

# Vapor Monitor Interface Module

## Installation Guide

# Notice

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# Introduction

## General

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- This manual contains procedures to install a Vapor Monitoring Controller Interface (VMCI) module into a TLS-350 Plus or TLS-350R console.
- When installed in the TLS console, the VMCI interface module is used as a RS-485, 2-wire serial interface on the dispenser's VMC network.
- Up to 18 VMC controllers can be monitored by the VMCI interface module.
- The TLS console can support only one VMCI interface module.
- After installing the VMCI interface module, refer to manual 576013-623 for setup instructions.
- For additional information regarding interface modules, refer to the TLS-3XX System Setup manual. If this is a new installation or if site preparation is necessary, refer to the TLS-3XX Site Preparation and Installation manual, or contact your Veeder-Root representative for assistance.

## Interface Requirements

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### TLS CONSOLE SOFTWARE REQUIREMENTS

Console system software: 346128-XXX, or 346328-XXX (or higher)

### DISPENSER VMC SOFTWARE REQUIREMENTS

- For UK: VMC\_VRB\_V201UK
- For DE: VMC\_VRB\_V201DE

## Contractor Certification Requirements

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Veeder-Root EMEA require Technicians working to install and setup TLS-3XX consoles, probes, sensors and interfaces to have a valid Certification of Competence in TLS-3XX Installation and Setup.

For information on how to become certified, please contact your local Veeder-Root representative.






## Related Manuals

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576013-623 TLS-3XX Series System Setup Manual

## Safety Symbols

The following safety symbols are used throughout this manual to alert you to important safety hazards and precautions.

 <p><b>EXPLOSIVE</b> Fuels and their vapors are extremely explosive if ignited.</p>	 <p><b>ELECTRICITY</b> High voltage exists in, and is supplied to, the device. A potential shock hazard exists.</p>
 <p><b>TURN POWER OFF</b> Live power to a device creates a potential shock hazard. Turn Off power to the device and associated accessories when servicing the unit.</p>	 <p><b>READ ALL RELATED MANUALS</b> Knowledge of all related procedures before you begin work is important. Read and understand all manuals thoroughly. If you do not understand a procedure, ask someone who does.</p>
 <p><b>WARNING</b> Heed the adjacent instructions to avoid damage to equipment, property, environment or personal injury.</p>	

## Safety Warnings

<b>⚠ WARNING</b>	
	<p><b>The console contains high voltages which can be lethal. It is also connected to low power devices that must be kept intrinsically safe.</b></p> <p><b>Turn power Off at the circuit breaker. Do not connect the console AC power supply until all devices are installed.</b></p> <p><b>Touching a live circuit can cause electrical shock that may result in serious injury or death.</b></p>

# Installation

The VMCI module is installed in the TLS console's comm bay and then connected to the network junction box.

## VMCI Module Configuration

Examine the VMCI module and make sure the JMP4 jumper is in the position shown in Figure 1 (over the 2 right-hand pins).

**Important! if this jumper is over the two left-hand pins, the VMCI module will be disabled.**

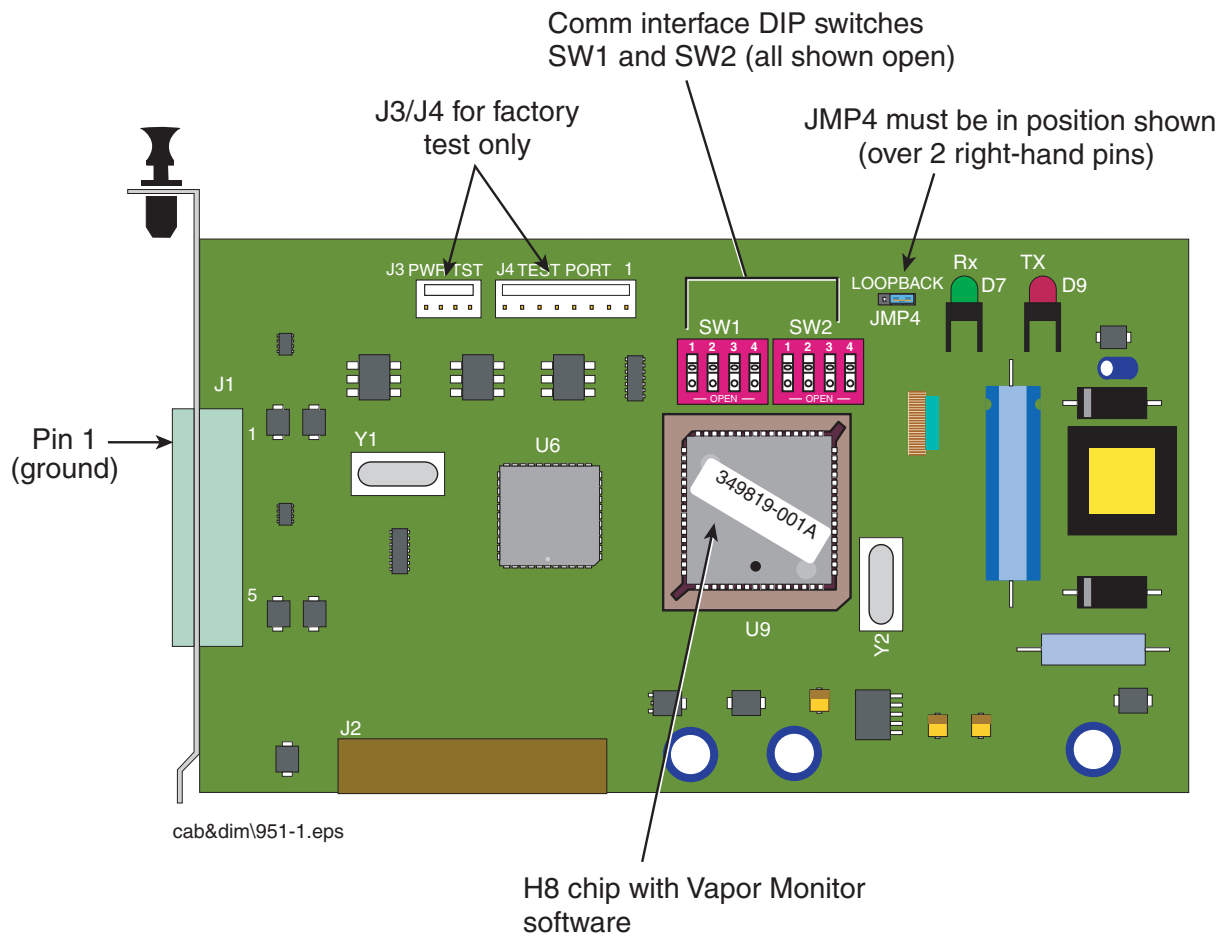
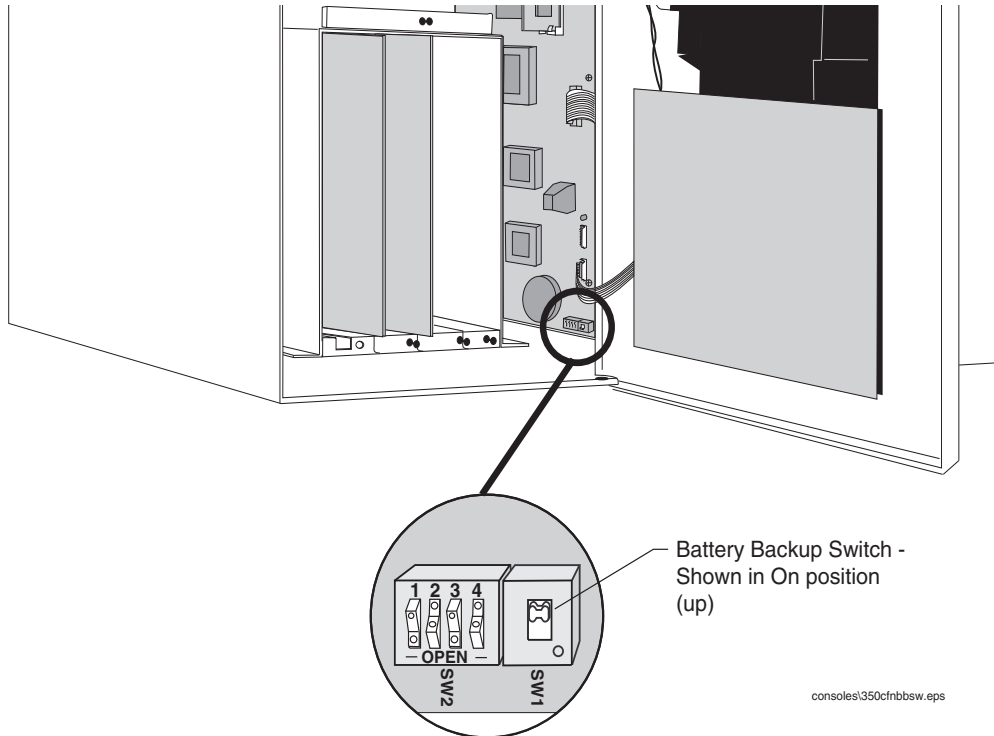


Figure 1. VMCI Module, P/N 331001-004

## Installing the VMCI Module in the Console



1. Archive system data.
2. Open the left door of the console.
3. Verify that the battery backup switch is in the Off position, then turn Off power to the console (see Figure 2) to perform a cold boot of the system.



**Figure 2. TLS-350 Series Battery Backup Switch Location**

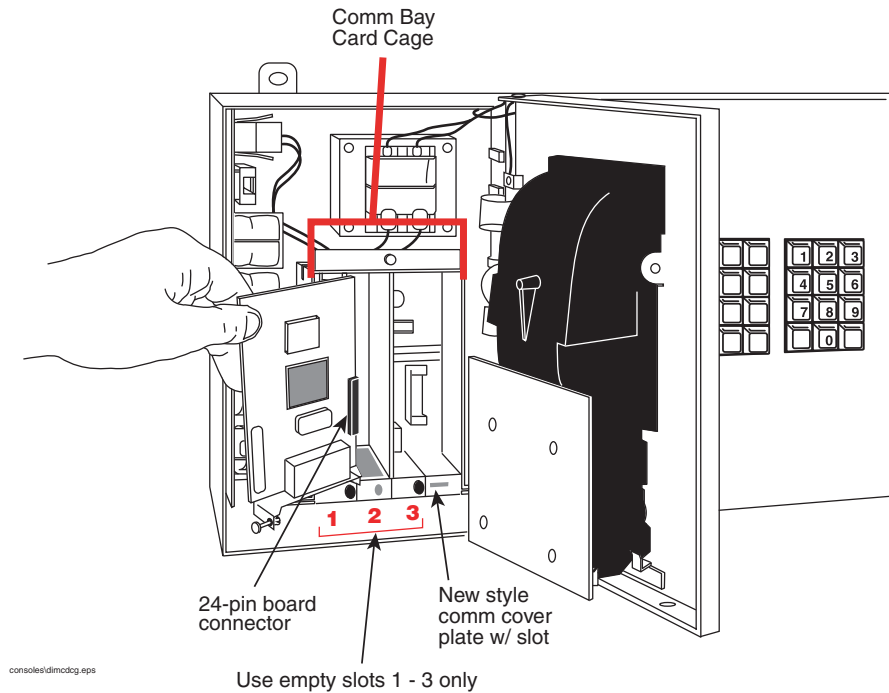
4. Avoid shorting high voltage across any component or module to the intrinsically safe section of the console. This could result in an explosion near the device.
5. Remove the blank cover plate from an open slot in the communication compartment. Important Note: The VMCI Module can only be installed in slots 1, 2, or 3 of the console's Comm Bay card cage (Figure 3).

If your console has a snap connector which secures the cover plate in the card cage, pull it out and lift out the cover plate.

If your console has "knockout" cover plates, open the printer door and insert a flat blade screw driver in the slot provided in the front of the cover plate you are removing and twist it to break the front set of metal securing tabs (Figure 3). Once the front tabs are broken, carefully rock the loosened end of the plate until the rear set of securing tabs break. Remove and discard the cover plate.

6. Slide the module into the open slot until the motherboard connector is snugly seated. Do not apply excessive force when installing the module. With your thumb, push in the black retaining fastener on the end plate until it snaps into the hole in the card cage.
7. When you are finished, make sure any unused slots in the comm cage have a blank end plate installed.

8. Check that the 5-pin plug in the module's bracket is accessible through the slot opening in the bottom of the console once the module is installed.



**Figure 3. TLS-350 Series VMCI Module Installation**

## Connecting the VMCI Module to the Network

1. Refer to Figure 4 and locate the appropriate terminal block inside the junction box.
2. Connect the data cable leads to the terminal block as shown in Figure 4 (refer to Table 1 for the required data cable specifications). The junction box's screw terminal positions could vary, so refer to manufacturer's installation manual. When wiring to the junction box, keep wires physically separated by spacing them away from any other wiring or conduits.

### GVR REMOTE VMC MONITORING – GENERAL WIRING DETAILS

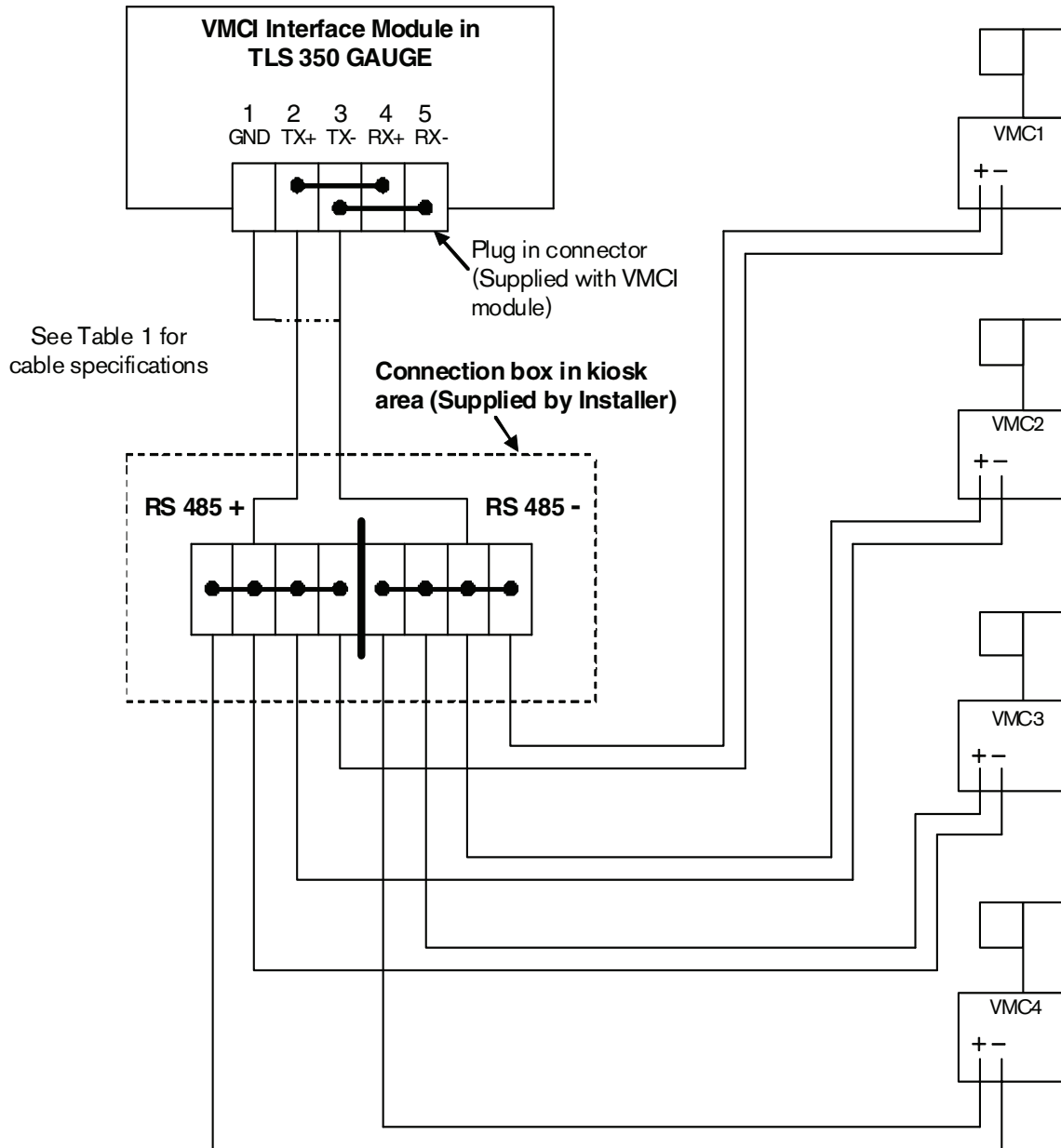


Figure 4. Example VMCI module network wiring diagram

**Table 1. Data Transmission Cable Specifications (V-R P/N 4034-0147)**

Cable Type	2 x twisted pair, PVC insulated, foil wrapped, common drain
Conductor Stranding	7/0.25mm
Characteristic Impedance	58 ohms
Capacitance	203 pF per metre
Attenuation	5.6 dB per 100 m
Operating Temp. Range	-30°C to +70°C
Insulation	PVC
Sheath	Polyethylene
Sheath Colour	Grey
Core Colours	Black, red, green, white
Nominal Outside Diameter	4.2 mm
Recommended UK Supplier:	RS Components Ltd., Stock number (500metre drum) 528-1967

