Modulator®

RCV250 Fully Variable Fan Drives

Feature*	Benefit
Full range, responsive fan speed control	Low to full speed modulation provides precise engine coolant and charge air temperature control, resulting in improved efficiencies
Idle speed 100 rpm or lower	Low idle speed results in less fan drive power draw, eliminates overcooling, reduces fuel consumption, provides faster engine and cab warm-up, and produces less noise and dust
Lightweight and compact belt-drive design	Horton's belt-driven fan drive is smaller than competitive designs, which increases vehicle payload, eases installation, and provides smoother torque transmission to the fan clutch for longer service life
Horton double row angular contact (DRAC) hub bearing	Proven design with millions of miles on DRAC bearings in Horton fan drive applications provides unsurpassed reliability, service life, and vehicle uptime
Integrated wiring eliminates anti-rotation bracket with exposed wiring	Wiring is protected from damage that can be caused by drive belt failure, which in competitive designs often requires replacement of the entire fan drive

*Compared to conventional variable fan drives.

WindMaster®

Model HS11 Fully Molded Plastic Fan

- 11-blade fans in 711 – 864 mm [28" – 34"] diameters
- Unique blade design improves airflow and efficiency
- Maximum cooling performance and cost efficiency with quieter operation
- Meets or exceeds OE cooling requirements

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HORTON®
Airflow Solutions

www.hortonww.com

*ISO/TS 16949, ISO 14001 and ISO 9001 Certified

**ISO 14001 and ISO 9001 Certified

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PERFORMANCE *for All Seasons*

Modulator®

RCV250 Upgrade Packages for Heavy-Duty Trucks

HORTON®
Airflow Solutions

Modulator®

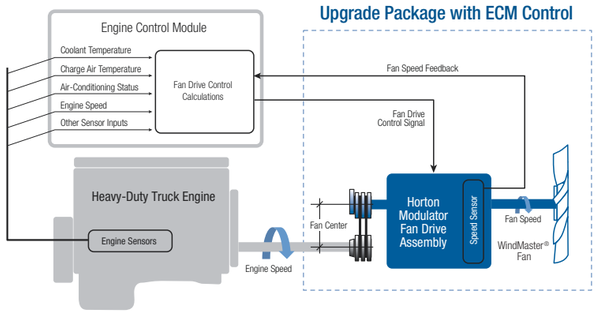
RCV250 Upgrade Packages for Heavy-Duty Trucks

Horton and your truck's engine control module (ECM) work together to manage fan speed for:

- *Improved engine temperature control in all climates and driving conditions*
- *Significant fuel savings in most applications*
- *Low maintenance for more vehicle uptime*
- *Increased driver comfort*

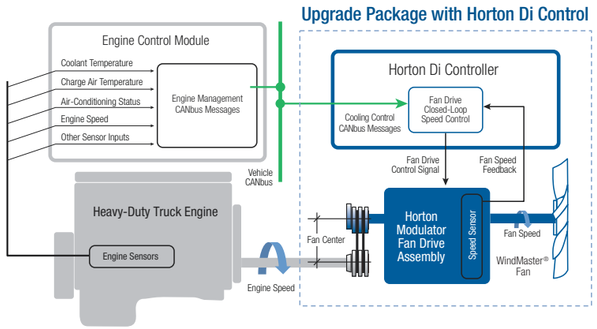
ECM Control for OE-Engineered Variable Fan Speed

- Horton Modulator RCV250 Fan Drive assembly
- Installation kit
  - – Step-by-step installation manual
  - – ECM wiring harness
- WindMaster® HS11 Fan



Horton Di for Optimized Fan Speed Control

- Horton Modulator RCV250 Fan Drive assembly
- Installation kit
  - – Step-by-step installation manual
  - – Di controller and wiring harness
- WindMaster® HS11 Fan



APPLICATION GUIDE

For the latest Modulator Upgrade Package application data visit www.hortonww.com/modulator

Vehicle Application Descriptions and Modulator RCV250 Upgrade Package Part Numbers							See Notes on ECM Reprogramming*		
Vehicle Brand	**Vehicle Model**	**EPA Year, Engine Model Fan Center Dimension**	**Modulator RCV250 Control Mode**	**Modulator Assembly P/N**	**Installation Kit P/N**	**WindMaster HS11 Fan P/N**	**On-off clutch**	**Viscous clutch**	**Cool Logic clutch**
Freightliner	Cascadia 125BBC, 122SD, Coronado	EPA10/13, DD13, DD15, DD16 292 mm	Vehicle ECM *(OE fan drive control)*	**9910031**	**995631**	**996813502-002**	3	1	N/A
Western Star	4900, 5700								
Freightliner	Cascadia 113BBC, 114SD, M2-112	EPA10/13 DD13 292 mm	Vehicle ECM *(OE fan drive control)*	**9910032**	**995631**	**996813502-002**	3	1	N/A
Western Star	4700, 4900								
Freightliner	Cascadia 125BBC, Coronado, 122SD	EPA10/13, ISX15 292 mm	Di Controller *(% Fan Speed)*	**9910034**	**995641**	**996813502-002**	2	N/A	N/A
Western Star	4900, 5700								
Mack	GU7	EPA07/10/13, MP7 Std. Volvo, Mack fan center	Vehicle ECM *(OE fan drive control)*	**9910050**	**995642**	**996711503**	4	1	4
Volvo	VHD	EPA07/10/13, D13, MP8 Std. Volvo, Mack fan center	Vehicle ECM *(OE fan drive control)*	**9910065**	**995642**	**996750892**	4	1	4
Mack	CHU, GU8, w/o fepto								
Mack	GU7	EPA07/10/13, MP8 Std. Volvo, Mack fan center	Vehicle ECM *(OE fan drive control)*	**9910066**	**995642**	**996711892**	4	1	4
Volvo	VHD	EPA07/10/13, D11, MP7 Std. Volvo, Mack fan center	Vehicle ECM *(OE fan drive control)*	**9910067**	**995642**	**996750503**	4	1	4
Mack	GU8								
Volvo	VNM, VNL	10/13, D13, MP8 Std. Volvo, Mack fan center	Vehicle ECM *(OE fan drive control)*	**9910069**	**995642**	**996813892**	4	1	4
Mack	CXU								
Volvo	VNM, VNL	EPA07/10/13, D11, MP7 Std. Volvo, Mack fan center	Vehicle ECM *(OE fan drive control)*	**9910097**	**995642**	**996813503**	4	1	4
Mack	CXU								
Navistar	ProStar	EPA10/13, ISX15 Std. ProStar fan center	Di Controller *(% Fan Speed)*	**9910074**	**995636**	**996813502-002**	1	N/A	N/A
Kenworth	T680 (2° slant), T700, T800B T800W, T880 (2° slant), T2000	EPA07/10/13, ISX15 300 mm	Di Controller *(% Fan Speed)*	**9910148**	**995637**	**996813502-002**	2	N/A	N/A
Peterbilt	367, 386, 587, 579								
Kenworth	W900B, W900L	EPA07/10/13, ISX15 402 mm	Di Controller *(% Fan Speed)*	**9910146**	**995637**	**996813502-002**	2	N/A	N/A
Peterbilt	367HH, 388, 389								
Kenworth	T680 (4° slant), T880 (4° slant)	EPA13 ISX15 275 mm	Di Controller *(% Fan Speed)*	**9910147**	**995637**	**996813502-002**	2	N/A	N/A
Kenworth	W900B	EPA07 ISX15 476 mm	Di Controller *(% Fan Speed)*	**9910092**	**995637**	**996813502-002**	2	N/A	N/A
Kenworth	T680SH (2° slant), T700, T800SH T880SH (2° slant), W900S	EPA13 MX13 300 mm	Di Controller *(Temperature map)*	**9910115**	**995638**	**996813501-002**	1	N/A	N/A
Peterbilt	365, 384, 567SH (2° slant), 579-117 (2° slant), 587 (2° slant)								
Kenworth	T680 (2° slant), T880 (2° slant), T800B	EPA10 MX13 300 mm	Di Controller *(Temperature map)*	**9910116**	**995638**	**996813502-002**	1	N/A	N/A
Peterbilt	367, 386, 567-123 (2° slant), 579-123 (2° slant)								
Kenworth	W900B	EPA10/13 MX13 402 mm	Di Controller *(Temperature map)*	**9910150** (includes single idler)	**995638**	**996813502-002**	1	N/A	N/A
Peterbilt	367HH, 388, 389								
Kenworth	W900B	EPA13 MX13 402 mm	Di Controller *(Temperature map)*	**9910149** (requires dual idler, p/n 994661)	**995638**	**996813502-002**	1	N/A	N/A
Peterbilt	367HH, 388, 389								
Kenworth	T680SH (4° slant), T880SH (4° slant)	EPA13 MX13 275 mm	Di Controller *(Temperature map)*	**9910117**	**995638**	**996813501-002**	1	N/A	N/A
Peterbilt	567SH (4° slant), 579-117 (4° slant)								
Kenworth	T680 (4° slant), T880 (4° slant)	EPA13 MX13 275 mm	Di Controller *(Temperature map)*	**9910118**	**995638**	**996813502-002**	1	N/A	N/A

***ECM reprogramming required when the existing clutch is replaced by a Modulator RCV250 Upgrade Package:**

1 = ECM reprogramming is not needed because Modulator is a plug and play replacement for this application.
2 = ECM parameter change can be made by fleet or end user owners using commercially available diagnostic service tools.
3 = ECM parameter change requires dealer-level access to ECM using OE diagnostic tools.
4 = ECM must be reflashed by dealer with access to OE software update.
N/A = Not Applicable: Vehicle was not originally equipped with the indicated clutch type.