SEN06592-03

Shop Manual

HYDRAULIC
EXCAVATOR

PC490LCi-11

SERIAL NUMBERS 85113 and up

KOMATSU®

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No.	Cause	Procedure, measuring location, criteria and remarks
1	CAN communication system error	If failure code [CA3232] is displayed, perform troubleshooting for [CA3232] first.
2	Defective KDPF differential pressure sensor system	If failure code [CA1879] or [CA1881] or [CA1883] is displayed, perform troubleshooting for these failure codes first.
3	Defective KDPF outlet pressure sensor system	If failure code [CA3133] or [CA3134] or [CA3135] is displayed, perform troubleshooting for these failure codes first.
4	Defective turbocharger outlet NOx sensor system	If failure code [CA1885], [CA3649], [CA3682], and [CA3718] is displayed, perform troubleshooting for these failure codes first.
5	Defective turbocharger outlet NOx sensor installation error	Check if the turbocharger outlet NOx sensor is installed securely.
6	Defective turbocharger outlet NOx sensor	If failure code is still displayed after above checks, the turbocharger outlet NOx sensor may be defective. (Offset/drift due to sulfur-poisoned turbocharger outlet NOx sensor) 1. Turn starting switch to OFF position. 2. NOx sensor fails, therefore, replace the turbocharger outlet NOx sensor. 3. Turn starting switch to ON position. 4. Perform "Loaded Diagnostics Operation To Confirm Failure Correction".
7	Defective engine controller	If no failure is found by above checks, engine controller is defective. (Since this is an internal defect, troubleshooting cannot be performed.)

Loaded Diagnostics Operation To Confirm Failure Correction

Perform the following procedure to check that the repair is completed.

(Make sure that this failure code is not displayed after this procedure.)

Clear this failure code by "Engine Controller Inducement Fault Clear" before step 1. (EU specification)

1. Turn the starting switch to OFF position, and shut down the engine controller.
2. Turn the starting switch to ON position, and start the engine.
3. Run the engine at high idle speed with safe condition in order to raise the exhaust gas temperature. (Keep the engine speed so that the monitoring code 47300 "KDOC 1 Inlet Temperature" becomes 150 °C or higher. Check that the monitoring code 19203 "Turbo Outlet NOx Sensor State" changes from 0 to 1.)
4. After the procedure in 3., if failure code is not displayed after 3 minutes have passed with running the engine at low idle speed, repair is completed.

REMARK

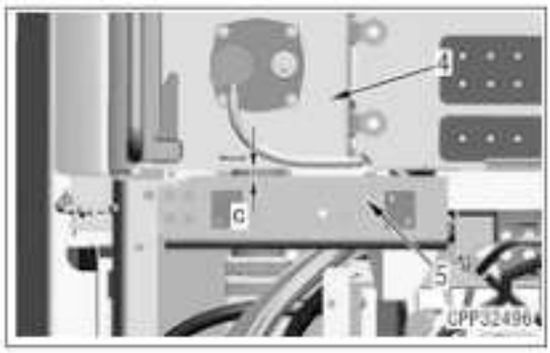
If the turbocharger outlet NOx sensor cannot be activated (that is, the monitoring code 19203 "Turbo Outlet NOx Sensor State" remains as 0), return to troubleshooting.

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Recheck of clearance

28. Recheck that clearance (c) between plate (5) and hydraulic tank (4) is the following dimension.

    Clearance (c) : 15 ± 5 mm



Tube

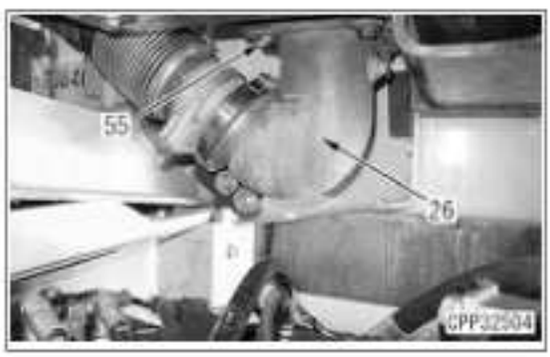
29. Install tube (26) to KDPF assembly with mounting bolts (55) (4 pieces) of the tube flange.

    REMARK

    Use a brand new gasket.

    Threaded portion of mounting bolt:
    Seizure prevention compound (LC-G)

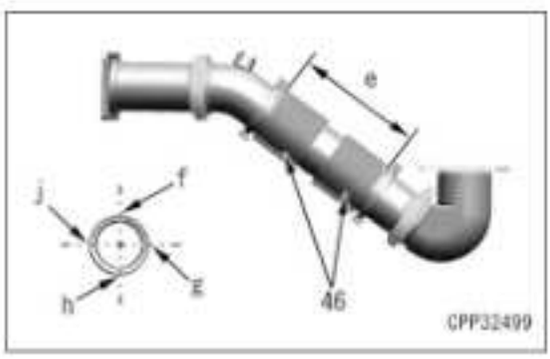
    Mounting bolt (55) :
    78.5 to 88.3 Nm {8.0 to 9.0 kgm}



Recheck of boot piping

30. Recheck that length (e) of boot (46) at 4 places (f) to (j) on the circumference of the boot is the following dimension.

    Length of boot : 260 ± 5 mm



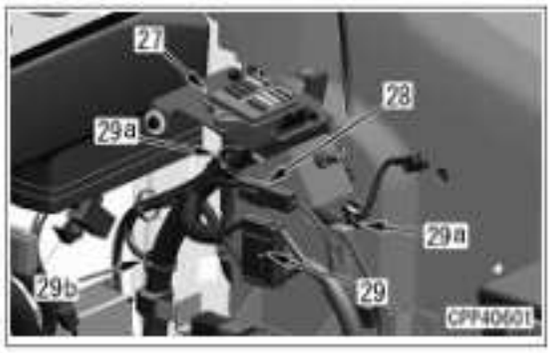
Partition cover

31. Install partition plate (57) with mounting bolts (56) (5 pieces).



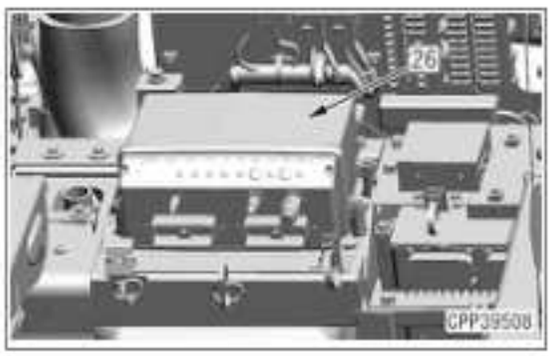
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14. Install the fuse bracket (27).
15. Connect the connectors (28) and (29) on the side of the fuse bracket (27).
    Connector (28): Intermediate wiring harness AA18
    Connector (29): Intermediate wiring harness AA15
16. Bind them with the cable ties (29a) (2 pieces).
17. Bind them with the cable ties (29b).



GNSS receiver assembly

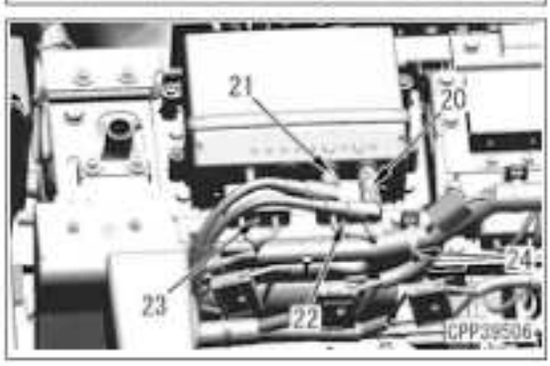
18. Install GNSS receiver assembly (26) with the bolts (4 pieces).



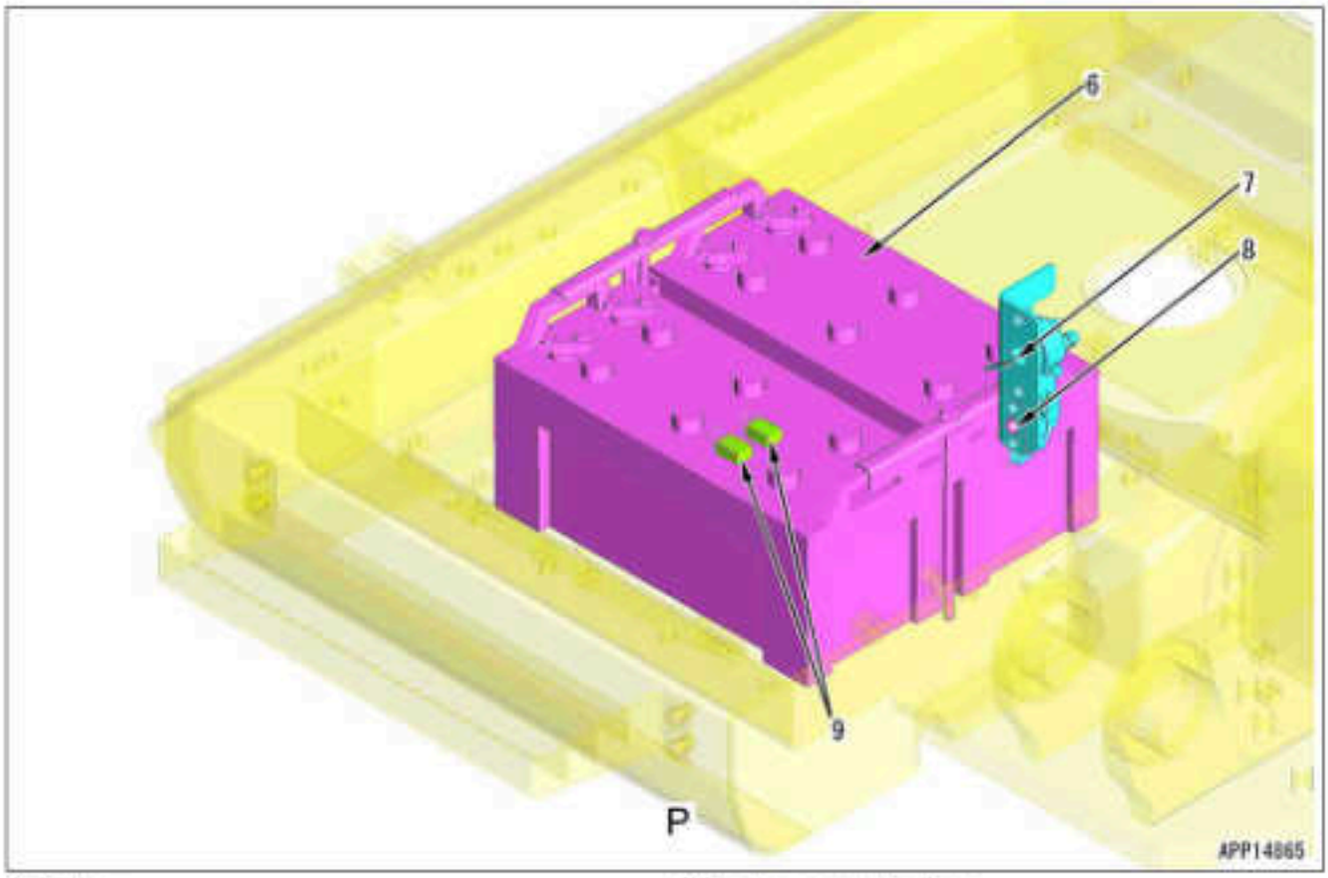
19. Connect the connector (25) of GNSS receiver.
    Connector (25): GNSS built-in radio device antenna wiring harness AA39



20. Connect the connectors (20), (21), (22), and (23) of GNSS receiver.
    Connector (20): GPS antenna wiring harness NA11
    Connector (21): GPS antenna wiring harness NA12
    Connector (22): Intermediate wiring harness CG01
    Connector (23): Intermediate wiring harness CG02
    Connector (20), (21):
    4.0 to 5.0 Nm {0.41 to 0.51 kgm}
    Bolt of connector (22), (23):
    2.83 ± 0.28 Nm {0.29 ± 0.03 kgm}
21. Bind them with the cable ties (24).

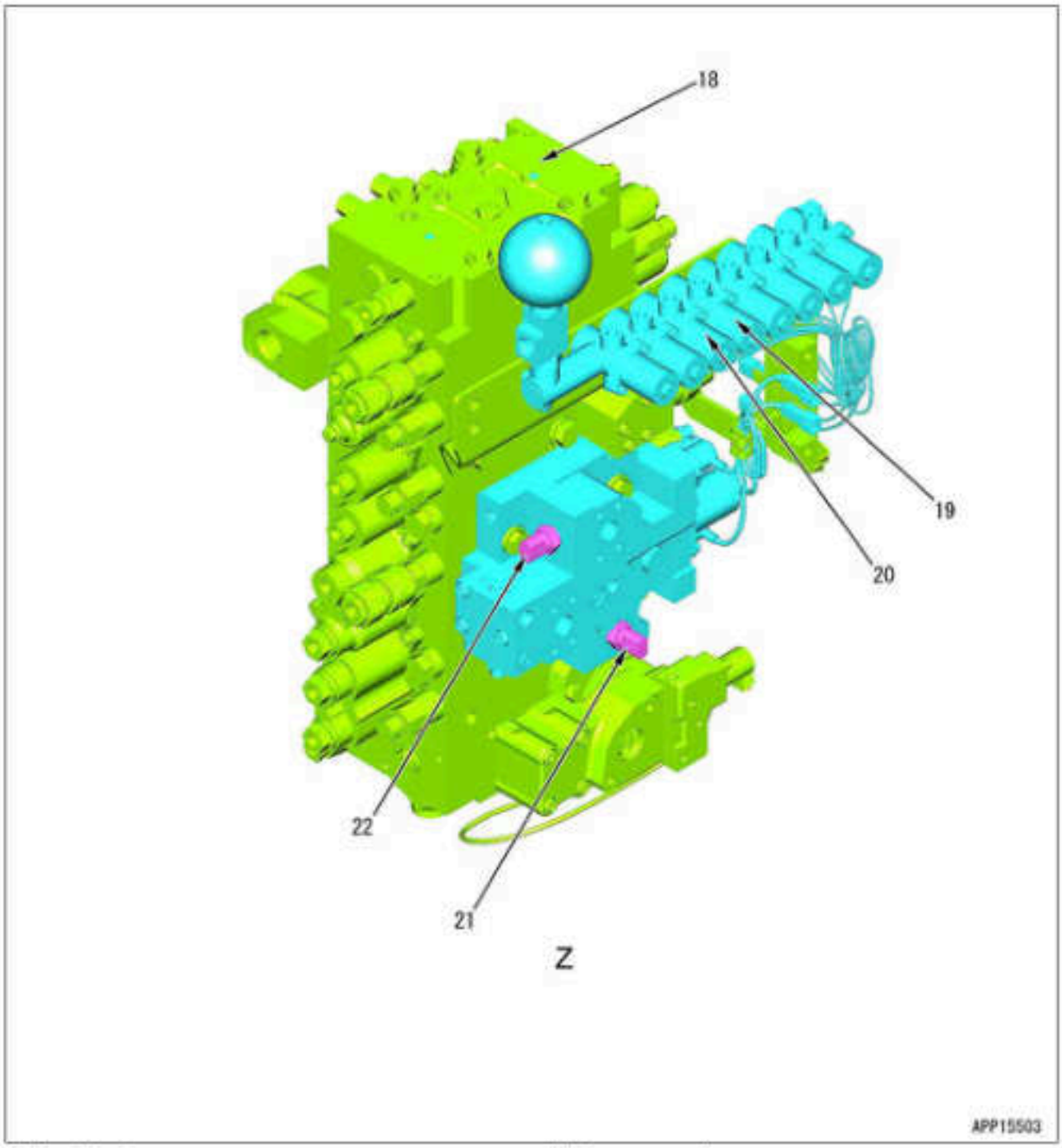


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6: Battery
7: Battery disconnect switch
8: System operating lamp
9: Fusible link

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18:Control valve
19:Travel speed increase solenoid valve
20:Travel junction solenoid valve
21:Rear pump oil pressure sensor
22:Front pump oil pressure sensor

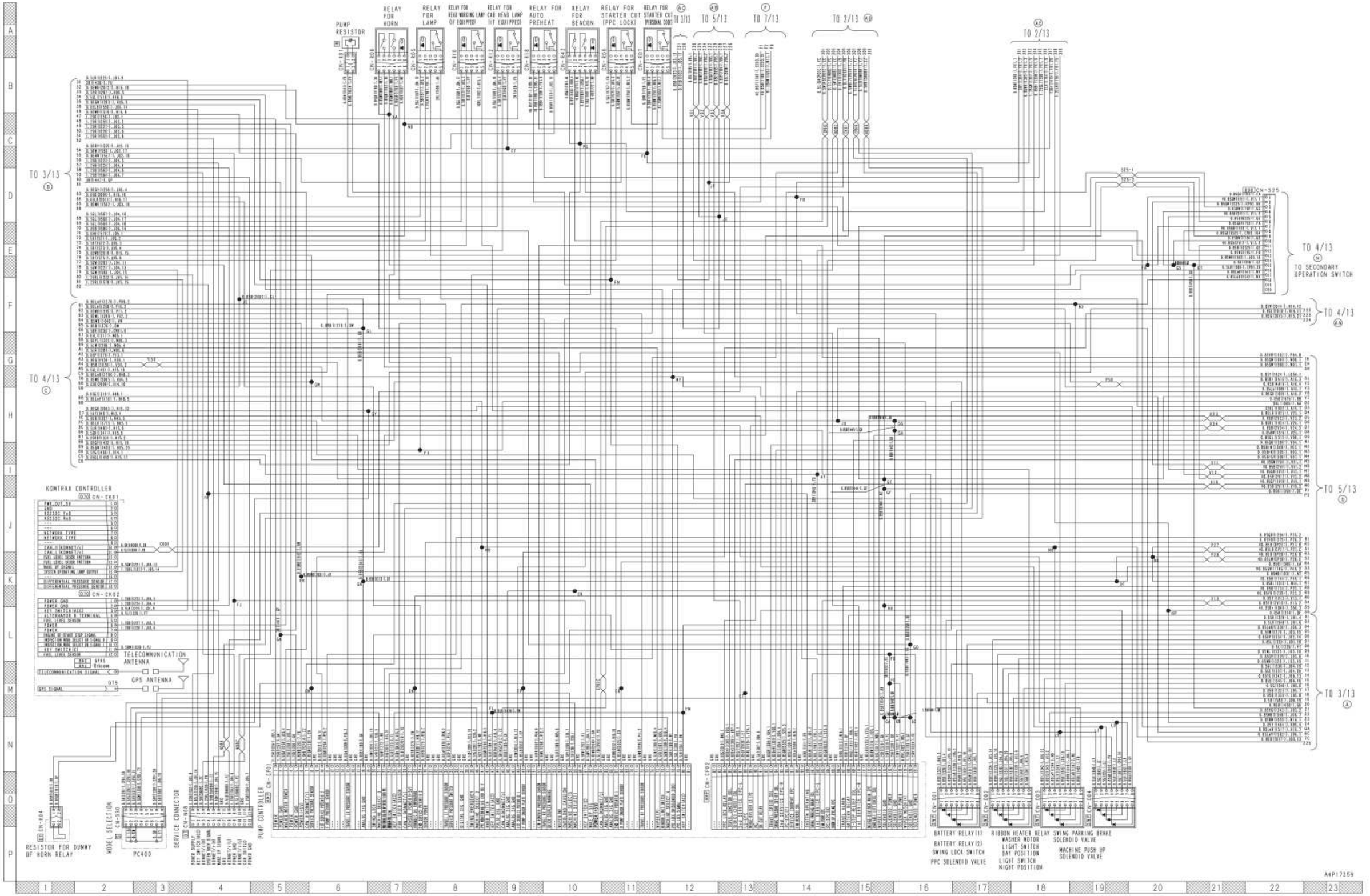
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ELECTRICAL CIRCUIT DIAGRAM (1/13)

PC490LCI-11

REMARK

This figure covers the equipment and devices that are unavailable as optional items in some areas.



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