



2021 600 Indy XCR USSA Factory 600 ICE Racing settings

All part numbers listed are Polaris part numbers unless otherwise noted.

Fuel: Use non-ethanol 91 octane premium pump gas, select 91-NON-fuel curve on vehicles digital dash display

Oil Injection: Use Polaris VES-Extreme synthetic 2-cycle oil (#2883733 -quart) or (#2883732 -gallon)

Clutching Spec: 10-64 weights, 140/330 primary spring, 175/240 secondary spring, 66/44-.46 degree helix and 3211208 belt. Target RPM is 8350

Clutching: Order the below clutch springs and Helix's from Venom Products, www.venomproducts.com
1-210135-010 – primary spring 165/327 (option spring) 1-955557 – secondary spring 175/240

The Secondary clutch for MY21 requires new “Big Roller” Helix's.

1-BR-113 -- BR66/44-.46 Helix

Order the below secondary clutch spring, weights, and drive belt from Polaris

1-7043829 – primary spring 140/330 (stock) 1-3211208 – drive belt

3-1321584 – 10/66weights (option weight)

Gearing: 21 tooth top gear (#3221097), 42 tooth bottom gear (#3222192), 70 pitch chain (33221115)

Brakes: Hayes aluminum angled brake lever (#0617001*available from Race Dept.)

Optional Hayes Pro Float Stainless Rotor/Pad kit available from the Polaris Race Dept. (#718001)

Controls: replace the stock kill switch with the push button below and install the below tether asm. There is an open port for the tether under the fuel tank cowling in front of the fuel cap

1-4010311 – push button kill switch 1-4010849 – tether 1-7556212 – tether washer

Windshield: 1-5451234 - windshield, Mid Clear

Tracks: Camso 128” Cobra (#5416296*Stock) or Camso 128 Ripsaw1 (#9040H* Camso direct part number)

Track clips: standard and tall track clips can be ordered from Wahl Brothers Racing,

www.wahlracing.com

Tall clip – (#02-653)

standard clip – (#02-651)

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Suspension Springs:

IFS: 130lbs/in coil over spring 9" x 2.25" I.D. (#189A0130 – order from <https://www.resuspension.com/>)

Front track: 80lb/in coil over spring 6" x 2.25" I.D. (#0617003 *order from Race Dept.)

Rear track: 13lbs/degree torsion springs at 80-degree preload. (#7045208-329 & #7045207-329)

Suspension spring preloads: .500" preload on IFS spring, .250" preload on front track spring, Medium/ on torsion spring preload blocks

Sway Bar: .562" sway bar (#0617006 *order from Race Dept.)

Front torque arm: Drill a new hole in the limiter straps to shorten the front arm travel length. Measuring from the top of the bump stop on the rail to the bottom of the torque arm the distance should be 1.625"

Bogie Wheels: replace the six stock bogie wheels with the below solid bogie wheels.
6-1590457 – Solid bogie wheel asm

Rear axle: Replace the four stock rear axle wheels with the four solid wheels below.
4-1590388-070 – solid rear axle wheels

Tunnel enclosure: order rear tunnel enclosure from Wahl Brothers Racing, www.wahlracing.com (#02-479) - Polaris Rear Close Off, Indy Axys

Traction Products: Contact Stud Boy Traction products at www.studboytraction.com . (176 stud's minimum are recommended for ice racing) **stud protectors are required*

Stud Protectors: When installing studs, a stud protection kit is required 1-2883572 – stud protection kit

Skis: Order skis from USI at www.usi-skis.com

USI X2 triple threat stage 1 ski (#X2)

USI 301 high performance mount shoe (#po1-hpb)

or

Order skis from C&A Pro at www.caproksis.net

XPT ski (#0420)

Mounting kit (#76000224)

Tail light: a current OEM production stock qualified snowmobile tail light is required. Light must remain illuminated at all times sled is in the field of competition, whether the engine is running or not.

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Venting: Permitted Cross Country Factory 600 Venting: Additional venting is allowed on the 2021 Indy XCR sled. You must follow the Polaris Racing templates/directions exactly! No deviations will be allowed. To download the venting templates and directions visit the Polaris Snowmobile Racing website at <https://snowmobiles.polaris.com/en-us/team-polaris/racer-resources/>. Go to the **Cross-Country** section.

Rules: for the rules pertaining to this class go to the International Snowmobile Racing website, www.isrracing.org

The suspension settings listed here are the starting point. Adjust suspension calibrations to course/snow conditions to maximize the vehicles handling.

To order any of the Polaris Parts listed on this sheet contact Scott Wilczek at the Polaris Race Dept. 715-355-3008 or Scott.Wilczek@polaris.com

For any race setup questions contact Ben Hayes at the Polaris Race Dept. 715-355-5157 or Ben.hayes@polaris.com



USSA Indy XCR **ICE IFS** shock settings

Shock part number: 7045299

Oil side spacer: .300"

Piston: **Black 6 port, .052" bleed hole** (WER part number #WER-1420032-BH052-HB)

IFP height: 2.0"

Nitrogen PSI: **200**

Jounce bumper: .750" tall (STK)

*Replace stock shaft with (#1800774) short shock shaft

Compression clickers: Low speed: 6 clicks out from stiff, High speed: 5 clicks out from stiff

Compression

1.550 x 8
1.550 x 8
.900 x 12
1.450 x 8
1.300 x 8
1.200 x 10
1.100 x 10
.900 x 8
.800 x 8
.700 x 15
1.500 x .120 plate

Rebound

1.300 x 10
.800 x 8
1.000 x 10
.700 x 8
.600 x 15
.750 x .060 washer

torque shim stack nut to 15ft/lbs.



USSA Indy XCR ICE Front Track shock settings

Shock part number: 7045300

Oil side spacer: 2.0"

Piston: **Black 6 port, .073" bleed hole** (WER part number #WER-1420032-BH073-HB)

IFP height: 1.750"

Nitrogen PSI: **150**

Jounce bumper: remove jounce and plastic scraper

Compression clickers: Low speed: 8 clicks out from stiff, High speed: 7 clicks out from stiff

Compression

1.550 x 8

1.000 x 8

1.550 x 8

1.200 x 8

1.450 x 8

1.200 x 8

1.000 x 8

.900 x 8

.800 x 8

.600 x 15

1.000 x .075 plate

Rebound

1.300 x 8

.700 x 8

1.100 x 12

.900 x 10

.700 x 8

.600 x 15

.750 x .060 washer

torque shim stack nut to 15ft/lbs.



USSA Indy XCR ICE Rear Track shock settings

Shock part number: 7045297

Oil side spacer: .500"

Piston: **Black 6 port, .042" bleed hole** (WER part number #WER-1420032-BH042-HB)

IFP height: 2.0"

Nitrogen PSI: **200**

*Replace stock shaft with (#0818021) custom short shaft (*must order from Polaris Race Dept.)

Compression clickers: Low speed: 6 clicks out from stiff, High speed: 5 clicks out from stiff

Compression

1.550 x 10(x6)

1.500 x 8

1.300 x 8

1.200 x 6

.900 x 6

.700 x 8

.600 x 15

.600 x 15

1.000 x .075 plate

Rebound

1.300 x 10

.900 x 6

1.100 x 8

.900 x 10

.700 x 10

.600 x 15

.750 x .060 washer

torque shim stack nut to 15ft/lbs.

Details	Date												
	Location												
	Driver												
	Sled												
	Class												
		Practice			Heat 1			Heat 2			Final		
	Ambient temp F°												
Density Alt													
Track condition													
Engine	ECU Curve												
	Gauge setting	PREM	REG	PREM	REG	PREM	REG	PREM	REG				
	Fuel Blend												
	Speed MPH												
	Spark plugs & Gap												
	EGT temp F°												
Clutching	Drive Belt												
	Belt length/Width	/			/			/			/		
	Flyweight style												
	Total flyweight												
	Added weight												
	Spider shims												
	Engage/Peak RPM	/			/			/			/		
	Primary spring												
	Secondary spring												
	Helix												
	Top/Bottom gear	/			/			/			/		
Suspension	Skis/Toe out	/ "			/ "			/ "			/ "		
	Carbides												
	SwayBar												
	IFS shock valve #												
	Clicker settings	H-	L-	R-	H-	L-	R-	H-	L-	R-	H-	L-	R-
	Spring rate												
	Preload												
	Oil side spacers												
	FT shock valve #												
	Clicker settings	H-	L-	R-	H-	L-	R-	H-	L-	R-	H-	L-	R-
	Spring rate												
	Preload												
	FT arm height												
	RT shock valve #												
	Clicker settings	H-	L-	R-	H-	L-	R-	H-	L-	R-	H-	L-	R-
	Spring rate												
	Preload	/			/			/			/		
	Oil side spacers												
	Coupling blocks												
	Stud style												
Stud count													
Stud pattern													



