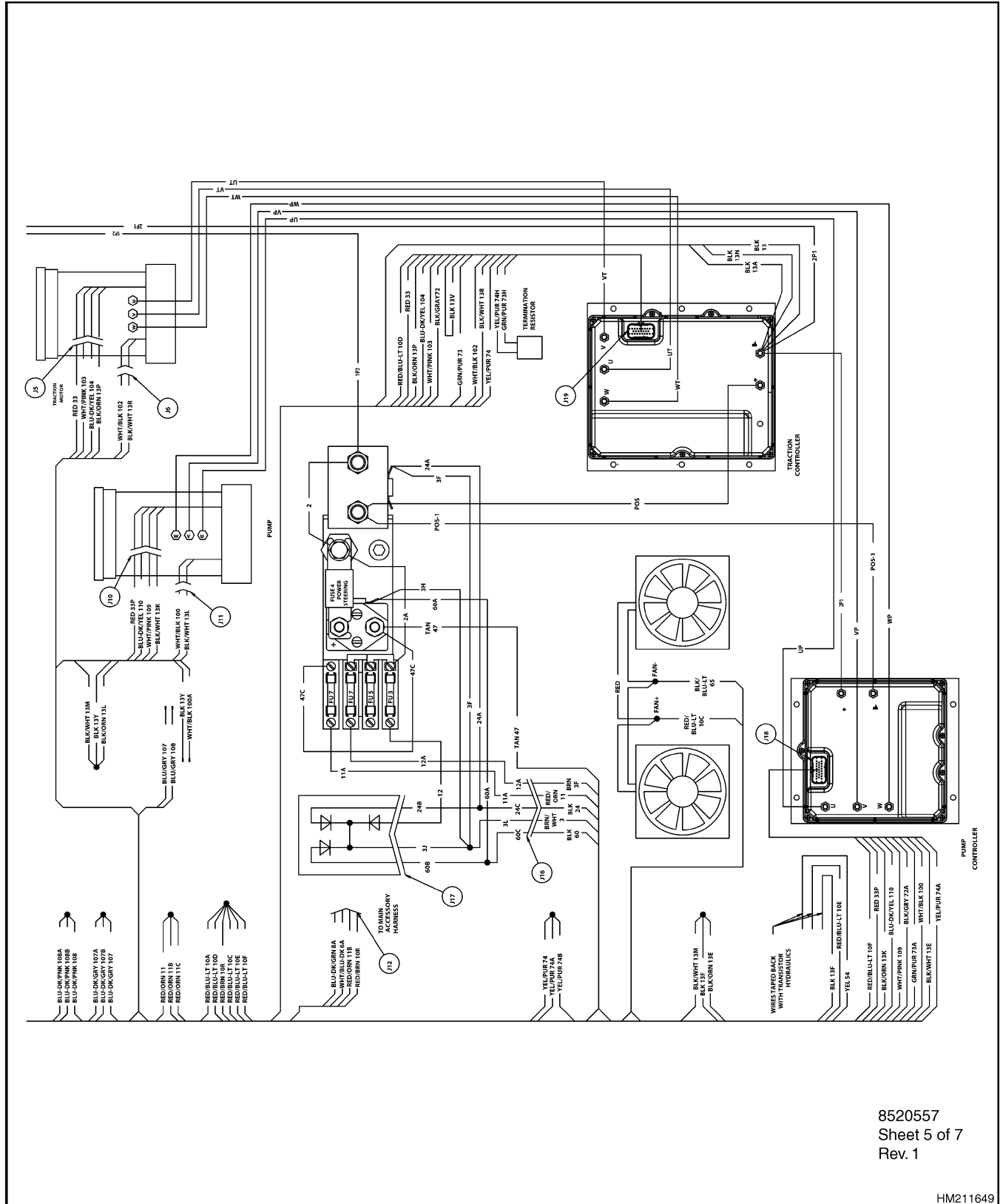


Figure 2. Wiring Schematic Diagram for V30ZD (D210) and E2.00-3.20XM (E45-65Z) (G108), 36v/48v Lift Trucks (Sheet 5 of 7)

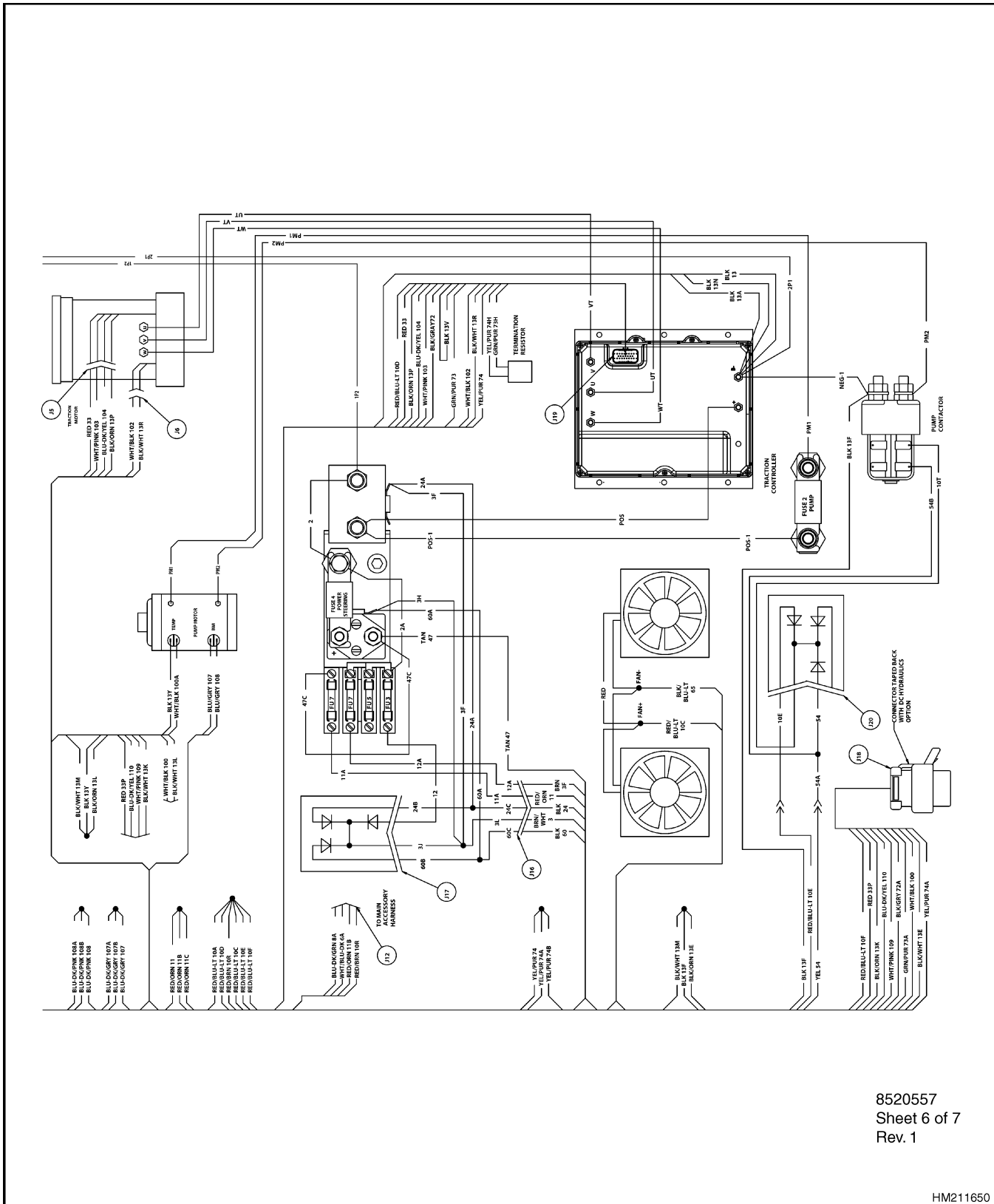


Figure 2. Wiring Schematic Diagram for V30ZD (D210) and E2.00-3.20XM (E45-65Z) (G108), 36v/48v Lift Trucks (Sheet 6 of 7)

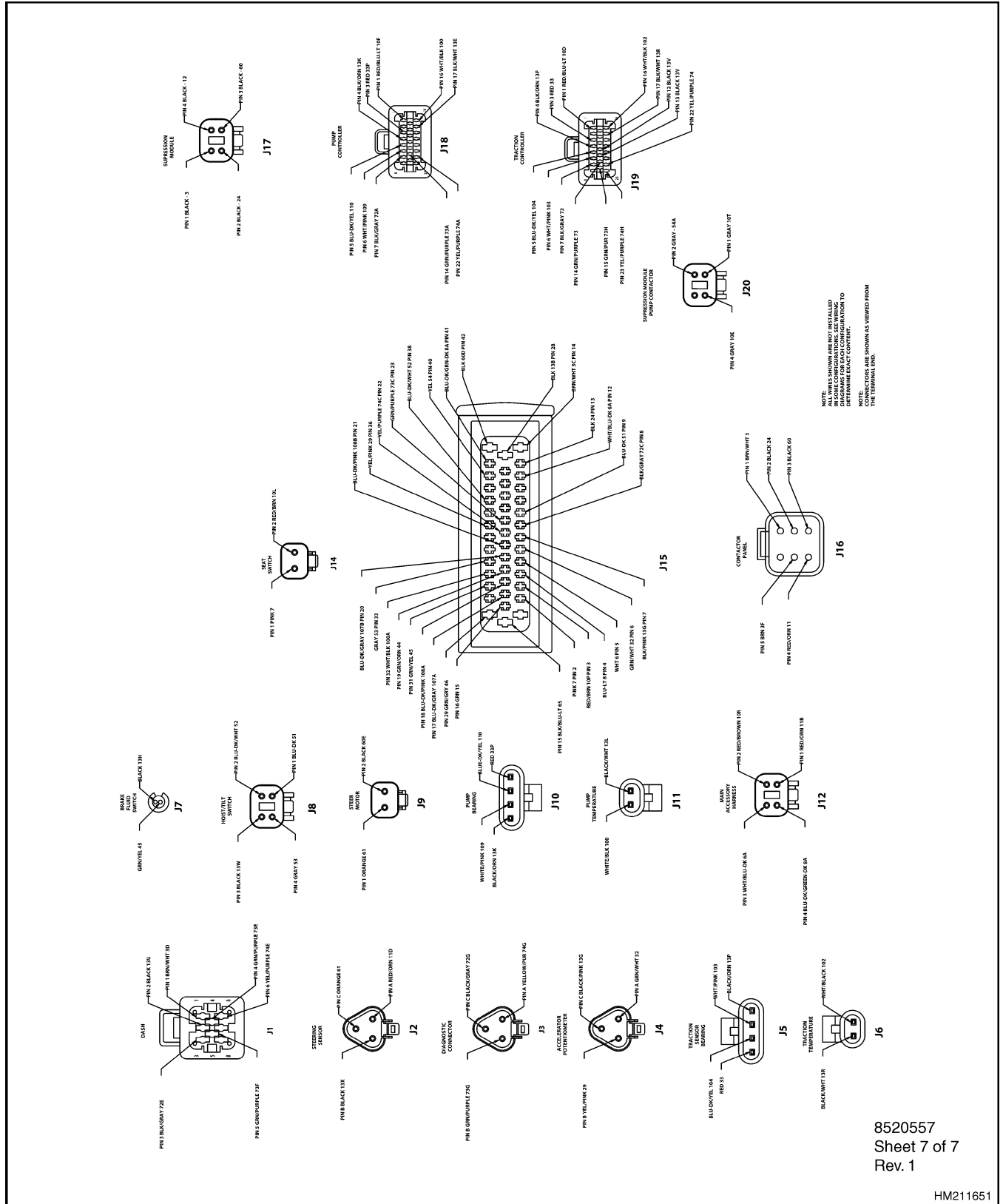
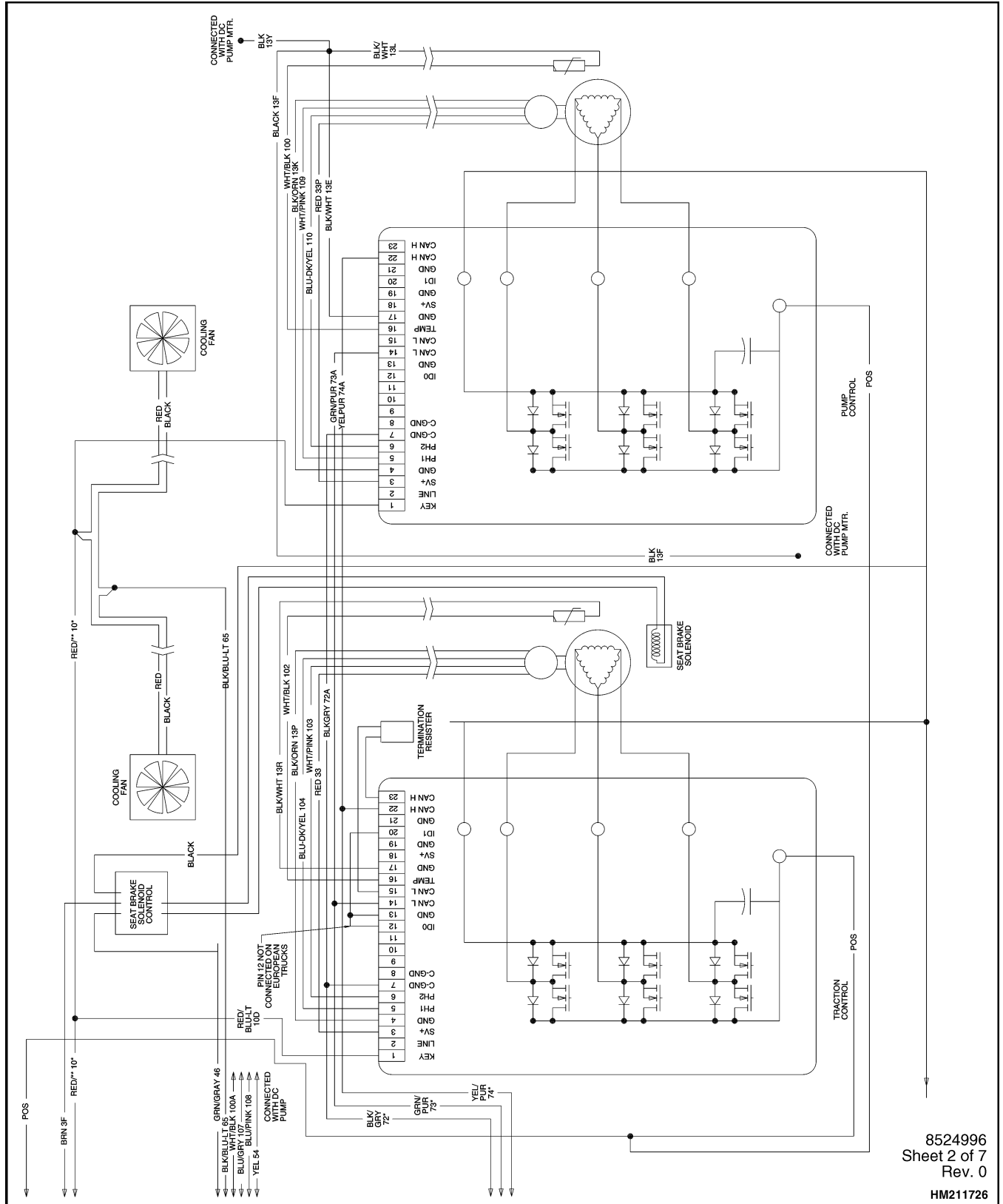


Figure 2. Wiring Schematic Diagram for V30ZD (D210) and E2.00-3.20XM (E45-65Z) (G108), 36v/48v Lift Trucks (Sheet 7 of 7)







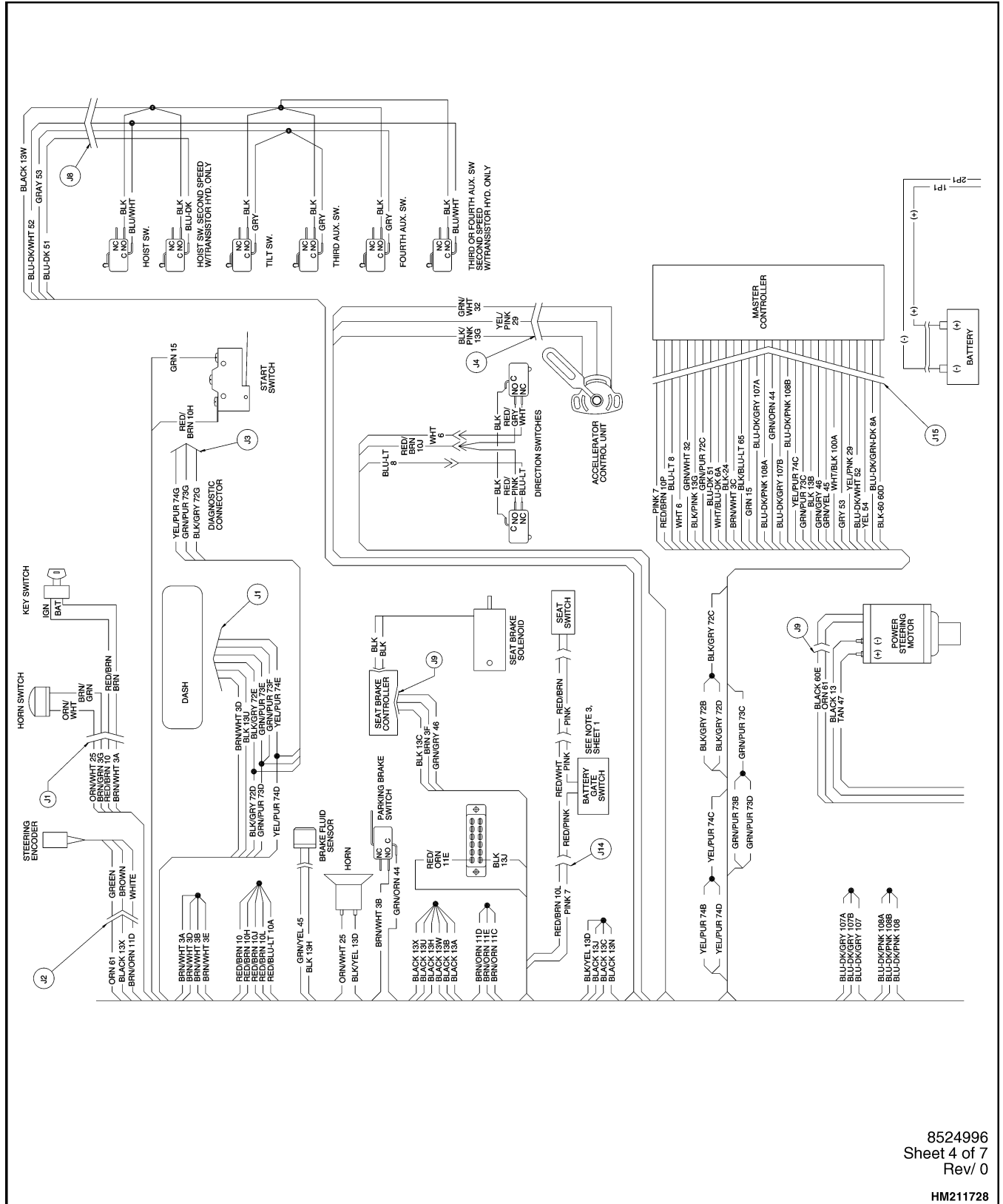


Figure 3. Wiring Schematic Diagram for E1.50-2.00XM (E25-35Z, E40ZS) (E114), 36v/48v Lift Trucks (Sheet 4 of 7)

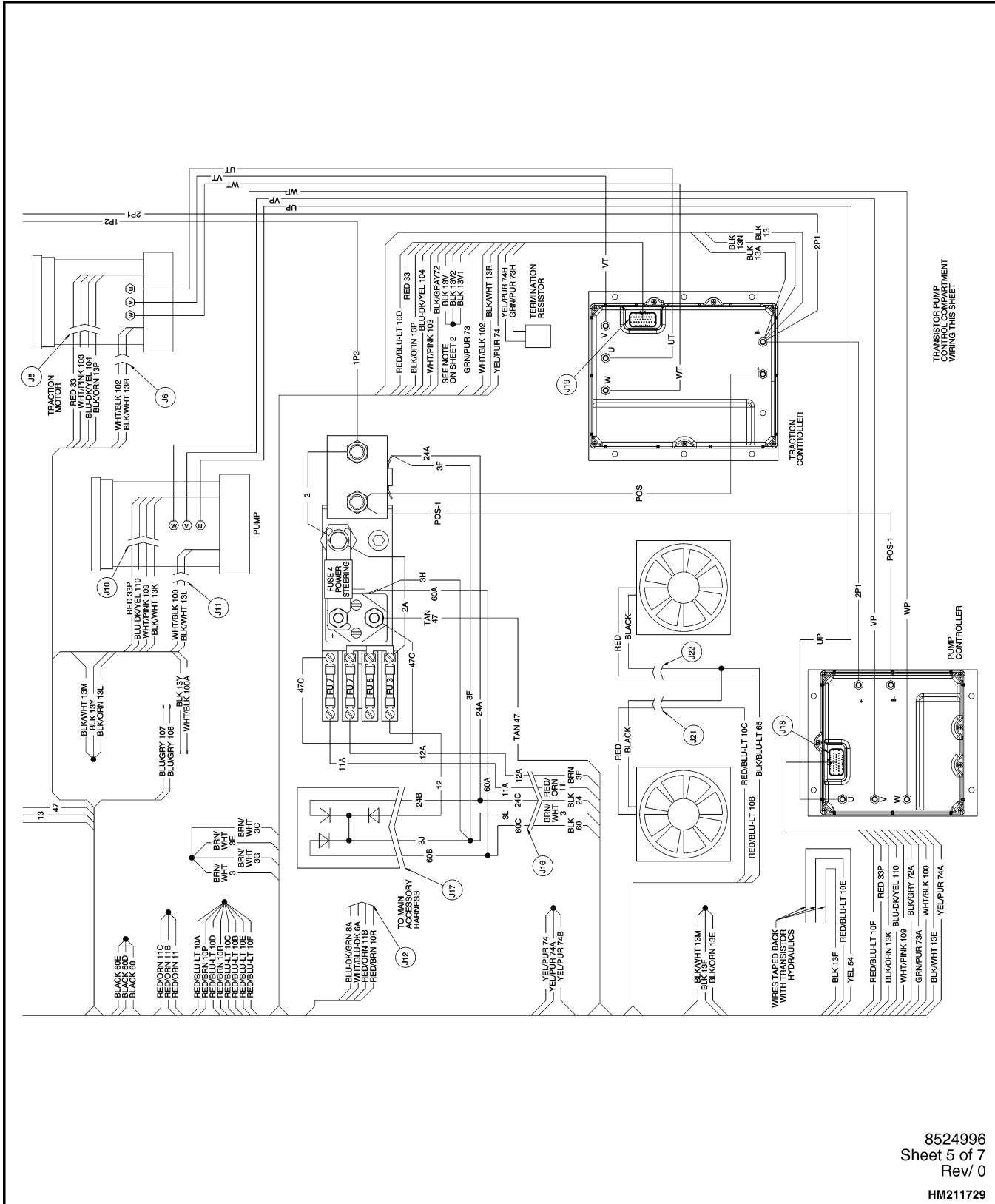


Figure 3. Wiring Schematic Diagram for E1.50-2.00XM (E25-35Z, E40ZS) (E114), 36v/48v Lift Trucks (Sheet 5 of 7)

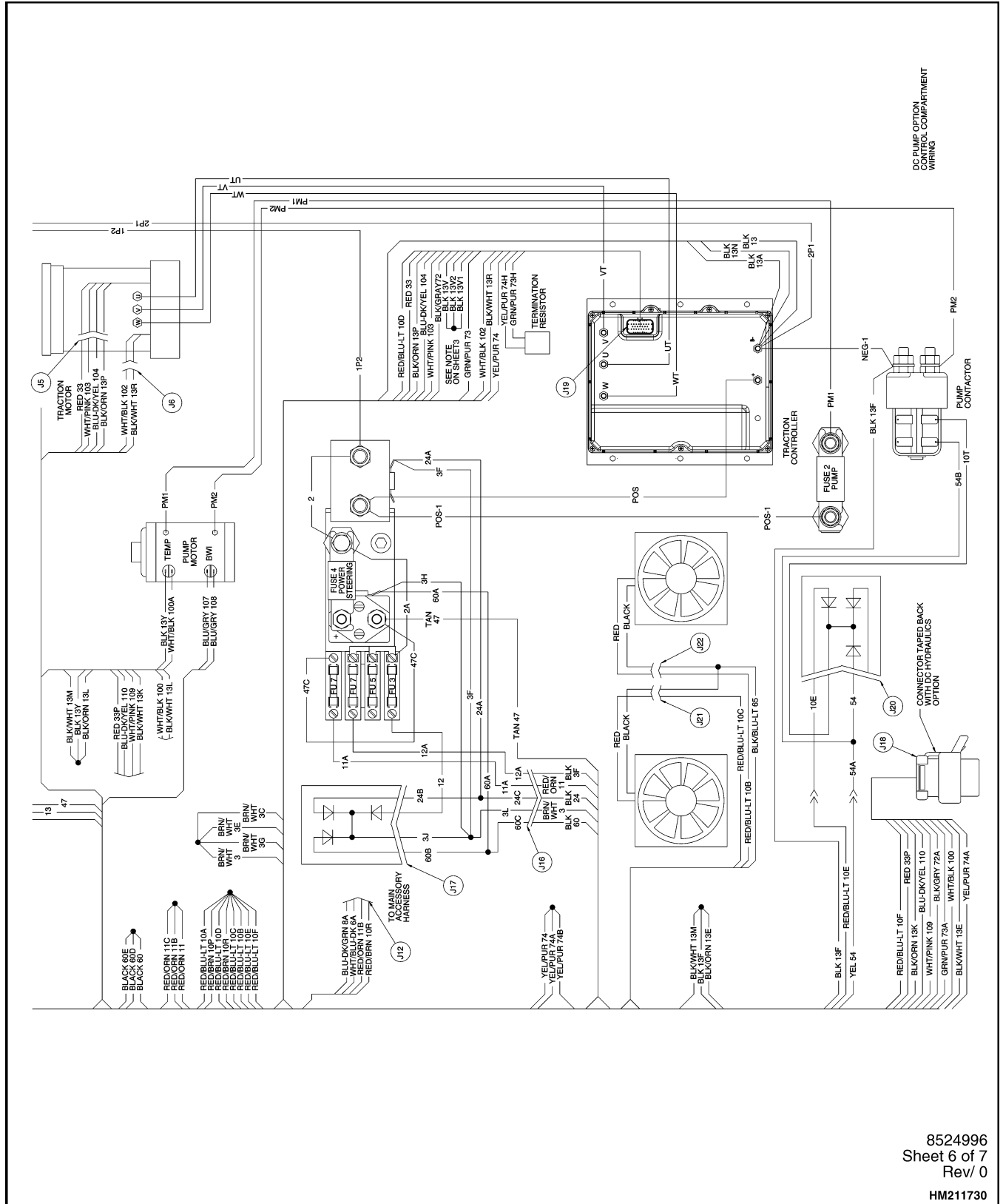


Figure 3. Wiring Schematic Diagram for E1.50-2.00XM (E25-35Z, E40ZS) (E114), 36v/48v Lift Trucks (Sheet 6 of 7)

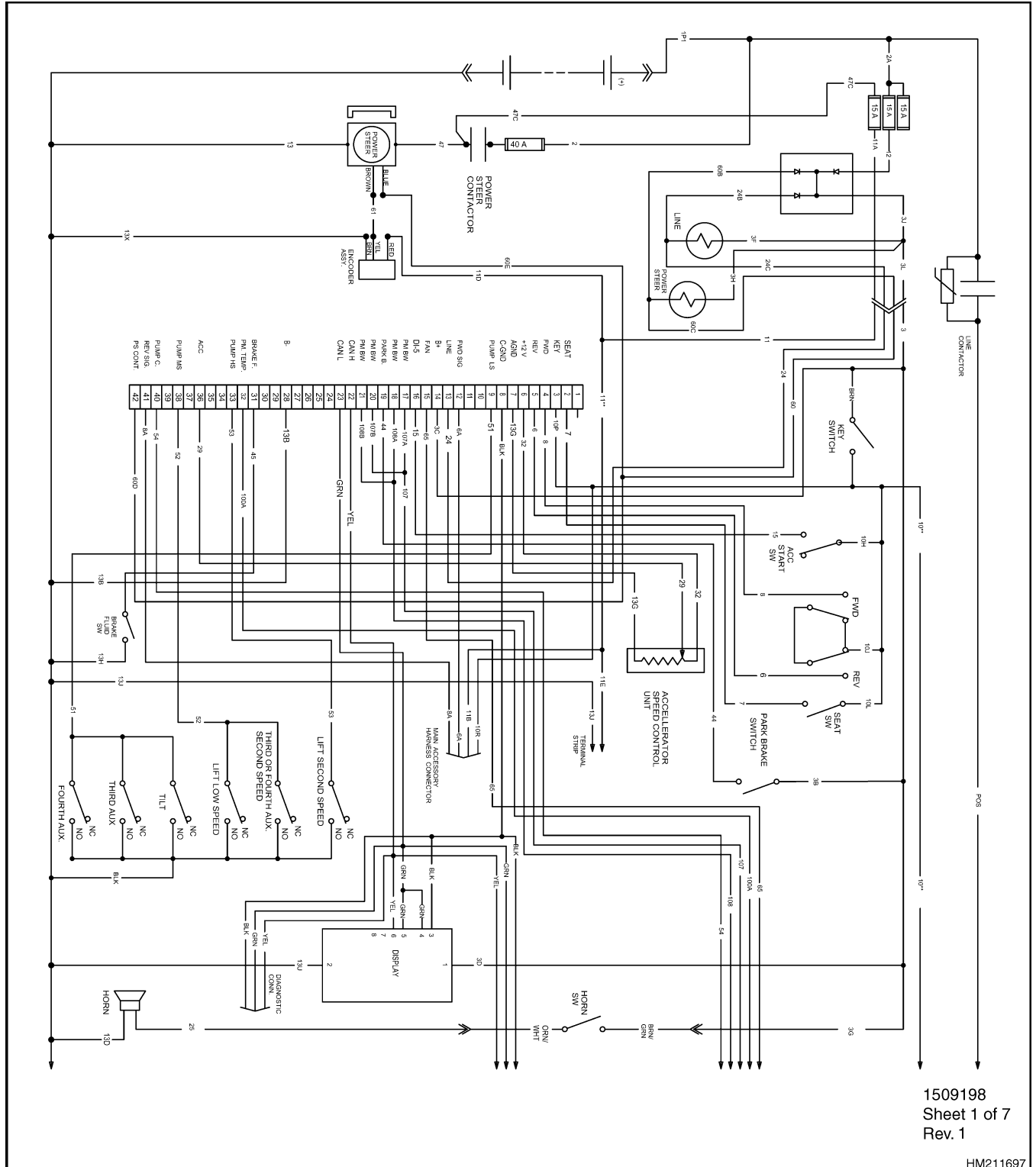


Figure 4. Wiring Schematic Diagram for E2.00-3.20XM (E45-65Z) (G108), 72v/80v Lift Trucks (Sheet 1 of 7)



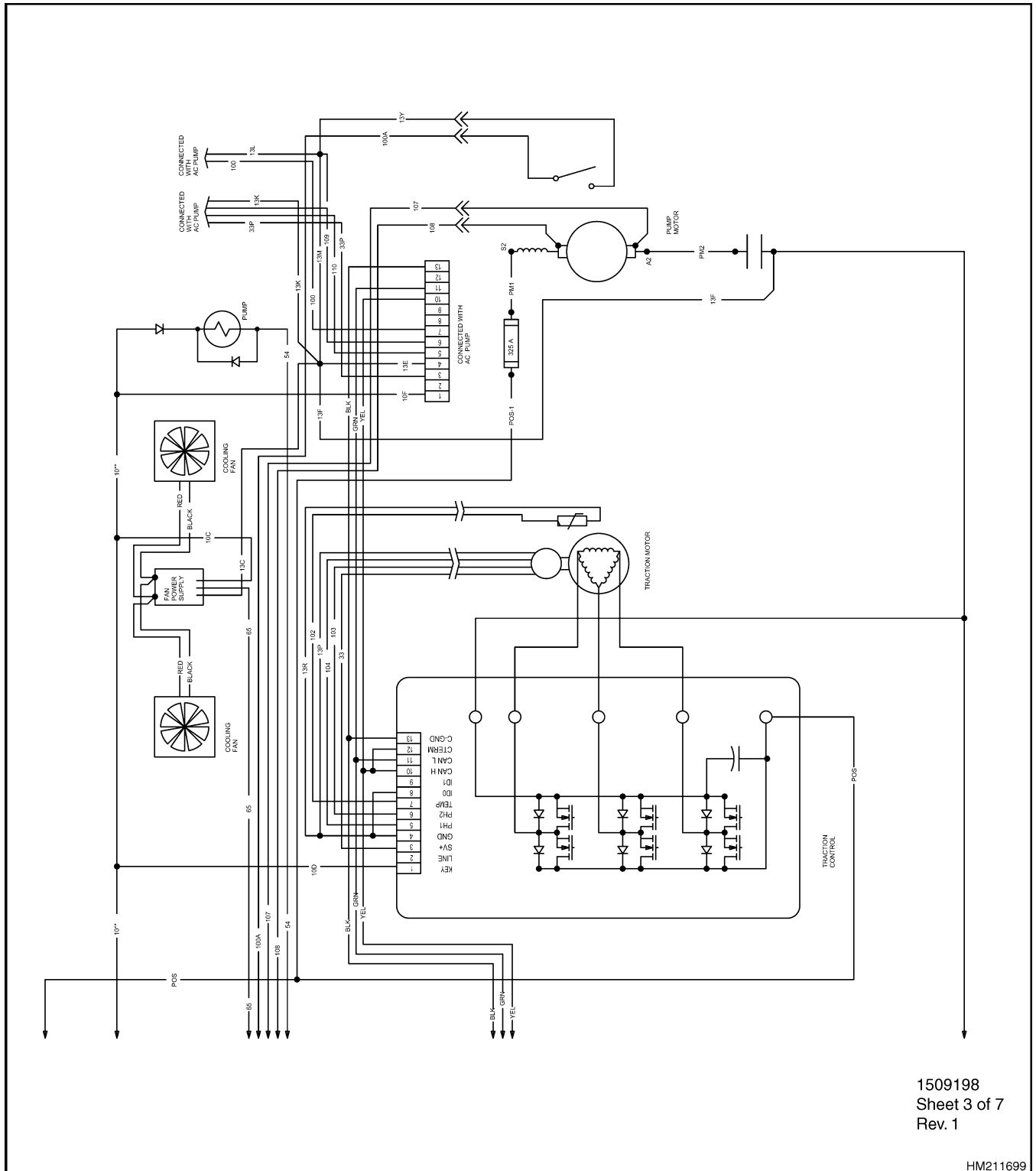
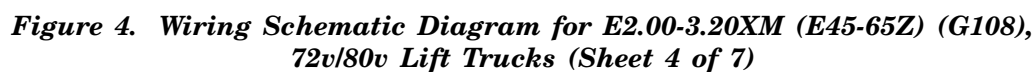


Figure 4. Wiring Schematic Diagram for E2.00-3.20XM (E45-65Z) (G108), 72v/80v Lift Trucks (Sheet 3 of 7)



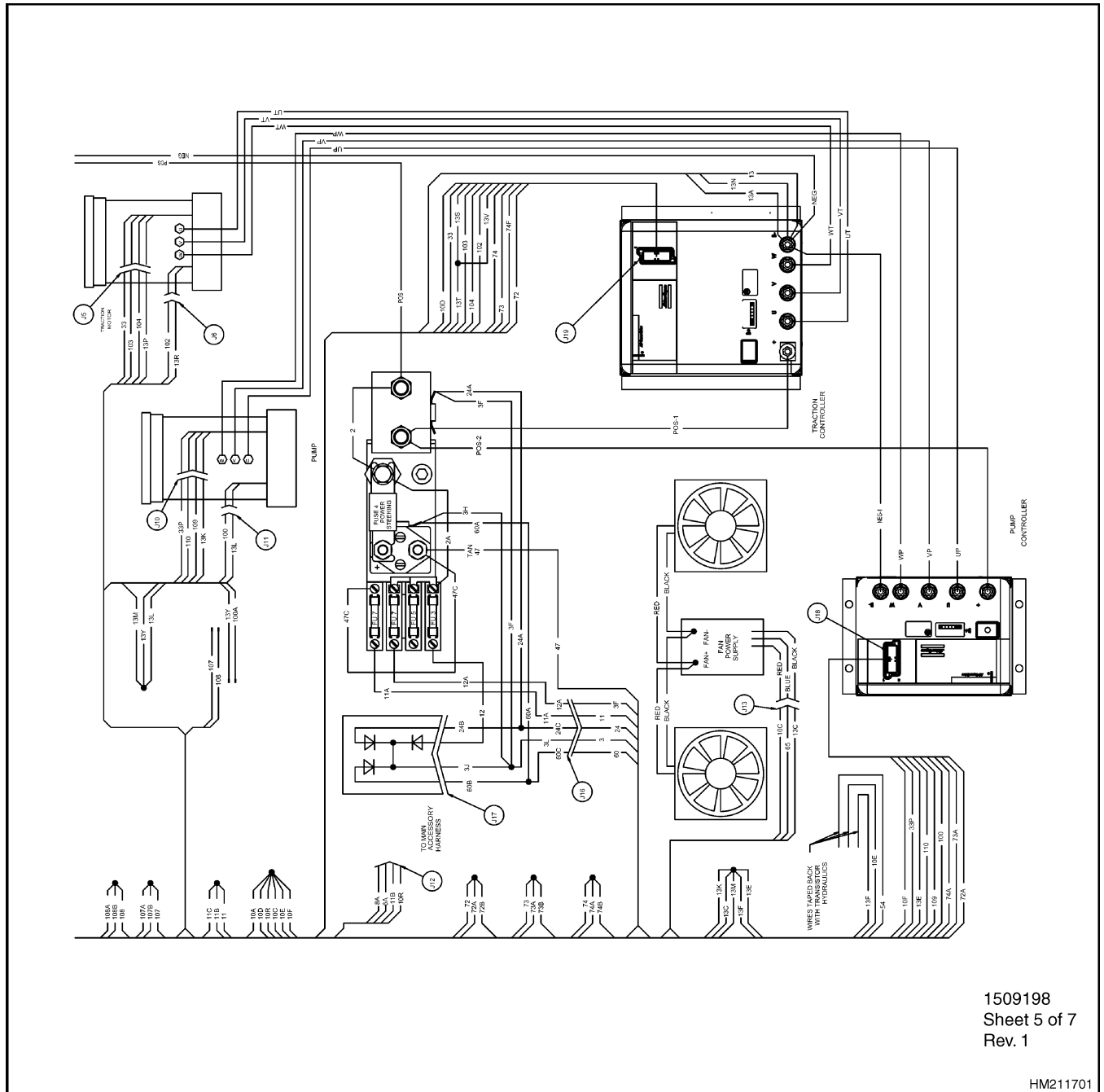


Figure 4. Wiring Schematic Diagram for E2.00-3.20XM (E45-65Z) (G108), 72v/80v Lift Trucks (Sheet 5 of 7)

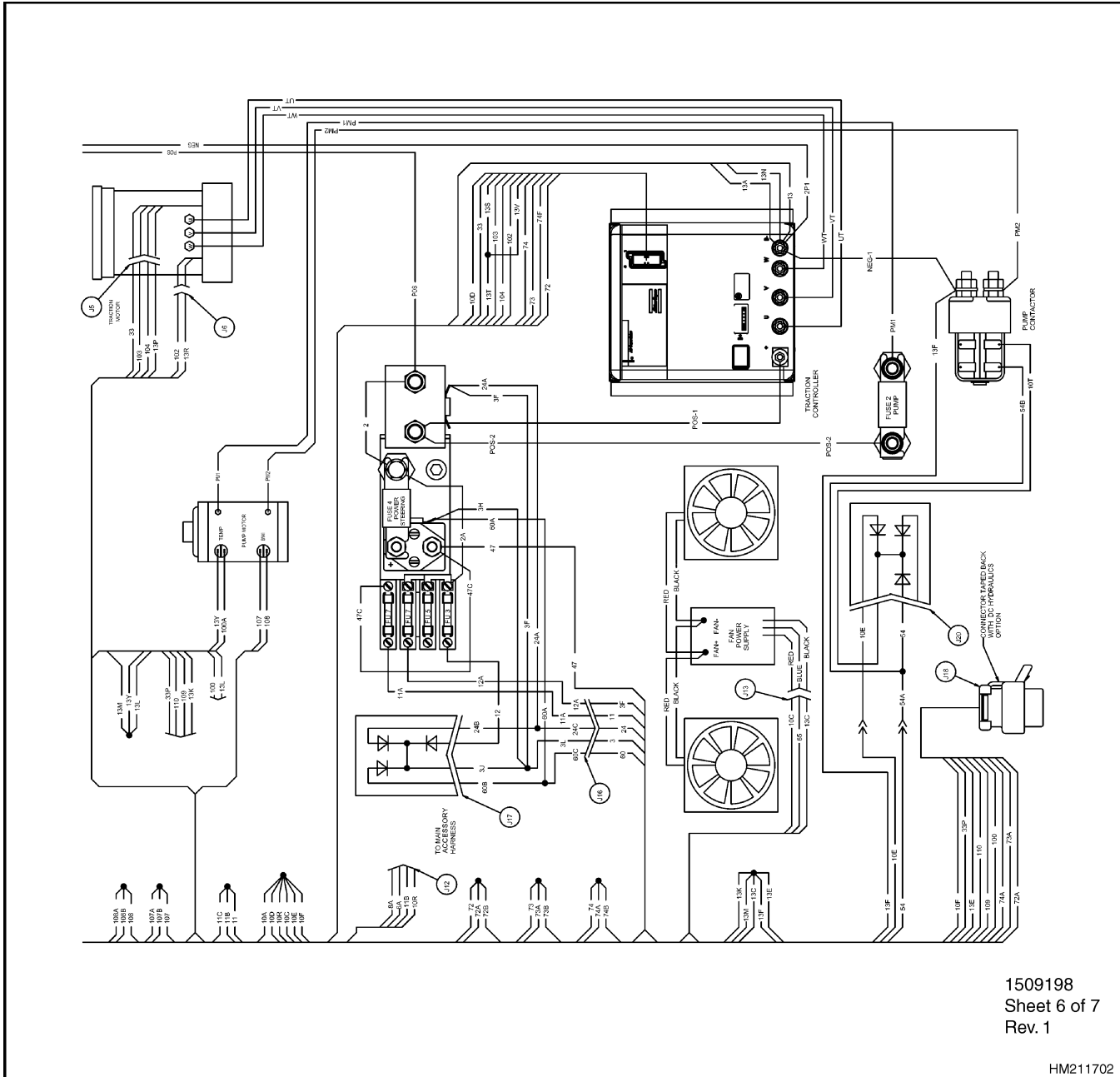
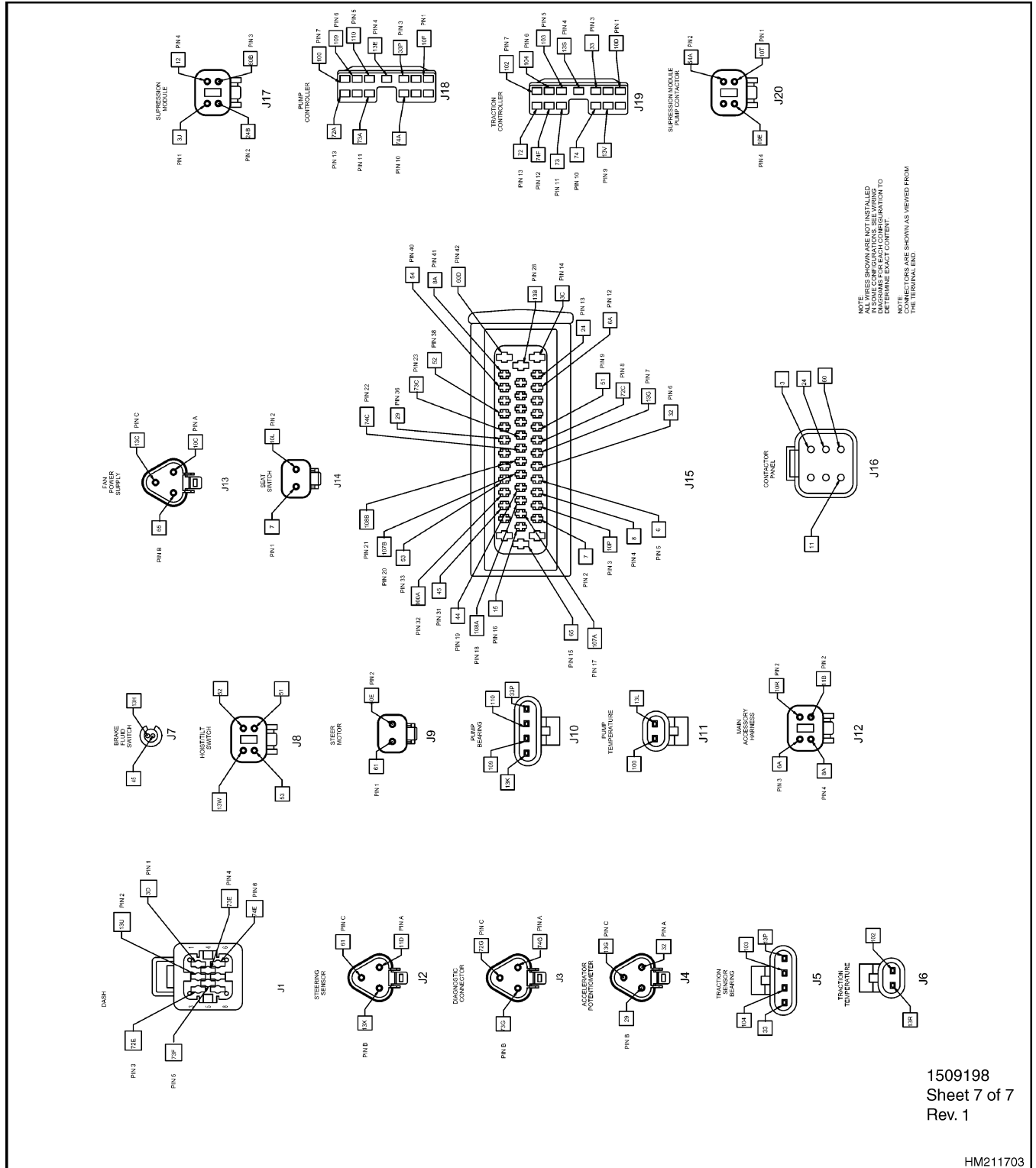


Figure 4. Wiring Schematic Diagram for E2.00-3.20XM (E45-65Z) (G108), 72v/80v Lift Trucks (Sheet 6 of 7)



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Sheet 7 of 7
Rev. 1

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Figure 4. Wiring Schematic Diagram for E2.00-3.20XM (E45-65Z) (G108), 72v/80v Lift Trucks (Sheet 7 of 7)



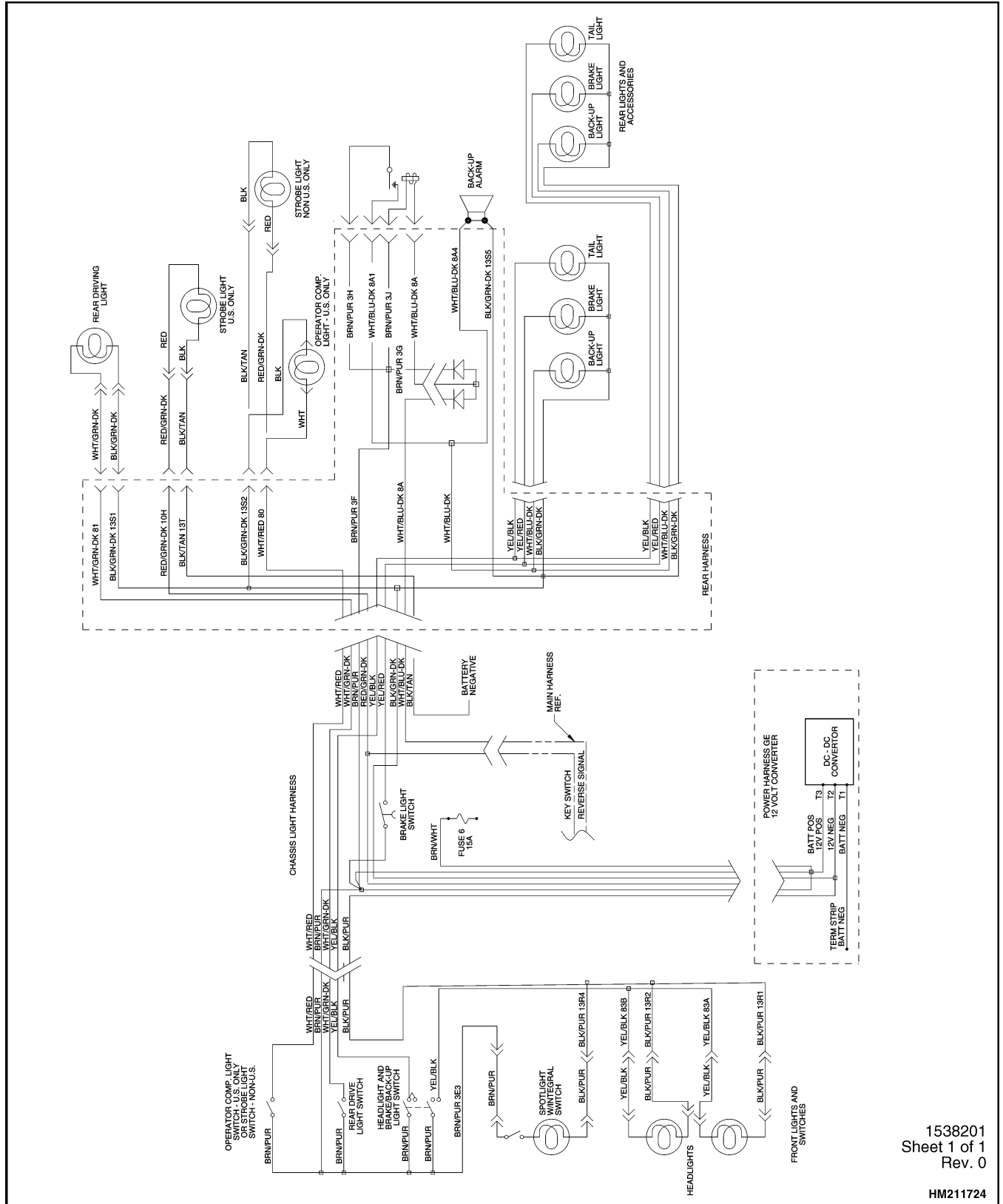


Figure 6. Main Accessory Schematic E1.50-2.00XM (E25-35Z, E40ZS) (E114) and E2.00-3.20XM (E45-65Z) (G108)

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Sheet 1 of 1
Rev. 0

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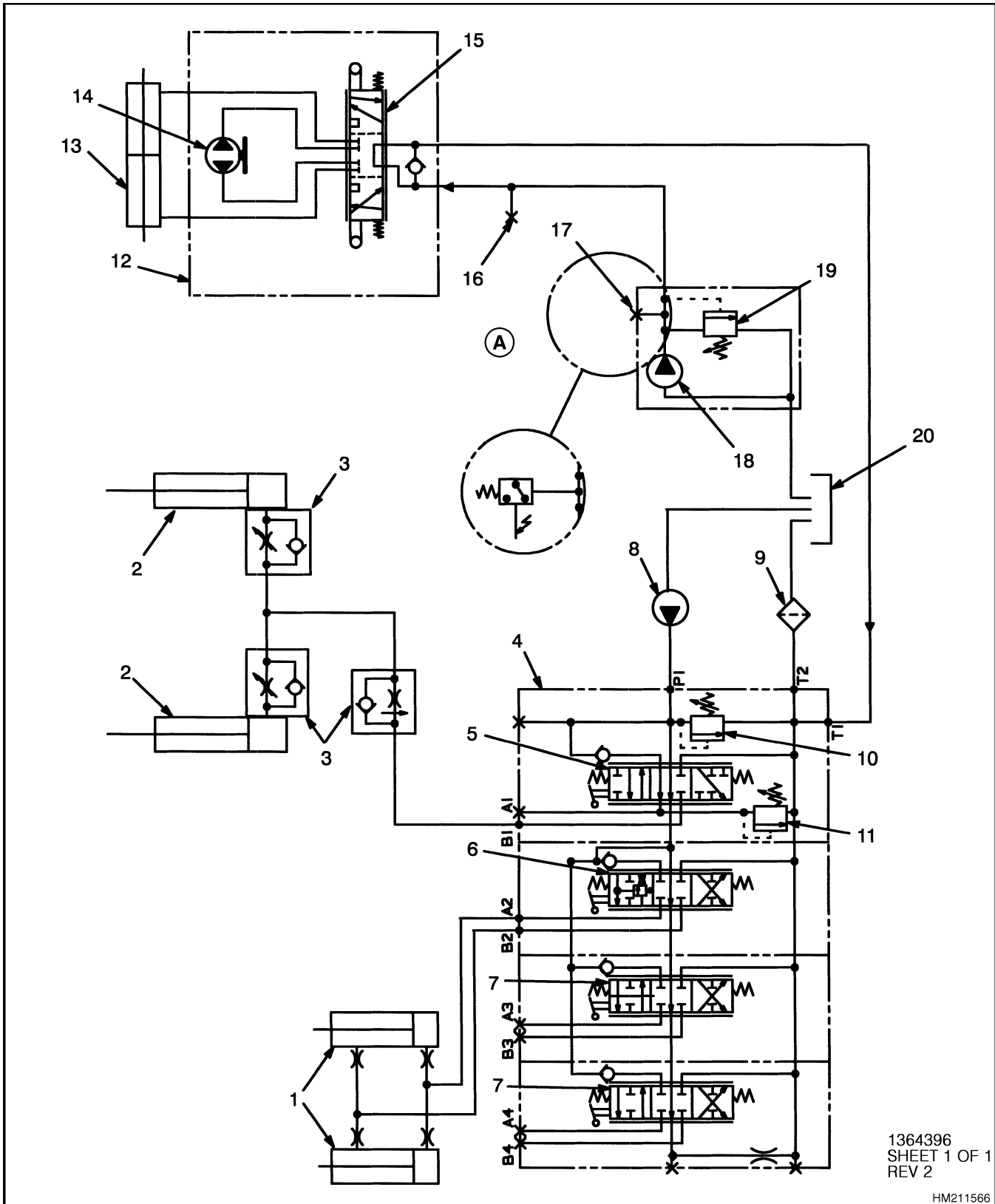


Figure 7. Hydraulic Schematic

Legend for Figure 7

A. INSTALL AT CHECK PORT

- | | |
|----------------------------|----------------------------|
| 1. TILT CYLINDERS | 11. SECONDARY RELIEF VALVE |
| 2. LIFT CYLINDERS | 12. STEERING CONTROL UNIT |
| 3. LOWERING CONTROL VALVES | 13. STEERING CYLINDER |
| 4. MAIN CONTROL VALVE | 14. HAND PUMP |
| 5. LIFT SPOOL | 15. STEERING VALVE |
| 6. TILT SPOOL | 16. LINE PRESSURE TAP |
| 7. AUXILIARY SPOOL | 17. CHECK PORT |
| 8. HYDRAULIC PUMP | 18. STEERING PUMP |
| 9. FILTER | 19. STEERING RELIEF VALVE |
| 10. PRIMARY RELIEF VALVE | 20. HYDRAULIC TANK |

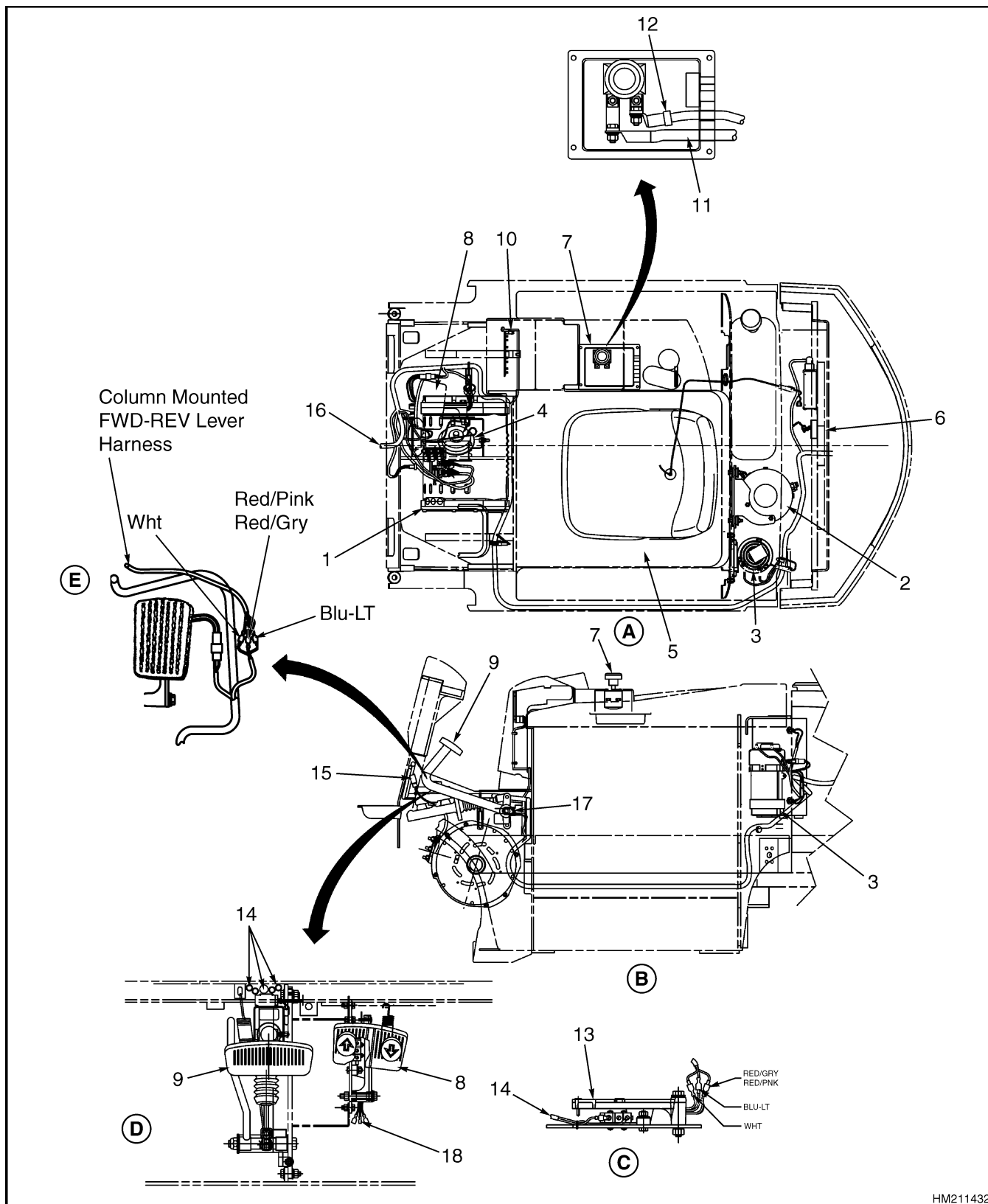
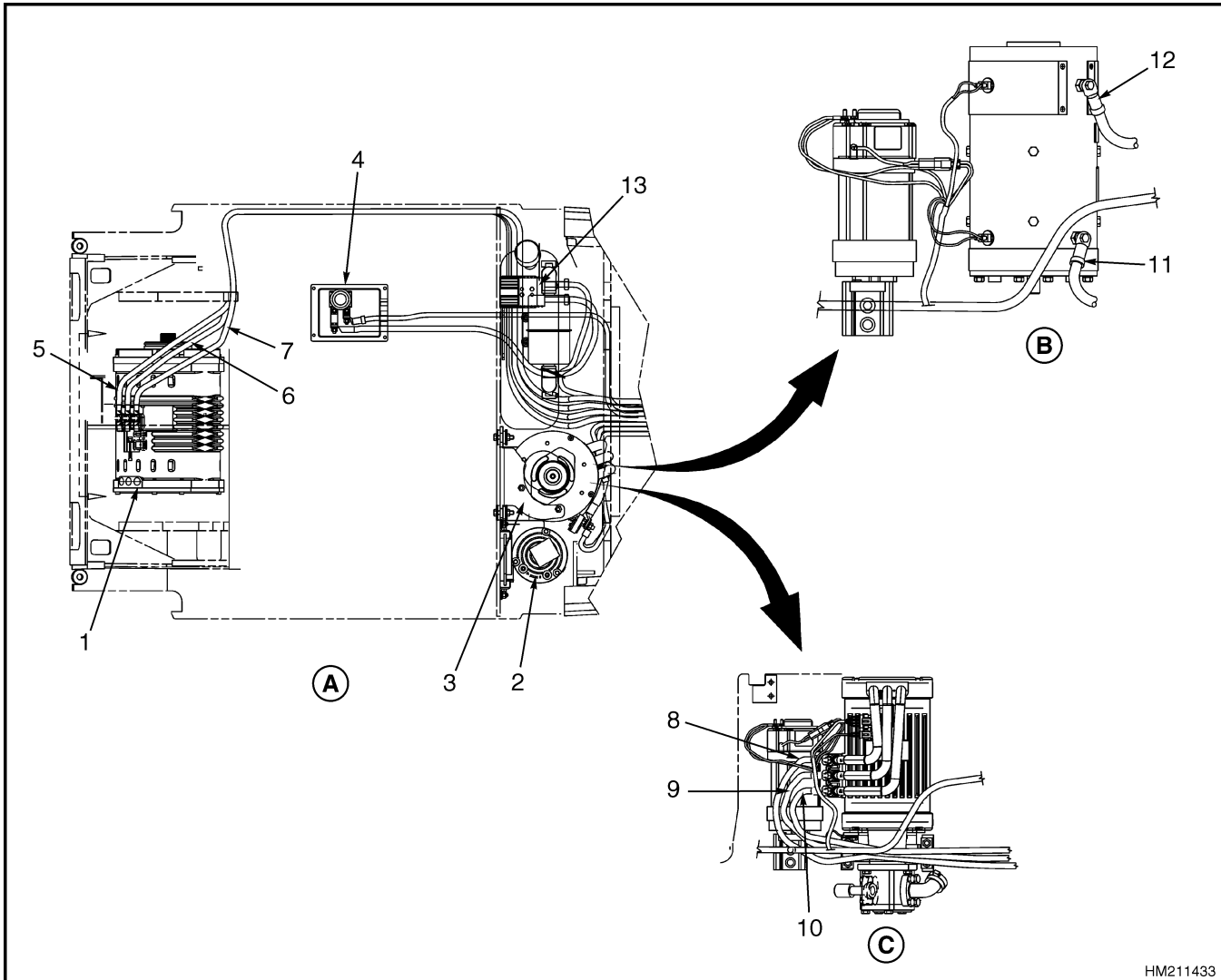


Figure 8. Truck Wiring

Legend for Figure 8

- | | |
|--|---|
| A. TOP VIEW | D. TOP-VIEW, MONOTROL AND BRAKE PEDAL ASSEMBLY |
| B. SIDE VIEW | E. OPTIONAL ACCELERATOR PEDAL |
| C. SIDE-VIEW, MONOTROL™ CONNECTIONS | |
| 1. TRACTION MOTOR | 11. BATTERY CONNECTOR ASSEMBLY |
| 2. HYDRAULIC PUMP | 12. BATTERY POWER CABLE |
| 3. STEERING MOTOR | 13. ACCELERATOR PEDAL |
| 4. HORN | 14. CONNECTOR AND CABLE (FROM MAIN HARNESS) |
| 5. BATTERY COMPARTMENT | 15. BRAKE MASTER CYLINDER FLUID LEVEL WARNING INDICATOR |
| 6. MOTOR CONTROLLERS COMPARTMENT | 16. STEER COLUMN AND DASH HARNESS |
| 7. EMERGENCY BATTERY DISCONNECT | 17. PARK BRAKE SWITCH |
| 8. MONOTROL PEDAL | 18. MONOTROL PEDAL CONNECTORS |
| 9. BRAKE PEDAL | |
| 10. CONTROL LEVERS | |



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A. TOP VIEW

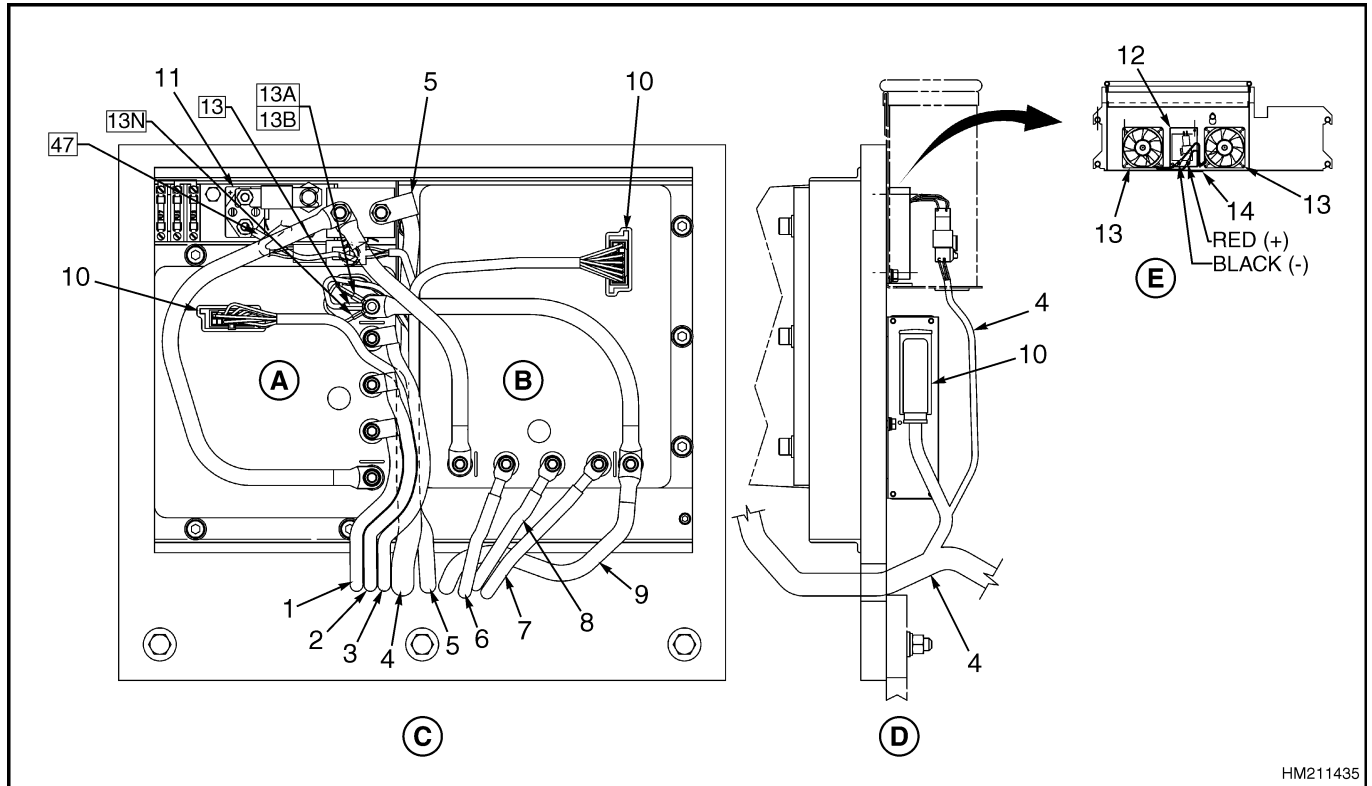
B. DC HYDRAULIC MOTOR AND PUMP

C. AC HYDRAULIC MOTOR AND PUMP

1. TRACTION MOTOR
2. STEERING MOTOR
3. HYDRAULIC MOTOR (AC MOTOR SHOWN HERE)
4. EMERGENCY BATTERY DISCONNECT
5. TRACTION MOTOR CABLE (UT)
6. TRACTION MOTOR CABLE (VT)

7. TRACTION MOTOR CABLE (WT)
8. AC HYDRAULIC MOTOR CABLE (UP)
9. AC HYDRAULIC MOTOR CABLE (VP)
10. AC HYDRAULIC MOTOR CABLE (WP)
11. DC HYDRAULIC MOTOR CABLE (PM1)
12. DC HYDRAULIC MOTOR CABLE (PM2)
13. BATTERY CONNECTOR

Figure 9. Truck Power Cables (Traction and Hydraulic Motors)



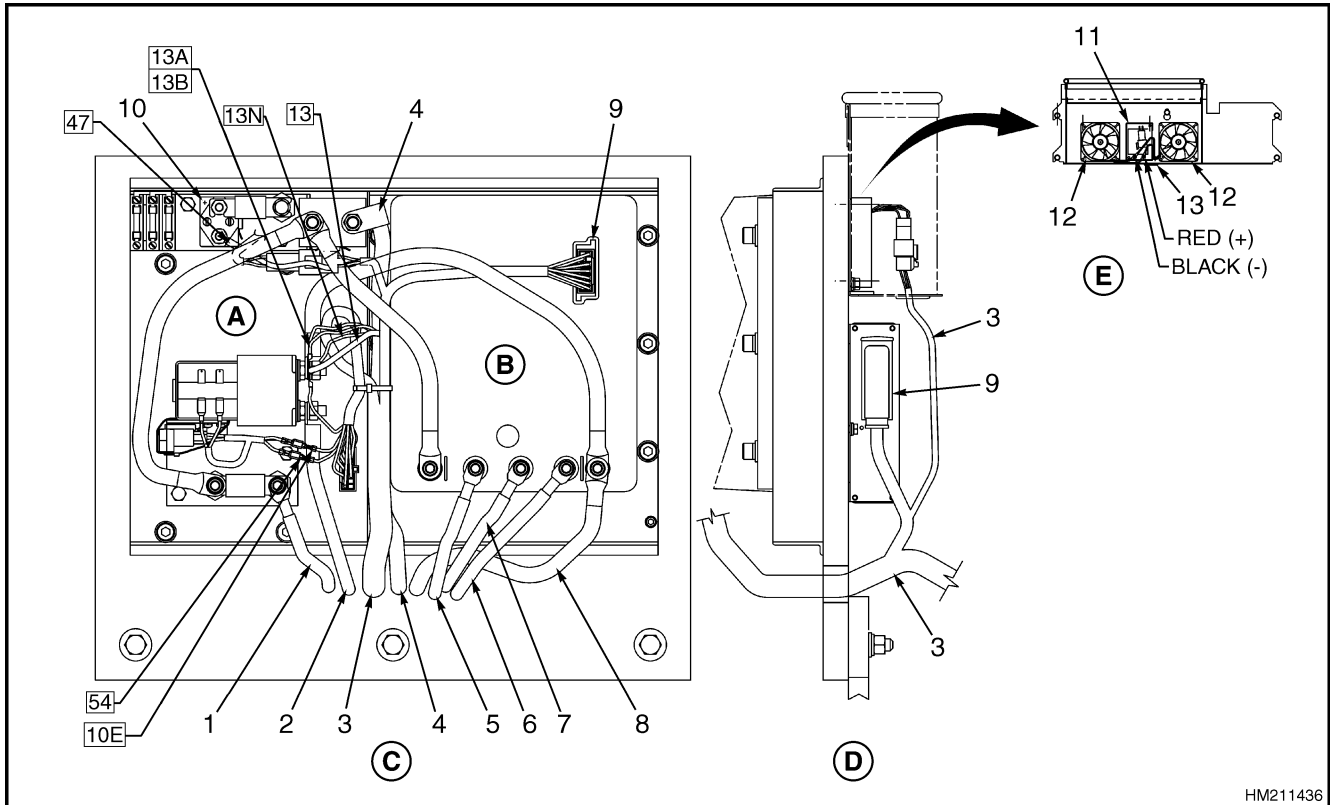
- A. HYDRAULIC PUMP
- B. TRACTION PUMP
- C. FRONT VIEW

- D. SIDE VIEW
- E. TOP VIEW OF COOLING FANS

- 1. HYDRAULIC PUMP CABLE (U)
- 2. HYDRAULIC PUMP CABLE (V)
- 3. HYDRAULIC PUMP CABLE (W)
- 4. CABLE FROM MAIN HARNESS
- 5. BATTERY POSITIVE (+) CABLE
- 6. TRACTION MOTOR CABLE (U)
- 7. TRACTION MOTOR CABLE (W)

- 8. TRACTION MOTOR CABLE (V)
- 9. BATTERY NEGATIVE (–) CABLE
- 10. CONNECTOR PLUG ON WIRE HARNESS
- 11. POWER STEERING CONTRACTOR
- 12. FAN POWER SUPPLY (48 VOLTS)
- 13. FAN
- 14. GROMMET

Figure 10. Control Compartment Wiring (AC Hydraulic Pump Motor)



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- A. HYDRAULIC PUMP
- B. TRACTION PUMP
- C. FRONT VIEW

- D. SIDE VIEW
- E. TOP VIEW OF COOLING FANS

- 1. PUMP CABLE (PM2)
- 2. PUMP CABLE (PM1)
- 3. CABLE FROM MAIN HARNESS
- 4. BATTERY POSITIVE (+) CABLE
- 5. TRACTION CABLE (U)
- 6. TRACTION CABLE (W)
- 7. TRACTION CABLE (V)

- 8. BATTERY NEGATIVE (-) CABLE
- 9. CONNECTOR PLUG ON WIRE HARNESS
- 10. POWER STEERING CONTRACTOR
- 11. FAN POWER SUPPLY (48 VOLTS)
- 12. FAN
- 13. GROMMET

Figure 11. Control Compartment Wiring (DC Hydraulic Pump Motor)

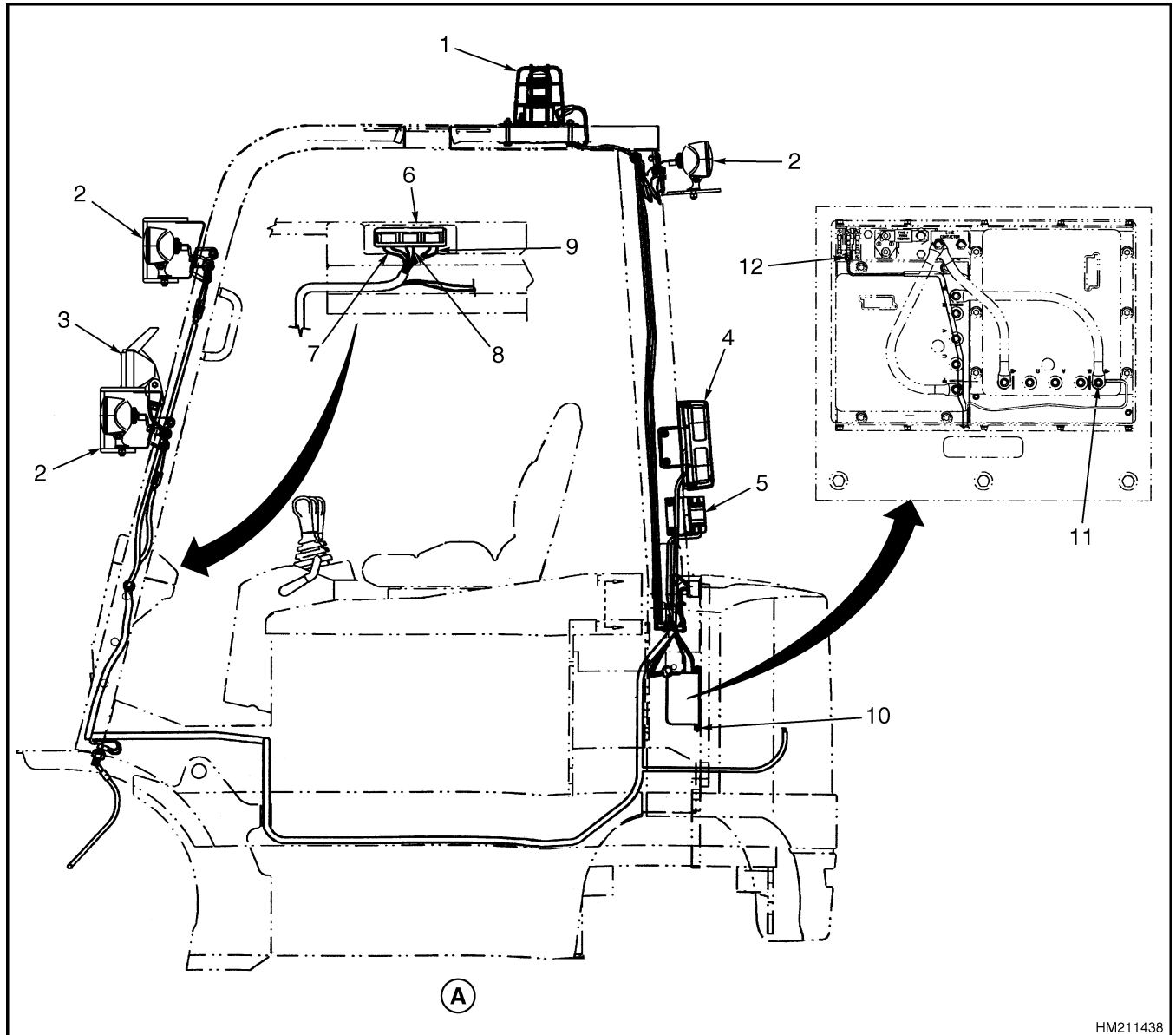
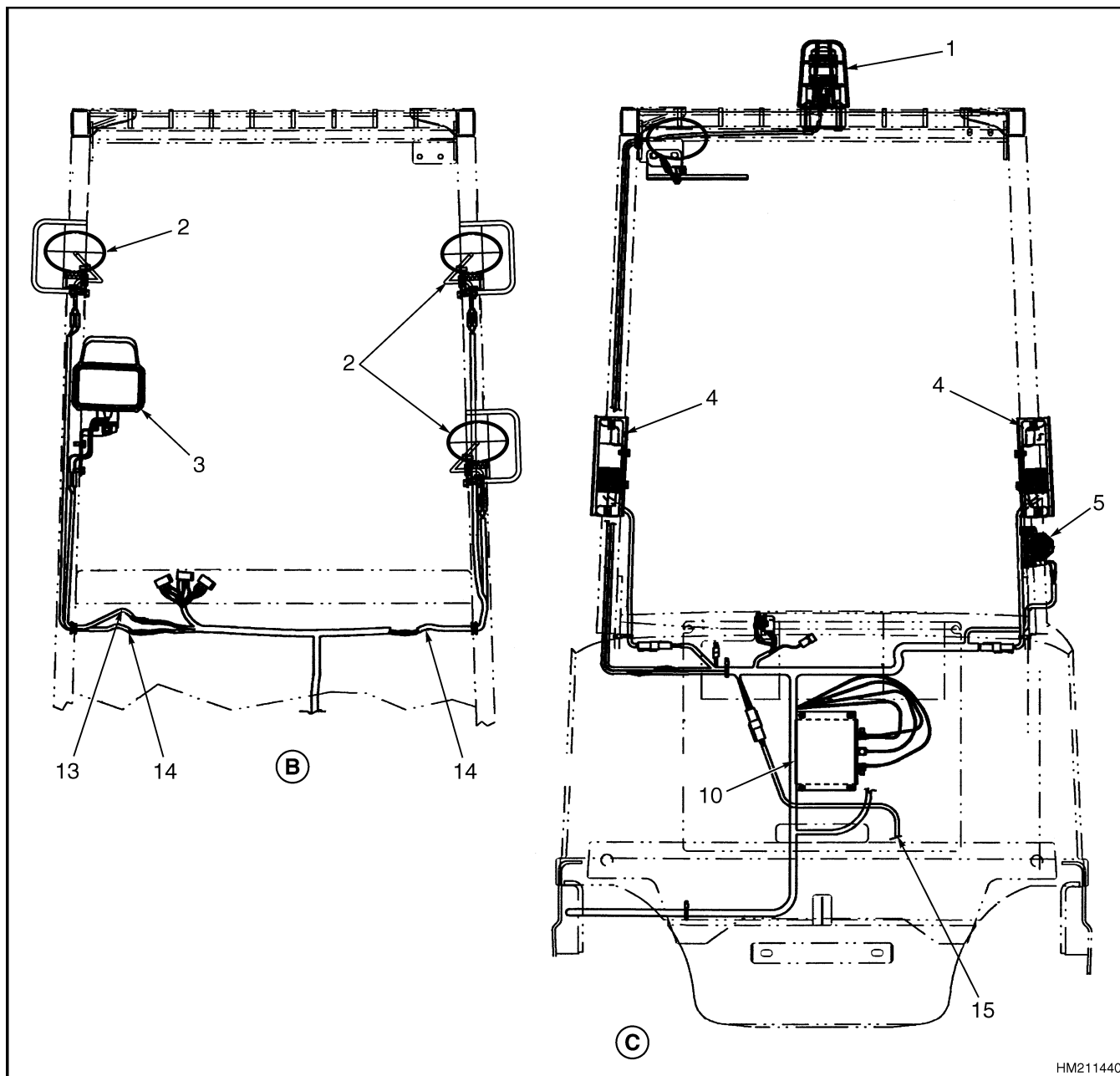


Figure 12. Lights Arrangement Wiring Diagram (Sheet 1 of 2)



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Figure 12. Lights Arrangement Wiring Diagram (Sheet 2 of 2)

