WinBridge®

Unattended Driver Station

Technical Manual

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INTRODUCTION

This publication is provided solely as a guide for individuals who have received Technical Training in servicing the METTLER TOLEDO product.

Information about METTLER TOLEDO Technical Training may be obtained by writing, calling, or faxing:

METTLER TOLEDO
1900 Polaris Parkway
Columbus, Ohio 43240 USA
phone: (614) 438-4511
fax: (614) 438-4958
www.mt.com

FCC Notice

This device complies with Part 15 of the FCC Rules and the Radio Interference Requirements of the Canadian Department of Communications. Operation is subject to the following 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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

METTLER TOLEDO RESERVES THE RIGHT TO MAKE REFINEMENTS OR CHANGES WITHOUT NOTICE.

Precautions

READ this manual BEFORE operating or servicing this equipment.

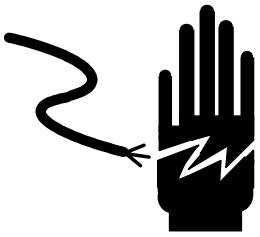
FOLLOW these instructions carefully.

SAVE this manual for future reference.

DO NOT allow untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment.

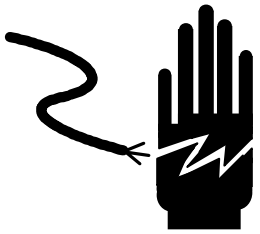
ALWAYS DISCONNECT this equipment from the power source before cleaning or performing maintenance.

CALL METTLER TOLEDO for parts, information, and service.



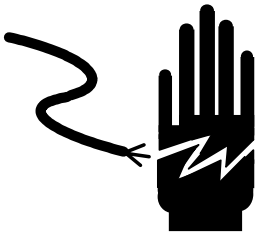
⚠ WARNING

PERMIT ONLY QUALIFIED PERSONNEL TO SERVICE THIS EQUIPMENT. EXERCISE CARE WHEN MAKING CHECKS, TESTS, AND ADJUSTMENTS THAT MUST BE MADE WITH POWER ON. FAILING TO OBSERVE THESE PRECAUTIONS CAN RESULT IN BODILY HARM.



⚠ WARNING

FOR CONTINUED PROTECTION AGAINST SHOCK HAZARD, CONNECT TO A PROPERLY GROUNDED OUTLET ONLY. DO NOT REMOVE THE GROUND PRONG.



⚠ WARNING

DISCONNECT ALL POWER TO THIS UNIT BEFORE INSTALLING, SERVICING, CLEANING, OR REMOVING THE FUSE. FAILURE TO DO SO COULD RESULT IN BODILY HARM AND/OR PROPERTY DAMAGE.

⚠ CAUTION

BEFORE CONNECTING/DISCONNECTING ANY INTERNAL ELECTRONIC COMPONENTS OR INTERCONNECTING WIRING BETWEEN ELECTRONIC EQUIPMENT, ALWAYS REMOVE POWER AND WAIT AT LEAST THIRTY (30) SECONDS. FAILURE TO OBSERVE THESE PRECAUTIONS COULD RESULT IN BODILY HARM OR DAMAGE TO OR DESTRUCTION OF THE EQUIPMENT.

⚠ CAUTION

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES.

CONTENTS

1 Introduction

The WinBridge® Unattended Driver Station is designed to be used at a vehicle scale where an operator is not present. It communicates with a personal computer (PC) or other processing unit via a serial 20 mA current loop. A vehicle's driver can carry out weighing transactions by using the driver station to transmit data to and from a PC that controls the scale. This manual explains how to install, service, and operate the unattended driver station.

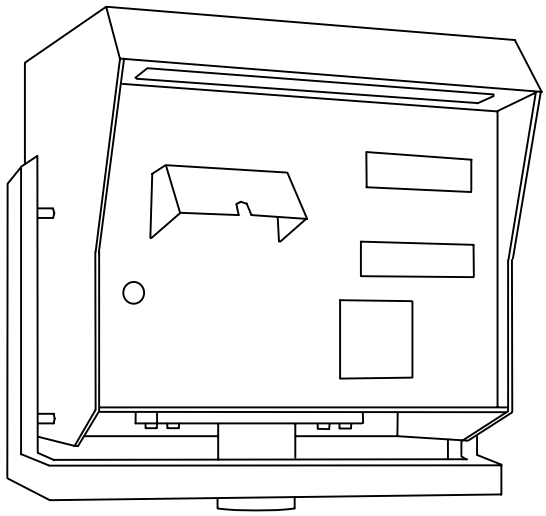


Figure 1-1: Unattended Driver Station

Model Numbers

The following table shows how standard model numbers are determined.

XXXX	X	X	X	X	XXX
Model	**For Future Use**	**Weight Display**	**ID Reader**	**Printer**	**Destination Market Code**
WBHA	0	0 = No Weight Display 1 = Backlit Weight Display	0 = No ID Reader 1 = Magnetic Card Reader 2 = Proximity Card Reader 3 = Bar Code Slot Reader	0 = No Printer 1 = Printer with English Characters 2 = Printer with Swedish Characters 3 = Printer with Norwegian Characters	000 to 999 (contact factory for destination market code for a country)

Table 1-1: Model Number Configuration

Description

The unattended driver station is supplied with a built-in heating unit for outdoor use. It includes a keypad and information display.

Keypad

The 16-key keypad is used to enter data (such as vehicle IDs) needed to complete weighing transactions. The functions of the keys are described in Chapter 4.

Display

The driver station has a liquid crystal diode (LCD) information display that shows two rows of 20 characters with a light-emitting diode (LED) backlight. Characters are 12 mm high. A weight display is available as an option.

Accessories

The driver station can be equipped with the following optional accessories:

Printer

A printer can be installed in the driver station to print information about a weighing transaction on a driver's ticket. It prints 40 characters per line with a printout width of 84.3 mm. Characters are 2.5 mm high. The printer can use paper with a maximum width of 114.3 mm.

Card Reader

Three types of card readers can be used with the driver station to enter ID numbers: a proximity card reader, a bar code slot reader, and a magnetic code slot reader. The bar code reader can read the following formats: EAN8, EAN13, UPC A, UPC E, and Standard Code 39.

Loudspeaker

A loudspeaker can be installed outside the driver station. Depending on what type of communication device you connect it to, the loudspeaker can provide one-way or two-way communication.

Specifications

The unattended driver station conforms to the following specifications.

Physical Dimensions

Dimensions for the driver station are shown in Figure 1-2.

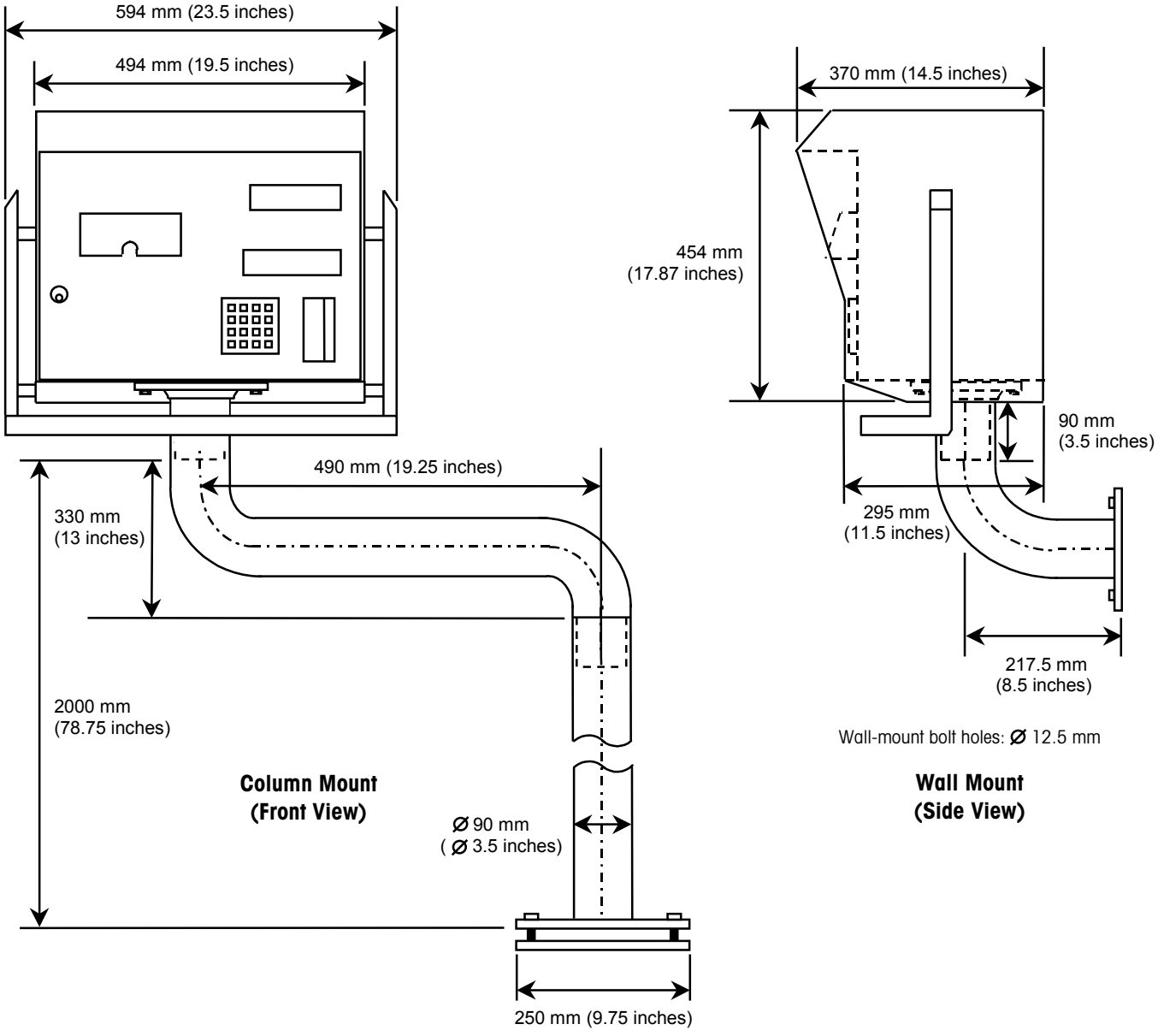
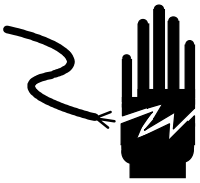


Figure 1-2: Driver Station Dimensions

Power Requirements



⚠ WARNING

FOR CONTINUED PROTECTION AGAINST SHOCK HAZARD, CONNECT TO A PROPERLY GROUNDED OUTLET ONLY. DO NOT REMOVE THE GROUND PRONG.

The driver station requires an input power source of 230 VAC or 115VAC. Maximum power consumption is 85 watts (without heater). Maximum power consumption for the heater is 60 watts.

Serial Communication

Serial communication with a PC or other processing unit is via 20 mA current loop: 4,800 baud, 8 data bits, no parity bits, and 1 stop bit. The driver station is also available with 1,200 baud.

Operating and Storage Temperature

The driver station can be operated at temperatures ranging from 0°C to +50°C. These temperatures are for the driver station only. If the station has a built-in heater, the operating temperatures will be different.

The driver station can be stored at temperatures ranging from -20°C to +60°C.

Hazardous Areas

The driver station is not intrinsically safe and must not be operated in areas classified as hazardous by the National Electrical Code (NEC) or Ex-notified body because of the combustible or explosive atmospheres in those areas. Contact your authorized METTLER TOLEDO representative for information about hazardous applications.

⚠ WARNING

THE UNATTENDED DRIVER STATION IS NOT INTRINSICALLY SAFE. DO NOT USE IN AREAS CLASSIFIED AS HAZARDOUS BY THE NATIONAL ELECTRICAL CODE (NEC) BECAUSE OF COMBUSTIBLE OR EXPLOSIVE ATMOSPHERES.

Electrical Connections

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All internal components can be reached by unlocking and opening the hinged front cover of the driver station. Connections for internal components are made at the terminal strip located inside the driver station on the back wall near the bottom of the cabinet (see Figure 1-3). All internal components are connected at the factory.

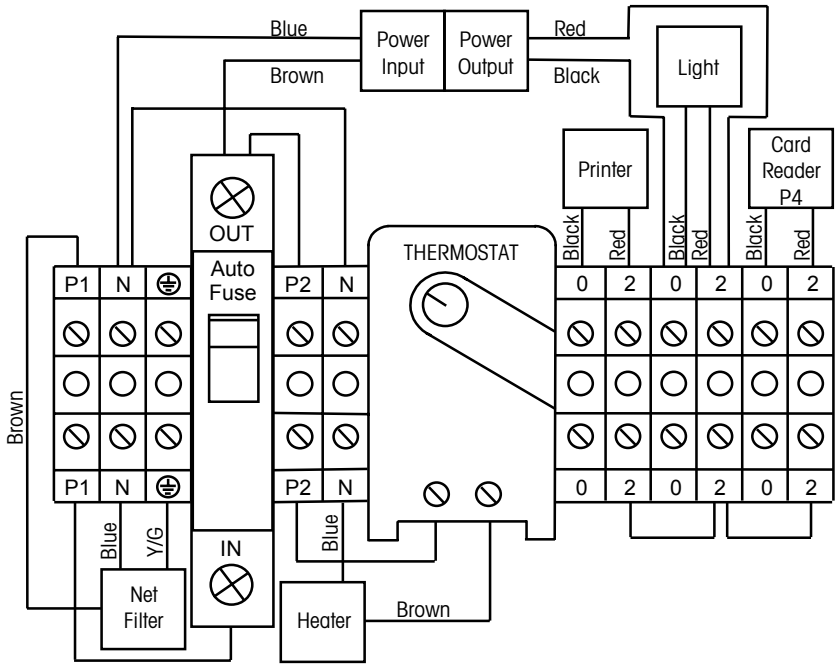


Figure 1-3: Driver Station Terminal Strip Connections

Terminals

P = 230/115 VAC Phase

N = 230/115 VAC Neutral

⏚ = 230/115 VAC Ground

0 = 0 VDC

2 = 12 VDC

PCB Jumpers and Connectors

Figure 1-4 shows the locations of the jumpers and connectors on the driver station's printed circuit board (PCB).

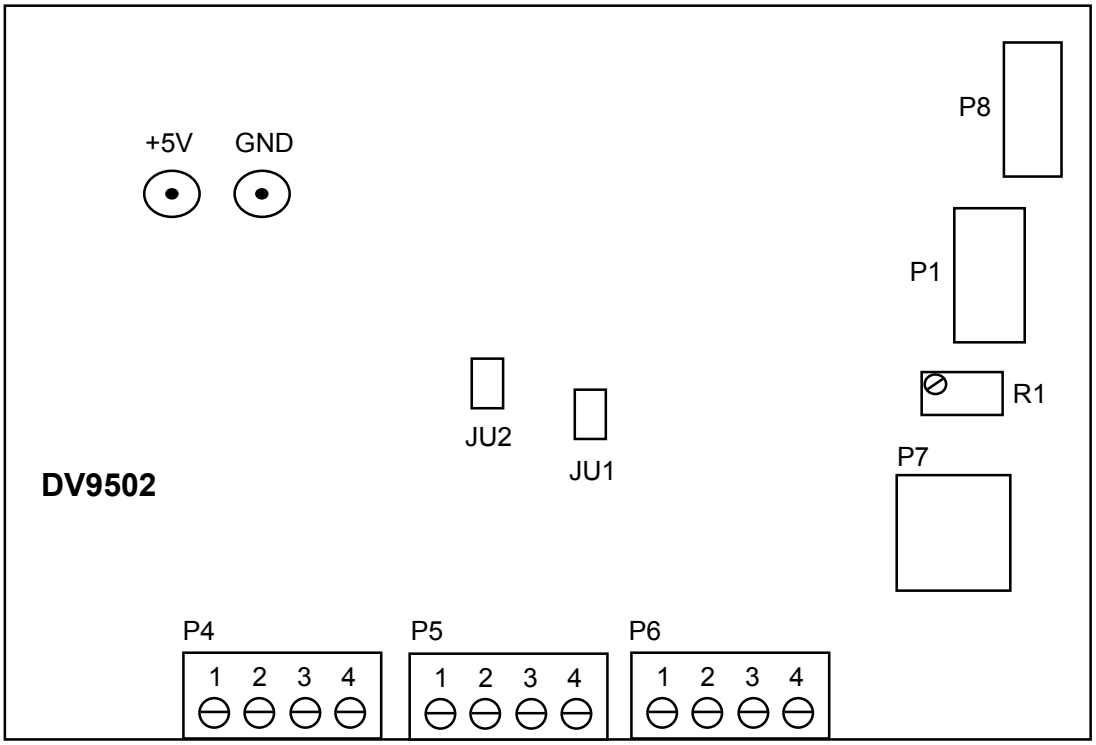


Figure 1-4: Driver Station Printed Circuit Board

PCB Jumpers

JU1 - Jumper should be ON (shorting the pins)

JU2 - Jumper should be ON (shorting the pins)

PCB Connectors

P1 - Keypad Input

P4 - Proximity Card Reader Input

P5 - Printer Connection

P6 - Personal Computer Connection

P7 - Magnetic Card Input

P8 - Display Connection

Display Adjustment

R1 - Adjustment of Display Contrast

Terminal Strip Connections

The P4, P5, and P6 terminal strips on the PCB are wired as indicated below:

P4 Terminal Strip	Proximity Card Reader
Pin 1	12 VDC (Red Wire)
Pin 2	Ground (Black Wire)
Pin 3	No Connection
Pin 4	RS-232 (Green Wire)

Table 1-2: P4 Connection to Proximity Card Reader

P5 Terminal Strip	Printer (25-Pin Connector)
Pin 1	+CL PTR (Pin 25)
Pin 2	-CL PTR (Pin 18)
Pin 3	+CL On Line (Pin 17)
Pin 4	-CL On Line (Pin 24)

Table 1-3: P5 Connection to Printer

The P5 terminal strip is connected to a 25-pin male connector on the printer. The cable is 60 cm long, and the shield is connected to the metal housing.

P6 Terminal Strip	Personal Computer
Pin 1	+CL PC TXD
Pin 2	-CL PC TXD
Pin 3	-CL PC RXD
Pin 4	+CL PC RXD

Table 1-4: P6 Connection to Personal Computer

To provide signal filtering, the wires from the computer are connected to the four-pin terminal strip located inside the driver station on the bottom wall. This filter is then wired to the P6 terminal strip on the driver station's PCB.

If a bar code reader is used, it is connected as shown in Table 1-5.

Bar Code Reader	Driver Station PCB
Purple Wire	+5 VDC
Yellow Wire	Ground
Blue Wire	P4 Pin 4

Table 1-5: Bar Code Reader Wiring

Interconnect Diagram

The following interconnect diagram shows the wiring connections for a driver station.

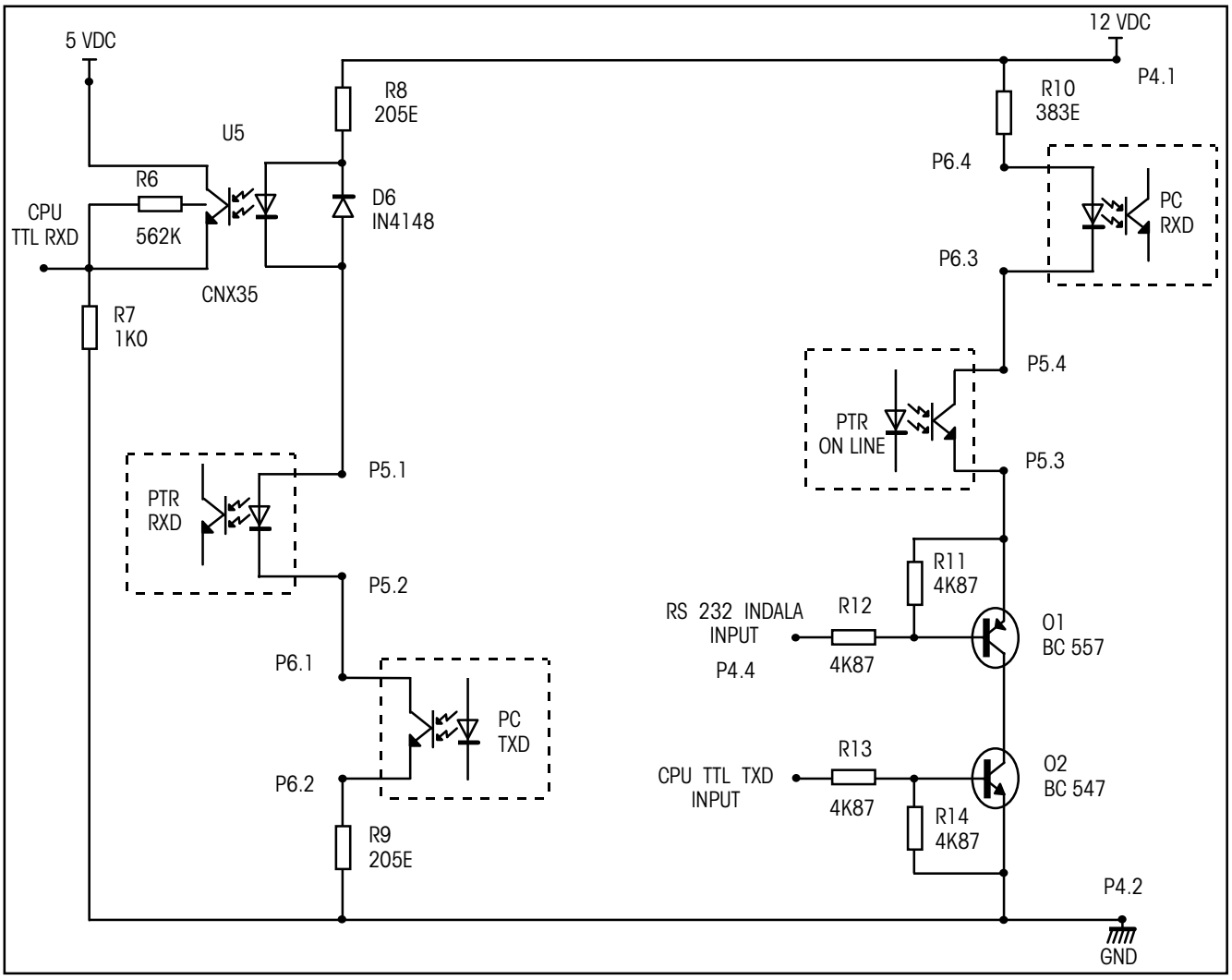
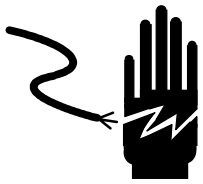


Figure 1-5: Driver Station Interconnect Diagram

2 Installation

This chapter explains how to install the unattended driver station. Please read it thoroughly before you begin installation.



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Unpacking and Inspection

Please inspect the package when it is delivered by the carrier. If the shipping container is damaged, check for internal damage and file a freight claim with the carrier if necessary.

If the container is not damaged, remove the driver station from its protective package, noting how it was packed, and inspect each component for damage. If you need to ship the driver station, it is best to use the original shipping container. The driver station must be packed correctly to ensure its safe transportation.

Guidelines

Select a location for the driver station. Typically, the station is installed so that a driver can reach it from inside a vehicle that is parked on the scale. Make sure that the driver station is installed at the right height and near the scale.

A driver station can be mounted on a column or a wall bracket. The column can be equipped with a swivel arm that allows drivers to reposition the station so that they can reach it easily from inside their vehicles.

Cables for connecting to an input power source and a PC enter the driver station through the flanged opening at the bottom of the station. The cables must be run inside the column or wall mounting bracket. When installing the driver station, you will need to make provisions for routing the cables through the foundation or wall.

Column Mounting

If you are using the mounting column, you will need to anchor it to a concrete foundation. The mounting hardware includes (1) a mounting plate, (2) a column with base plate, and (3) an optional swivel arm. These pieces fit together as shown in Figure 2-1.

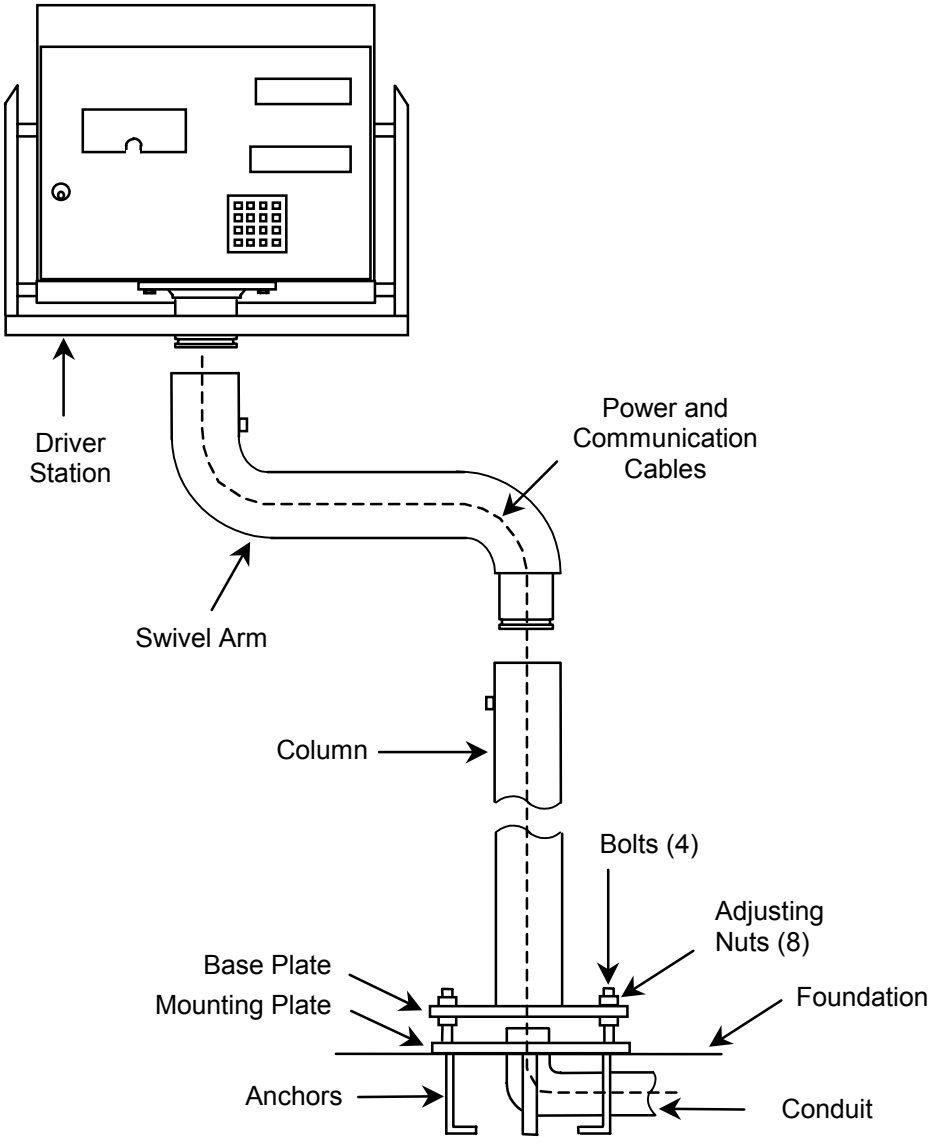

Figure 2-1: Column Mount Installation

1. Pour the foundation, and place the anchors on the bottom of the mounting plate in the concrete. Make sure that the mounting plate is level. Install conduit for routing cable from the bottom of the mounting column through the foundation. There is a hole in the center of the mounting plate to accommodate the conduit.
2. After the concrete has cured, remove the upper nut from each of the threaded bolts on the mounting plate. Adjust the lower nuts so that all four are the same height. These nuts allow you to make minor adjustments to the height of the driver station.

3. Run a string through the mounting column. Attach the string to the cables, and pull the cables up through the column.
4. Position the mounting column so that the bolt holes in its base plate fit over the bolts on the mounting plate. Replace the upper nuts and tighten them to hold the mounting column in place. Adjust the upper and lower nuts as needed to level the base plate.
5. If you are installing a swivel arm, run the string that is attached to the cables through the arm. Lubricate the flanged end of the swivel arm. Then place the flanged end of the arm into the opening at the top of the column. Tighten the screw at the side of the column so that it fits into the groove in the flange (see Figure 2-2). The screw should be loose enough to allow the arm to turn freely.

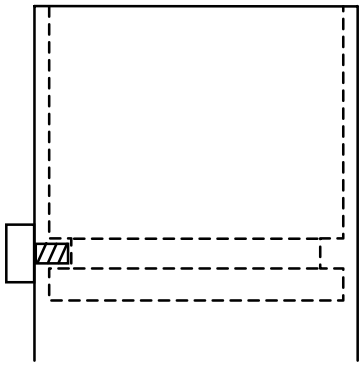

Figure 2-2: Flange Connection

6. If you are using a swivel arm, lubricate the flange at the bottom of the driver station. Insert the flange into the opening at the top of the swivel arm or mounting column. Two people are needed to lift the driver station. A third person might be needed to feed the cables through the flanged opening at the bottom of the driver station.

⚠ WARNING

USE EXTREME CAUTION WHEN LIFTING AND MOVING THE DRIVER STATION. DO NOT ATTEMPT TO LIFT AND MOVE THE DRIVER STATION BY YOURSELF OR INJURY COULD OCCUR.

7. Tighten the screw at the side of the swivel arm or mounting column so that it fits into the groove in the flange. If you are using a swivel arm, the screw should be loose enough to allow the driver station to turn freely.

Wall Mounting

A bracket is available for mounting the driver station to a wall, using M12 x 45 mm (1/2" diameter x 1.75" long) expansion anchor bolts. Make sure that the wall and each embedded anchor can resist a pulling force of 100 pounds.

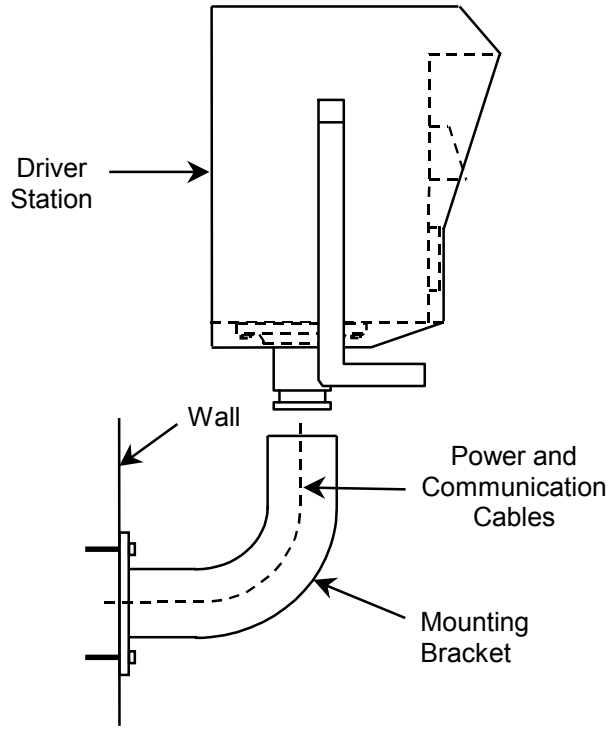

Figure 2-3: Wall Mount Installation

1. Position the bracket on the wall at a height that will make it convenient for drivers to use the driver station. Make sure that the top of the mounting plate is level, and then mark the locations for the plate's bolt holes.
2. Drill holes into the wall for the bolts or anchors. You will also need to provide an opening in the wall for routing cables.
3. Route the cables through the mounting bracket. Then bolt the flanged end of the mounting bracket securely to the wall as shown in Figure 2-3.
4. Insert the flange at the bottom of the driver station into the opening at the top of the bracket. Two people are needed to lift the driver station. A third person might be needed to feed the cables through the flanged opening at the bottom of the driver station.

⚠ WARNING

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5. Tighten the screw at the side of the mounting bracket so that it fits into the groove in the flange (see Figure 2-4).

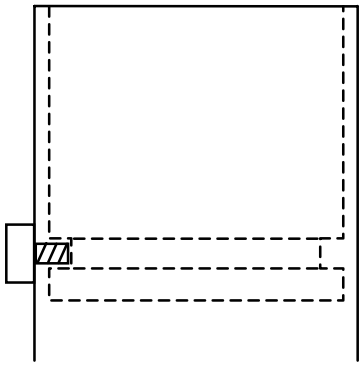


Figure 2-4: Flange Connection

Power Supply Connection

The driver station requires a properly grounded power supply of 230 or 115 volts AC. Connect the power supply cable to the three-position terminal strip to the left of the opening in the bottom of the driver station. Connect the line, ground, and neutral wires as shown in Figure 2-5.

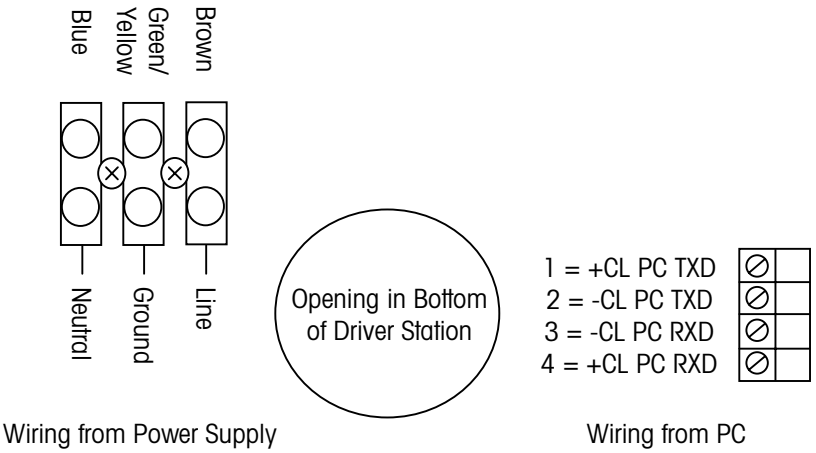


Figure 2-5: Power Supply Connection

WinBridge PC Connections

To use the unattended driver station with a WinBridge installation, connect the driver station to a converter box and connect the box to the PC on which the WinBridge program is installed. The box converts the RS-232 signal from the PC to a 20 mA current loop signal for the driver station. The following wiring instructions are for the Westermo MA-21 converter box supplied with the driver station (see Figure 2-6).

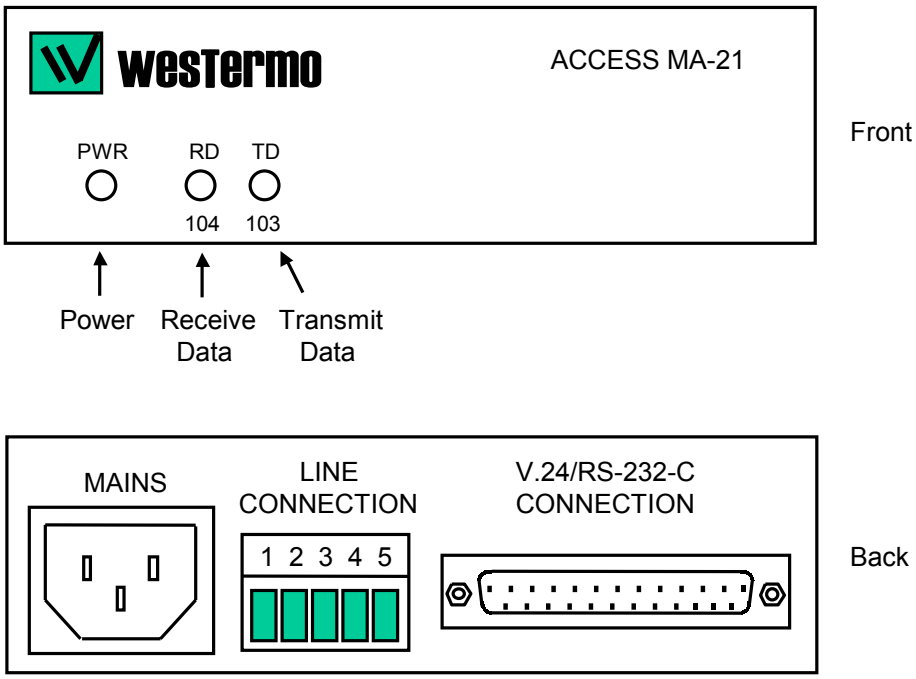


Figure 2-6: MA-21 Converter Box

Connect the communications cable from the driver station to the converter box as shown in Table 2-1. Use a four-wire (two twisted pairs), shielded cable with a minimum 22-gauge thickness. Maximum cable length is 1,000 feet. The cable should be wired to the four-position terminal strip at the right of the opening in the bottom of the driver station.

P6 Terminal Strip (4-Pin Connector)	M-2 Box (5-Pin Connector)
Pin 1 (+CL PC TXD)	Pin 3
Pin 2 (-CL PC TXD)	Pin 4
Pin 3 (-CL PC RXD)	Pin 2
Pin 4 (+CL PC RXD)	Pin 1

Table 2-1: Driver Station Connection to Converter Box

The switches inside the converter box should be set as shown in Figure 2-7. These are the factory settings and should not need to be changed.

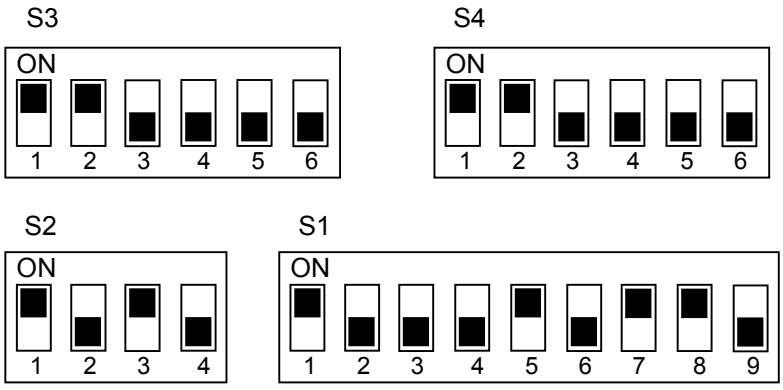


Figure 2-7: Converter Box Switch Settings

Connect the converter box to the PC as shown in Table 2-2. Use a four-wire (two twisted pairs), shielded cable with a minimum 22-gauge thickness. Maximum cable length is 50 feet.

M-2 Box (25-Pin Connector)	PC with WinBridge (9-Pin Connector)
Pin 2	Pin 3
Pin 3	Pin 2
Pin 7	Pin 5

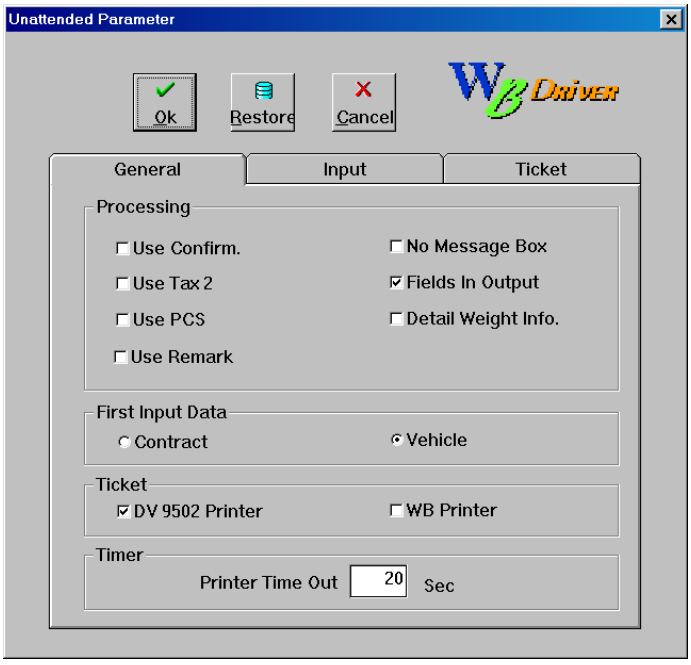
Table 2-2: Converter Box Connection to Personal Computer

3 WinBridge Unattended Software Setup

To use the unattended driver station, you need to connect it to a computer on which the WinBridge software program and the Unattended Module have been installed. The system configurator will then need to set up the unattended mode parameters to define what information must be entered at the driver station, how it must be entered, and how the driver station will print tickets.

Unattended Mode Setup

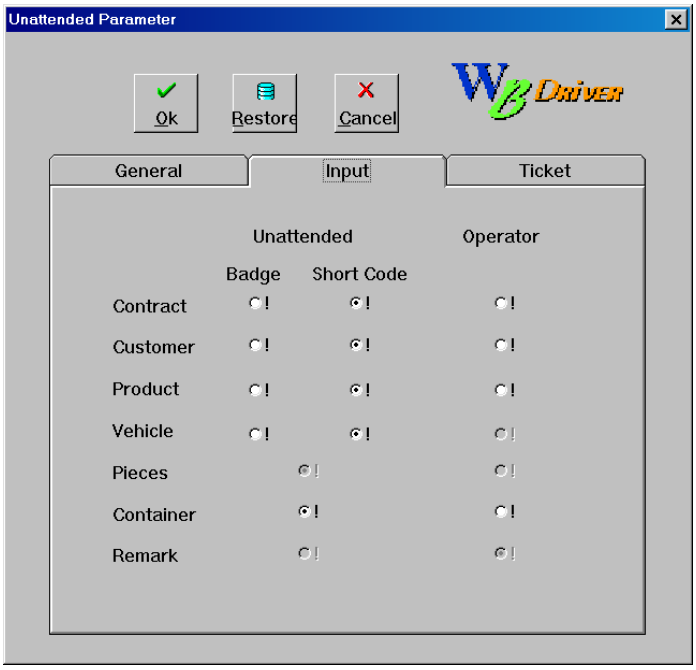
To set up unattended mode parameters, select **Unattended Mode** from the **System Parameters** menu on the **WinBridge Configurator** screen. The Unattended Parameter window that is displayed contains three forms: **General**, **Input**, and **Ticket**. Use the check boxes, radio buttons, and data fields to change the default settings.



General (Unattended Mode Parameters):

- Use Confirm: Enables confirmation prompts so that the driver can confirm data entered at the driver station.
- Use Tax 2: Enables the use of a second tax.
- Use PCS: Enables the use of pieces and the processing of goods priced per piece.
- Use Remark: Enables the use of the remark table.

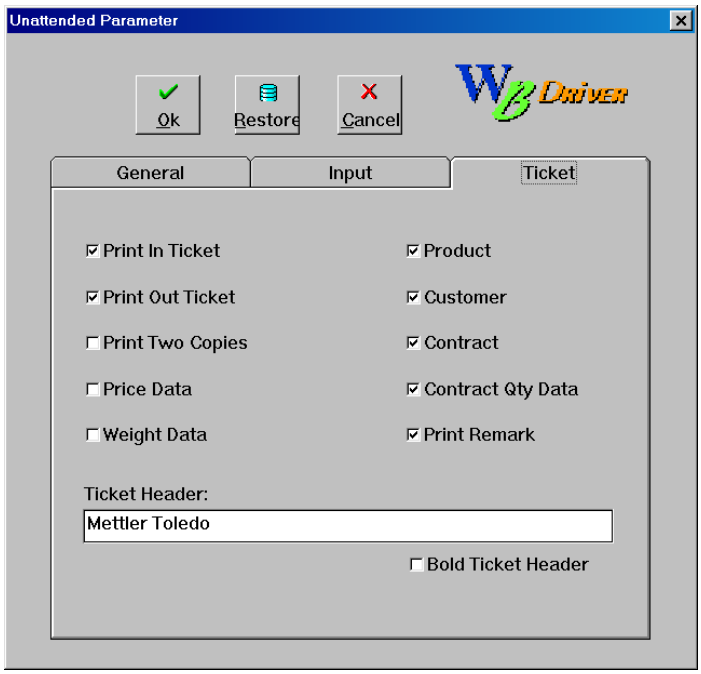
- No Message Box: All system messages will be written to an alarm file instead of being sent to the computer screen. This is useful when there is no operator at the computer.
- Fields in Output: All data except for the first input data are entered at the second weighing.
- Detail Weight Info: Prints both weights when split weighing is used.
- First Input Data: Select Contract or Vehicle as the first data that a driver would enter at the driver station (with a badge or short code) to begin a transaction.
- Ticket: DV 9502 Printer prints tickets on the driver station's printer. WB Printer prints on the WinBridge printer.
- Timer: Enter the number of seconds for the printing time-out for the driver station's printer. The timer should be set to at least 20 seconds to allow the ticket to be printed completely before it is cut.



Input (Unattended Mode Parameters):

Use the radio buttons to set how each type of information will be entered. You can select only one type of input for each.

- Contract, Customer, Product, and Vehicle information can be entered by the driver (with a badge or short code) or by the operator.
- Pieces, Container, and Remark information can be entered by the driver (by selecting from a list) or by the operator.



Print Ticket (Unattended Mode Parameters):

- Print In Ticket: Prints ticket after first weighing.
- Print Out Ticket: Prints ticket after second weighing.
- Print Two Copies: Prints two copies of a ticket.
- Price Data: Price data printed on ticket.
- Weight Data: Weight data printed on ticket.
- Product: Product ID and description printed on ticket.
- Customer: Customer ID and description printed on ticket.
- Contract: Contract ID printed on ticket.
- Contract Qty Data: Delivered quantity printed on ticket.
- Print Remark: Remark printed on ticket.
- Ticket Header: String is printed in the ticket header.
- Bold Ticket Header: Ticket header is printed in bold.

Unattended tickets have a set format, which cannot be changed. The only way to change the tickets is to enable or disable parameters on this screen. Unattended tickets can be printed to the driver station and shown on the WinBridge PC.

4 Operation

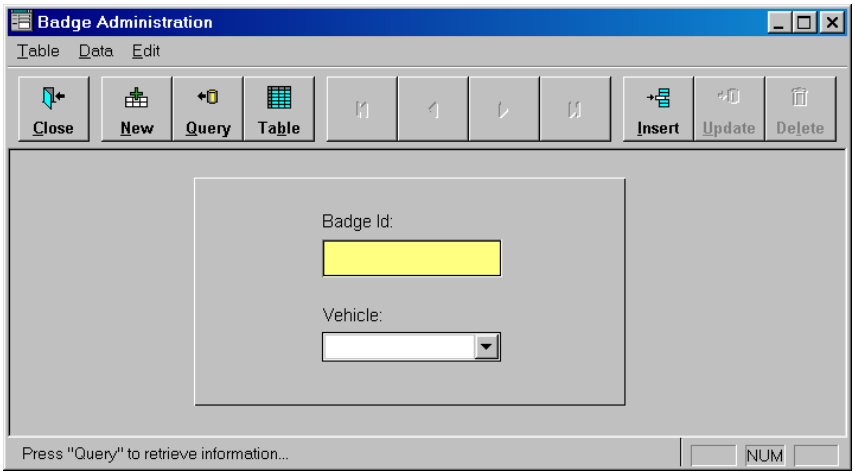
To start unattended mode, click the unattended push button on the WinBridge Vehicle Processing Screen's toolbar. The button is green when unattended mode is enabled and red when it is disabled.

Data Entry

When unattended mode is enabled, the **Badge** and **Short Code** menu items are activated in the Vehicle Processing screen's **Table** menu. Clicking on either of these will display four submenu items: **Vehicle**, **Contract**, **Account**, and **Product**. You can assign a badge ID or short code for each vehicle, contract, account, and product that will be processed at the unattended driver station.

Badge

A driver can use a badge to identify a vehicle, contract, account, or product at the driver station. To assign a badge ID, select one of the items from the **Badge** submenu. The **Badge Administration** form for vehicles is shown below:

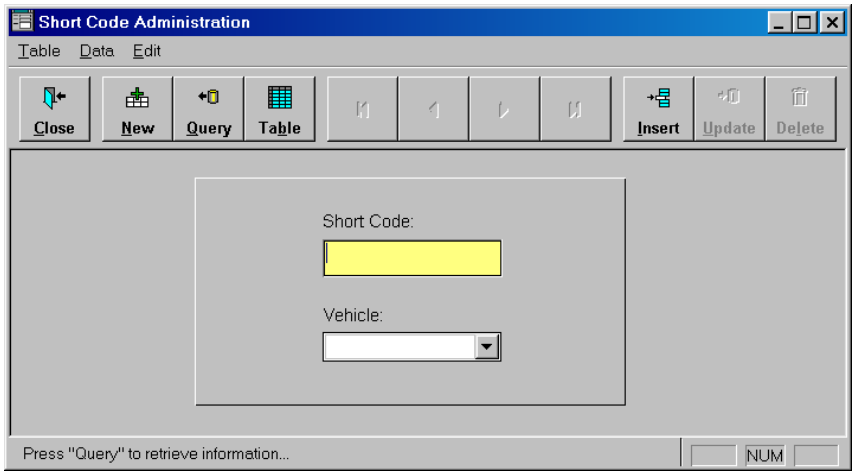


1. Enter an ID in the **Badge ID** data field.
2. Use the combo box to select the vehicle that you want to link to the badge ID.
3. Click the **Insert** button to save this entry in the database.

The other three **Badge Administration** forms work the same way.

Short Code

A short code is an ID number that the driver can type on the driver station's keypad to identify a vehicle, contract, account, or product. To assign a short code, select one of the items from the **Short Code** submenu. The **Short Code Administration** form for vehicles is shown below:



1. Enter an ID in the **Short Code** data field.
2. Use the combo box to select the vehicle that you want to link to the short code.
3. Click the **Insert** button to save this entry in the database.

The other three **Short Code Administration** forms work the same way.

Keypad

The unattended driver station keypad is shown in Figure 4-1. The functions of the keys can be programmed from the PC that controls weighing operations.

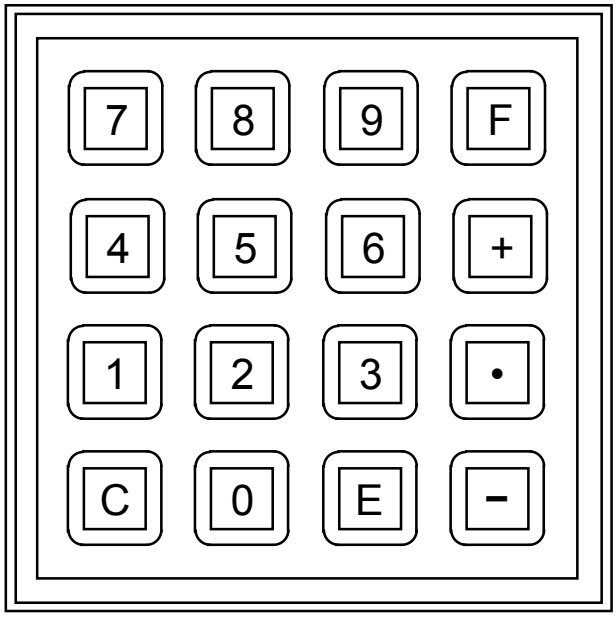


Figure 4-1: Driver Station Keypad

When the driver station is used as an unattended terminal with WinBridge software, the keys are programmed to perform the following functions:

Numeric keys (0-9) are used to type in numbers.

Used to clear data from the display without entering it.

Used to enter data that is shown on the display.

Used to abort a transaction.

Used to scroll up through a list of options shown on the display.

Used to scroll down through a list of options shown on the display.

Used to print tickets. Press this key and then the **E** key to print a ticket for the latest transaction. Press the **1** key and then the **E** key to print a second copy of the ticket.

Unattended Mode Processing

For a typical unattended mode transaction, a vehicle would be weighed twice. For example, an empty vehicle would be weighed to determine its tare weight. Then the vehicle would be loaded and weighed to determine its gross weight. The system can be configured to print a ticket after each weighing or after the second weighing only.

1. When a vehicle arrives at the scale, the driver must enter the first input data (Contract ID or Vehicle ID) at the driver station by using a badge or typing a short code.
2. The driver station's display then prompts the driver to enter any additional data required for the transaction (see Chapter 3 for information about configuring required data). The driver can enter the data by using the keypad or by scrolling through a list of options on the driver station display (options are displayed one at a time). If data must be entered by an operator, the driver station displays a **wait** message until the operator finishes entering the data.
3. If the system's confirmation function is enabled, the driver can make changes to the input data during the first weighing. The driver does this by scrolling through the data that have been entered and using the **E** key to make changes. During the second weighing, the driver cannot change any values that have been entered.
4. Once all data have been entered correctly, the weighing takes place automatically. The driver station will display a message telling the driver whether the transaction was accepted or refused. If unattended mode is configured to print a ticket after the first weighing (see page 3-3), the driver station will print a ticket at this point. The driver can then take the ticket and leave the unattended station.
5. When the vehicle returns to the scale for its second weighing, the driver must enter the first input data again. The display will prompt the driver if any additional data must be entered. Once all data have been entered correctly, the weighing takes place automatically and the driver station prints and cuts a ticket. The driver station will display a message telling the driver whether the transaction was accepted or refused. The driver can then take the ticket and leave the unattended station. There is a timeout of ten seconds before WinBridge will accept a new transaction.

If the WinBridge system shuts down accidentally in unattended mode, it will automatically restart in unattended mode. To allow automatic startup without an operator present, the PC system on which WinBridge is installed must be set so that Windows starts automatically and WinBridge runs automatically at startup.

5 Service and Maintenance

Cleaning and Regular Maintenance

Clean the unattended driver station by wiping it with a soft cloth that has been dampened with a mild detergent. Do not use chemicals such as cellosolve or benzine. Always switch off power to the driver station when cleaning it. Power can be switched off with the auto fuse (see Figure 1-3).

Have a qualified service technician inspect the driver station regularly to make sure it is working properly. Replace the fluorescent light when needed. If the driver station includes a printer, you will need to replace the printer paper and ribbon regularly.

Replacing the Fluorescent Light

1. Open the front cover of the terminal and switch off the power supply.
2. The fluorescent light fixture is held in place by two hex head screws located on the inside top of the terminal. Loosen the two screws and remove the fixture.
3. Carefully turn the fluorescent tube until you can slide it out of the fixture.
4. Slide the new fluorescent tube into the fixture and turn it to lock it in place.
5. Then replace the light fixture and the two screws that hold it in place.

Installing Paper in the Printer

1. Set the printer to off-line operation by pressing the ON LINE button on the printer control panel (see Figure 5-1) so that the ON LINE diode is not lit.

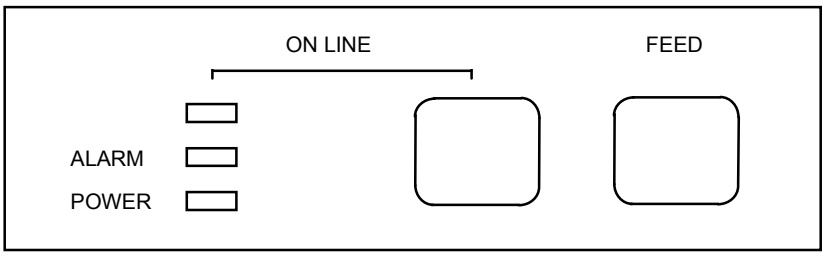


Figure 5-1: Printer Control Panel

2. Cut off the end of the new roll of printer paper so that it has a straight edge.
3. Place the shaft in the new roll of paper, and slide the ends of the shaft into the slots on either side of the holder below the printer. The paper should be positioned so that it will feed into the printer as shown in Figure 5-2.

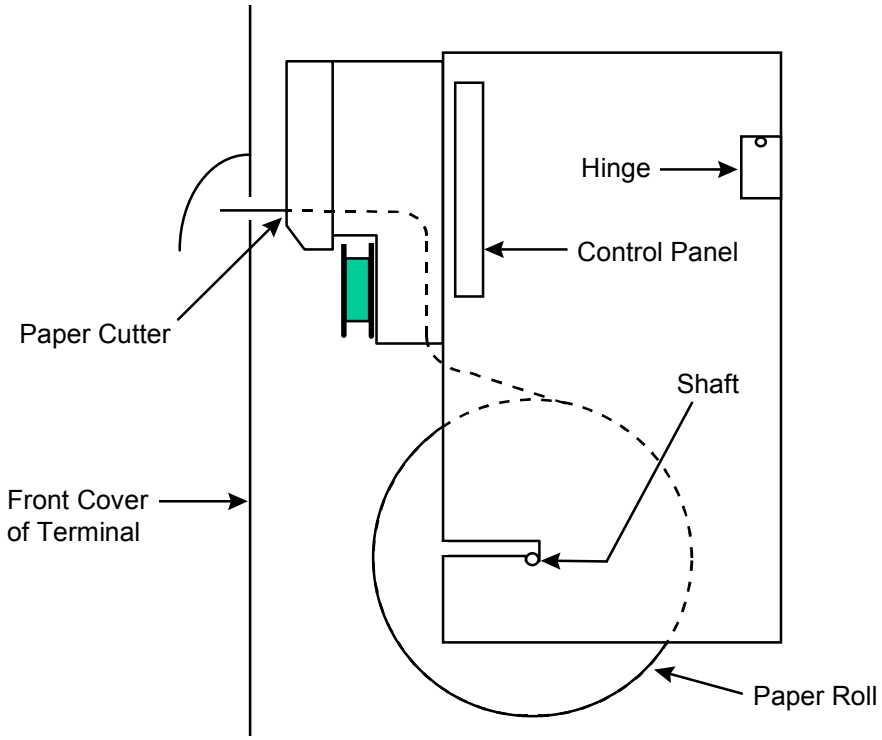


Figure 5-2: Side View of Printer

4. Manually feed the end of the paper into the bottom of the printer as shown in Figure 5-3.

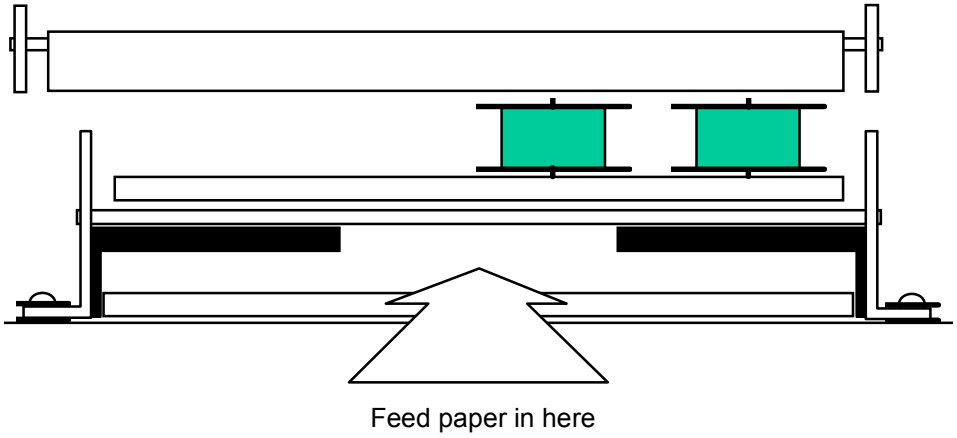


Figure 5-3: Feeding Paper into Printer

5. Then press the FEED button on the printer control panel, and hold it down until the end of the paper appears at the paper cutter.
6. Press the ON LINE button so that both the POWER and ON LINE diodes are lit.

Replacing the Printer Ribbon

1. Slide the locking mechanism to the right to release the printer cover (see Figure 5-4).

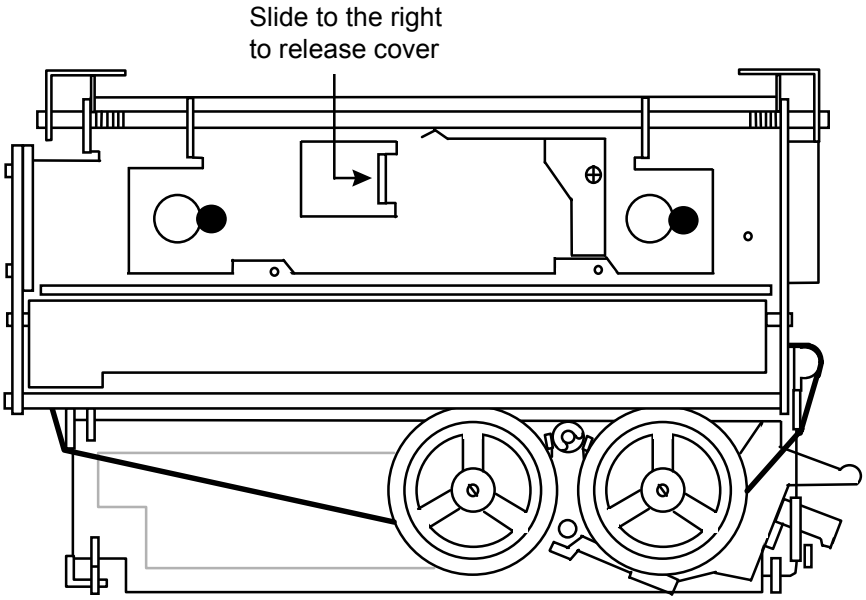


Figure 5-4: Opening the Printer Cover

2. Open the hinged printer cover to provide access to the ribbon.
3. Carefully lift one of the ribbon spools until it clicks. Move the detecting lever out of the way and lift the ribbon spool off the spool shaft. Remove the other ribbon spool the same way. Then remove the entire ribbon from the printer.
4. Install a new ribbon as shown in Figure 5-5. The full ribbon spool should be on the right-hand side. Loop the ribbon around the ribbon guides and slide it between the print head and platen.

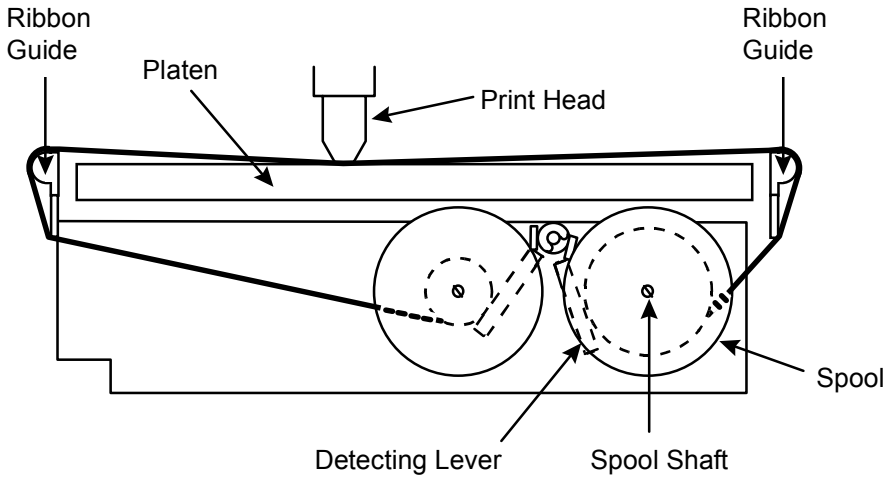


Figure 5-5: Correctly Installed Ribbon

5. Move one of the detecting levers out of the way, and place the appropriate ribbon spool on the spool shaft. Make sure that the spool's driving pins face downward (see Figure 5-6).

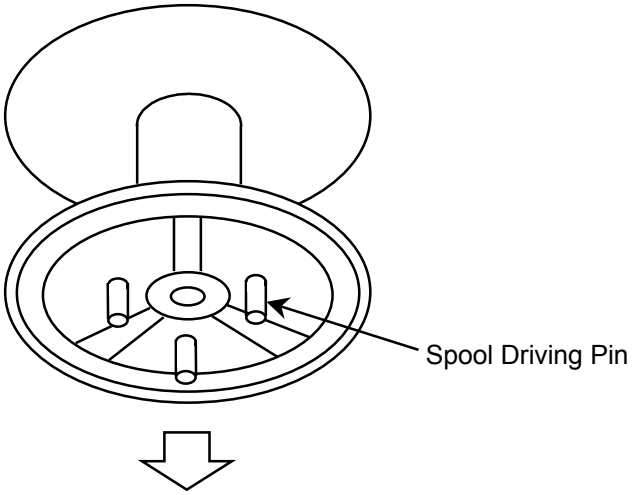


Figure 5-6: Position of Ribbon Spool

6. Press down gently on the spool until it clicks into place. The pins must fit between the spokes on the drive wheel for the spool to lock into place. Use the same procedure to place the other ribbon spool on the remaining spool shaft. Turn the spools to take up any slack in the ribbon.

Replacing the Printer

1. Switch off the driver station's power supply.
2. Remove the power plug on the right-hand side of the printer.
3. Remove the roll of printer paper and loosen the screw located behind the paper roll.
4. Once you have removed the screw, lift the printer off the hinges on either side of the printer.
5. The printer can now be lifted out and the SUB D plug at the bottom of the printer can be unscrewed.
6. Install the new printer by following this procedure in reverse.

Switch Settings for the Printer

There are two sets of switches on the main PCB inside the DV9599-0001 printer. The standard switch settings for these are shown below:

SW1							
1	2	3	4	5	6	7	8
1	0	1	1	1	1	1	0

SW2			
1	2	3	4
X	X	1	0

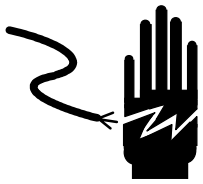
The switch settings for SW2-1 and SW2-2 depend on the character set that is selected. Settings are shown below:

ASCII Code	5b	5C	5D	7B	7C	7D	SW2-1	SW2-2
USA	[	\	]	{	|	}	on	on
Sweden	Ä	Ö	Å	ä	ö	å	off	on
Norway/Denmark	Æ	Ø	Å	æ	ø	å	off	off
Not Used							on	off

For information about the functions of the switches or any other settings on the PCB, refer to the technical manual for the printer.

6 Troubleshooting

If a WinBridge unattended installation is not working properly, try to isolate the problem by checking each component in the system.



⚠ WARNING

PERMIT ONLY QUALIFIED PERSONNEL TO SERVICE THIS EQUIPMENT. EXERCISE CARE WHEN MAKING CHECKS, TESTS, AND ADJUSTMENTS THAT MUST BE MADE WITH POWER ON. FAILING TO OBSERVE THESE PRECAUTIONS CAN RESULT IN BODILY HARM.

Check Wiring

Power Supply Connection

Check the power supply connection to the unattended driver station.

- Make sure the power supply cable is wired correctly at the driver station.
- Make sure the power supply switch inside the driver station is turned on.
- Make sure the printer is on-line (on-line diode on the printer control panel is lit).

WinBridge PC Connection

Check the cable connecting the unattended driver station to the WinBridge PC.

- Make sure the connections are wired correctly at the driver station, converter box, and PC.
- Make sure that the converter box is working (its lights should be on).

Check WinBridge Installation

Problems running unattended transactions are sometimes caused by the WinBridge installation. You can use the Windows HyperTerminal to test the WinBridge installation to make sure it is operating correctly in unattended mode.

1. Disconnect the COM line (the cable connecting the converter box to the PC) from the WinBridge PC.
2. Use a cable to connect the COM port on the WinBridge PC to the COM port on a laptop computer or other PC that has Windows HyperTerminal installed on it.

3. Start the HyperTerminal. Make sure that the setup parameters match those used for the driver station (4,800 baud, 8 data bits, no parity bits, 1 stop bit, and no flow control). Make sure that the correct COM port is used on both computers.
4. Set the WinBridge installation to unattended mode (the **Unattended** button on the Vehicle Processing Screen should be green).
5. Run a test unattended transaction:
   - The prompt for the first input data (for example, **Vehicle:**) should appear on the HyperTerminal screen.
   - At the HyperTerminal, type the ID number used as the first input data and then press the ENTER key.
   - If additional data is required for the transaction, enter it at the HyperTerminal. If the data is displayed on the HyperTerminal screen, simply press the ENTER key to accept it.
   - When the **Weight** form appears on the WinBridge PC screen, click the **Scale** button to take a weight reading.
   - If the transaction is completed successfully, the **Transaction Accepted!** message will appear on the HyperTerminal screen.

This indicates that the WinBridge installation is processing the transaction correctly. If the transaction is not accepted, the WinBridge installation is probably the cause of the problem.

NOTE: To be able to enter a weight manually, you will need to add the following wizard at the bottom of your Wbridge.ini file:

[Wizard]

Manual=1

WinBridge Error Messages

If the unattended driver station displays the **Transaction Aborted** message, turn off unattended mode (click the **Unattended** button on the Vehicle Processing Screen so that it is red). Run the transaction again with unattended mode off. WinBridge should display an error message to indicate the cause of the problem. For example, it might display the message: **Product temporarily disabled**.

Printer Timeout

If the driver station's printer is not printing the entire ticket for a transaction, check the printer timeout setting. The timeout can be changed from the **Unattended Mode Parameters** screen in the WinBridge Configurator Program. A timeout of 20 seconds is normally enough to allow the entire ticket to be printed.

7 Parts and Accessories

Refer to the following drawings and table when ordering parts for an unattended driver station.

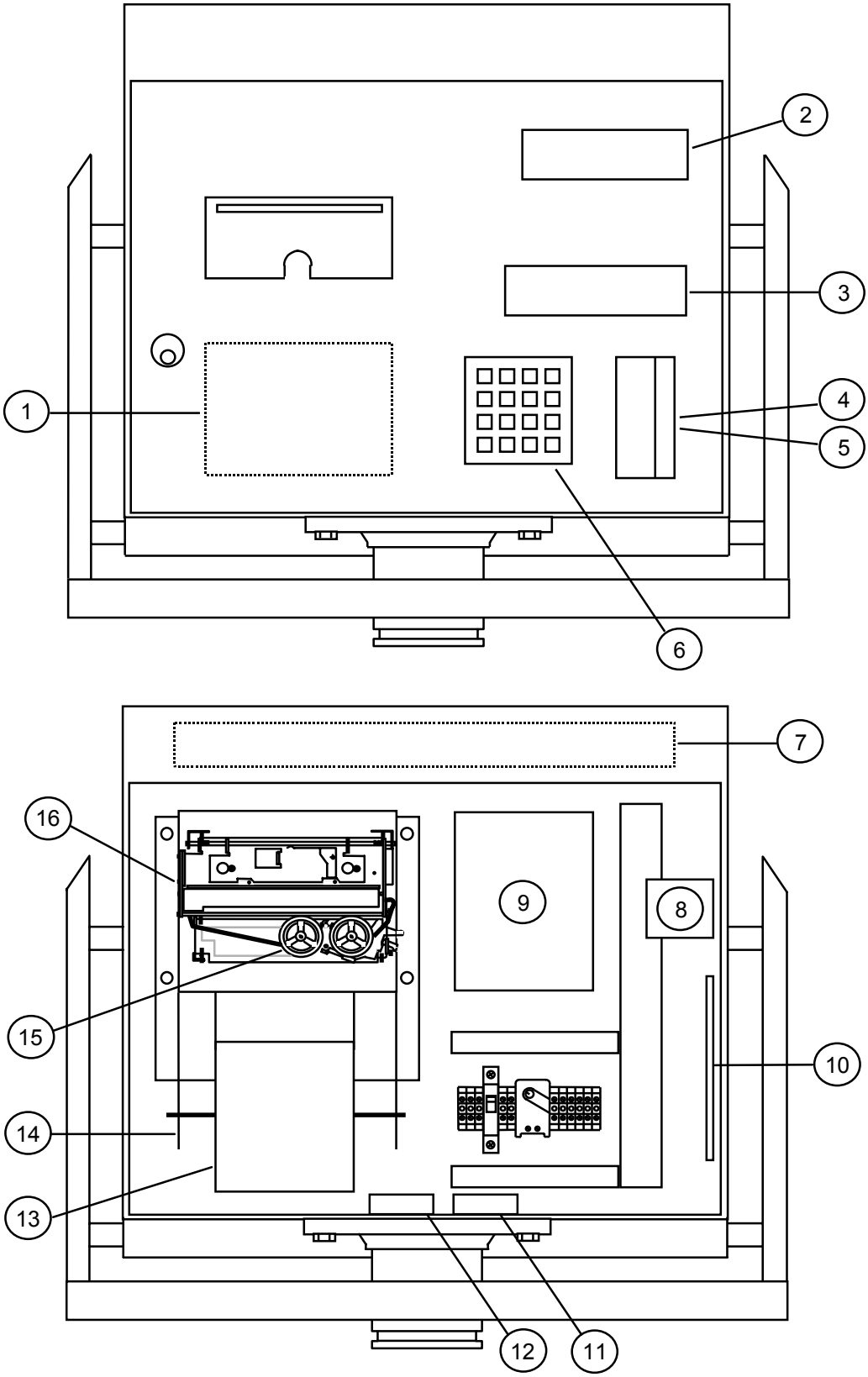


Figure 7-1: Parts for Unattended Driver Station

Reference No.	Part Number	Description
1	MZ0302000108	Proximity Card Reader
2	MZ0405000023	Weight Display
3	MZ0405000022	Display
4	MZ0302000109	Magnetic Code Slot Reader
5	MZ0302000110	Bar Code Slot Reader
6	MZ0308000020	Keyboard with Keypad
--	MZ0308000021	Set of Keypads for Keyboard
7	MZ0401000045	Fluorescent Tube, FTD 15W/83
8	MZ1107000015	Heating Element, 15W
9	MZ0301000041	Power Supply
10	MZ0302000111	DV9502 Printed Circuit Board
11	MZ0302000112	Signal Filter
12	MZ0302000113	Main Filter
13	MZ0303000089	Printer Paper
14	MZ1402000071	Holder for Printer Paper
15	MZ0303000088	Printer Ribbon
16	MZ0303000086	Printer
Not Shown	MZ1402000072	Wall Mounting Bracket
Not Shown	MZ0408000009	Loudspeaker

Table 7-1: Parts for Unattended Driver Station

METTLER TOLEDO

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If you have suggestions concerning this publication, please complete this form and fax it to (614) 841-7295

Publication Name: METTLER TOLEDO WinBridge Unattended Driver Station Technical Manual

Publication Part Number: 15666900A **Publication Date: 12/00**

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☐ **Technical Accuracy**	☐ Text ☐ Illustration	
☐ **Completeness** **What information is missing?**	☐ Procedure/step ☐ Illustration ☐ Definition ☐ Example ☐ Guideline ☐ Feature ☐ Explanation ☐ Other (please explain below)	☐ *Info. in manual* ☐ *Info. not in manual*
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