TRUCK IDENTIFICATION MODULE®

READER PROGRAMMER

Model TP-100
USER MANUAL

scully

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Introduction

The Super T.I.M. increases tank truck safety with further automation of the loading and unloading process of Tank Trucks. Not only does the Super T.I.M. carry the typical Tank Truck ID number, it also contains a wealth of Tank Truck data to minimize fluid transfer errors and speed tank truck repairs. The Truck Identification Module Reader/Programmer allows users to access this data.

Every programmer model reads and displays the T.I.M. ID number from Legacy and new Super T.I.M. modules. Operation is on a simple to use touchscreen display, and wirelessly on your tablet, PC, or laptop. Touchscreen resolution is user adjustable for sunlight usability as well as indoor use. The programmer is lightweight, yet durable enough for the standard toolbox. Battery power provides constant use over multiple shifts, and the standard AA size allows convenient replacement when needed.

A typical Programmer includes a T.I.M. Cable connector for either new or already installed Super T.I.M. modules. The programmer with cable connector for Installed Super T.I.M. modules is pictured in Figure 1.

Figure 1. Super TIM reader / Programmer with API Connector

Note:
Realization of all available features, is achieved in conjunction with terminals that employ Scully Intellitrol® 2 rack controllers and up to date firmware.

Batteries

Batteries should always be replaced in a non-hazardous area.
To replace,

1. Remove the T.I.M. cable connector from the programmer.
2. Stretch the rubber sleeve away from the case (see Figure 2).
3. Slide the battery compartment lid back from the rear compartment (see figure 3) to remove the old batteries and replace with new ones. Care should be taken to orient the new batteries according to the imprinted alignment images in the compartment. Use 4 standard Alkaline AA batteries.
4. Slide the cover back on the enclosure,
5. Record the serial number off of the back of the unit, and replace the rubber sleeve by stretching it over the case. Re-attach the adapter cable.

If unit is not going to be used for an extended period, remove the batteries to avoid damaging the programmer.

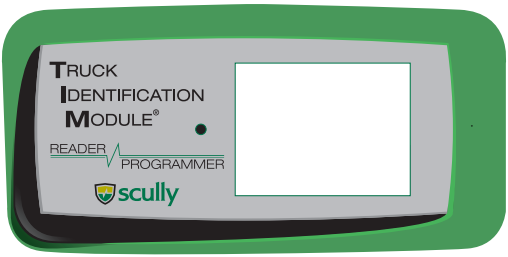

Figure 2. Removing Rubber Sleeve

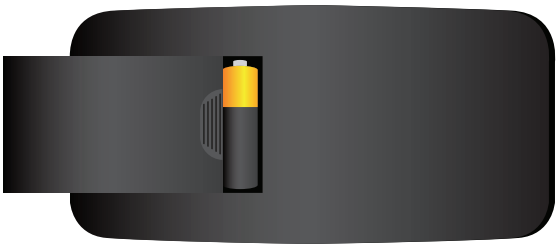

Figure 3. Removing Battery Cover

Activation

The Programmer will power on to a user activation screen. Using the stylus, enter your facility name, address, and the Scully serial number (found on the rear label of the programmer, in format “SCUL-xx-12345”). When complete, review the information and press enter. This information will be saved to register the programmer to your facility.

When using the stylus, the keyboard is calibrated for best results when aiming for the lower right corner of each key.

Figure 4. Activation Screen

General Operation

The programmer is available in four models. Each model provides functionality specific to the needs of the tank truck builder, carrier, terminal, or service center. Every model features the ability to read the Super T.I.M. ID, and adjust programmer settings.

General Operation

Connecting to a T.I.M.

Connecting to a New (uninstalled) TIM can be accomplished using the test cable (Scully Part#235 001 000). Simply connect the stripped ends of the Super T.I.M. to the like colored alligator clips of the cable, and plug the cable into the T.I.M. Cable connector (see Figure 5) of the Super T.I.M. Programmer.

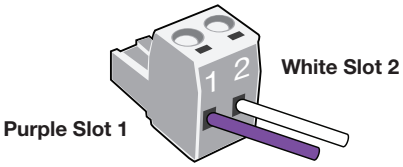

Figure 5. T.I.M. Test Cable

To connect to a truck mounted T.I.M., use the test plug and cable assembly (Scully Part# 092 000 252). Before connecting the plug into the socket on the truck, ensure the removeable locator pin is screwed, finger tight, into the correct position on the plug. The pin can be unscrewed and repositioned as needed (See Figure 6).

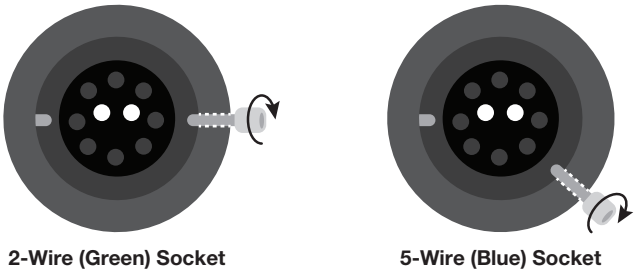

Figure 6. Test Plug Pin Configuration

Reading the T.I.M.

Each Truck Identification Module contains a unique serial number which can be read by the programmer. To read a T.I.M.:

1. Connect the cable adapter of the Super T.I.M. Programmer to a T.I.M. module
2. Press the “Read T.I.M.” button

The T.I.M. ID will be displayed on the screen, along with the T.I.M. Type, and Alternate T.I.M. ID, if available.

General Operation

Settings

User settings can be accessed via the settings button. Settings include:

- Setting of the WiFi network name and password
- Connecting to a WiFi network
- Adjusting the display contrast
- Rotating the display orientation for easier left handed operation

With the Programmer connected to a WiFi network, Super T.I.M. data can be accessed on a tablet or laptop. For security, both the programmer and the tablet need to be connected to the same WiFi network.

The network name and password are viewed by pressing the “WiFi params” button. Pressing the up and down arrows will scroll through the parameters and “Exit” will return to the previous screen. To edit:

1. Scroll to the parameter to be changed, then press the “Edit” button.
2. Use the on-screen keyboard to enter the new parameter value and then press the Enter key to save. The WiFi network name and password are case sensitive.
3. To exit the edit screen from the keyboard without making changes, press the tab key (above the Caps Lock key).

Pressing the “WiFi Connect” button will join the network, using the password entered. A successful connection will be indicated on the screen, and the IP Address will be displayed. Enter the IP address into the web address bar of the tablet or laptop web browser to open the wireless interface. Data can be viewed, saved, and printed from the web browser.

To adjust the display contrast, press the “Contrast” button. After each press, the display style will update. There are several styles and each press will cycle to the next setting.

Use the “Change Orientation” button to rotate the screen 180 degrees. The button can be pressed again to rotate the orientation back.

Model Specific Functions

Service Center Models

Model TP-100-244 (Figure 7) allows service centers to, perform diagnostics, read the truck fault log, and record service/certification records.

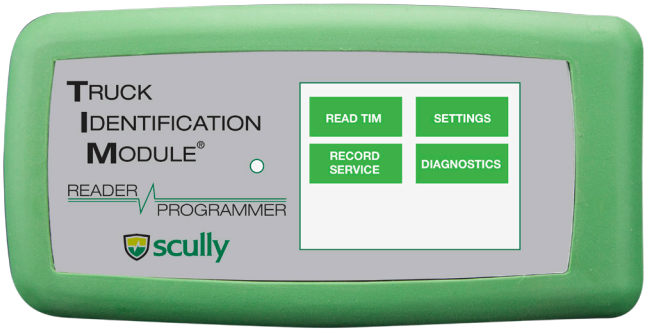

Figure 7. Model TP-100-244 Service Center Reader/Programmer

Diagnostics:

The Diagnostic Button allows for testing of the Super T.I.M. module and for viewing the error log captured from prior loading attempts.

- Pressing the T.I.M. test will begin a memory test of the Super T.I.M. module. Each memory bank will be tested for read/write cycles and a progress bar will be displayed on the screen. The test cannot be aborted once started and it typically takes 20-30 seconds to complete. Results will be indicated on screen.
- Pressing the “View Log” button will display an error log captured during the most recent loading activity. If a compartment probe was faulty, the probe number and fault will be displayed.

Truck Fault Log:

The Super T.I.M. records the last 5 fault conditions associated with the overfill prevention and static grounding safety systems. Pressing the “View Log” button will display the last fault recorded with a date and time stamp. Prior faults can also be viewed using the down and up buttons to scroll through them.

Model Specific Functions

Safety Service Records:

When a Tank Truck is cleaned, tested for vapor tightness, or other safety certification is performed, the latest “Certificate Number” and “Expiration Date” can be recorded on the Super T.I.M..

To record this service information using the programmer:

1. Press the “Record Service” button
2. Using the down and up buttons, scroll to find the parameter to be updated/recorded, and select edit
3. Using the on-screen keyboard, enter the new value and press “Enter” on the keyboard.
4. To exit the edit screen from the keyboard without making changes, press the tab key (above the “Caps Lock” key).

Truck Builder Models

Model TP100-245 (Figure 8) allows tank truck builders to record safety information including compartment configurations, overfill system components, compartment capacities, and maximum ratings. These parameters can be saved to a default file on the programmer, and when ready uploaded to one or more tank trucks of the same model.

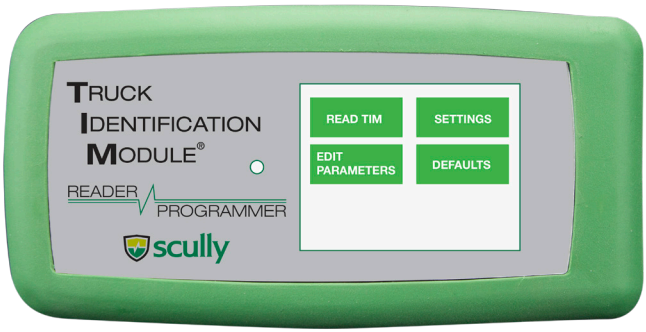

Figure 8. Model TP100-245 Builder Reader/Programmer

Model Specific Functions

Default Files

To create a default file:

1. Press the “Default” button from the main screen
2. Then press the “Edit Defaults” button.
3. Using the down and up buttons, scroll to find the parameter to be updated/recorded, and select edit.
4. Using the on-screen keyboard, enter the new value and press “Enter” on the keyboard.
5. To exit the edit screen from the keyboard without making changes, press the tab key (above the “Caps Lock” key).
6. Once all default values have been edited, press the “Save to File” button to write the list into the programmer memory.

The programmer will retain the default file even after it is shut off or batteries are changed.

To upload this parameter values saved to the default file to a new Super T.I.M., press the “Save to T.I.M.” button to start the upload. The upload status will be displayed at the bottom of the screen. A complete upload typically takes about 30 seconds.

Builder Parameters

In addition to the default file upload feature, parameters can be individually recorded in the Super T.I.M. as well. To directly update a parameter:

1. Press the “Edit params” button.
2. Using the down and up buttons, scroll to find the parameter to be updated/recorded, and press “Edit”.
3. Using the on-screen keyboard, enter the new value and press “Enter” on the keyboard.
4. To exit the edit screen from the keyboard without making changes, press the tab key (above the “Caps Lock” key).

Model Specific Functions

Carrier Models

Model TP100-246 (Figure 9) allows tank truck carriers to view certificate status and load history. It also allows Carries to edit allowable fuel types, capacities, and alternate T.I.M. ID's.

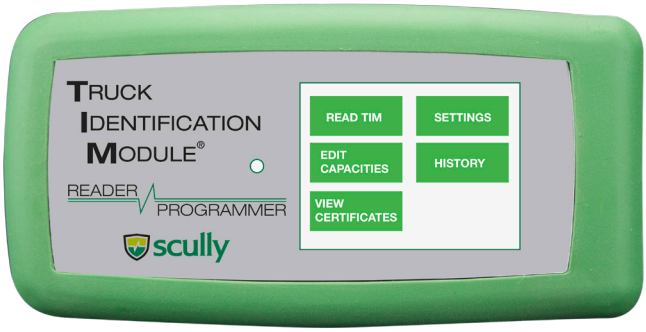

Figure 9. Model TP100-246 Carrier Reader/Programmer

Certificate Status

When a Tank Truck is cleaned, tested for vapor tightness, or other safety certification is performed, the latest "Certificate Number" and "Expiration Date" are recorded in the Super T.I.M..

To view this certificate information using the programmer, press the "Certificates" button. Using the down and up buttons, scroll to view the certificate records.

Load History

Each time a truck loads at the terminal, the load safety details are saved to the Super T.I.M. and can be viewed with the programmer. These parameters include where the last load was obtained, the date/time of the last load, what was loaded into each compartment, and how much was loaded into each compartment.

Model Specific Functions

Pressing the “View History” button will display details on the last load recorded with a date and time stamp. Prior load details can also be viewed using the down and up buttons to scroll through them.

Capacity

The Super T.I.M. stores the capacity limits of each tank truck compartment and communicates this to the terminal during loading for improved overfill prevention. The allowable compartment volume is by default the same as the capacity limit on the truck identification plate. With the programmer, carriers have the option reducing the allowable capacities to suit their particular needs.

The capacity values for each compartment can be updated, by pressing the “Capacity” button.

1. Using the down and up buttons, scroll to find the parameter to be updated/recorded, and press “Edit”.
2. Using the on-screen keyboard, enter the new value and press “Enter” on the keyboard.
3. To exit the edit screen from the keyboard without making changes, press the tab key (above the “Caps Lock” key).

Alternate T.I.M. ID

Terminals have the option of authorizing a load based on a fixed Trailer Identification Module number. The Super T.I.M. has additional reference information available to simplify reporting.

Carriers can now associate their own Trailer ID with each Super T.I.M.. If programmed to the Super T.I.M., this additional information can be read by the terminal during the loading process. The Alternate T.I.M. ID number can be changed with the “Capacity” button and associated instructions. The Alternate T.I.M. ID is the first item in the “Capacity” parameter list, followed by other carrier specific identification fields (Contract number, Operating Service, Driver ID).

Model Specific Functions

Terminal Models

Model TP100-247 Figure 10) allows tank truck terminals to view certificate status, load history, allowable capacity and fuel types.

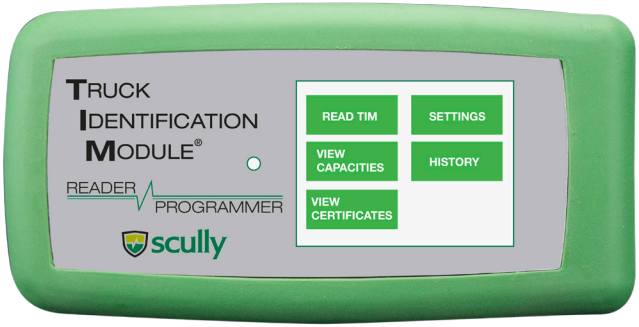

Figure 10. Model TP100-247 Terminal Reader/Programmer

Certificate Status

When a Tank Truck is cleaned, tested for vapor tightness, or other safety certification is performed, the latest “Certificate Number” and “Expiration Date” are recorded in the Super T.I.M..

To view this certificate information using the programmer, press the “Certificates” button. Using the down and up buttons, scroll to view the certificate records.

Dates are saved in format MM/DD/YY.

Load History

Each time a truck loads at the terminal, the load safety details are saved to the Super T.I.M. and can be viewed with the programmer. These parameters include where the last load was obtained, the date/time of the last load, what was loaded into each compartment, and how much was loaded into each compartment.

Model Specific Functions

Pressing the “View History” button will display details on the last load recorded with a date and time stamp. Prior load details can also be viewed using the down and up buttons to scroll through them.

Capacity

The Super T.I.M. stores the capacity limits of each tank truck compartment and communicates this to the terminal during loading for improved overfill prevention .

The capacity limits for each compartment can be viewed, by pressing the “Capacity” button. Use the down and up buttons, to scroll through the parameters on the screen. Pressing the “Exit” button returns to the main screen.

Technical Specifications & Approvals

Technical Specifications:

Operating Temperature:	5ºC - 50ºC
Power:	4 AA batteries, 6V DC
Programmer Dimensions:	7.7” x 4” x 1.5” (20cm x 10cm x 4 cm)
Weight with Batteries:	15 oz (425 gram)
Display Size:	3.2”
Display Contrast Ratio:	500:1

Approvals:
CE, RoHS Compliant

FCC Regulatory Information
FCC ID: GMHTP-100

FCC Interference Statement (Part 15.105(b))
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Technical Specifications & Approvals

FCC Compliance Statement (Part 15.19(a))
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.

FCC Warning Statement (Part 15, Clause 15.21)
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada (IC) Regulatory Information
CAN ICES-3 (B)/NMB-3(B)
IC: 956A-TP100
HVIN: TP-100
PMN: TP-100

ISED RSS-Gen Notice
This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:
(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage;
(2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Scully Signal Company states that the TP-100 family of products complies with all applicable EU Directives for RoHS, WEEE and REACH.
For declarations of conformity, please visit www.Scully.com

Notes:

Scully

Setting Standards in Safety and Dependability since 1936

For over eighty years Scully has been engineering and building products to the highest safety and reliability standards. We design and manufacture all of our systems under one roof to ensure complete quality control over our manufacturing and testing operations.

Scully is ISO certified and all of our products are made in the U.S.A. In addition, we back up our products with the best service in the industry. We have direct sales and service personnel in the U.S.A., The United Kingdom, and Europe and are represented in over 50 countries.

For more information and 24 hour technical assistance, call Scully Signal Company at 1-800-2SCULLY (1-800-272-8559)

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