CEBM019602

Shop Manual

830E-1AC

DUMP TRUCK

SERIAL NUMBERS **A30109 - A30140**

KOMATSU®

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WIRING DIAGRAM

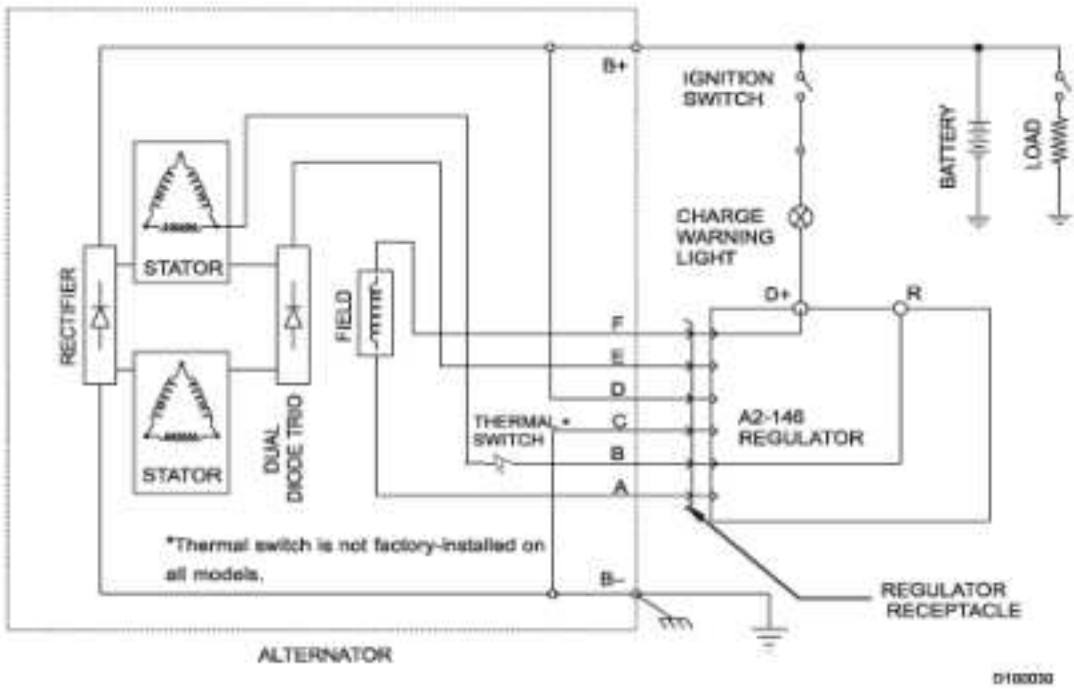


FIGURE 10-5. WIRING DIAGRAM

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KOMTRAX Plus AND INTERFACE MODULE ERROR CODES AND TROUBLESHOOTING

TROUBLESHOOTING

GENERAL

The center of the KOMTRAX Plus system is the controller which gathers data about the operation of the truck from sensors and other controllers installed on the truck. Refer to Figure 13-1 for an overview of the KOMTRAX Plus system components.

For instructions on how to use KOMTRAX Plus software programs, refer to KOMTRAX PLUS System elsewhere in this section.

Structure and Purpose

The checkout procedure is in two parts. The first part verifies that the interface module is in good working condition. Refer to the Interface Module Section for specific checkout instructions. The second part verifies the KOMTRAX Plus controller operation and also reviews the settings for accuracy. Refer to the KOMTRAX Plus System Section for specific check out instructions.

The following areas are covered in this section.

- Troubleshooting
- Fault Code Tables
- Fault Tree Analysis

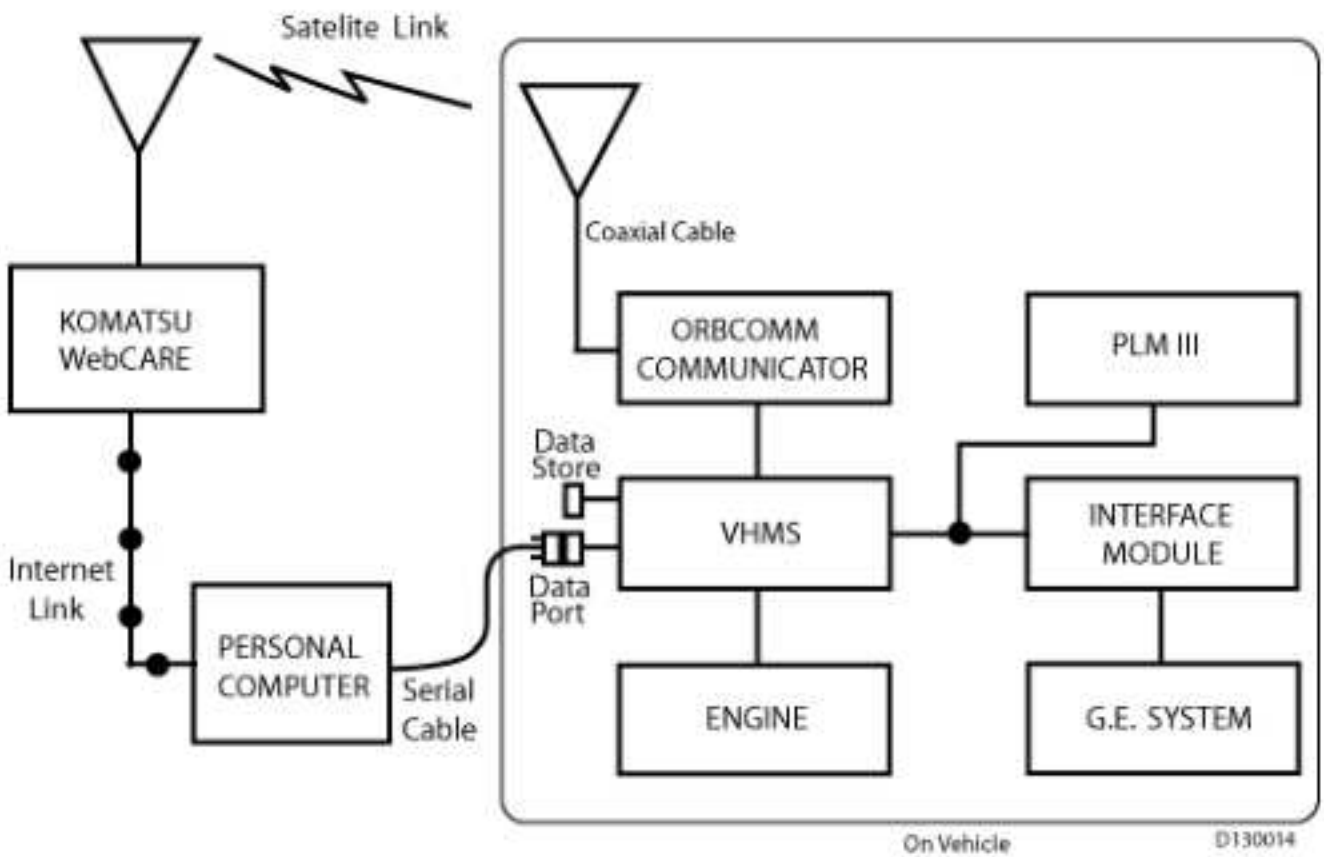


FIGURE 13-1. KOMTRAX Plus SYSTEM

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Installation

⚠CAUTION

Secure the lining assembly to the caliper housing using wire ties or safety wire so that it cannot move away from the caliper housing. Movement of the lining assembly during installation will affect the parking piston adjustment which may cause the brake to drag after installation. The lining must remain secure to the caliper housing until the brake is installed on the vehicle. If the lining does move away from the caliper, the caliper will have to be partially disassembled to reset the adjuster.

NOTE: If installing new calipers, do not cut the band off the caliper until retaining wire has been installed.

1. Inspect all brake discs (12, Figure 6-2) for wear. Refer to Brake Disc Inspection, this chapter, for wear limits. If any disc is worn beyond the wear limit, replace the disc.
2. If removed, install adapter (2, Figure 6-2) and secure in place with lubricated cap screws and flat washers (3). Tighten cap screws to standard torque.
3. Install two 7/8-9 NC X 14 in. studs in two center caliper mounting cap screw holes (in place of cap screws 13).
4. Install inboard disc (12) with four equally spaced cap screws with flatwashers. Tighten cap screws, but do not tighten to final torque at this time.
   a. Measure and record distance from caliper mounting surface to inside face of brake disc (12). This is Dimension "A", Figure 6-2.
   b. If dimension "A" is 126.21 mm (4.97 in.) or greater, install one 1.016 mm (0.040 in.) shim at brake mounting surface. Measure dimension "A" again, measuring from outer surface of shim to inside face of brake disc.
   c. When dimension "A" is less than 126.21 mm (4.97 in.), then, subtract dimension "A" from 126.49 mm (4.98 in.).
   d. Make a measured shim pack equal to the result obtained in Step 4c. If not equal, then within 0.127 mm (0.005 in.) of the result. This will be brake disc shim pack (7).
5. Remove disc mounting cap screws (11) and inner disc (12).

NOTE: The inner and outer caliper halves are different, and are not interchangeable. The outer half has countersunk bores for the cap screw head and flat washers, the inner half has a flat mounting surface.

NOTE: Each caliper half weighs approximately 45 kg (100 lbs).

6. With brake linings secured with wire, install inner brake caliper half (14) over the two studs. Ensure brake bleeder plugs (6 & 7, Figure 6-3) are installed in the locations shown. Bleeder plug (7) must be installed in the same location as (4) when viewing from the end.

NOTE: Bleed plug (7) may have to be removed temporarily to obtain clearance around adapter (15, Figure 6-2*) during caliper installation. Cover or plug hole in caliper to prevent dirt contamination inside caliper.*

7. If brake disc shim pack (7) is required (Step 4d), install shims on adapter (15).

⚠IMPORTANT⚠

Cap Screws (3, 6, 9, 11 & 13) must have the threads and seats lubricated with simple lithium base chassis grease (multi-purpose EP NLGI) prior to installation.

8. Remove the brake lining retaining wire. Do not let the lining pull away from the caliper. Install inner brake disc (12) with bushing (8). Lubricate then install all cap screws and flat washers (11) to inner disc. Tighten cap screws (11) to standard torque.

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5. Remove the rotor from the rotor shaft.

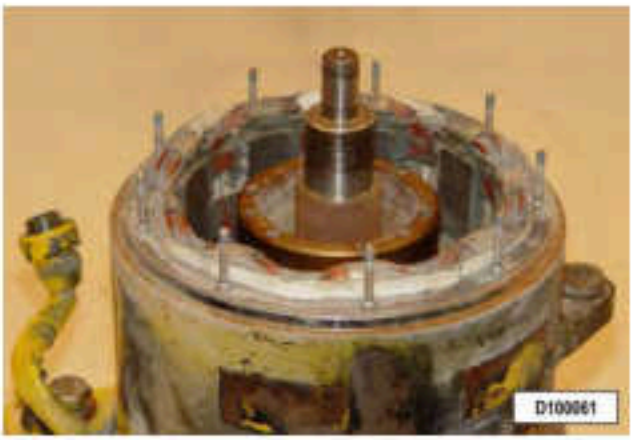


FIGURE 10-50.

Drive End Housing Removal

⚠ IMPORTANT ⚠

Ensure the single mark has been scribed between drive end housing (20) and shell (58). This mark will be used during the assembly process to correctly align the two parts.

1. Position the support stand so the large diameter hole is facing up.



FIGURE 10-51.

2. Place the alternator in the support stand with the drive end facing up.



FIGURE 10-52.

3. Remove cover plate (7) by removing six Torx screws (6) using a number T20 Torx bit.

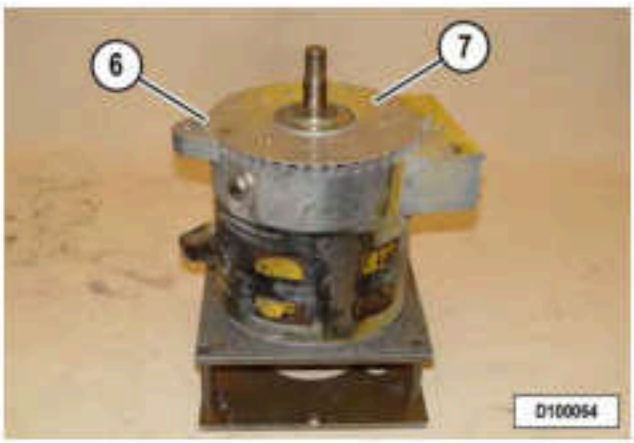


FIGURE 10-53.

6. Screw 7. Cover Plate

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CAPACITOR CHARGE LIGHTS

Observe both capacitor charge lights (CCL1, CCL2). CCL1 is on the outside of the contactor box. CCL2 is on the switch panel inside the low voltage area. The lights will stay illuminated as long as the voltage on the DC link is greater than 50 VDC. Refer to Figure 3-6.

⚠WARNING

Hazardous voltages may be present in this equipment even if the engine and capacitor charge lights are off.

Use measurement and protective equipment rated for 2000 VDC minimum to verify that no voltage is present before touching any terminal.

⚠WARNING

Verify functionality of the measurement equipment using site-approved procedures both before and after performing control group measurements.

Failure to observe these precautions may result in death or serious personal injury.

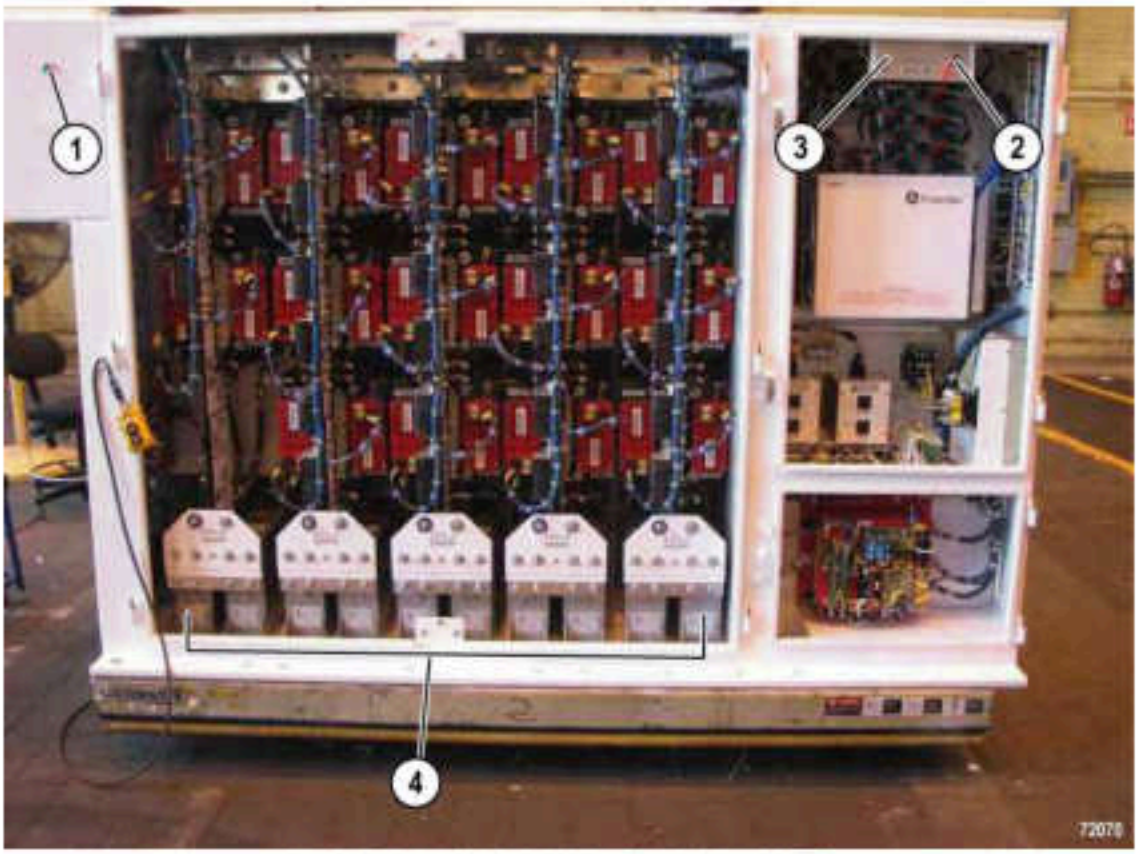
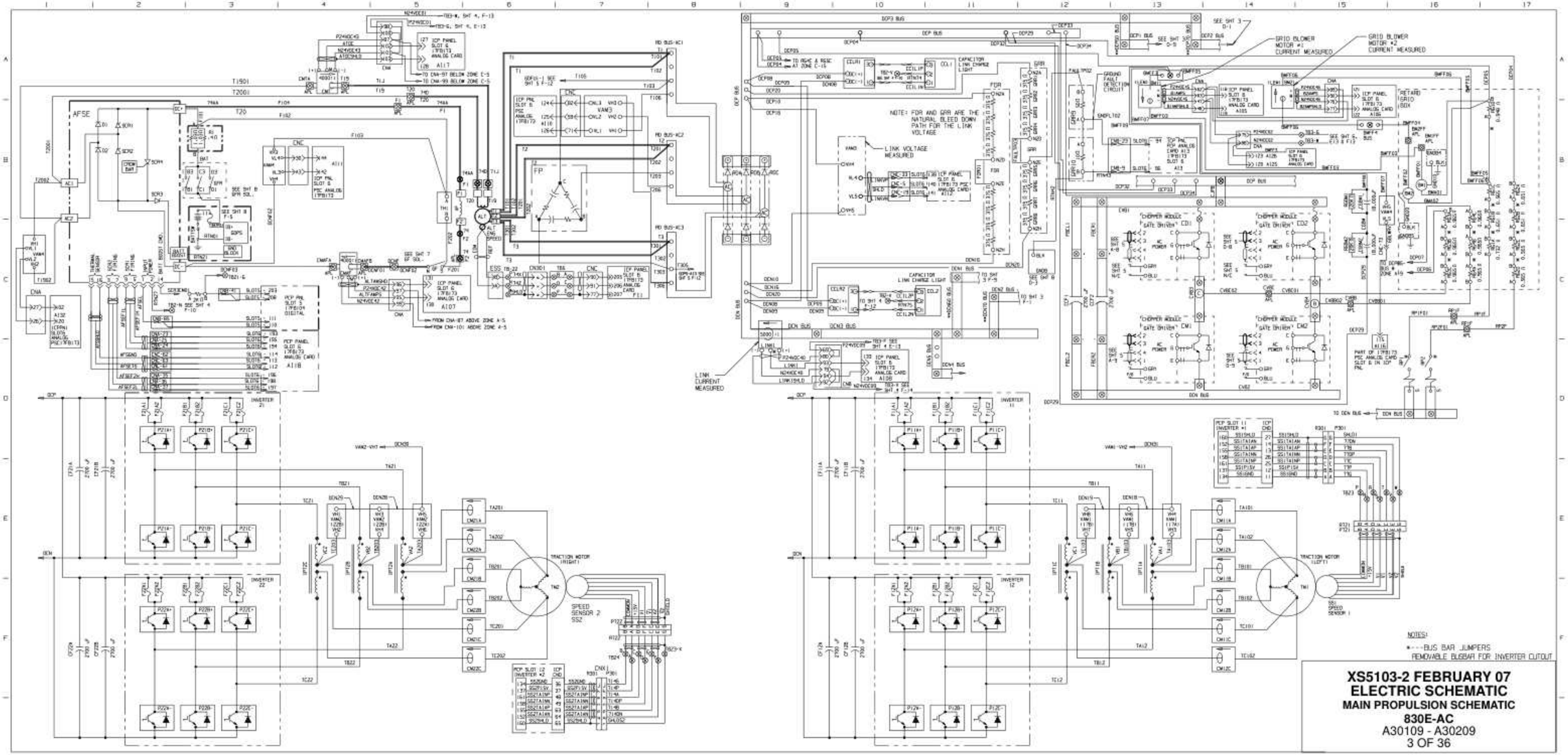


FIGURE 3-6. CAPACITOR CHARGE LIGHTS

1. Exterior Capacitor Charge Light (CCL2)
2. Interior Capacitor Charge Light (CCL1)
3. Information Display Panel
4. DC Link Capacitors

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