Tokheim DIMs

Installation Guide

VEEDER-ROOT

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DAMAGE CLAIMS

1. Thoroughly examine all components and units as soon as they are received. If damaged, write a complete and detailed description of the damage on the face of the freight bill. The carrier's agent *must* verify the inspection and sign the description.

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RETURN SHIPPING

For the parts return procedure, please follow the instruction in the "Veeder-Root Warranty and Dispatch Program" pages in the "Policies, Literature, and Contact" Section of the Veeder-Root **Consoles - North America** Price List.

Figures

Introduction

General

This manual contains procedures to install the Tokheim Dedicated Hose Controller (DHC) Interface Module and the Tokheim 67/98 Interface Modules in a Veeder-Root TLS-350R Console. The console must have the BIR option.

Dispenser Interface Modules

Dispenser Interface Modules (DIMs) provide the communication interface between the TLS-350R and specific Point-of-Sale (POS) systems. The DIM allows the console to gather relevant dispensing information, including how much product has been dispensed from each fueling station, and reports tank level information to the Point-Of-Sale (POS) console. This manual covers the installation and setup of both the Tokheim DHC DIM and the Tokheim 67/98 DIMs.

DIM Installation Kit

A DIM Installation Kit is required to provide the necessary hardware and cables you will need to connect the TLS-350R to the Tokheim POS system.

Related Manuals

If this is a new installation, or if site preparation is necessary, refer to the Veeder-Root manuals below, in printed form or on your Tech Docs CD-ROM. You can also contact your Veeder-Root representative for assistance:

576013-879   TLS-350 & TLS-350R Site Prep and Installation Guide

576013-623   TLS-350R System Setup Manual

577013-528   Serial Comm Module Installation Guide

Contractor Certification Requirements

Veeder-Root requires the following minimum training certifications for contractors who will install and setup the equipment discussed in this manual:

Level 1   Contractors holding valid Level 1 Certification are approved to perform wiring and conduit routing, equipment mounting, probe and sensor installation, tank and line preparation, and line leak detector installation.

Level 2/3   Contractors holding valid Level 2 or 3 Certifications are approved to perform installation checkout, startup, programming and operations training, troubleshooting and servicing for all Veeder-Root Tank Monitoring Systems, including Line Leak Detection and associated accessories.

Warranty Registrations may only be submitted by selected Distributors.

National Electrical Code Compliance

The following information is for general reference and is not intended to replace recommended National Electric Code (NEC) procedures. It is important for the installer to understand that electrical equipment and wiring located in Class I, Division 1 and 2 installations shall comply with the latest appropriate Articles found in the National Electric Code (NFPA 70) and the Automotive and Marine Service Station Code (NFPA 30A).

Safety Symbols

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

	Explosive Fuels and their vapors are extremely explosive if ignited.		Read All Related Manuals Read all instructions and symbol warnings.
	Electricity High voltage exists in, and is supplied to, the device. A potential shock hazard exists.		Turn Power Off Live power to a device creates a potential shock hazard. Turn Off power to the device and associated accessories when servicing the unit.

Safety Warnings

⚠ **WARNING**

You are working with a device in which potentially lethal voltages may be present.
Death or injury may result if safety precautions are not followed.

1. **Read all instructions and symbol warnings.**
2. **Turn power OFF before installing this kit.**

TLS-350R System Setup

Refer to the "Verifying System Features" section below to determine if your system supports the BIR feature. Once you have determined your system's capabilities, refer to the appropriate "Software Requirements" section below.

Verifying TLS-350R System Features
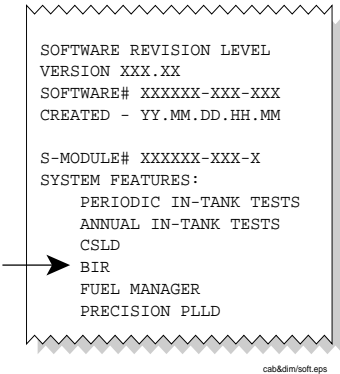
1. Press the MODE key until the front panel display reads:

> **DIAG MODE**
> **PRESS <FUNCTION> TO CONT**

2. Press the FUNCTION key until the front panel display reads:

> **SYSTEM DIAGNOSTIC**
> **PRESS <STEP> TO CONTINUE**

3. Print out a description of the software currently in your system. Press the PRINT key and the printer prints:

```
SOFTWARE REVISION LEVEL
VERSION XXX.XX
SOFTWARE# XXXXXX-XXX-XXX
CREATED - YY.MM.DD.HH.MM

S-MODULE# XXXXXX-XXX-X
SYSTEM FEATURES:
     PERIODIC IN-TANK TESTS
     ANNUAL IN-TANK TESTS
     CSLD
   ▶ BIR
     FUEL MANAGER
     PRECISION PLLD
```

cab&dim/soft.eps

4. Press the MODE key to return to the main screen:

> **MMM DD, YYYY HH:MM:SS XM**
> **ALL FUNCTIONS NORMAL**

TLS-350R Software Requirements

- System Software: 346010-XXX-A (or higher)
- Tokheim DHC Interface Module Software: 330384-001-C (or higher)
- Tokheim 67/98 Interface Module Software: 331353-001-A (or higher)

Installation Requirements

DIM Installation

This installation procedure assumes you are installing the Tokheim DIM card in an empty slot of the Comm Bay, or you are just replacing a faulty Tokheim DIM card with a good one. If you are replacing a different Comm Module with the Tokheim DIM card, then you will have to reboot the system. Refer to the Serial Comm Module Installation Guide (577013-528) on the Tech Docs CD-ROM, specifically the paragraph entitled "Swapping Comm Modules With Different Part Numbers" for the correct card swap procedure.

Only expansion slots 1-3 in the Comm Bay may used for DIMs. Slot 4 is reserved for dual-port comm modules only.

1. Read and follow all instructions carefully.

2. Open the left-hand door of the TLS-350R console by unscrewing the left-top and left-bottom Torx screws.

3. To retain current programming, be sure that the ECPU board battery switch is set to "ON" (see Figure 1 on page 4, the "up" position). To avoid electrical shock or damage to components if accessing the battery switch, avoid touching any circuit components with your hand, any conductive tool and metallic jewelry.

4. Turn console power Off before installing the DIM card.

5. 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.

6. If you are adding a new DIM card, remove the blank insert covering the desired slot. If you are replacing a Tokheim DHC DIM card with a new one, remove the 25-pin D connector from the base connector of the faulty DIM and pull out the old DIM card. If you are replacing a Tokheim 67/98 DIM card with a new one: place a piece of tape around each cable attached to the connectors in the base of the card and label each cable so you can reconnect them the same way; pull out the old DIM card.

7. Slide the new DIM card into its slot, pushing it in firmly to seat the connector (see Figure 2 on page 5).

8. To secure the card, press the black fastener in its base plate until it "snaps in" the hole in the card cage.

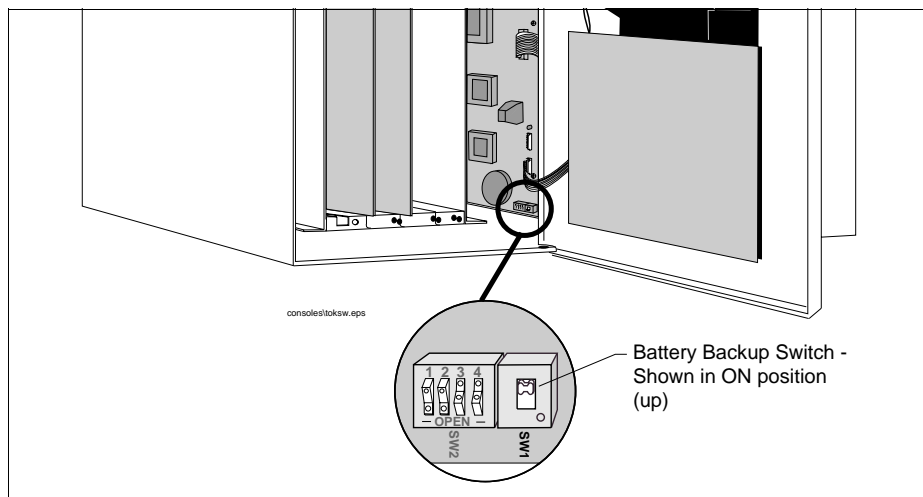9. Be sure that any unused slots at the bottom of the Comm Bay are covered with a blank insert!

consoles\toksw.eps

Battery Backup Switch - Shown in ON position (up)

Figure 1. ECPU Board Battery Switch (SW1) Location

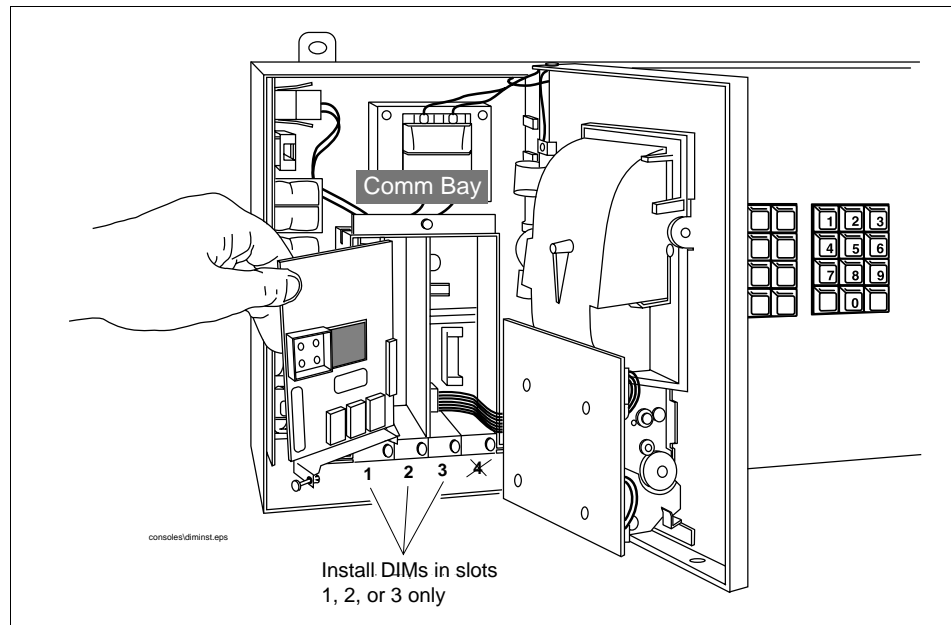Figure 2 shows placement of a Tokheim DIM Card into a permissible Comm Bay slot (1, 2, or 3).

Figure 2. Dispenser Interface Module Card Installation

TLS-350R Hardware Requirements for Tokheim DHC

The following equipment is required to communicate with the Tokheim DHC:

• TLS-350R Console with Business Inventory Reconciliation (BIR) option

• One Tokheim DHC Dim card:
  Part No. 330280-201 when ordered with the console
  Part No. 847490-360 when ordered without the console

• Interface Module Installation Kit, Part No. 331390-XXX. *Note, do not substitue the cable in this kit with a standard RS-232 cable.*

Tokheim DHC Requirements

Important! This manual assumes the Tokheim DHC is configured as follows:

• SCS 1200 default setting for serial port J2,

• SCS 9600 default setting for serial port J4, and

• Version 5, Revision 6 dated November 1989 or later

The Tokheim DHC itself can be:

• Stand-Alone (and used with a third party POS), or

• An internal component of a Tokheim Vision 100, Vision 200, MEMS IV, or MEMS V Console.

Connecting the Tokheim DHC DIM to a Stand-Alone DHC or a Console

1. Connect one end of the cable (330408-XXX) to the 25 Pin D connector on the Tokheim DHC DIM board you installed in TLS (see Figure 3 on page 6 and Figure 4 on page 6).

2. Connect other end of this cable to J2 on either the Stand-alone DHC (see Figure 3 on page 6 and Figure 5 on page 8), or on the Tokheim Console (see Figure 4 on page 6 and Figure 5 on page 8). The default setting for J2 is SCS 1200.
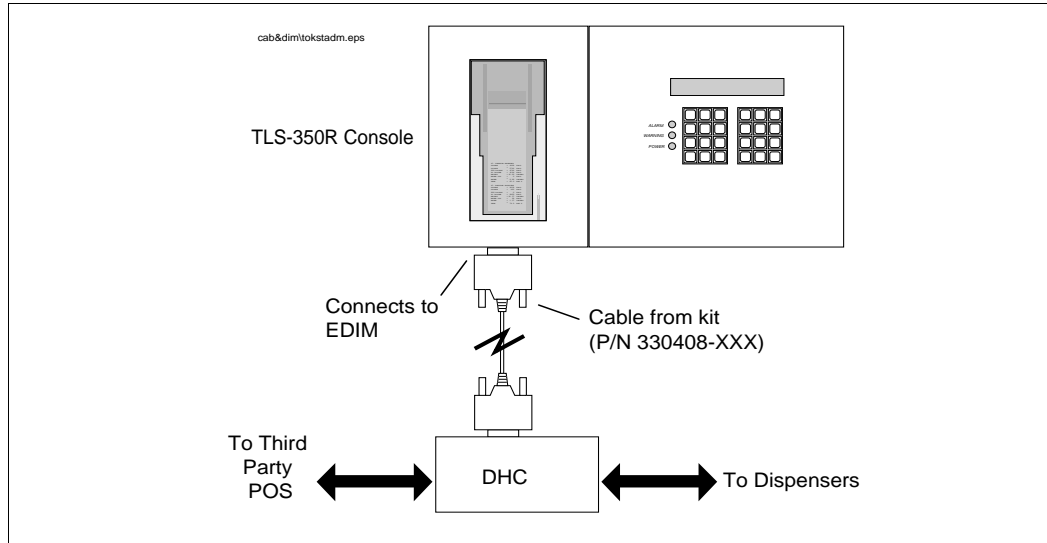
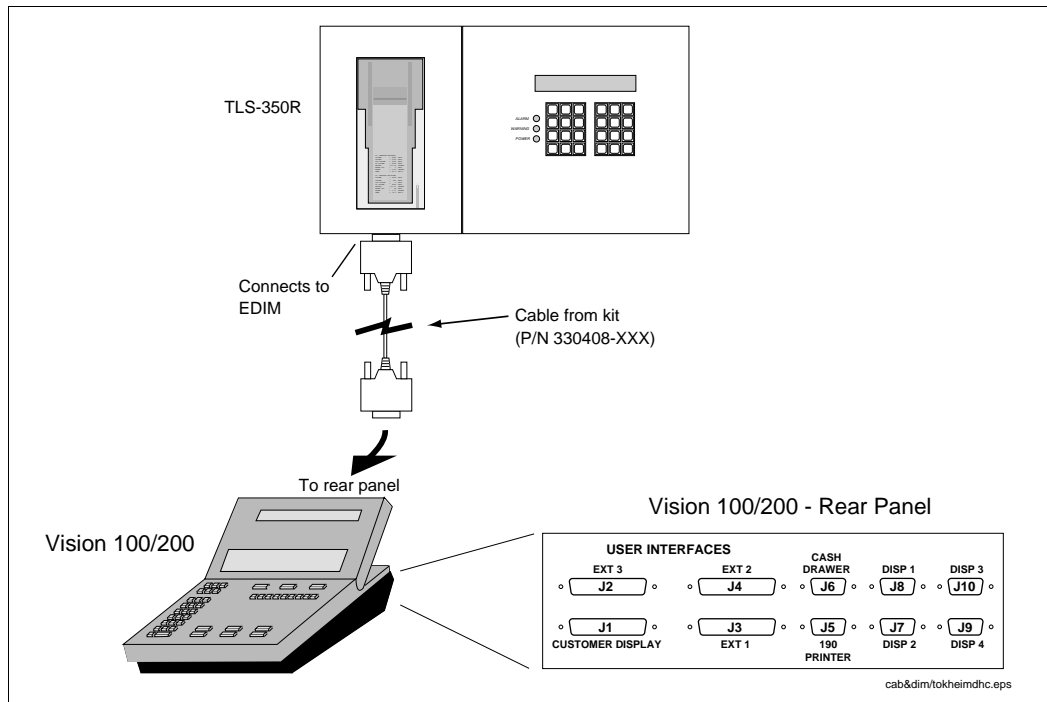**Figure 3. Stand-alone DHC Installation**

Figure 4. Example of Tokheim Vision 100/200 Installation

3. If J2 is unavailable, J4 can be used (see Figure 5 on page 8). The default setting for J4 is SCS 9600. When using this J4, use the DIM parameter "B9" in the following TLS Console setup procedure:

4. Press the MODE key until the front panel display reads:

> **SETUP MODE**
> **PRESS <FUNCTION> TO CONT**

5. Press the FUNCTION key until the front panel display reads:

> **RECONCILIATION SETUP**
> **PRESS <STEP> TO CONTINUE**

6. Press the STEP key until the front panel display reads:

> **DISP. MODULE DATA STRING**
> **EDIM 1:**

7. Press the CHANGE key then use the keypad to enter "B9", then press <ENTER>:

> **DISP. MODULE DATA STRING**
> **EDIM 1: B9**

TLS-350R Hardware Requirements for Tokheim 67A, 67B, and 98

The following equipment is required to interface to the Tokheim 67/98 Console:

- TLS-350R Console with Business Inventory Reconciliation (BIR) option

- One Tokheim 67/98 DIM card:
  Part No. 331354-001 when ordered with the console
  Part No. 847490-431 when ordered without the console

- Interface Module Installation (CAB) Kit Part No. 331391-XXX (67A/98), or 848744-XXX (67B)

Connecting the Tokheim 67/98 DIM to the Tokheim Console

1. Locate the barrel connector junction in the cable between the Dispenser Controller and the Dispenser Interface Box (Figure 5).

2. Disconnect the two barrel connectors making this cable connection.

3. Connect the female/female splice cable (Part No. 331392-001) to the barrel connector from the Dispenser Controller and to the CAB. Connect the male/male splice cable (Part No. 331393-001) to the barrel connector from the Interface Box and to the CAB.

4. If more than 16 fueling positions (hoses) are used, you must repeat Steps 1-3 with a second CAB kit before proceeding. A CAB kit is required for each Interface Box.

5. Attach one end of the cable with RJ-45 type connectors (Part No. 330902-XXX) to the CAB and the other end to one port on the Tokheim 67/98 DIM card in the TLS Console.

6. Make sure the push button on each connected CAB is depressed (in the "Run" position).Restore power to the TLS-350R.

7. Check to see that the green LED on each connected CAB is flashing, and that the corresponding green LED (PORT 1, 2, or 3) on the Tokheim 67/98 DIM is also flashing.

8. If the site has Tokheim 2+1, 3+1, or 4+1 dispensers, enter "P" in the dispenser module data string setup as shown below:

9. Press the MODE key until the front panel display reads: Press the MODE key until the front panel display reads:

> **SETUP MODE**
> **PRESS <FUNCTION> TO CONT**

10. Press the FUNCTION key until the front panel display reads:

> **RECONCILIATION SETUP**
> **PRESS <STEP> TO CONTINUE**

11. Press the STEP key until the front panel display reads:

> **DISP. MODULE DATA STRING**
> **EDIM 1:**

12. Press the CHANGE key then use the keypad to enter "P", then press <ENTER>:

> **DISP. MODULE DATA STRING**
> **EDIM 1: P**

TLS-350R Console

RJ-45
Connects to CDIM
P/N: 330902-XXX

CAB
- P/N 331394-001 (for Tokheim 67A or 98)
- P/N 331394-002 (for Tokheim 67B)

RJ-45

Barrel Connectors   DB9   DB9   Barrel Connectors

Cable 331392-001   Cable 331393-001

Break Connection

Dispenser Controller

Cable connects to J7 or J8 on rear panel

Dispenser Interface Box

Tokheim 67A
Tokheim 67B
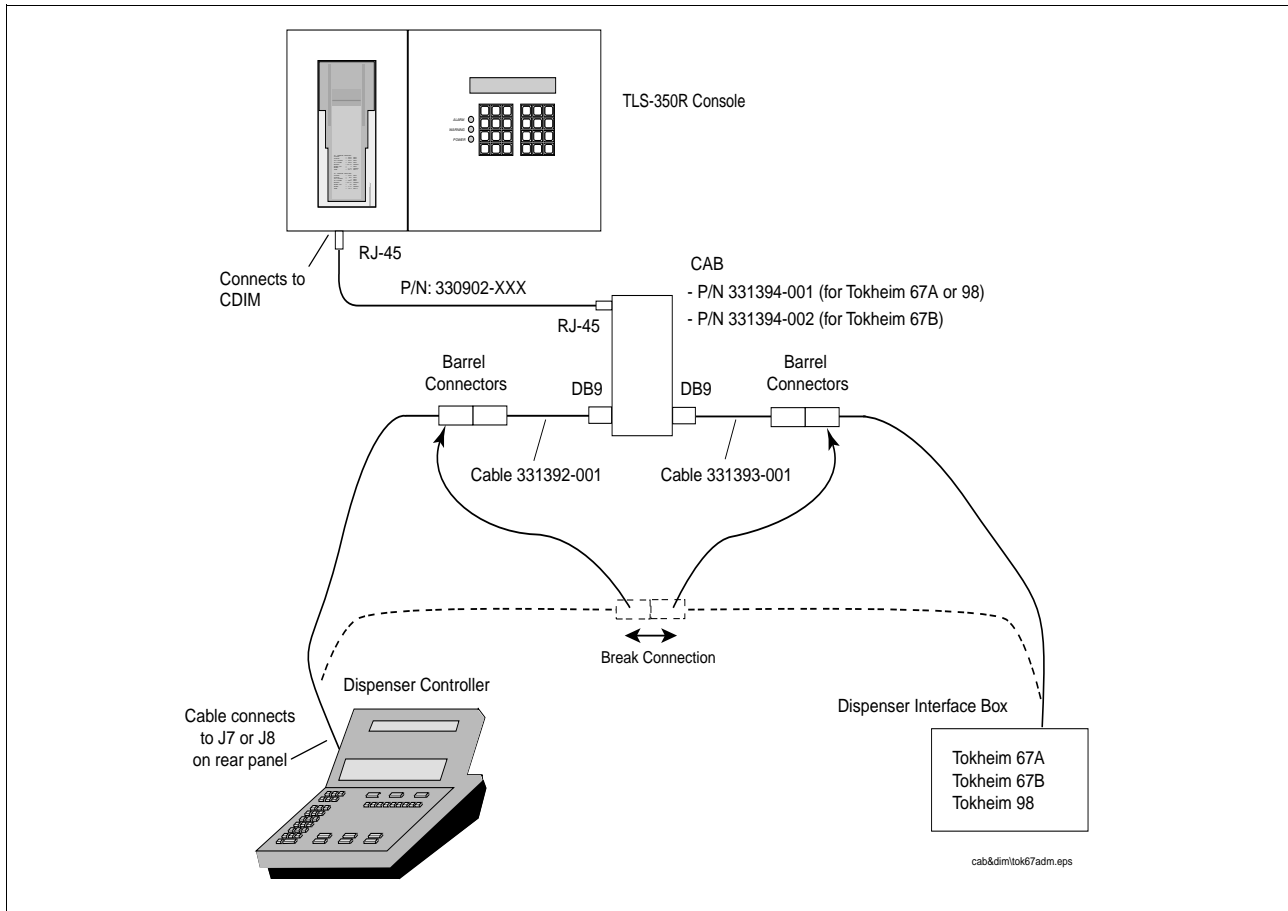Tokheim 98

cab&dim\tok67adm.eps

Figure 5. Dispenser Controller Interconnection with Single CAB

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