![TRANE logo]

User Instructions

Tracer® TU Adapter (Wired/Wireless)
Part Numbers: X13651529010 (Kit) and X13651532010 (Adapter only)

⚠ SAFETY WARNINGS
Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

⚠ WARNING — Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION — Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.

NOTICE: — Indicates a situation that could result in equipment or property-damage only accidents.

April 2016   **X39641157-01C**

![Ingersoll Rand logo]

---

1 Introduction

The Tracer TU Communication Adapter (referred to simply as "the Adapter") allows the Tracer TU service tool to connect to a remote unit controller through a zone sensor or wireless connection.

This instruction sheet first describes the components included with the Adapter. It then explains Adapter connection and operation.

Note: *The Adapter is designed exclusively for use with the new generation of Trane controllers (UCxxx). Do not use the Adapter with ZN, VV, AH, and MP LonTalk communicating controls.*

Packaged Contents

Part number X13651529010 includes the following items:
- One (1) Tracer TU Communications Adapter
- One (1) USB cable for use between a laptop PC and the Adapter.
- One (1) cable equipped with RJ-22 modular plugs.

Part number X13651532010 includes only the Adapter without cables.

Note: *Visually inspect contents for obvious defects or damage. All components have been thoroughly inspected before leaving the factory. Any claims for damage incurred during shipment should be filed with the carrier.*

Compliance

FCC ID: W72-ZICM357P2
IC: 8254A-ZICM3571

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

Cet appareil est conforme à la partie 15 du règlement du FCC. Son fonctionnement fait l'objet des deux conditions suivantes : (1) Cet appareil ne produit pas de brouillage nuisible, et (2) cet appareil doit pouvoir recevoir n'importe quel type d'interférence, y compris les brouillages pouvant occasionner un fonctionnement non désiré.

---

2 Adapter Software and USB Driver Installations

Perform the following steps to load the Adapter software and the USB driver.

1. Connect the Adapter to your laptop using the standard USB cable.

   A small message box appears at the bottom of your screen near the system tray indicating that Adapter software is being installed.

2. Wait for the installation to complete.

Note: *Before you use the Adapter, ensure that (1) the zone sensor has wired communication with the unit controller, or (2) the controller has a Wireless Comm Interface (WCI). (For wired communication, see the sensor's installation instructions for details.)*

Note: *If you are discovering and installing expansion modules, you cannot use the Adapter to connect to a unit controller. Both the Adapter and the expansion modules use the IMC connection to communicate with the unit controller, which results in a conflict during discovery. Once the expansion modules are installed, you can use the Adapter to communicate with the unit controller.*

Connecting to a Device

When the Adapter software and driver have been installed, establish a wired or a wireless connection to the controller as shown in Figure 1 by performing one of the following tasks:

a. Physically connect the Adapter to a zone sensor using an RJ-22 cable and then establish a connection using the **TU Adapter - Wired** option on the Tracer TU Startup Task Panel.

b. Use the **TU Adapter - Wireless** option on the Tracer TU Startup Task Panel, join Tracer TU to a wireless network, and then attach to a member device.

(See the procedural information in the *Startup Task Panel Help* and the "Accessing Wireless Devices and Maintaining Networks" section of the *Tracer TU Help for Programmable Controllers*, which is accessible from the Help menu in the Tracer TU window. Finally, each wireless dialog box has context-sensitive Help.)

Note: *It is not possible to make both a wired and a wireless connection simultaneously.*

3

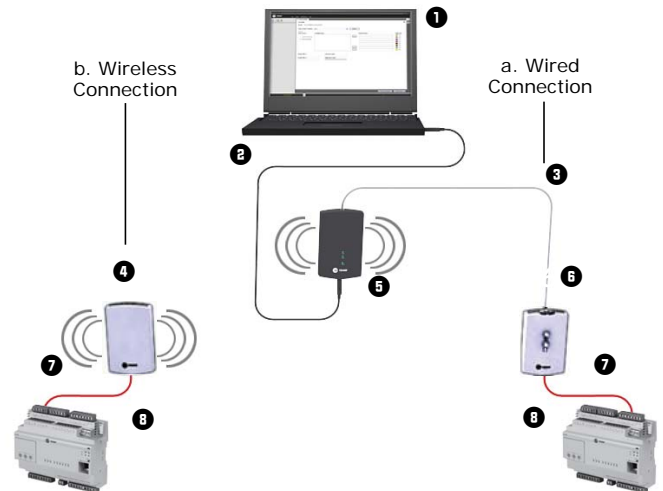**Figure 1.   Wireless or wired connection through the Adapter**

Table 1.   Adapter connection components

1.	Tracer TU
2.	USB Type A/B cable
3.	RJ-22 cable
4.	Wireless Comm Interface (WCI) (not simultaneous with wired)
5.	Adaptor
6.	Wired zone sensor connection (not simultaneous with wireless)
7.	IMC wires
8.	UC400s

Adapter Operations

Once communication with the unit controller or WCI has been established, you can use theTracerTU service tool as if you were directly connected to the USB port of the controller.)

> ⚠ **CAUTION**
>
> The Adapter produces very low levels of electromagnetic (RF) energy. To avoid exposure, keep the Adapter a minimum of 8 inches (20 cm) from your body.
>
> L'Adaptateur produit de l'énergie électromagnétique de très bas niveau. Afin d'empêcher toute exposition, maintenez-le à au moins 8 pouces (20 cm) de votre corps.

Adapter Power

The USB cable connecting the laptop to the Adapter provides power through the laptop USB port. No other connection is necessary to power the Adapter.

USB allows a number of devices to share a link. Any USB host (laptop) is required to provide 500 mA at 5 Vdc. The power requirements of the Adapter have been minimized so that the Adapter can share the USB link with other devices. However, the total current draw of all connected devices cannot exceed 500 mA.

> **NOTICE**
>
> **Excessive Current Draw**
>
> In rare situations, a short in the Adapter can cause current draw in excess of 500 mA. If this does occur, most computers issue a message and automatically shut down the USB port. You are advised to pull the USB cable quickly and contact Trane about this problem.

Normal operation

Connecting the Adapter to a laptop PC starts the Adapter. A successful start is indicated when the Status LED changes from solid red to solid green. The Status LED flashes green to indicate active communication through a USB port. (See Figure 2.)

When communication with the unit controller is established, the Receive LED flashes amber as data is received from the unit controller, and the

Transmit LED flashes green as data is sent from the Adapter to the unit controller. (See Figure 2.)

Figure 2.   Adapter communication status indicated by LEDs

Transmit LED
- Flashing green = sending data to IMC through a wired or wireless connection
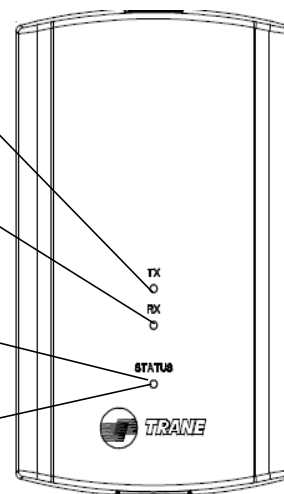
Receive LED
- Flashing amber = receiving data from IMC

Status LED (Startup)
- Solid red = Ready to start up
- Solid green = Operational
- Flashing green = communication via USB

Status LED (Abnormal operation)
- Solid red = Improper operation (May occur after the USB drivers have been installed.)
- Flashing red = Alarm

Abnormal Operations

The Status LED can also indicate abnormal operation. A shift from solid green or flashing green to flashing red indicates that an internal fault has occurred in the Adapter.

In these situations, disconnect and reconnect the Adapter directly, or perform the following steps:
1. Click the **Safely Remove Hardware** icon in the system tray.
2. Select the **Adapter** from the list of devices.
3. Click **Stop**.
4. Remove the USB cable from the laptop USB port.
5. Reconnect it to the USB port.

Table 2 lists possible running conditions or error causes and their corresponding Status LED indicators.

Table 2.   Running conditions/error causes with LED statuses

Running Condition/Error Cause	LED Status	LED Transmit	LED Receive	Operating Phase
No power	Off	Off	Off	Start up
Booting up	Solid red	Solid green	Solid amber	Start up
Boot failure	Solid red	Off	Off	Start up
Normal, no USB communication	Solid green	Off	Off	Operational
Normal, with USB communication	Flashing green			Operational
Normal with Wireless/RJ-22 communication		Flashing green	Flashing amber	Operational
Adapter internal fault	Flashing red	Off	Off	Operational

Turning off the Adapter

To turn off the Adapter, disconnect the USB cable connecting it to your laptop.

Best Practices

To make the most effective use of the Adapter, observe the following best practices.
- The Adapter is best suited for making changes to selected setpoints or point configurations. However, if you are making extensive changes to configuration variables or setpoints, updating device application firmware, transferring large TGP2 files, or restoring a configuration, connect directly to the controller with a USB cable to obtain the best performance.
- Use care when detaching the RJ-22 connector from the zone sensor. The RJ-22 is a locking connector. If pulled sharply, it can damage the zone sensor.
- For maximum wireless signal strength, position yourself as close as possible to the target controller's WCI.

Agency Compliance

The European Union (EU) Declaration of Conformity is available from your local Trane office.