ms3pro® ENGINE MANAGEMENT SYSTEMS

MS3Pro EMS Comparison Guide

SO WHAT'S THE DIFFERENCE?

1ST GEN
(REPLACED BY EVO)

EVO
(REPLACES 1ST GEN)

ULTIMATE

FEATURES

	1ST GEN	EVO	ULTIMATE
VE based tuning	✓	✓	✓
Speed density	✓	✓	✓
Alpha-N	✓	✓	✓
MAF-based	✓	✓	✓
Blended (mixture of SD, Alpha-N, MAF as needed	✓	✓	✓
Up to 12 cylinder sequential support	✓	✓	✓
Unused injector outputs used as digital hi current or PWM	✓	✓	✓
Distributor	Single/dual	Single/dual	Single/dual
Wasted spark	✓	✓	✓
Coil per plug	✓	✓	✓
Per cylinder table-based corrections for fuel & spark	✓	✓	✓
O2 per cylinder supported	✓	✓	✓
Table switching for multiple fuel trims	✓	✓	✓
VVT control	4 channels	4 channels	4 channels
Odd fire engine supported	✓	✓	✓
Rotary supported	✓	✓	✓
Internal hi-speed datalogging	✓	✓	✓
Datalogging speed	120 hz	330 hz	330 hz
No. channels datalogged	30	64	64
Real time calendar clock (RTCC)	✓	✓	✓
Onboard traction control & configurable vehicle response	Multiple strategies	Multiple strategies	Multiple strategies
Alcohol & flex fuel supported	✓	✓	✓
Wideband support	ALL OEM & aftermarket	ALL OEM & aftermarket	ALL OEM & aftermarket
Nitrous control	2 channels, staged or progressive	2 channels, staged or progressive	2 channels, staged or progressive
Boost control	Multiple open/closed loop strategies	Multiple open/closed loop strategies	Multiple open/closed loop strategies
Transbrake control	✓	✓	✓
Idle control	Multiple open/closed loop strategies	Multiple open/closed loop strategies	Multiple open/closed loop strategies
Water/methanol injection	✓	✓	✓
Fuel pump control	On/off or PWM	On/off or PWM	On/off or PWM
DSP based knock detection	2 channels	2 channels	2 channels
Configurable engine safeties & vehicle response	✓	✓	✓

INPUTS & OUTPUTS

	1ST GEN	EVO	ULTIMATE
Peak & hold injector outputs (Programmable 4:1 or 8:2)	0	0	10 channels
Saturated injector outputs	12	12	2
Low impedance injectors supported			10 channels
High impedance injectors supported	✓	✓	10 channels + 2 stage
Ignition outputs	8+2	8+2	8+2
Digital inputs	4	4	7
Digital input or output (dedicated)	0	0	5
PWM outputs	3	3	5
Digital output (dedicated)	0	0	2
Analog inputs (spare)	3	7	8
Hi Current outputs	2	2	2
Digital frequency inputs	3	3	3
Variable reluctor conditioned inputs	2 channels	4 channels	4 channels
Onboard MAP sensor		4 BAR	4 BAR
Onboard baro sensor		✓	✓
5V Ref	✓	✓	2 (separately fused)
Keep alive memory (KAM)			✓
CANBUS	✓	✓	✓
Serial	✓	✓	✓
USB	✓	✓	✓
Visual diagnostics		✓	✓
Water resistant enclosure	✓	IP65 rating	IP65 rating