

# Service/Installation Instructions

# MS-860 Mini-Slot<sup>™</sup> Scanner

Purpose Of This Document	The Metrologic Mini-Slot <sup>™</sup> Scanner (PA02710100) is an optional feature for a G- SITE <sup>™</sup> system. This manual provides instructions for installing and servicing a scanner. We recommend that you read the Metrologic INSTALLATION MANUAL FOR THE METROLOGIC MS-860 MINI-SLOT <sup>™</sup> LASER BAR CODE SCANNER provided with the scanner for product information (example: safety, handling, etc.). Included with the scanner is a 6 foot data cable.
	Note: Some customer specific software does not support Scanner. Call Gilbarco Field Engineering if you have any questions.
Site Criteria	Install all circuit conductors in conduit in accordance with local codes, National Electrical Code NFPA 70, and Automotive and Marine Service Station Code NFPA 30A. Do not use metal conduit for equipment grounding; install an insulated green grounding conductor with each circuit. Minimum conductor size is 14 AWG.
Related Documents	MS-860 Metrologic Mini-Slot™ Scanner Installation Manual
Peripheral Equipment Requirements	<ol> <li>Must be UL listed</li> <li>Must have an Electronics Industries Association (EIA) Standard RS232 communication protocol</li> <li>Must not be installed over a hazardous location</li> </ol>
Environmental Requirements	Temperature: 50°F (10°C) to 95°F (35°C) Relative Humidity: 20% to 80%
Specifications	Power Cord Length: 6' long Power Requirement: 26 watts, 3A @ 115VAC, 47-60 Hz
	Note: An isolated ground outlet (same circuit as $TCR^{TM}$ -15 console) is required.

## Parts List

Item	Part Number	Description
1	Q12651-01	Data Cable & Power Supply Assy.*
1	Q12651-06	MS-860 Scanner with Power Supply and Data Cable
1	Q12651-07	Small mounting frame. (Included with scanner).
1	Q12651-08	Adapter Plate (used with replacing MS- 260 scanner).
1	PA02710100	MS-860 scanner

\*Note: This is the same data cable and power supply assembly used for MS-700 scanners.

Scanner Dimensions (See Figure 2)	Length - 7.1" Width - 6.9" Depth - 3.75"	
Site Preparation	<ul> <li>Decide with station manager where to install the scanner in the counter.</li> <li>Determine if the scanner replaces an MS-260 Mini-Slot<sup>™</sup> scanner or if it is a new installation.</li> </ul>	
	<ul> <li>Gilbarco recommends the following:</li> <li>within reach of the cashier</li> <li>length of the scanner must be at a 90° angle to front and back of counter</li> <li>centered on the counter.</li> </ul>	
Installation of Scanner	<ul> <li>Note: 1. For W02462, TCR<sup>™</sup>-15 console firmware version 10.0 (or greater) for 522 Printer or version 20.0 (or greater) for 2666 Printer are acceptable.</li> <li>Note: 2. For W02096, TCR<sup>™</sup>-15 console firmware version 30.8 (or greater) for 522 Printer or version 40.1 (or greater) for 2666 Printer must be installed.</li> <li>Note: 3. Some software versions may require that Scanner Installed is set to YES in Station Operation Options (see customer specific Manager/Supervisor Manual) or is set to YES in the Initial System Configuration screens.</li> </ul>	
Perform The Following Steps For New MS-860 Scanner Installations	<ol> <li>Mark the counter using the scanner mount frame template as a guide. (see Figure 2)</li> <li>Drill 1/2" diameter holes at the four corners.</li> <li>Cut counter.</li> </ol>	
	4. Insert scanner mount frame into hole.	

- 5. Remove the small plate on the side of the scanner to have access to the DIP switches.
- 6. Set scanner switches observing proper ESD grounding procedures before installing scanner in counter. The switches should be set as follows:

DS4	DS3	DS2	DS1
1 OFF	1 OFF	1 ON	1 ON
2 OFF	2 OFF	2 ON	2 OFF
3 ON*	3 OFF	3 OFF	3 OFF
4 ON	4 OFF	4 OFF	4 OFF
	5 OFF	5 ON	5 ON
	6 OFF	6 OFF	6 OFF
	7 ON	7 ON	7 OFF
	8 ON	8 ON	8 ON

<sup>\*</sup>Note: This sets unit to turn off if not used for 30 minutes. Switch 4 on DS4 may not be present.

- 7. Route scanner cord through opening of scanner mount frame.
- 8. Carefully place scanner into scanner mount frame for a flush fit.
- 9. Turn OFF TCR<sup>TM</sup>-15 console power and turn console on its side.
- 10. Change console firmware if required.
- 11. Connect adapter cable 9-pin connector (P207) to the TCR<sup>™</sup>-15 console Wand Reader port (J207).
- 12. Connect adapter cable 15-pin connector to scanner15-pin connector.

Note: Make all cable connections before powering transformer.

- 13. Plug scanner power cord into appropriate receptacle.
- 14. Scan an item to verify proper operation of the scanner. Red LED flashes.
- 15. Turn on TCR<sup>™</sup>-15 console power

#### 16. Setting Up Scanner

- Enter Mode to program UPC Item Information on your TCR-15 Console.
- Scan item.
- If scanner operates correctly, the screen for the UPC displays on the console.

Note: Refer to User Documentation for specific steps of programming UPC's.

Perform The Following Steps If A MS-260 Scanner Is Being Replaced With A MS-860 Scanner

- 1. Set DIP switches.
- 2. Disconnect existing scanner.
- 3. Remove scanner from counter.
- 4. Insert adapter plate (Q12651-08) into existing cut-out.
- 5. Route scanner cord through opening of scanner adapter plate.
- 6. With power OFF, position scanner in the center of the adapter plate.
- 7. Follow steps 9-16 from the previous installation for proper operation.

### Figure 1: MS-860 Scanner



Maintenance	To clean glass on scanner, use household glass cleaner and a soft cloth.		
Testing The Scanner	Test 1: Scan item with data cable NOT connected to TCR <sup>™</sup> -15 console. Test passes if scanner beeps and the red LED flashes.		
	Test 2: Scan item with data cable connected to TCR-15 console (PLU/PLC data must first be entered into console in Program/Manager Mode), and item data updated. If scanner does not beep and flash red LED, test failed. If scanner beeps, flashes LED but T-15 shows no response or a UPC Scan Error test failed.		
	Before you make a service call, telephone the site to determine if the scanner has failed. If you cannot determine the scanner problem over the phone, order replacement from Gilbarco Spare Parts or Gilbarco Tele-Support (after hours).		
	Gilbarco requires you to replace the existing problem scanner with a new scanner if the scanner stops scanning.		
Phone Questions	1. Is green light on? If not, place your hand on triangular touch plate to turn scanner on.		
	2. Has the scanner worked in the past?		
	3. Is the scanner glass clean? If not, have cashier clean glass and scan item again.		
	4. Did the cashier try to scan another item? If not, have the cashier scan another item.		
	5. Did scanner beep or blink (red light) when item was scanned?		
	6. When the item was scanned, did UPC NOT FOUND display on console screen? If it did, UPC is not programmed in the system by the manager. Have manager program the UPC number and do updates.		
	7. Before the scanner stopped working, did the cashier have to scan an item several times before the scanner detected the item?		
Visiting the Site	<ul> <li>Take to the site:</li> <li>Scanner</li> <li>Scanner Data Cable</li> <li>TCR<sup>™</sup>-15 Logic Board and required firmware</li> <li>TCR-15 I/O Chassis</li> </ul>		

### Steps

- 1. Review phone questions. If scanner does not work, proceed with Step 2.
- 2. Check TCR-15 Console firmware. If the console logic board is a W02096 the console should have V30.8 (or greater) for 522 Printer installed, 40.1 or greater for 2666 Printer. For W02462 console logic board all version of 10.X and 20.X are compatible. If the version of firmware installed is not correct, replace firmware. If the correct firmware is installed, proceed with Step 3.
- 3. Perform Test 1 on existing scanner. If scanner fails test, replace with new scanner. If scanner passes test, proceed with Step 4.
- 4. Perform Test 2 on existing scanner. If scanner fails test, proceed with Step 5.
- 5. Place new scanner on counter. Perform Tests 1 and 2. If new scanner passes test, install new scanner on counter. If new scanner fails test, proceed with Step 6.
- 6. Replace TCR-15 Console Logic Board. Perform Tests 1 and 2 with existing scanner. If scanner fails tests, proceed with Step 7.
- 7. Replace TCR<sup>™</sup>-15 I/O Chassis. Perform Tests 1 and 2 with existing scanner. If scanner fails tests, perform Steps above again.



Figure 2: Scanner Mount Frame Template

1/8" (3MM) RADIUS ALLOWED AT EACH CORNER



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