SEBM029105

# SHOP MANUAL

KOMATSU®

# D85EX-15
# D85PX-15

| MACHINE MODEL | SERIAL NUMBER |
|---|---|
| **D85EX-15** | **10001 and up** |
| **D85PX-15** | **1001 and up** |

- This shop manual may contain attachiments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require.
  Materials and specifications are subject to change without notice.

- D85EX, PX-15 mount the SA6D125E-3 engine.
  For details of the engine, see the 125-3 Series Engine Shop Manual.


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# TYPES AND LOCATIONS OF CONNECTORS

★ The addresses in the following table are the addresses used in the connector arrangement drawing (3-dimensional drawing) and electric circuit diagram.

| Connector No. | Type | Number of pins | Location | Address | | | |
|---|---|---|---|---|---|---|---|
| | | | | Arrangement drawing | Engine system diagram | ST•TM system diagram | MON system diagram |
| 1 | DT | 4 | Intermediate connector [Cab specification] | I-9 | | | |
| 2 | KES | 2 | Rear speaker (Left) [Cab specification] | I-8 | | | |
| 4 | KES | 2 | Rear speaker (Right) [Cab specification] | H-9 | | | |
| 6 | One-pin connector | 1 | Heater wire glass [Cab specification] | H-9 | | | |
| 7 | YAZAKI | 9 | Radio [Cab specification] | B-9 | | | |
| 8 | DT | 2 | Accessory (12 V) [Cab specification] | B-9 | | | |
| 9 | YAZAKI | 3 | Heater wire glass switch [Cab specification] | B-8 | | | |
| 10 | M | 2 | Additional light switch [Cab specification] | B-8 | | | |
| 11 | M | 2 | Wiper intermittent switch [Cab specification] | B-9 | | | |
| 12 | KES | 6 | Rear wiper switch [Cab specification] | B-9 | | | |
| 13 | KES | 6 | Right door wiper switch [Cab specification] | A-9 | | | |
| 14 | KES | 6 | Front wiper switch [Cab specification] | A-9 | | | |
| 15 | KES | 6 | Left door wiper switch [Cab specification] | A-9 | | | |
| 16 | KES | 2 | Room lamp [Cab specification] | B-7 | | | |
| 17 | DT | 4 | Right door wiper [Cab specification] | B-7 | | | |
| 18 | DT | 4 | Intermediate connector [Cab specification] | E-8 | | | |
| 19 | DT | 4 | Windshield washer motor [Cab specification] | C-5,H-1 | | | |
| 20 | DT | 1 | Cab power supply [Cab specification] | C-6 | | | |
| 21 | DT | 1 | Cab power supply (Battery direct) [Cab specification] | C-6 | | | |
| 23 | DT | 6 | Front wiper [Cab specification] | E-8 | | | |
| 24 | DT | 4 | Left door wiper [Cab specification] | C-5 | | | |
| 25 | Relay | 4 | For light [Cab specification] | C-8 | | | |
| 26 | Relay(YAZAKI) | 6 | Left wiper intermittent relay [Cab specification] | C-8 | | | |
| 27 | Relay | 5 | Left wiper intermittent selector relay [Cab specification] | C-7 | | | |
| 28 | Relay(YAZAKI) | 6 | Front wiper intermittent relay [Cab specification] | C-8 | | | |
| 29 | Relay | 5 | Front wiper intermittent selector relay [Cab specification] | C-7 | | | |
| 30 | Relay(YAZAKI) | 6 | Right wiper intermittent relay [Cab specification] | C-8 | | | |
| 31 | Relay | 5 | Right wiper intermittent selector relay [Cab specification] | C-7 | | | |
| 32 | Relay(YAZAKI) | 6 | Rear wiper intermittent relay [Cab specification] | C-8 | | | |
| 33 | Relay | 5 | Rear wiper intermittent selector relay [Cab specification] | D-7 | | | |
| 34 | Relay | 4 | Heater wire glass relay [Cab specification] | C-8 | | | |
| 35 | M | 4 | Converter [Cab specification] | D-8 | | | |
| 36 | One-pin connector | 1 | Heater wire glass [Cab specification] | I-8 | | | |
| 37 | KES | 4 | Rear wiper [Cab specification] | H-9 | | | |



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## INFORMATION DESCRIBED IN TROUBLESHOOTING LIST

★ Troubleshooting lists and related circuit diagrams contain the following information all together. Understand the contents carefully and troubleshoot the machine.

| | |
|---|---|
| Trouble | Problem that appears on the machine. |
| Related information | Information related to problems occurred or troubleshooting |

| | Cause | | Standard value in normal state/Remarks on troubleshooting |
|---|---|---|---|
| Possible causes and standard value in normal state | 1<br>2<br>3<br>4 | Cause by which a trouble is assumed to be detected<br>(The order number indicates a serial number, not a priority sequence.) | <Described contents><br>• Standard value in normal state required to judge the assumed cause (good or not)<br>• Remarks required to judge whether the cause is good<br><br><Phenomenon of defective harness><br>• Disconnection in wiring<br>The connector connection is defective or the wiring harness is disconnected.<br>• Grounding fault<br>A harness not connected to the ground (earth) circuit comes into contact with the ground (earth) circuit.<br>• Defective hot short<br>A harness not connected to the power (24V) circuit comes into contact with the power (24V) circuit.<br>• Defective short<br>A harness of an independent circuit abnormally comes into contact with one of another circuit.<br><br><Notes on troubleshooting><br>(1) Method of indicating connector numbers and handling T-junction<br>For troubleshooting, insert or connect the T-junction adapter as shown below unless especially specified.<br>• When "male" or "female" is not indicated for a connector number, disconnect the connector, and insert the T-junction adapter in both the male and female.<br>• When "male" or "female" is indicated for a connector number, disconnect the connector, and insert the T-junction adapter in only either the male or female.<br>(2) Pin number description sequence and tester lead handling<br>For troubleshooting, connect the plus (+) and minus (–) leads as shown below unless especially specified.<br>• Connect the plus (+) lead to a pin or harness indicated in the front.<br>• Connect the minus (–) lead to a pin or harness indicated in the rear. |

**Related circuit diagram**

This is the excerpted circuit diagram related to trouble
- Connector No.: Indicates (Model-No. of pins) (Color).
- Arrow (⇔): Roughly indicates mounting place on machine.



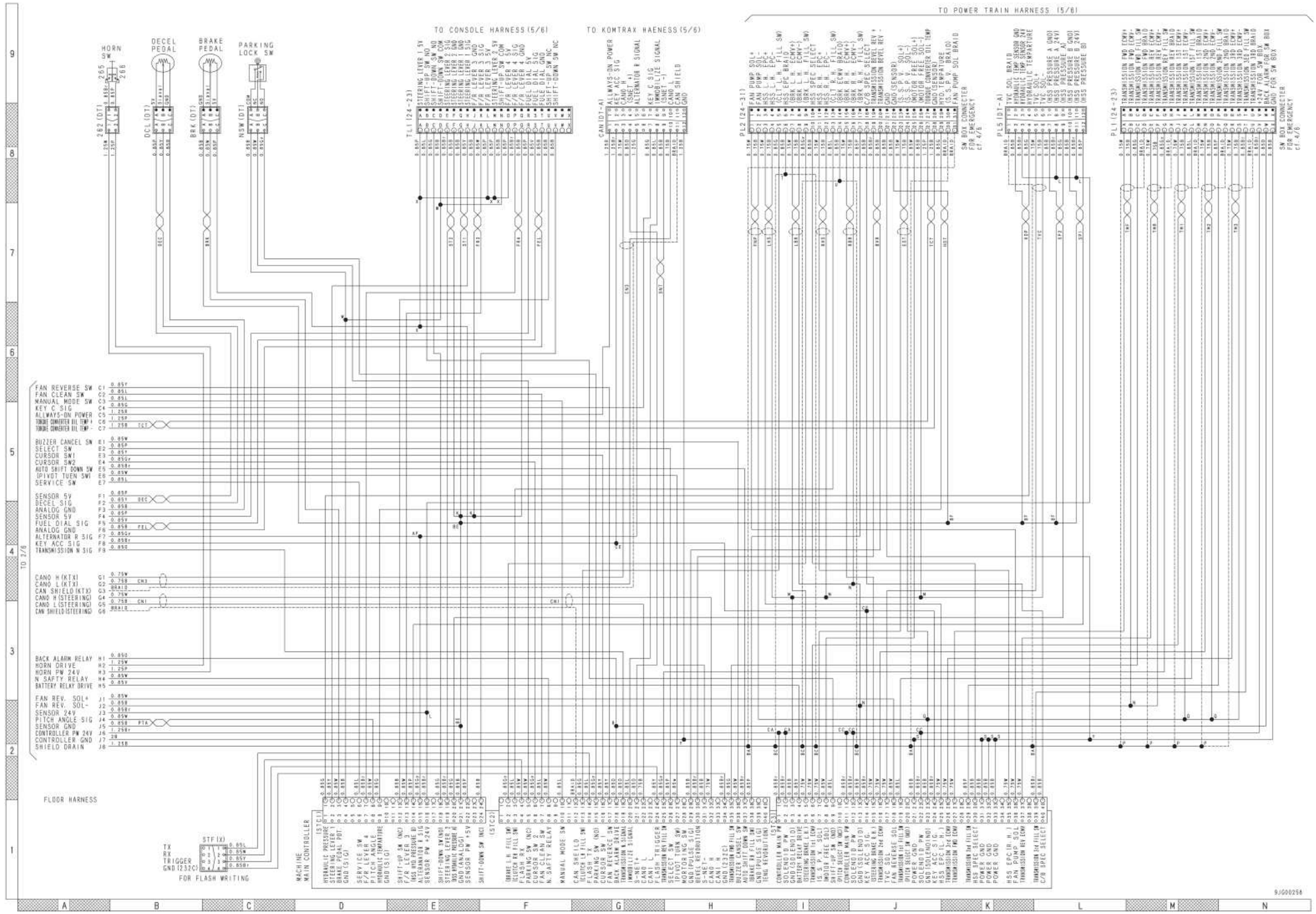
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| | Cause | | Standard value in normal state/Remarks on troubleshooting | | |
|---|---|---|---|---|---|
| Possible causes and standard value in normal state | 7 | Disconnection or short circuit with chassis ground in wiring harness (Disconnection in wiring or defective contact in connector or contact with ground circuit) | Wiring harness between fuse (6) - CN13 (female) (2), (3) – CN17 (4) – connector (female) (4) just before motor – CN13 (female) (2), (3) | Resistance | Max. 1Ω |
| | | | Contact of wiring harness between fuse (6) - CN13 (female) (2), (3) – CN17 (4) – connector (female) (4) just before motor – CN13 (female) (2), (3) with ground | Resistance | Min. 1 MΩ |
| | | | Wiring harness between fuse (6) – CN30 (female) (3) | Resistance | Max. 1Ω |
| | | | Contact of wiring harness between fuse (6) – CN30 (female) (3) with ground | Resistance | Min. 1 MΩ |
| | | | Wiring harness between connector (female) (3) just before motor – CN17 (3) – CN30 (female) (5) | Resistance | Max. 1Ω |
| | | | Contact of wiring harness between connector (female) (3) just before motor – CN17 (3) – CN30 (female) (5) with ground | Resistance | Min. 1 MΩ |
| | | | Wiring harness between CN30 (female) (6) – ground | Resistance | Max. 1Ω |
| | | | Wiring harness between connector (female) (1) just before motor – CN17 (1) – ground | Resistance | Max. 1Ω |



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# ELECTRICAL CIRCUIT DIAGRAM (3/6)






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