



2020 600 Indy XCR Cross Country 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, 180/320 primary spring, 155/222 secondary spring, 42-degree helix and 3211208 belt. Target RPM is 8350

Clutching: Order the below clutch springs and helix from Venom Products, www.venomproducts.com
1-210135-010 – primary spring 165/327 (option spring), 1-955557 – secondary spring 175/240
(option spring), 1-LW420453 – straight helix 42/44, 1-210135-013 – primary spring 180/320

Order the below secondary clutch spring, weights and drive belt from Polaris
1-7043063 – secondary spring 155/222 1-3211208 – drive belt
3-1321584 – 10/66 weights (option weights) 1-7041988 – primary spring 165/310 (option spring)

Gearing: 22 tooth top gear (Stock), 41 tooth bottom gear (Stock)

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), Camso 128” Ripsaw2 (#2839215) or Camso 128 Ripsaw1 (#9040H* Camso direct part number)

Suspension Springs:

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

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Suspension spring preloads: .500” preload on IFS springs, .250” preload on front track spring, Medium/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”

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)

Venting: Permitted Cross Country Factory 600 Venting: For the 2020 Cross Country racing season additional venting is allowed on the 2020 Indy XCR sleds. 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. (this will be loaded to the website in November)

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

The suspension settings listed above are the starting point. Adjust suspension calibrations to course/ice 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



Cross Country 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: **150**

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.



Cross Country 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.



Cross Country 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

1.200 x 8

.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	Speed MPH										
	Gauge setting	PREM	REG	PREM	REG	PREM	REG	PREM	REG		
	Fuel										
	Oil & Ratio										
	Spark plugs & Gap										
	EGT temps F°	PTO:	MAG:	PTO:	MAG:	PTO:	MAG:	PTO:	MAG:		
Clutching	Drive Belt										
	Belt length/Width	/		/		/		/			
	Flyweight style										
	Total flyweight										
	Spider shims										
	Engagement										
	Peak RPM										
	Primary spring										
	Secondary spring										
	Helix										
	Top/Bottom gear	/		/		/		/			
Suspension	Skis/Toe out	/ "		/ "		/ "		/ "			
	Carbides										
	SwayBar										
	IFS shock valve #										
	Clicker settings	H-	L-	H-	L-	H-	L-	H-	L-		
	Spring rate										
	Preload										
	Oil side spacers										
	FT shock valve #										
	Clicker settings	H-	L-	H-	L-	H-	L-	H-	L-		
	Spring rate										
	Preload										
	FT arm height										
	RT shock valve #										
	Clicker settings	H-	L-	H-	L-	H-	L-	H-	L-		
	Spring rate										
	Preload	/		/		/		/			
	Oil side spacers										
	Coupling blocks										
	Stud style										
Stud count											
Stud pattern											

