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CHILD CHECK-MATE™ SAFETY SYSTEM

Installation Instruction Manual EP2

**CHILD CHECK-MATE SYSTEMS INC.
U.S. Patent #5874891**



Child Check-Mate EP2 **Installation Instruction Brochure**

“This brochure is a supplement to the Installation Training Video”

The Child Check-Mate Safety System (CCMS) is made up of two main components and three optional components.

Main Components:

1. **EP2 Alarm Unit**, which is mounted in the electrical panel at the front of the bus near the driver.
2. **Rear Vehicle Transmitter (RVT-Reset Button)** that is mounted on the inside rear of the bus. Note: Some RVT installations will require a “Conduit Kit”.

Optional Components:

1. **Speaker**, this is used to give voice commands to the driver.
2. **EP2 Power and Dome Light Relay Harness** required to hook up Dome Lights and is also used to replace the six pin and five pin harness.
3. **GPS Interface Harness**, used to connect to a GPS Unit
4. **Motion Sensor**, used in the Theft-Mate feature of the Child Check Mate System.



Installing the EP2 Alarm Unit

Location and Mounting:

- Locate a convenient mounting area for the EP2 Alarm Unit within the main electrical panel at the front of the bus. Before securing the unit, check to ensure that its location is central enough so that the plugs leading from six pin harness and five pin harness or the EP2 Power and Dome Light Relay Harness can reach it easily once all the wires have been connected.
- Secure the unit to the wall using the two-sided tape provided.
- Once mounted, screws may be applied to the holes located at each end of the unit.

If a Speaker is to be installed it can be installed at this time, the Speaker is installed in the drivers area and connected directly to the EP2 Alarm Unit. Please refer to schematics found on our Web site www.childcheckmate.com.

If GPS is being used, install the interface harness into the 3 pin connector and connect to the GPS Control Unit







If a Motion Sensor is being used it can be installed at this time. The Motion Sensor is mounted on front/centre bulk head of bus, facing towards the isle of the bus.

Questions relating to the installation should be directed to Allan Lowe, VP Engineering, Child Check-Mate System Inc. installation@childcheckmate.com or directly at 613-835-9828.




Connecting the EP2 Alarm Unit:

Please note if the dome light option is chosen, please refer to schematics found in our web site www.childcheckmate.com to make those connections, the six pin and five pin harness is part of the Dome Light Harness.

Six pin wiring harness

- 1) BATTERY - RED WIRE 
 Connect the RED wire to battery 12 volts. (Positive all the time)
- 2) GROUND - BLACK WIRE 
 Connect the BLACK wire to a good ground connection.
- 3) IGNITION - YELLOW WIRE 
 Connect the YELLOW wire to a 12 Volt ignition source, preferable to the small ignition terminal of the solenoid that is for the electrical power in the driver's side panel - 12 volts.
- 4) FRONT WARNING BUZZER - SMALL BLUE WIRE 
 Find the front warning buzzer for the rear door of the bus. On this buzzer there are two wires - one wire runs to the rear door switch, the second wire becomes positive when ignition is turned on. Join the BLUE wire of the EP2 Alarm Unit to the wire running to the rear door switch.
- 5) OVERHEAD FLASHING LIGHTS - BROWN WIRE 
 The BROWN wire is the activation wire for EP2; connect this wire to a 12 volt signal source that becomes 12 volt when the driver picks up children. This wire is usually connected to the overhead red flashing lights
- 6) VEHICLE HORN - GREEN WIRE 
 The GREEN wire is a ground signal for the horn relay. DO NOT CONNECT DIRECTLY TO THE HORN

Five pin wiring harness

- 1) BRAKE LIGHT SWITCH - GREY WIRE 
 Connect the GREY wire to the BRAKE LIGHT SWITCH. Connect this wire to the terminal of the switch that becomes 12 volts when the brake pedal is depressed.
- 2) GPS OUTPUT - WHITE/BLACK WIRE 
- 3) GPS OUTPUT - WHITE/BROWN WIRE 

SPARE WIRES in 5 pin harness

- 4) SPARE - ORANGE WIRE 
- 5) SPARE - PURPLE WIRE 




At this point, both harnesses can now be plugged in.

Installing the Rear Vehicle Transmitter (RVT-Reset Button)

Extend the wires out of the “back” of the unit. The RVT is mounted above the window on the bus wall over the furthest rear seat on the driver’s side of the bus. The following steps describe the proper mounting procedures:

1. Drill a 23/64th-inch hole at desired location over the rear seat.
2. Insert plastic grommet, (supplied) into drilled hole.
3. Feed the three wires out the “back” of the RVT and through the pre drilled hole and secure it to the panel with the top screw (supplied)
4. Place the small plug (supplied) over the two remaining holes at the bottom of the Rear Vehicle Transmitter secure to panel.
5. Refer to “connecting the RVT wires”

Connecting the RVT wires:

- 1) DEACTAVATION WIRE - BLUE WIRE 
The RVT pulses a ground signal on this blue wire, find the wire that connects the rear door switch to the front buzzer. This would be the same wire that the BLUE wire of the EP2 Alarm Unit is connected to.
NOTE: If there is not a common wire from the front warning buzzer to the rear door switch, then a wire needs to be ran forward and can be connected to the blue wire of the EP2. You do not need to connect to a buzzer at this point.
- 2) 12 VOLT IGNITION - RED WIRE 
Connect the RED wire to the 12 volt ignition. If the bus has a rear door buzzer, the buzzer would have 12 volts, this connection can be used.
- 3) GROUND WIRE - BLACK WIRE 
Connect the BLACK wire to a good ground

CONDUIT KIT INSTALLATION METHOD (Requires Optional Surface Mount Conduit Kit)

Alternatively, the wires can extend out of the “bottom” of the unit using an optional “Conduit Kit” model RVT-2W available from Child Check-Mate. The RVT is mounted at the top right of the rear emergency doorframe, and is connected to the rear door buzzer through the conduit. Please refer to “Conduit Installation Method” @ www.childcheckmate.com for installation instructions.

OPERATION CHECK LIST

1. Upon starting the bus, The EP2 Alarm Unit will emit an audible noise indicating that the system is now operational.
2. Close the front door and turn on the master switch. Open the front door and the red overhead lights will flash. Expect an audible sound from the EP2 Alarm Unit as the Red Lights are activated.
3. Close the front door and the overhead lights will stop flashing.
4. Turn the ignition off. The system's alarm, a high-pitched beep, will begin to sound. After approximately eight seconds, the bus horn will begin to sound on and off.
5. Turn the ignition back to the 'ON' position
6. Listen for the voice annunciation "Please conduct your Child Search now".
Note – if a Motion Sensor is being used, as long as the driver remains in the bus and the motion sensor continues to see the driver, the EP2 Alarm Unit will not sound. If the driver leaves the bus and The Child Check is not done, bus horn will begin to sound.
If Motion Sensor is not used - The voice will be played 8 times at 30 second intervals which time the bus horn will sound. (4 minutes).
7. Proceed to the rear of the bus and depress the RVT Reset Button for at least three seconds. You will hear the deactivation signal, a rapid chirping sound from the EP2, the voice annunciation indicating the search is complete. **Note:** The Child Check Mate EP2 system's deactivation process is designed so that the ignition key *must* remain in the 'OFF' position for at least **one second**, before switching to the 'IGNITION' or 'ACCESORY' position.
8. The system has *now* been deactivated and the key can be removed safely from the ignition.

Dome Light Option – If equipped

1. Turn on the ignition to illuminate dome lights for 20 seconds.
2. Once the system has been activated, turn the ignition off and the dome lights will illuminate.
3. Turn ignition to the 'on' position. The dome lights will remain illuminated proceed to the rear of the bus to deactivate the system.
4. The dome lights will remain on for 2 minutes after deactivation.
5. Stepping on the brake pedal will also turn the dome lights off.

*Need further installation assistance?
Have questions about our other products?*

Contact us directly by:

 **E-mail:** ccms@childcheckmate.com

*(To better serve you, please put **Installation** or **Products** in the subject line.)*

 **Phone: Toll Free 1-877-494-8222**