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YEAR	MODEL
2021	All Ski-Doo

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# GENERAL INFORMATION

## Previous Model Year Vehicles

This bulletin supplies all the information required to modify current year vehicles for high altitude and/or sea level riding.

MODEL YEAR	LATEST REVISION OF BULLETIN NO.
2021	2021-1
2020	2020-1
2019	2019-2
2018	2018-5
2017	2017-2

NOTE: Throughout this entire document, shaded areas give factory settings (that could apply through different altitudes) while N/A stands for "not applicable".

**NOTICE** The following modifications and adjustments apply for high altitude operation as well as sea level operation.

PARTS AND LABOR COST ARE NOT COVERED BY BRP LIMITED WARRANTY.

## Table Format

The shaded portions of the table indicate factory settings.

ALTITUDE	
Parts to be modified	Recommended Adjustment

## Sea Level Calibration Kit (CAN/USA only)

When the high altitude calibration must be modified to sea level calibration on Freeride™ and Summit™ models (146" and up), the following kit may be used. This kit include all required parts to set-up the vehicle.

MODEL	PART NUMBER
Summit 600R E-TEC	
146" and 154"	860202145
Freeride and Summit 850 E-TEC except turbo	
146", 154", 165", and 175"	860201905

## Kit Description

SEA LEVEL CALIBRATION KIT (P/N 860201905)			
DESCRIPTION		PART NUMBER	QTY
Drive pulley	Ramp 990	417224326	3
	Weight	417224507	3
	Pivot 38 mm / 16,7 g	417224222	3
	Spring (Blue/Yellow)	417224015	1
	M14 Conical spring washer	250200144	1
Driven pulley	Spring (Black)	417127039	1

SEA LEVEL CALIBRATION KIT (P/N 860202145)			
DESCRIPTION		PART NUMBER	QTY
Drive pulley	Spring (Purple/White)	417224167	1
	Ramp 901	417224626	3
	Pivot 38 mm/16,7 g	417224222	3
	M14 Conical spring washer	250200144	1
Driven pulley	Spring (black)	417127039	1

# MX Z™ SPORT 600 EFI / RENEGADE SPORT 600 EFI

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Blue/Blue (P/N 417224013)			Purple/Blue (P/N 417224165)	
Ramp		886 (P/N 417224688)			972 (P/N 417224268) <sup>1</sup>	
Calibration cam position		N/A			4	5
Mass		N/A			26 mm/13,1 g (P/N 417224220)	
Engagement RPM ± 100		3200			3500	
Maximum RPM ± 100		7500				

<sup>1</sup>Parts required to complete the clicker assembly: Cam (P/N 417224113), mass (P/N 417224220), levers (P/N 417224114) and (P/N 417224086). Adjust calibration cam as per table

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Green (P/N 417127137)				
Spring tension Kg ± 0.7 (lb ± 1.5)		N/A				
Cam angle (degrees)		44° (P/N 417127367)				

# BACKCOUNTRY SPORT 600 EFI

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)			Purple/Blue (P/N 417224165)		
Ramp	886 (P/N 417224688)			972 (P/N 417224268) <sup>1</sup>		
Calibration cam position	N/A			4	5	
Mass	N/A			26 mm/13,1 g (P/N 417224220)		
Engagement RPM $\pm$ 100	3200			3500		
Maximum RPM $\pm$ 100	7500					
<sup>1</sup> Parts required to complete the clicker assembly: Cam (P/N 417224113), mass (P/N 417224220), levers (P/N 417224114) and (P/N 417224086). Adjust calibration cam as per table						

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

**EXPEDITION™ SPORT 600 EFI /  
SKANDIC SPORT 600 EFI /  
SKANDIC WT 600 EFI /  
TUNDRA SPORT 600 EFI /  
TUNDRA LT 600 EFI**

**Drive Pulley**

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Yellow/Yellow (P/N 417224171)			Blue/Blue (P/N 417224013)		
Ramp	887 (P/N 417224690)			972 (P/N 417224268) <sup>1</sup>		
Calibration cam position	N/A			4	5	
Mass	N/A			26 mm/13,1 g (P/N 417224220)		
Engagement RPM ± 100	2300			3100		
Maximum RPM ± 100	7500					
<sup>1</sup> Parts required to complete the clicker assembly: Cam (P/N 417224113), mass (P/N 417224220), levers (P/N 417224114) and (P/N 417224086). Adjust calibration cam as per table						

**Driven Pulley**

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)					
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

# EXPEDITION LE 600R E-TEC / EXPEDITION SE 600R E-TEC / SKANDIC WT 600R E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Yellow/Blue (P/N 417224172)					
Ramp	971 (P/N 417224266)			972 (P/N 417224268)		
Calibration cam position	3	4	5	3	4	5
Mass	26 mm/13,1 g (P/N 417224220)					
Engagement RPM $\pm$ 100	2800			2900		
Maximum RPM $\pm$ 100	8100					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

# EXPEDITION SWT 600R E-TEC / SKANDIC SWT 600R E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Yellow/Blue (P/N 417227172)					
Ramp	971 (P/N 417224266)			972 (P/N 417224268)		
Calibration cam position	4	5		4	5	
Mass	33 mm/15,2 g (P/N 417224221) + 2 mm (P/N 417224363)			38 mm/16,7 g (P/N 417224222)		
Engagement RPM $\pm$ 100	2700			2800		
Maximum RPM $\pm$ 100	8100					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

# GRAND TOURING LTD 600R E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Yellow/Blue (P/N 417224172)			Blue/Purple (P/N 417224168)		
Ramp	901 (P/N 417224626)			967 (P/N 417224225)		
Calibration cam position	3	4	5	3	4	5
Mass	33 mm/15,2 g (P/N 417224221)			26 mm/13,1 g (P/N 417224220)		
Engagement RPM $\pm$ 100	3400			3800		
Maximum RPM $\pm$ 100	8100					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	44° (P/N 417127367)			43° - 47° (P/N 417127371)		

# MX Z™ TNT 600R E-TEC / MX Z X™ 600R E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Blue (P/N 417224013)			Purple/Purple (P/N 417224166)		
Ramp	901 (P/N 417224626)			967 (P/N 417224225)		
Calibration cam position	3	4	5	4		5
Mass	33 mm/15,2 g (P/N 417224221)			26 mm/13,1 g (P/N 417224220)		
Engagement RPM ± 100	3500			4000		
Maximum RPM ± 100	8100					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)					
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	44° (P/N 417127367)					

# MX Z X-RS™ 600R E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Blue (P/N 417224013)			Green/Purple (P/N 417224014)		
Ramp	901 (P/N 417224626)			967 (P/N 417224225)		
Calibration cam position	3	4	5	4		5
Mass	33 mm/15,2 g (P/N 417224221)			26 mm/13,1 g (P/N 417224220)		
Engagement RPM ± 100	3500			4000		
Maximum RPM ± 100	8100					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)					
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	44° (P/N 417127367)					

# RENEGADE™ ADRENALINE™ 600R E-TEC / RENEGADE ENDURO 600R E-TEC / RENEGADE X 600R E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Blue (P/N 417224013)			Purple/Purple (P/N 417224166)		
Ramp	901 (P/N 417224626)			967 (P/N 417224225)		
Calibration cam position	3	4	5	4		5
Mass	33 mm/15,2 g (P/N 417224221)			26 mm/13,1 g (P/N 417224220)		
Engagement RPM ± 100	3500			4000		
Maximum RPM ± 100	8100					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)					
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	44° (P/N 417127367)			43° - 47° (P/N 417127371)		

# SUMMIT SP 146" AND 154" 600R E-TEC (CAN/USA)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Purple/White (P/N 417224167)			Blue/Purple (P/N 417224168)		
Ramp	901 (P/N 417224626)			997 (P/N 417224430)		
Calibration cam position	3	4	5	3	4	5
Mass	38 mm/16,7 g (P/N 417224222)			33 mm/15,2 g (P/N 417224221)		
Engagement RPM $\pm$ 100	3400					
Maximum RPM $\pm$ 100	8100					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)			Blue (P/N 417127118)		
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	46° - 42° XTI (P/N 417127426)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Sea Level Calibration Kit

MODEL	PART NUMBER
146"	860202145

# BACKCOUNTRY 600R E-TEC / SUMMIT SP 146" AND 154" 600R E-TEC (EUROPE)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Purple/White (P/N 417224167)			Blue/Purple (P/N 417224168)		
Ramp	901 (P/N 417224626)			997 (P/N 417224430)		
Calibration cam position	3	4	5	3	4	5
Mass	38 mm/16,7 g (P/N 417224222)			33 mm/15,2 g (P/N 417224221)		
Engagement RPM $\pm$ 100	3400					
Maximum RPM $\pm$ 100	8100					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)			Blue (P/N 417127118)		
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	46° - 42° XTI (P/N 417127426)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

# EXPEDITION Xtreme 850 E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)					
Ramp	982 (P/N 417224575)			904 (P/N 417224646)		
Calibration cam position	3	4	2	3	4	5
Mass	38 mm/ 16,7g (P/N 417224222) + 2 mm (P/N 417224363)			26 mm/13,1 g (P/N 417224220)		
Engagement RPM $\pm$ 100	2800			2900		
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	42° - 40° (P/N 417127430)					

# FREERIDE 146" 850 E-TEC SEA-LEVEL (CAN/USA)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Blue/Purple (P/N 417224168)			
Ramp	990 (P/N 417224326)		965 (P/N 417224141)			
Calibration cam position	4	5	3	4	5	
Mass	38 mm/ 16,7g (P/N 417224222) + 9 mm (P/N 417224507)		33 mm/15,2 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		3800			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	42°-38° XTI (P/N 417127693)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

146" MODELS						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Upper gear	21 (P/N 504153910)					
Lower gear	49 (P/N 504152581)					
Chain	114 (P/N 504153393)					

# FREERIDE 146" 850 E-TEC SEA-LEVEL (EUR) / SUMMIT 146" 850 E-TEC SEA-LEVEL (EUR)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Blue/Purple (P/N 417224168)			
Ramp	990 (P/N 417224326)		965 (P/N 417224141)			
Calibration cam position	3	4	3	4	5	
Mass	38 mm/ 16,7g (P/N 417224222)		33 mm/15,2 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		3800			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	44°-42° XTI (P/N 417127825)		40° XTI (P/N 417127672)			

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

146" MODELS						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Upper gear	21 (P/N 504153910)					
Lower gear	51 (P/N 504154110)					
Chain	116 (P/N 504153397)					

# FREERIDE 154" AND 165" 850 E-TEC SEA-LEVEL (CAN/USA) / SUMMIT 154" AND 165" 850 E-TEC SEA-LEVEL (CAN/USA)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Blue/Purple (P/N 417224168)			
Ramp	990 (P/N 417224326)		965 (P/N 417224141)			
Calibration cam position	4	5	3	4	5	
Mass	38 mm/16,7 g (P/N 417224222) + 9 mm (P/N 417224507)		33 mm/15,2 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM ± 100	3300		3800			
Maximum RPM ± 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)		Blue (P/N 417127118)			
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

154" MODELS						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M FT
Upper gear		21 (P/N 504153910)				
Lower gear		51 (P/N 504152971)				
Chain		116 (P/N 504153397)				

165" MODELS						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M FT
Upper gear	21 (P/N 504153910)					
Lower gear	53 (P/N 504153998)					
Chain	116 (P/N 504153397)					

# FREERIDE 154" AND 165" 850 E-TEC SEA-LEVEL (EUR) / SUMMIT 154" AND 165" 850 E-TEC SEA-LEVEL (EUR)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Blue/Purple (P/N 417224168)			
Ramp	990 (P/N 417224326)		965 (P/N 417224141)			
Calibration cam position	3	4	3	4	5	
Mass	38 mm/16,7 g (P/N 417224222)		33 mm/15,2 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		3800			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	44°-42° XTI (417127825)		40° XTI (P/N 417127672)			

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

154" MODELS						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M FT
Upper gear	21 (P/N 504153910)					
Lower gear	51 (P/N 504152971)					
Chain	116 (P/N 504153397)					

165" MODELS						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M FT
Upper gear	21 (P/N 504153910)					
Lower gear	53 (P/N 504153998)					
Chain	116 (P/N 504153397)					

# SUMMIT 175" 850 E-TEC SEA-LEVEL (CAN/USA)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Purple/White (P/N 417224167)			
Ramp	990 (P/N 417224326)		965 (P/N 417224141)			
Calibration cam position	4	5	3	4	5	
Mass	38 mm/16,7 g (P/N 417224222) + 9 mm (P/N 417224507)		33 mm/15,2 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		4100			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

175" MODELS						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M FT
Upper gear	21 (P/N 504153910)					
Lower gear	53 (P/N 504153998)					
Chain	116 (P/N 504153397)					

# SUMMIT 175" 850 E-TEC SEA-LEVEL (EUR)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Purple/White (P/N 417224167)			
Ramp	990 (P/N 417224326)		965 (P/N 417224141)			
Calibration cam position	3	4	3	4	5	
Mass	38 mm/16,7 g (P/N 417224222)		33 mm/15,2 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		4100			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	44°-42° XTI (P/N 417127825)		40° XTI (P/N 417127672)			

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

175" MODELS						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M FT
Upper gear	21 (P/N 504153910)					
Lower gear	53 (P/N 504153998)					
Chain	116 (P/N 504153397)					

# FREERIDE 146" 850 E-TEC HIGH ALTITUDE / SUMMIT 146" 850 E-TEC HIGH ALTITUDE

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Blue/Purple (P/N 417224168)			
Ramp	990 (P/N 417224326)		965 (P/N 417224141)			
Calibration cam position	4	5	3	4	5	
Mass	38 mm/ 16,7g (P/N 417224222) + 9 mm (P/N 417224507)		33 mm/15,2 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		3800			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	42°-38° XTI (P/N 417127693)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

146" MODELS						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Upper gear	21 (P/N 504153910)					
Lower gear	49 (P/N 504152581)					
Chain	114 (P/N 504153393)					

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Sea Level Calibration Kit

MODEL	PART NUMBER
146"	860201905

# FREERIDE 154" AND 165" 850 E-TEC HIGH ALTITUDE / SUMMIT 154" AND 165" 850 E-TEC HIGH ALTITUDE

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Blue/Purple (P/N 417224168)			
Ramp	990 (P/N 417224326)		965 (P/N 417224141)			
Calibration cam position	4	5	3	4	5	
Mass	38 mm/ 16,7g (P/N 417224222) + 9 mm (P/N 417224507)		33 mm/15,2 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		3800			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

154" MODELS						
	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Upper gear	21 (P/N 504153910)					
Lower gear	51 (P/N 504152971)					
Chain	116 (P/N 504153397)					

165" MODELS						
SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)	
Upper gear	21 (P/N 504153910)					
Lower gear	53 (P/N 504153998)					
Chain	116 (P/N 504153397)					

### Sea Level Calibration Kit

MODEL	PART NUMBER
154" and 165"	860201905

### Summit 154" and 165" 850 E-TEC Gear Ratio and Application

**NOTE:** Summit are built for deep snow conditions and should never be used in marginal or hard pack snow conditions. Going to higher ratios could lead to reduced belt life and track delamination.

GEAR RATIO	APPLICATION	PRO'S	CON'S
21/51	Best all around gear ratio	Reference	116 km/h max speed. Rev limiter can turn on
21/53	Deep snow	Better belt life	111 km/h max speed. Rev limiter can turn on

# SUMMIT 175" 850 E-TEC HIGH ALTITUDE

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Purple/White (P/N 417224167)			
Ramp	990 (P/N 417224326)		965 (P/N 417224141)			
Calibration cam position	4	5	3	4	5	
Mass	38 mm/ 16,7g (P/N 417224222) + 9 mm (P/N 417224507)		33 mm/15,2 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		3900			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

175" MODELS						
	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Upper gear	21 (P/N 504153910)					
Lower gear	53 (P/N 504153998)					
Chain	116 (P/N 504153397)					

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Sea Level Calibration Kit

MODEL	PART NUMBER
175"	860201905

## ► **FREERIDE 154" 850 E-TEC TURBO SEA LEVEL (EUR) / SUMMIT 154" 850 E-TEC TURBO SEA LEVEL (EUR)** ◀

### Drive Pulley



	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)	Blue/Purple (P/N 417224168)				
Ramp	951 (P/N 417224038)	994 (P/N 417224758)				903 (P/N 417224642)
Calibration cam position	3	1				5
Mass	33 mm/15,2 g (P/N 417224221)	38 mm/ 16,7g (P/N 417224222)	33 mm/15,2 g (P/N 417224221)			38 mm/ 16,7g (P/N 417224222) + 7 mm (P/N 417224366)
Engagement RPM ± 100	3800					
Maximum RPM ± 100	7900					



### Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)					
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	► 41°-45° XTI (P/N 417127714) ◀	40° XTI (P/N 417127672)				

### Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears



SUMMIT 154" MODELS						
SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)	
Upper gear	21 (P/N 504154188)					
Lower gear	53 (P/N 504154167)					
Chain	116 (P/N 504153759)					



FREERIDE 154" MODELS						
SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)	
Upper gear	21 (P/N 504154188)					
Lower gear	51 (P/N 504154183)					
Chain	116 (P/N 504153759)					

### Gear Ratio and Application

NOTE: Summit and Freeride are built for deep snow conditions and should never be used in marginal or hard pack snow conditions. Going to higher ratios could lead to reduced belt life and track delamination.

GEAR RATIO	APPLICATION	PRO'S	CON'S
21/51	Best all around gear ratio	Reference	116 km/h max speed. Rev limiter can turn on
21/53	Deep snow	Better belt life	111 km/h max speed. Rev limiter can turn on

## ► **FREERIDE 165" 850 E-TEC TURBO SEA LEVEL (EUR) / SUMMIT 165" AND 175" 850 E-TEC TURBO SEA LEVEL (EUR)** ◀

### Drive Pulley



	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Blue/Yellow (P/N 417224015)	Blue/Purple (P/N 417224168)			
Ramp		951 (P/N 417224038)	994 (P/N 417224758)			903 (P/N 417 224642)
Calibration cam position		3	1			4
Mass		33 mm/15,2 g (P/N 417224221)	38 mm/ 16,7g (P/N 417224222)	33 mm/15,2 g (P/N 417224221)		38 mm/ 16,7g (P/N 417224 222) + 7 mm (P/N 417224 366)
Engagement RPM ± 100	3800					
Maximum RPM ± 100	7900					



### Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Black (P/N 417127039)				
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)		► 41°-45° XTI (P/N 417127714) ◀	40° XTI (P/N 417127672)			

### Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

<a href="#">▶_165 AND 175" MODELS◀</a>						
	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Upper gear	21 (P/N 504154188)					
Lower gear	53 (P/N 504154167)					
Chain	116 (P/N 504153759)					

### Gear Ratio and Application

NOTE: Summit and Freeride are built for deep snow conditions and should never be used in marginal or hard pack snow conditions. Going to higher ratios could lead to reduced belt life and track delamination.

GEAR RATIO	APPLICATION	PRO'S	CON'S
21/51	Best all around gear ratio	Reference	116 km/h max speed. Rev limiter can turn on
21/53	Deep snow	Better belt life	111 km/h max speed. Rev limiter can turn on

**► FREERIDE 154" 850 E-TEC TURBO  
HIGH ALTITUDE (CAN/USA) /  
SUMMIT 154" 850 E-TEC TURBO HIGH  
ALTITUDE (CAN/USA) ◀**

**Drive Pulley**



	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Purple (P/N 417224168)					
Ramp	<a href="#">994 (P/N 417224758)</a>					903 (P/N 417224642)
Calibration cam position	3	<a href="#">1</a>				5
Mass	<a href="#">38H mm/ 19.8g (P/N 417224806)</a> + 9 mm (P/N 417224507)	38 mm/ 16,7g (P/N 417224222)	33 mm/15,2 g (P/N 417224221)			38 mm/ 16,7g (P/N 417224222) + 7 mm (P/N 417224366)
Engagement RPM ± 100	<a href="#">3800</a>					
Maximum RPM ± 100	7900					



**Driven Pulley**

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)					
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

**Vehicle Calibration**

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

154" MODELS						
SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)	
Upper gear	21 (P/N 504154188)					
Lower gear	51 (P/N 504154183)					
Chain	116 (P/N 504153759)					

### Gear Ratio and Application

**NOTE:** Summit and Freeride are built for deep snow conditions and should never be used in marginal or hard pack snow conditions. Going to higher ratios could lead to reduced belt life and track delamination.

GEAR RATIO	APPLICATION	PRO'S	CON'S
21/51	Best all around gear ratio	Reference	116 km/h max speed. Rev limiter can turn on
21/53	Deep snow	Better belt life	111 km/h max speed. Rev limiter can turn on

**► FREERIDE 165" 850 E-TEC TURBO  
HIGH ALTITUDE (CAN/USA) /  
SUMMIT 165 AND 175" 850 E-TEC  
TURBO HIGH ALTITUDE (CAN/USA)◀**

**Drive Pulley**

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Purple (P/N 417224168)					
Ramp	994 (P/N 417224758)					903 (P/N 417224642)
Calibration cam position	3		1			4
Mass	► 38H mm/ 19.8g (P/N 417224806)◀ + 9 mm (P/N 417224507)		38 mm/ 16,7g (P/N 417224222)	33 mm/15,2 g (P/N 417224221)		38 mm/ 16,7g (P/N 417224222) + 7 mm(P/N 417224366)
Engagement RPM ± 100	► 3800◀					
Maximum RPM ± 100	7900					

**Driven Pulley**

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)					
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	40° XTI (P/N 417127672)					

**Vehicle Calibration**

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap	4		3		2	

## Chaincase Gears

165" AND 175" MODELS						
SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)	
Upper gear	21 (P/N 504154188)					
Lower gear	53 (P/N 504154167)					
Chain	116 (P/N 504153759)					

### Gear Ratio and Application

**NOTE:** Summit and Freeride are built for deep snow conditions and should never be used in marginal or hard pack snow conditions. Going to higher ratios could lead to reduced belt life and track delamination.

GEAR RATIO	APPLICATION	PRO'S	CON'S
21/51	Best all around gear ratio	Reference	116 km/h max speed. Rev limiter can turn on
21/53	Deep snow	Better belt life	111 km/h max speed. Rev limiter can turn on

# MX Z TNT 850 E-TEC / MX Z X 850 E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Blue (P/N 417224013)		Blue/Yellow (P/N 417224015)			
Ramp	968 (P/N 417224227)		967 (P/N 417224225)			
Calibration cam position	3	4	2	3	4	5
Mass	38 mm/ 16,7g (P/N 417224222)					
Engagement RPM ± 100	3200		4000			
Maximum RPM ± 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)					
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	45° - 42° (P/N 417127534)					

# MX Z X-RS 850 E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Blue (P/N 417224013)		Purple/Yellow (P/N 417224164)			
Ramp	968 (P/N 417224227)		967 (P/N 417224225)			
Calibration cam position	3	4	2	3	4	5
Mass	38 mm/ 16,7g (P/N 417224222)					
Engagement RPM $\pm$ 100	3200		4000			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	45° - 42° (P/N 417127534)		42° (P/N 417127372)			

# RENEGADE ADRENALINE 850 E-TEC / RENEGADE X 850 E-TEC / RENEGADE X-RS 850 E-TEC / RENEGADE ENDURO 850 E-TEC

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Yellow/Blue (P/N 417224172)		Yellow/Yellow (P/N 417224171)			
Ramp	968 (P/N 417224227)		967 (P/N 417224225)			
Calibration cam position	3	4	2	3	4	5
Mass	38 mm/ 16,7g (P/N 417224222)					
Engagement RPM ± 100	2900		3400			
Maximum RPM ± 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)					
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	44° - 42° (P/N 417127325)					

# BACKCOUNTRY 850 E-TEC / BACKCOUNTRY X 850 E-TEC / BACKCOUNTRY X-RS 850 E-TEC (Track with profile of 40 mm (1.6 in))

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Blue/Purple (P/N 417224168)			
Ramp	990 (P/N 417224326)		995 (P/N 417224450)			
Calibration cam position	4	5	3		4	
Mass	38 mm/16,7 g (P/N 417224222) + 9 mm (P/N 417224507)		33 mm/18.8 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		3800			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	42° - 38° XTI (P/N 417127693)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

WITH 1.6" PROFILE TRACK						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Upper gear						21 (P/N 504153910)
Lower gear						45 (P/N 504152593)
Chain						112 (P/N 504153268)

# BACKCOUNTRY X 850 E-TEC / BACKCOUNTRY X-RS 850 E-TEC (CAN/USA) (Track with profile of 50 mm (2 in) and 63 mm (2-1/2 in))

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Blue/Purple (P/N 417224168)			
Ramp	990 (P/N 417224326)		995 (P/N 417224450)			
Calibration cam position	4	5	4		5	
Mass	38 mm/16,7 g (P/N 417224222) + 9 mm (P/N 417224507)		33 mm/18.8 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM ± 100	3300		3800			
Maximum RPM ± 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Black (P/N 417127039)		Blue (P/N 417127118)			
Spring tension Kg ± 0.7 (lb ± 1.5)	N/A					
Cam angle (degrees)	42° - 38° XTI (P/N 417127693)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

WITH 2" PROFILE TRACK						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M FT
Upper gear	23 (P/N 504091000)					
Lower gear	51 (P/N 504152971)					
Chain	116 (P/N 504153397)					

WITH 2.5" PROFILE TRACK						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M FT
Upper gear	21 (P/N 504153910)					
Lower gear	51 (P/N 504152971)					
Chain	116 (P/N 504153397)					

# BACKCOUNTRY X-RS 850 E-TEC (EUR)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Yellow (P/N 417224015)		Blue/Purple (P/N 417224168)			
Ramp	990 (P/N 417224326)		995 (P/N 417224450)			
Calibration cam position	3	4	4		5	
Mass	38 mm/16,7 g (P/N 417224222)		33 mm/18.8 g (P/N 417224221)		26 mm/13,1 g (P/N 417224220)	
Engagement RPM $\pm$ 100	3300		3800			
Maximum RPM $\pm$ 100	7900					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Green (P/N 417127137)		Blue (P/N 417127118)			
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	44° - 42° XTI (P/N 417127825)					

## Vehicle Calibration

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Stopper Strap		4		3		2

## Chaincase Gears

WITH 2" PROFILE TRACK						
	Sea level 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M FT
Upper gear	21 (P/N 504153910)					
Lower gear	51 (P/N 504152971)					
Chain	116 (P/N 504153397)					

# TUNDRA SPORT 600 ACE / TUNDRA LT 600 ACE

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red/Red (P/N 417223745)	Red/Yellow (P/N 417 223748)		Red/White (P/N 417223747)	Red/Red (P/N 417 223745)
Ramp		716 (P/N 417223508)		725 (P/N 417223601)		
Ramp quantity		6				
Engagement RPM $\pm$ 100		2200				
Maximum RPM $\pm$ 100		7250				

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red (P/N 417127467)				
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)		7.3 kgf (16.1 lbf)				
Cam angle (degrees)		41°-45° (P/N 417127747)				

# RENEGADE SPORT 600 ACE / GRAND TOURING SPORT 600 ACE

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Red/Red (P/N 417 223745)	Red/Yellow (P/N 417 223748)	Red/Orange (P/N 417 223749)	Red/White (P/N 417223747)		Red/Red (P/N 417 223745)
Ramp	715 (P/N 417223510)			725 (P/N 417223601)		
Ramp quantity	6					
Engagement RPM $\pm$ 100	2200					
Maximum RPM $\pm$ 100	7250					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Red/Red (P/N 417127467)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	7.3 kgf (16.1 lbf)					
Cam angle (degrees)	41°-45° (P/N 417127747)					

# EXPEDITION SPORT 600 ACE

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red/Red (P/N 417223745)	Red/Yellow (P/N 417 223748)	Red/White (P/N 417223747)	Red/Red (P/N 417 223745)	
Ramp		716 (P/N 417223508)		725 (P/N 417223601)		
Ramp quantity		6				
Engagement RPM $\pm$ 100		2200				
Maximum RPM $\pm$ 100		7250				

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red (P/N 417127467)				
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)		7.3 kgf (16.1 lbf)				
Cam angle (degrees)		41°-45° (P/N 417127747)				

# SKANDIC WT 600 ACE

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red/Red (P/N 417223745)	Red/White (P/N 417 223747)	Red/Red (P/N 417 223745)	Red/Yellow (P/N 417 223748)	Red/Orange (P/N 417 223749)
Ramp		716 (P/N 417223508)	725 (P/N 417223601)			
Ramp quantity		6				
Engagement RPM $\pm$ 100		2200				
Maximum RPM $\pm$ 100		7250				

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red (P/N 417127467344)				
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)		7.3 kgf (16.1 lbf)				
Cam angle (degrees)		37°-45° (P/N 417127413)				

# EXPEDITION LE / SE 900 ACE

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red/Blue (P/N 417224330)		Yellow/Yellow (P/N 417224171)		Blue/Blue (P/N 417224013)
Ramp		882 (P/N 417224495)		895 (P/N 417224256)		
Engagement RPM $\pm$ 100		2200		2800		3200
Maximum RPM $\pm$ 100		7500				

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Beige2 (P/N 417127242)				
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)		7.0 kg (15.4 lb)				
Cam angle (degrees)		42° (P/N 417127420)				

**GRAND TOURING SPORT 900 ACE /  
GRAND TOURING LTD 900 ACE /  
RENEGADE ADRENALINE 900 ACE /  
RENEGADE ENDURO 900 ACE**

**Drive Pulley**

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red/Blue (P/N 417224330)				Blue/Purple (P/N 417224168)
Ramp		826 (P/N 417224370)		895 (P/N 417224256)		
Engagement RPM ± 100		2200		2400		2600
Maximum RPM ± 100		7250				

**Driven Pulley**

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red (P/N 417127467)				
Spring tension Kg ± 0.7 (lb ± 1.5)		7.3 kg - 6.6 kg (16.1 lb - 14.6 lb)				
Cam angle (degrees)		44° - 40° (P/N 417127476)				

# EXPEDITION SPORT 900 ACE

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Red/Blue (P/N 417224330)				Blue/Purple (P/N 417224168)	
Ramp	882 (P/N 417224495)		895 (P/N 417224256)			
Engagement RPM $\pm$ 100	2200		2400		2600	
Maximum RPM $\pm$ 100	7250					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Beige2 (P/N 417127242)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	7.0 kg (15.4 lb)					
Cam angle (degrees)	42° (P/N 417127420)					

# EXPEDITION SWT 900 ACE (CAN/USA) / SKANDIC WT / SWT 900 ACE (CAN/USA)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red/Blue (P/N 417224330)		Yellow/Yellow (P/N 417224171)		Blue/Blue (P/N 417224013)
Ramp		882 (P/N 417224495)		895 (P/N 417224256)		
Engagement RPM $\pm$ 100		2200		2800		3200
Maximum RPM $\pm$ 100		7500				

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red/Red (P/N 417127467)				
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)		7.0 kg (15.4 lb) (2-E)				
Cam angle (degrees)		42° - A (P/N 417127420)				

# EXPEDITION SWT 900 ACE (EUR) / SKANDIC WT / SWT 900 ACE (EUR)

## Drive Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring		Red/Orange (P/N 417223749)	Red/White (P/N 417223747)		Yellow/Blue (P/N 417224085)	Yellow/Pink (P/N 417 224084)
Ramp		748 (P/N 417224035)	742 (P/N 417223918)			
Engagement RPM $\pm$ 100	2000					
Maximum RPM $\pm$ 100	7250					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Red/Red (P/N 417127467)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	7.0 kg - 6.4 kg (15.4 lb - 14.1 lb)					
Cam angle (degrees)	40° (P/N 417127411)					

# EXPEDITION LE / SE 900 ACE TURBO / EXPEDITION SWT 900 ACE TURBO

## Drive Pulley

NOTE: The factory calibration is suitable for all altitude. The turbocharger compensates for the lack of oxygen at high altitude.

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue/Purple (P/N 417224168)					
Ramp	880 (P/N 417224290)					
Engagement RPM $\pm$ 100	2200					
Maximum RPM $\pm$ 100	7500					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue (P/N 417127118)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	47° - 40° (P/N 417127756)					

# GRAND TOURING LTD 900 ACE TURBO

## Drive Pulley

NOTE: The factory calibration is suitable for all altitude. The turbocharger compensates for the lack of oxygen at high altitude.

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Red/Blue (P/N 417224330)					
Ramp	880 (P/N 417224290)					
Engagement RPM $\pm$ 100	2200					
Maximum RPM $\pm$ 100	7250					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue (P/N 417127118)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	47° - 40° (P/N 417127756)					

# RENEGADE X 900 ACE TURBO/ RENEGADE X-RS 900 ACE TURBO/ RENEGADE ADRENALINE 900 ACE TURBO/ RENEGADE ENDURO 900 ACE TURBO

## Drive Pulley

NOTE: The factory calibration is suitable for all altitude. The turbocharger compensates for the lack of oxygen at high altitude.

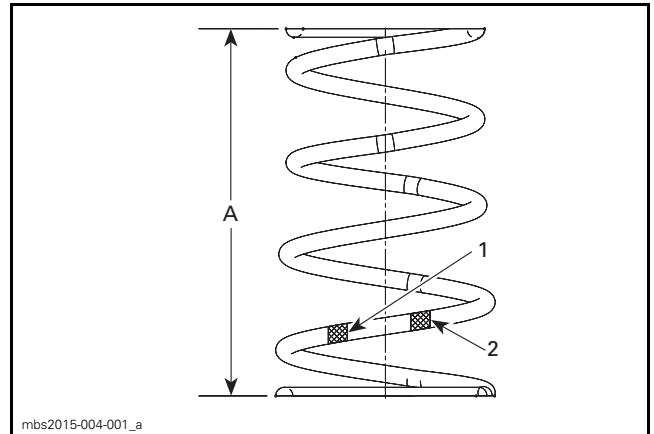
	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Red/Yellow (P/N 417224329)					
Ramp	873 (P/N 417224302)					
Engagement RPM $\pm$ 100	2200					
Maximum RPM $\pm$ 100	7750					

## Driven Pulley

	SEA LEVEL 0 M (0 FT)	600 M (2000 FT)	1200 M (4000 FT)	1800 M (6000 FT)	2400 M (8000 FT)	3000 M (10000 FT)
Spring	Blue (P/N 417127118)					
Spring tension Kg $\pm$ 0.7 (lb $\pm$ 1.5)	N/A					
Cam angle (degrees)	47° - 40° (P/N 417127756)					

# OPTIONAL DRIVE PULLEY SPRING RATES AND SPECIFICATIONS

The springs for TRA pulleys can not be installed on eDrive II or eDrive II LC.



mbs2015-004-001\_a  
TYPICAL - COLOR CODE

1. 1<sup>st</sup> color
2. 2<sup>nd</sup> color

## eDrive II (900 ACE) and eDrive II LC (600 ACE)

SPRING SPECIFICATIONS							
PART NUMBER	WIRE DIA.	FREE LENGTH	LOAD ± 10% WHEN "A" = 60.6 MM		LOAD ± 10% WHEN "A" = 28 MM		COLOR CODE
	MM		N	LBS	N	LBS	
417223745	4.50	97.9	356	80	667	150	Red / Red
417223747	4.30	108.0	356	80	600	135	Red / White
417223748	4.80	87.3	355	80	789	177	Red / Yellow
417223749	4.80	84.3	355	80	845	190	Red / Orange
417223750	5.0	80.5	355	80	934	210	Red / Green
417224084	4.50	105.4	489	110	845	190	Yellow / Pink
417224085	4.30	120.0	446	100	690	155	Yellow / Blue