

Drive-570

Application Software



METTLER TOLEDO

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Contents

1	Introduction	1-1
1.1.	Overview.....	1-1
1.1.1.	Software Features	1-1
1.2.	Drive-570 Installation.....	1-1
2	Overview	2-1
2.1.	Introduction.....	2-1
2.1.1.	Passwords	2-1
2.2.	Soffkeys and Icons.....	2-1
2.3.	Starting the Drive-570 Application.....	2-2
2.3.1.	Manual Start.....	2-2
2.3.2.	Auto Start.....	2-3
2.4.	Basic Operation	2-3
2.4.1.	Temporary Tare ID.....	2-3
2.4.2.	Permanent Tare ID.....	2-3
2.5.	Advanced Capabilities	2-4
2.5.1.	Net Sign Correction for Shipping and Receiving.....	2-4
2.5.2.	Using Quick Print	2-4
2.5.3.	Using Alibi Memory	2-5
2.5.4.	Direct Access to Memory Tables from the Home Screen	2-5
2.5.5.	Traffic Control.....	2-6
3	Configuration	3-1
3.1.	Overview.....	3-1
3.2.	Entering and Exiting Setup Mode.....	3-1
3.2.1.	Entering Setup Mode.....	3-1
3.2.2.	Exiting Setup Mode.....	3-1
3.2.3.	Drive-570 Setup Menu Tree	3-1
3.3.	Configuration Options	3-2
3.3.1.	Application > PAC	3-2
3.3.2.	Terminal.....	3-11
3.3.3.	Communication	3-12
4	Temporary Tare ID Weighing	4-1
4.1.	Temporary Tare ID Weighing Overview.....	4-1
4.2.	Performing a Basic Temporary Tare ID Transaction	4-1
4.2.1.	One Step ID Enabled.....	4-1
4.2.2.	One Step ID Disabled.....	4-4
5	Permanent Tare ID Weighing	5-1
5.1.	Permanent Tare ID Weighing Overview	5-1

5.2.	Performing a Permanent Tare ID Transaction	5-1
5.2.1.	Using a Known Permanent ID	5-1
5.2.2.	Adding a Runtime Permanent ID	5-2
6	Advanced Applications	6-1
6.1.	Transient Vehicle Weighing	6-1
6.1.1.	Setup	6-1
6.1.2.	Performing a Transient Vehicle Transaction	6-2
6.2.	Transaction Log	6-2
6.2.1.	Contents of the Transaction Log	6-2
6.2.2.	Access to the Transaction Log	6-3
6.2.3.	Exporting the Transaction Log via USB	6-3
6.2.4.	Exporting the Transaction Table via FTP or Serial File Transfer	6-4
A	Default Settings	A-1
B	Table Structures	B-1
B.1.	Permanent Tare ID Table – A3	B-1
B.2.	Temporary Tare ID Table – A4	B-1
B.3.	Custom Table 1 – A5	B-2
B.4.	Custom Table 2 – A6	B-2
B.5.	Custom Table 3 – A7	B-2
B.6.	Transaction Log – trans.csv	B-3
C	Drive-570 Reports	C-1
D	Installation Guide	D-1
D.1.	Installation Notes	D-1
D.2.	Installation Method	D-1
D.2.1.	Loading via USB	D-1
D.2.2.	Loading via FTP or Serial File Transfer	D-1

1 Introduction

1.1. Overview

The Drive-570 option is a specialized application solution focused on simple inbound-outbound vehicle weighing requirements. When this application is installed in the IND570 terminal, the terminal is referred to as an IND570drive terminal.

The IND570drive has two modes of operation: Temporary Tare ID Weighing and Permanent Tare ID Weighing:

- **Temporary Tare ID weighing** is a two-pass weighing process in which the vehicle tare value is captured and temporarily stored during the inbound portion of the transaction. The temporary tare ID is recalled during the outbound portion of the transaction and deleted from the IND570 memory upon completing the transaction.
- **Permanent Tare ID weighing** is a one- or two-pass weighing process in which the tare ID is created in setup prior to processing the transaction and recalled during the outbound portion of the transaction. This tare ID can be recalled multiple times, as well as store the totals for transactions processed using this tare ID.

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Manuals Download

Customers can click the link or scan the QR Code to download product manuals.

www.mt.com/IND570



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1.1.1. Software Features

- Ability to store up to 200 Permanent Tare IDs
- Run-time additions of Permanent Tare IDs
- Totalization of Permanent Tare IDs
- One-Step processing of Temporary IDs
- Direct access to the Temporary ID and Permanent ID Tables from the run-time (home) screen
- Ability to reprint previous transaction ticket

- Ability to store up to 10,000 transactions
- User definable application tables
- Traffic light control

1.2. Drive-570 Installation

When an IND570 terminal is being upgraded to an IND570drive using part number 30139638, 30139639, or 30139640, or a new Main PCB is installed into an existing IND570drive, the Drive-570 application files must be loaded into the terminal. Please refer to the Installation Guide located in Appendix D. If an IND570drive was purchased from the factory, no installation is required because the application files were loaded into the terminal prior to shipping.

2 Overview

2.1. Introduction

This chapter covers

- Introduction
- Softkeys and Icons
- Starting the Drive-570 Application
- Basic Operation
- Advanced Capabilities

This chapter provides information about general operation of an IND570drive terminal. It is assumed that the user of this manual has reviewed and understands the operation of the IND570 terminal.

Operation of the terminal depends of enabled function and setup parameters. Functionality and configuration parameters are programmed in Setup mode and can be modified as necessary by users with appropriate access levels.






2.1.1. Passwords






Once a password is set, be sure to remember it. If the password is changed or forgotten, access to the setup menu will not be available. Also, keep the password from unauthorized personnel – it provides access to the entire setup menu, unless the metrology switch is placed in the approved position. If the switch is set to approved, access to the Scale branch and other metrologically significant areas is not permitted. Please refer to the **IND570 Technical Manual** for additional information concerning Security and the multiple classes of users available with the IND570 terminals.

2.2. Softkeys and Icons

The IND570drive builds upon the flexible softkey concept of the standard IND570 terminals, providing new choices for programming softkeys in setup at **Terminal > Softkeys**. These softkeys can be added to the home screen to provide access to the IND570drive functionality. Table 2-1 shows the new icons and gives an explanation of their use.

Table 2-1: Drive-570 Home Screen Softkeys

Icon	Function	Explanation
	Permanent ID	Starts Permanent Tare ID transaction
	Temporary ID	Starts Temporary Tare ID transaction
	Permanent ID Table	Directly accesses the Permanent ID Table from home screen
	Temporary ID Table	Directly accesses the Temporary ID Table from home screen
	Traffic Control Reset	Reset the Exit traffic control discrete I/O to Idle state

Icon	Function	Explanation
	Task List	Manually starts a TaskExpert application from the TaskExpert List defined by the operator in the IND570drive menu tree
	Start Task 1	Manually starts the TaskExpert application associated with Task 1 in the Task List
	Start Task 2	Manually starts the TaskExpert application associated with Task 2 in the Task List
	Start Task 3	Manually starts the TaskExpert application associated with Task 3 in the Task List
	Repeat Print	Reprints the most recent transaction ticket. Once a new transaction has been started, this softkey will no longer print the previous transaction

2.3. Starting the Drive-570 Application

The IND570drive can begin operation by two different methods: Manual or Auto Start. By default, the IND570drive is setup for Manual Start operation.

- When the operator enters the IND570drive setup menu tree, the Drive-570 application stops. If the terminal is in Manual Start mode, the application must be restarted once the operator exits setup and returns to the Home display.

2.3.1. Manual Start

Manual Starting an application enables an operator to start the Drive-570 application from the Home display with a softkey press.

- This method requires the operator to add the Task List or Start Task softkey to the softkey setup of the IND570drive. Once added, pressing this softkey from the Home display starts the Drive-570 application.

2.3.1.1. Using the Task Softkeys

The Task softkeys are assigned in the IND570drive Setup Menu at **Terminal > Softkeys**. The Start Task softkeys (Task 1, Task 2, Task 3) are used as a “quick start” for individual application tasks. These individual tasks are assigned in the IND570drive Setup Menu at **Application > TaskExpert > Start**. The file name associated with Task 1 in this list will start upon pressing the Task 1 softkey from the Home display (assuming that the .cpt is loaded into the IND570). The same association exists for Tasks 2 and 3.

When pressed from the Home display, the Task List softkey allows the operator to view the entire Task List. From this list, the operator can place the focus on a specific application task and start, stop, or pause the task. Once the task has been started, the operator is automatically taken back to the Home display.

2.3.2. Auto Start

Setting the application for Auto Start automatically starts the Drive-570 application when the user exits the IND570drive setup menu tree back to the Home display. Auto Start is enabled in the IND570drive Setup Menu at **Application > TaskExpert > Start**.

2.4. Basic Operation

Each of the following types of basic operation is accessed using a softkey. The location of the softkey in the home screen is assigned by the installer during setup. If an operational mode is not applicable for a particular installation, the softkey does not need to be assigned.

2.4.1. Temporary Tare ID

■ Detailed Temporary Tare ID weighing procedures may be found in Chapter 4.

Temporary Tare ID functionality is used when vehicle tare weights are not stored for repeated use. The inbound weight is assigned a temporary ID and memory location. Storing the inbound weight, together with any additional data, is known as the Inbound Process. When the vehicle exits the facility, the original weight is recalled from memory and used to compute the net weight of the material being shipped or received. Again, additional data may be gathered during this Outbound Process. Once the outbound ticket is printed, the temporary memory location used to store the inbound weight is cleared.

In the simplest sequence of operation, the Temporary Tare ID is automatically assigned by the IND570drive. After the inbound weight is stored, a ticket is automatically printed, in a format based on a specially configured inbound template. Using the inbound ticket can simplify recalling the stored weight and processing the vehicle during the Outbound Process.

2.4.2. Permanent Tare ID

■ Detailed Permanent Tare ID weighing procedures may be found in chapter 5.

The IND570drive can use permanently stored tare values. When the full vehicle is on the weighing platform, this stored information is recalled from memory. During this process, additional data can also be gathered. The Permanent Tare ID mode of operation is useful in applications where many of the trucks are part of a fleet that is often associated with the installation. Common examples of such installations include refuse or aggregate operations. When the Permanent Tare ID table is used, record totalization may be enabled. With this capability turned on, total weights for each permanent ID will be maintained.

In order to make the overall installation of the IND570drive more effective, the Drive-570 application will allow the initial database weight values to be entered as zero. During the first transaction involving a particular permanent ID, the truck is weighed twice – once empty and once full.

2.5. Advanced Capabilities

2.5.1. Net Sign Correction for Shipping and Receiving

Net Sign Correction is configured in setup at **Scale > Tare > Types**. It may be either disabled (the default) or enabled. When enabled, it allows the IND570 to be used for both shipping (inbound empty) and receiving (inbound loaded) operations.

If net sign correction is disabled in setup, any stored weight value in the tare register is assumed to be a tare regardless of the gross weight present on the scale at the time of the final transaction. In this case, net values can be negative.

With net sign correction enabled, the terminal will swap the gross weight and tare weight fields on the printed label, if necessary, so that the larger weight is the gross weight, the smaller weight is the tare weight, and the difference is always a positive net weight.

An example of weight values with and without net sign correction is shown in Table 2-3.

Table 2-3: Effect of Net Sign Correction on Weight Values

Printed and Displayed	Net Sign Correction	
	Disabled	Enabled
Gross	24,500 kg	38,520 kg
Tare	38,520 kg	24,500 kg
Net	-14,020 kg	14,020 kg

Figure 2-1 shows an example of tickets prepared by a receiving operation, with Net Sign Correction enabled.

INBOUND	
No: 13	Type: Temporary
T/D: 11:33:15	2006-08-08
ID: 456	steel rolls
	38520 kg
OUTBOUND	
No: 14	Type: Temporary
T/D: 12:53:39	2006-08-08
ID: 456	steel rolls
	38520 kg G
	24500 kg PT
	14020 kg N

Figure 2-1: Net Sign Correction in Temporary Tare Transaction

2.5.2. Using Quick Print

Quick Printing is used to capture the gross weight on the scale without running an actual transaction. When a Quick Print is issued, the weight value is **not** stored in the terminal, in either Alibi Memory or the Transaction Table. Also, it does not increment the transaction counter.

To use Quick Print functionality in the IND570drive, a new connection and softkey must be added when the terminal is first set up. To set up the connection, access **Setup > Communication > Connections**.

Select the New softkey and specify the following:

- Port – select desired port
- Assignment = Demand Output
- Trigger = Trigger 1, Trigger 2, or Trigger 3.
- Template – select defined template.

Once the connection has been added, navigate to **Setup > Terminal > Softkeys**. Add a new softkey that is associated with the trigger selected for the connection (i.e., Trigger 1, Trigger 2, or Trigger 3).

With the connection and softkey added, the print can be issued by pressing the Trigger softkey on the home screen.

2.5.3. Using Alibi Memory

When using the IND570 Alibi Memory in conjunction with the Drive-570 application software, a new connection needs to be created. This can be created in the **Setup > Communication > Connections** branch. This connection is required in order to avoid receiving an error in the System Line during runtime.

Configure the connection as follows:

- Port – select available port
- Assignment = Demand Output
- Trigger = Scale
- Template – select an empty template. The template must be empty, or two tickets will be printed for every transaction.

2.5.4. Direct Access to Memory Tables from the Home Screen

Two new softkeys may be assigned to the home screen of an IND570drive (see Figure 2-2), to allow the user direct access to the Permanent ID Table and Temporary ID Table.



Figure 2-2: Home Screen, Displaying Permanent ID Table and Temporary ID Table Softkeys

Additional information on the functions available after selection of either softkey can be found in Chapters 4 and 5.

2.5.5. Traffic Control

Traffic light control is intended to support single direction weighing across a scale, with either a single entrance or an entrance plus an exit traffic light. Four Discrete Outputs are pre-assigned, two each for inbound control and outbound control. The two outputs for each end of the scale are complimentary – only one output of each pair is asserted (TRUE) at any time.

Function	Light Color	Output
Entrance Idle	Green	Out 1
Entrance Active	Red	Out 2
Exit Idle	Green	Out 3
Exit Active	Red	Out 4

- Traffic control logic makes use of Comparator 1 for the entrance weigh threshold and Comparator 2 for the zero tolerance weight.


2.5.5.1. Operation Sequence

If Traffic Control is enabled then the presence of a vehicle weight above the Threshold Weight value triggers the simple traffic light control sequence. The traffic light I/O state changes both outputs to the "non-idle" state for both the entrance and the exit traffic lights. Upon completion of the inbound or outbound sequence (when printing is triggered), the exit I/O changes to its "idle" state.

When the scale weight falls below the Threshold Weight value the entrance I/O changes to its "idle" state.

If the scale weight exceeds the Zero Tolerance setting and is less than the Threshold Weight setting for a period of time longer than the zero delay timer value then the entrance traffic light changes to its "non-idle" state. This could indicate a zero problem with the scale and signals vehicles not to use the scale.

- Control of traffic lights via discrete inputs (e.g., photo-eyes or loop detectors) is not supported.

A special TRAFFIC CONTROL RESET softkey  can be used to change the state of the exit controls (only) to the "idle" state. After the vehicle leaves the scale, the outbound outputs revert to their former state. This function allows a vehicle that is not intended to be weighed to pass across the scale. The TRAFFIC CONTROL RESET softkey must be assigned to the home screen softkeys before it can be used. See **Setup > Terminal > Softkeys**.

3 Configuration

3.1. Overview



This chapter covers

- Overview
- Entering and Exiting Setup Mode
- Configuration Options

This chapter provides information about how to configure an IND570 terminal's operating system with the Drive-570 functionality. It describes access to the setup mode, where functions can be enabled, disabled, or defined by entering parameter values in specific setup screens.

3.2. Entering and Exiting Setup Mode

3.2.1. Entering Setup Mode

The configuration of the IND570drive terminal is accessed through the SETUP softkey . If security has not been enabled, pressing the SETUP softkey will provide direct access to the setup menu tree. If password security has been enabled, a login screen displays and the user must enter the correct password in order to advance into setup. (See the Security section in Chapter 2 of the IND570 Technical Manual for further information about password setup and security.) When the login screen is shown, it is possible to exit back to the home screen without entering any login information by pressing the ESCAPE softkey .

3.2.2. Exiting Setup Mode

To exit the setup mode, select Home from the setup menu tree and press ENTER. The default weighing operation runtime screen displays.

- As an alternative, press the first (left-most) softkey any time the menu tree is displayed to exit the menu tree.

3.2.3. Drive-570 Setup Menu Tree

The setup menu of the Drive-570 version of the IND570 includes all the elements and functionality of the default configuration (detailed in Chapter 3 of the IND570 Technical Manual, **Configuration**), together with some additional or modified screens. Figure 3-1 shows the tree with new or modified leaf nodes (in the Application, Terminal and Communication branches of the tree) expanded and shaded. Unchanged branches are shown unexpanded. The functions and parameters of each of the affected screens are detailed in the Configuration Options section, immediately below.

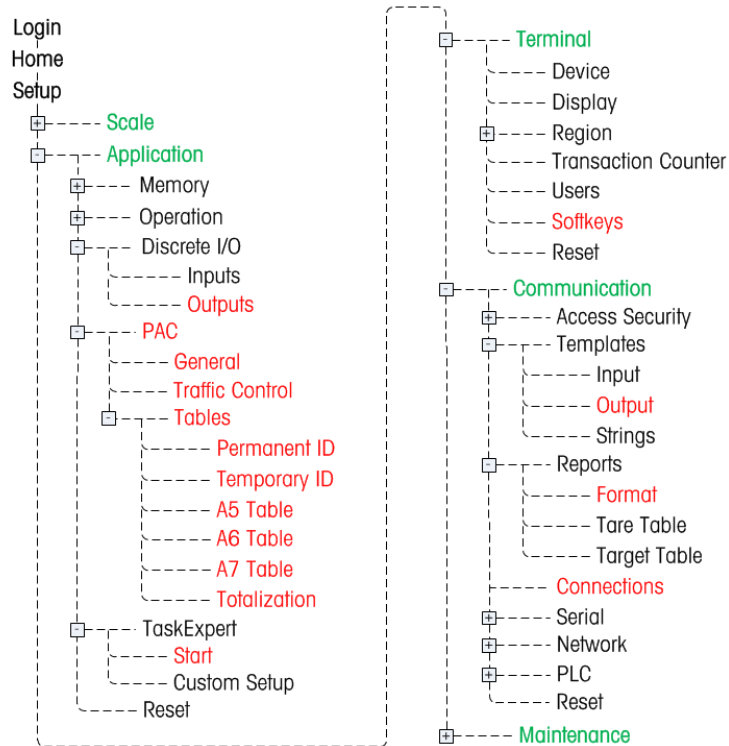


Figure 3-1: IND570 Menu Tree: Branches Specific to Drive-570

3.3. Configuration Options

NOTICE

THE DRIVE-570 SOFTWARE DOES NOT SUPPORT LB-OZ WEIGHT UNITS.

In the following sections, default values are indicated with an asterisk (*).

3.3.1. Application > PAC

3.3.1.1. General

Settings available in this screen are:

Variable Prompt	Disabled*, Inbound, Outbound, Both
Variable Name	Var1*, 16-character alphanumeric string
Threshold Weight	6 digits (including decimal), 1000*
Transaction Table	Disabled*, Enabled
Inbound Alibi	Disabled*, Enabled

Variable Prompt sets the transaction process in which the variable prompt appears on the display. The operator can be prompted to enter variable data for Inbound transactions only, Outbound transactions only, both or neither.

Variable Name appears on screen next to the variable text box when operator input is desired.

Threshold Weight determines the point at which a value from the scale is interpreted as signaling the presence of a vehicle. The transaction will not start unless the scale has exceeded this value.

When enabled, the **Transaction Table** parameter causes the application to store all the outbound transactions in a table. When the parameter is disabled, no transactions are stored.

- The Transaction Table stores up to 10,000 records. Once the table is full, however, the table must be exported via FTP to maintain those records. Otherwise, all the records will be deleted. Please refer to Chapter 6, **Advanced Applications**, for more details on exporting and maintaining the Transaction Table.

Inbound Alibi, when enabled, creates a separate Alibi Memory record for the Inbound weighment which can be later recalled via the Alibi Memory search function. Creating both an Inbound and an Outbound Alibi Memory record is a legal requirement for certain metrological jurisdictions. This selection is not available unless Alibi Memory is enabled (for the Outbound weighment). Alibi Memory is enabled at **Setup > Application > Memory > Alibi**.

3.3.1.2.

Traffic Control

Settings available in this screen are:

Traffic Control	Disabled*, Enabled
Threshold Weight	6 digits (including decimal), 1000*
Zero Tolerance	6 digits (including decimal), 500*
Zero Timer (sec)	3 digits, 5*

Traffic Control enabled exposes the following additional configuration parameters and activates logical signals that can be mapped to physical Discrete I/O to operate traffic lights or gates. Discrete I/O can be configured at **Setup > Application > Discrete I/O > Outputs**. If disabled, the following prompts are not displayed.

Threshold Weight defines the minimum scale weight to be interpreted as the presence of a new vehicle, which activates inbound and outbound traffic control outputs.

Zero Tolerance defines the maximum scale weight to be interpreted as the absence of a vehicle, which returns the traffic control outputs to their idle state.




Zero Timer defines the maximum time in seconds to wait for the scale to return to zero. If this timer expires the entrance traffic control is set to active state to indicate a potential scale error.

3.3.1.3.

Permanent ID Table

Settings and functions available in this screen are:

Store Tare 2nd Pass	Never*, Prompt, Always
Totalization	Disabled*, Enabled
Runtime Additions	Disabled*, Enabled

-  TABLE SEARCH Opens the **Permanent ID Table Search** screen
-  CLEAR Opens the **Permanent ID Table Clear** screen
-  CLEAR TOTALS Clears all total count and total weight registers in this table

If a Permanent ID record has a Tare field containing a zero value the system interprets this as a request to weigh this vehicle twice and to use the smaller weight as the tare weight. The **Store Tare 2nd Pass** parameter determines what to do with that measured tare weight after the transaction is completed. If the **Store Tare 2nd Pass** parameter value is:

- Never – tare weight is never stored back into the Permanent ID record
- Prompt – prompt the operator whether to store the tare back into the Permanent ID record
- Always – tare weigh is always stored back into the Permanent ID record


If enabled, **Totalization** stores a total of all weights recorded for each Permanent ID. This value appears in the Total column of the Permanent ID Table. If the custom A5 Table, A6 Table or A7 Table are enabled, this setting also enables totalization within the custom tables.

Runtime Additions adds flexibility to the functionality of the IND570drive. If enabled, new Permanent ID records may be added to the Permanent ID Table during runtime operation. When **Runtime Additions** is enabled, a NEW softkey appears on the ID entry screen. If no ID or an invalid ID is entered and ENTER pressed, the softkey is accessible. If Runtime Additions is disabled and no ID or an invalid ID is entered, the operator can press ESC to clear the scale, or search for a valid ID using the VIEW TABLE softkey to view the Permanent ID Table.

3.3.1.3.1. Permanent ID Table Search

This screen may be used to limit the Permanent ID Table search to show only those records of interest. Using the default settings displays the complete contents of the table.

Settings available in this screen are:

- Search Field** ID*, Description, Tare, Unit, Type, Count, Total, Variable
- Data** Specifies the operation to be performed on the data entered in the adjacent alphanumeric field:
 - < (less than), <= (less than or equal to), =* (equal to), <> (not equal to), >= (greater than or equal to), > (greater than)
-  VIEW TABLE Performs search and opens Permanent ID Table

Columns in this table are:





- ID** A 16-character alphanumeric string associated with a specific vehicle, typically a license number of other unique identifier, that appears in the "ID" field during the generate of a transaction, and in the transaction record
- Description** A 20 character maximum alphanumeric string from the Description field displayed during the transaction
- Tare** The tare value recalled or generated for the transaction
- Unit** Unit of the Tare and Total values

Count [If enabled]	The number of transactions performed using this Permanent ID
Total [If enabled]	Total weight value associated with all transactions performed using this Permanent ID
Variable [If enabled]	Value entered for the Variable entry screen during the transaction

Options for entries in this table include EDIT , NEW  and DELETE . The table records may also be printed using the PRINT soffkey .


■ The IND570drive stores a maximum of 200 Permanent IDs.

Settings and information available in the New and Edit screens include:



ID [New screen only]	A 16-character alphanumeric string associated with a specific vehicle, typically a license number or other unique identifier, that appears in the "ID" field during the generation of a transaction, and in the transaction record.
Description	A 20-character alphanumeric string that appears in the "Description" field during the generation of a transaction, and in the transaction record
Tare	Tare value for the vehicle – may be entered directly, or captured using the TARE soffkey  and the current reading from the scale in focus as the Tare Weight value
Unit	Units used for the Tare Weight value
Count [Edit screen only]	The number of transactions performed using this Permanent ID. In the Edit screen, it is possible to enter or modify the number of transactions that have used this record.
Total [Edit screen only]	Total weight value associated with all transactions performed using this Permanent ID.
Variable	A 16-character alphanumeric string that appears in the "Variable" field during the generation of a transaction, and in the transaction record.
 ESC	Return to Permanent ID table without saving changes.
 TARE	Capture the scale's current reading as the tare value for the Permanent ID.
 OK	Save record and return to the Permanent ID table

3.3.1.4. Temporary ID Table

Settings and functions available in this screen are:

One Step ID	Disabled, Enabled*
One Step ID Reset On	1 – 999, 999*
Description	Disabled*, Enabled
 TABLE SEARCH	Opens the Temporary ID Table Search screen
C CLEAR	Opens the Temporary ID Table Clear screen
	Note: Pressing the CLEAR soffkey on the Temporary ID screen clears the Temporary ID Table and resets the One Step ID

value back to 1. Also, the CLEAR softkey can be used to reset the One Step ID value back to 1 even if there are no records in the table.

If enabled, **One Step ID** transactions are automatically assigned a numerical ID, which is incremented by one for each transaction. The transaction moves straight to the confirmation screen, and the ID cannot be edited. For Outbound transactions, the assigned ID must be entered directly **before** the Temporary ID softkey  is pressed. If **One Step ID** is disabled, an ID number may be entered by the user, or an ID can also be automatically generated by using the NEW softkey .


One Step ID Reset On sets the maximum ID number in which the application will automatically assign a One Step ID number for a vehicle. Once the One Step ID value has been incrementally assigned up to this max value, the application will reset it back to 1 or attempt to assign the next lowest available number between 1 and the **One Step ID Reset On** value (Note: Temporary IDs are deleted when an Outbound transaction is performed and IDs can be reused). If all the One Step ID values are in process and none are available, a "Please Provide ID" message will appear, and the application will display the ID prompt for the operator to key in a new ID.

- If enabled, **Description** sets the description textbox to appear in the confirmation screen at the end of a transaction. The operator can enter a 20 alphanumeric character description to associate with the ID. Pressing the CLEAR softkey on the Temporary ID screen clears the Temporary ID Table and resets the One Step ID value back to 1.

3.3.1.4.1. Temporary ID Table Search

This screen may be used to limit the Temporary ID Table search to show only those records of interest. Using the default settings displays the complete contents of the table.



Settings and functions available in this screen are:



Search Field	ID*, Description, Saved, Unit, Type, Date, Time, Variable
Data	Specifies the operation to be performed on the data entered in the adjacent alphanumeric field: < (less than), <= (less than or equal to), =* (equal to), <> (not equal to), >= (greater than or equal to), > (greater than)
 VIEW TABLE	Performs search and opens Permanent ID Table

Columns in this table are:

ID	A numeric string associated with a specific vehicle for One Step ID or, when One Step ID is disabled, a 16 character alphanumeric string, typically a license number or other unique identifier that appears in the "ID" field during the generation of a transaction, and in the transaction record
Description	A 20 character maximum alphanumeric string from the Description field displayed during the transaction
Saved	The tare value saved for the temporary entry
Unit	Unit of the Tare value
Count	The number of transactions performed using this Permanent ID
Date	Date on which the Tare value was entered

Time	Time at which the Tare value was entered
Variable	Value entered for the Variable entry screen during the transaction

As Temporary ID records should only be created during live vehicle transactions, there are no editing keys to allow manual table entries or editing of records captured during live transaction. The only option for editing entries in this table is DELETE . The table records may be printed using the PRINT softkey .

- The EDIT  and NEW  softkeys were eliminated from the Temporary ID Table in v4.01 IND570drive firmware. Versions prior to v4.01 did allow manual entry of records and the editing of existing records.




The IND570drive stores a maximum of 200 Temporary IDs.

Fields available in the table view include:

ID	A 16-character alphanumeric string associated with a specific vehicle, typically a license number or other unique identifier that appears in the "ID" field during the generation of a transaction, and in the transaction record.
Description	A 20-character alphanumeric string that appears in the "Description" field during the generation of a transaction, and in the transaction record.
Saved	Saved Weight for the vehicle
Unit	Weight unit used for the Saved Weight value
Variable	A 16-character alphanumeric string that appears in the "Variable" field during the generation of a transaction, and in the transaction record.

3.3.1.5. A5 Table


Settings and information available in the New and Edit screens include:

A5 Table	Disabled*, Enabled
Name	A 20-character alphanumeric string to describe this table, e.g., "Customer". Name appears as the title of the A5 Table search screen.
Prompt	A 16-character alphanumeric string to prompt the operator to enter data, e.g., "Enter Customer:". This string is displayed next to the text box the operator will use to select a record from the A5 Table.
 TABLE SEARCH	Opens the A5 Table Search screen
 CLEAR	Opens the A5 Table Clear screen
 CLEAR TOTALS	Clears all total count and total weight registers in this table

3.3.1.5.1. A5 Table Search




This screen may be used to limit the A5 Table search to show only those records of interest. Using the default settings displays the complete contents of the table.

Settings available in this screen are:

Search Field	ID*, Description, Count, Total
Data	Specifies the operation to be performed on the data entered in the adjacent alphanumeric field: < (less than), <= (less than or equal to), =* (equal to), <> (not equal to), >= (greater than or equal to), > (greater than)
 VIEW TABLE	Performs search and opens A5 Table



Columns in this table are:

ID	A 3-character alphanumeric string to facilitate easy look up of this record.
Description	A 20 character alphanumeric string that can be added to the weigh ticket(s).
Count [if enabled]	The number of transactions performed using this ID
Total [if enabled]	Total weight value associated with all transactions performed using this ID

Options for entries in this table include EDIT , NEW  and DELETE .

- The IND570drive stores a maximum of 300 records in A5 Table.

Settings and information available in the New and Edit screens include:




ID [New screen only]	A 3-character alphanumeric string to facilitate easy look up of this record.
Description	A 20-character alphanumeric string that can be added to the weigh ticket(s).
Count [Edit screen only]	The number of transactions performed using this ID. In the Edit screen, it is possible to enter or modify the number of transactions that have used this record.
Total [Edit screen only]	Total weight value associated with all transactions performed using this ID.
 ESC	Return to A5 Table without saving changes.
 OK	Save record and return to the A5 Table

3.3.1.6. A6 Table

Settings and information available in the New and Edit screens include:

A6 Table	Disabled*, Enabled
Name	A 20-character alphanumeric string to describe this table, e.g., "Commodity". Name appears as the title of the A6 Table search screen.
Prompt	A 16-character alphanumeric string to prompt the operator to enter data, e.g., "Commodity:". This string is displayed next to the text box the operator will use to select a record from the A6


Table.

	TABLE SEARCH	Opens the A6 Table Search screen
	CLEAR	Opens the A6 Table Clear screen
	CLEAR TOTALS	Clears all total count and total weight registers in this table

3.3.1.6.1. A6 Table Search




This screen may be used to limit the A6 Table search to show only those records of interest. Using the default settings displays the complete contents of the table.

Settings available in this screen are:

Search Field	ID*, Description, Count, Total
Data	Specifies the operation to be performed on the data entered in the adjacent alphanumeric field: < (less than), <= (less than or equal to), =* (equal to), <> (not equal to), >= (greater than or equal to), > (greater than)
	VIEW TABLE Performs search and opens A6 Table



Columns in this table are:

ID	A 3-character alphanumeric string to facilitate easy look up of this record.
Description	A 20 character alphanumeric string that can be added to the weigh ticket(s).
Count [if enabled]	The number of transactions performed using this ID
Total [if enabled]	Total weight value associated with all transactions performed using this ID

Options for entries in this table include EDIT , NEW  and DELETE .




■ The IND570drive stores a maximum of 300 records in A6 Table.

Settings and information available in the New and Edit screens include:

ID [New screen only]	A 3-character alphanumeric string to facilitate easy look up of this record.
Description	A 20-character alphanumeric string that can be added to the weigh ticket(s).
Count [Edit screen only]	The number of transactions performed using this ID. In the Edit screen, it is possible to enter or modify the number of transactions that have used this record.
Total [Edit screen only]	Total weight value associated with all transactions performed using this ID.
 ESC	Return to A6 Table without saving changes.
 OK	Save record and return to the A6 Table

3.3.1.7. A7 Table


Settings and information available in the New and Edit screens include:

A7 Table	Disabled*, Enabled
Name	A 20-character alphanumeric string to describe this table, e.g., "Customer". Name appears as the title of the A7 Table search screen.
Prompt	A 16-character alphanumeric string to prompt the operator to enter data, e.g., "Enter Customer:". This string is displayed next to the text box the operator will use to select a record from the A7 Table.
 TABLE SEARCH	Opens the A7 Table Search screen
 CLEAR	Opens the A7 Table Clear screen
 CLEAR TOTALS	Clears all total count and total weight registers in this table

3.3.1.7.1. A7 Table Search




This screen may be used to limit the A7 Table search to show only those records of interest. Using the default settings displays the complete contents of the table.

Settings available in this screen are:

Search Field	ID*, Description, Count, Total
Data	Specifies the operation to be performed on the data entered in the adjacent alphanumeric field: < (less than), <= (less than or equal to), =* (equal to), <> (not equal to), >= (greater than or equal to), > (greater than)
 VIEW TABLE	Performs search and opens A7 Table

Columns in this table are:



ID	A 3-character alphanumeric string to facilitate easy look up of this record.
Description	A 20 character alphanumeric string that can be added to the weigh ticket(s).
Count [if enabled]	The number of transactions performed using this ID
Total [if enabled]	Total weight value associated with all transactions performed using this ID

Options for entries in this table include EDIT , NEW  and DELETE .

■ The IND570drive stores a maximum of 300 records in A7 Table.

Settings and information available in the New and Edit screens include:

ID [New screen only]	A 3-character alphanumeric string to facilitate easy look up of this record.
--------------------------------	--

Description	A 20-character alphanumeric string that can be added to the weigh ticket(s).
Count [Edit screen only]	The number of transactions performed using this ID. In the Edit screen, it is possible to enter or modify the number of transactions that have used this record.
Total [Edit screen only]	Total weight value associated with all transactions performed using this ID.
 ESC	Return to A7 Table without saving changes.
 OK	Save record and return to the A7 Table

3.3.1.8. Totalization

Settings available on this screen include:

A5 / A6 / A7 Totalization Disabled*, Enabled

If this setting is enabled, totalization is enabled for all custom tables (A5, A6 and A7). Each completed Outbound transaction that has been associated with an custom table ID will increment that record's transaction counter and add the net weight to that record's total weight accumulator.

3.3.2. Terminal

3.3.2.1. Softkeys

The softkeys on the terminal's main menu on the softkeys setup screen can be changed or rearranged from the softkeys setup screen (**Terminal > Softkeys**). When the setup screen opens, focus is on the softkey position numbers located above the icons.

Two softkeys, INFORMATION RECALL and SETUP, are automatically placed in the softkey setup. The default setting for the placement of these softkeys is in positions 9 and 10.

The following new softkeys are available for assignment to the home page of an IND570drive:

- Permanent ID
- Temporary ID
- Permanent ID Table
- Temporary ID Table
- Traffic Control Reset

Press the UP, DOWN, LEFT and RIGHT navigation keys to navigate among the softkey position numbers. Softkeys can be added, removed, and positioned using the softkeys:



Edit

Changes the softkey in the selected position to another softkey or to none, which leaves the softkey position blank. Editing a blank position does not move the position of following softkeys.



Insert

Inserts a softkey into a selected position. All other softkeys located at or after that position increase position number by one.



Delete

Deletes a softkey in a selected position. All other softkeys located at or after that position decrease position number by one.



Clear

Clears all softkey assignments except INFORMATION RECALL and SETUP softkeys. These will be shown in positions 1 and 2 respectively.

3.3.3. Communication

3.3.3.1. Output Templates

Output Templates 1 and 2 are configured for the basic functionality version of the IND570. Output Templates 3 and 4 are set up for Drive-570 functions. These templates are described in the following sections.

- For more detailed information on creating and modifying Output Templates, please refer to Appendix C (**Communications**) of the **IND570 User's Guide**.

3.3.3.1.1. Output Template 3

Output Template 2 is set up to produce a record for Inbound Transaction. Table 3-1 details the elements present in the Output Template 3.

Table 3-1: Output Template 3 Definition

Element	Explanation
INBOUND	String
CR/LF	
No:	String
xp0101	
Type:	String
ak0108	Transaction type (Permanent or Temporary)
CR/LF	
T/D:	String
ak0106	Transaction time
ak0107	Transaction date
CR/LF	
ID:	String
ak0101	Vehicle ID
ak0102	Vehicle description
CR/LF	
ak0103	Gross Weight
<sp>	Space
wt0103	Weight units
CR/LF	
CR/LF	

3.3.3.1.2. Output Template 4

Output Template 4 is set up to produce a record for Outbound Transaction. Table 3-2 details the elements present in the Output Template 4.

Table 3-2: Output Template 4 Definition

Element	Explanation
OUTBOUND	String
CR/LF	
No:	String
xp0101	Transaction counter
Type:	String
ak0108	Transaction type (Permanent or Temporary)
CR/LF	
T/D:	String
ak0106	Transaction time
ak0107	Transaction date
CR/LF	
ID:	String
ak0101	Vehicle ID
ak0102	Vehicle description
CR/LF	
ak0103	Gross weight
<sp>	Space
wf0103	Weight units
<sp>	Space
G	String
CR/LF	
ak0104	Tare weight
<sp>	Space
wf0103	Weight units
<sp>	Space
ak0110	Tare type (T or PT)
CR/LF	
ak0105	Net weight
<sp>	Space
wf0103	Weight units
<sp>	Space
N	String
CR/LF	

Element	Explanation
CR/LF	

3.3.3.1.3. Shared Data Variables

Table 3-3 lists Shared Data variables that may be used in custom output templates for use with the Drive-570 application.

Table 3-3: Shared Data Variables for Use in Custom Templates

Data Field	SDName	Max. Length	Values / Notes
Vehicle ID	ak0101	16	
Vehicle Description	ak0102	20	
Gross Weight	ak0103	13	
Tare Weight	ak0104	13	
Net Weight	ak0105	13	
Transaction Time	ak0106	8	
Transaction Date	ak0107	10	
Transaction Type	ak0108	9	Permanent or Temporary
Variable	ak0109	16	
Tare Type	ak0110	2	T or PT
Weight Unit	ak0111	3	lb, kg, ton, t
Aux Gross	ak0112	13	
Aux Tare	ak0113	13	
Aux Net	ak0114	13	
Aux Unit	ak0115	3	
Inbound Weight	ak0116	13	Available for outbound print only
Inbound Date	ak0117	10	Available for outbound print only
Inbound Time	ak0118	8	Available for outbound print only
Outbound Weight	ak0127	13	
Transaction Number	xp0101	7	
A5 Table Name	az0103	20	
A5 Table Prompt	az0104	16	
A6 Table Name	az0106	20	
A6 Table Prompt	az0107	16	
A7 Table Name	az0108	20	
A7 Table Prompt	az0110	16	
A5 Table Active Description	ak0119	20	
A6 Table Active	ak0120	20	

Data Field	SDName	Max. Length	Values / Notes
Description			
A7 Table Active Description	ak0121	20	
Inbound Alibi Transaction #	ak0122	7	
Outbound Alibi Transaction #	ak0123	7	

IMPORTANT: Do **not** use the shared data variables in Table 3-3 when creating a template for use in the “Quick Print” feature (refer to Chapter 2 for information on Quick Print). The variables in Table 3-3 are only populated with data when running an inbound or outbound transaction. The Quick Print feature is used to capture the gross weight on the scale without running an actual transaction. Quick Print templates should be created using fields from the WT and WS shared data blocks.

3.3.3.2.

Connections

The Connections screen is used to assign available ports to functions, to triggers that cause the output to occur, and to templates that format the output.

The default Connections setup is COM1, Demand Output, Scale, Template 1. To use the Drive-570 Output Templates, new connections must be created.

Soffkeys can be used to edit, add or delete connections, and to clear the entire table.


The IND570drive contains two new triggers, Inbound and Outbound, to assign to an output. When creating new connections and using the provided IND570drive Output Templates, the Inbound trigger should be assigned together with Template 3 and Outbound trigger assigned together with Template 4.

4 Temporary Tare ID Weighing

This chapter provides information about the Temporary Tare ID Weighing process. It includes:

- An overview of the sequence
- An explanation of the soffkeys used
- Details about associated configuration options.

4.1. Temporary Tare ID Weighing Overview

- To use this function, the IND570drive must be configured so that the TEMPORARY ID soffkey  is visible on the home screen. Refer to **Chapter 3, Terminal > Soffkeys** for soffkey configuration information.

Temporary Tare ID Weighing is a 2-pass mode that uses the Temporary ID Table to record tare weights for Inbound transactions. This Inbound tare weight is then recalled when the Outbound transaction is performed. (Refer to the **Chapter 3, Temporary ID Table** for detailed information about this table).

Once the Outbound phase is complete, the ID is removed from the Temporary ID table.

- The Drive-570 stores a maximum of 200 Temporary IDs.

4.2. Performing a Basic Temporary Tare ID Transaction


4.2.1. One Step ID Enabled

If the objective is the fastest possible processing of each incoming truck; One Step ID should be enabled at **Setup > Application > Pac > Tables > Temporary ID**.

In this example, trucks are arriving at the facility full and leaving empty. Tare values for the trucks are not known ahead of time, and it is not necessary to record additional data with the transaction.

- Additional information can be captured with each inbound transaction by utilizing the Description and Variable fields and Application Tables A5, A6 and A7. Enabling additional data entry fields will add significant keystrokes to the process.

4.2.1.1. Inbound Process

1. Once the vehicle is on the scale, press the TEMPORARY ID soffkey .
2. A “Working” message displays briefly, and then a confirmation screen appears, with a number in the ID field. The ID number is assigned automatically by the Drive-570 and cannot be edited.




Depending on how many optional data entry fields are enabled for Inbound operation this screen may be one, two or three pages long. To edit a data entry field navigate to the text label that describes the field and press the ENTER key to place the cursor inside the field. Press ENTER again to save the new data.

- If the Description feature is enabled, type a description of up to 20 alphanumeric characters.
 - If Variable Prompt is enabled, it can be used to store an additional 16 alphanumeric characters of information to be associated with the vehicle ID.
 - If the A5 table is enabled, enter an A5 Table ID of up to three alphanumeric characters to select a record from that table. Both the A5 Table ID field and the Description field from that A5 Table record are associated with the vehicle ID.
 - If the A6 table is enabled, enter an A6 Table ID of up to three alphanumeric characters to select a record from that table. Both the A6 Table ID field and the Description field from that A6 Table record are associated with the vehicle ID.
 - If the A7 table is enabled, enter an A7 Table ID of up to three alphanumeric characters to select a record from that table. Both the A7 Table ID field and the Description field from that A7 Table record are associated with the vehicle ID.
3. Press OK to complete the transaction. "Saving Transaction" and "Printing" messages will appear, and the inbound ticket will be printed. The application will then return the operator back to the home screen.

INBOUND	
No: 21	Type: Temporary
T/D: 11:10:39	20/Jul/2007
ID: 107	OHIO #11
19900 lb	


Figure 4-1: Inbound Process Transaction Ticket

4.2.1.2. Outbound Process

1. Enter the numeric Temporary ID using the IND570's keypad.
2. Press the Temporary ID softkey . The inbound weight is retrieved from the Temporary ID memory table. If a previously stored inbound ID was recalled, the terminal will go into net mode.
 - If the vehicle's inbound weight has been stored, but the ID is not known, the Temporary ID Table can be accessed from the home screen by pressing the Temporary ID Table softkey . Here, you can search the table for the appropriate ID value (Figure 4-2). Exit the Temporary ID Table search screen and enter the found ID and press the Temporary ID softkey . Note that Temporary IDs cannot be selected and activated from the Temporary ID Table.

ID	Saved	Unit	Date	T
1	25760	1b	2015-03-19	10
2	23840	1b	2015-03-19	10
3	21360	1b	2015-03-19	10
4	19880	1b	2015-03-19	10

Figure 4-2: Search of Temporary ID Table from Home Screen

- Alternatively, if you do not want to enable access to the Temporary ID Table from the home screen, you can enter the setup menu tree and search the Temporary ID table at **Setup > Application > Pac > Tables > Temporary ID**. Here, you can search the table for the appropriate ID value. After exiting setup, enter this found ID and press the Temporary ID softkey .

Depending on how many optional data entry fields are enabled for Inbound operation this screen may be one, two or three pages long. To edit a data entry field navigate to the text label that describes the field and press the ENTER key to place the cursor inside the field. Press ENTER again to save the new data

- If the DESCRIPTION field is enabled type a description field of up to 20 alphanumeric characters.
- If Variable Prompt is enabled, it can be used to store an additional 16 alphanumeric characters to be associated with this vehicle ID.
- If the A5 table is enabled, enter an A5 Table ID of up to three alphanumeric characters to select a record from that table. Both the A5 Table ID field and the Description field from that A5 Table record are associated with the vehicle ID.
- If the A6 table is enabled, enter an A6 Table ID of up to three alphanumeric characters to select a record from that table. Both the A6 Table ID field and the Description field from that A6 Table record are associated with the vehicle ID.
- If the A7 table is enabled, enter an A7 Table ID of up to three alphanumeric characters to select a record from that table. Both the A7 Table ID field and the Description field from that A7 Table record are associated with the vehicle ID.



3. Press OK to complete the transaction and print the outbound ticket.

OUTBOUND			
No: 23	Type: Temporary		
T/D: 11:14:18	20/Jul/2007		
ID: 107	OHIO #11		
	73840	1b	G
	19900	1b	T
	53940	1b	N


Figure 4-3: Outbound Process Transaction Ticket

4.2.2. One Step ID Disabled



In this case, the ID must be manually entered during the Inbound process. Options can be enabled that allow additional information to be entered into Description and Variable fields and selected from the Application Tables A5, A6 and A7 at this time.

Later, when the Temporary ID softkey  is pressed during the Outbound process, the ID field appears and the originally assigned ID is entered by the user. Alternatively, if the ID is fully numeric, it can be entered directly on the terminal's numeric keypad, and then the Temporary ID softkey  pressed to perform a "quick recall" of the record. This would save a key press in the process.

4.2.2.1. Inbound Process

1. With the vehicle on the scale, press the TEMPORARY ID softkey  and enter an unused temporary ID (e.g. truck's license plate number) of up to 16 alphanumeric characters.
2. The terminal displays a "Working" message as it searches for the ID in the Temporary ID table, and then a confirmation screen appears, with the entered truck ID now showing in the ID field. Depending on how many optional data entry fields are enabled for Inbound operation this screen may be one, two or three pages long. To edit a data entry field navigate to the text label that describes the field and press the ENTER key to place the cursor inside the field. Press ENTER again to save the new data.
 - If the DESCRIPTION field is enabled enter a description of up to 20 alphanumeric characters.
 - If the VARIABLE field is enabled, it can be used to store up to 16 alphanumeric characters to be associated with this vehicle ID.
 - If the A5 table is enabled, enter an A5 Table ID of up to three alphanumeric characters to select a record from that table. Both the A5 Table ID field and the Description field from that A5 Table record are associated with the vehicle ID.
 - If the A6 table is enabled, enter an A6 Table ID of up to three alphanumeric characters to select a record from that table. Both the A6 Table ID field and the Description field from that A6 Table record are associated with the vehicle ID.
 - If the A7 table is enabled, enter an A7 Table ID of up to three alphanumeric characters to select a record from that table. Both the A7 Table ID field and the Description field from that A7 Table record are associated with the vehicle ID.
3. Press OK to save the entered ID, inbound weight and print the inbound ticket.

4.2.2.2. Outbound Process

1. With the truck on the scale, press the Temporary ID softkey  and enter the ID stored during the inbound process. Press the ENTER key.
 - NOTE: If the vehicle's inbound weight has been stored but the ID is not known, leave the ID entry field blank in step 1 and press the ENTER key. Two new softkeys will appear that allow you to either search the Temporary ID table or create a new record. Press the Table Search softkey  to search the Temporary ID table for the appropriate ID value. Use the

navigation keys to highlight the correct ID record and press the ENTER key. This inbound weight in this record will be recalled and applied.

8 Depending on how many optional data entry fields are enabled for Inbound operation this screen may be one, two or three pages long. To edit a data entry field navigate to the text label that describes the field and press the ENTER key to place the cursor inside the field. Press ENTER again to save the new data.

- If the DESCRIPTION field is enabled, enter up to 20 alphanumeric characters.
- If Variable Prompt is enabled, it can be used to store up to 16 alphanumeric characters to be associated with this vehicle ID..
- If the A5 table is enabled, enter an A5 Table ID of up to three alphanumeric characters to select a record from that table. Both the A5 Table ID field and the Description field from that A5 Table record are associated with the vehicle ID.
- If the A6 table is enabled, enter an A6 Table ID of up to three alphanumeric characters to select a record from that table. Both the A6 Table ID field and the Description field from that A6 Table record are associated with the vehicle ID.
- If the A7 table is enabled, enter an A7 Table ID of up to three alphanumeric characters to select a record from that table. Both the A7 Table ID field and the Description field from that A7 Table record are associated with the vehicle ID.


2. Press OK to complete the transaction and print the outbound ticket.

5 Permanent Tare ID Weighing

This chapter provides information about the Permanent Tare ID Weighing process. It includes:

- An overview of the sequence
- An explanation of the soffkeys used
- Details about associated configuration options.

5.1. Permanent Tare ID Weighing Overview

- The Permanent Tare ID function is used when most vehicle IDs and tare weights are known in advance and used repeatedly.
- To use this function, the IND570drive must be configured so that the Permanent ID soffkey  is visible on the home screen. Refer to **Chapter 3, Terminal > Soffkeys** for soffkey configuration information.

The Permanent Tare ID function utilizes the Permanent ID Table. The Permanent ID Table stores vehicle IDs, descriptions, and tare values. The Permanent ID Table also has a Totalization field that will accumulate vehicle weights as transactions are processed. To activate the Totalization feature within the Permanent ID table, go to **Application > Pac > Tables > Permanent ID** and enable Totalization.

The Drive-570 stores a maximum of 200 Permanent IDs. Information can be entered into the Permanent ID table prior to operation or entered at the time of truck transaction (run-time). To enable entry of Permanent IDs during run-time, go to **Application > Pac > Tables > Permanent ID** and enable Runtime Additions.

Additional information can be collected at the time of transaction by utilizing a Variable field. The Variable Prompt function is enabled at **Application > Pac > General**.

Additional data can also be retrieved from one or more of the Application Tables A5, A6 and A7 at this time.

5.2. Performing a Permanent Tare ID Transaction

5.2.1. Using a Known Permanent ID

1. With a vehicle on the scale, press the Permanent ID soffkey  and enter a known vehicle ID. Press the ENTER key.





- If the Permanent ID is fully numeric, you can first enter the numeric ID from the terminal's keypad and then press the Permanent ID softkey . This will save a keystroke, but this method is only valid for fully numeric IDs.
2. If the ID is valid, the tare weight will be displayed. Depending on which extra data entry fields are enabled the data entry screen may be 1, 2 or 3 pages in length. Navigate to the desired data entry field label, press ENTER to place the cursor in the entry box and press ENTER to terminate the data entry.
 - If enabled, the VARIABLE field will appear, allowing the operator to enter a 16-character descriptive string.
 - If A5 Table is enabled, enter an A5 Table ID of up to three alphanumeric characters to select a record from that table. Both the A5 Table ID field and the Description field from the selected A5 Table record are associated with the vehicle ID.
 - If A6 Table is enabled, enter an A6 Table ID of up to three alphanumeric characters to select a record from that table. Both the A6 Table ID field and the Description field from the selected A6 Table record are associated with the vehicle ID.
 - If A7 Table is enabled, enter an A7 Table ID of up to three alphanumeric characters to select a record from that table. Both the A7 Table ID field and the Description field from the selected A7 Table record are associated with the vehicle ID.
 3. Press OK to complete the transaction and print the outbound ticket.
 - **WARNING:** If the live scale weight is less than the stored, permanent tare weight of the vehicle (Figure 5-1), an error message will appear indicating that an invalid transaction has been attempted.



Figure 5-1: Invalid Tare Error Message.

5.2.2. Adding a Runtime Permanent ID

1. With a vehicle on the scale, press the Permanent ID softkey  and enter a vehicle ID. Press the ENTER key.
2. If the ID is valid, the tare weight will be displayed. If the ID is not found in the Permanent ID table, an "ID not found" prompt will display. At this point, the operator can choose to:
 - Search for the correct ID in the Permanent ID table by pressing the TABLE SEARCH softkey .

- Create and save a new Permanent ID record to the table by pressing the NEW softkey  (truck tare value must be known).
 - Note – the NEW softkey is only available if Runtime Additions is enabled at **Application > Pac > Tables > Permanent ID**.
 - Abort the transaction by pressing the ESC softkey, or
 - If enabled, the VARIABLE field will appear, allowing the operator to enter a 16-character descriptive string.
 - If A5 Table is enabled, enter an A5 Table ID of up to three alphanumeric characters to select a record from that table. Both the A5 Table ID field and the Description field from the selected A5 Table record are associated with the vehicle ID.
 - If A6 Table is enabled, enter an A6 Table ID of up to three alphanumeric characters to select a record from that table. Both the A6 Table ID field and the Description field from the selected A6 Table record are associated with the vehicle ID.
 - If A7 Table is enabled, enter an A7 Table ID of up to three alphanumeric characters to select a record from that table. Both the A7 Table ID field and the Description field from the selected A7 Table record are associated with the vehicle ID.
3. Press OK to complete the transaction and print the outbound ticket.

6 Advanced Applications

6.1. Transient Vehicle Weighing

6.1.1. Setup

This chapter covers

- Transient Vehicle Weighing
- Transaction Table

Transient Vehicle Weighing is a one-pass (Outbound-only) process used for vehicles that are not to be included in totals or the Transaction Table. Therefore, this process is not handled through the Drive-570 software. It can be carried out using the standard IND570 ID prompt operation.

The following steps describe the basic setup for ID1 prompting in Transient Vehicle:

1. Enter IND570 Setup Menu.
2. Navigate to **Application > Operation > ID1**.
3. Set ID1 Mode to Soffkey.
4. Select the ID1 Table/View icon to add a new ID.
5. Enter desired ID Prompt (e.g. Description, Truck Plate #, etc.), character type and length.
6. Press OK and return to Setup Menu.
7. Navigate to **Terminal > Soffkeys**.
8. Add ID1 soffkey.
9. Press OK.
10. Navigate to **Communication > Templates > Output**.
11. Select an unused template and create desired format.
 - ID1 prompts 1-30 shared data (pr0131-pr0160)
 - ID1 prompt Responses shared data (pa0101-pa0130)
12. Press OK and return to Setup Menu.
13. Navigate to **Communication > Connections**.
14. Add a new connection:
 - Port (select desired port)
 - Assignment = Demand Output
 - Trigger = Trigger 1, Trigger 2, or Trigger 3
 - Template (select template that was just created)
15. Add a new soffkey. Select the soffkey associated with the trigger defined in step 14.

For more information on ID prompting and Template formatting, please refer to the **IND570 Technical Manual**.

6.1.2. Performing a Transient Vehicle Transaction

1. With a vehicle on the scale, press the ID1 softkey **ID 1**.
2. The prompt created in setup will appear. Enter the desired data and press ENTER.
 - If no more prompts exist, the screen will return to its default state. If more prompts were created in setup, the next prompt will appear. This process will continue until the entire prompt list has been cycled through.
3. To complete the transaction, press the PRINT TRIGGER softkey. (A print connection must already be set up.)

6.2. Transaction Log

A transaction is defined as a complete inbound and outbound process. Since the Permanent Tare ID Weighing process is only an outbound process, each transaction is recorded upon completion of that process.

6.2.1. Contents of the Transaction Log

Transaction	Sequential number identifying the final (Outbound) transaction
Inbound Alibi	Sequential number identifying the initial (Inbound) transaction
Description	An alphanumeric string of 20 characters or fewer, from the Description field displayed during the transaction
ID	A numeric string associated with a specific vehicle for One Step ID or, when One Step ID is disabled, a 16 character alphanumeric string, typically a license number or other unique identifier that appears in the "ID" field during the generation of a transaction, and in the transaction record
Date	Date on which the transaction was performed
Time	Time at which the transaction was performed
Mode	The type of weighing operation used for the transaction – Permanent ID or Temporary ID
Gross	The weight measured at the scale
Tare	The tare value recalled or generated for the transaction
Net	The gross weight less the tare weight
Unit	The weight unit used for the transaction
Variable	The variable entered for the transaction
A5 ID	The A5 Table ID entered for the transaction
A6 ID	The A6 Table ID entered for the transaction
A7 ID	The A7 Table ID entered for the transaction

6.2.2. Access to the Transaction Log

The IND570drive stores up to 10,000 transaction records in the Transaction Log, which cannot be viewed from the terminal itself. Before the table can be viewed it must be exported via FTP or serial file transfer, or transferred to a USB flash drive using the USB softkey **USB**. It can then be viewed in a PC application (MS Excel, MS Access, Notepad, etc.).

NOTICE

ONCE THE IND570DRIVE TRANSACTION LOG IS FULL, THEIR CONTENTS MUST BE EXPORTED. ONCE THE LOG HAS BEEN ARE EXPORTED, ALL TRANSACTIONS WILL BE CLEARED FROM THE TERMINAL'S MEMORY AND FURTHER TRANSACTIONS PERFORMED AND RECORDED.

When transaction #9975 has been recorded, the operator will receive the popup message "WARNING! Transaction Log almost full!" At this point, only 25 more transactions can be performed before the tables must be exported.

Press ENTER to acknowledge this warning.


Once the last transaction (#10000) has been recorded, another popup message appears displaying "WARNING! Transaction Log is full!"

Once this message is acknowledged by pressing ENTER, a warning ("Trans. Table will clear after OK.") and an OK softkey appear on the IND570drive display. Here, the Drive-570 application forces the user to export the tables and all tables are **cleared** from the IND570drive memory. Tables **must** be exported **before** OK is pressed to acknowledge this warning, or **all** stored transaction records will be **lost**. Refer to the next section for information on exporting tables.

■ **IMPORTANT:** Tables must be exported **before** pressing OK. Once OK is pressed, the transaction log is cleared from the IND570drive memory.

6.2.3. Exporting the Transaction Log via USB

Use the following procedure to export the transaction log to a USB flash drive using the USB softkey.

1. Make certain that the USB port has been enabled for writing in setup at **Communication > Access/Security > USB**.
2. Press the USB softkey **USB** to begin the process. If the USB softkey is not present, it can be added in setup at **Terminal > Softkeys**.
3. Select Write to USB as the Action.
4. Select **Table A8 (Transaction)** from the file name list.
5. Press the START softkey  to begin the export.
6. When the export is complete, a message will be shown indicating a successful export.
7. The transaction table will be loaded onto the USB flash drive at (USB drive) **IND570 \ (S/N of terminal) \ Tables**.

8. Once the transaction table (**A8.csv**) has been exported, it can be opened and viewed in a PC application (MS Excel, MS Access, Notepad, etc.)

6.2.4. Exporting the Transaction Table via FTP or Serial File Transfer

The transaction table can also be exported via FTP through the optional Ethernet port, or by serial file transfer through the COM1 serial port. Refer to Appendix C, **Communications**, in the **IND570 User's Guide** for details on transferring files to the IND570 via FTP or serial file transfer.

A Default Settings

Table A-1 lists default values for all IND570 settings that are specific to the Drive-570. Default settings for IND570 basic functionality are listed in Appendix B of the **IND570 Technical Manual, Default Settings**.

Table A-1: IND570 Drive-570 Default Settings

Setup Feature	Default Value	Security Access
Application – Pac – General		
Variable Prompt	Disabled	
Variable Name	Var1	
Threshold Wt.	1000	
Transaction Table	Disabled	
Inbound Alibi	Disabled	
Application – Pac – Traffic Control		
Traffic Control	Disabled	
Threshold Wt.	1000	
Zero Tolerance	500	
Zero Timer (sec)	5	
Application – Pac – Tables – Permanent ID		
Totalization	Disabled	
Runtime Additions	Disabled	
Application – Pac – Tables – Temporary ID		
One Step ID	Enabled	
One Step ID Reset On	999	
Description	Disabled	
Application – Pac – Tables – A5 Table		
A5 Table	Disabled	
A5 Name	Var5	

Setup Feature	Default Value	Security Access
A5 Prompt	A5	
Application – Pac – Tables – A6 Table		
A6 Table	Disabled	
A6 Name	Var6	
A6 Prompt	A6	
Application – Pac – Tables – A7 Table		
A7 Table	Disabled	
A7 Name	Var7	
A7 Prompt	A7	
Application – Pac – Custom Table Totalization		
A5 / A6 / A7 Totalization	Disabled	

B Table Structures

B.1. Permanent Tare ID Table – A3

DB Field	dd----	Name	Type	Len	Description
shortID	dd0402	ID	String	16	Vehicle ID
description	dd0403	Description	String	20	Vehicle Description
data1	dd0404	Tare	Double	6	Permanently stored tare value.
data2	dd0405	Tare Type	String	2	"T" for weighed tare or "PT" for preset tare
data3	dd0406	Unit	String	3	Unit for Tare Value (lb,kg,t,ton)
data4	dd0407	Count	Integer	6	Number of transaction performed using this ID
data5	dd0408	Total	Double	12	Sum of net weights in primary units of outbound transactions using this Vehicle ID record
data6	dd0409	Var	String	16	Value entered for Var
data7	dd0410	Saved	Double	6	Saved Weight from 1 st pass in 2-pass mode
data8	dd0411	Custom Table 1 ID	String	3	Custom Table 1 ID number
data9	dd0412	Custom Table 2 ID	String	3	Custom Table 2 ID number
data10	dd0413	Custom Table 3 ID	String	3	Custom Table 3 ID number

B.2. Temporary Tare ID Table – A4

DB Field	dd----	Name	Type	Len	Description
shortID	dd0502	ID	String	16	Temporary ID
description	dd0503	Description	String	20	Temporary Description
data1	dd0504	Saved	Double	6	Saved weight from 1st pass in 2 pass mode
data2	dd0505	Unit	String	3	Unit for Saved Weight (lb,kg,t,ton)
data3	dd0506	Tare Type	String	1	"T" for weighed tare or "PT" for preset tare
data4	dd0507	Date	String	10	Date of last update to Saved Weight YYYY-MM-DD
data5	dd0508	Time	String	8	Time of last update to Saved Weight HH:MM:SS using 24 hour time
data6	dd0509	Var	String	16	Value entered for Var

DB Field	dd----	Name	Type	Len	Description
data7	dd0510	Inbound Alibi	Integer	6	Inbound transaction Alibi number
data8	dd0511	Custom Table 1 ID	String	3	Custom Table 1 ID number
data9	dd0512	Custom Table 2 ID	String	3	Custom Table 2 ID number
data10	dd0513	Custom Table 3 ID	String	3	Custom Table 3 ID number

B.3. Custom Table 1 – A5

DB Field	dd----	Name	Type	Len	Description
shortID	dd0602	ID	String	3	Custom item ID
description	dd0603	Description	String	20	Custom item description
data1	dd0604	Total	Double	12	Sum of the net weights of outbound transactions using this custom item
data2	dd0605	Count	Integer	6	Number of outbound transactions using this custom item

B.4. Custom Table 2 – A6

DB Field	dd----	Name	Type	Len	Description
shortID	dd0702	ID	String	3	Custom item ID
description	dd0703	Description	String	20	Custom item description
data1	dd0704	Total	Double	12	Sum of the net weights of outbound transactions using this custom item
data2	dd0705	Count	Integer	6	Number of outbound transactions using this custom item

B.5. Custom Table 3 – A7


DB Field	dd----	Name	Type	Len	Description
shortID	dd0802	ID	String	3	Custom item ID
description	dd0803	Description	String	20	Custom item description
data1	dd0804	Total	Double	12	Sum of the net weights of outbound transactions using this custom item
data2	dd0805	Count	Integer	6	Number of outbound transactions using this custom item


B.6. Transaction Log – trans.csv

		Name	Type	Len	Description
		Transaction Number	Integer	16	Transaction Consecutive Number
		Inbound Alibi	Integer	6	Inbound transaction Alibi number
		Time	String	16	Time of outbound transaction
		Date	String	16	Date of outbound transaction
		ID	String	16	Vehicle ID
		Description	String	20	Vehicle Description
		Variable	String	16	Variable used for the transaction
		Mode	String	9	Transaction type (Permanent, Temporary)
		Gross	Double		Gross Weight
		Tare	Double		Tare weight
		Net	Double		Net weight
		Unit	String	3	Unit for Weights (lb, kg, t, ton)
		Custom Table 1 ID	String	3	Custom Table 1 ID number
		Custom Table 2 ID	String	3	Custom Table 2 ID number
		Custom Table 3 ID	String	3	Custom Table 3 ID number

- NOTE: The transaction log is located at flash2:\trans.csv. After the table is filled (10,000 records), no further transactions will be stored until the log is cleared.

C Drive-570 Reports

The Drive-570 Permanent ID and Temporary ID tables can be viewed by an operator by pressing the REPORTS softkey . Results of table searches can also be printed. The table report structure is based on the fields defined in the table and report configuration. Sample report prints are shown in Figure C-1 and Figure C-2, below.

In order to access the report function, the REPORTS softkey  must be added to the selection of softkeys on one of the home pages – refer to Chapter 3, **Configuration**, in the **IND570 User's Guide**.

Permanent ID Report Report				
11:05:49		20/Jul/2007		
03	MTWT 3	22360 lb	Cnt: 7	Total: 102640
	LUMBER			
02	MTWT 2	21520 lb	Cnt: 13	Total: 85220
	GRAVEL			
01	MTWT 1	26280 lb	Cnt: 5	Total: 32660
	SAND			

Figure C-1: Sample 40-Column Report

Permanent ID Report Report						
11:08:05		20/Jul/2007				
ID	Description	Tare	Count	Total	Variable	
03	MTWT 3	22360 lb	7	102640	LUMBER	
02	MTWT 2	21520 lb	13	85220	GRAVEL	
01	MTWT 1	26280 lb	5	32660	SAND	

Figure C-2: Sample 80-Column Report

D Installation Guide

D.1. Installation Notes


If a complete IND570Drive terminal is ordered, all files required to run the drive application will be loaded during production and this chapter can be skipped. If the Drive-570 application is ordered as a separate kit, the Drive-570 application files must be loaded to the terminal before the drive application can run.

The required files are available for download at www.mt.com/IND570.

D.2. Installation Method

The following procedure outlines installation of the Drive-570 application files.

D.2.1. Loading via USB

1. Make certain that the USB port has been enabled for both read and write functions in setup at **Communication > Access/Security > USB**.
2. Transfer the files downloaded from www.mt.com/IND570 to a USB flash drive in a TaskExpert folder with the following path. The folders must be named exactly as shown:
(USB drive) \ IND570 \ (SN of terminal) \ TaskExpert
3. Insert the USB flash drive into the IND570 USB port.
4. Enter setup and navigate to **Maintenance > Run > Restore from USB**.
5. Select TaskExpert from the Restore selection box.
6. Press the START softkey  to begin the loading process.
7. When all files have been loaded, a message will be shown indicating a successful restore.
8. Exit setup and remove the USB flash drive.
9. The application is now ready for programming.

D.2.2. Loading via FTP or Serial File Transfer

The application files can also be loaded via FTP through the optional Ethernet port, or by serial file transfer through the COM1 serial port. Refer to Appendix C, **Communication**, in the **IND570 User's Guide** for details on transferring files to the IND570 via FTP or serial file transfer.

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www.mt.com/IND570

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