

INSTALLATION MANUAL

REF NO. BA04003

DATE May 11, 2004

(C)

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- SUBJECT:** INSTALLATION OF SUPPLEMENTAL CAB HEATER
- PURPOSE:** To describe the installation process of the Latera grader supplemental heater.
- APPLICATION:** GD555-3C Motor Grader Serial Number 50001 and UP
GD655-3C Motor Grader Serial Number 50001 and UP
GD675-3C Motor Grader Serial Number 50001 and UP
- FAILURE CODE:** 8200NV
- DESCRIPTION:** This Parts and Service News presents the installation procedures for the supplemental heater kit. This heater installation has been designed to meet a 40,000 BTU/hr. heating requirement and still have the air conditioning.

MACHINE PREPARATION

1. Park the machine on a flat level surface; lower the work equipment to the ground. Shut off the engine and cycle the controls to remove any residual hydraulic pressure from the work equipment circuits. Turn the parking brake switch on and block the tires.
2. Remove the key from the ignition switch until the repairs are complete. Place a tag on the steering controls advising: "This machine is being repaired. It should not be started or moved for any reason until the tag is removed by the person doing the repairs."



WARNING! Observe all safety and precautionary standards as dictated by the environment and work conditions under which the equipment will be inspected, reworked and repaired. Consult the "Shop Manual" and "Operator's and Maintenance Manual" and your "Komatsu district service manager" with any/all questions regarding safety.

Remark

These instructions are intended to supplement the service data contained in the appropriate "Shop Manual". Always refer to that manual for Removal, Installation, Disassembly and Reassembly instructions when not contained in this document.

PART REQUIREMENTS**HEATER SYSTEM PARTS****KIT INCLUDES (RED DOT) PART NUMBERS**

Item	Part Number	Description	Qty.	Ref.	Serial No.
1	23B-807-A110	HEATER KIT	1		50000 AND UP
2	RD-5-4557-0	.NUT-KEP	2		50000 AND UP
3	RD-5-5351-1-25	.SCREW	2		50000 AND UP
4	RD-5-6140-0	.WASHER, FLAT	2		50000 AND UP
5	RD-1-0795-0	.5/8 & 3/8 TEE	2		50000 AND UP
6	RD-5-11269-0	.SWITCH, ROCKER	1		50000 AND UP
7	RD-5-4407-0	.CONNECTOR	1		50000 AND UP
8	RD-5-3976-0	.TERMINAL, MALE	4		50000 AND UP
9	RD-5-8812-0	.CONTROL KNOB	1		50000 AND UP
10	RD-5-9324-0	.LABEL, TEMPERATURE CONTROL	1		50000 AND UP
11	RD-1-2542-0	.HARNES, WIRING AUX. HTR.	1		50000 AND UP
12	RD-1-2541-0	.SCHEMATIC	1		50000 AND UP
13	RD-3-9137-0	.CONTROL CABLE	1		50000 AND UP
14	RD-4221-0	.RETAINER, CABLE	1		50000 AND UP
15	RD-5-5300-0	.VALVE, WATER CONTROL	1		50000 AND UP
16	RD-1-2543-0	.BRACKET, MOUNTING	2		50000 AND UP
17	RD-5-4035-10	.CLAMP, HEATER HOSE	6		50000 AND UP
18	RD-5-6304-30	.HEATER HOSE (5/8 ID FW)	1		50000 AND UP
19	RD-5-6304-20	.HEATER HOSE (5/8 ID FW)	1		50000 AND UP
20	RD-5-6304-7.75	.HEATER HOSE (5/8 ID FW)	1		50000 AND UP
21	RD-5-6304-6.75	.HEATER HOSE (5/8 ID FW)	1		50000 AND UP
22	RD-5-6304-5	.HEATER HOSE (5/8 ID FW)	1		50000 AND UP
23	RD-1-2558-0	.INSTALLATION INSTRUCTIONS	1		50000 AND UP
24	RD-1-2559-0	.LABEL, AUX. HTR. CONTROL	1		50000 AND UP
25	RD-5-9900-12	.NYLON SLEEVE, BRADED	2		50000 AND UP
26	RD-5-4921-0	.TIE WRAP	4		50000 AND UP
27	RD-5-5365-0	.WASHER, INTERLOCK	2		50000 AND UP

INSTALLATION INSTRUCTIONS

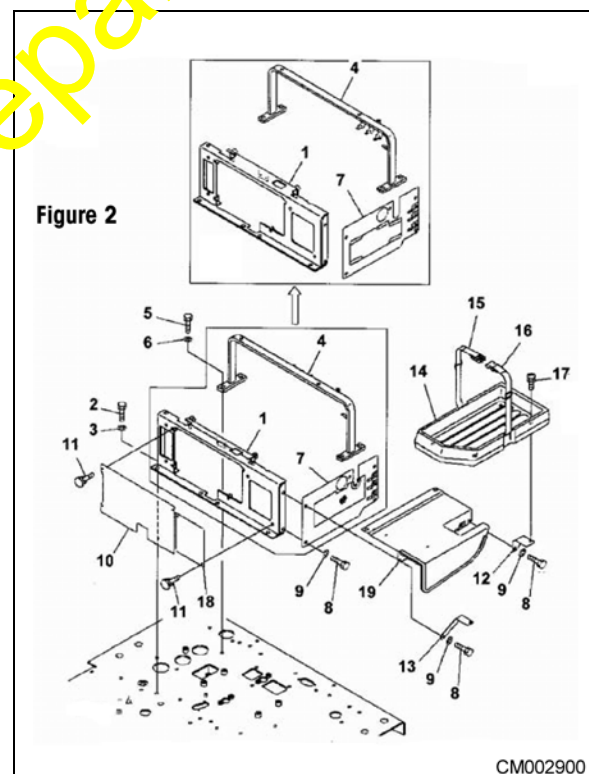
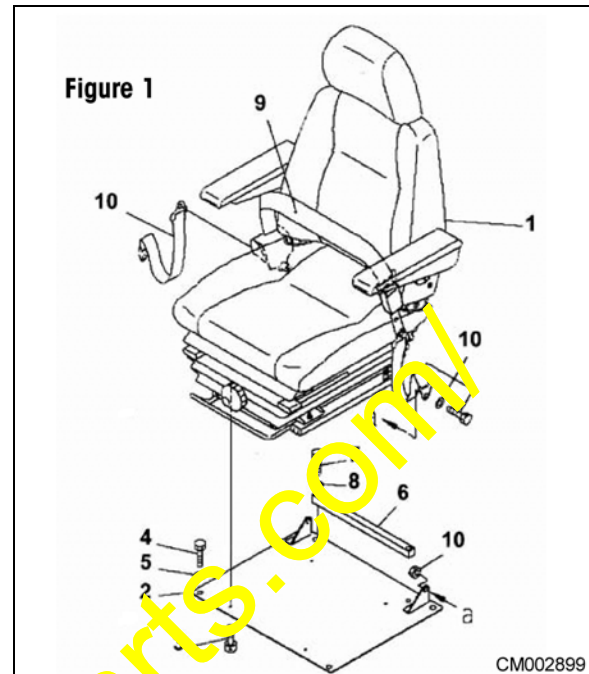
1. Shut down the engine and allow the coolant to cool down. Loosen the radiator cap to relieve any cooling system pressure. Loosen the radiator plug and Drain the anti-freeze.

★ Handle the anti-freeze as a harmful substance. Do not dispose of it illegally.

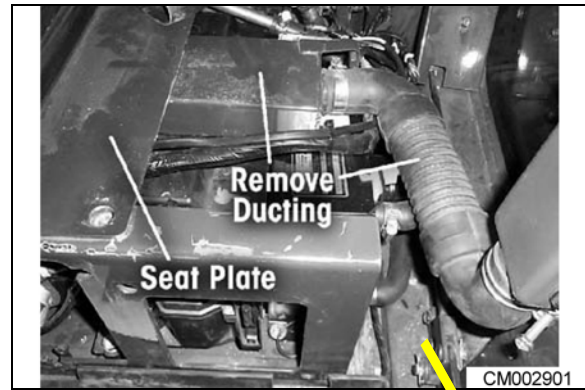


Coolant: 42 L (11.1 gal)

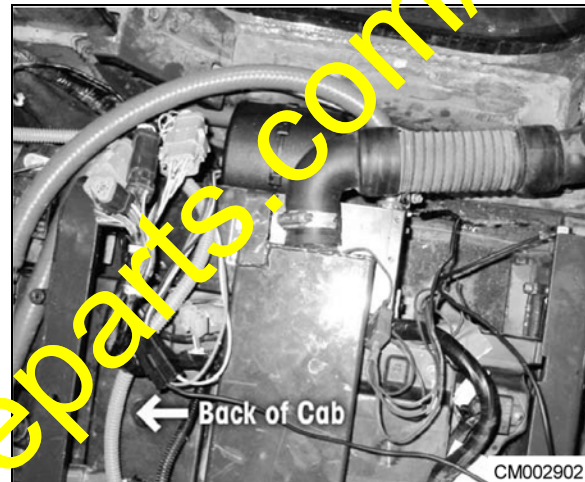
2. Remove seat and base plate, items 1 and 2 in (Figure 1).
3. From (Figure 2) remove items 7, 14 and 19 (discard item 7).



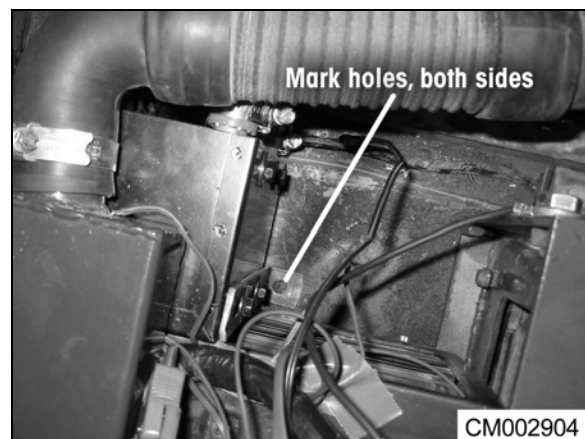
4. Remove duct under seat plate.



5. Install mounting bracket to **R-290** unit.
6. Place unit all the way to the back of the cab; adjust for clearance with door rod.



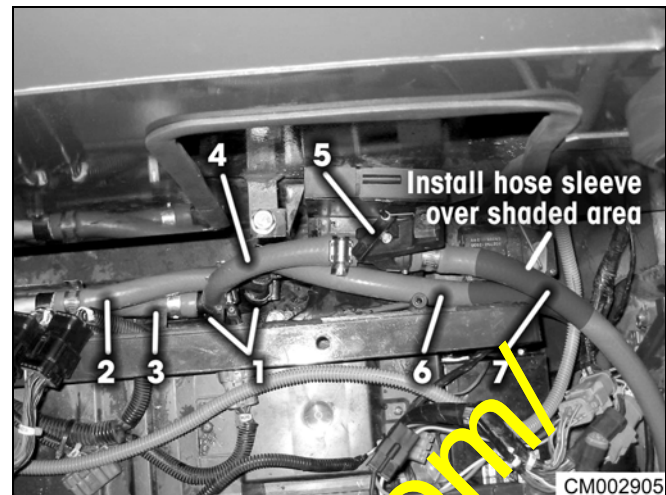
7. Mark holes in the floor of the cab. Remove unit and drill 3/8 inch holes.
8. Install unit in place using hardware supplied in kit.
9. Cut existing hoses under the existing nipples that come in from the floor.



10. Using the tees, hose clamps and water valve; install all hoses as illustrated in. (Heaters are plumbed in parallel.) Use black hose sleeve on hoses around corners of the seat support bar and tie wrap ends.

★ Obtain And Install The Following Parts:

- 1 **RD-I-0795-0** Tee
- 2 **RD-5-6304-6.75** Hose - Heater 5/8 ID
- 3 **RD-5-6304-5** Hose - Heater 5/8 ID
- 4 **RD-5-6304-7.75** Hose - Heater 5/8 ID
- 5 **RD-5-5300-0** Valve - Water
- 6 **RD-5-6304-30** Hose - Heater 5/8 ID
- 7 **RD-5-6304-20** Hose - Heater 5/8 ID



11. Install cable converter. Mount cable converter and label **RD-1-2559-0** approximately as shown. Remove plate, make sure that when you drill your 7/16 inch hole you clear the duct hose behind plate. Cut "D" hole then install **RD-5-9324-0** onto cover and center over the hole. When installing the converter/cable assembly on the cover plate put one **RD-5-5365-0** lock washer on the converter shaft, then insert the shaft through the hole in the cover plate, install a second lock washer and finally the secure it with a 7/16 inch-28 nut.

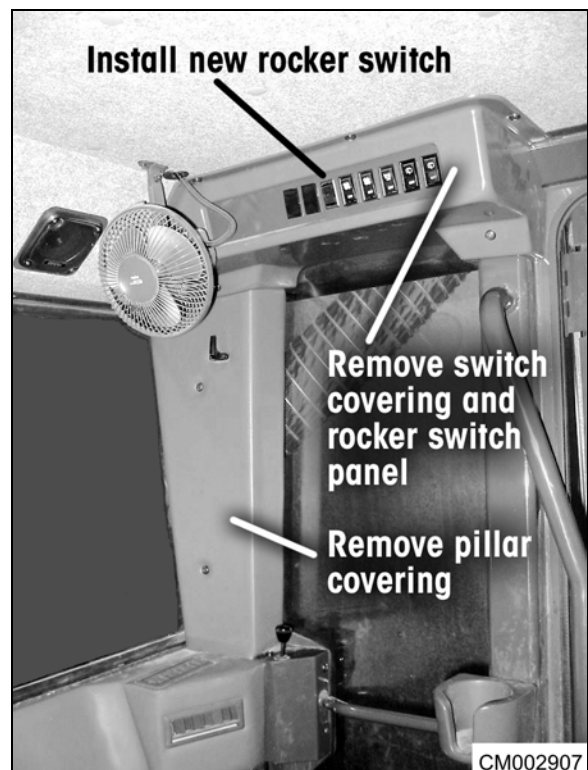


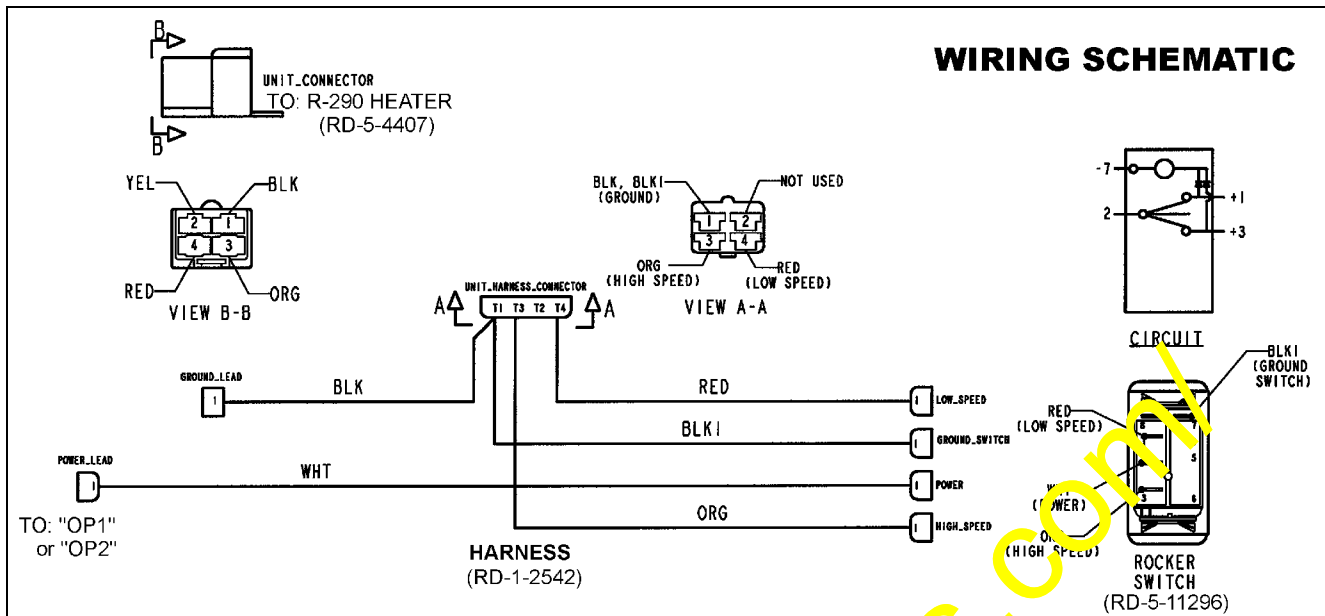
12. To route wire harness you will need to remove all pillar and rocker switch panels.

13. Install new rocker switch in next opening in switch panel assembly

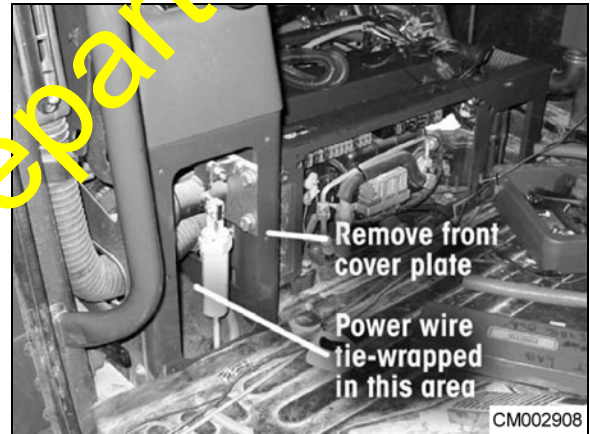
14. Route rocker switch end of wire harness up near top of rear left plate and behind switch panel. Connect harness to new switch per schematic below

15. Route harness down left rear pillar making sure harness is routed behind lower covering panel.





16. Also remove front cover plate below shift lever.



17. Route wiring next to R-290 unit and across top of existing A/C unit. Connect to unit harness using connector RD-5-4407-0 connector per schematic above. Tie-wrap as necessary.

18. Route end of harness under right-hand control console and into area where existing power pigtail is located (front cover plate, step 11). Connect bullet connector from unit harness to power lead bullet connector labeled number "OP1" or "OP2".



19. Turn machine key switch to the on position. Make an electrical check of new auxiliary heater by turning on unit rocker switch. Fan should operate at low and high speeds. Also operate water valve control knob to check proper operation of water valve.

20. Fill radiator (14) with anti-freeze through sub tank cap (15) to FULL level.
21. Start the engine, raise the temperature until the thermostat opens, then circulate the coolant and check the level again. Check for leaks.



Coolant: **42 L (11.1 gal)**

22. Reinstall under seat duct.
23. Reinstall all trim panel and covers.
24. Reinstall seat base cover and torque bolts to shop manual specifications.
25. Reinstall seat and torque seat bolts to shop manual specifications.
26. Install operational decal for the water valve, (RD-1-2559-0) next to the water valve control knob label.

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