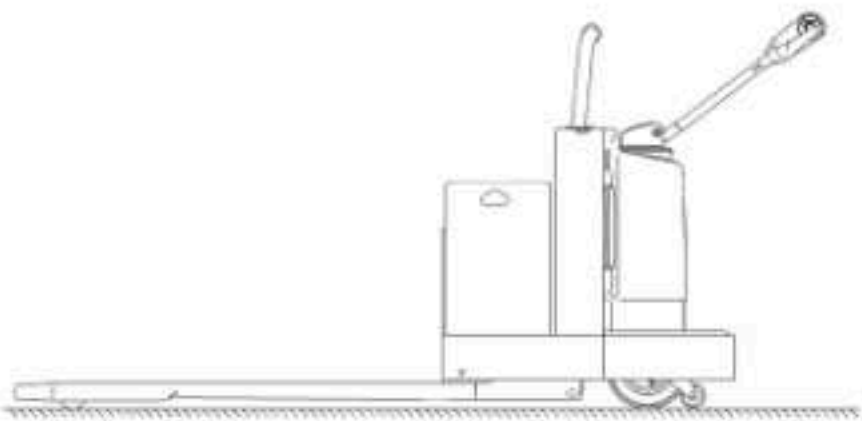
# SERVICE MANUAL

## B230 (B60ZAC)



FORM 1640810-B230 Rev. 03/14

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This section is for the following models:

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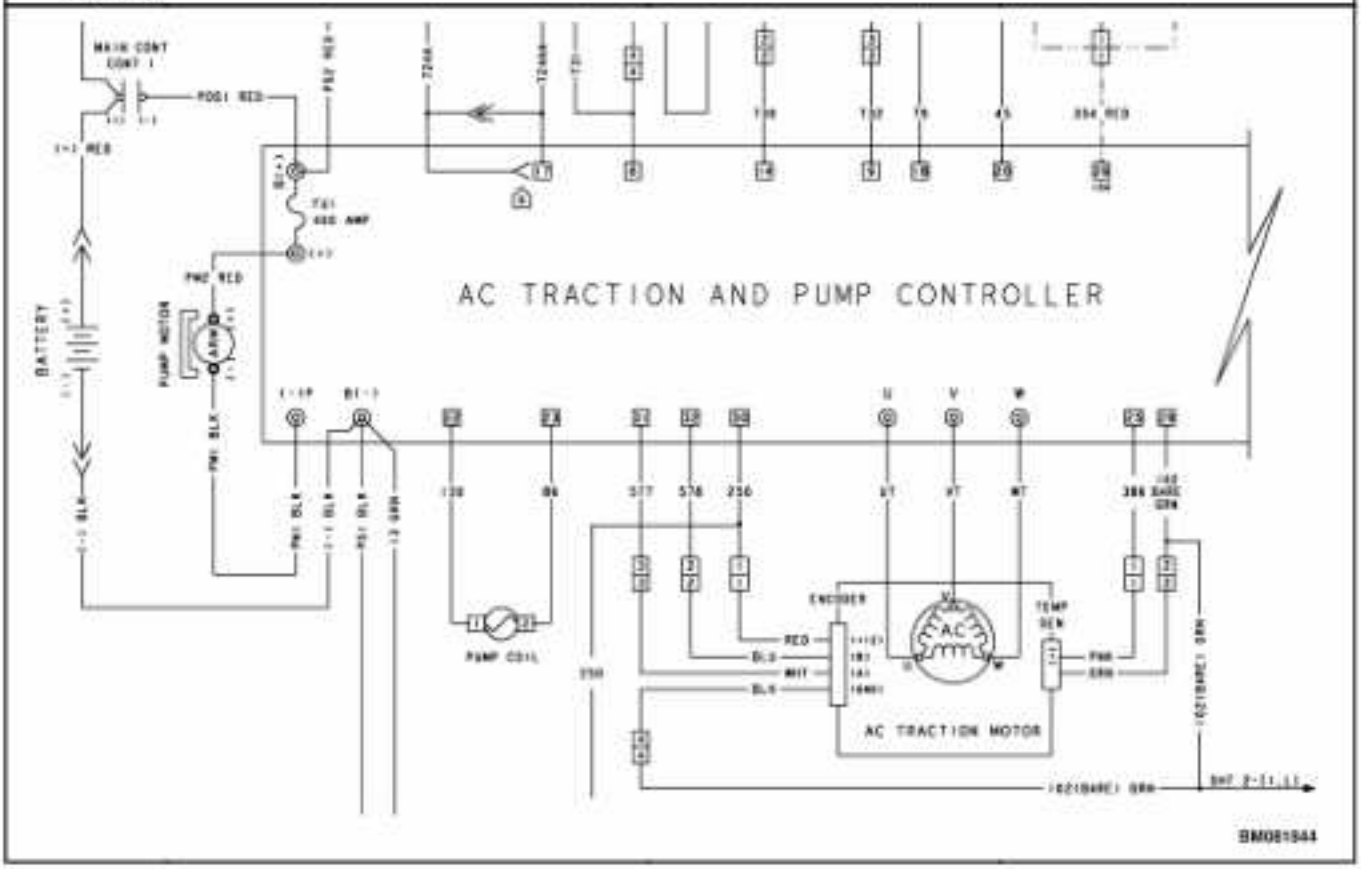


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| STATUS CODE | DISPLAY MESSAGE | LED | CIRCUIT |
|---|---|---|---|
| 33033 (cont) | 33033 or Lighted Black Screen | Solid Red | Control Card |
| DESCRIPTION | | SYMPTOM | |
| Controller cannot communicate with steer card, dash display, or power steering motor. | | Traction and hydraulic systems will not operate. | |

**Probable Causes and Test Procedures**

5. Check for continuity between pin #2 at the steer handle card connector and pin #27 at the controller connector.
6. Check for continuity between pin #4 at the steer handle card connector and pin #29 at the controller connector.
7. Check to have more than 12 volts at pin 1 of CRP115. On harness version 8801065 revision 4 and subsequent the power to tiller cards come from pin 30 (14V supply) of controller CPS05. For prior harness versions, power to the tiller card comes from pin 1 (24V) of the controller CPS05.
8. If on earlier version harnesses you find no power, check on encoder connector (CPS03) not to have the encoder signals switched with encoder power wire. Pin 1 on encoder connector goes to pin 30 of controller connector, Pin 4 on encoder connector goes to ground, Pin 2 from encoder connector (wire #578) to be connected to pin 32 (wire #577) on controller, and pin 3 from encoder to have continuity with pin 31 of controller connector.
9. Open tiller head, disconnect JP10 switch connector (4 pin Molex connector on control card where the lift/lower switches connect) from tiller card and measure resistance between pin 1 and 4. It should be greater than 300 ohms.
10. For further troubleshooting on control handle steer card, refer to Control Card Functional Test in this section.






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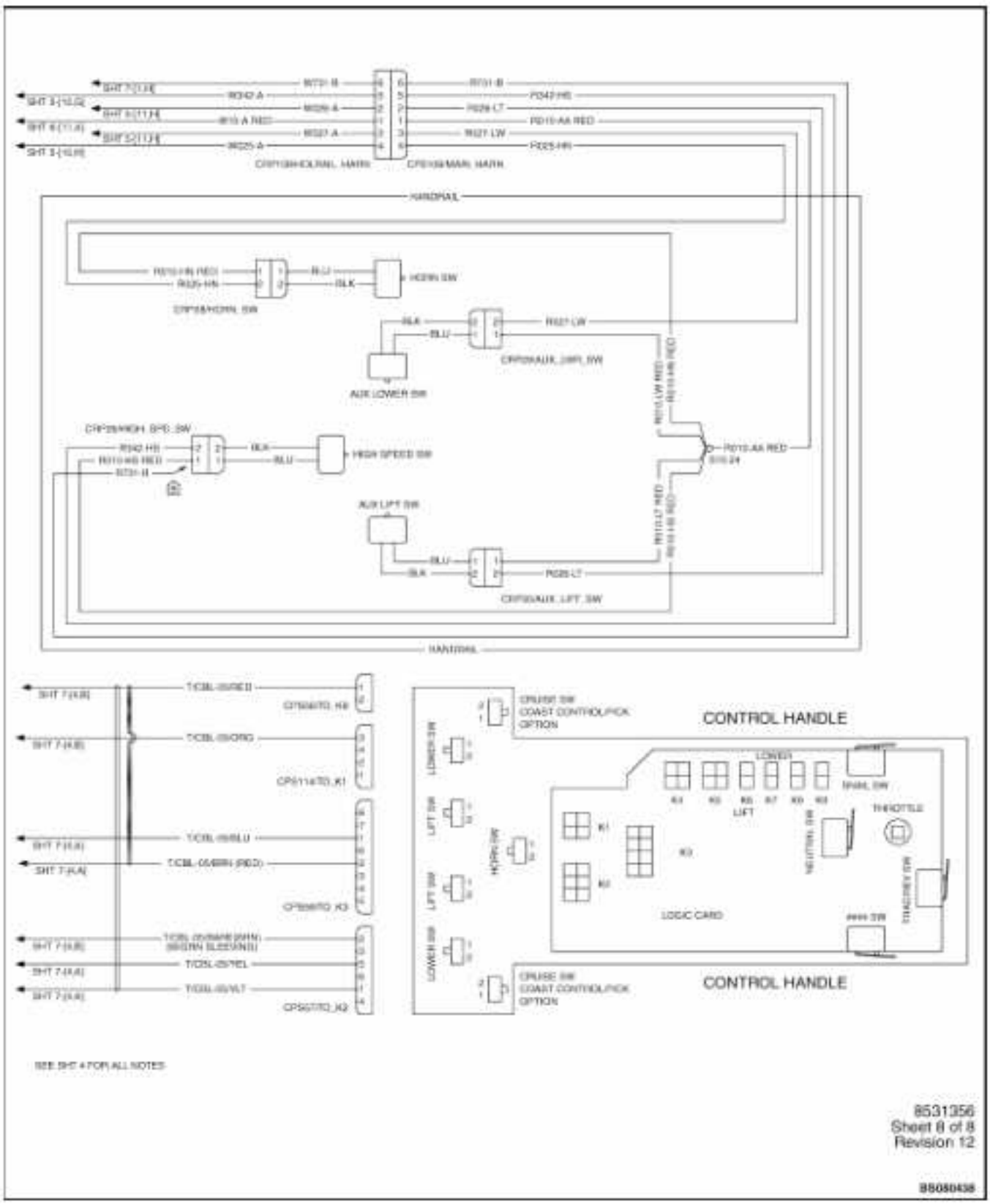



*Figure 1. Schematic/Wiring Diagram (⇒ S/N B230N03907J, B233N02758J, A257N01500J, A262N01500J) (Sheet 8 of 8)*



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*Table 2. B80Z[AC]*

| Voltage | Ampere Hours (Max) | Kilowatt Hours (Max) | Compartment Length (X) | Compartment Width (Y) (Max) | Recommended Height (Max) | Weight (Max) |
|---|---|---|---|---|---|---|
| 24 | 225 | 5.2 | 650.2 mm (25.6 in.)a | 223.5 mm (8.8 in.) | 591.8 mm (23.3 in.) | 243.1 kg (536 lb) |
| 24 | 255 | 6.0 | 650.2 mm (25.5 in.)a | 218.4 mm (8.6 in.) | 591.8 mm (23.3 in.) | 267.6 kg (590 lb) |
| 24 | 375 | 8.7 | 673.1 mm (26.5 in.)b | 330.2 mm (13.0 in.) | 591.8 mm (23.3 in.) | 374.2 kg (825 lb) |
| 24 | 425 | 9.9 | 673.1 mm (26.1 in.)b | 325.1 mm (12.8 in.) | 591.8 mm (23.3 in.) | 392.3 kg (865 lb) |
| 24 | 450 | 10.5 | 784.8 mm (30.9 in.)c | 330.2 mm (13.0 in.) | 591.8 mm (23.3 in.) | 447.7 kg (987 lb) |
| 24 | 510 | 11.9 | 784.8 mm (30.9 in.)c | 330.2 mm (13.0 in.) | 591.8 mm (23.3 in.) | 469.5 kg (1035 lb) |
| 24 | 600 | 14.0 | 784.8 mm (30.9 in.)c | 330.2 mm (13.0 in.) | 591.8 mm (26.2 in.) | 517.1 kg (1140 lb) |
| 24 | 750 | 17.6 | 784.3 mm (30.9 in.)c | 330.2 mm (13.0 in.) | 787.4 mm (31.0 in.) | 657.7 kg (1450 lb) |

**Note:** If Y is less than 327.6 mm (12.9 in.), a supplemental retainer is required.
a – Adjust both A and B retainers.
b – Adjust A and remove B retainer.
c – Remove both A and B retainer.



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