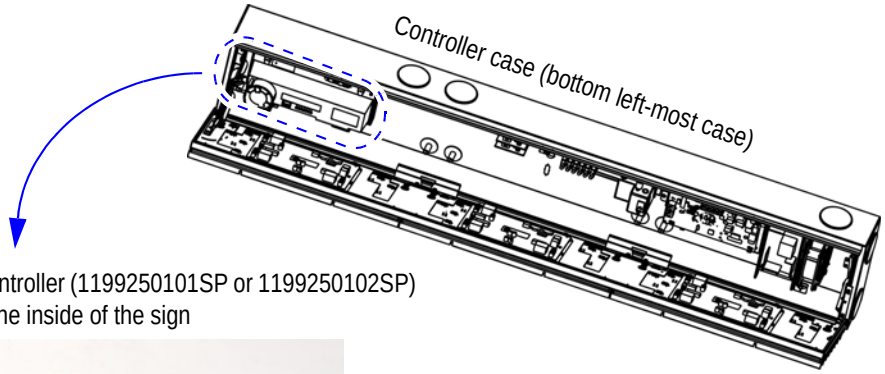
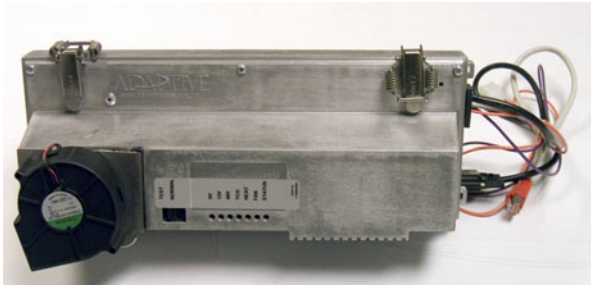
Replacing the EMC/Video Controller

(pns 1199250101SP, 1199250102SP, 1199250103SP, and 1199250104SP)

The EMC and Video controllers are used in 20mm, 23mm Pitch (Series B), and 35mm pitch Excite signs to manage communication between the computer and the sign.



Front view of Series B controller (1199250101SP or 1199250102SP) – the part you see from the inside of the sign



Rear view of controller (identical for both series) on the back of the sign's controller section (bottom right-most case).

Front view of Series B v2 controller (1199250103SP or 1199250104SP) – the part you see from the inside of the sign

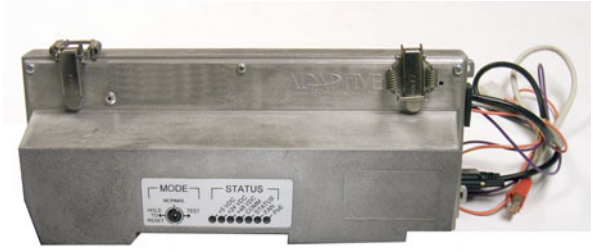


Figure 1: EMC/Video controller views

Tools needed

- Phillips-head screwdriver
- 5/32-inch hex tool (pn 68117076)

WARNING! Hazardous voltage. Contact with high voltage may cause death or serious injury. Always disconnect power to unit prior to servicing.

Notice: Observe appropriate precautions to prevent electrostatic discharge (ESD) or "static" damage to the replacement part. For safe handling of ESD-sensitive parts, see TechMemo #00-0005.

DO NOT use the ooh!Media *Upgrade Excite Sign* feature after replacing the sign controller; otherwise sign controller failure will occur.

⇨ Replacing the controller

1. Disconnect all power to the sign at the power source.
2. Disconnect the Ethernet (RJ45 connector) cable from the controller at the back of the sign (bottom right-most case).

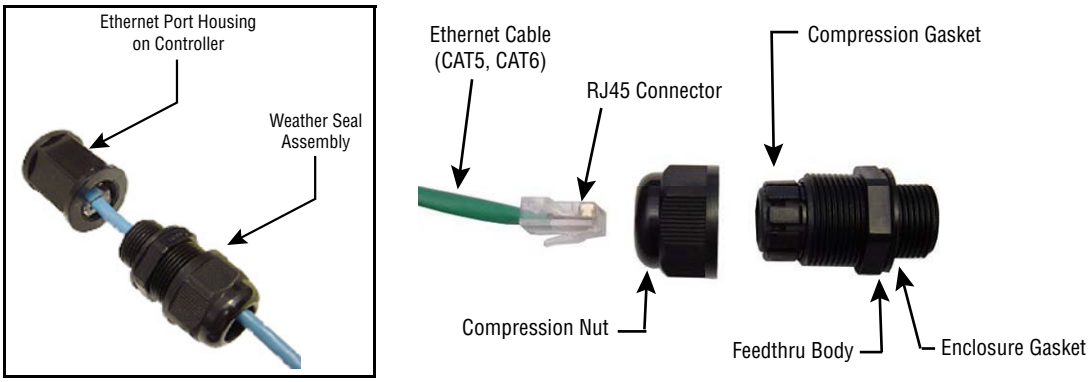


Figure 2: Disconnect the Ethernet cable

- Refer to the first page for the Ethernet port housing location on the controller.
- Loosen the compression nut.
- Loosen the feedthru body.
- Slide the weather seal assembly away from the sign controller's Ethernet port housing.
- Disconnect the RJ45 connector and remove the weather seal assembly from the cable (the replacement controller is equipped with a new weather seal assembly).

3. Disconnect the light sensors and temperature probe, if present, from the controller at the back of the sign (bottom right-most case).

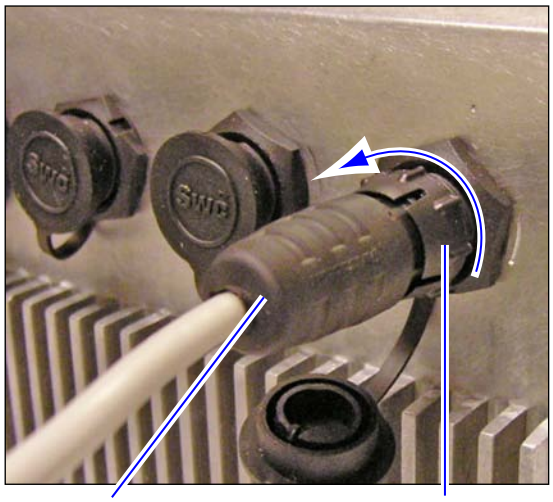


Figure 3: Disconnect the light sensor and temperature probe

- Turn the plug's locking nut 1/2 a turn counter–clockwise and pull out, away from the controller (it should pop out away from the controller as you turn).
- Carefully pull out the light sensor or temperature probe cable.
- Repeat for each additional cable.

  Note: Temperature probe and light sensors can be connected to any of the three ports.

4. Locate the door locks in the controller case (bottom left-most case).

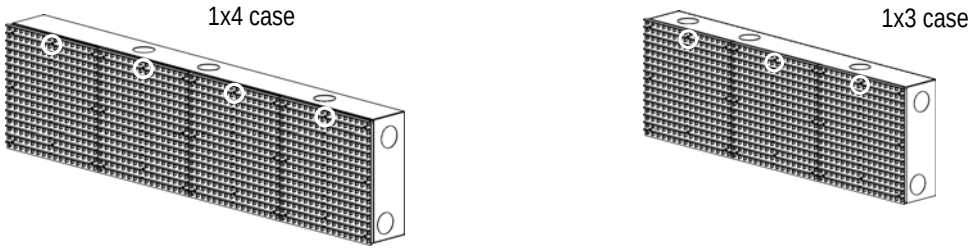


Figure 4: Door lock locations

5. Open the case door.
   - Using a 5/32-inch hex tool to open each section door lock, turn counter–clockwise and then pull the door toward you.

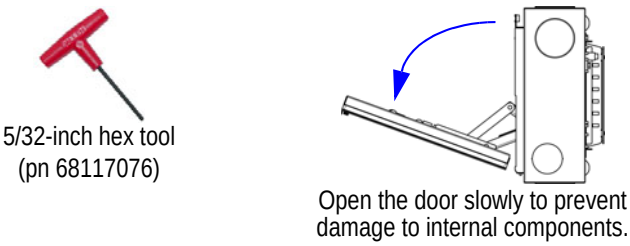
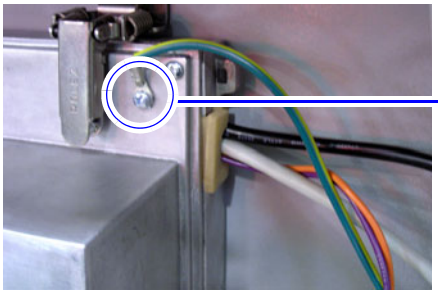


Figure 5: Use a hex tool to open the sign door

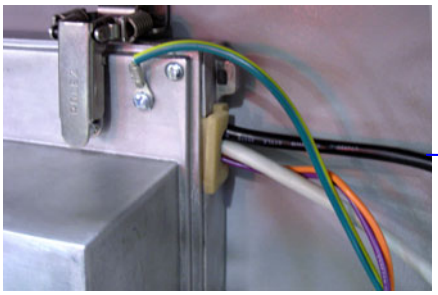
6. Disconnect the grounding wires from the controller.



If present, remove the ground wire screw with a Phillips-head screwdriver to disconnect the grounding wires.

Figure 6: Remove screw to disconnect grounding wires

7. Disconnect the DVI cable.

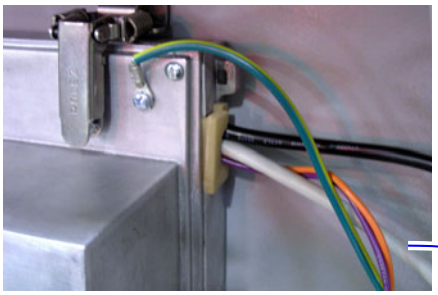


Follow the black DVI cable and disconnect it from the coupler (if present) or from the turbo board.

If present, leave this coupler attached to the cable inside the sign.

Figure 7: Disconnect the DVI cable

8. Disconnect the LVDS cable.



Follow the white LVDS cable and disconnect it from the coupler (if present) or from the turbo board.

If present, leave this coupler attached to the cable inside the sign.

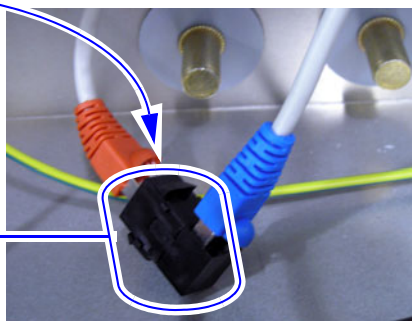


Figure 8: Disconnect the LVDS cable

9. Disconnect the power cables.

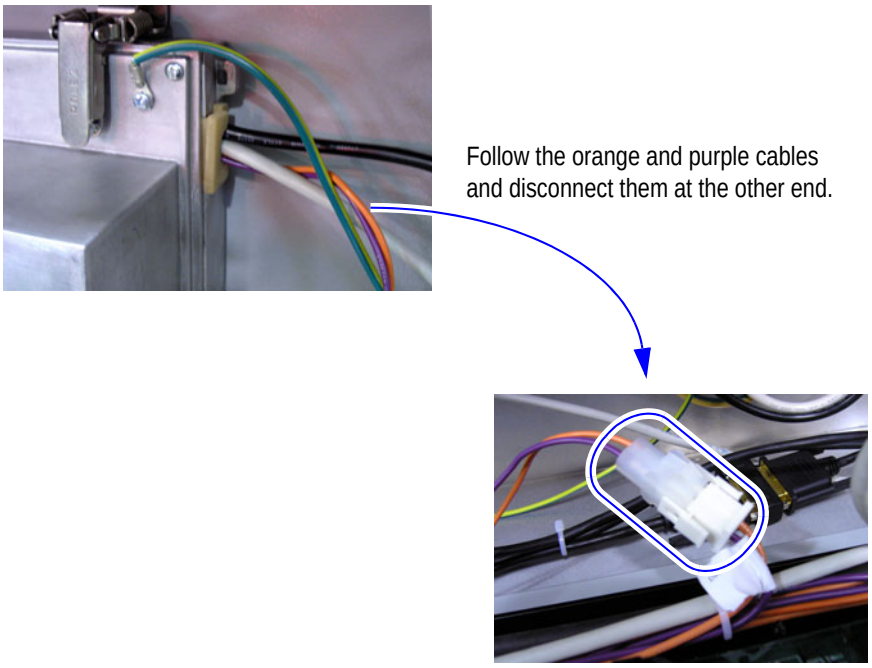


Figure 9: Disconnect the power cables

10. Remove the controller.
    - Release the two upper latches (A).
    - Push down on the bottom brackets (B).
    - Rotate the top of the controller towards you and pull out the controller.

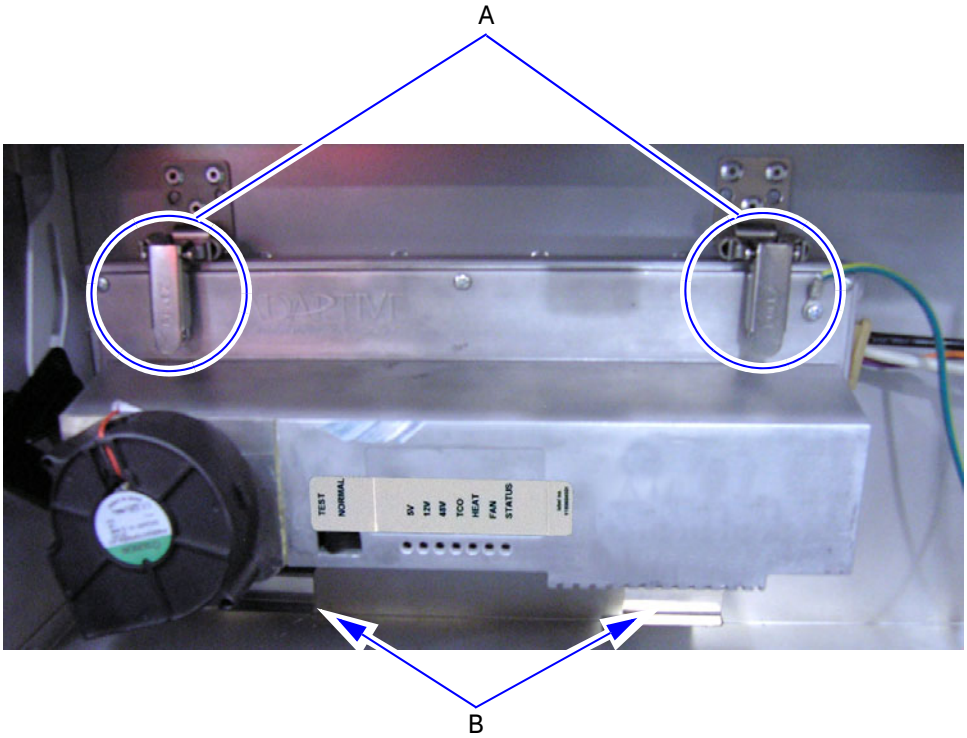


Figure 10: Release the latches holding the controller in place

11. Install the replacement controller and secure the latches.
    - Place the tabs on the bottom of the controller into the bracket openings on the sign's controller case.
    - Rotate the top of the controller up to the latch brackets, and secure the controller in place with both latches.

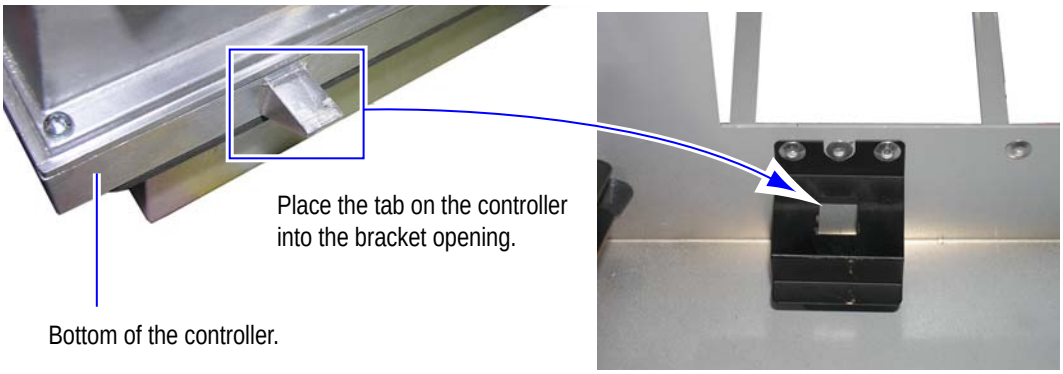
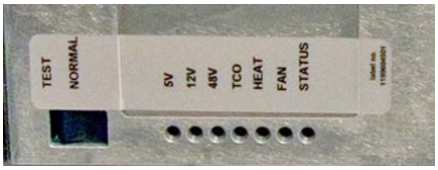


Figure 11: Controller tab and case bracket

    - Connect the controller's internal cables to the ones you disconnected in steps 6-9.
    - Ensure the rocker or toggle switch on the controller is set for normal operation mode.

Series B controller



Series B v2 controller

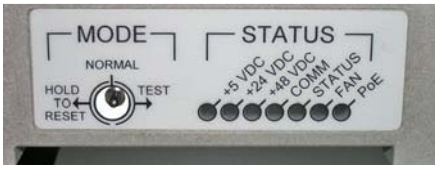


Figure 12: Toggle or rocker switch.

    - Remove all tools and parts from inside the sign, close the sign door, and tighten the door locks.

12. Reconnect the Ethernet cable (RJ45 connector) to the back of the controller.

    Refer to step 2 (Figure 2 on page 2) for a diagram of the Ethernet weather seal.
    - Insert the RJ45 connector of the Ethernet cable through the compression nut, compression gasket, and feedthru body.
    - Plug the RJ45 connector into the sign controller's Ethernet port housing.
    - Tighten the feedthru body onto the Ethernet port housing on the controller.
    - Tighten the compression nut until the gaskets are tight around the cable. It is tight enough when you pull on the cable and it doesn't move.

      Note: If you are using your own cable and are unable to get a good seal, use a rubber sleeve or electrical tape around the cable to increase its outside diameter.

13. Reconnect the light sensor(s) and temperature probe to the back of the controller.

    For each cable do the following (refer to step 3 for an illustration):

    Note: The light sensors and temperature probe can be connected to any of the three ports.

    - Line up the temperature probe or light sensor connector with one of the connectors on the back of the controller and gently push it in.
    - Once the sealer goes in, turn the plug's locking nut 1/2 a turn clockwise.
    - Repeat this step for remaining connections.

14. Apply power to the sign.

    Note: If power is applied to the sign before the temperature probe and light sensor(s) are connected, you will have to cycle power to the sign for it to acknowledge they are connected.

15. Verify sign operation, send a message to display on the sign.

Notice: **DO NOT** use the ooh!Media *Upgrade Excite Sign* feature after replacing the sign controller; otherwise sign controller failure will occur.

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