

Re: Certification for Schrader-Bridgeport
Remote Tire Pressure Transmitter
PN: 70503025
FCC ID: MRXTSR300
CANADA:

USER'S MANUAL

The following is a draft copy of the users manual. The p. 2 contains the following statement:

This device complies with Part 15 of the FCC Rules and with RS-210 of Industry Canada.
Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment.

EXHIBIT J

Page 1 of 21

U of Mich file 415031-964

DRAFT/CONFIDENTIAL

05 July 1998



The Schrader Smart Valve™
Remote Tire Pressure Monitoring System
Owner's Manual
&
Installer Information

SEPTEMBER 1998

EXHIBIT J

Page 1-20 of 21

U of Mich file 415031-964

DRAFT/CONFIDENTIAL

DRAFT/CONFIDENTIAL

**The Schrader Smart Valve™
Remote Tire Pressure Monitoring System
Owner's Manual
&
Installer Information**

**THANK YOUR FOR PURCHASING THE SCHRADER SMART
VALVE™ SYSTEM. WE WILL REFER TO IT AS THE SSV™ OR
SSV™ SYSTEM IN THE REST OF THIS MANUAL**

We here at Schrader-Bridgeport International strive for World-Class quality as the primary means of increasing value to our customers, superior productivity, and quick market response. Our broad based capability in product development and manufacturing technology has brought to the automotive and truck markets the best new features available today for safety, performance, and savings. We will continue to strive for product improvements in the SSV™ System, as well as all of our other products that we manufacture and develop in the future and we welcome your comments.

FCC REGULATIONS

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
 - (2) This device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications not expressly approved by the party responsible for compliance could void the users authority to operate the equipment.

LIMITED WARRANTY

Schrader Bridgeport International, Inc. hereby provides a warranty which covers manufacturer's defects in workmanship and materials for ONE (1) YEAR from date of purchase, or FIFTEEN (15) MONTHS from date of manufacture, whichever comes first. It does not cover any unit that is damaged beyond normal usage or if it was not properly installed in accordance with this Owner's Manual.

The Smart Valve warranty will be honored only by Schrader Bridgeport International, Incorporated. The owner will be required to submit a dated proof-of-purchase and return of all components in the Smart Valve system in order for Schrader Bridgeport International, Incorporated to determine whether there is a warrantable condition associated with materials and/or manufacturing workmanship.

Please address any questions to Schrader Bridgeport International, Inc. 500 South 45th Street, Muskogee, OK 74403 Phone: 1-800-331-4062 or e-mail your comments from our Web Site at <http://www.schrader-bridgeport.net>.

EXHIBIT J

Page 2-20 of 21

U of Mich file 415031- 964

DRAFT/CONFIDENTIAL

WARNINGS

1. Your new SSV™ System is designed to identify when a low tire condition is present, and activates an alert warning when your tire pressure is low. It is the responsibility of the driver to react promptly and with discretion to alerts and warnings. Abnormal tire pressure should be corrected at the earliest opportunity. Always inflate your tires to the vehicle manufacturer's recommended pressure.
2. Use of the SSV™ System requires that it has been properly installed and programmed by qualified personnel in accordance with this Owner's Manual.
3. Do NOT use temporary resealing or reinflation products containing internal sealers or propellants in any tire/wheel assembly containing a SSV™ Sensor. Use of these chemicals can block the fill port of the SSV™ and will nullify any manufacturer's warranty, expressed or implied.
4. If your Display Module is connected to an unkeyed cigarette lighter socket unplug it before you park the vehicle for extended periods of time (more than three days) to avoid draining your car's battery. On keyed cigarette lighters the operator will see the key lights turn off and the driver information screen will clear when the ignition switch is turned off.
5. There will be a 6 to 8 minute delay in warning the operator in the event of a failed sensor. This is to minimize false failure reports to the driver.
6. THIS SYSTEM IS SUITABLE FOR USE IN PASSENGER AND LIGHT TRUCK TIRES UP TO LOAD RANGE C (MAXIMUM COLD INFLATION PRESSURE 50 PSI)

INTRODUCTION: THE SSV™ SYSTEM

Thank you for investing in the security and convenience of the Schrader Smart Valve system for remote measuring tire pressure. The first section of this brochure describe the operation and features of your system.

The second section provides step-by-step instructions for the installing technician or do-it-yourself customer.

The final section, Troubleshooting, describes common problems and how to handle them.

EXHIBIT J

Page 3-20 of 21

U of Mich file 415031-96A

SECTION I

GENERAL DESCRIPTION


Your new Schrader Smart Valve System consists of a compact radio transmitter installed in each wheel and a radio receiver mounted atop the dash or on the windshield. Your Receiver Display will either be the **DELUXE DISPLAY** (depicts tire pressure by wheel position) or the **SIMPLE DISPLAY** ("Check Tire Pressure" message and green LED system diagnostics light). The transmitters measure your tire pressure periodically while driving and send the information to the receiver, where decisions are made to advise you of any problems.

There are two ways this system will operate. **Keyed or Non-keyed**. The **Keyed** (ignition control) systems will turn on every time you start your car. The **Non-keyed** (cigarette lighter control) systems will turn on when first plugged into the cigarette lighter (you may always check a non-keyed system by unplugging it, waiting a few seconds, and then plugging it back in). In some vehicles power to the cigarette lighter is turned on and off with a key. A system in these cars will act as a **Keyed** system.

SIMPLE DISPLAY OPERATION

If you have a **SIMPLE DISPLAY**, each time the system powers up both the green light and warning message will illuminate, along with an audible alarm which beeps once.

The indicator lights and alarm sound somewhat differently depending upon how your system was installed, but always functions in a sensible manner similar to other warning devices on your vehicle. The system regularly performs a variety of self checks to assure uninterrupted protection. If your system gives false warning or indications other than those mentioned, refer to the troubleshooting section described in this manual or see your local dealer.

 In some cars, power to the cigarette lighter is turned on and off with the key. A system in these car will behave as a **Keyed** system !

 If the lights stay on after starting there is a problem. Refer to the Troubleshooting Section III.

For the **SIMPLE DISPLAY**, a green light on the receiver illuminates when all four of the Smart Valves have reported tire pressure (speeds above 15-20 mph) letting you know the system is working. This gives quick assurance the system is ready. The time it takes for the green light to come on may vary from trip to trip. This is **NORMAL**. Both the Receiver and the Smart Valves will go to "Sleep" approximately 15 minutes after your car stops or slows below 20 mph. The green light tells you if the system is "awake" or "asleep".


 Why so complicated?

Letting the system go to sleep prevents it from draining your car's battery when parked. If you have Non-keyed system and park for long periods – 3 days or more - you should disconnect the Smart Valve Receiver. If you have a Keyed system, you need not worry about it.

DRAFT/CONFIDENTIAL


OPERATION OF THE SIMPLE DISPLAY

If a tire is low (below 18 PSI), the Display Module displays **CHECK TIRE PRESSURE** and sounds an alarm for 2 seconds. The warning will remain on until the system goes to "sleep", is switched off or until the Smart Valve reports the pressure has risen above 18 PSI. This warning means you should check and inflate your tires to the vehicle manufacture's recommended pressure (typically written on a data plate on the inside of the driver side door) at the earliest safe opportunity. Have the tire repaired if the problem persists or if you suspect a leak.

 Reception will vary from vehicle to vehicle.

WARNING: EXTENDED DRIVING WITH LOW TIRE PRESSURE WILL SHORTEN THE LIFE OF THE TIRE AND MAY RESULT IN A BLOWOUT. PROPER INFLATION MAXIMIZES TIRE LIFE, FUEL ECONOMY AND SAFETY.

If the offending tire is not inflated, the warning will return when you begin driving again. If any one of your tires reaches a critically low pressure or is "flat" (below 10 PSI), the receiver will sound an alarm for 10 seconds and the **CHECK TIRE PRESSURE** message will appear and flash continuously. This means you have a **FLAT TIRE**. **If your car is outfitted with Run-Flat tires drive at a minimum safe speed and do not exceed 55 mph., or pull over safely and change your tire using the spare.** The warning will remain on until the system goes to "sleep" (if vehicle is not in motion for 15 minutes), is switched off or until the Smart Valve reports the pressure has risen above 10 PSI. If the offending tire is not inflated, the warning will return when you begin driving again. The **CHECK TIRE PRESSURE** message should stay off while driving. If it comes on steadily or flashing, check your tires. The green light should always come on steady when driving. If it stays off or flashes, your system has a problem. Please refer to the troubleshooting section.

 If you purchased Run-Flat tires with your system, you may not notice the flat tire! However, your new tires have a limited range when flat (typically 50 miles.) Extended driving will destroy the tire. Slow to 55 miles per hour and finish your trip within that range, avoiding severe cornering and abrupt maneuvers. Check the warranty information that came with your tires for more information.

The **CHECK TIRE PRESSURE** message should stay off while driving. If it comes on steadily or flashing, check your tires. The Green light should always come on steady when driving. If it stays off or flashes, your system has a problem. Please refer to the troubleshooting section.


DELUXE DISPLAY OPERATION


If you have a DELUXE DISPLAY, each time the system powers up, the display will scroll the following message: **SCHRADER SMART VALVE** followed by a **SYSTEM OK** message if system checks pass satisfactory.

The indicator lights and alarm sound somewhat differently depending upon how your system was installed, but always functions in a sensible manner similar to other warning devices on your vehicle. The system regularly performs a variety of self checks to assure uninterrupted protection. If your system gives false warning or


DRAFT/CONFIDENTIAL

indications other than those mentioned, refer to the troubleshooting section described in this manual or see your local dealer.

 In some cars, power to the cigarette lighter is turned on and off with the key. A system in these cars will behave as a Keyed system !

 If the lights stay on after starting there is a problem. Refer to the Troubleshooting Section III.

For the DELUXE DISPLAY, the display screen remains blank after power-on unless there is a problem with your SSV System. Both the Receiver and the Smart Valves will go to "Sleep" approximately 15 minutes after your car stops or slows below 20 mph.

 Why so complicated?

Letting the system go to sleep prevents it from draining you car's battery when parked. If you have a Non-keyed system and park for long periods – 3 days or more - you should disconnect the Smart Valve Receiver. If you have a Keyed system, you need not worry about it.

The Deluxe Display version of the SSV System depicts tire pressure (in pounds/sq. inch) by wheel position (LF=Left Front, RF=Right Front, RR=Right Rear, LR=Left Rear). During normal pressures and normal driving, the display will remain blank. If you wish to check your tire pressure, simply press the button on the front of the unit. Your tire pressure will be displayed by wheel position. Each wheel is displayed for 1 second. The user can speed this up by pressing the user switch to display whichever wheel position you wish to evaluate.

If a tire is low (**below 18 PSI**), the Display Module displays **LOWTIRE-XX** where XX is the wheel position (LF, LR, RR, or RF) and sounds an alarm for 2 seconds. The warning will remain on until the system goes to "sleep", is switched off or until the Smart Valve reports the pressure has risen above 18 PSI. This warning means you should check and inflate your tires to the vehicle manufacture's recommended pressure (typically written on a data plate on the inside of the driver side door) at the earliest safe opportunity. Have the tire repaired if the problem persists or if you suspect a leak.


 Reception will vary from vehicle to vehicle.

WARNING: EXTENDED DRIVING WITH LOW TIRE PRESSURE WILL SHORTEN THE LIFE OF THE TIRE AND MAY RESULT IN A BLOWOUT. PROPER INFLATION MAXIMIZES TIRE LIFE, FUEL ECONOMY AND SAFETY.

If the offending tire is not inflated, the warning will return when you begin driving again. If a tire is critically low (**below 10 PSI**), the Display Module flashes **FLAT TIRE 55 MPH MAX** and the buzzer will sound on and off for 10 seconds. This means you have a FLAT TIRE. **If your car is outfitted with Run-Flat tires drive at a minimum safe speed and do not exceed 55 mph., or pull over safely and change your tire using the spare.** The warning will remain on until the system goes to "sleep" (if vehicle is not in motion for 15 minutes), is switched off or until the Smart Valve reports the pressure has risen above 10 PSI. If the offending tire is not inflated, the warning will return when you begin driving again. The **FLAT TIRE 55 MPH MAX** message should stay off while driving. If it comes on steadily or flashing, check your tires for proper inflation using a tire gauge.

DRAFT/CONFIDENTIAL

If a transmitter fails within a 5 (five) minute period, the data screen will read **TX FAIL-XX** where XX is the wheel position. If this occurs your system is no longer monitoring pressure for that tire. Have your system serviced.

 If you purchased Run-Flat tires with your system, you may not notice the flat tire! However, your new tires have a limited range when flat (typically 50 miles.) Extended driving will destroy the tire. Slow to 55 miles per hour and finish your trip within that range, avoiding severe cornering and abrupt maneuvers. Check the warranty information that came with your tires for more information.

INSTALLATION

DISPLAY MODULE INSTALLATION: SIMPLE AND DELUXE DISPLAYS

1. SELECT A MOUNTING LOCATION FOR THE DISPLAY MODULE

- a. Location must allow good receiver reception
- b. Warning display must be visible to the driver
- c. Location should provide neat placement or hiding of wires

NOTE: Good reception and visibility are usually found near the center of the windshield, above the rear view mirror or just above the dashboard. Other locations in, on, and under the dash may provide suitable performance. Poor location will result in missed messages from the Smart Valves, impairing system performance.

1. CHOOSE A POWER SOURCE

- a. +12 volts and ground is the required connection for the receiver.
- b. For the most effective protection, it should be wired directly to a 12 volt power source switched by the ignition key.
- c. The vehicle's cigarette lighter/power outlet may be used for temporary installation. The system cannot provide warnings if power is lost. Permanent wiring is strongly recommended.
- d. Cigarette lighter/outlets may always be on or switched on by the ignition key. This varies by model and manufacturer. A switched power source is preferred. See your vehicle instruction manual for details on which system you have or see your dealer.
- e. The Display Module features very low power consumption with the vehicle parked. When parking for very long periods (three days or more) the receiver should be disconnected to avoid draining the vehicle's battery. A switched power source eliminates this inconvenience.
- f. The Display Module provides bulb check functions when power is applied, similar to dash warning lights. This feature works only when connected to a switched power source.

1. MOUNT THE DISPLAY MODULE IN THE CHOSEN LOCATION

- a. Assemble bracket (Screw, barrel nut, bracket, suction cup).
- b. Adjust for driver view & appearance
- c. Snap to case, secure with screws
- d. Clean window and suction cups with included alcohol wipe
- e. Press firmly to windshield

1. CONNECT THE POWER CORD TO THE VEHICLE

DRAFT/CONFIDENTIAL

- a. Press plug firmly in jack on left side of receiver
- b. Route cord to desired location
- c. Wire the striped lead to +12 volts
- d. Wire the other lead to ground metal feature OR
- e. Plug cord into cigarette lighter/outlet
- f. Do not dress/hide the power cord until system has been tested

1. **SIMPLE DISPLAY: PERFORM "LEARN" PROCEDURE:** After the Display Module has been mounted it must be programmed with the unique identity codes of the four wheel sensors already installed. After the transmitters have been learned, the Display Module is reset and is ready to monitor tire pressure. **The best locations for the receiver are above the rear view mirror or on top of the dashboard.**

- a. **PERFORM LEARN PROCEDURE AFTER SCHRADER SMART VALVES HAVE BEEN INSTALLED.**
- b. Use a paper clip or similar object to press the internal switch in the bottom of the receiver for at least 5 seconds.
- c. "Learn Mode" is activated when the green LED flashes.
- d. Drive the vehicle above 20 mph for approximately 5 minutes until the green LED illuminates permanently OR USE TIRE PRESSURE SENSOR PROGRAMMING MAGNET TOOL J41760 from Kent-Moore Products ordered at 1-800-345-2233. If using the magnet tool:
 - I. START at the Left Front Tire and proceed around the car clockwise (LF, RF, RR, then LR tire). You must do it in this order for the learn procedure to be successful.
 - II. Hold the tool over the Smart Valve for 30 seconds. Proceed to the next tire until all four have been activated by the magnet tool. The receiver will "beep" upon reception of a learn code from each transmitter.
- a. The receiver now knows which transmitters are associated with it.
- b. **YOUR SYSTEM IS NOW READY TO USE AND SAFELY MONITOR TIRE PRESSURE FOR YOUR VEHICLE.**

1. **DELUXE DISPLAY: PERFORM "LEARN" PROCEDURE:** After the Display Module has been mounted it must be programmed with the unique identity codes of the four wheel sensors already installed. After the transmitters have been learned, the Display Module is reset and is ready to monitor tire pressure. **The best locations for the receiver are above the rear view mirror or on top of the dashboard.**

- a. **PERFORM LEARN PROCEDURE AFTER SCHRADER SMART VALVES HAVE BEEN INSTALLED.**
- b. All four wheels on the vehicle **must** be inflated between **20 PSI and 30 PSI** for the receiver to learn the wheel sensors identities. **Furthermore** the wheels must be inflated in a manner such that:

Left Front Pressure > Right Front Pressure > Right Rear Pressure > Left Rear Pressure.

EXAMPLE: LF = 34 PSI RF = 32 PSI RR = 30 PSI LR = 28 PSI

- c. Use ball point pen or paper clip or similar object to press the internal switch in the bottom of the receiver for at least 5 seconds. This places the receiver in "Learn Mode". When learn mode has been activated the message **LEARN WAIT** will be displayed.

DRAFT/CONFIDENTIAL

- d. Drive the vehicle above 20 mph for approximately 5 minutes until the message **LEARN OK** is displayed OR USE TIRE PRESSURE SENSOR PROGRAMMING MAGNET TOOL J41760 from Kent-Moore Products ordered at 1-800-345-2233. If using the magnet tool:
 - I. START at the Left Front Tire and proceed around the car clockwise (LF, RF, RR, then LR tire). You must do it in this order for the learn procedure to be successful.
 - II. Hold the tool over the Smart Valve for 30 seconds. Proceed to the next tire until all four have been activated by the magnet tool. The receiver will “beep” upon reception of a learn code from each transmitter.
 - a. The receiver now knows which transmitters are associated with it.
 - b. YOUR SYSTEM IS NOW READY TO USE AND SAFELY MONITOR TIRE PRESSURE FOR YOUR VEHICLE.

Transmitter Installation – MOUNTING the Schrader Smart Valve SENSORS (Photos used with permission from the Hunter Engineering Company ©1998)

Safety Key Points

1. Wear Safety glasses at all times.
2. Keep hands clear of the upper bead roller mechanisms.
3. Be careful to avoid getting hands caught between the tire bead and wheel.
4. Run-Flat type tire sidewalls are very stiff and require safe tire iron prying techniques.
5. Use proper technique to avoid a back strain when lifting.
6. Due to potentially high inflation pressure required to seat Run-Flat type tire beads, all inflation must be performed in an OSHA approved safety cage.
7. Observe and follow equipment safety decal instructions.
8. Always follow equipment operation procedures and safety instructions.

Procedure

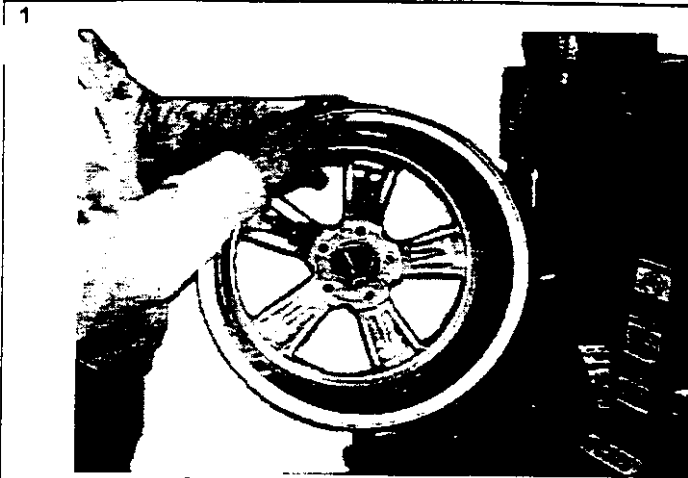
STEP	TASKS
1	Inspect the wheel for safe serviceability.
2	Verify the tire is proper size for the wheel if changing tires.
3	Properly position & secure wheel on changer.
4	Insert sensor like a normal snap-in tire valve, ensuring the sensor edge with the battery “bumps” is facing towards the tire tread surface.
5	Lube wheel flange area, bead seats and drop center balcony.
6	Position SSV™ “ahead” of anticipated bead traction “lock” position.
7	Fully lubricate the inner and outer portion of both beads of the tire.
8	Verify the direction of rotation for directional tires.
9	Position lower bead on mount head. Rotate and lock lower bead to rim traction point by hand.
10	Verify SSV™ is just ahead of traction point. Mount bottom bead by rotating wheel and tire together “as a single unit”.
11	Position SSV™ “ahead” of anticipated bead traction “lock position. Position upper bead on mount head. Install drop center and traction device(s).
12	Verify SSV™ is just ahead of traction points.

7

13

DRAFT/CONFIDENTIAL

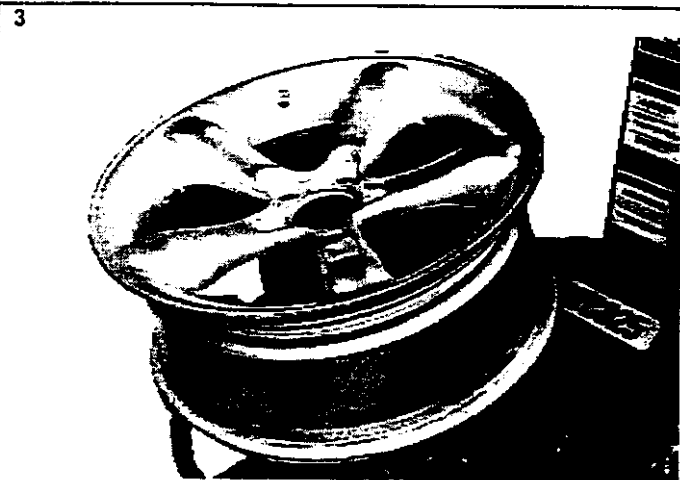
13	Rotate tire with wheel, maintaining traction. <i>Tire and wheel must rotate WITHOUT SLIPPAGE.</i>
14	Carefully mount upper bead. SSV™ ends up under mount head.
15	Verify the air outlet on the sensor is not blocked by the bead of the tire. If the SSV's™ air outlet is blocked, the tire will not inflate. Reposition the bead on the wheel to clear the SSV's™ air outlet. Do NOT inflate on tire changer!
16	Remove tire and wheel from tire changer for inflation in approved safety cage.



Inspect the wheel for safe serviceability.



Verify the tire is proper size for the wheel if changing tires.



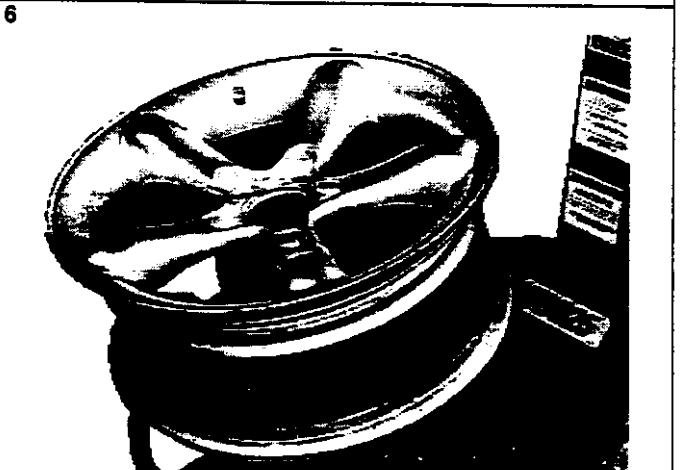
Properly position & secure wheel on changer.

4

Insert the SSV sensor like a normal snap-in tire valve, ensuring the sensor edge with the battery "bumps" is facing towards the tire tread surface.



Lube wheel flange area, bead seats and drop center balcony.



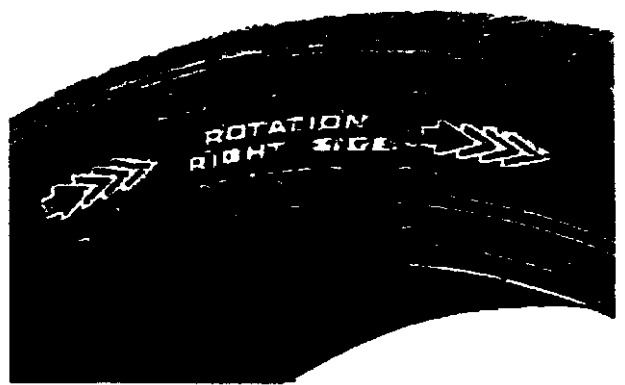
Position SSV™ "ahead" of anticipated bead traction "lock" position.

7



Fully lubricate the inner and outer portion of both beads of the tire.

8



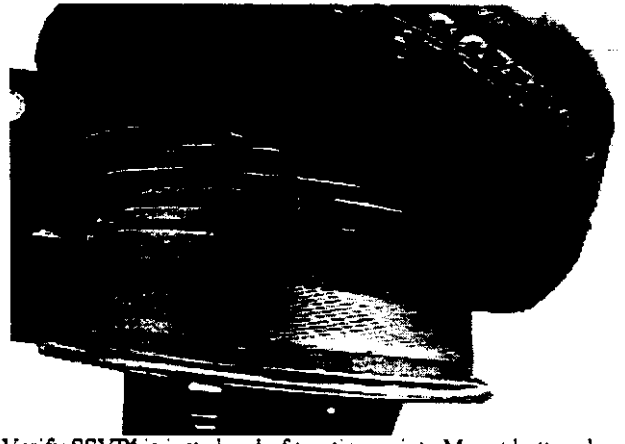
Verify the direction of rotation for directional tires.

9



Position lower bead on mount head. Rotate and lock lower bead to rim traction point by hand.

10



Verify SSV™ is just ahead of traction point. Mount bottom bead by rotating wheel and tire together "as a single unit".

11



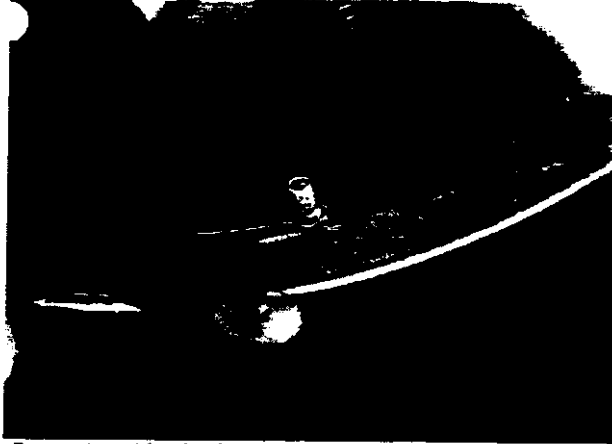
Position SSV™ "ahead" of anticipated bead traction "lock position". Position upper bead on mount head.

12



Verify SSV™ is just ahead of traction points.

13



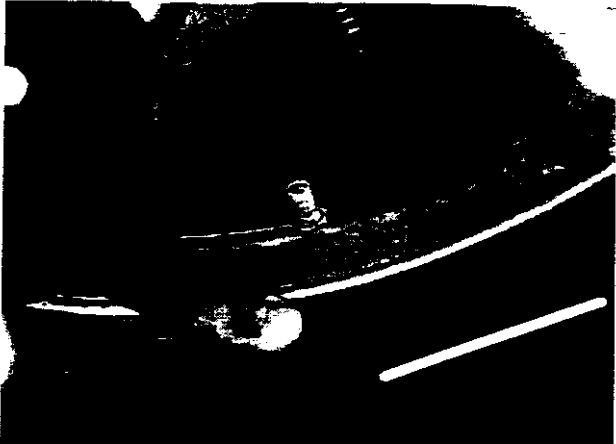
Rotate tire with wheel, maintaining traction. *Tire and wheel must rotate WITHOUT SLIPPAGE.*

14



Carefully mount upper bead. SSV™ ends up under mount head.

15



Verify the air outlet on the sensor is not blocked by the bead of the tire. Repositioning of tire bead may be necessary.

WARNING!
Always use an approved inflation cage and remote air gauge when inflating and seating beads on Run-Flat type tires.

DRAFT/CONFIDENTIAL

Transmitter Installation – DISMOUNTING the Schrader Smart Valve SENSORS (Photos used with permission from the Hunter Engineering Company ©1998)

Safety Key Points

1. Wear Safety glasses at all times.
2. Use caution to prevent the valve core from shooting out of the stem.
3. Keep hands and feet clear of the bead breaker mechanism.
4. Keep hands clear of the upper bead roller mechanisms.
5. Be careful to avoid getting hands caught between the tire bead and wheel.
6. Run-Flat type tire sidewalls are very stiff and require safe tire iron prying techniques.
7. Use proper technique to avoid a back strain when lifting.
8. Observe and follow equipment safety decal instructions.
9. Always follow equipment operation procedures and safety instructions.

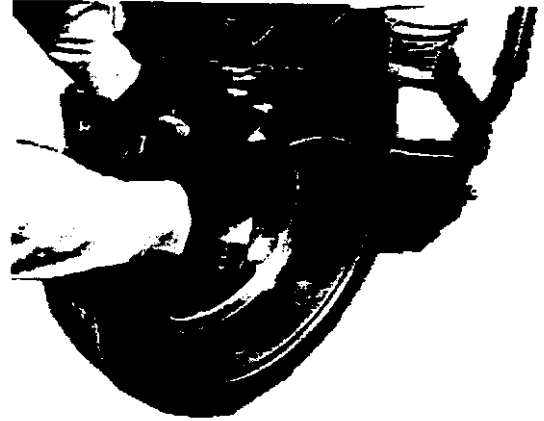
Procedure

STEP	TASKS
1	Remove valve core and deflate the tire if necessary. DO NOT CUT OUT THE SSV OR YOU WILL DAMAGE IT BEYOND RE-USE.
2	Liberally lubricate tire, SSV stem and rim during bead loosening. Use multiple short strokes or shovel.
3	Properly clamp and secure the wheel on the changer.
4	Position upper bead into drop center opposite dismount head with drop center tools or techniques.
5	Lubricate "HM" bead lever.
6	Insert bead lever (with protective sleeve) and pry top bead onto dismount head.
7	As required, rotate briefly counterclockwise to unfurl the toe of the bead on the dismount head.
8	Carefully rotate clockwise to remove upper bead. Remove drop center tools.
9	Carefully PUSH the SSV sensor out of the rim hole. Remove the sensor from inside the tire. This may require some lubrication. DO NOT CUT OUT THE SSV OR YOU WILL DAMAGE IT BEYOND RE-USE.
10	Position lower bead opposite dismount head into the drop center. Insert bead lever.
11	Carefully rotate to dismount lower bead and remove tire from rim.

1

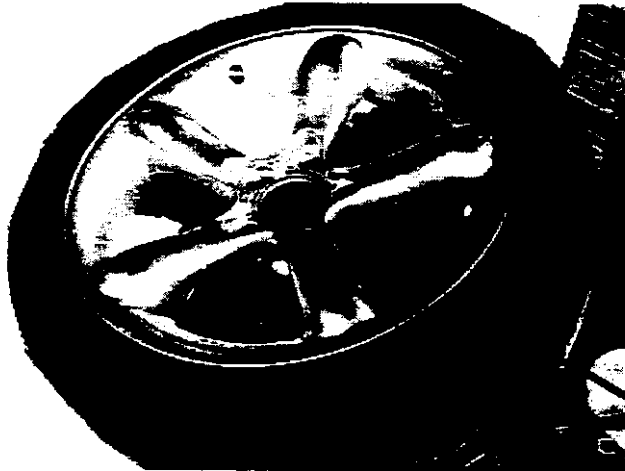
Remove valve core and deflate the tire if necessary. **DO NOT CUT OUT THE SSV OR YOU WILL DAMAGE IT BEYOND RE-USE.**

2



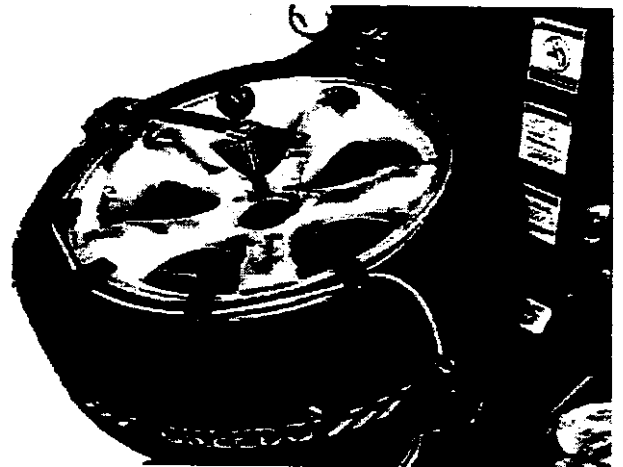
Liberalily lubricate tire, SSV stem and rim during bead loosening. Use multiple short strokes or shovel.

3



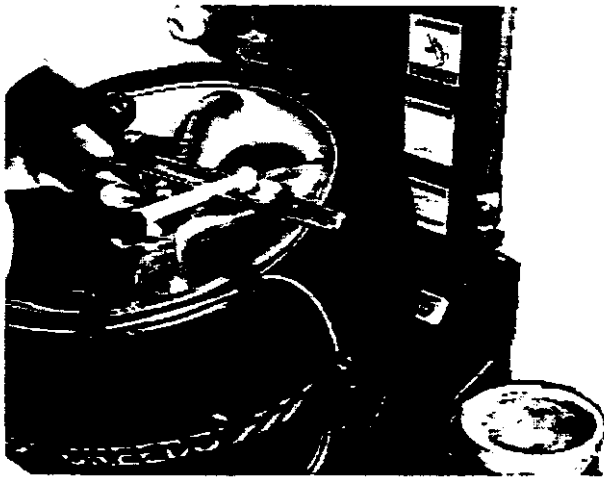
Properly clamp and secure the wheel on the changer.

4



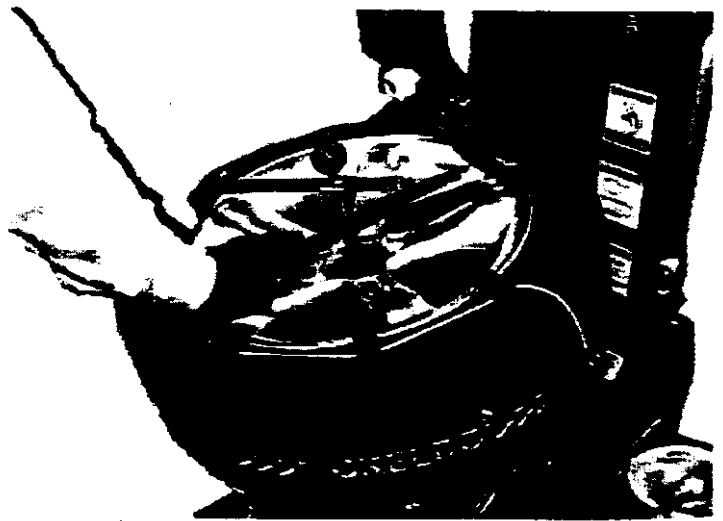
Position upper bead into drop center opposite dismount head with drop center tools or techniques.

5



Lubricate "HM " bead lever.

6



Insert bead lever (with protective sleeve) and pry top bead onto

	dismount head.
--	----------------

7



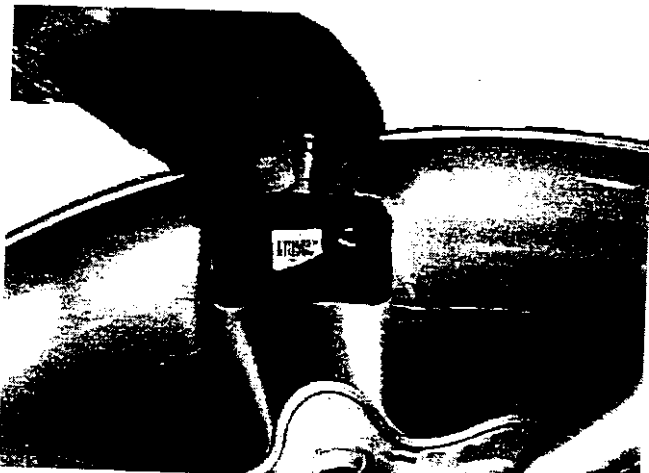
As required, rotate briefly counterclockwise to unfurl the toe of the bead on the dismount head.

8



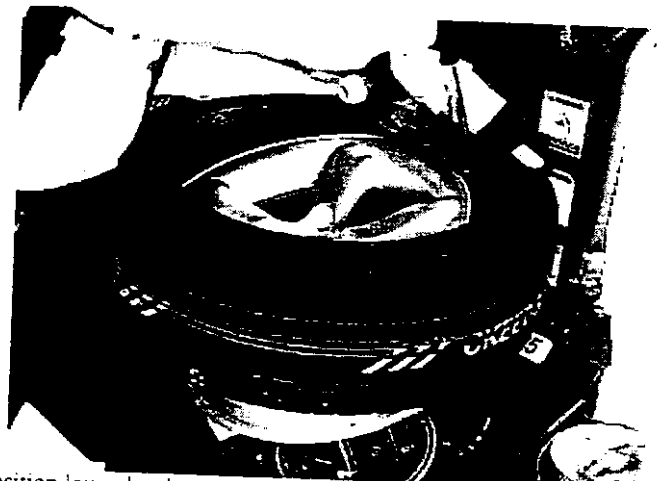
Carefully rotate clockwise to remove upper bead. Remove drop center tools.

9



Remove the sensor from inside the tire by PUSHING it through. DO NOT CUT THE VALVE OUT OF THE RIM.

10



Position lower bead opposite dismount head into the drop center. Insert bead lever.

11



Carefully rotate to dismount lower bead and remove tire from rim.

SECTION III: TROUBLESHOOTING GUIDE

<i>PROBLEM</i>	<i>RECOMMENDED SOLUTION</i>
CHECK TIRE PRESSURE Always On Green Monitoring LED Flashes	<p>Messages are not being received from one of the Smart Valves. Stop at the nearest service station to verify the safety of your vehicle. Visually inspect your tires and wheels for damage. Check pressure of each tire with a tire gauge. The SSV™ is a very rugged device. If the valve is physically damaged by road hazards such as pot holes or debris, damage to the tire and rim is likely. If no damage is evident, return to the dealer where you purchased your SSV™ system and have it serviced. If a Smart Valve has failed, up to 6 to 8 minutes of drive time may elapse prior to receiving this warning. This delay is to avoid possible "false alarms" of system failure.</p>
CHECK TIRE PRESSURE Always On Green Monitoring LED Stays OFF	<p>Your system is disabled. The Smart Valve Receiver did not learn the codes of the Smart Valve installed in your tires. Installation was not properly completed. Return to your dealer at your next convenience or refer to the instructions in this manual.</p>
Green Monitoring LED Never Comes On	<p>Your system is disabled. Power to the Receiver may be disrupted. The LED should illuminate briefly each time power is applied. Check each of these points. If you cannot bring the LED on by disconnecting and reconnecting the power, return to your Smart Valve dealer for service.</p> <ul style="list-style-type: none"> ◆ Verify the power cord is plugged into the receiver power connector. ◆ If your installation uses a cigarette lighter plug for power, verify the plug is firmly inserted. ◆ Check the appropriate fuse in your car or have a technician check it for you. <p>Refer to your vehicle owners manual for assistance identifying and locating the fuse.</p> <ul style="list-style-type: none"> ◆ Inspect the power cord for damage. Replace if necessary.
I have a flat or low tire, but get no warning from	<p>The Smart Valve system only monitors tire pressure while the vehicle is</p>

DRAFT/CONFIDENTIAL

the system.	rolling at speeds of 20 mph and the receiver/display is energized and functioning properly. System activation times may vary from drive to drive, but should not exceed 5 minutes. If you suspect problems, see the section above concerning the Green Monitoring LED and Power Connections.
The CHECK TIRE PRESSURE is displayed at the beginning of drive, but goes away after a few miles.	Tire pressure varies by a few pounds in response to temperature and loading changes experienced in normal driving. Typical passenger car tires will rise 2 to 4 psi after you begin driving. The Smart Valve accurately measures these changes just as if you stopped and checked with a tire gauge. Your tire pressure may be just below 18 psi with the car parked and tires cool. Thus causing the Smart Valve to display CHECK TIRE PRESSURE when you begin driving. A few miles later the tires warm, the pressure rises above 18 psi, and the Smart Valve turns off the warning light. Check and inflate the offending tire at the next safe opportunity. YOU SHOULD ALWAYS INFLATE YOUR TIRES WHILE THEY ARE COOL TO THE TOUCH. MAINTAIN TIRE PRESSURE AT THE TIRE MANUFACTURER'S RECOMMENDED PRESSURE.
TX FAIL-XX is displayed where XX is wheel position (Deluxe Display Only)	Your system is disabled and Transmitter XX is no longer functioning. Have your system serviced by an SSV Authorized Dealer.

QUICK REFERENCE GUIDE: SIMPLE DISPLAY

Receiver Function	CHECK TIRE PRESSURE	Green LED	Buzzer
Power On	ON (2 Sec)	ON (2 sec)	ON (1/2 sec)
Normal Pressure (driving)	OFF	ON (AFTER receipt of LAST transmitter signal)	OFF
Low Tire <18 PSI but >10 PSI	ON	ON	ON for initial 2 sec
Flat Tire < 10 PSI	1sec ON / 1 sec OFF cycle continuously	ON	1 sec ON / 1 sec OFF for initial 10 seconds
SSV™ System Failure	ON	1 sec ON / 1 sec OFF continuously	OFF
Auto-learn	OFF	1 sec ON / 1 sec OFF continuously	OFF
Auto-learn FAILED	ON	OFF	OFF

QUICK REFERENCE GUIDE: DELUXE DISPLAY

Receiver Function	SCREEN MESSAGE	TIME	Buzzer
Power On	SCHRADER SMART VALVE Then SYSTEM OK	Scrolls Across Screen	ON (1/2 sec)
Normal Pressure (driving)	Screen will be dark	N/A	OFF
Low Tire <18 PSI but >10 PSI	LOWTIRE-XX where XX is	1 sec ON / 1 sec OFF	ON for initial 2

DRAFT/CONFIDENTIAL

	LF, RF, RR, LR for the wheel position	cycle continuously until pressure is increased over 18 PSI	sec
Flat Tire < 10 PSI	FLAT TIRE 55 MPH MAX	Displayed Continuously until pressure is increased over 10 PSI	1 sec ON / 1 sec OFF for 10 seconds
SSV™ System Failure	TX FAIL-XX where XX is LF, RF, RR, LR for the wheel position	Displayed Continuously until faulty transmitter is replaced	ON for initial 2 sec
Auto-learn	LEARN WAIT then LEARN OK if successful	ON	OFF

Temporary connections like cigarette lighter plugs can reduce the effectiveness of this warning system. It cannot function if the power connection is loose or unreliable. Schrader recommends the receiver power be hard wired into your vehicle's fuse box for most effective protection. Local car stereo shops can perform this work for a fee. Ask your Smart Valve dealer for recommendations.

THANK YOUR FOR PURCHASING THE SSV™ SYSTEM.

EXHIBIT J

Page 20-20 of 21

U of Mich file 415031-964