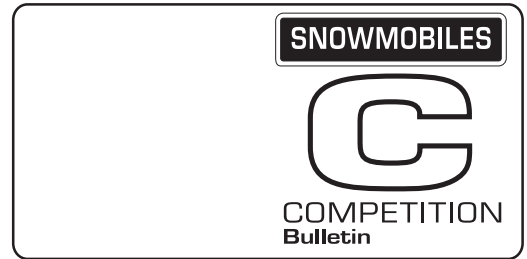


Please route to :

	Init.
<input type="checkbox"/> Service	<input type="checkbox"/>
<input type="checkbox"/> Sales	<input type="checkbox"/>
<input type="checkbox"/> Parts	<input type="checkbox"/>



No. **2002-1**

Date: November 5, 2001

SUBJECT: Mandatory Jetting Change

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2002	MX Zx 440 Racing	1948/2120/2129	All

The MX Zx 440 Racing is factory calibrated for snow cross racing application using a minimum of 108 fuel octane ((R+M)/2). The carburetor calibration is too lean for use other than the notified ones. The following modifications or adjustments have to be done according to the application of the vehicle.

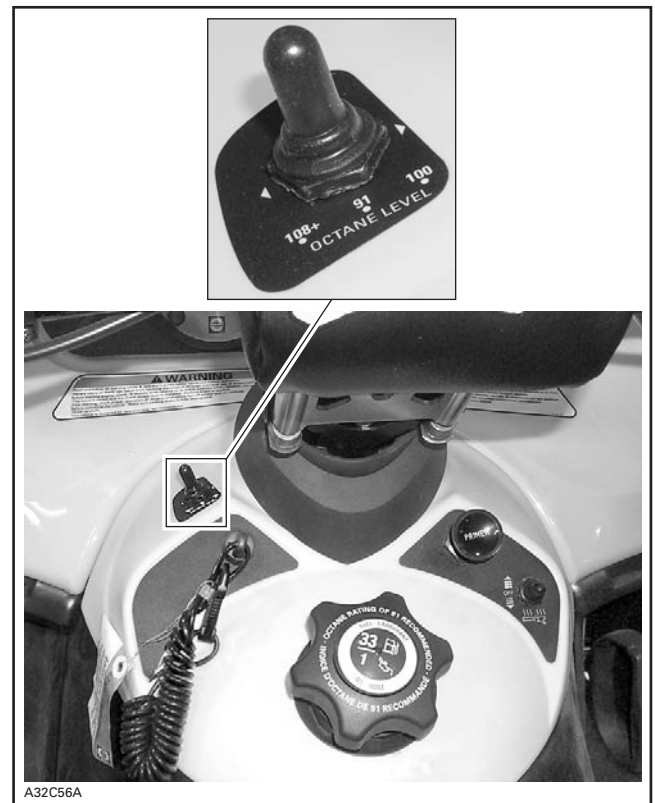
High octane rated fuel increase protection against detonation and engine damage. The fuel octane rate recommended in these charts defined with the formula (R+M)/2.

CAUTION: Use of lower octane fuels than 108 is inadequate with standard calibration and **will cause severe engine damage**. Never run or even start the engine with lower fuel octane rate than 108 with standard jetting.

NOTE: Unless modifications are done at predelivery (refer to *Warranty Bulletin No. 2002-3*) to recalibrate vehicle for trail use, MX Zx 440 Racing are not covered by Bombardier Limited Warranty policy.

Snow Cross Application

The octane rate selector switch, on console, allows the usage of other fuels. But the jetting size must be matched with octane selector position. **Failure to do so will lead to severe engine damage.**



OCTANE RATE SELECTOR SWITCH

Refer to the following chart for proper jetting and octane selector switch position.

SNOW CROSS RACING APPLICATION		
SWITCH POSITION	MAIN JETS	
	PTO	MAG
108+	260	250
	(production release)	
100	300	290
91	310	300

Cross-Country Application

The factory set-up is too lean for cross-country racing. **Failure to modify the carburation settings will lead to severe engine damage.**

Refer to the following chart for proper jetting and octane selector switch position.

CROSS-COUNTRY APPLICATION		
SWITCH POSITION	MAIN JETS	
	PTO	MAG
108+	300	290
100	330	320
91	340	330

A label (P/N 516 001 688) to be applied on belt guard and showing the previous charts will be auto-shipped as before end november for each unit invoiced to dealer. Please forward this label to your customers/racers.

Octane Rate Selector Switch Setting

CAUTION: NEVER set the fuel octane selector switch at a higher position than the rated octane fuel used. Otherwise, severe engine damage will occur.

Main jets are the minimum size allowable in regard to fuel octane rating $((R+M)/2)$ at - 20 °C and sea level. Refer to *Ski-Doo 2002 Racing Handbook* (P/N 484 200 038) for carburetor main jet correction chart.

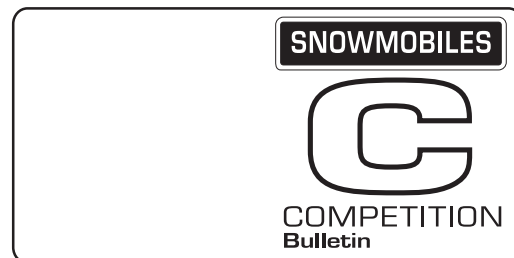
These settings are indicative and may vary with racing conditions.

Racing Department will communicate on tip sheet the applicable update during the season.

PLEASE ADVISE OWNERS/RACERS AND GIVE THEM A COPY OF THIS BULLETIN.

Please route to :

	Init.
<input type="checkbox"/> Service	<input type="checkbox"/>
<input type="checkbox"/> Sales	<input type="checkbox"/>
<input type="checkbox"/> Parts	<input type="checkbox"/>



No. **2002-2**

Date: December 11, 2001

**SUBJECT: A) Clutch Lever Pin
B) Octane Selector Switch**

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2002	MX Z® X 440 LC (Racing)	1948/2120/2129	All

A) CLUTCH LEVER PIN

IMPORTANT: All units that were calibrated for trail use as per Warranty Bulletin 2002-3, don't need to go through this update.

As for this *Competition Bulletin*, TRA lever roller pins should have threads for an M6 x 6 calibration screw and should also have that screw already in the pins.

Some of the above-mentioned units may have lever roller pins with SAE threads and without the screw inside the pins.

Dealers/distributors must change pins for proper type.

Parts Required

DESCRIPTION	P/N	QTY
Metric Thread Pin (ass'y)	Auto-shipped	3
Calibration Chart Sticker	Auto-shipped	1

DO NOT ORDER PARTS. Dealers/distributors will be auto-shipped, **free of charge**, new metric thread pins ass'y (3) and a calibration chart sticker (to be installed on the belt guard), as per the number of involved units shipped at their place of business.

Procedure

Remove drive pulley, governor cups and slider shoes. Refer to appropriate *Shop Manual* for proper removal procedure.

NOTE: Perform lever pin replacement on 1 lever at a time.

Remove lever assembly.

Remove cotter pin.

Slide old pin outward and remove completely.

NOTE: Be careful not to lose washers and roller.

Install new metric thread pin ass'y aligning cotter pin hole with hole on lever.

NOTE: The M6 calibration screw is already installed in the new pins from the factory.

Ensure there is one washer on each side of the roller.

Insert a new cotter pin (P/N 732 958 001) and bend.

Reinstall lever assembly.

Upon installation, ensure that head of cotter pin is facing upward.

Perform same operation on the 2 other levers, one at a time.

Upon reinstallation, ensure that all 3 of the cotter pin heads are facing upward (once all lever assemblies are installed).

Reinstall all removed parts. Refer to appropriate *Shop Manual* for proper reinstallation procedure.

B) OCTANE SELECTOR SWITCH

Some of the above-mentioned units may have the octane selector switch wires at the wrong position.

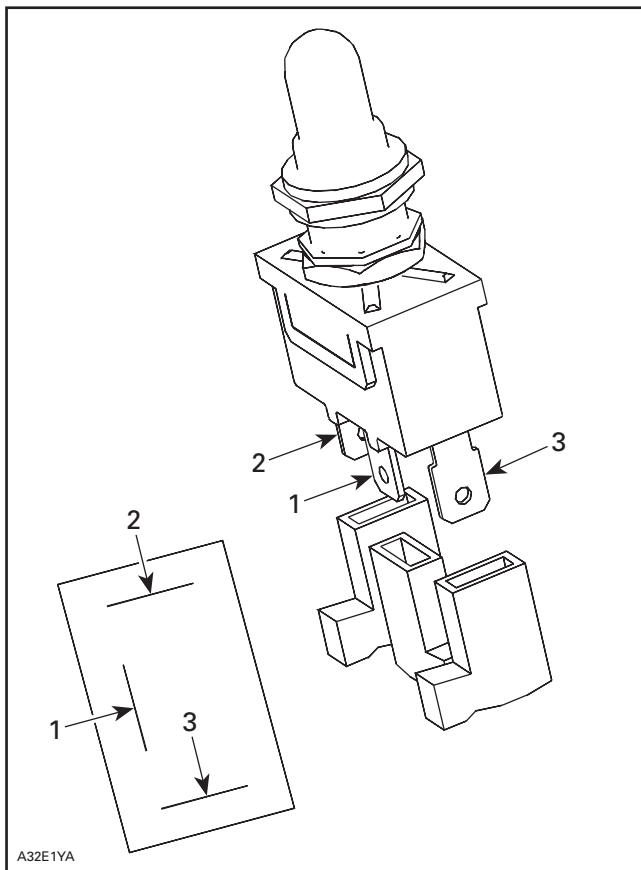
In order to correct this situation, dealers/distributors need to relocate the wires on the selector switch as per the following instruction:

IMPORTANT: Center prong has to be positioned toward the front of the vehicle.

- TAN wire connects to the center prong,
- BLACK wire connects to the right side^① prong,
- GREEN wire connects to the left side^① prong.

① Side is determined from the driver's operating position.

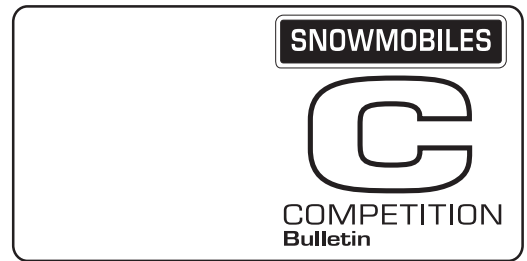
Refer to following illustration.



1. Center prong (must be placed toward front of vehicle) (TAN wire)
2. Right side prong (or interior) (BLACK wire)
3. Left side prong (or exterior) (GREEN wire)

Please route to :

	Init.
<input type="checkbox"/> Service	<input type="checkbox"/>
<input type="checkbox"/> Sales	<input type="checkbox"/>
<input type="checkbox"/> Parts	<input type="checkbox"/>



No. **2002-3**

Date: October 3, 2002

SUBJECT: Racing and Aggressive Riding Adjustments

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2002	All ZX-X series models	All	All

1 - SC10-III REAR SHOCK BOLT

Under racing application, the top bolt of the rear shock may come loose and allow the shock to move on the rear arm slot.

To rectify the situation, a support plate can be welded on rear arm.

Parts Required

DESCRIPTION	P/N	QTY
Support plate	503 190 183	1
Nut	232 581 414	1

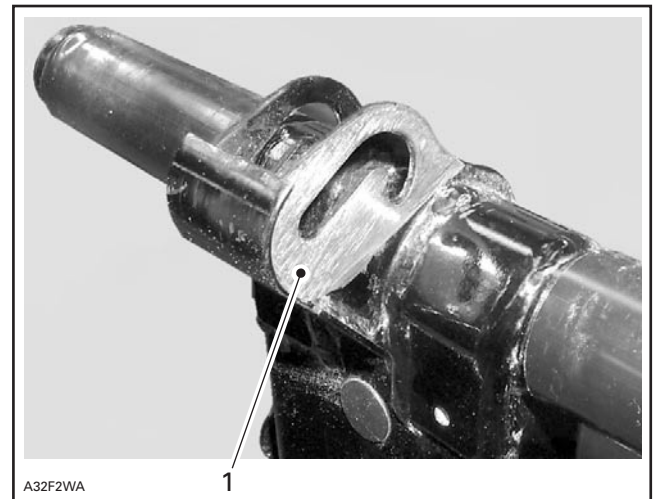
Procedure

Remove rear shock. This will prevent shock damage during suspension removal.

Remove rear suspension. Refer to *2001 Ski-Doo Shop Manual, Volume 3* for suspension removal procedure.

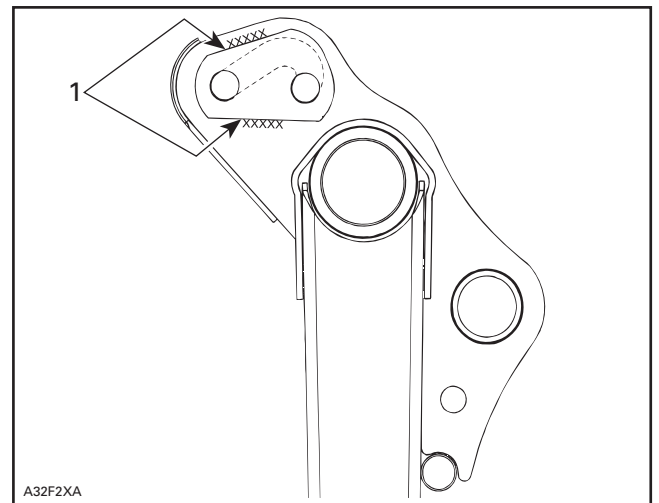
Remove rear suspension arm.

Using appropriate tools and sand paper, remove paint on right side of suspension arm, in top shock hole area.



1. Surface prepared

Install new plate on right side of suspension arm and weld it in place.



1. Weld plate here

Repaint the area with black paint (P/N 413 401 000).
 Reinstall rear arm on suspension.
 Reinstall suspension under vehicle.
 Reinstall shock in place. Screw shock in farthest hole for standard setting or in the nearest hole for a less aggressive suspension behavior.



A32F2YA

SHOCK SECURED IN FARTHEST HOLE OF SUSPENSION ARM

Replace the top shock flanged nut with new regular nut (See PARTS REQUIRED on first page). Always install the nut on plate side.

Estimated time to perform this update: 1.3 hour.

2 - TUNNEL REINFORCEMENT

Under racing application, especially when track studs are used, tunnel may develop cracks on rear portion, near angled up split. If this occurs, cracks must be stopped and a reinforcement plate can be installed.

Parts Required

DESCRIPTION	P/N	QTY
Left tunnel bracket (short)	518 323 487	1
Right tunnel bracket (short)	518 323 488	1
3/16 inch rivet	390 402 000	14

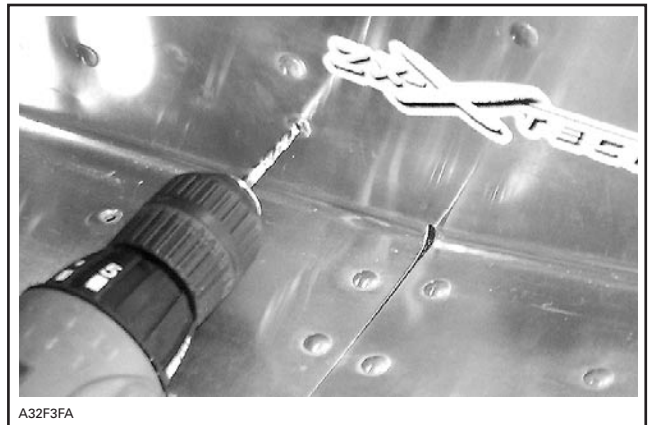
Procedure

Stop the crack using a 1/8 inch drill. See photo.



A32F3EA

Drill the lowest rivet near angled up split.



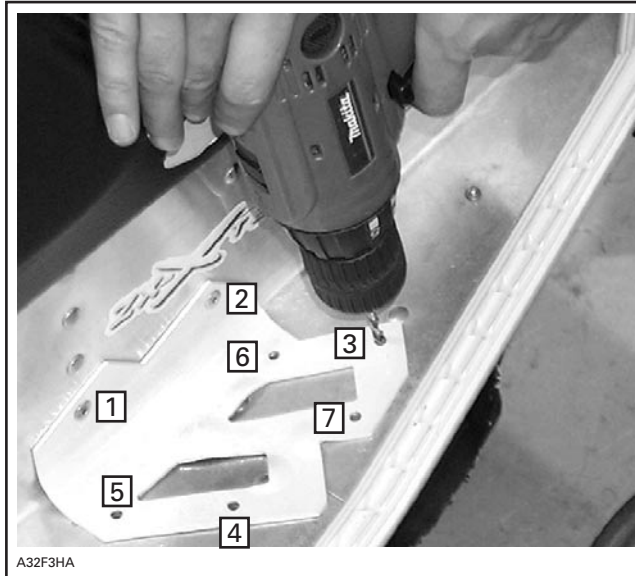
A32F3FA

Install bracket to tunnel using the hole just drilled.



A32F3GA

Drill the second tunnel side hole and rivet bracket. Push and hold down bracket to provide a good contact between footrest and bracket, then drill footrest and rivet as per next photo.



A32F3HA
RIVETING SEQUENCE

3 - REAR SHOCK CALIBRATION

All ZX-X Series Models except MX Zx Racing 440

When racing or riding snowmobile very aggressively way, rear shock must be recalibrated according to the next table.

	REBOUND	COMPRESSION
FRONT	4 x 26 x .125	5 x 30 x .152
	1 x 12 x .114	1 x 15 x .114
	4 x 26 x .152	6 x 30 x .152
	1 x 12 x .203	1 x 17 x .203
	—	1 x 16 x .203
	—	1 x 15 x .203
	Piston = 2 slits	—
	IFP = 44.5 mm	—
	Shock (P/N 505 070 877)	
	Shock (P/N 505 070 879)	

	REBOUND	COMPRESSION
CENTER	6 x 26 x .203	7 x 30 x .152
	1 x 15 x .203	1 x 15 x .114
	—	7 x 30 x .203
	—	1 x 18 x .203
	—	1 x 17 x .203
	Piston = 2 slits	—
	IFP = 128	—
	Shock (P/N 503 189 803)	
	Shock (P/N 503 189 802)	
	REBOUND	COMPRESSION
REAR	7 x 36 x .203	4 x 40 x .152
	1 x 22 x .305	1 x 24 x .152
	—	5 x 40 x .152
	—	1 x 28 x .203
	—	1 x 26 x .203
	—	1 x 24 x .203
	Piston = 1.7	—
	IFP = 188 mm	—
	Shock (P/N 503 189 802)	
	IFP: Internal Floating Piston	

Refer to *2002 Ski-Doo Shop Manual, Volume 3* under REAR SUSPENSION section for calibration and servicing procedure.