



Technical Service Bulletin

Technical Service Bulletin: TSB220176**Released Date: 23-Aug-2022****Safety Campaign #4935 C500D6RE Door Switch Logic Corrective Action**

Safety Campaign #4935 C500D6RE Door Switch Logic Corrective Action

Warranty Statement

The information in this document authorizes specific changes to the repair practice for failures covered under product warranty coverages.

Contents

Product Affected

- C500D6RE

Issue

Symptom

- Some C500D6RE rental generator sets have incorrect door switch logic, disabling the generator set's shut down command to paralleled generator sets when the busbar door is opened during paralleled operation of the generator set, potentially exposing the operator to energized electrical components.

Root Cause

- Incorrect busbar door switch wiring.

Verification/Confirmation

Locate the generator set serial number (GSN) on the nameplate inside the enclosure. If the GSN is listed in Table 1 below, please proceed to the Resolution section below.

Table 1, Affected Generator Set Serial Numbers

J200824 749	B210887 146	D210914 621	D210921 355	E210926 148	G210957 304	G210960 172	L210022 105
----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------

J200824 971	C210889 838	C210904 156	D210922 978	E210934 358	G210957 378	G210960 182	L210022 493
J200836 024	B210889 498	C210902 696	D210922 951	E210934 340	G210957 359	K210004 336	A220029 583
J200833 648	C210891 512	C210902 684	D210919 496	F210936 186	G210957 804	G210960 167	A220032 655
L200856 302	C210891 525	D210914 622	D210919 516	F210936 185	G210957 786	K210004 449	A220031 047
A210866 484	C210894 116	D210914 968	D210922 958	F210939 891	G210957 633	K210007 466	A220032 186
A210870 070	C210894 070	D210914 666	D210919 359	F210940 630	G210958 699	L210016 224	A220032 178
B210884 144	C210894 167	D210919 376	D210922 953	F210940 631	G210958 700	L210017 303	A220034 303
B210883 218	C210894 099	D210919 246	D210922 959	F210939 245	G210958 701	L210018 316	B220039 074
B210884 042	C210899 036	D210919 456	D210922 954	F210939 977	G210958 702	L210021 129	A220033 251
B210882 731	C210898 236	D210914 623	F210936 037	F210940 629	G210958 712	L210022 193	B220039 075
B210883 036	C210899 994	D210919 457	D210922 955	F210944 937	G210960 166	L210022 194	C220052 086
B210883 016	C210902 444	D210919 357	D210923 008	F210941 624	G210960 168	L210022 443	B220039 265
B210885 516	C210899 996	D210919 358	F210936 106	F210951 663	G210960 169	L210022 195	C220052 008
B210885 518	C210899 034	E210929 300	D210924 657	F210951 664	G210960 170	L210022 492	C220052 083
B210887 145	D210914 393	D210922 950	E210924 648	G210957 358	G210960 171	L210022 444	A220030 813

Resolution

To correct the door switch logic, changes to the door switch wiring is required using retrofit kit (Girtz Part Number KTS20-0015-A01). To order, contact Girtz Industries Inc. via email at sales@girtz.com with your container serial number (located behind rear access doors), generator set serial number, shipping contact, and shipping address.

©Cummins Inc



17r01599

Figure 1: Container Serial Number Location

To install the retrofit kit, see the Service Instructions section below.

Service Instructions

Warning Ensure the equipment is in an electrically safe work condition and lock out tag out procedure has been followed prior to performing any work.

1. Disconnect the negative battery cable.
2. Remove the protective cover to access the control panel wiring.
3. Using the Din rail included in the kit as a template, drill 4, 1/4" holes and mount 4" din rail to the divider panel inside the control box behind the roadside rear access panel. (Mounting hardware not included)

©Cummins Inc



17r01600

Figure 2: Control Box

4. Place end stop, 3 pole relay (K23), 1 pole relay (R16) onto the Din rail. (See Figure 3)

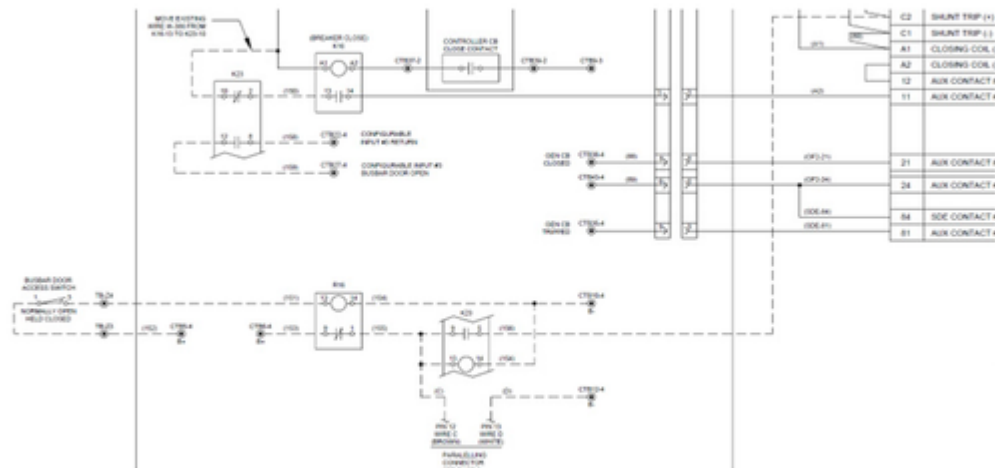
©Cummins Inc



17r01601

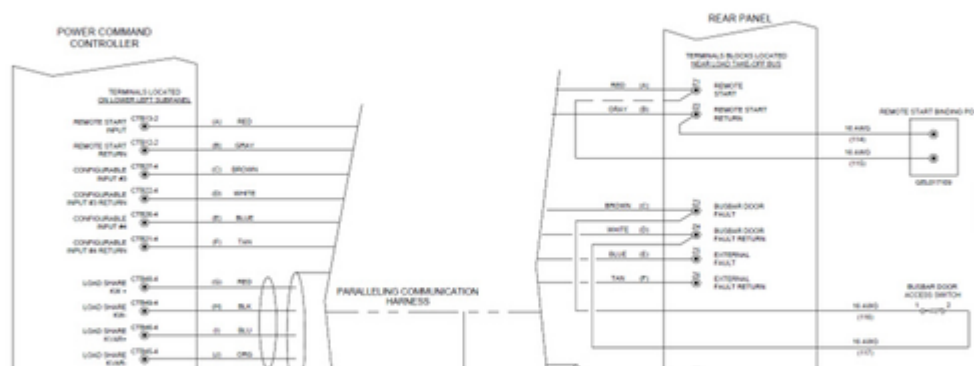
Figure 3: Mounting of DIN Rail and Relays

Removing of existing wires



17r01606

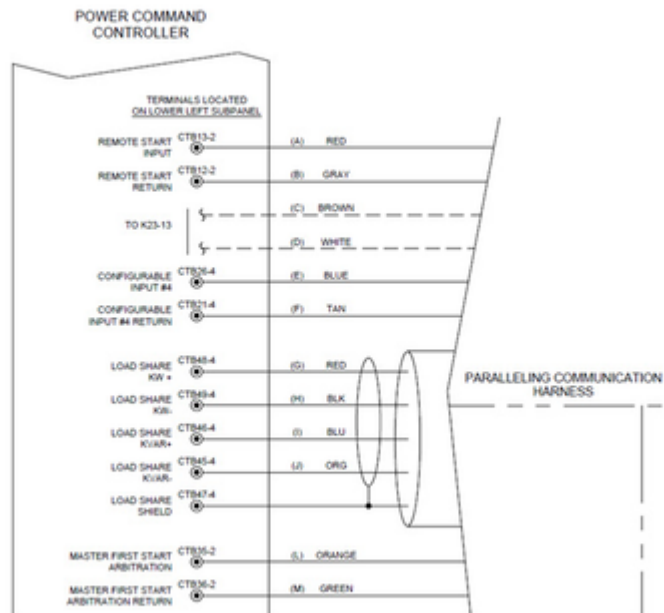
Figure 4: : Cummins Control Panel Wiring Diagram



17r01603

Figure 5: Original Power Command Controller Pin Out

©Cummins Inc



17r01604

Figure 6: Updated Power Command Controller Pin Out

5. Inside of the power command controller box, remove wire W-386 from K16-13 and move it to K23-10 (see Figure 4).
6. Remove Wire "C" (Brown) from CTB27-4 and move it to K23-13. Wire should now connect the paralleling connector to K23-13 (see Figure 4 and Figure 5).
7. Remove wire "D" (white) from CTB22-4 and move it to CTB12-4. Wire should now connect the paralleling connector to CTB12-4 (see Figure 4 and Figure 5).
8. At the rear customer connection panel, remove the customer connection cover panel and remove wire "C" (Brown) from TB-Z3 and move it to TB-Z14 (see Figure 5).
9. Remove wire "D" (white) from TB-Z4 and move it to TB-Z15 (see Figure 5).
10. On the busbar door switch, remove the wire from pin 2 (normally closed) and move it to pin 3 (normally open) (see Figure 4 and Figure 5).

Installing additional wires

Note: 20' of wire is supplied in the kit, installer is responsible for cutting wire to correct length and labeling wires.

11. Wire from K23-2 to K16-13 (see wire 150 in Figure 4).
12. Wire from R-13 to TB-Z4 (see wire 151 in Figure 4).

Note: Roadside rear louver will need to be removed to gain access.

13. Wire from CTB5-4 to TB-Z3 (see wire 152 in Figure 4).

Note: Roadside rear louver will need to be removed to gain access.

14. Wire from CTB6-4 to R16-9 (see wire 153 in Figure 4).

15. Wire from CTB10-4 to R16-14 and jumper from R16-14 to K23-14 (see wire 154 in Figure 4).

16. Wire from R16-1 to K23-9 with jumper from K23-9 to K23-13 (double K23-13 with wire "C" and (155) (see wire 155 in Figure 4).

17. Wire from K23-5 to 52G-C2 (see wire 156 in Figure 4).

Note: Roadside rear louver and rear breaker cover will need to be removed to gain access.

18. Wire from CTB22-4 to K23-8 (see wire 158 in Figure 4).

19. Wire from CTB27-4 to K23-12 (see wire 159 in Figure 4).

Testing Door Logic

1. Turn on battery power.
2. Plug paralleling plug into generator.
3. Close busbar door.
4. Measure DC voltage between pins 12 & 13 of the unterminated end of the paralleling harness.

Warning Touching pins 12 and 13 together can cause a 24V short to ground.

- Meter leads should be set as follows: Positive lead pin 12, negative lead pin 13.
- Voltage should be 0 VDC.

5. Repeat with the busbar door open.

- Voltage should be 24 VDC.

End of Repair

Campaign Filing Instructions:

Fail Code: PRWHMW

Account Code: 65

Authorization Code: 4935

Applicable SRT's:

- 00-902: 0.3 hours - Administrative time (shop)
- 00-90F: 0.2 hours - Administrative time
- 99-999: 5.0 hours - Install Door Switch Kit

Part Availability

Service parts are available. See Table 2 for part numbers.

Table 2, Service Parts

Part Description	Part Number	Order Instructions
Retrofit kit for Door Switch for 500KW Towable	Girtz Part Number KTS20-0015-A01	Contact Girtz Industries Inc via email at sales@girtz.com

Document History

Date	Details
2022-8-17	Module Created
2022-8-19	Non-Product Problem Solving (PPS)

Last Modified: 23-Aug-2022

<https://cst.cummins.com>
<http://edsprod.cummins.com>
<https://gpst.cummins.com>
<https://quickserve.cummins.com>
<https://parts.cummins.com>
<https://store.cummins.com>
<https://wwsps.cummins.com>
<https://access.cummins.com>
<https://commerce.cummins.com>
<https://qsservices.cummins.com>
<https://webparts.cummins.com>
<https://qsservices.cummins.com>
<https://adminportal.cummins.com>
0sp4N000000PGNq
<https://cumminscommerce.force.com>
<https://mylogin.cummins.com/web/idp/login>