

# **FRONT COVER GOES HERE**

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## **IMPORTANT NOTICE!**

### **Safety Definitions**

Statements in this manual preceded by the following words are of special significance:

#### **WARNING**

**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. (00119a)

#### **CAUTION**

**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. (00139a)

#### **CAUTION**

**CAUTION** used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage. (00140a)

#### **NOTE**

*Refers to important information and is placed in italic type. It is recommended that you take special notice of these items.*

## **HARLEY-DAVIDSON MOTORCYCLES ARE FOR ON-ROAD USE ONLY**

This motorcycle is not equipped with a spark arrester and is designed to be used only on the road. Operation or off-road usage in some areas may be illegal. Obey local laws and regulations. This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when resold.

**VISIT THE HARLEY-DAVIDSON WEB SITE**

**<http://www.harley-davidson.com>**

Printed in the U.S.A.

## YOUR OWNER'S MANUAL

### WE CARE ABOUT YOU

Welcome to the Harley-Davidson Motorcycling Family! When enjoying your Harley-Davidson® motorcycle, be sure to ride safely, respectfully and within the limits of the law. Always wear an approved helmet, proper eyewear and protective clothing, and insist your passenger does too. Never ride while under the influence of alcohol or drugs. Know your Harley® motorcycle and read and understand your owner's manual from cover to cover.

This manual has been prepared to acquaint you with the operation, care and maintenance of your motorcycle and to provide you with important safety information. Follow these instructions carefully for maximum motorcycle performance and for your personal motorcycling safety and pleasure. Your Owner's Manual contains instructions for operation and minor maintenance. Major repairs are covered in the Harley-Davidson Service Manual. Such major repairs require the attention of a skilled technician and the use of special tools and equipment. Your Harley-Davidson dealer has the facilities, experience and Genuine Harley-Davidson® parts necessary to properly render this valuable service. We recommend that any emission system maintenance be performed by an authorized Harley-Davidson® dealer.

### UNITED STATES OWNERS

Your Harley-Davidson motorcycle conforms to all applicable U.S. Federal Motor Vehicle Safety Standards and U.S. Environmental Protection Agency regulations effective on the date of manufacture. Sign up for a Harley-Davidson Rider's Edge® Course (call 1-800-588-2743 for a course near you) or a Motorcycle Safety Foundation rider course (call 1-800-446-9227 for a course near you). Protect your privilege to ride by joining the American Motorcyclist Association. Visit [www.ama-cycle.org](http://www.ama-cycle.org) for more information.

Harley-Davidson Motor Company

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## **CUSTOMER SERVICE ASSISTANCE IN THE UNITED STATES**

Most sales or service issues will be resolved at the dealership. However if an issue arises that your dealer cannot resolve, please follow the procedure below.

1. Discuss your problem with the appropriate personnel at the dealership in the Sales, Service or Parts area. If that proves unsuccessful, speak to the owner of the dealership or the general manager.
2. If you cannot resolve the issue with the dealership, you can contact the Harley-Davidson Customer Service Department by calling (414) 343-4056 or write to:

Attention: Customer Service Department  
Harley-Davidson Motor Company  
P. O. Box 653  
Milwaukee, WI 53201

To avoid delays, please have the following information available to give to the Customer Service Representative:

- \* Your name, address and phone number.
- \* Motorcycle V.I.N. (Vehicle Identification Number) found on the vehicle registration or stamped on the steering head and on a label located on the motorcycle itself.
- \* Name and location of the dealership.
- \* Current mileage.
- \* Clear description of issue.

**PERSONAL INFORMATION**

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**DEALER INFORMATION**

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**Vehicle Identification Number:**

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**Ignition Key Number:**

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**Security System Personal Code:**

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**Sales Contact:**

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**Service Contact:**

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**Parts Contact:**

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This owner's manual illustrates and describes features that are standard or are available as extra cost options. Therefore, some of the equipment shown in this publication may not be on your motorcycle.

Harley-Davidson reserves the right to change specifications, equipment or designs at any time without notice and without incurring obligation.



# TABLE OF CONTENTS

---

## SAFETY FIRST

Safe Operating Rules: FLHTCUSE3.....	1
Rules of the Road.....	8
Accessories and Cargo: FLHTCUSE3.....	9
Accessory and Cargo Guidelines.....	10
Noise Control System.....	11
Tampering.....	11

## IDENTIFICATION

Vehicle Identification Number (V.I.N.): FLHTCUSE3.....	13
General.....	13
Location.....	13
Abbreviated V.I.N.....	13
Labels.....	15

## SPECIFICATIONS

Specifications: 2008 FLHTCUSE3.....	19
Tire Data.....	24
Gasoline Blends.....	25
Fuel.....	26
Catalytic Converters.....	26

## CONTROLS AND INDICATORS

General: Controls and Indicators.....	27
Ignition/Headlamp Switch/Fork Lock: FLHTCUSE3.....	27
Handlebar Controls: FLHTCUSE3.....	29
Clutch Hand Lever.....	29
Horn Switch.....	30
Headlamp Dimmer Switch.....	30
Turn Signal Switches.....	30
Heated Hand Grip Control.....	30
Electric Starter Switch.....	30
Engine OFF/RUN Switch.....	30
Front Brake Lever.....	31
Throttle Control Grip.....	31
Cruise Control Resume/Set Switch.....	31
Electronic Throttle Control (ETC).....	33
ETC Limited Performance Mode.....	33
ETC Power Management Mode.....	33
ETC Forced Idle Mode.....	33
ETC Forced Shutdown Mode.....	33
Turn Signal Switch Operation.....	33
Hazard Warning: FLHTCUSE3.....	34
4-Way Flashers.....	34
4-Way Flashers with Security System.....	34
Instruments: FLHTCUSE3.....	34

# TABLE OF CONTENTS

---

Speedometer.....	34	ABS: How It Works.....	43
Odometer.....	34	ABS: How To Use.....	43
Trip Odometer.....	35	ABS: Tires and Wheels.....	44
Tip Indicator.....	35	Jiffy Stand.....	45
Tachometer.....	35	Jiffy Stand Interlock: International Models.....	46
Voltmeter.....	35	Rear View Mirrors.....	47
Oil Pressure Gauge.....	35	Fork Lock: FLHTCUSE3.....	47
Air Temperature Gauge.....	36	To Lock Fork.....	47
Fuel Gauge.....	36	Inner Fairing Cap Rocker Switches: FLHTCUSE3.....	48
Clock (In Radio).....	36	CRUISE/SPOT.....	48
Fuel Range Function.....	36	SPKR.....	48
Indicator Lamps.....	37	Power Lock.....	48
Warning Lamps: FLHTCUSE3.....	38	ACC.....	48
Engine Check Lamp.....	38	Accessory Switch: FLHTCUSE3.....	49
Low Fuel Lamp.....	39	Auxiliary Lamps: FLHTCUSE3.....	49
Charging Lamp.....	39	Heated Seat: FLHTCUSE3.....	50
Security Lamp.....	39	Switch Controls.....	50
Cruise Control Equipped Models.....	39	Cigarette Lighter.....	51
ABS Lamp.....	39	Luggage.....	52
Gear Shift Lever: FLHTCUSE3.....	41	Power Locks: FLHTCUSE3.....	52
Heel-Toe Shift Lever: FLHTCUSE3.....	42	Power Lock Switch.....	52
Brake System: ABS-Equipped Models.....	43	Locking.....	52
General.....	43	Unlocking.....	52
Anti-lock Brake System (ABS).....	43	Power Lock Fob.....	53

# TABLE OF CONTENTS

---

General.....	53	XM Satellite Radio.....	69
Entering Program Mode.....	53	GPS Navigation System.....	69
Program Mode.....	54	Front Panel Controls: FLHTCUSE3.....	69
Replacing the Battery.....	55	ON.....	69
Tour-Pak: FLHTCUSE3.....	56	1, 2, 3, 4, 5/Left Arrow.....	69
Lock/Unlock With Ignition Key.....	56	6.....	69
Open/Close.....	57	5/Left, Up, Down, Right Arrows.....	69
Saddlebags: FLHTCUSE3.....	58	OK.....	70
Lock/Unlock With Ignition Key.....	58	COM.....	70
Opening.....	58	INT.....	70
Closing.....	60	NAV.....	70
Removing.....	60	LCD.....	70
Installing.....	60	CD Door.....	70
Adjustments.....	60	EJECT.....	70
Adjustable Air Deflectors: FLHTCUSE3.....	61	AUX.....	70
Fairing Lower Vents.....	61	Left Handlebar Controls: FLHTCUSE3.....	72
Adjustable Passenger Footboards: FLHTCUSE3.....	62	+ /AUDIO/- Switch.....	72
Air Suspension Adjustment: FLHTCUSE3.....	63	PTT and + /SQ/- Switch.....	72
Rear Air Suspension.....	63	Right Handlebar Controls.....	73
<b>ADVANCED AUDIO SYSTEM</b>		UP/MODE SEL/DN Switch.....	73
Audio System: FLHTCUSE3.....	67	Receiver Operation: FLHTCUSE3.....	75
Stereo Receiver.....	68	Set Time-of-Day.....	75
Citizen Band (CB) Transceiver.....	69	Turn Receiver ON/OFF.....	75
		Select a Frequency Band/Mode.....	76

# TABLE OF CONTENTS

---

AM vs FM Reception.....	76	Scan.....	85
AM.....	76	Repeat.....	85
FM.....	76	MP3.....	85
FM Stereo vs FM Mono.....	76	Recommendations for Handling CDs.....	86
WB.....	77	Intercom and Citizen Band: FLHTCUSE3.....	87
XM Radio.....	77	Headsets and Sockets: FLHTCUSE3.....	87
Tuning-in a Radio Station.....	77	VOX Microphones.....	89
Volume.....	77	Speaker Controls: FLHTCUSE3.....	89
Manual Tuning.....	77	SPKR Switch.....	89
SEEK Tuning.....	77	Rider to Passenger Speaker Balance.....	90
SCAN Tuning.....	78	Passenger Controls: FLHTCUSE3.....	91
Preset Memory Tuning.....	78	UP/MODE SEL/DN Switch.....	91
Preset SCAN Tuning.....	78	PTT and +/VOL- Switch.....	92
Adjusting Volume.....	79	Intercom Operation.....	93
Mixing Bass and Treble.....	79	Operation.....	93
Adjusting AVC.....	79	Activating the Intercom and the VOX Microphones.....	93
Adjusting Display Contrast.....	82	Adjusting VOX Sensitivity.....	94
CD/MP3 Operation.....	83	Adjusting Rider Headset Volume.....	94
Auto Load.....	83	Adjusting Passenger Headset Volume.....	95
Disc Error 1.....	84	CB Operation.....	95
Eject.....	84	Activating the CB.....	95
Tracks.....	84	Entering CB Setup.....	96
Fast Advance and Reverse.....	85	Selecting a Channel.....	96
Random.....	85	Preset Channels.....	96

# TABLE OF CONTENTS

---

Adjusting Squelch.....	97	Disarming with a PIN.....	115
Transmitting.....	97	Hazard Warning 4-Way Flasher.....	117
Adjusting Volume.....	97	Alarm.....	117
CB Range.....	97	Warnings.....	117
Audio Routing and Mixing.....	100	The Alarm.....	118
General.....	100	Deactivate the Alarm.....	118
Troubleshooting: FLHTCUSE3.....	103	Siren Chirp Mode (Confirmation).....	119
Operational Troubleshooting.....	103	Chirpless Mode.....	119
Radio Fuses.....	103	Chirp Mode.....	119
Switching Modes.....	119	Transport Mode.....	119
<b>SMART SECURITY SYSTEM</b>		Storage and Service Departments.....	120
Harley-Davidson Smart Security System.....	107	Long Term Parking.....	120
Components.....	107	Service Departments.....	120
Options.....	107	Fob Battery.....	120
FCC Regulations.....	108	Replacing the Battery.....	120
Hands-Free Fob.....	108	Power Disconnects.....	121
Fob Assignment.....	108	Optional Siren.....	121
Riding with a Fob.....	110	Troubleshooting: FLHTCUSE3.....	121
Personal Identification Number (PIN).....	110	Key Icon.....	121
Changing the PIN.....	110	Fob.....	121
Security Status Indicator.....	113	Siren.....	122
Arming and Disarming: FLHTCUSE3.....	114		
Arming.....	114		
Disarming.....	114		

# TABLE OF CONTENTS

---

## OPERATION

Operating Recommendations: FLHTCUSE3.....	123
Break-in Riding Rules.....	124
The First 500 Miles (800 Kilometers).....	124
Pre-Riding Checklist.....	125
Starting the Engine: FLHTCUSE3.....	126
General.....	126
Starting.....	126
Automatic Compression Release (ACR).....	127
Engine Idle Temperature Management System.....	128
Cruise Control: FLHTCUSE3.....	128
Operation.....	128
Engaging Cruise Control.....	129
Disengaging Cruise Control.....	130
Resuming Cruise Speed.....	130
Accelerating Above Cruise Speed.....	130
Decelerating Cruise Control.....	131
Deactivating Cruise Control.....	131
Stopping the Engine.....	131
Shifting Gears: FLHTCUSE3.....	131
Getting Started.....	131
Upshift (Acceleration).....	132
Downshift (Deceleration).....	133

## MAINTENANCE AND LUBRICATION

Safe Operating Maintenance.....	135
Break-in Maintenance.....	135
Engine Lubrication: Synthetic Oil.....	135
Checking Oil Level: FLHTCUSE3.....	137
Oil Level Cold Check.....	138
Oil Level Hot Check.....	138
Changing Oil and Oil Filter: FLHTCUSE3.....	140
Winter Lubrication.....	143
Oil Cooler: FLHTCUSE3.....	144
Transmission Lubrication: FLHTCUSE3.....	144
General.....	144
Check Lubricant Level.....	144
Changing Transmission Fluid.....	146
Primary Chaincase Lubrication: Synthetic Oil.....	147
Chaincase Lubricant: Touring Models.....	147
General.....	147
Check Lubricant Level.....	147
Changing Chaincase Lubricant.....	149
Rear Drive Belt: FLHTCUSE3.....	151
Chassis Lubrication.....	152
Oil Applications.....	153
Front Fork Oil.....	153
Fuel Filter.....	153

# TABLE OF CONTENTS

---

EFI Models Only.....	153	Battery: General.....	171
Hydraulic Clutch: FLHTCUSE3.....	153	Type.....	171
Hydraulic Lifters.....	154	Voltmeter Test.....	174
Front Fork Bearings.....	155	Cleaning and Inspection.....	174
Rear Fork Pivot Shaft.....	155	Charging.....	175
Brakes: Touring Models.....	155	Storage.....	177
Tires.....	158	Battery: Touring Models.....	179
Tire Replacement.....	160	Disconnection and Removal.....	179
Inspection.....	160	Installation and Connection.....	179
When To Replace Tires.....	160	Jump Starting.....	182
Vehicle Alignment.....	162	Positive Cable.....	182
Isolation Mounted Engine Models.....	162	Negative Cable.....	182
Shock Absorbers.....	162	Electrical Protection: FLHTCUSE3.....	184
Spark Plugs.....	162	System Fuse Removal.....	184
Ignition.....	163	Maxi-Fuse.....	186
Air Cleaner.....	163	Remote Control Garage Door Opener: FLHTCUSE3.....	187
Headlamps: FLHTCUSE3.....	164	FCC Notices.....	187
Headlamp Alignment: FLHTCUSE3.....	166	Install the Receiver.....	188
Check Alignment.....	166	Program the Receiver and Transmitter.....	189
Adjust Headlamp.....	168	Seat: FLHTCUSE3.....	190
Turn Signal Bulb Replacement: Bullet Style.....	168	Removal.....	190
Tail Lamp Bulb Replacement: Standard Style.....	169	Installation.....	191
Alternator/Voltage Regulator.....	170	Rider Backrest: FLHTCUSE3.....	193
Charging Rate.....	170	Removal.....	193

# TABLE OF CONTENTS

---

Installation.....	193
Adjustment.....	193
Radio/CB Antenna Replacement: FLHTCUSE3.....	195
Replacing Antenna.....	195
Motorcycle Storage.....	196
Placing Motorcycle in Storage.....	196
Removing Motorcycle From Storage.....	197

## ACCESSORIES MAINTENANCE

General Maintenance.....	199
Cleaning Your Motorcycle.....	199
Leather Care.....	199
Paint Leafing Graphics.....	200
Wheel Care: FLHTCUSE3.....	201
Windshields.....	201
Miscellaneous Lubrication.....	202
Hinges, Latches, Etc.....	202

## TROUBLESHOOTING

Troubleshooting: General.....	203
Engine: FLHTCUSE3.....	203
Starter Does Not Operate or Does Not Turn Engine Over.....	203
Engine Turns Over But Does Not Start.....	203

Starts Hard.....	203
Starts But Runs Irregularly or Misses.....	204
A Spark Plug Fouls Repeatedly.....	204
Pre-ignition or Detonation (Knocks or Pings).....	204
Overheats.....	204
Excessive Vibration.....	204
Electrical System.....	204
Alternator Does Not Charge.....	204
Alternator Charge Rate is Below Normal.....	205
Transmission.....	205
Transmission Shifts Hard.....	205
Transmission Jumps Out of Gear.....	205
Clutch Slips.....	205
Clutch Drags or Does Not Release.....	205
Clutch Chatters.....	205
Brakes.....	205
ABS System Behavior.....	205
Brakes Do Not Hold Normally.....	205

## WARRANTIES AND RESPONSIBILITIES

Warranty and Maintenance.....	207
Keeping It All Harley-Davidson.....	207
Important Moving Information.....	208
California Evaporative Emission Controls: 2008 Models	208

# TABLE OF CONTENTS

---

EPA Noise Regulations in the United States.....	208
Warranty/Service Information.....	209
Reporting Safety Defects in United States.....	209
NHTSA Statement.....	209
Owner Transfer Identification Form.....	210
Required Documentation for Imported Motorcycles.....	210

## **LIMITED MOTORCYCLE WARRANTY**

2008 HARLEY-DAVIDSON MOTORCYCLE LIMITED WARRANTY.....	211
24 Months/Unlimited Miles.....	211
Duration.....	211
Owner's Obligations.....	211
Exclusions.....	212
Other Limitations.....	212
Important: Read Carefully.....	212

## **LIMITED NOISE WARRANTY**

2008 HARLEY-DAVIDSON MOTORCYCLE NOISE CONTROL SYSTEM LIMITED WARRANTY.....	215
Other Rights.....	216
Recommendations for Required Maintenance.....	216

## **LIMITED EMISSION WARRANTY**

2008 HARLEY-DAVIDSON EMISSION CONTROL SYSTEM LIMITED WARRANTY.....	217
Other Rights.....	217
Recommendations for Required Maintenance.....	218

## **LIMITED RADIO WARRANTY**

2008 LIMITED RADIO WARRANTY.....	219
Other Rights.....	219

## **MAINTENANCE SCHEDULING**

Regular Service Intervals.....	221
Service Literature.....	225
H-D Michigan, Inc. Trademark Information.....	226

# TABLE OF CONTENTS

---

## SAFE OPERATING RULES: FLHTCUSE3

### WARNING

Motorcycles are different from other vehicles. They operate, steer, handle and brake differently. Unskilled or improper use could result in loss of control, death or serious injury. (00556c)

- Take a rider training course.
- Read Owner's Manual before riding, adding accessories or servicing.
- Wear a helmet, eye protection and protective clothing.
- Never tow a trailer.

Before operating your new motorcycle it is your responsibility to read and follow the operating and maintenance instructions in this manual, and follow these basic rules for your personal safety.

- Know and respect the rules of the road (see RULES OF THE ROAD section). Carefully read and observe the rules contained in the RIDING TIPS booklet accompanying this Owner's Manual. Read and familiarize yourself with the contents of the MOTORCYCLE HANDBOOK for your state.
- Before starting engine, check for proper operation of brake, clutch, shifter, throttle controls, correct fuel and oil supply.

### WARNING

Do not use aftermarket parts and custom made front forks which can adversely affect performance and handling. Removing or altering factory installed parts can adversely affect performance and could result in death or serious injury. (00001a)

- Use only Harley-Davidson approved parts and accessories. Use of certain other manufacturer's performance parts will void your new motorcycle warranty. See your Harley-Davidson dealer for details.

### WARNING

Stop the engine when refueling or servicing the fuel system. Do not smoke or allow open flame or sparks near gasoline. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00002a)

When refueling your motorcycle, the following rules should be observed.

- Refuel in a well ventilated area with the engine turned off.
- Remove fuel filler cap slowly.
- Do not smoke or allow open flames or sparks when refueling or servicing the fuel system.
- Do not fill fuel tank above the bottom of the filler neck insert.
- Leave air space to allow for fuel expansion.

 **WARNING**

**Do not store motorcycle with gasoline in tank within the home or garage where open flames, pilot lights, sparks or electric motors are present. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00003a)**

 **WARNING**

**Engine exhaust from this product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (00004e)**

 **WARNING**

**Wheel weights on wheels without spokes contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (00356c)**

 **WARNING**

**Do not run motorcycle in a closed garage or confined area. Inhaling motorcycle exhaust, which contains poisonous carbon monoxide gas, could result in death or serious injury. (00005a)**

 **WARNING**

**The jiffy stand locks when placed in the full forward (down) position with vehicle weight on it. If the jiffy stand is not in the full forward (down) position with vehicle weight on it, the vehicle can fall over which could result in death or serious injury. (00006a)**

## **WARNING**

**Be sure jiffy stand is fully retracted before riding. If jiffy stand is not fully retracted, it can contact the road surface causing a loss of vehicle control, which could result in death or serious injury. (00007a)**

- A new motorcycle must be operated according to the special break-in procedure. See OPERATION, Break-in Riding Rules.
- Operate motorcycle only at moderate speed and out of traffic until you have become thoroughly familiar with its operation and handling characteristics under all conditions.

### **NOTE**

*We recommend that you obtain information and formal training in the correct motorcycle riding technique. In the United States, the Motorcycle Safety Foundation® offers beginning and advanced rider safety courses. Call (949)727-3227 for information.*

## **WARNING**

**Travel at speeds appropriate for road and conditions and never travel faster than posted speed limit. Excessive speed can cause loss of vehicle control, which could result in death or serious injury. (00008a)**

- Do not exceed the legal speed limit or drive too fast for existing conditions. Always reduce speed when poor driving conditions exist. High speed increases the influence of any other condition affecting stability and increases the possibility of loss of control.
- Pay strict attention to road surfaces and wind conditions. Any two wheeled vehicle may be subject to upsetting forces such as wind blasts from passing trucks, holes in the pavement, rough road surfaces, rider control error, etc. These forces may influence the handling characteristics of your motorcycle. If this happens, reduce speed and guide the motorcycle with a relaxed grip to a controlled condition. Do not brake abruptly or force the handlebar. This may aggravate an unstable condition.
- Keep cargo weight concentrated close to the motorcycle and as low as possible to minimize the change in the motorcycle's center of gravity. Distribute weight evenly on both sides of the vehicle and do not load bulky items too

far behind the rider or add weight to the handlebars or front forks. Do not exceed maximum specified load in each saddlebag.

**NOTE**

*New riders should gain experience under various conditions while driving at moderate speeds.*

- Operate your motorcycle defensively. Remember, a motorcycle does not afford the same protection as an automobile in an accident. One of the most common accident situations occurs when the driver of the other vehicle fails to see or recognize a motorcycle and turns left into the on-coming motorcyclist. Operate only with headlamp on.
- Wear an approved helmet, clothing, and foot gear suited for motorcycle riding. Bright or light colors are best for greater visibility in traffic, especially at night. Avoid loose, flowing garments and scarves.

**⚠️WARNING**

**Avoid contact with exhaust system and wear protective clothing that completely covers legs while riding. Exhaust pipes and mufflers get very hot when engine is running and remain too hot to touch, even after engine is turned off. Failure to wear protective clothing could result in burns or other serious injury. (00009a)**

- When carrying passengers, it is your responsibility to instruct them on proper riding procedures. (See Riding Tips for Motorcyclist included in your Harley-Davidson Owner's Kit.)
- Do not allow other individuals, under any circumstances, to operate your motorcycle unless you know they are experienced, licensed riders and are thoroughly familiar with the operation of your particular motorcycle.
- Protect your motorcycle against theft. After parking your motorcycle, lock the steering head and remove ignition key from switch. Set security alarm if present.
- Safe motorcycle operation requires alert mental judgment combined with a defensive driving attitude. Do not allow

fatigue, alcohol or drugs to endanger your safety or that of others.

- Vehicles equipped with a sound system should have the volume adjusted to a nondistracting level before operating vehicle.
- Maintain your motorcycle in proper operating condition in accordance with Table 28. Particularly important to motorcycle stability is proper tire inflation pressure, tread condition, and proper adjustment of wheel bearings and steering head bearings.

### **WARNING**

See the Accessory and Cargo section in your Owner's Manual. Improper loading of cargo or installation of accessories can affect motorcycle stability and handling, which could result in death or serious injury. (00021a)

### **WARNING**

Do not operate vehicle with forks locked. Locking the forks restricts the vehicle's turning ability, which could result in death or serious injury. (00035a)

### **WARNING**

Perform the service and maintenance operations as indicated in the regular service interval table. Lack of regular maintenance at the recommended intervals can affect the safe operation of your motorcycle, which could result in death or serious injury. (00010a)

### **WARNING**

Do not operate motorcycle with loose, worn or damaged steering or suspension systems. Contact a Harley-Davidson dealer for repairs. Loose, worn or damaged steering or suspension components can adversely affect stability and handling, which could result in death or serious injury. (00011a)

### **WARNING**

Regularly inspect shock absorbers and front forks. Replace leaking, damaged or worn parts that can adversely affect stability and handling, which could result in death or serious injury. (00012a)

## **WARNING**

**Use Harley-Davidson replacement fasteners. Aftermarket fasteners can adversely affect performance, which could result in death or serious injury. (00013a)**

- See a Harley-Davidson service manual for proper torque values.
- Aftermarket fasteners may not have the specific property requirements to perform properly.

## **WARNING**

**Be sure tires are properly inflated, balanced and have adequate tread. Inspect your tires regularly and see a Harley-Davidson dealer for replacements. Riding with excessively worn, unbalanced or under-inflated tires can adversely affect stability and handling, which could result in death or serious injury. (00014a)**

## **WARNING**

**Replace punctured or damaged tires. In some cases, small punctures in the tread area may be repaired from within the demounted tire by a Harley-Davidson dealer. Speed should NOT exceed 50 mph (80 km/h) for the first 24 hours after repair, and the repaired tire should NEVER be used over 80 mph (130 km/h). Failure to follow this warning could result in death or serious injury. (00015a)**

## **WARNING**

**Do not tow a disabled motorcycle. Towing can adversely affect stability and handling, which could result in death or serious injury. (00017a)**

## **WARNING**

**Do not pull a trailer with a motorcycle. Pulling a trailer can cause tire overload, reduced braking efficiency and adversely affect stability and handling, which could result in death or serious injury. (00018b)**

## CAUTION

Direct contact of D.O.T. 4 brake fluid with eyes can cause irritation. Avoid eye contact. In case of eye contact flush with large amounts of water and get medical attention. Swallowing large amounts of D.O.T. 4 brake fluid can cause digestive discomfort. If swallowed, obtain medical attention. Use in well ventilated area. **KEEP OUT OF REACH OF CHILDREN.** (00240a)

## WARNING

Batteries, battery posts, terminals and related accessories contain lead and lead compounds, and other chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling. (00019d)

## WARNING

Consult a Harley-Davidson dealer regarding any questions or problems that occur in the operation of your motorcycle. Failure to do so can aggravate an initial problem, cause costly repairs, cause an accident and could result in death or serious injury. (00020a)

- Be sure all equipment required by federal, state and local law is installed and in good operating condition.

## WARNING

Do not add a sidecar to the Screamin' Eagle FLHTCUSE motorcycle, as it is not designed for sidecar use. Use of this vehicle for this purpose can cause loss of vehicle control, which could result in death or serious injury. (00488c)

## **WARNING**

**If ABS lamp remains on continuously, the ABS is not operating. The standard brake system is operational, but wheel lock up can occur. Contact a Harley-Davidson Dealer to have ABS repaired. A locked wheel will skid and can cause loss of vehicle control, which could result in death or serious injury. (00361a)**

## **WARNING**

**ABS cannot prevent lockup of rear wheel due to engine braking. ABS will not aid in cornering or on loose/uneven surfaces. A locked wheel will skid and can cause loss of vehicle control, which could result in death or serious injury. (00362a)**

## **RULES OF THE ROAD**

- Always sound your horn, actuate your turn signals, and exercise caution when passing other vehicles going in the same direction. Never try to pass another vehicle going

in the same direction at street intersections, on curves, or when going up or down a hill.

- At street intersections give the right-of-way. Do not presume you have the right-of-way, as the other driver may not know it is your turn.
- Always signal when preparing to stop, turn or pass.
- All traffic signs, including those used for the control of traffic at intersections, should be obeyed promptly. SLOW DOWN signs near schools and CAUTION signs at railroad crossings should always be observed and your actions governed accordingly.
- When intending to turn, signal at least 100 feet (30.5 meters) before reaching the turning point. If turning across an intersection, move over to the centerline of the street (unless local rules require otherwise). Slow down when entering the intersection and turn carefully.
- Never anticipate a traffic light. When a change is indicated from GO to STOP (or vice versa) in the traffic control

systems at intersections, slow down and wait for the light to change. Never run through a yellow or red traffic light.

- While turning either right or left, watch for pedestrians, animals, as well as vehicles.
- Do not leave the curb or parking area without signaling. Be sure your way is clear to enter moving traffic. A moving line of traffic always has the right-of-way.
- Be sure your license plate is installed in the position specified by law and is clearly visible at all times. Keep the plate clean.
- Ride at a safe speed that is consistent with the type of highway you are on. Pay strict attention to whether the road is dry, oily, icy or wet.
- Watch for debris such as leaves or loose gravel.
- Weather and traffic conditions on the highway dictate adjusting your speed and driving habits accordingly.

## ACCESSORIES AND CARGO: FLHTCUSE3

Harley-Davidson Motor Company cannot test and make specific recommendations concerning every accessory or combination of accessories sold. Therefore, the rider must be responsible for safe operation of the motorcycle when installing accessories or carrying additional weight.

### **WARNING**

**Do not exceed the motorcycle's Gross Vehicle Weight Rating (GVWR) or Gross Axle Weight Rating (GAWR). Exceeding these weight ratings can affect stability and handling, which could result in death or serious injury. (00016e)**

- GVWR is the sum of the weight of the motorcycle, accessories, and the maximum weight of the rider, passenger and cargo that can be safely carried.
- GAWR is the maximum amount of weight that can be safely carried on each axle.
- The GVWR and GAWR are shown on the information plate which is located on the frame down tube.

### **WARNING**

**Do not pull a trailer with a motorcycle. Pulling a trailer can cause tire overload, reduced braking efficiency and adversely affect stability and handling, which could result in death or serious injury. (00018b)**

## Accessory and Cargo Guidelines

The following guidelines should be used when equipping a motorcycle, carrying passengers and/or cargo.

### **WARNING**

**Travel at speeds appropriate for road and conditions and never travel faster than posted speed limit. Excessive speed can cause loss of vehicle control, which could result in death or serious injury. (00008a)**

- Do not exceed the legal speed limit or drive too fast for existing conditions. Always reduce speed when poor driving conditions exist. High speed increases the influence of any other condition affecting stability and increases the possibility of loss of control.
- Pay strict attention to road surfaces and wind conditions. Any two wheeled vehicle may be subject to upsetting forces such as wind blasts from passing trucks, holes in the pavement, rough road surfaces, rider control error, etc. These forces may influence the handling characteristics of your motorcycle. If this happens, reduce speed and guide the motorcycle with a relaxed grip to a controlled

condition. Do not brake abruptly or force the handlebar. This may aggravate an unstable condition.

- Keep cargo weight concentrated close to the motorcycle and as low as possible. This minimizes the change in the motorcycle's center of gravity.
- Distribute weight evenly on both sides of the vehicle.
- Do not load bulky items too far behind the rider or add weight to the handlebars or front forks.
- Do not exceed maximum specified load in each saddlebag.
- Luggage racks are designed for lightweight items. Do not overload racks.
- Be sure cargo is secure and will not shift while riding and recheck the cargo periodically. Accessories that change the operator's riding position may increase reaction time and affect handling of the motorcycle.
- Additional electrical equipment may overload the motorcycle's electrical system possibly resulting in electrical system and/or component failure.

## **WARNING**

**The front and/or rear guard(s) can provide limited leg and cosmetic vehicle protection under unique circumstances. (Fall over while stopped, very slow speed slide.) It is not made or intended to provide protection from bodily injury in a collision with another vehicle or any other object. (00022a)**

Large surfaces such as fairings, windshields, back rests, and luggage racks can adversely affect handling. Only genuine Harley-Davidson items designed specifically for the motorcycle model should be used with proper installation.

## **WARNING**

**Do not use aftermarket parts and custom made front forks which can adversely affect performance and handling. Removing or altering factory installed parts can adversely affect performance and could result in death or serious injury. (00001a)**

## **WARNING**

**Do not add a sidecar to the Screamin' Eagle FLHTCUSE motorcycle, as it is not designed for sidecar use. Use of this vehicle for this purpose can cause loss of vehicle control, which could result in death or serious injury. (00488c)**

## **NOISE CONTROL SYSTEM**

### **Tampering**

Owners are warned that removal or replacement of any noise control system component may be prohibited by law. This prohibition applies prior to vehicle sale or delivery to the ultimate purchaser. Use of a vehicle on which noise control system components have been removed or rendered inoperative may also be prohibited by law.

*NOTES*

## VEHICLE IDENTIFICATION NUMBER (V.I.N.): FLHTCUSE3

### General

See Figure 1. A unique 17-digit serial or Vehicle Identification Number (V.I.N.) is found on each motorcycle. For a description of each item in the V.I.N., refer to Table 1.

### Location

The full 17-digit serial or Vehicle Identification Number (V.I.N.) is stamped on the right side of the frame backbone at the rear of the steering head under the main wiring harness. A label

bearing the V.I.N. code is also affixed to the left side of the steering head.

### Abbreviated V.I.N.

An abbreviated V.I.N. is stamped on the left side of the crankcase below the engine cylinders.

**Example:** PR88111000

See Figure 1 for the complete V.I.N. as it appears on the steering head.

### NOTE

*Always give the full 17-digit Vehicle Identification Number when ordering parts or making any inquiry about your motorcycle.*

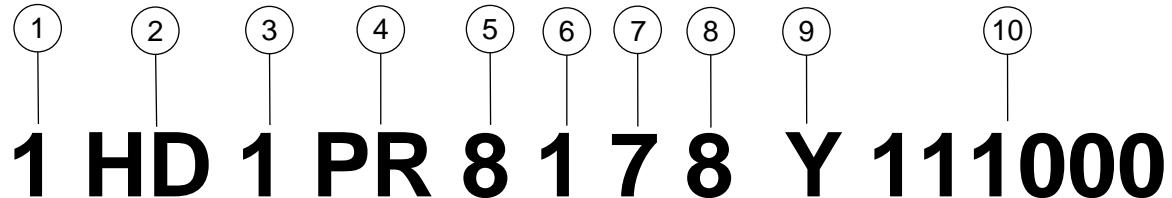


Figure 1. Typical Harley-Davidson V.I.N.: 2008 FLHTCUSE3 Models

Table 1. Harley-Davidson V.I.N. Breakdown: 2008 FLHTCUSE3 Models

POSITION	DESCRIPTION	POSSIBLE VALUES
1	Market designation	1=Originally manufactured for sale <b>within</b> the United States 5=Originally manufactured for sale <b>outside</b> of the United States
2	Manufacturer	HD=Harley-Davidson

**Table 1. Harley-Davidson V.I.N. Breakdown: 2008 FLHTCUSE3 Models**

POSITION	DESCRIPTION	POSSIBLE VALUES
3	Motorcycle type	1=Heavyweight motorcycle (901 cc or larger)
4	Model	PR=FLHTCUSE3 Screamin' Eagle® Ultra Classic® Electra Glide®
5	Engine type	8=110 cu. in. (1800 cc) air cooled, fuel injected
6	Introduction date	1=Regular 2=Mid-year 3=California/regular 4=Cosmetic changes and/or special introductory date 5=California/cosmetic changes and/or special introductory date 6=California/mid-year
7	V.I.N. check digit	Can be 0-9 or X
8	Model year	8=2008
9	Assembly plant	Y=York, PA U.S.A.
10	Sequential number	Varies

## LABELS

See Figure 2 for safety and maintenance labels which were on the vehicle when new. If removed, replacement labels may

be purchased for your motorcycle. Refer to Table 2 for label descriptions.

**Table 2. Labels: FLHTCUSE3**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>LOCATION</b>
1	29127-95B	General warnings	Top of air cleaner cover
2	15368-01A	Battery warning	Under seat, right side of frame
3	14148-86	Highway bar warning	On front of highway bar below center mount
4	90820-93C	Saddlebag load limits	Inside saddlebag.
5	90821-74B	Tour-Pak load limits	Inside Tour-Pak lid.
6	72635-08	Fuse block cover	Under left side cover on fuse block

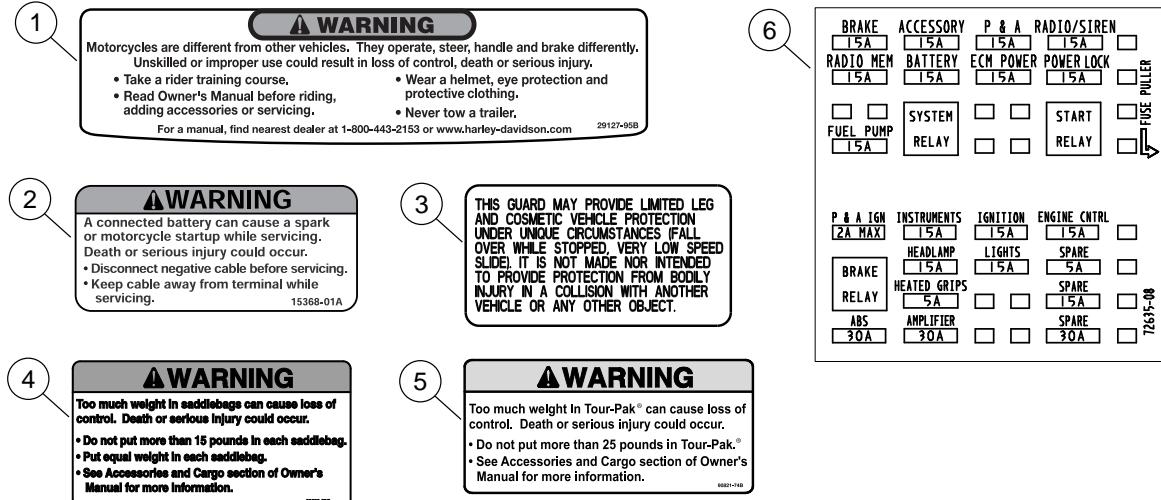


Figure 2. Labels: FLHTCUSE3

*NOTES*

## SPECIFICATIONS: 2008 FLHTCUSE3

Table 3. Engine: 2008 FLHTCUSE3

ITEM	SPECIFICATION	
Number of cylinders	2	
Type	4-cycle, 45 degree V-Type, air cooled	
Compression ratio	9.3:1	
Bore	4.00 in.	101.60 mm
Stroke	4.38 in.	111.25 mm
Displacement	110 cu. in.	1802.58 cc
Torque (North America)	115 ft-lbs @ 3000 RPM	156 Nm @ 3000 RPM
Torque (International)	104 ft-lbs @ 4200 RPM	141 Nm @ 4200 RPM

Table 4. Ignition System: 2008 FLHTCUSE3

COMPONENT	SPECIFICATION	
Ignition timing	not adjustable	
Battery	12 volt, 28 Amp/hr, sealed and maintenance free	
Spark plug type	HD-6R12	
Spark plug size	12 mm	
Spark plug gap	0.038-0.043 in.	0.97-1.09 mm
Spark plug torque	12-18 ft-lbs	16.3-24.4 Nm

Table 5. Transmission Specifications

TRANSMISSION	SPECIFICATION
Type	Constant mesh, foot shift
Speeds	6 forward

### NOTE

Specifications in this publication may not match those of official certification in some markets due to timing of publication printing, variance in testing methods, and/or vehicle differences. Customers seeking officially recognized regulatory specifications for their vehicle should refer to certification documents and/or contact their respective dealer or distributor.

**Table 6. Sprocket Teeth: 2008 FLHTCUSE3**

DRIVE	ITEM	NUMBER OF TEETH
Primary	Engine	34
	Clutch	46
Final	Transmission	32
	Rear wheel	66

**Table 7. Capacities: 2008 FLHTCUSE3**

ITEM	U.S.	LITERS
Fuel tank (total)	6.0 gal	22.7
Oil tank with filter	4.0 U.S. qt.	3.8
Transmission (approximate)	32 fl. oz.	0.946
Primary chaincase (approximate)	45.0 fl. oz.	1.3

**Table 8. Gear Ratios: 2008 FLHTCUSE3**

GEAR	RATIO
1st Gear	9.312
2nd Gear	6.421
3rd Gear	4.774
4th Gear	3.926
5th Gear	3.279
6th Gear	2.790

**NOTE**

*Gross Vehicle Weight Rating (GVWR) (maximum allowable loaded vehicle weight) and corresponding Gross Axle Weight Ratings (GAWR) are given on a label located on the frame below the steering head.*

**Table 9. Weights: 2008 FLHTCUSE3**

ITEM	LB.	KG
Weight as shipped from factory	864	392
GVWR	1259	571
GAWR front	500	227
GAWR rear	827	375

**Table 10. Dimensions: 2008 FLHTCUSE3**

ITEM	IN.	MM
Wheel base	63.5	1612.9
Overall length	97.6	2478.3
Overall width	38.2	970.3
Road clearance	4.9	124.5
Overall height	57.1	1450.3
Saddle height*	28.7	729

\*With 180 lb. (81.7 kg) rider on seat.

**Table 11. Tire Sizes: 2008 FLHTCUSE3**

MOUNT	SIZE	NUMBER
Front	16 in.	D402F MT90B16
Rear	16 in.	D402 MU85B16
2008 motorcycles use Dunlop Harley-Davidson tires only.		

**Table 12. Tire Pressures: 2008 FLHTCUSE3**

LOAD	TIRE PRESSURE (COLD)			
	FRONT		REAR	
	PSI	kPa	PSI	kPa
Solo Rider	36	248	36	248
Rider and Passenger	36	248	40	276

Table 13. Bulb Chart: 2008 FLHTCUSE3

LAMP	DESCRIPTION (ALL LAMPS 12 VOLT)	BULBS REQUIRED	CURRENT DRAW AMPERAGE	HARLEY-DAVIDSON PART NUMBER
Headlamp	Headlamp - low (domestic)	1	2.7	68096-04
	Headlamp - high (domestic)	1	4.3	68881-01
	Headlamp - (international)	1	4.58/5.0	68329-03
	Position lamp international	1	0.32	53438-92
Tail and stop lamp	Tail lamp	1	0.59	68167-04
	Stop lamp	1	2.10	68167-04
	Tail lamp international	1	0.59	68167-04
	Stop lamp international	1	2.10	68167-04
Turn signal lamp	Front/running	2	2.25/0.59	69331-02
	Front international	2	1.75	68163-84
	Rear	2	2.25	69330-02
	Rear international	2	1.75	68163-84

Table 13. Bulb Chart: 2008 FLHTCUSE3

LAMP	DESCRIPTION (ALL LAMPS 12 VOLT)	BULBS REQUIRED	CURRENT DRAW AMPERAGE	HARLEY-DAVIDSON PART NUMBER
Auxiliary lighting	License plate lamp international	1	0.37	53436-97
	Tour-Pak lamp*	N/A	N/A	N/A
	Auxiliary lamps	2	2.1	68453-05
	Auxiliary lamps international	2	2.7	68851-98
Instrument panel lamps	High beam indicator	1	0.15	Instrument panel is illuminated with LEDs. Replace the entire assembly upon failure.
	Oil pressure indicator	1	0.15	
	Neutral indicator	1	0.15	
	Turn signal indicator	2	0.08	
Gauge lamps	Speedometer*	N/A	N/A	N/A
	Tachometer*	N/A	N/A	N/A
	Voltmeter	1	0.24	67454-04
	Oil pressure	1	0.24	67454-04
	Air temperature	1	0.24	67454-04
	Fuel	1	0.24	67454-04
Items with *	Illuminated with LEDs. Replace entire assembly upon failure.			

## TIRE DATA

### WARNING

Match tires, tubes, air valves and caps to the correct wheel rim. Contact a Harley-Davidson dealer. Mismatching can result in damage to the tire bead, allow tire slippage on the rim or cause tire failure, which could result in death or serious injury. (00023a)

### WARNING

Use only Harley-Davidson approved tires. See a Harley-Davidson dealer. Using non-approved tires can adversely affect stability, which could result in death or serious injury. (00024a)

Tubeless tires fitted with the correct size inner tubes may be used on all Harley-Davidson laced (wire spoked) wheels. Protective rubber rim strips must be used with tubeless tires (fitted with correct size inner tubes) when mounted on laced (wire spoked) wheels.

### WARNING

Use inner tubes on laced (wire spoked) wheels. Using tubeless tires on laced wheels can cause air leaks, which could result in death or serious injury. (00025a)

Tubeless tires are used on all Harley-Davidson cast and disc wheels.

Tire sizes are molded on the tire sidewall. Inner tube sizes are printed on the tube.

### WARNING

Harley-Davidson front and rear tires are not the same. Interchanging front and rear tires can cause tire failure, which could result in death or serious injury. (00026a)

### WARNING

Do not inflate tire beyond maximum pressure as specified on sidewall. Over inflated tires can blow out, which could result in death or serious injury. (00027a)

## **WARNING**

Harley-Davidson tires are equipped with wear bars that run horizontally across the tread. When wear bars become visible and only 1/32 in. (0.8 mm) tread depth remains, replace tire immediately. Using a worn tire can adversely affect stability and handling, which could result in death or serious injury. Use only Harley-Davidson approved replacement tires. (00090b)

See SPECIFICATIONS, Specifications: 2008 FLHTCUSE3 for tire pressures and sizes.

## **GASOLINE BLENDS**

Your motorcycle was designed to get the best performance and efficiency using unleaded gasoline. Most gasoline is blended with alcohol and/or ether to create oxygenated blends. The type and amount of alcohol or ether added to the fuel is important.

## **CAUTION**

**Do not use gasoline that contains methanol. Doing so can result in fuel system component failure, engine damage and/or equipment malfunction. (00148a)**

- **Gasoline containing METHYL TERTIARY BUTYL ETHER (MTBE):** Gasoline/MTBE blends are a mixture of gasoline and as much as 15% MTBE. Gasoline/MTBE blends can be used in your motorcycle.
- **ETHANOL** is a mixture of 10% ethanol (Grain alcohol) and 90% unleaded gasoline. Gasoline/ethanol blends can be used in your motorcycle if the ethanol content does **not** exceed 10%.
- **REFORMULATED OR OXYGENATED GASOLINES (RFG):** Reformulated gasoline is a term used to describe gasoline blends that are specifically designed to burn cleaner than other types of gasoline, leaving fewer tailpipe emissions. They are also formulated to evaporate less when you are filling your tank. Reformulated gasolines use additives to oxygenate the gas. Your motorcycle will run normally using this type of gas and Harley-Davidson recommends you use it when possible, as an aid to cleaner air in our environment.

Some gasoline blends might adversely affect the starting, driveability or fuel efficiency of the motorcycle. If any of these problems are experienced, try a different brand of gasoline or gasoline with a higher octane blend.

## FUEL

Refer to Table 14. Always use a good quality unleaded gasoline. Octane ratings are usually found on the pump.

### ⚠ WARNING

**Avoid spills. Slowly remove filler cap. Do not fill above bottom of filler neck insert, leaving air space for fuel expansion. Secure filler cap after refueling. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00028a)**

### ⚠ WARNING

**Use care when refueling. Pressurized air in fuel tank can force gasoline to escape through filler tube. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00029a)**

Modern service station pumps dispense a high flow of gasoline into a motorcycle fuel tank making air entrapment and pressurization a possibility.

**Table 14. Octane Ratings**

SPECIFICATION	RATING
Pump Octane (R+M)/2	91 (95 RON)

## CATALYTIC CONVERTERS

California and all international motorcycles are equipped with catalytic converters.

### CAUTION

**Do not operate catalytic converter-equipped vehicle with engine misfire or a non-firing cylinder. If you operate the vehicle under these conditions, the exhaust will become abnormally hot, which can cause vehicle damage, including emission control loss. (00149a)**

### CAUTION

**Use only unleaded fuel in catalytic converter-equipped motorcycles. Using leaded fuel will damage the emission control system. (00150b)**

## GENERAL: CONTROLS AND INDICATORS

### ⚠ WARNING

Read the CONTROLS AND INDICATORS section before riding your motorcycle. Failure to understand the operation of the motorcycle could result in death or serious injury. (00043a)

Some features explained are unique to certain models. These features may be available as accessories for your Harley-Davidson motorcycle. See a Harley-Davidson dealer for a complete list of accessories that will fit your specific motorcycle.

### IGNITION/HEADLAMP SWITCH/FORK LOCK: FLHTCUSE3

### ⚠ WARNING

The automatic-on headlamp feature provides increased visibility of the rider to other motorists. Be sure headlamp is on at all times. Poor visibility of rider to other motorists can result in death or serious injury. (00030b)

See the CUSTOMER SERVICE ASSISTANCE section at the very front of this owner's manual before the TABLE OF CONTENTS. Be sure to record all your key numbers in the space provided.

See Figure 3. The ignition/headlamp switch (1) controls electrical functions of the motorcycle. The key lock (2) locks the switch in the FORK LOCK or the ACCESS position.

### NOTES

- Harley-Davidson recommends removing key from ignition/headlamp switch/fork lock before operating motorcycle. If you do not remove key, it can fall out during operation.
- ACCESS - Accessories and hazard warning flasher can be turned on. Instrument lamps are on. Brake lamp and horn can be activated. Key may be removed.
- The lamps illuminate when the switch is in the IGNITION position, as required by law in some localities.

### CAUTION

Protect your vehicle against theft. After parking your motorcycle, lock the steering head and remove ignition key from switch. Failure to lock your motorcycle may result in theft and/or equipment damage. (00151a)

### ⚠ WARNING

Do not operate vehicle with forks locked. Locking the forks restricts the vehicle's turning ability, which could result in death or serious injury. (00035a)

**CAUTION**

**Do not lubricate barrel locks with petroleum based lubricants or graphite. Inoperative locks may result. (00152a)**

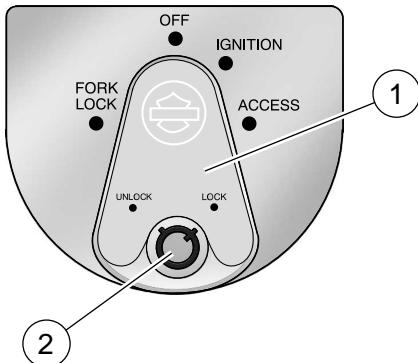
**CAUTION**

**Do not switch lubricant brands indiscriminately because some lubricants interact chemically when mixed. Use of inferior lubricants can damage the engine. (00184a)**

**Table 15. Ignition/Headlamp Switch/Fork Lock Positions: FLHTCUSE3**

FUNCTION	LABEL	OPERATION
Key lock	LOCK	Locks the switch in either the FORK LOCK or ACCESS switch position. Remove the key for security.
	UNLOCK	Unlocks the switch. Unlocked, the switch can be rotated to any of the 4 positions. To prevent loss when riding, remove the key.
Switch	FORK LOCK	Insert the key, rotate the switch to FORK LOCK and press the switch down. Turn the key to LOCK and the fork is locked. To unlock the fork, insert and rotate the key to UNLOCK and the switch will pop up.
	OFF	When the switch is in the OFF position, the ignition, lamps and accessories are off.
	IGNITION	When the switch is in the IGNITION position, the motorcycle can be started and all lamps and accessories will operate.
	ACCESS	When the switch is in the ACCESS position, all the lamps and accessories will operate but the engine can not be started. In ACCESS, the switch can be locked.

om00759



1. Ignition switch
2. Key lock

Figure 3. Ignition/Headlamp Switch/Fork Lock: FLHTCUSE3

## HANDLEBAR CONTROLS: FLHTCUSE3

### CAUTION

Control wiring is routed inside handlebar and may be pinched or cut if controls are rotated too far. Electrical damage to control wiring can result. See Service Manual Supplement or see a Harley-Davidson dealer. (00363a)

### Clutch Hand Lever

### WARNING

Do not position fingers between hand control lever and handlebar grip. Improper hand positioning can impair control lever operation and cause loss of vehicle control, which could result in death or serious injury. (00032a)

See Figure 4. The clutch hand lever (1) is located on the left handlebar and is operated with the fingers of the left hand.

1. Squeeze the pull clutch hand lever in against handlebar grip to fully disengage clutch.
2. Shift to first gear using the gear shifter lever. See OPERATION, Shifting Gears: FLHTCUSE3.
3. Slowly release the clutch hand lever to engage clutch.

## Horn Switch

See Figure 4. The horn is operated by pushing on the horn switch (2) located on the left handlebar control group.

## Headlamp Dimmer Switch

See Figure 4. The headlamp dimmer switch (3) is located on the left handlebar. The switch has two positions to activate the headlamps high or low beams.

- Press the top of the headlamp dimmer beam switch to activate the high beam.
- Press the bottom of the headlamp dimmer switch to return to the low beam.

See Figure 4. The (blue) high beam indicator lamp will illuminate when the high beam is on.

## Turn Signal Switches

See Figure 4. Each handlebar control group contains a turn signal switch.

- The left turn signal switch (4) operates the left front and left rear flashing lamps.
- The right turn signal switch (10) operates the right front and right rear flashing lamps.

## NOTE

*Front turn signal lamps also function as running lamps.*

## Heated Hand Grip Control

See Figure 4. Located at the end of the left hand grip, the heated hand grip control (5) can be turned from the OFF icon through 6 increasingly warm settings.

## Electric Starter Switch

## NOTE

*Off/Run switch MUST be in RUN position to operate engine.*

See Figure 4. The electric starter switch (6) is located on the right handlebar control group. See OPERATION, Starting the Engine: FLHTCUSE3 for detailed operation procedures.

1. Put the engine OFF/RUN switch in the RUN position and the transmission in neutral. Neutral (green) indicator lamp should be illuminated.
2. See Figure 4. Turn ignition/headlamp key switch to ON and push the START switch to operate starter motor.

## Engine OFF/RUN Switch

See Figure 4. The engine OFF/RUN switch (7) turns the ignition power ON or OFF. The engine OFF/RUN switch is located on the right handlebar control. Push the top portion of the engine

OFF/RUN switch to turn off ignition power and shut the engine off. Push the bottom portion of the engine OFF/RUN switch to turn on ignition power.

#### NOTES

- *The engine OFF/RUN switch must be in the ON position to start or operate the engine.*
- *The engine OFF/RUN switch should be used to shut the engine off.*

1. To shut the engine off, push the top of the OFF/RUN switch to the OFF position.
2. See Figure 4. Turn the ignition key to the OFF position to turn the ignition power completely OFF.

## Front Brake Lever

See Figure 4. The front brake lever (8) applies mechanical pressure to the front brake master cylinder and the master cylinder applies hydraulic pressure to the front brake calipers.

## Throttle Control Grip

See Figure 4. The throttle control grip (9) is located on the right handlebar control and is operated with the right hand.

## Cruise Control Resume/Set Switch

See Figure 4. The cruise control resume/set switch (11) automatically maintains the speed of the motorcycle. Refer to OPERATION, Cruise Control: FLHTCUSE3.

om00937

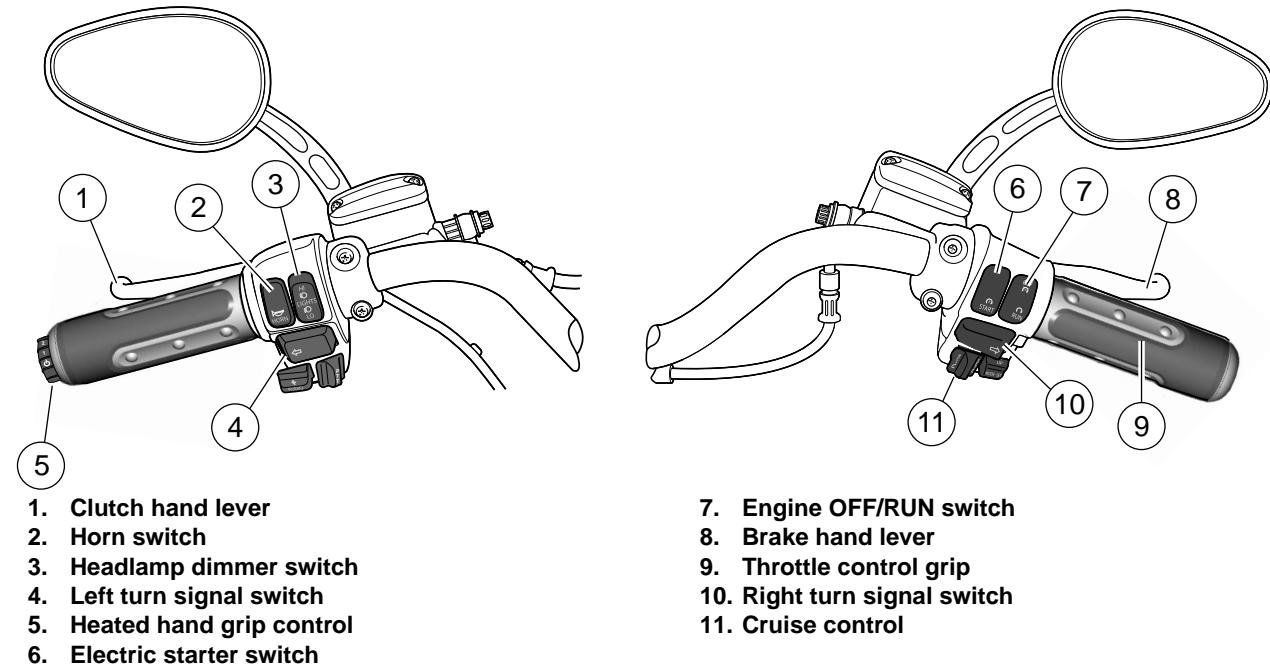


Figure 4. Handlebar Controls: FLHTCUSE3

## **ELECTRONIC THROTTLE CONTROL (ETC)**

Touring models are equipped with Electronic Throttle Control (ETC). Instead of using a mechanical cable connection to the throttle body, this technology uses redundant grip sensors to indicate rider requested throttle position to the Electronic Module (ECM). The ECM then regulates proper fuel/air intake and ignition timing based on the rider request. The grip sensor is manufactured with internal cams and spring retainer for natural feel and operation.

ETC operation is designed for rider safety and continued motorcycle operation, even in the event of a component failure. The Electronic Control Module monitors the status of the grip sensors, throttle plate actuation and airflow. If any problems are detected, the motorcycle will disable cruise control, illuminate the engine check lamp, and revert to one of the following fallback modes.

### **ETC Limited Performance Mode**

The rider will experience near-normal operation. The motorcycle will operate with provisions to guard against unintended acceleration.

### **ETC Power Management Mode**

The throttle plate actuator returns to an "idle detent" or "limp-home" position, which will provide enough torque to achieve

speed of about 25 mph (40 kph). The motorcycle's response to grip sensor input is significantly reduced.

### **ETC Forced Idle Mode**

The throttle plate actuator is forced to a "fast idle" position, which will provide enough torque to crawl, but not enough torque to operate at traffic speeds.

### **ETC Forced Shutdown Mode**

The engine is forced to shut down.

## **TURN SIGNAL SWITCH OPERATION**

The turn signal switches are used by the turn signal module to control turn signal operation based on vehicle speed, vehicle acceleration and turn completion.

Momentarily depress the desired turn signal switch. The turn signal lamps will begin and continue flashing until they are manually or automatically cancelled. As long as the motorcycle is stationary, the signals will flash.

## NOTES

- *If you are signaling to turn in one direction and you depress the switch for the opposite turn signal, the first signal is cancelled and the opposite side begins flashing.*
- *If you want to stop the lamps from flashing, briefly depress the turn signal switch a second time. The turn signal lamps will stop flashing.*

## HAZARD WARNING: FLHTCUSE3

### 4-Way Flashers

Should it be necessary to park along side a roadway, 4-way flashers can be activated as a hazard warning to traffic.

**Activate:** Turn the ignition key to ACCESS and simultaneously press the left and right turn signal switches.

**Deactivate:** Turn the ignition key ON and simultaneously press the left and right turn signal switches.

### 4-Way Flashers with Security System

If it should be necessary to leave the motorcycle parked along side a roadway unattended, the 4-way flashers can be activated and the Harley-Davidson Smart Security System can be armed. See SMART SECURITY SYSTEM, Arming and Disarming: FLHTCUSE3.

## INSTRUMENTS: FLHTCUSE3

### Speedometer

#### WARNING

Travel at speeds appropriate for road and conditions and never travel faster than posted speed limit. Excessive speed can cause loss of vehicle control, which could result in death or serious injury. (00008a)

See Figure 5. The speedometer (1) registers miles per hour (MPH) or, on International models, kilometers per hour (KPH).

The speedometer includes a single display window for the odometer, two trip-odometers, and a trip indicator.

Press the function button (7) to change the display window on the speedometer face to either odometer or trip-odometer.

### Odometer

See Figure 7. The odometer (7) registers the number of miles/kilometers the vehicle has traveled. Odometer will display mileage when bike is OFF when function button is pressed. There is no need to turn the bike on to check the odometer reading.

## Trip Odometer

Use the trip-odometer A (7) or trip-odometer B to register number of miles/kilometers traveled on a trip or between refueling.

See Figure 7. To reset the trip-odometer to zero, press button to reset speedometer display to the ODOMETER mode and hold the button in for approximately 2-3 seconds. The speedometer will switch to the trip-odometer mode and reset the display to zero.

### CAUTION

**Never attempt to tamper with or alter the vehicle odometer. This is illegal. Tampering with or altering a vehicle odometer may cause equipment damage. (00160a)**

## Tip Indicator

### WARNING

**If tip occurs, check all controls for proper operation. Restricted control movement can adversely affect the performance of the brakes, clutch or ability to shift, which could result in loss of vehicle control and death or serious injury. (00350a)**

Should motorcycle be tipped over, the word "tip" will appear in the odometer window. Engine will not start until reset. To reset, cycle ignition/headlamp key switch ON-OFF-ON.

## Tachometer

### CAUTION

**See OPERATING RECOMMENDATIONS section. Do not operate the engine above maximum safe RPM as shown under OPERATION (red zone on tachometer). Lower the RPM by upshifting to a higher gear or reducing the amount of throttle. Failure to lower RPM may cause equipment damage. (00159a)**

See Figure 5. The tachometer (2) measures the engine speed in revolutions per minute (RPM).

## Voltmeter

See Figure 5. The voltmeter (3) indicates electrical system voltage and is found on the front panel of the fairing. With the engine running above 1500 RPM, the voltmeter should register 13-14.5 volts with battery at full charge.

## Oil Pressure Gauge

See Figure 5. The oil pressure gauge (4) indicates engine oil pressure and is found on the front panel of the fairing. Engine

oil pressure will normally vary from 5 PSI (34 kN/m<sup>2</sup>) at idle speed to 30-38 PSI (207-262 kN/m<sup>2</sup>) at 2000 RPM when engine is at normal operating temperature of 230° F (110° C).

## Air Temperature Gauge

See Figure 5. The air temperature gauge (5) indicates the ambient air temperature in degrees fahrenheit. This gauge is found on the front panel of the fairing.

## Fuel Gauge

See Figure 5. The fuel gauge (6) indicates the approximate amount of fuel in the fuel tanks.

## Clock (In Radio)

The clock runs continuously as long as there is battery power. To reset clock, refer to ADVANCED AUDIO SYSTEM, Audio System: FLHTCUSE3.

## Fuel Range Function

The fuel range function shows the approximate mileage available with the amount of fuel left in the fuel tank.

1. With the ignition switch in the ACC or IGNITION position, press function switch until fuel range function is displayed, as indicated by the letter 'r' in the left side of the odometer display. The calculated remaining distance (miles or kilo-

meters) to empty is displayed, based on the amount of fuel in tank. Range can be accessed at any time using the function switch.

2. When the low fuel warning lamp illuminates, the range feature will automatically be displayed in the odometer unless this automatic pop-up feature is disabled by a press and hold of the function switch while in range display mode. Automatic range pop-up feature will show that it is disabled by blinking twice. Likewise, automatic range pop-up can be reactivated by a press and hold of the function switch. Range will blink once when the automatic pop-up feature is reenabled.

### NOTE

*When the low fuel warning lamp turns on, there is approximately 1 gallon (3.8 liters) of fuel remaining in the tank. Refuel as soon as possible.*

3. After the range calculation reaches 10 miles (16 kilometers) remaining, the range display will show "r Lo" to indicate that the vehicle will shortly run out of fuel.
4. The range display is only updated when the vehicle is moving 10 mph (16 km/h) or greater.

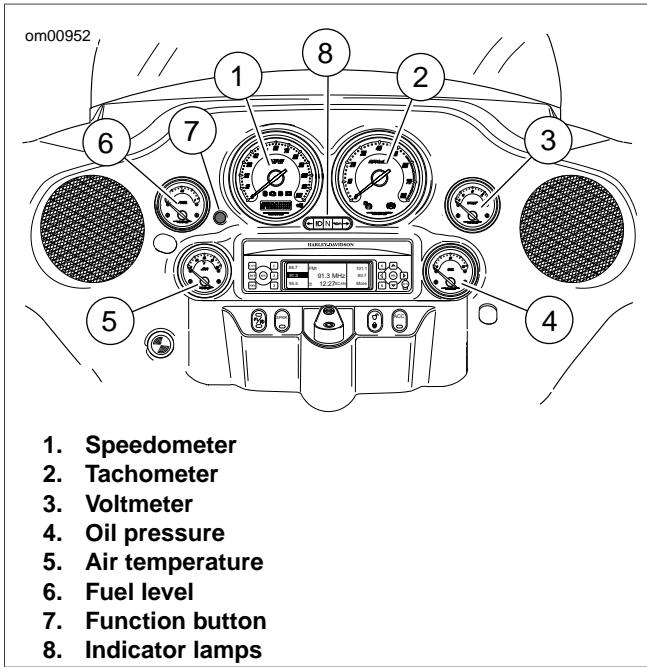


Figure 5. Instruments: FLHTCUSE3

## INDICATOR LAMPS

See Figure 6. Five indicator lamps are provided.

- The green TURN indicators will flash when turn signals are activated; therefore, flashing indicates the chosen turn direction. When the 4-way hazard flashers are operating, both turn indicators will flash simultaneously.
- The blue BEAM indicator lamp, when lit, signals high beam headlamp operation.
- The green NEUTRAL lamp, when lit, signals the transmission is in neutral gear.
- The red OIL indicator lamp, when lit, signals that oil is not circulating through the engine.

### NOTE

*The OIL indicator lamp will glow when the ignition is turned on prior to starting engine. With engine running, lamp should be off when engine speed is above idle.*

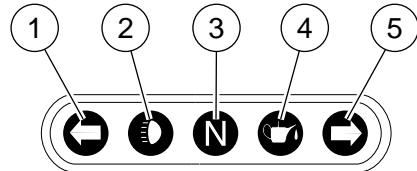
Several other circumstances that could cause the red oil indicator lamp to signal, include the following:

- If the oil pressure indicator lamp does not go off at speeds above idling, it is usually because of an empty oil tank or diluted oil.
- In freezing weather the oil feed may clog with ice and sludge, preventing oil circulation.
- A grounded oil signal switch wire.
- A faulty signal switch.
- A damaged or improperly installed check valve.
- Trouble with the pump.

## CAUTION

If the oil pressure indicator lamp remains lit, always check the oil supply first. If the oil supply is normal and the lamp is still lit, stop the engine at once and do not ride further until the trouble is located and the necessary repairs are made. Failure to do so may result in engine damage. (00157a)

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1. Left turn
2. High beam
3. Neutral
4. Oil
5. Right turn

Figure 6. Indicator Lamps

## WARNING LAMPS: FLHTCUSE3

### Engine Check Lamp

See Figure 7. The engine check lamp (1) indicate whether or not the engine/engine management system is operating normally. The engine lamp color is amber.

The engine lamp normally comes on when the bike's ignition is first turned on and remains on for approximately 4 seconds, as the engine management system runs a series of self-diagnostics.

If the engine lamp comes on at any other time, see a Harley-Davidson dealer.

## **Low Fuel Lamp**

See Figure 7. The low fuel lamp (6) illuminates to indicate that you have approximately 1 gallon (3.8 liters) of gasoline left in the tank. The low fuel lamp color is amber.

## **Charging Lamp**

See Figure 7. The battery charging icon (5) illuminates to indicate either overcharging or undercharging of the battery. Refer to MAINTENANCE AND LUBRICATION, Battery: General.

## **Security Lamp**

See Figure 7. The security lamp (2) will illuminate when the security system is armed. Refer to SMART SECURITY SYSTEM, Harley-Davidson Smart Security System.

## **Cruise Control Equipped Models**

Cruise control equipped models feature two additional indicator lamps.

- An orange lamp on the cruise control rocker switch on the inner fairing cap indicates when the cruise control is ON or OFF.
- See Figure 7. When the cruise control icon in the tachometer face is orange it indicates that cruise control is ON but disengaged. When the icon is green it indicates that the cruise control is ON and engaged.

## **ABS Lamp**

See Figure 7. The amber ABS indicator lamp begins to flash at key ON to indicate that the system is operational. It continues to flash until motorcycle speed exceeds 3 mph (5 km/h). Continuous illumination of the lamp will only occur when ABS detects that the system is malfunctioning. In the diagnostic mode, the lamp will also illuminate to indicate the presence of diagnostic trouble codes (DTCs). See a Harley-Davidson dealer for service.

## ⚠️WARNING

If ABS lamp remains on continuously, the ABS is not operating. The standard brake system is operational, but wheel lock up can occur. Contact a Harley-Davidson Dealer to have ABS repaired. A locked wheel will skid and can cause loss of vehicle control, which could result in death or serious injury. (00361a)

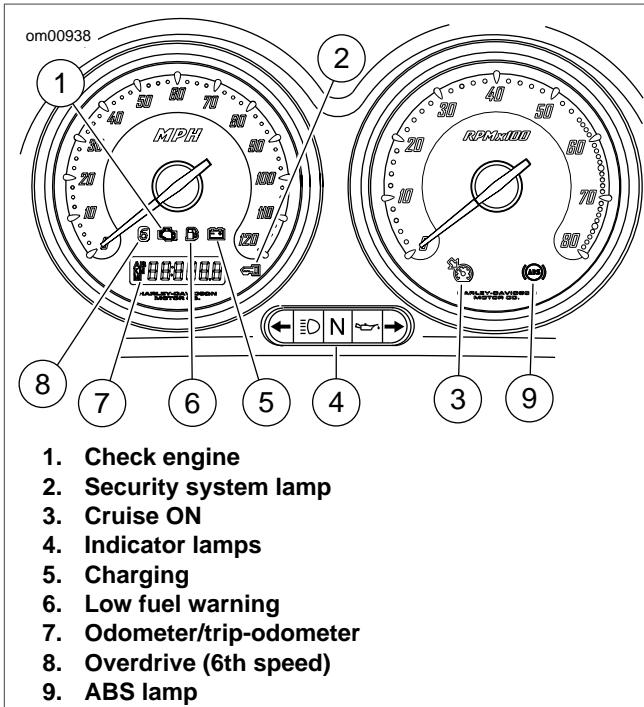


Figure 7. Warning Lamps: FLHTCUSE3

## GEAR SHIFT LEVER: FLHTCUSE3

### CAUTION

**The clutch must be fully disengaged before attempting a gear shift. Failure to fully disengage the clutch can result in equipment damage. (00182a)**

The gear shift lever is located on the left side of the motorcycle and is operated with the left foot.

1. Push the gear shift lever all the way down (full stroke) to shift the transmission to the next lower gear.
2. Lift the gear shift lever all the way up (full stroke) to shift the transmission to the next higher gear.

#### NOTES

- *Release the gear shift lever after each gear change.*
- *The lever must return to its central position before another gear change can be made.*

Neutral is located between first and second gear. The green neutral indicator lamp on the dash will illuminate when the transmission is in neutral.

1. To shift from first gear to neutral, lift the gear shift lever 1/2 of its full stroke.

2. To shift from second gear to neutral, push the gear shift lever downward 1/2 of its full stroke.

When the motorcycle is standing still and the engine is not running, shifting gears requires a different technique. Before shifting in this condition, move the motorcycle backward and forward with the clutch fully disengaged (clutch lever pulled in). While maintaining slight pressure on the shift lever, shift from one gear to another.

Even with the engine running and the motorcycle standing still, difficulty may be experienced in shifting gears. This difficulty occurs because transmission gears are not turning and shifting parts are not lined up to permit engagement.

### CAUTION

**When difficulty of shifting gears is experienced, do not under any circumstances, attempt to force the shift. The results of such abuse will be a damaged or broken shifter mechanism. (00161a)**

See OPERATION, Shifting Gears: FLHTCUSE3 for more information.

## HEEL-TOE SHIFT LEVER: FLHTCUSE3

See Figure 8. The FLHTCUSE3 is equipped with a heel-toe shift lever. With this lever, upshifts can be made with the heel of the left foot. Downshifts can be made with the toe.

- Pushing heel-toe shift lever all the way down (full stroke) shifts the transmission to the next lower gear.
- Lifting the heel-toe shift lever all the way up (full stroke) shifts the transmission into the next higher gear.

Release the heel-toe shift lever after each gear change. This allows the lever to return to its central position before another gear change can be made.

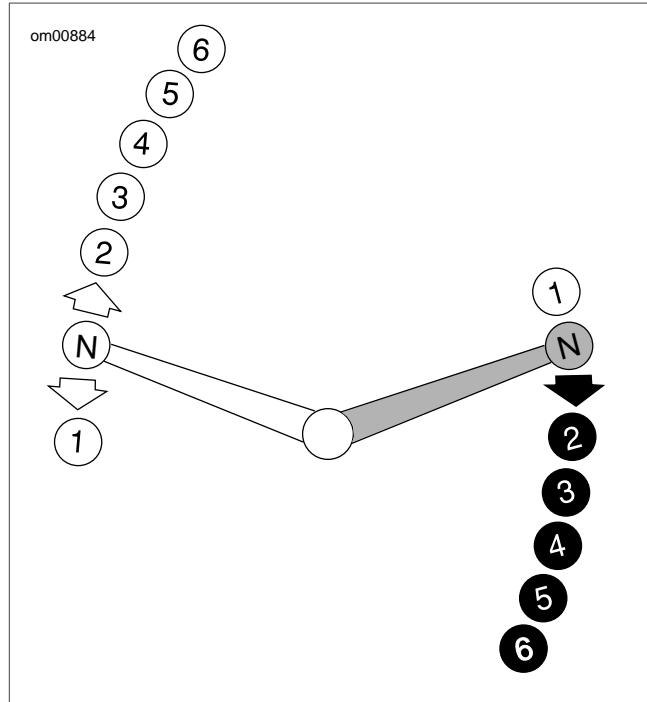


Figure 8. Heel-Toe Foot Shift Pattern: FLHTCUSE3

## BRAKE SYSTEM: ABS-EQUIPPED MODELS

### General

The rear brake pedal controls the rear wheel brake and is located on the motorcycle's right side. Operate the rear brake pedal with the right foot.

The front brake hand lever controls the front wheel brake and is located on the right handlebar. Operate the hand lever with the fingers of the right hand.

#### **WARNING**

**Do not position fingers between hand control lever and handlebar grip. Improper hand positioning can impair control lever operation and cause loss of vehicle control, which could result in death or serious injury. (00032a)**

### Anti-lock Brake System (ABS)

Harley-Davidson's Anti-Lock Brake System assists the rider in maintaining control when braking in a straight-line emergency situation. ABS operates independently on front and rear brakes to keep the wheels rolling and prevent uncontrolled wheel lock-ups either on dry pavement or on slick surfaces such as gravel, leaves or when riding in wet conditions.

### ABS: How It Works

The ABS monitors sensors at the front and rear wheels to determine wheel speed. If the system detects one or both wheels are slowing down too quickly, which indicates they are close to locking, or if the deceleration rate does not match a criteria stored in memory, the ABS reacts. The system rapidly opens and closes valves to modulate the brake pressure being applied by the rider. During ABS activation, the system provides the electronic equivalent of manually pumping the brakes and is capable of cycling up to seven times per second.

The rider will recognize ABS activation by the slight pulsing sensation in the hand lever or the rear brake pedal. The pulsing sensation may also be accompanied by a clicking sound from the ABS module. Both are the result of normal operation. Refer to Table 16.

### ABS: How To Use

While an advantage in emergency braking, ABS is not a substitute for safe riding. The safest way to stop a motorcycle is upright with both wheels straight.

Harley-Davidson ABS is a manual assist system. When in an emergency stopping situation, maintain pressure on the brakes through all ABS events. Do not modulate or "pump" the brake controls. The wheels won't lock until the end of the stop when

motorcycle speed reaches approximately four miles per hour and ABS is no longer needed.

## ⚠️WARNING

**ABS cannot prevent lockup of rear wheel due to engine braking. ABS will not aid in cornering or on loose/uneven surfaces. A locked wheel will skid and can cause loss of vehicle control, which could result in death or serious injury. (00362a)**

More information is available at [www.harley-davidson.com/abs](http://www.harley-davidson.com/abs).

## ABS: Tires and Wheels

ABS motorcycles must always use tires and wheels that are the same as the original equipment. The ABS monitors the rotational speed of the wheels through individual wheel speed sensors. Changing to different diameter wheels or different sized tires can alter the rotational speed. This can upset the calibration of the ABS and have an adverse effect on its ability to detect and prevent uncontrolled wheel lockups. Tire inflation pressure that is significantly low also can have an adverse effect.

**Table 16. ABS Symptoms and Conditions**

SYMPTOM	CONDITION
Pulsing brake lever or pedal during an ABS event	Normal condition.
Clicking sound during an ABS event	Normal condition.
ABS lamp flashing	Normal condition - key turned to IGNITION - speed under 3 mph (5 km/h).
Perceived "surge" while braking	Normal condition - noticeable when braking with one brake (front only or rear only). Result of a reduction in deceleration which can be caused by cracks or bumps in road, engine braking (high engine RPMs causing the rear wheel to slow down), hard braking at slow speeds, and other conditions.

**Table 16. ABS Symptoms and Conditions**

SYMPTOM	CONDITION
Temporarily stiff rear brake pedal	Normal condition - engine braking (high engine RPMs causing the rear wheel to slow down) or down shifting can activate ABS. If applying the rear brake at the same time or immediately after, the ABS may be closing a valve to prevent pressure to the rear brake.
Tire chirp	Normal condition - depending on surface, tire can chirp without locking the wheel.
Black mark on pavement	Normal condition - depending on surface, tire can leave a black mark without locking the wheel.
Wheel lock at low speed	Normal condition - ABS will not activate on front wheel below 3 mph (5 km/h) or on rear wheel below 5 mph (8 km/h).

## JIFFY STAND

The jiffy stand is located on the left side of the motorcycle and swings outward to support the motorcycle for parking.

### **WARNING**

**Always park motorcycle on a level, firm surface. An unbalanced motorcycle can fall over, which could result in death or serious injury. (00039a)**

## **WARNING**

**The jiffy stand locks when placed in the full forward (down) position with vehicle weight on it. If the jiffy stand is not in the full forward (down) position with vehicle weight on it, the vehicle can fall over which could result in death or serious injury. (00006a)**

## **WARNING**

**Be sure jiffy stand is fully retracted before riding. If jiffy stand is not fully retracted, it can contact the road surface causing a loss of vehicle control, which could result in death or serious injury. (00007a)**

## **JIFFY STAND INTERLOCK: INTERNATIONAL MODELS**

Some international models are equipped with a jiffy stand interlock feature.

If the rider attempts to start the engine or pushes the starter button while the transmission is in gear and the jiffy stand is down, then the jiffy stand interlock system will not permit the engine to run. The message "SidE StAnd" will scroll across the odometer to indicate this to the rider. Raising the jiffy stand

(or putting the transmission in neutral) will permit the engine to run and clear the message.

If the jiffy stand falls out of the fully retracted position while riding at speeds greater than 10 mph (15 kph), then the jiffy stand interlock system will maintain engine operation and alert the rider about this by illuminating the indicators (flash twice) and scroll the message "SidE StAnd" across the odometer. The message will remain until the system detects the jiffy stand in the fully retracted position again. The rider may continue to operate the vehicle while in this mode.

The rider may clear the text messages at any time by pressing the function switch once while the vehicle is powered up.

### **NOTE**

*If the operation of raising the jiffy stand and putting the transmission in gear is rapidly executed, the jiffy stand bouncing off the frame could cause the jiffy stand interlock system to activate and stop the engine.*

## REAR VIEW MIRRORS

### WARNING

Objects in mirrors are closer than they appear. Use caution when judging distance of objects in mirrors. Failure to judge correct distances could result in death or serious injury. (00033a)

Your vehicle is equipped with two convex rear view mirrors.

This type of mirror is designed to give a much wider view to the rear than a flat mirror. However, cars and other objects seen in this type of mirror will look smaller and farther away than they actually are.

- Use caution when judging the size or relative distance of objects seen in rear view mirrors.
- Always adjust the rear view mirrors to clearly reflect the area behind the motorcycle before riding.

### NOTE

*Adjust mirrors so you can see a small portion of your shoulders in each mirror. This will help you establish the relative distance of vehicles to the rear of your motorcycle.*

## FORK LOCK: FLHTCUSE3

### CAUTION

Protect your vehicle against theft. After parking your motorcycle, lock the steering head and remove ignition key from switch. Failure to lock your motorcycle may result in theft and/or equipment damage. (00151a)

### NOTE

*The fork lock is integrated into the ignition switch.*

Using the fork lock immediately after parking your motorcycle will discourage unauthorized use or theft when parking your motorcycle. For fork lock detail, refer to Table 15.

### WARNING

**Do not operate vehicle with forks locked. Locking the forks restricts the vehicle's turning ability, which could result in death or serious injury. (00035a)**

### To Lock Fork

### NOTE

*Forcing the switch into the locked position can damage the switch.*

1. Turn fork to **full left** position.
2. Insert key into the key lock.
3. Push down on knob and turn left to **FORK LOCK** position.
4. Turn key to **LOCK** position and remove key.

## **INNER FAIRING CAP ROCKER SWITCHES: FLHTCUSE3**

### **CRUISE/SPOT**

See Figure 9. The CRUISE/SPOT rocker switch (1) is a dual purpose switch.

**CRUISE:** Rock the switch forward to activate cruise control. The LED will illuminate when cruise control is active.

Rock the switch forward a second time to turn cruise OFF.

**SPOT:** Rock the switch rearward to turn the spots or auxiliary lamps ON. The LED will illuminate when the auxiliary lamps are lit. See CONTROLS AND INDICATORS, Auxiliary Lamps: FLHTCUSE3.

Rock the switch rearward a second time to turn the auxiliary lamps OFF.

### **SPKR**

The SPKR (Speaker) switch (2) is a three position switch which selects the rider or passenger speakers or the headsets for the Advanced Audio Sound System. See ADVANCED AUDIO SYSTEM, Speaker Controls: FLHTCUSE3.

### **Power Lock**

The rocker switch identified by a locked and unlocked padlock icon (3) is a power lock switch for the saddlebags and Tour-Pak. See CONTROLS AND INDICATORS, Power Locks: FLHTCUSE3.

### **ACC**

The ACC (Accessory) rocker switch (4) controls the power to the accessory connector located under the seat. Various accessories available from the Genuine Motor Accessories and Genuine Motor Parts are powered through this connector. See CONTROLS AND INDICATORS, Accessory Switch: FLHTCUSE3.

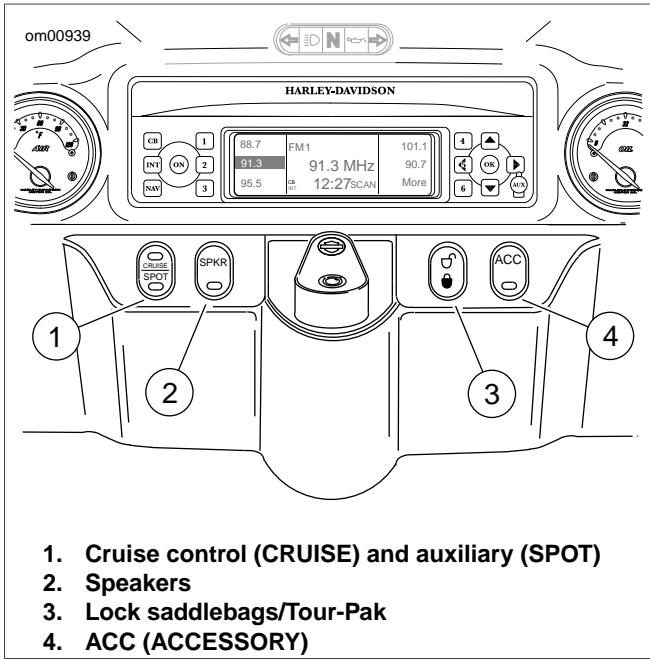


Figure 9. Switch Indicators: FLHTCUSE3

## ACCESSORY SWITCH: FLHTCUSE3

See Figure 9. The accessory (ACC) rocker switch (4) is located in front of the rider on the inner fairing cap. Rock the switch rearward to turn the accessories circuit ON. The LED in the switch is illuminated when the accessories circuit is ON.

### CAUTION

It is possible to overload your motorcycle's charging system by adding too many electrical accessories. If your combined electrical accessories operating at any one time consume more electrical current than your vehicle's charging system can produce, the electrical consumption can discharge the battery and cause vehicle electrical system damage. See a Harley-Davidson dealer for advice about the amount of current consumed by additional electrical accessories, or for necessary wiring changes. (00211b)

## AUXILIARY LAMPS: FLHTCUSE3

See Figure 9. Use the auxiliary lamp switch (1) to turn ON the auxiliary lamps as required.

## NOTES

- The auxiliary lamp switch (SPOT) is on the left side of the ignition/headlamp key switch on fairing cap.
- The auxiliary lamps (SPOT) do not work when the headlamp is on high beam.

## HEATED SEAT: FLHTCUSE3

### Switch Controls

See Figure 10. The heated seat controls for the rider (1) and passenger (2) are three position rocker switches.

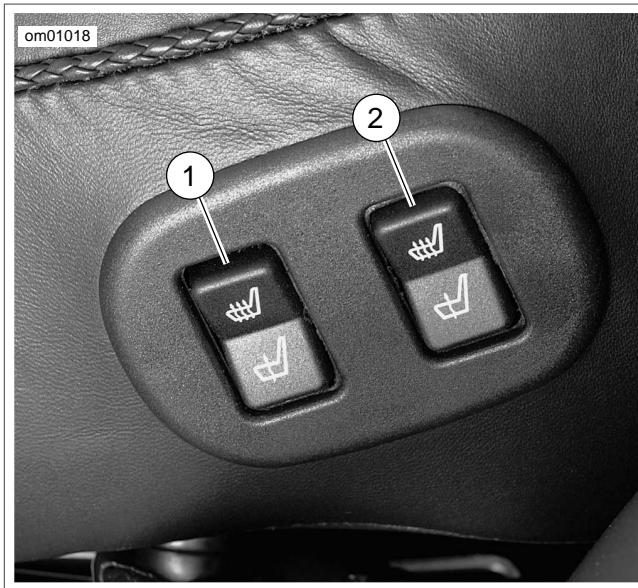
**High Heat:** Rock the switch at the top for high heat.

**OFF:** The OFF position is in the middle.

**Low Heat:** Rock the switch at the bottom for low heat.

### NOTE

*Allow 8 to 10 minutes for the seat to warm up.*



1. Rider switch
2. Passenger switch

Figure 10. Heated Seat Switches: FLHTCUSE3

## CIGARETTE LIGHTER

See Figure 11. A cigarette lighter is located on the left side of the fairing. To operate, press lighter into socket. The lighter will pop out when hot.

The lighter is not intended to be used as a power port for electrical devices. Damage to the lighter receptacle may occur.



**Figure 11. Cigarette Lighter**

## LUGGAGE

### **WARNING**

**Do not exceed the motorcycle's Gross Vehicle Weight Rating (GVWR) or Gross Axle Weight Rating (GAWR). Exceeding these weight ratings can affect stability and handling, which could result in death or serious injury. (00016e)**

GVWR is the sum of the weight of the motorcycle, accessories, and the maximum weight of the rider, passenger and cargo that can be safely carried.

GAWR is the maximum amount of weight that can be safely carried on each axle.

The GVWR and GAWR is shown on the information plate, located on the frame steering head.

## **POWER LOCKS: FLHTCUSE3**

### **Power Lock Switch**

See Figure 9. The locks on the saddlebags and Tour-Pak can be electrically locked and unlocked. The power lock is operated with a rocker switch (3) on the inner fairing cap. The rocker switch is labeled with padlock icons.

### **NOTE**

*When needed, the ignition key can be used to manually override the power locks and unlock the saddlebags and Tour-Pak.*

### **Locking**

1. Close saddlebag lids and Tour-Pak lid. Secure latches.
2. With the ignition switch in IGNITION or ACCESS, rock the switch rearward to LOCK.

### **NOTES**

- *To avoid the latches being locked with the saddlebag/latches and Tour-Pak lids open, do not rock the power lock switch to lock until the lids are closed and latched.*
- *Power locks do not operate the fork lock or ignition switch. Keys are required to lock and unlock the fork and ignition switch.*

### **Unlocking**

1. With the ignition switch in IGNITION or ACCESS, rock the switch forward to UNLOCK.
2. Open the saddlebags with the latch. Open the Tour-Pak by undoing both latches.

## POWER LOCK FOB

### General

See Figure 13. The fob remotely operates the power locks in the saddlebags and Tour-Pak. The key on the fob may be used to manually lock/unlock the ignition switch, saddlebags, and Tour-Pak on the vehicle.

### Entering Program Mode

#### NOTE

*To program a fob, it is necessary to put the receiver on the bike into program mode.*

1. Turn ignition knob to IGNITION or ACCESSORY.

#### NOTES

- *Verify that both saddlebags and the tour-pak power locks are functioning correctly when using the saddlebag/Tour-Pak lock switch.*
- *Leave the Tour-Pak lid open during programming to see the Tour-Pak power lock hook move during lock and unlock events.*

2. See Figure 12. Press UNLOCK on the saddlebag/Tour-Pak lock switch to set locks to the unlocked position. Wait 5 seconds.

3. Press LOCK once on the saddlebag/Tour-Pak lock switch.
4. Press UNLOCK on the saddlebag/Tour-Pak lock switch 3 times in a row.
5. Press LOCK on the saddlebag/Tour-Pak lock switch 3 times in a row.
6. Press and hold UNLOCK for 5 seconds. After 5 seconds, the actuators will cycle the locks to locked then back to unlocked. The receiver is now beginning its program cycle.
7. Wait 11 more seconds. The actuators will once again cycle to lock then back to unlock. The receiver is now in program mode.

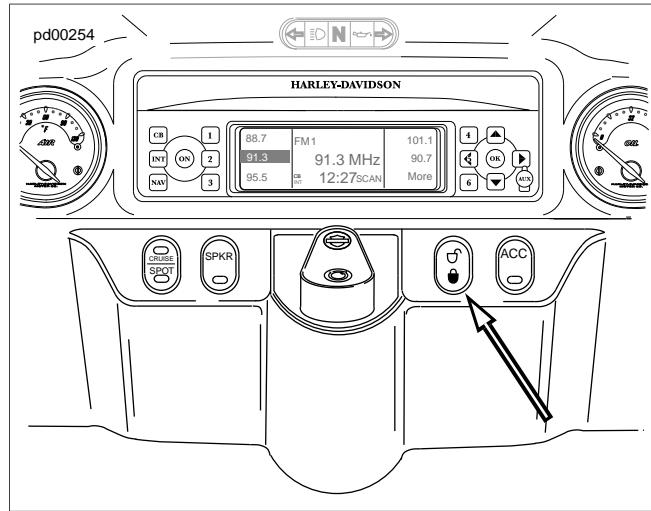


Figure 12. Saddlebag/Tour-Pak Lock Switch

## Program Mode

### NOTE

*Pressing lock or unlock on the saddlebag/Tour-Pak lock switch during program mode will cause program mode to end.*

1. See Figure 13. Press and release the LOCK button on fob number 1 repeatedly until you hear the actuators lock. Verify the fob is programmed by pressing UNLOCK.
2. After fob number 1 is programmed, wait 5 seconds until the actuators cycle to lock then back to unlock. Now program fob number 2.
3. Repeat steps 1 and 2 to program fob number 2.
4. The receiver will remain in program mode for 30 seconds. Repeat steps 1 and 2 to program any other fobs.
5. To exit program mode, perform one of the following:
  - a. Wait 30 seconds.
  - b. Press lock or unlock on the saddlebag/Tour-Pak lock switch.
  - c. Remove power lock fuse.

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1. Lock
2. Unlock
3. Key

Figure 13. Power Lock Fob

## Replacing the Battery

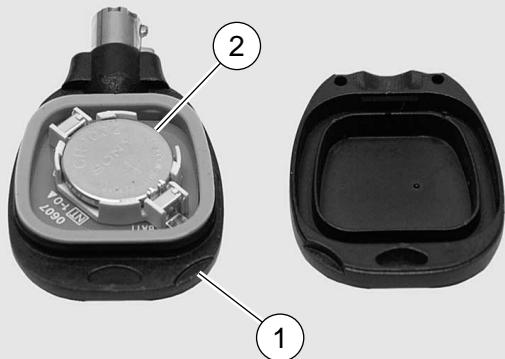
1. See Figure 14. Slowly turn a thin screwdriver blade in the thumbnail slot (1) on the side of the fob to separate the two halves.
2. Remove the battery (2) and discard.

### NOTE

*Dispose of old battery in accordance with local regulations.*

3. Install a **new** battery (Panasonic 2032 or equivalent) with the positive (+) side facing up.
4. Align the two halves of the fob and snap together.

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1. Thumbnail slot
2. Battery

Figure 14. Power Lock Fob Battery

## TOUR-PAK: FLHTCUSE3

### ⚠ CAUTION

Do NOT pull on any electrical wires. Pulling on electrical wires may damage the internal conductor causing high resistance, which may result in minor or moderate injury. (00168a)

#### NOTES

- To lock/unlock the Tour-Pak with the power lock rocker switch in the inner fairing cap, refer to CONTROLS AND INDICATORS, Power Locks: FLHTCUSE3.
- To lock/unlock the Tour-Pak with the power lock fob, refer to CONTROLS AND INDICATORS, Power Lock Fob.

#### Lock/Unlock With Ignition Key

**Lock:** See Figure 15. Insert the key (1) into the neutral position (2) of the Tour-Pak lock (3) and turn the key 1/4th of a turn to the right. Return the key to the neutral position to remove the key.

**Unlock:** Insert the key in the neutral position of the Tour-Pak lock and turn the key 1/4th of a turn to the left. Return the key to the neutral position to remove the key.

## Open/Close

**Open:** With the Tour-Pak unlocked, undo both latches and lift.

**Close:** Close the lid. Secure both latches.

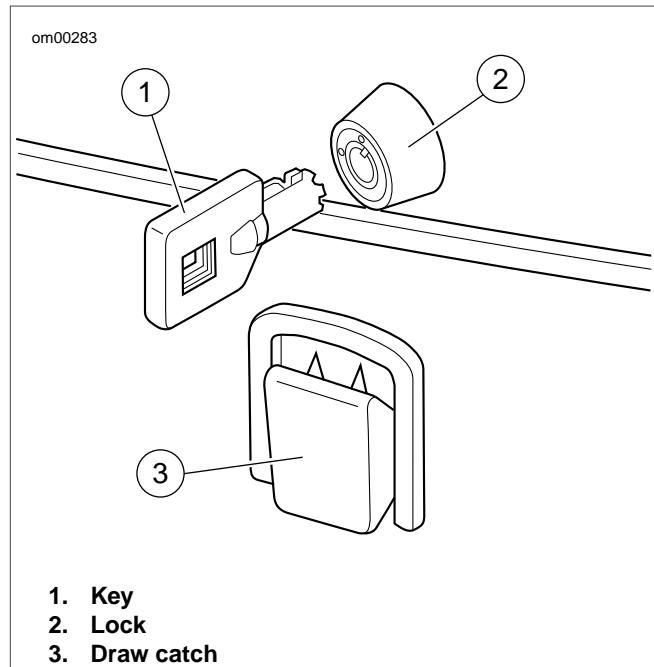


Figure 15. Tour-Pak Lock and Draw Catch

## SADDLEBAGS: FLHTCUSE3

### NOTES

- *To lock/unlock saddlebags with the power lock rocker switch in the inner fairing cap, refer to CONTROLS AND INDICATORS, Power Locks: FLHTCUSE3.*
- *To lock/unlock saddlebags with the power lock fob, refer to CONTROLS AND INDICATORS, Power Lock Fob.*
- *The key fob and ignition key do not need the bike turned on to use. The fob has built-in activation. It can be used several feet away from the bike.*

### Lock/Unlock With Ignition Key

**Lock:** Insert the key into the neutral position of the saddlebag lock and turn the key 1/8th of a turn to the left. Return the key to the neutral position to remove the key.

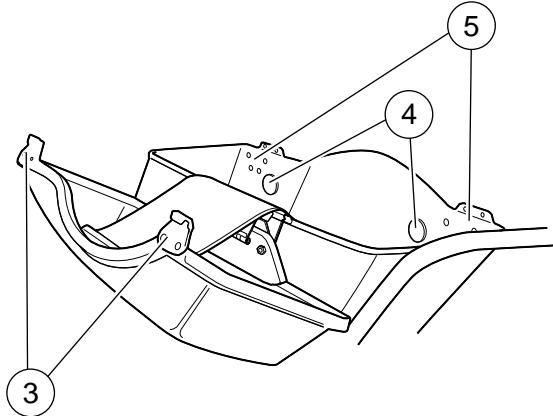
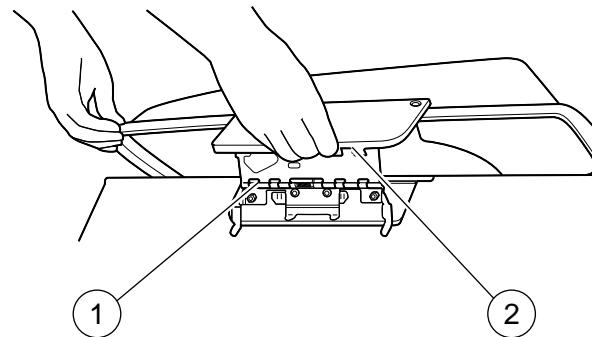
**Unlock:** Insert the key in the neutral position of the Tour-Pak lock and turn the key 1/8th of a turn to the right. Return the key to the neutral position to remove the key.

### Opening

1. See Figure 16. To open the latch, grab latch with fingers and lift.
2. Place one hand at OUTSIDE CORNER of cover and other hand at opposite outside corner. Lift outside edge of cover, pivoting inside edge of cover in brackets.
3. Lift inside edge of cover to disengage brackets.
4. Bring cover towards you, over saddlebag. As you bring cover toward you, let it flip over, so the inside faces up. Let cover hang from the nylon check strap.

### NOTE

*The covers stay attached to the saddlebags at all times.*



1. Hinge
2. Latch
3. Anchor tabs
4. Bail head studs
5. Anchor brackets

**Figure 16. Saddlebags: FLHTCUSE3**

## Closing

1. See Figure 16. Use both hands to hold OUTSIDE corners of cover up and slide inside edge back into place so brackets slide together.
2. Close lid and secure latch. Brackets will engage automatically.

### NOTE

*Saddlebag latch and Tour-Pak draw catches should be closed and locked whenever motorcycle is in operation.*

## Removing

The saddlebags are secured to the support brackets by 1/4 turn fasteners called bail head studs.

### NOTE

*If your vehicle (international only) does not have the wire form "bail", use a flat bladed screwdriver to turn the studs.*

1. Unscrew saddlebag fasteners by turning 1/4 turn counter-clockwise.
2. Tilt saddlebag away from the motorcycle and separate the electrical connector for the power lock.
3. Remove saddlebag.

## Installing

1. Carefully place saddlebag in position on saddlebag rail.
2. Supporting the saddlebag, mate the power lock connector halves.
3. Align the bail head studs with the support bracket studs. Push the bail head studs into the support bracket and turn 1/4 clockwise.
4. Check that studs are securely fastened.

## Adjustments

If the latches become loose, you can adjust the latch fingers.

### CAUTION

**Adjust the latch fingers only enough to enable them to properly engage the latch hinge. Bending latch fingers back and forth can overstress the metal and weaken the fingers. (00169a)**

1. Bend the fingers until they firmly engage the hinge.
2. See ACCESSORIES MAINTENANCE, Miscellaneous Lubrication for lubrication details.

## ADJUSTABLE AIR DEFLECTORS: FLHTCUSE3

See Figure 17. Air deflectors, located along the left and right bottom edge of fairing, may be adjusted to direct airflow for rider and passenger comfort.

To adjust, grasp the outer edge of the deflector and pivot to desired position.



Figure 17. Adjustable Air Deflector

## FAIRING LOWER VENTS

See Figure 18. Vents in fairing lowers are controlled by the lever shown. Adjust vent openings to control air flow.

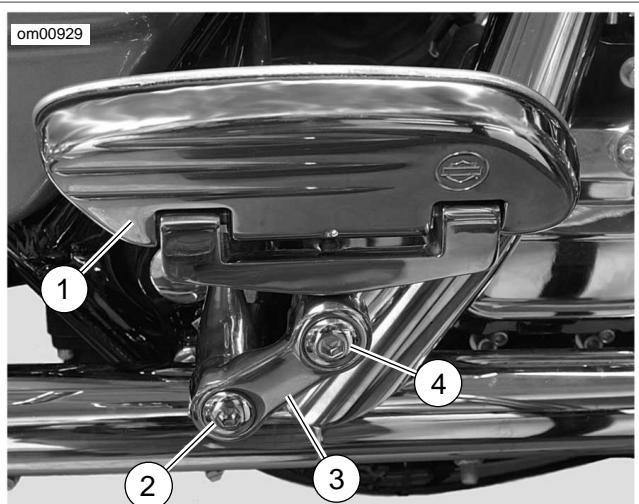


**Figure 18. Fairing Lower Vent Control: FLHTCUSE3**

## **ADJUSTABLE PASSENGER FOOTBOARDS: FLHTCUSE3**

Passenger footboards may be adjusted to one of five positions. The horizontal position or tilt of the footboard may be further adjusted for passenger comfort.

1. See Figure 19. Raise the footboard (1) and loosen lower fastener (2) enough to allow rotating arm (3) to be rotated. Move rotating arm to desired footboard height.
2. Tighten lower fastener to 25-30 ft-lbs (34-40 Nm).
3. Loosen upper fastener (4) enough to allow footboard mount to be rotated.
4. Move footboard mount to desired footboard horizontal position or tilt.
5. Tighten upper fastener to 25-30 ft-lbs (34-40 Nm).



1. Footboard
2. Lower fastener
3. Rotating arm
4. Upper fastener

Figure 19. Passenger Footboard: FLHTCUSE3

## AIR SUSPENSION ADJUSTMENT: FLHTCUSE3

### Rear Air Suspension

The rear suspension is air adjustable.

#### NOTE

*An AIR SUSPENSION PUMP AND GAUGE (Part No. HD-34633) is available at your Harley-Davidson dealer.*

See Figure 20. Adjust the rear shock air pressure by adding or removing air from the air valve located just below the frame cover on the left side of the motorcycle.

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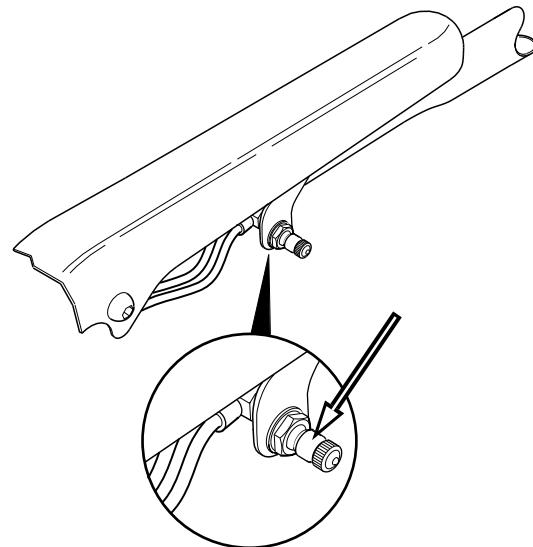


Figure 20. Rear Air Suspension Air Valve

## CAUTION

Do not exceed maximum air pressure for rear suspension. Air components fill rapidly. Therefore, use low air line pressure. Failure to do so may result in possible damage to components. (00165a)

## NOTE

*Using pressures outside the recommended loading range will result in a reduction of available suspension travel and reduced rider comfort. Refer to Table 17.*

## WARNING

Use caution when bleeding air from the suspension. Moisture combined with lubricant may leak onto the rear wheel, tire and/or brake components and adversely affect traction, which could result in death or serious injury. (00084a)

## NOTES

- Do not exceed max GVWR.
- Always clear the line by adding 3-5 psi (21-35 kPa) before releasing air from the pump's valve, but do not exceed 35

psi (241 kPa).

- These are recommended starting points. Adjust to suit load conditions, riding style and comfort desired. Less initial pressure does not necessarily result in a softer ride.

**Table 17. Recommended Pressures for Air Suspension Adjustments**

SHOCK LOAD	TOTAL WEIGHT		PRESSURE	
	LB.	KG	PSI	kPa
Solo rider	up to 150	0-68	0	0
Solo rider	150-200	68-91	0-10	0-69
Solo rider	200-250	91-113	5-15	35-103
Rider with passenger weight of	up to 150	0-68	10-15	69-103
Rider with passenger weight of	up to 200	0-91	20-25	138-172
Maximum GVWR	see label		20-35	138-241

*NOTES*

## AUDIO SYSTEM: FLHTCUSE3

As used on the FLHTCUSE3, the Advanced Audio System by Harman/Kardon includes the following:

- AM/FM/WB Stereo Radio Receiver
- CD/MP3 Reader Player
- 40-Watt Amplifier
- Rider/Passenger Intercom
- Citizen Band (CB) Transceiver
- XM Satellite Radio
- GPS Navigation System

The radio receiver and CB transceiver are located under the outer fairing/windshield while their antennas are mounted on the Tour-Pak. The XM Satellite and GPS Navigation modules with their antennas are also located under the outer fairing/windshield. Speakers are located in the front fairing and in the passenger backrest. The 40-watt amplifier is located under the Tour-Pak. An intercom receptacle is found on the fuel tank console for the rider and on the backrest for the passenger.

### WARNING

**Do not change compact discs while riding, and do not select a volume level that blocks out traffic noise. Distractions or a volume level that blocks out traffic noise, could cause loss of control resulting in death or serious injury. (00086a)**

### CAUTION

**There are no serviceable parts inside the unit; leave all servicing to qualified service personnel. Disassembly of the unit could result in equipment damage and/or equipment malfunction. (00172a)**

### WARNING

**Do not disassemble unit. Laser radiation is present if disc player is disassembled and the interlock fails or is defeated. Exposure to laser radiation could lead to death or serious injury. (00087a)**

### WARNING

**Set intercom volume level and other controls before riding to minimize adjustments on the road. Distractions can lead to loss of control, resulting in death or serious injury. (00088a)**

## Stereo Receiver

All Advanced Audio modules utilize a common stereo receiver. The receiver is an AM/FM/WB band radio with an auxiliary (AUX) port. The receiver also supports a full function CD/MP3 player. Auxiliary audio devices, MP3 players, cassette players, and mini-disc players, can play through the receiver's amplifier and speakers when connected to the **AUX** port.

Receiver features include:

- Electronic single in-line CD/MP3 player with track up/down, forward and reverse scan, repeat and random play functions.
- CD/CDR/CDRW compatibility.
- MPEG 2.5 Level III (MP3) file format compatible.
- More than 10 hours of MP3 music - 150 MP3 songs (10 albums) on one 650MB disc.
- Anti-skip protection (>40 second memory and mechanical dampers).
- Remote controls for frequency tuning, band change, CD select, volume, and bass/treble/fader mixing.
- Automatic Volume Control (AVC) - automatically adjusts volume to compensate for ambient noise due to motorcycle speed.
- Time-of-day clock.
- Weather band frequencies displayed as NOAA channel numbers (active on North American units only).

## Citizen Band (CB) Transceiver

The Citizen Band (CB) radio is a 40 channel digitally tunned transceiver. It can be voice activated by either the rider or passenger.

## XM Satellite Radio

Broadcasting from satellites in geosynchronous orbits, XM is a commercial S-Band radio offering a variety of programming channels. See the separate XM Satellite Radio operator's manual for activation and operation.

## GPS Navigation System

Receiving positional data from Global Positioning Satellites, the GPS Navigation module locates the motorcycle on a road map digitally stored in the module. After selecting a destination, turn directions displayed in the LCD and announced through the headset/speakers direct the rider to that destination. See the separate Advanced Audio GPS Navigation operator's manual for operation.

## FRONT PANEL CONTROLS: FLHTCUSE3

See Figure 21. The front panel consists of a set of pushbuttons, a liquid crystal display, (LCD), a protective door for the Compact Disc (CD/MP3) slot and a covered input port for auxiliary (AUX)

players. Six of the pushbuttons are "soft keys" whose function will change with the display.

### ON

Press **ON** to turn the receiver on and off.

### 1, 2, 3, 4, 5/Left Arrow

For the stereo receiver, the soft keys, **1, 2, 3, 4, and 5/Left Arrow**, are used to store and then recall a selected radio frequency (presets). When combined with any of the Advanced Audio System accessories, the function of any active soft key for that accessory will be displayed next to the soft key in the LCD display.

### 6

Pressing the **6** soft key will return the display to the previous menu. For **CB** and **Intercom Setup**, the function of the **6** soft key will be displayed in the LCD next to the **6** soft key.

### 5/Left, Up, Down, Right Arrows

The **5/Left, Up, Down, and Right Arrow** soft keys are used for radio band frequency tuning, Bass and Treble mixing, Fader and Volume. They are also used to scroll and highlight a selection in a list. For an Advanced Audio System accessory module, the arrow keys are active when arrows appear in the display.

## OK

With a menu or list item highlighted, press the **OK** pushbutton to confirm the selection and initiate the function.

## COM

The **COM** pushbutton is the Citizen Band (CB) setup button. See ADVANCED AUDIO SYSTEM, CB Operation. Press the **COM** pushbutton to display the CB Setup menu.

## INT

The **INT** pushbutton is the intercom setup button. See ADVANCED AUDIO SYSTEM, Intercom Operation. Press the **INT** pushbutton to display the Intercom Setup menu.

### NOTE

*With the headsets/microphones plugged into the rider and/or passenger intercom sockets, the intercom is voice activated (VOX).*

## NAV

Press the **NAV** pushbutton to open the navigation main menu.

## LCD

The liquid crystal display (LCD) displays the operational status of the stereo receiver and that of any accessory.

## CD Door

The CD door is a spring-loaded cover and will stay open when exchanging CDs.

Close the CD door after loading or unloading a CD. To close the door, push the door down until it latches.

## EJECT

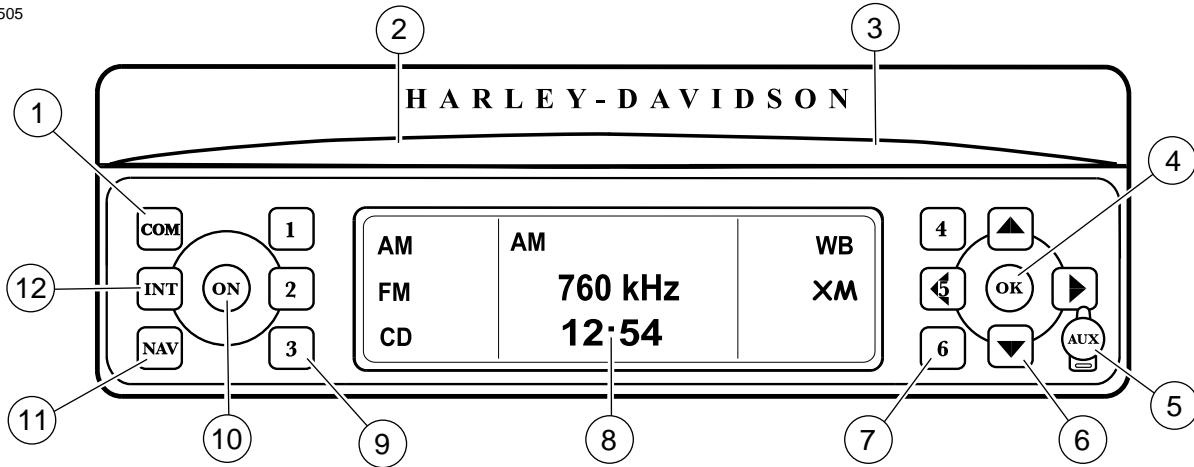
The CD **EJECT** button is found under the CD cover. Press the **EJECT** pushbutton to eject the CD.

## AUX

The auxiliary input port under the **AUX** cover connects the receiver to an auxiliary device such as a cassette or MP3 player. Use a 1/8 in. (3.5 millimeter) pin to pin extension cord to plug the line out or headset out from the auxiliary device into the **AUX** port. **AUX** appears in the LCD and is selectable with the **MODE SEL** switch. The user has control of Bass, Treble, Fader and Volume. All other player functions are performed with the auxiliary device. Set the volume level of the **AUX** device to normal or average.

### NOTE

*Close the protective cap whenever the **AUX** port is not in use.*



1. Communications (CB) setup
2. CD cover
3. EJECT (under cover)
4. OK (Confirm)
5. Auxiliary connector cover
6. Left (5), Up, Right, Down Arrow Keys
7. Soft keys (4, 5/Left Arrow, 6)
8. Liquid crystal display (LCD)
9. Soft keys (1, 2, 3)
10. ON key
11. NAV (navigation key)
12. Intercom setup

Figure 21. Advanced Audio Front Panel Controls: FLHTCUSE3

## LEFT HANDLEBAR CONTROLS: FLHTCUSE3

See Figure 22. Easy to operate while riding, audio controls are mounted on the left hand switch housing on the left handgrip. The left hand audio controls are a **+/AUDIO/-** and a **PTT** **+/SQ/-** switch.

### **+/AUDIO/-** Switch

**AUDIO:** See Figure 22. Press the **AUDIO** switch to access the Audio/Setup menu on the LCD. Press and release **AUDIO** or the press the soft key to toggle to the next displayed function in sequence from Bass, to Treble, to Fade, to Display, to Volume and then to AVC.

If the **AUDIO** switch is left on any selection the function automatically reverts back to the selected mode after approximately 2-3 seconds.

**+/:-**: Pressing the **AUDIO** switch upward (+) raises the level for the currently selected Audio/Setup (Bass, Treble, Fade, Volume or AVC). Pressing the switch downward (-) lowers the level. The level is raised or lowered as long as the switch is held until the minimum or maximum level is reached.

The LCD displays a horizontal dashed line to indicate the level. In the center of the line is a single thin dash. When the level is at the center, the selected audio is at a mid-point of its range.

See C in Figure 24. Fade adjusts the balance between rider and passenger speakers. Pressing **AUDIO** upward (+) moves the balance to the front speakers while pressing **AUDIO** downward (-) moves the balance to the rear speakers. Equal volume in front and rear speakers is indicated by one horizontal single line in the center position.

The Display function sets the illumination level of the characters in the LCD display.

The AVC (Automatic Volume Control) function sets the volume level to compensate for the ambient noise associated with motorcycle speed.

### **PTT and **+/SQ/-** Switch**

See Figure 22. Push-To-Talk (**PTT**) and the squelch control switch (**+/SQ/-**) is located on the left handlebar switch assembly.

**PTT:** With the power ON and the LCD indicating CB is active, press and hold the **PTT** switch to transmit over the channel displayed. Release **PTT** to end transmission.

**+/SQ/-:** Lower the threshold to allow reception of CB signals by pressing the **+/SQ/-** switch toward the rear (-) or raise the threshold by pressing the **+/SQ/-** switch toward the front (+).

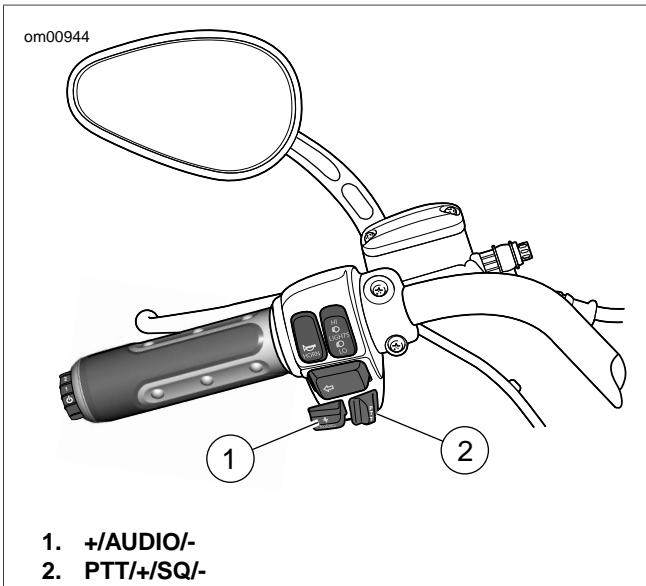


Figure 22. LH Audio Controls: FLHTCUSE3

1. +/AUDIO/-
2. PTT/+SQ/-

## RIGHT HANDLEBAR CONTROLS

See Figure 23. The mode select (**MODE SEL**) switch is located on the right handlebar switch assembly.

### UP/MODE SEL/DN Switch

#### MODE SEL

With the radio power ON, press and release the **MODE SEL** switch to sequence between the radio bands.

When a audio CD/MP3 disc is inserted into the CD player the **CD** function is added to the selections. When a 1/8 in. (3.5 mm) connector is plugged into the **AUX** input port the **AUX** function is added to the selections.

The LCD display indicates the function selected.

#### UP/DN

In the receiver mode: **UP/DN** allows up or down radio station SEEK tuning.

In CD/MP3 mode: **UP/DN** changes tracks and performs fast advance and fast reverse.

In the CB mode: **UP/DN** changes the CB channel.

In the Intercom mode: **UP/DN** changes the voice activated microphone (VOX) sensitivity.

In the AUX mode: The **UP/DN** switch is inactive.

For a detailed description of the various modes, see ADVANCED AUDIO SYSTEM, Receiver Operation: FLHTCUSE3.

**Table 18. Receiver Frequency Bands: FLHTCUSE3**

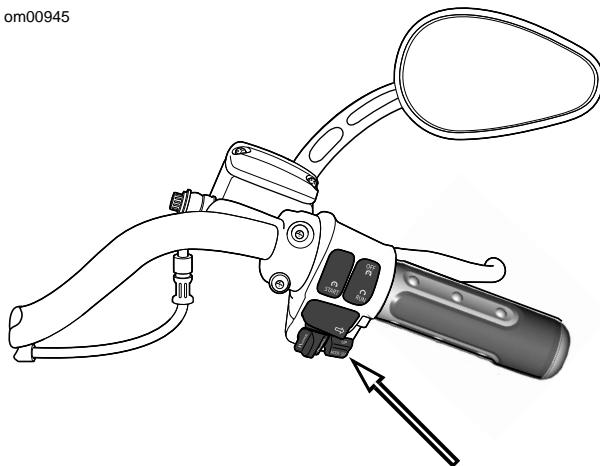
MARKET	BAND	FREQUENCY	STEPS
Domestic	AM	530-1700 kHz	10 kHz
	FM	87.75-107.9 MHz	200 kHz
	WB	162.400-162.550 MHz	25 kHz
International	LW	144-279 kHz	3 kHz
	MW	531-1611 MHz	9 kHz
	FM	87.5-108 MHz	100 kHz

**NOTE**

*The intercom and CB can be activated at the same time with the receiver modes. The intercom and CB signals are passed to the audio circuits only if the signal strength exceeds the threshold established by CB squelch or VOX microphone sensitivity levels. Depending on the position of the speaker control switch in the fairing switch cap, the receiver function,*

*the CB, and the VOX microphone can be heard in the headsets simultaneously. See ADVANCED AUDIO SYSTEM, Intercom Operation and ADVANCED AUDIO SYSTEM, CB Operation.*

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**Figure 23. RH Audio Control (UP/MODE SEL/DN):  
FLHTCUSE3**

## **RECEIVER OPERATION: FLHTCUSE3**

See Figure 21 for a picture of the stereo receiver front panel.

### **Set Time-of-Day**

Set the time-of-day with the Ignition/headlamp Key Switch turned to **IGNITION** or **ACCESS** but with the stereo receiver OFF.

Press the Set or number (6) soft key on the front panel to display the time setup menu.

See A in Figure 24. To increase the hours in the display press the Hrs+ soft key. To decrease hours press the Hrs- soft key. When the hour is correct, release the soft key.

To increase the minutes in the display press the Min+ soft key. To decrease minutes press the Min- soft key. When the minute is correct, release the soft key.

### **Turn Receiver ON/OFF**

To turn the receiver ON, turn the Ignition/headlamp Key Switch to **IGNITION** or **ACCESS** and press the **ON** button on the front panel. To turn the receiver OFF, press the **ON** button.

If the receiver is ON when the ignition is turned OFF, the receiver will power up when the Ignition/headlamp Key Switch is turned to **IGNITION**.

## Select a Frequency Band/Mode

Using the right thumb, press the **MODE SEL** switch on the right hand grip and release to cycle to the desired frequency band or mode or press the soft key next to the frequency band displayed in the LCD to select a frequency band.

See B in Figure 24. The LCD highlights the selected band.

### NOTE

*Refer to Table 18. When a CD/MP3 disc is present in the CD slot and/or an auxiliary player is plugged into the AUX port, the **MODE SEL** switch will cycle through the CD and AUX modes as well as the frequency bands.*

## AM vs FM Reception

Commercial radio broadcasting is either AM (Amplitude Modulation) or FM (Frequency Modulation).

### AM

AM radio waves reflect off the ionosphere which results in consistent signal reception at a long range (up to 100 miles or 160 kilometers).

However, AM radio can be displaced by loud humming, popping and crackling noises. This is electrical interference caused by noise from vehicle ignitions, electric signs, power lines and electrical storms.

## FM

The advantages of FM radio are high fidelity sound, stereo reception, a wide range of broadcasting formats, and a signal that is free of electrical interference.

The disadvantage of FM radio is its short range. FM radio waves travel in straight lines, called "line-of-sight," therefore, FM signals cannot be received over the horizon. At the limit of a station's range, the reception may fade in and out when objects pass between the transmitter and the motorcycle.

## FM Stereo vs FM Mono

See E in Figure 24. Normally, the Advanced Audio System plays FM signals in stereo. The LCD will indicate **STEREO**.

However, the stereo receiver has circuits which eliminate or minimize FM flutter due to weak stereo signals. The circuits detect a weak FM stereo signal and automatically blend it into a stronger FM mono signal. The transition is smooth and flutter free because it occurs over a range of signal conditions, rather than at a minimum threshold.

When the system is automatically blending or is receiving an FM mono signal, the stereo indicator (**STEREO**) will disappear from LCD screen.

## WB

See H in Figure 24. Broadcast by the National Oceanic and Atmospheric Administration (NOAA) National Weather Band (WB) frequencies are available in North America only.

To receive NOAA weather alerts while listening to other radio bands, highlight the Alert indicator in the WB display by pressing the soft key. An alert tone will automatically switch the receiver to the announcing WB channel regardless of which frequency band is playing.

When equipped with the CB module, use the soft key to highlight the Alert indicator in the LCD display. Weather alerts are announced over other audio and the **Alert** indicator is highlighted in the display.

## XM Radio

Broadcasting from satellites, XM Satellite Radio is a commercial S-band radio at 2332.5 MHz to 2345 MHz. Programming is up-linked to XM satellites positioned in geosynchronous orbits over the continental United States. Refer to the Operators Manual for XM Radio for tuning and other operations.

### NOTE

*Subscription services are only available in the United States and Canada.*

## Tuning-in a Radio Station

The radio has several tuning modes in each of the frequency bands: Manual, Seek, Scan, Preset Memory and Preset Scan.

Tuning in all three modes continuously wraps around the ends of the band.

### Volume

See D in Figure 24. At any time the receiver is playing, the volume can be adjusted by pressing the **AUDIO** switch up (+) to increase volume or down (-) to decrease volume.

### Manual Tuning

To manually tune the radio to a different frequency:

Press the **Up Arrow** button or the **Down Arrow** button to select the frequency in that direction. Hold the selected arrow button, and after a short delay of 1.5 seconds, the radio will continue to change frequencies until the selected arrow button is released.

### SEEK Tuning

See E in Figure 24. In SEEK, the radio tunes in to the next strong station.

Press and release the **MODE SEL** switch up (**UP**) to tune in the next strong station upward in the band. Press and release

the switch down (**DN**) to tune in the next strong station downward in the band.

#### **NOTE**

*The SEEK icon appears in the display as long as the receiver is seeking the next strong frequency. The SEEK icon disappears as soon as the receiver has tuned in the next station.*

### **SCAN Tuning**

In SCAN, the radio continuously tunes from one strong station to the next until the SCAN is cancelled.

See F in Figure 24. Press and hold the **MODE SEL** switch **UP** or **DN** approximately 5 seconds to scan the band for strong station signals. Each strong station remains tuned in for 8 seconds before the radio scans to the next station. The receiver will continue to scan until cancelled.

To select a station, cancel SCAN while the radio is tuned to that station. Press the **MODE SEL** switch **UP** or **DN** to cancel a SCAN moving up the band.

### **Preset Memory Tuning**

Use the soft keys, **1, 2, 3, 4**, and **5/Left Arrow** as preset buttons to store frequently tuned stations.

#### **NOTE**

*See C in Figure 24. AM can store 6 preset frequencies.*

*See E and F in Figure 24. Separate FM1 and FM2 bands allow the rider to store 2 sets of 5 preset FM frequencies (10 total). Use the **More** soft key to toggle between FM1 and FM2. The full range of FM frequencies can be selected in either FM1 or FM2.*

To store a current station, press and hold any one of the preset buttons for 1.5 seconds. After an audible signal (a chirp), the station's frequency has been stored and the frequency will appear in the display next to the preset soft key.

To tune to a stored station, press and release the preset soft key.

### **Preset SCAN Tuning**

See G in Figure 24. In preset SCAN, the radio continuously tunes from one preset station to the next until the preset SCAN is cancelled. A PSC icon will display while preset SCAN is active.

In the FM band, press and hold the **More** soft key for approximately 3 seconds. Each preset station remains tuned in for 10 seconds before the radio moves to the next station.

To select a station, cancel preset SCAN while the radio is tuned to that station. Press the **MODE SEL** switch **UP** or **DN** to cancel a preset SCAN.

## Adjusting Volume

Volume can be adjusted in any radio band.

See D in Figure 24. Volume is adjusted with the **AUDIO** switch on the left hand grip. Using left thumb, press the **AUDIO** switch up (+) to raise the volume or down (-) to lower the volume. The LCD displays the word Volume and a bar graph that changes length with the volume.

Press the **MODE SEL UP** or **DN** to cancel the Audio/Setup display or wait 5 seconds after the **AUDIO** switch is released, the display switches to the currently selected frequency band.

See K in Figure 24. Volume can also be adjusted in Audio/Setup.

Press and release the **AUDIO** switch to enter the Audio/Setup display. Press and release the **AUDIO** switch to cycle through Bass, Treble, Fade and Display to Volume and the **AUDIO** switch to raise (+) or lower (-) the volume.

## Mixing Bass and Treble

Bass and treble range adjustments can be applied to any Advanced Audio System source.

**BASS:** See I in Figure 24. Press **AUDIO** to display Bass Audio/Setup. Using the left thumb, press the **AUDIO** switch up (+) to increase the bass range or down (-) to lower the bass range. The LCD displays the word Bass and a dashed line that changes length with the setting. The short center dash indicates a middle setting.

**TREBLE:** See J in Figure 24. From Bass Audio/Setup, press and release **AUDIO** to sequence to Treble. Using the left thumb, press the **AUDIO** switch up (+) to increase the treble range or down (-) to lower the treble range.

See J in Figure 24. The LCD displays the word Treble and a bar graph that changes length with the setting. The short center dash indicates a middle setting.

## Adjusting AVC

See L in Figure 24. Automatic Volume Control (AVC) automatically adjusts volume level to compensate for ambient noise associated with motorcycle speed.

If the AVC does not adequately compensate for ambient noise (or if it over compensates), enter the audio setup menu and select AVC. Compensation is adjusted with the **AUDIO** switch on the left hand grip. Using left thumb, press the **AUDIO** switch up (+) to raise the compensation level or down (-) to lower the compensation.

**NOTE**

*Although the receiver AVC is preset at 3 bars, it is adjustable*

*from 0 bars (OFF) to 4 bars. At 1 bar, the volume does not change with motorcycle speed. The more bars displayed, the higher the volume increases with speed.*

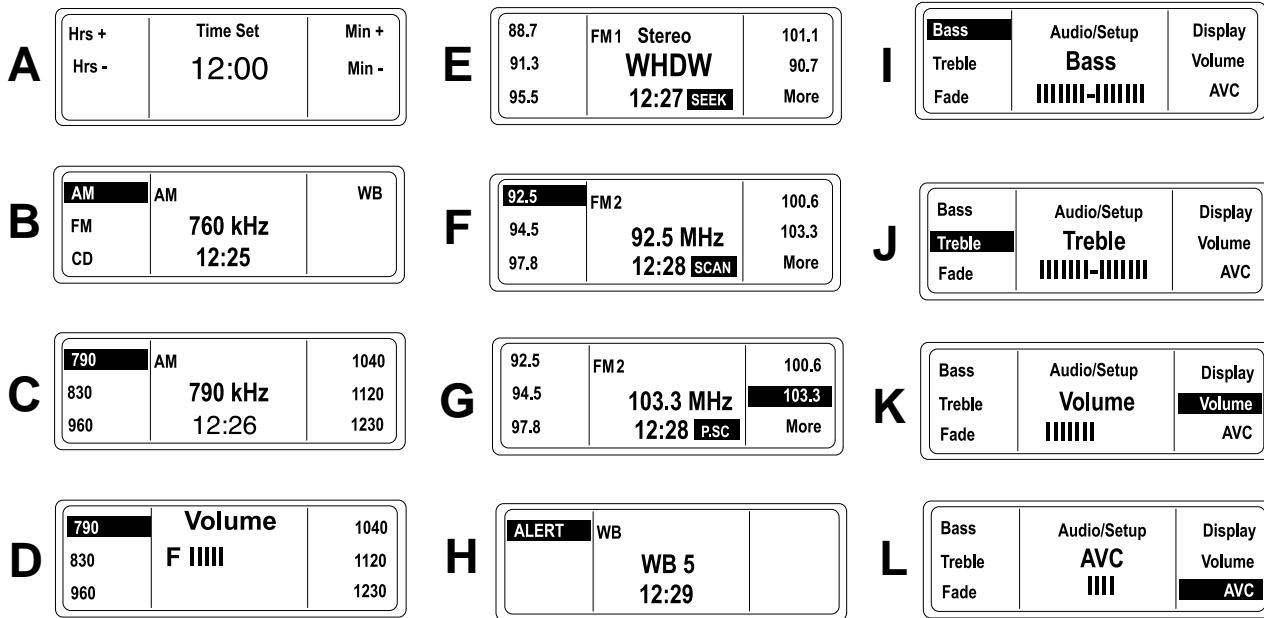


Figure 24. Radio Receiver LCD Display Examples: FLHTCUSE3

## Adjusting Display Contrast

See Figure 25. Select Display from the Audio/Setup menu with the **AUDIO** switch. Press the **AUDIO** up (+) to increase or down (-) to decrease the contrast of the characters in the display.

### NOTE

*The contrast can be decreased to render the characters invisible against the background. The characters will appear to have disappeared in the display. Before leaving the Display screen, always increase the character illumination to make the characters visible in other modes.*

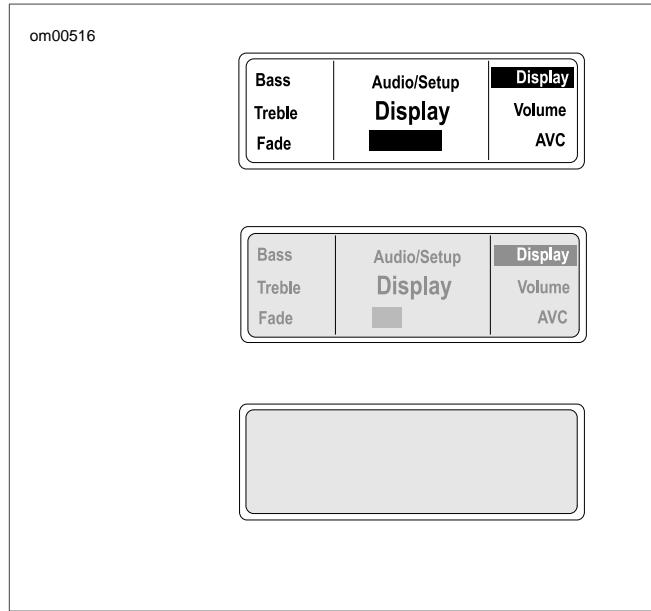


Figure 25. Character Display Illumination

## CD/MP3 OPERATION

The CD player will accept commercial audio discs as well as compact discs recorded with MP3 (MPEG 2.5 Level III), files on compact disc read only (CDR) or compact disc read and write (CDRW) formats.

### CAUTION

**There are no serviceable parts inside the unit; leave all servicing to qualified service personnel. Disassembly of the unit could result in equipment damage and/or equipment malfunction. (00172a)**

### WARNING

**Do not change compact discs while riding, and do not select a volume level that blocks out traffic noise. Distractions or a volume level that blocks out traffic noise, could cause loss of control resulting in death or serious injury. (00086a)**

### WARNING

**Do not disassemble unit. Laser radiation is present if disc player is disassembled and the interlock fails or is defeated. Exposure to laser radiation could lead to death or serious injury. (00087a)**

### Auto Load

With the receiver power ON, raise the CD door and gently insert a CD, label side up, into the CD slot until the unit automatically pulls the CD into the player. Close the CD door.

### NOTE

*Do not use double sided CDs in the Advanced Audio stereo receiver. Double sided CDs may become permanently lodged in the player.*

See C in Figure 26. The receiver will automatically switch to CD operation. The CD track number and play time will appear in the LCD display. With a CD in the player, CD is added to the modes selectable with the **MODE SEL** switch.

## **⚠️WARNING**

**Set intercom volume level and other controls before riding to minimize adjustments on the road. Distractions can lead to loss of control, resulting in death or serious injury. (00088a)**

### **Disc Error 1**

See B in Figure 26. If the CD loaded into the CD player is damaged, of incorrect format, or if upside down, the LCD will display the Disc Error 1 message.

Eject the CD. Refer to ADVANCED AUDIO SYSTEM, Recommendations for Handling CDs.

### **Eject**

## **⚠️WARNING**

**Do not change compact discs while riding, and do not select a volume level that blocks out traffic noise. Distractions or a volume level that blocks out traffic noise, could cause loss of control resulting in death or serious injury. (00086a)**

Press the **EJECT** button found under the CD door to eject a CD. The CD will be partially ejected. Remove the CD. Close and latch the CD door.

The receiver will automatically return to the radio band and frequency playing when the CD was loaded and the CD mode is no longer selectable.

### **Tracks**

To change CD/MP3 tracks, use the right thumb and press and release the **MODE SEL** switch on the right hand grip. Press **UP** and release to select higher numbered tracks or press **DN** and release to select lower number tracks.

Pressing the **Up Arrow** and **Down Arrow** keys will also advance tracks.

#### **NOTE**

*The player automatically numbers the MP3 files found on a CD in alphabetical order.*

#### **NOTE**

*If the **MODE SEL** switch is pressed and held **UP** or **DN** longer than 1.5 seconds, the track selections will fast advance or reverse as long as the switch is held.*

CD track selection wraps around the first and last track.

## Fast Advance and Reverse

To fast advance a track, press the **MODE SEL** switch **UP** and hold longer than 1.5 seconds. The current track will fast advance while the switch is pressed **UP**. The audio will advance to the subsequent track as long as the switch is held **UP**.

See D in Figure 26. The play time display in the LCD will also fast advance.

To fast reverse a track, press **MODE SEL DN** and hold longer than 1.5 seconds. The current track will fast reverse while the switch is pressed **DN**.

The play time display in the LCD will also fast reverse.

## Random

To play tracks randomly, press the Random soft key on the front panel while in the CD mode. The word Random will remain highlighted in the display. No selection is repeated until all other selections have been played.

### NOTE

*The Random soft key toggles between normal and Random play. Press once for random play. Press a second time to return to normal play. Pressing the **MODE SEL** switch **UP** or **DN** will select different tracks at random.*

See D in Figure 26. Random will be highlighted in the display.

## Scan

To scan the tracks on an CD/MP3 disk, press the Scan soft key.

### NOTE

*The tracks will play for 8 seconds and then jump to the next track which will play for 8 seconds.*

Upon selecting a track, press and release the **MODE SEL** switch to continue playing that track.

## Repeat

To repeat a CD track while it is playing, press the soft key next to the Repeat display.

To cancel Repeat, press the Repeat soft key again or press the **MODE SEL** switch **UP** or **DN** to change tracks.

Repeat will no longer be highlighted in the display.

## MP3

The receiver CD player will automatically recognize and play MP3 files.

### NOTE

*The files will be numbered sequentially.*

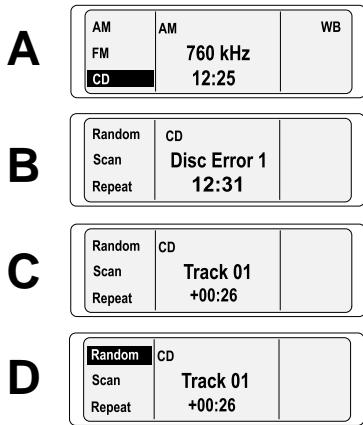


Figure 26. CD/MP3 Display Examples

## RECOMMENDATIONS FOR HANDLING CDS

- Use caution when handling a CD. Avoid touching the bottom (shiny) side.
- Store audio CD/MP3 discs in acrylic jewel cases to protect against dust, scratches, light, and changes in humidity.
- Store CDs in a cool dry place away from direct sunlight.
- Use commercially available cleaning tissue to clean the CDs. Never use solvents that can damage the CD.
- Keep protective CD door closed at all times.

### WARNING

**Do not disassemble unit. Laser radiation is present if disc player is disassembled and the interlock fails or is defeated. Exposure to laser radiation could lead to death or serious injury. (00087a)**

### NOTE

*A laser that cannot focus properly may cause skipping. A clouded lens can be caused by dirty CDs, dust, smoke, high humidity, and airborne particles may cause the laser lens to cloud. Operating the CD without allowing the motorcycle to warm up can also cause a CD to skip.*

## INTERCOM AND CITIZEN BAND: FLHTCUSE3

The Advanced Audio System supports includes a digitally tuned 40 channel Citizen Band (CB) transceiver, a rider/passenger intercom.

Features include:

- Rider headset connector on fuel tank console.
- Passenger headset connector on backrest.
- Handlebar mounted rider push to talk (**PTT/+/SQ/-**) switch (CB and Intercom).
- Fairing-mounted speaker switch.
- Rear-mounted passenger **UP/MODE SEL/DN** and **PTT/+/VOL/-** switches (CB and Intercom).
- Digitally adjustable rear headset speaker volume.
- Passenger receiver band switching and frequency tuning.
- Passenger CD/MP3 player control.
- Rider hand-held microphone compatibility for areas that prohibit headset (helmet-mounted) speakers.

## HEADSETS AND SOCKETS: FLHTCUSE3

### CAUTION

**Some local governments prohibit or restrict the use of headset (helmet-mounted) speakers. Please check with local authorities and obey all applicable laws and regulations. (00173a)**

A Harley-Davidson dealer can help you select the correct genuine Harley-Davidson headsets and microphones for your year and model Harley-Davidson. Harley-Davidson stereo helmet headsets with 7 pin DIN jacks fit the rider and the passenger intercom sockets. Other headset microphones will not work.

See Figure 27 and Figure 28. Open the socket cap and with the ridge on the headset jack facing upward and insert the jack into either the front or rear headset socket.

### NOTE

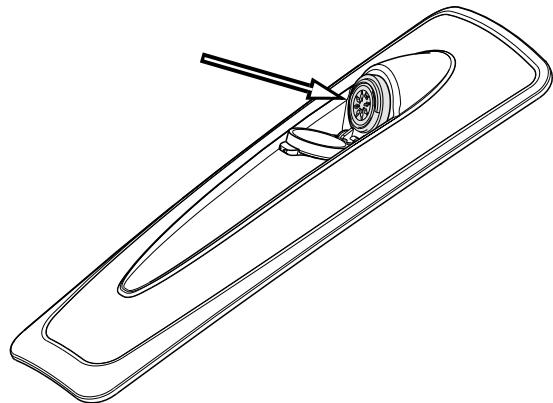
*For areas that do not permit headset speakers, a special hand-held microphone can be used to transmit over the CB. This microphone is also available through a Harley-Davidson dealer.*

## CAUTION

**Do not pull on the cord to remove the headset from the socket. Pull on the headset jack to disconnect the headset from the socket. (00174a)**

The spring loaded hinge keeps the headset socket cap closed while riding. It protects against dirt and water when the headset or hand-held microphone is not in use. Before washing the motorcycle, verify that **BOTH** rider and passenger socket caps are closed.

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**Figure 27. Front Headset Socket**

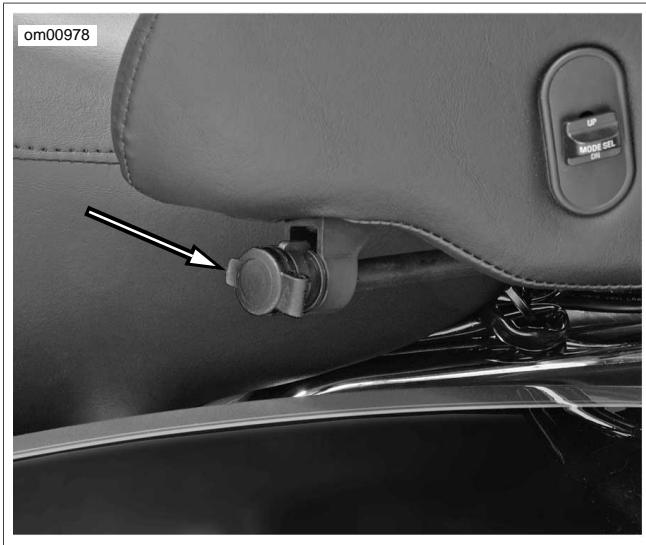


Figure 28. Passenger Intercom Socket: FLHTCUSE3

## VOX MICROPHONES

The Harley-Davidson intercom uses a voice-activated (VOX) microphone for hands-free intercom operation. The headset

microphone minimizes the transmission of hand-held microphone generated noise.

The intercom is activated when a voice or sound exceeds a preset audio level, the voice is said to "break VOX". The voice or sound is transmitted to the headsets.

### NOTE

*Pressing and holding the **PTT** switch will also open the microphone.*

Once VOX is broken, a conversation can proceed uninterrupted. After the absence of sound or voice, there is a delay of approximately 2 seconds before the microphone is deactivated. This delay in deactivation allows for pauses in conversation.

Because loud exhausts, passing trucks, car horns or other background sounds may unintentionally activate the intercom, the sound level necessary to break VOX is adjustable. See ADVANCED AUDIO SYSTEM, Intercom Operation.

## SPEAKER CONTROLS: FLHTCUSE3

### SPKR Switch

A three position speaker (SPKR) switch is located on the inner fairing cap. See Figure 29.

**Off/Forward:** In the forward position, the speakers are off. Audio (radio, CD/MP3, AUX and CB) is played in the headsets only. During simultaneous CB reception, the other audio source is muted and only the CB is heard in the headsets.

**Center:** In the center position, the radio, CD/MP3 player or AUX is played over the speakers while the CB is played only in the headsets.

**On/Rearward:** In the rearward position, the speakers are on. With the SPKR indicator lit, the radio, the CD/MP3 player, or any AUX device and the CB are played through both the rider and passenger speakers. When a CB signal is received, other audio sources mute and the CB is played over the speakers. Refer to Table 20.

**NOTE**

*The intercom is only heard in the headsets, regardless of the SPKR switch position.*

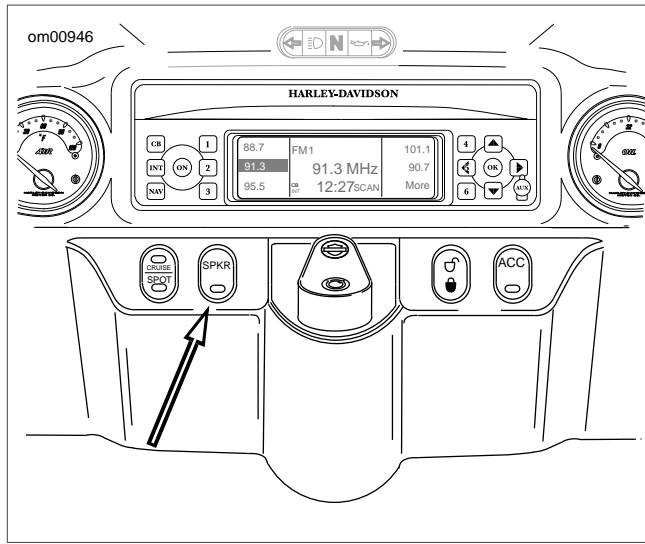


Figure 29. SPKR (speaker) Switch: FLHTCUSE3

### Rider to Passenger Speaker Balance

The receiver FADER control balances the front rider and rear passenger speakers.

**FADER:** With the fairing speaker switch in either the SPKR or center position, press the **AUDIO** switch to cycle through Bass to Treble to Fade in the LCD. Or with the motorcycle stationary, press the left hand **AUDIO** switch once to enter the Bass display and select Fade with the **MODE SEL** switch or with the soft key.

The LCD displays the word Fader and a row of outlined rectangles. The smaller center rectangle indicates equal balance between front and rear speakers. A single solid rectangle moves left or right of the center dash as the balance of volume is switched from the passenger speakers (to the left) to the rider speakers (to the right). See C in Figure 30.

- Press the **AUDIO** switch up (+) to raise the volume from the rider speakers while lowering the volume from the passenger speakers.
- Press the **AUDIO** switch down (-) to raise the volume from the passenger speakers while lowering the volume from the rider speakers.

## PASSENGER CONTROLS: FLHTCUSE3

### UP/MODE SEL/DN Switch

See Figure 30. The passenger **MODE SEL** switch gives the passenger control of radio band selection, tuning, CD/MP3

operation and all functions of the hand grip mounted **MODE SEL** switch.

#### NOTE

*For information on routing audio signals to the passenger speakers and headsets, refer to Table 20.*

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**Figure 30. Passenger UP/MODE SEL/DN Switch:  
FLHTCUSE3**

## PTT and +/VOL/- Switch

See Figure 31. The **PTT/+VOL/-** switch on the right side of speaker box allows the passenger to talk over the intercom or transmit over the CB as well as to raise or lower the rear headset volume.

See E in Figure 32. When the rear headset volume is adjusted, a F (front) and R (rear) bar graph appear in the LCD display.

### NOTES

- *The passenger VOL switch affects only the passenger headset. The hand grip mounted **AUDIO** switch is the master volume control, and used in conjunction with the FADER, affects both the rider and passenger speaker volume.*
- *With stereo receiver tuning, radio band selection, CD/MP3 track selection or other functions, simultaneous use of front and rear **MODE SEL** switches may cause operation to be suspended until either rider or passenger controls are released.*



Figure 31. Passenger PTT/+VOL/- Switch: FLHTCUSE3

## INTERCOM OPERATION

### Operation

To speak over the intercom, press and hold either rider or passenger **PTT** switch to enable the microphones. Both microphones are active while one or both **PTT** switches are pressed.

#### NOTE

*Always verify that the CB is off so that private intercom conversations will not be transmitted.*

### Activating the Intercom and the VOX Microphones

Press and hold the **INT** button on the front panel, to open the Intercom Setup display.

See D in Figure 32. To activate the intercom (INT) and the VOX microphones, press soft key **1** to turn the intercom ON.

The intercom will activate in Intercom Setup with VOX sensitivity and headset volume level settings from the previous use. VOX sensitivity and headset volume are adjusted in Int Setup only.

To exit Int Setup, press and release the **MODE SEL** switch or the **INT** button.

To make adjustments to VOX sensitivity after exiting Intercom Setup, re-enter Intercom Setup by pressing **INT**.

#### **NOTE**

*To ensure privacy, the intercom can only be heard through the headsets.*

To turn OFF the intercom and the VOX microphones, press the **INT** button to open the Intercom Setup display and press the On/Off soft key (1).

## **Adjusting VOX Sensitivity**

VOX sensitivity should be adjusted so that the microphones break VOX at a normal voice level.

Enter Intercom Setup by pressing the **INT** button. Press the **ON** or **1** soft key to turn the intercom on.

See G in Figure 32. Press the **MODE SEL** switch **UP** or **DN** or press the **4** or **5** soft key to initiate the VOX display. The LCD displays VOX sensitivity as a bar graph with a smaller bar to indicate the center of the 14 bars. A higher number of bars indicates greater sensitivity while a lower number means less sensitivity.

Continue to use **MODE SEL** on the right hand grip to adjust the sensitivity level. Press **MODE SEL UP** to make the microphone more sensitive. Press the **MODE SEL DN** to reduce

sensitivity. To exit Setup, press and release the **MODE SEL** switch.

#### **NOTES**

- *The receiver retains the sensitivity level from the previous setup. However, if power is removed from the receiver, VOX sensitivity defaults to mid level.*
- *VOX sensitivity may have to be adjusted if either microphone is unintentionally activated because the microphone misinterprets radio, road or background sound as conversation.*

When VOX is set to its maximum, the microphone is always open. The VOX display will read Open.

When VOX is set to lowest value, the microphone is closed and the VOX display reads Closed.

## **Adjusting Rider Headset Volume**

The rider intercom volume is only adjustable in Intercom Setup.

See E in Figure 32. Enter Intercom Setup, speak into microphone and adjust the intercom volume with the **AUDIO** switch on the left hand grip. Press **AUDIO +** to raise the volume and **AUDIO -** to lower the volume. The LCD displays a dashed line that changes length with the level.

See F in Figure 32 When the headset volume has been adjusted to the bottom of its range, Mute will appear in the volume display.

To exit Intercom Setup, press and release the **MODE SEL** switch.

### **WARNING**

**Set intercom volume level and other controls before riding to minimize adjustments on the road. Distractions can lead to loss of control, resulting in death or serious injury. (00088a)**

## **Adjusting Passenger Headset Volume**

The passenger intercom volume is only adjustable in Intercom Setup.

Enter Intercom Setup. Speak into the microphone and adjust the intercom volume with the **AUDIO** switch on the right speaker box on the passenger's backrest. Press **AUDIO +** to raise the volume and **-** to lower the volume. The LCD displays a bar graph that changes length with the level.

See F in Figure 32. When the headset volume has been adjusted to the bottom of its range, Mute will appear in the volume display.

To exit Intercom Setup, press and release the **MODE SEL** switch or press the **INT** pushbutton.

## **CB OPERATION**

### **Activating the CB**

See H and I in Figure 32. To activate the Citizen Band transceiver, press and release the **COM** pushbutton on the front panel. Press soft key **1** to turn the CB ON/OFF. The CB will activate in CB Setup with squelch threshold and channel settings from the previous use. CB channels are selected in CB Setup.

To exit CB Setup but leave the receiver with the CB active, press and release the **MODE SEL** switch or the **COM** pushbutton.

To turn off the CB, press the **COM** button to enter CB Setup. Press soft key **1** to turn the CB ON and Off.

## CAUTION

There are no adjustments internal to the CB transceiver chassis that can be performed without risking non-compliance with Federal Communications Commission (FCC) rules. Refer to the original equipment manufacturer for any service required during the warranty period. For transmitter service after the warranty period, refer to a certified repair service. Any frequency determining components, such as crystals, or power determining semiconductors, etc., should only be replaced with the original component manufacturer's part or equivalent. Substitutes can result in violation of FCC rules. (00175a)

## Entering CB Setup

See J in Figure 32. With the CB on, press **COM** to enter CB Setup. The LCD displays CB SETUP in the upper half and the CB channel appears in the lower half.

To exit CB Setup, press and release the **MODE SEL** switch.

After exiting CB Setup with the CB still active, re-enter CB Setup by pressing and releasing the **COM** soft key.

## Selecting a Channel

In CB Setup, use the **MODE SEL** switch to select a CB channel. Press and release **MODE SEL UP** or **DN** to switch channels one at a time.

Soft keys 4, 5 and 6 can be used to preset CB channels.

If the **MODE SEL** switch is held up or down, tuning continuously wraps around the ends of the channels.

See K in Figure 32. When squelch is broken, the CB in the display inverts. If the squelch is not broken and the another source is playing, CB is displayed.

## WARNING

Set CB channel, squelch threshold and volume before riding to minimize adjustments on the road. Distractions can lead to loss of control, resulting in death or serious injury. (00089a)

## Preset Channels

See J in Figure 32. Up to 3 CB channels can be preset. Press and hold a soft key (4, 5, 6) to preset a CB channel.

Once set, press the preset soft key to switch to the preset channel when the CB display is active.

## Adjusting Squelch

See K in Figure 32. The CB signal is passed to the speakers or headsets only if signal strength exceeds the threshold set with the squelch control switch (**PTT/+SQ/-**). When CB signals exceed the threshold, they are said to "break squelch." Refer to Table 19.

- To lower the threshold to process the weakest CB signals, press **SQ -** or rearward.
- To raise the threshold to process stronger signals, press **SQ +** or forward.

In the LCD, a dashed line changes length with the setting.

**Table 19. Squelch Control Switch**

SQ (-) REARWARD	SQ (+) FORWARD
More signals	Fewer signals
More noise	Less noise
More static	Less static
Unwanted signals	Better sound quality

## Transmitting

To transmit, press and hold the **PTT** switch. Transmission is over the CB channel displayed in the LCD. To end transmission, release **PTT**.

## Adjusting Volume

Refer to Table 20. See L in Figure 32. To adjust volume of the CB in the speakers or headset, Press **AUDIO +** to raise the volume or **-**lower the volume. CB volume is adjustable when squelch is broken or when the display is in CB Setup.

A dashed line that changes length with the volume setting is displayed.

## CAUTION

**Operating the CB radio without an antenna or with a broken antenna cable can result in damage to the transmitter circuitry. (00176a)**

## CB Range

Maximum transmission range can only be expected under stable weather conditions in flat, open country.

**Weather:** In times of atmospheric disturbances, such as rain, snow, or even sunspots, the CBs range can be reduced.

**Terrain:** Buildings, hills, valleys or any elevated objects or depressions that either block or create a longer path between transmitter and receiver will reduce or disrupt communications.

**Obstructions:** Transmissions may be cut off under a viaduct or inside a tunnel or parking garage.

**NOTE**

*The CB transmitter is the most powerful allowed under Federal law, but since there is no large steel area to create a ground plane, it may not transmit as strongly as when mounted in a car or truck.*

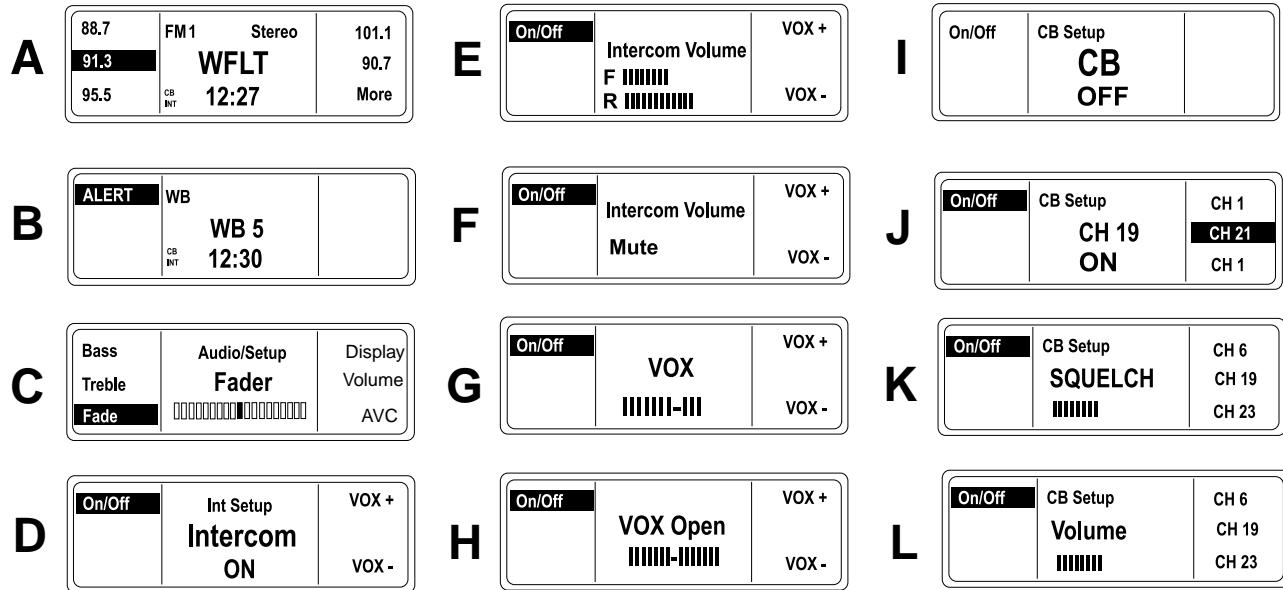


Figure 32. Display Examples

## AUDIO ROUTING AND MIXING

### General

Refer to Table 20. Whether audio is routed to the headsets, speakers or both depends on the **SPKR** control switch and the **INT** and **CB** buttons on the receiver.

A single audio source routed to headset or speaker can be controlled with the riders **AUDIO** switch or the passenger **VOL** switch.

#### NOTE

*The passenger volume control switch affects only the passenger headset. The handlebar mounted **AUDIO** switch is the master volume control, and used in conjunction with the fader, affects both the rider and passenger speaker volume.*

**Table 20. Audio Routing and Mixing Combinations**

AUDIO ROUTING COMBINATIONS			VOLUME CONTROL
SPEAKER CONTROL SWITCH	AUDIO SOURCE(S)	AUDIO OUT	AUDIO +/- OR VOL +/-
Off or Forward (Headsets)	Music*	Headsets	Music*
	CB	Headsets	CB (During reception or SETUP)
	Intercom	Headsets	Intercom (Only in SETUP)
	Intercom and music*	Both in the headsets	Music
	CB and music*	CB in the headsets (Music is muted during CB reception)	CB (During reception or SETUP)
	Intercom and CB	Both in the headsets (Music is muted during CB reception)	CB (During reception or Setup)

**Table 20. Audio Routing and Mixing Combinations**

<b>AUDIO ROUTING COMBINATIONS</b>			<b>VOLUME CONTROL</b>
<b>SPEAKER CONTROL SWITCH</b>	<b>AUDIO SOURCE(S)</b>	<b>AUDIO OUT</b>	<b>AUDIO +/- OR VOL +/-</b>
Center (Speakers and headsets)	Music*	Speakers	Music*
	CB	Headsets	CB (During reception or SETUP)
	Intercom	Headsets	Intercom (Only in SETUP)
	Intercom and music*	Intercom in the headsets Music* in the speakers	Music*
	CB and music*	CB in the headsets Music* in the speakers Music is muted during CB reception	CB
	Intercom and CB	Both in the headsets (Music is MUTED during CB reception)	CB*

**Table 20. Audio Routing and Mixing Combinations**

<b>AUDIO ROUTING COMBINATIONS</b>			<b>VOLUME CONTROL</b>
<b>SPEAKER CONTROL SWITCH</b>	<b>AUDIO SOURCE(S)</b>	<b>AUDIO OUT</b>	<b>AUDIO +/- OR VOL +/-</b>
On or rearward (Speakers)	Music*	Speakers	Music*
	CB	Speakers	CB (During reception or SETUP)
	Intercom	Headsets	Intercom (Only in SETUP)
	Intercom and music*	Intercom in the headsets. Music in the speakers.	Music
	CB and music*	CB in the speakers (When squelch is broken)	CB
	Intercom and CB	Intercom in the headsets (CB in the speakers MUTED during CB reception)	CB

\* Music = Radio, CD player or auxiliary (AUX) audio source.

## TROUBLESHOOTING: FLHTCUSE3

### Operational Troubleshooting

Refer to Table 21. Use the following table to identify rider or passenger control settings that prevent intended operation.

#### NOTE

See the *Touring Models ELECTRICAL DIAGNOSTIC MANUAL* for all system diagnosis and electrical troubleshooting information.

#### CAUTION

**There are no serviceable parts inside the unit; leave all servicing to qualified service personnel. Disassembly of the unit could result in equipment damage and/or equipment malfunction. (00172a)**

#### WARNING

**Do not disassemble unit. Laser radiation is present if disc player is disassembled and the interlock fails or is defeated. Exposure to laser radiation could lead to death or serious injury. (00087a)**

### Radio Fuses

If it is necessary to replace the radio fuses, follow the fuse replacement procedures in this manual or see your Harley-Davidson dealer for service.

See Figure 33. Radio fuses are located in the fuse block under the left side cover.

- The 15 Amp power fuse (1) allows power to the radio through activation of an internal relay.
- The 15 Amp memory fuse (2) provides direct and continuous power to the radio memory and time-of-day clock, and when the internal relay is activated, feeds the main circuits of the radio as well.
- The 30 Amp amplifier fuse (3) provides power to the amplifier mounted under the Tour-Pak.

Remove the radio fuses and inspect the element. Replace the fuse if the element is burned or broken.

#### NOTE

See Figure 33. Spare fuses (15 and 30 Amp) can be found in the fuse block cover.

**Table 21. Operational Troubleshooting: Advanced Audio System**

<b>THIS</b>	<b>CAN PREVENT THIS</b>
Squelch broken	Fairing music Headset music Passenger speaker music
Squelch unbroken	CB audio
CB off or low volume	CB audio
Front or rear PTT on	Fairing music Headset music Passenger speaker music CB audio
Handlebar volume low	Fairing music Headset music Passenger speaker music
Passenger headset volume low	Passenger headset music and CB audio
Fairing SPKR back to speaker	Headset music and headset CB audio
Fairing SPKR forward to headset	Fairing music and CB audio
INT off	Voice communications (Unless PTT is pressed)

om01167

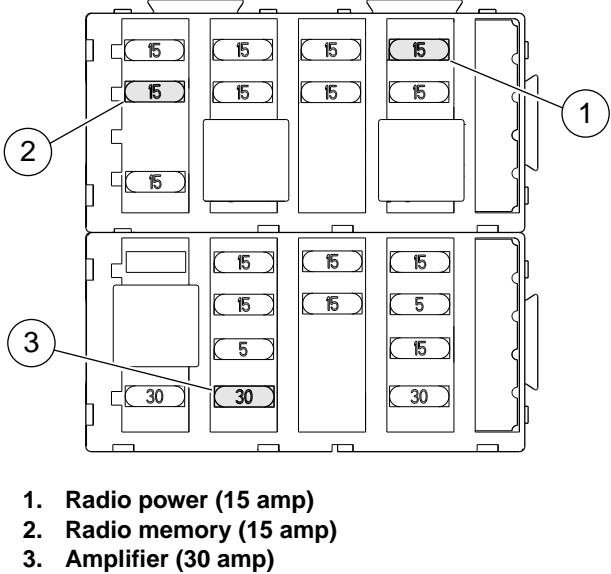


Figure 33. Radio Fuses: FLHTCUSE3

*NOTES*

## HARLEY-DAVIDSON SMART SECURITY SYSTEM

### Components

See Figure 34. The Harley-Davidson Smart Security System (H-DSSS) consists of a Hands-Free Security Module (HFSM) (1) and a Hands-Free Antenna (2) mounted on the motorcycle, and a Hands-Free Fob **carried** by the rider/passenger.

After parking the motorcycle, turn the ignition key to OFF and the Smart Security System will automatically **arm** within five seconds. While armed, the starter and ignition are disabled and the rider may leave the motorcycle knowing that the module will activate an alarm if someone tampers with the ignition or attempts to move the motorcycle.

If the fob is present, the module will automatically **disarm** when the ignition key is turned to IGNITION or ACCESS.

#### NOTE

*Do not relocate the module or the antenna on the motorcycle.*

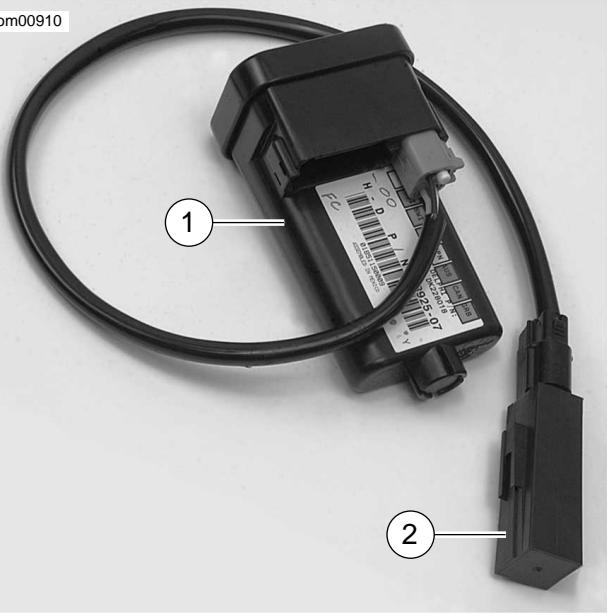
### Options

Several options are available for the Harley-Davidson Smart Security System from the Harley-Davidson Genuine Motor Accessories and Motor Parts catalog. Options include:

- Smart Siren and Smart Siren II.
- Security Pager and Security Pager Receiver II.
- Replacement Fobs.

See a Harley-Davidson dealer for details.

om00910



1. Hands-Free Security Module
2. Hands-Free Antenna

Figure 34. Security Module w/Antenna

## FCC REGULATIONS

FCC ID: L2C0027TR IC ID: 3432A-0027TR

FCC ID: L2C0028TR IC ID: 3432A-0028TR

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

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

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

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

## HANDS-FREE FOB

### Fob Assignment

See Figure 35. Hands-Free Fobs are electronically assigned to the Harley-Davidson Smart Security System by a Harley-Davidson dealer so that the module can recognize a fob's unique signal. Only two fobs can be assigned to the module at any one time.

Replacement fobs can be purchased from a dealership but can only be assigned to the motorcycle by a trained Harley-Davidson technician.

#### NOTES

- *The reusable label found on the fob packaging lists the serial number of the fob. For reference, fix the label to a blank "NOTES" page in the Owner's Manual.*
- *The serial number of the fob is also found on the inside of the fob. See SMART SECURITY SYSTEM, Fob Battery.*
- *The module will arm only if the fob has been assigned by a Harley-Davidson dealer and a Personal Identification Number (PIN) has been entered in the system. The PIN should be recorded on the Personal Information page in the front of this Owner's Manual and on the removable wallet card.*
- *Should the rider misplace the fob or if the fob fails, the rider can refer to the wallet card and use the PIN to manually disarm the system. Refer to SMART SECURITY SYSTEM, Arming and Disarming: FLHTCUSE3 and SMART SECURITY SYSTEM, Troubleshooting: FLHTCUSE3.*
- *The PIN can easily be changed by the rider at any time. Refer to SMART SECURITY SYSTEM, Personal Identification Number (PIN).*



Figure 35. Hands-Free Fob: Smart Security System

## Riding with a Fob

- Always carry the fob when riding, loading, fueling, moving, parking or servicing the motorcycle. Carry the fob in a convenient pocket.
- Do not leave the fob attached to the handlebars or store the fob in a saddlebag or Tour-Pak®. Unintentionally leaving the fob with the motorcycle when it's parked prevents the system from activating the alarm.
- Do not ride with the fob stored in a metal case or with the fob closer than 3.0 in. (76 mm) to a cell phone, PDA, display or other electronic device. Any electromagnetic interference may prevent the fob from disarming the system.
- For added security, always lock the fork and remove the ignition key when parked. If the fob is within range and

the motorcycle is unlocked, tampering with the motorcycle will not activate the alarm.

## PERSONAL IDENTIFICATION NUMBER (PIN)

The Personal Identification Number (PIN) is a number that can be used to disarm the Harley-Davidson Smart Security System in case an assigned fob is misplaced, fails or if the fob and module cannot communicate because of electromagnetic interference.

A PIN is a five-digit number (1-9, no zeros).

## Changing the PIN

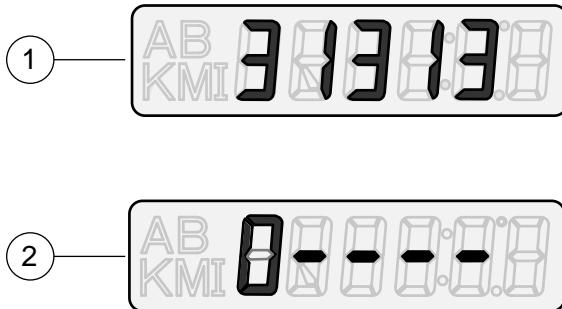
To maintain security, the rider can change the PIN at any time. Refer to Table 22.

Table 22. Changing the PIN

STEP NO.	ACTION	WAIT FOR CONFIRMATION	NOTES
1	Select a 5-digit (1 thru 9) PIN and record on the wallet card from Owner's Manual.		
2	With an assigned fob present, turn <b>IGN</b> key <b>IGNITION-OFF-IGNITION-OFF-IGNITION.</b>		
3	Press <b>left</b> turn signal switch <b>3 times.</b>		
4	Press <b>right</b> turn signal switch <b>1 time</b> and release.	Turn signals will flash 3 times. Current PIN will appear in odometer. The first digit will be flashing.	See figure showing the odometer window with PIN display.
5	Enter first digit (a) of new PIN by pressing <b>left</b> turn signal switch <b>a</b> times.		
6	Press <b>right</b> turn signal switch <b>1 time</b> and release.	The new digit (a) will replace the current in odometer window.	
7	Enter second digit (b) of new PIN by pressing <b>left</b> turn signal switch <b>b</b> times.		

**Table 22. Changing the PIN**

STEP NO.	ACTION	WAIT FOR CONFIRMATION	NOTES
8	Press <b>right</b> turn signal switch <b>1 time</b> and release.	The new digit (b) will replace the current in odometer window.	
9	Enter third digit (c) of new PIN by pressing <b>left</b> turn signal switch <b>c</b> times.		
10	Press <b>right</b> turn switch <b>1 time</b> and release.	The new digit (c) will replace the current in odometer window.	
11	Enter fourth digit (d) of new PIN by pressing <b>left</b> turn signal switch <b>d</b> times.		
12	Press <b>right</b> turn switch <b>1 time</b> and release.	The new digit (d) will replace the current in odometer window.	
13	Enter fifth digit (e) of new PIN by pressing <b>left</b> turn signal switch <b>e</b> times.		
14	Press <b>right</b> turn switch <b>1 time</b> and release.	The new digit (e) will replace the current in odometer window.	
15	Before the module rearms, turn the ignition key to <b>OFF</b> .	The odometer will return to mileage.	Turning the ignition key to <b>OFF</b> stores the new PIN in the module.



1. Current PIN (example) on PIN Change
2. PIN Disarm

Figure 36. Odometer Windows - PIN

## SECURITY STATUS INDICATOR

See Figure 37. The illuminated key icon in the speedometer face indicates the status of the Harley-Davidson Smart Security System.

- **Armed:** A key icon that blinks approximately every 3 seconds indicates that the system is armed.
- **Disarmed:** After the ignition/headlamp switch is turned to IGNITION and the system disarms, the key icon will remain illuminated for approximately four seconds and then turn off.
- **Service:** A key icon that remains illuminated longer than four seconds indicates that service of the module is required.

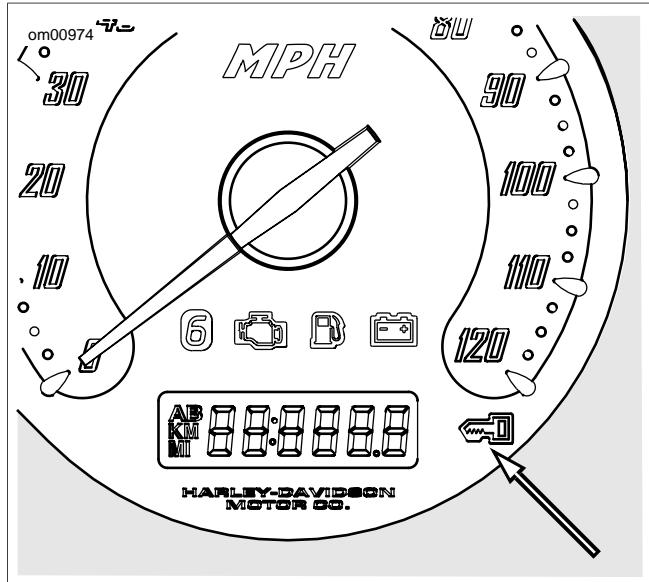


Figure 37. Security Status Indicator

## ARMING AND DISARMING: FLHTCUSE3

### Arming

When the motorcycle is parked and the ignition key is turned to OFF, the Harley-Davidson Smart Security System arms automatically within five seconds if no motion is detected. Even when the fob is present, the system will arm.

On arming, the turn signals will flash twice and the optional siren will chirp twice. While armed, the key icon in the speedometer face will flash every three seconds.

#### NOTE

*The HFSM must be in the Chirp Mode for the siren to chirp on arming or on disarming. See SMART SECURITY SYSTEM, Siren Chirp Mode (Confirmation).*

### Disarming

Once disarmed, the rider may ride or move the motorcycle for parking, storage or service without setting off the alarm.

**Fob:** An armed Smart Security System is automatically disarmed when the ignition key is turned to IGNITION with the fob present.

When the module disarms, the optional siren will chirp once and the key icon will illuminate for a solid four seconds and then turn off.

#### NOTE

*Any motion, like lifting the motorcycle up off of its jiffy stand, or turning the ignition key to IGNITION and the module will electronically "poll" for the presence of the fob. If the fob is present, the system disarms.*

**Personal Identification Number (PIN):** If the fob is misplaced or if the present fob fails to communicate with the module, the system can be disarmed with the Personal Identification Number (PIN).

#### Disarming with a PIN

Do not turn handlebars, straddle seat or lift motorcycle off the jiffy stand. During a PIN disarm, if the Smart Security System detects motorcycle motion the system will activate the alarm.

**Table 23. Entering a PIN to Disarm Harley-Davidson Smart Security System**

STEP NO.	ACTION	WAIT FOR CONFIRMATION	NOTES
1	If necessary, verify the current 5-digit PIN.		Should be recorded on wallet card.
2	Turn ignition key to <b>IGNITION</b> .		
3	Quickly (within 2 seconds of turning ignition key) hold <b>both</b> turn signal switches in until confirmation.	Key icon flashes at fast rate. In the odometer window, a flashing dash will be followed by four more dashes.	See figure showing the odometer window with PIN display. Five dashes will appear in the odometer window.
4	Enter first digit ( <b>a</b> ) in the PIN by pressing <b>left</b> turn switch <b>a times</b> .	The first digit ( <b>a</b> ) in the odometer will be the first digit in the PIN.	
5	Press <b>right</b> turn switch <b>1 time</b> .	The first digit is stored and the dash will flash.	Serves as enter key.

Table 23. Entering a PIN to Disarm Harley-Davidson Smart Security System

STEP NO.	ACTION	WAIT FOR CONFIRMATION	NOTES
6	Enter second digit ( <b>b</b> ) in the PIN by pressing <b>left</b> turn switch <b>b times</b> .	The second digit ( <b>b</b> ) in the odometer will be the second digit in the PIN.	
7	Press <b>right</b> turn switch <b>1 time</b> .	The second digit is stored and the next dash will flash.	Serves as enter key.
8	Enter third digit ( <b>c</b> ) in the PIN by pressing <b>left</b> turn switch <b>c times</b> .	The third digit ( <b>c</b> ) in the odometer will be the third digit in the PIN.	
9	Press <b>right</b> turn switch <b>1 time</b> .	The third digit is stored and the next dash will flash.	Serves as enter key.
10	Enter fourth digit ( <b>d</b> ) in the PIN by pressing <b>left</b> turn switch <b>d times</b> .	The fourth digit ( <b>d</b> ) in the odometer will be the fourth digit in the PIN.	
11	Press <b>right</b> turn switch <b>1 time</b> .	The fourth digit is stored and the next dash will flash.	Serves as enter key.
12	Enter fifth digit ( <b>e</b> ) in the PIN by pressing <b>left</b> turn switch <b>e times</b> .	The fifth digit ( <b>e</b> ) in the odometer will be the fifth digit in the PIN.	
13	Press <b>right</b> turn switch <b>1 time</b> .	The fifth digit is stored. The key icon stops blinking.	Smart Security System is disarmed.

## NOTES

- *At any time during a PIN disarm, if the fob is brought within range of the motorcycle, the Smart Security System will disarm when the module receives the coded signal from the fob.*
- *If a mistake is made while entering PIN, wait two minutes before another disarming attempt.*
- *The Smart Security System will remain disarmed until the ignition key is turned to OFF.*

## Hazard Warning 4-Way Flasher

If it should be necessary to leave a motorcycle parked along side a roadway, the hazard warning four-way flashers can be turned ON and the Smart Security System armed.

### To arm the H-DSSS with the Hazard Warning 4-Way Flashers ON

1. Turn ignition key to ACCESS.
2. Simultaneously press both left and right turn signal switches to turn the four-way flashers ON.
3. Turn the ignition key to OFF to arm the Smart Security System.

### To Turn Hazard Warning 4-Way Flashers OFF

1. Turn ignition key to IGNITION.

2. Simultaneously press the left and right turn signal switches.

## ALARM

### Warnings

Once armed, if the motorcycle is moved or lifted up off of its jiffy stand or if the ignition key is turned to IGNITION and the fob is not present, the alarm will warn the operator with three alternate flashes of the turn signals and a chirp of the optional siren.

Within four seconds, if the motorcycle is back on its jiffy stand and no further motion is detected and/or the ignition key is turned to OFF, the module will remain armed without activating the alarm.

If the motorcycle motion continues or the ignition key is not turned back to OFF, the module will issue a second warning four seconds after the first.

### NOTE

*During warnings and alarms, the starter motor and the ignition circuits are disabled.*

## The Alarm

If the Smart Security System is still detecting motion and/or if the ignition key has not been turned back to OFF after a second warning, the system will activate the alarm.

When activated, the Smart Security System will:

- Alternately flash the four turn signals.
- See Figure 38. Sound the optional siren.

**Duration:** The alarm will stop within 30 seconds and if no motion is detected, the alarm will not restart.

However, if motorcycle motion continues the system will repeat the 30 second alarm and recheck for motion. The alarm will repeat this 30 second alarm cycle for five minutes (10 cycles) or until the alarm is deactivated.

### NOTE

*The alarm will also activate the LED, vibration or audible modes of a Harley-Davidson Security Pager. A pager can operate either in silent or in combination with an optional Smart Siren. The range of a pager can be up to 0.5 mile (0.8 km). See a Harley-Davidson dealer for details.*

om00102



Figure 38. Optional Smart Siren

## Deactivate the Alarm

**Key Fob:** Bring the fob to the motorcycle. After the module identifies that the fob is present, the system will terminate the alarm.

## SIREN CHIRP MODE (CONFIRMATION)

### Chirpless Mode

In the chirpless mode, the siren does not chirp on arming or disarming.

#### NOTE

*Even when armed in the chirpless mode, the siren still chirps warnings on movement and will activate the alarm through cycles.*

### Chirp Mode

On arming in the chirp mode, the siren responds with two chirps. When disarming, the siren responds with a single chirp.

### Switching Modes

Cycling quickly through two arming and disarming will switch the system from either the chirpless mode or the chirp mode to its opposite.

1. With the fob present, the Ignition Switch ON and the system disarmed, turn the Ignition Switch OFF.
2. When the system arms (2 flashes of turn signals), immediately turn the Ignition Switch back ON.

3. Wait until the security lamp goes out, then immediately turn the Ignition Switch OFF.
4. When the system arms (2 flashes of turn signals), immediately turn the Ignition Switch ON and wait for system to disarm.

## TRANSPORT MODE

It is possible to arm the security system without enabling the motion detector for one ignition cycle. This allows the vehicle to be picked up and moved in an armed state, however, any attempt to start the engine will trigger the alarm.

#### To Enter Transport Mode:

1. Set the Engine Stop Switch to OFF.
2. Turn the Ignition Switch to IGNITION.
3. With an assigned fob within range, turn the Ignition Switch from IGNITION to ACCESS, or OFF to ACCESS, depending on switch sequence.
4. Immediately press both the left and the right turn signal switches. This must be done within five seconds of turning the Ignition Switch to ACCESS.
5. After the turn signals flash once, turn the Ignition Switch to OFF and the module is armed.

## To Exit Transport Mode:

Return the system to normal operation:

1. With the fob present, turn the Ignition Switch to IGNITION to disarm the HFSM. To cancel the transport mode, set the Engine Stop Switch to RUN.

## STORAGE AND SERVICE DEPARTMENTS

### Long Term Parking

To maintain arming, store the fob beyond the range of the module. If the motorcycle is to be moved while parked, have the fob present.

If the motorcycle will not be operated for several months, such as during the winter season, follow the Owner's Manual instructions for storage. Refer to MAINTENANCE AND LUBRICATION, Motorcycle Storage.

### Service Departments

When the motorcycle is to be left at a Harley-Davidson dealer, there are two options:

1. Leave an assigned fob with the dealer.
2. To maintain possession of the fob, ask the dealer to disable the module for service (service mode) before leaving the dealership.

## FOB BATTERY

### Replacing the Battery

Replace the key fob battery every year.

1. See Figure 39. Slowly turn a thin blade in the thumbnail slot (1) on the side of the fob to separate the two halves.
2. Remove the battery (2) and discard.

#### NOTE

*Dispose of the old battery in accordance with local regulations.*

3. Install a **new** battery (Panasonic 2032 or equivalent) with the positive (+) side down.
4. Align the two halves of the fob and snap together.

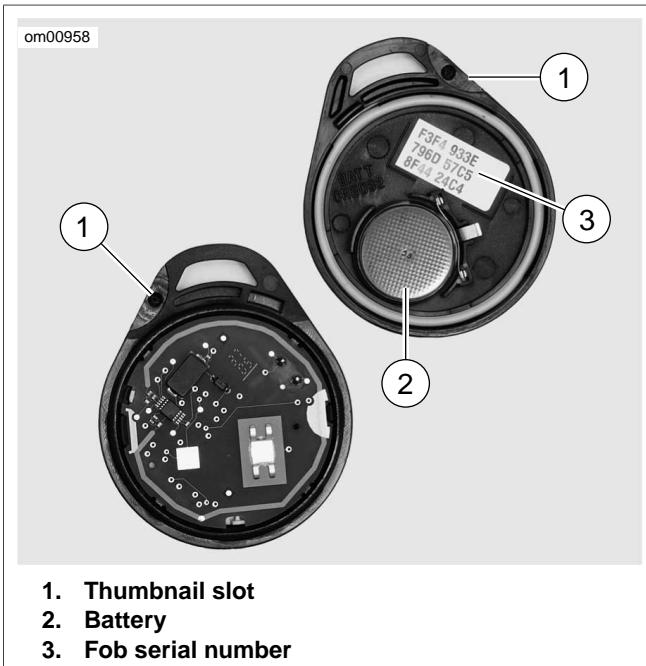


Figure 39. Hands-Free Fob Battery

## POWER DISCONNECTS

### Optional Siren

On a power disconnect, to prevent the module from actuating the optional siren:

1. Verify that the fob is present.
2. Turn the ignition key to IGNITION.
3. Pull the maxi-fuse from its holder or disconnect the battery.

## TROUBLESHOOTING: FLHTCUSE3

### Key Icon

If the system key icon stays illuminated while riding, see a Harley-Davidson dealer.

### Fob

With the fob present, if the Smart Security System continues to actuate warnings and alarms, one of the following can be the cause:

1. **Electromagnetic Interference:** Other electronic devices, power lines, or other electromagnetic sources can cause the Smart Security System to operate inconsistently.
  - a. Verify that the fob is not in a metal enclosure or within 3.0 in. (76 mm) of any other electronic devices.
  - b. Place the fob on the seat and turn the ignition key to IGNITION. After the module disarms, return the fob to a convenient location.
  - c. Move motorcycle at least 15 feet (5 meters) from the spot of interference.
2. **Discharged Fob Battery:** Use the PIN to disarm the module. Replace the battery. Refer to SMART SECURITY SYSTEM, Fob Battery.
3. **A Damaged Fob:** Use the PIN to disarm the motorcycle. Replacement fobs are available for purchase from a Harley-Davidson dealer.

## Siren

- If the siren does not chirp two or three times on a valid arming command from the security module, the siren is

either in the Chirpless Mode, not connected, not working, or the siren wiring was opened or shorted while the siren was disarmed.

- If the siren is armed and the internal siren battery is dead, shorted, disconnected, or has been charging for a period longer than 24 hours, the siren will respond with three chirps on arming instead of two.
- The internal siren battery may not charge if the vehicle's battery is less than 12.5 volts.
- If the siren enters the self-driven mode where it is powered from the siren's internal 9 volt battery, the turn signal lamps may or may not alternately flash. If the security module activates the siren, the turn signal lamps will alternately flash. If the siren has been armed and a security event occurs, and the siren is in self-driven mode, the siren will alarm for 20 to 30 seconds and then turn off for 5 to 10 seconds. This alarm cycle will be repeated ten times if the siren is in the self-driven mode.

## OPERATING RECOMMENDATIONS: FLHTCUSE3

### WARNING

Motorcycles are different from other vehicles. They operate, steer, handle and brake differently. Unskilled or improper use could result in loss of control, death or serious injury. (00556c)

- Take a rider training course.
- Read Owner's Manual before riding, adding accessories or servicing.
- Wear a helmet, eye protection and protective clothing.
- Never tow a trailer.

### CAUTION

Do not run the engine at extremely high RPM with clutch disengaged or transmission in neutral. Running an engine at high RPM can result in engine damage. (00177a)

- The maximum recommended safe engine speed is 5500 RPM.
- Do not idle engine unnecessarily for more than a few minutes with motorcycle standing still.

### CAUTION

Air-cooled engines require air movement over the cylinders and heads to maintain proper operating temperature. Extended periods of idling or parade duty can overheat the engine, resulting in serious engine damage. (00178a)

An engine running long distances at high speed must be given closer than ordinary attention to avoid overheating and possible engine damage.

This applies particularly to a motorcycle equipped with windshield and fairing.

### NOTE

*Have the engine checked regularly and keep it well tuned.*

### WARNING

When riding on wet roads, brake efficiency and traction are greatly reduced. Failure to use care when braking, accelerating or turning on wet roads can cause loss of control, which could result in death or serious injury. (00041a)

### NOTE

*When descending upon a long, steep grade, downshift and use engine compression together with intermittent application of both brakes to slow the motorcycle.*

## **WARNING**

**Continuous use of brake causes overheating and reduced efficiency, which could result in death or serious injury. (00042a)**

## **CAUTION**

**Do not coast for long distances with the engine off. The transmission is properly lubricated only when the engine is running. Coasting long distances can result in transmission damage. (00180a)**

## **WARNING**

**Do not tow a disabled motorcycle. Towing can adversely affect stability and handling, which could result in death or serious injury. (00017a)**

## **BREAK-IN RIDING RULES**

### **The First 500 Miles (800 Kilometers)**

The sound design, quality materials, and workmanship that are built into your new Harley-Davidson will give you optimum performance right from the start.

To allow your engine to wear in its critical parts, we recommend that you observe the riding rules provided below for the first 500 miles (800 kilometers). Adherence to these suggestions will help to assure good future durability and performance.

1. During the first 50 miles (80 kilometers) of riding, keep the engine speed below 4000 RPM in any gear. Do not lug the engine by running or accelerating at very low RPM, or by running at high RPM longer than needed for shifting or passing.
2. Up to 500 miles (800 kilometers), vary the engine speed and avoid operating at any steady engine speed for long periods. Engine speed up to 5000 RPM in any gear is permissible.
3. Drive slowly and avoid fast starts at wide open throttle until the engine has warmed up.
4. Avoid lugging the engine by not running the engine at very low speeds in higher gears.
5. Avoid hard braking. New brakes need to be broken-in by moderate use for the first 200 miles (300 kilometers).

## PRE-RIDING CHECKLIST

### WARNING

**Read the CONTROLS AND INDICATORS section before riding your motorcycle. Failure to understand the operation of the motorcycle could result in death or serious injury. (00043a)**

Before riding your motorcycle at any time, make a general inspection to be sure it is in safe riding condition.

### WARNING

**Stop the engine when refueling or servicing the fuel system. Do not smoke or allow open flame or sparks near gasoline. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00002a)**

### WARNING

**Avoid spills. Slowly remove filler cap. Do not fill above bottom of filler neck insert, leaving air space for fuel expansion. Secure filler cap after refueling. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00028a)**

### WARNING

**Use care when refueling. Pressurized air in fuel tank can force gasoline to escape through filler tube. Gasoline is extremely flammable and highly explosive, which could result in death or serious injury. (00029a)**

1. Verify fuel is present in tank and add fuel if required.
2. Adjust mirrors to proper riding positions.
3. Verify oil is present in oil tank.
4. Check controls to make sure they operate properly. Operate the front and rear brakes, throttle, clutch and shifter. All controls should operate freely without binding.
5. Check steering for proper operation by turning the handlebars through the full operating range. Handlebars should turn smoothly without binding.