



— 48 EXACT-PRODUCT MANUALS

Your build. Connected.

Boost. Water/meth. Nitrous. Sensors.

Choose the guide for the equipment already in your car.



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1

— PRODUCT MANUAL LIBRARY

Choose your installation

Find the exact product in your car. Each manual has its own identification image, wiring schedule, app setup, keep-controller route and replacement assessment.

These are independent installation-design review drafts for FD Design LS. They are not claims that the devices have already been bench-tested together. Every diagram distinguishes a documented existing interface from extra hardware that still needs qualification.

Choose Route A to retain native controller functions while adding the documented control or measurement interface.

Choose Route B only after checking the function-transfer list, required sensors, available outputs and the load's electrical requirements. Some sensing electronics must stay.

1.1 Read the drawings

Solid coloured lines are electrical connections; rectangular ports mark terminals and small sleeves mark insulated splices. A filled dot marks a junction. Crossing lines without a dot are not connected. Relay contacts are shown with the coil de-energized. Coil and contact circuits are isolated. FD lead colours match the original harness reference. An accessory segment uses its own documented colour when available. Labels and the exact wire schedule take precedence.

A connector terminal role is not a mating-face cavity drawing. Match the exact manufacturer manual and installed revision. Every guide includes a commissioning matrix; unfilled tests remain outstanding.

1.2 What this release covers

An expanded exact-model library covering boost, water/meth, nitrous, sensors, gauges and documented CAN accessories. The following catalogue lists every completed guide. Model identification photos or original manufacturer illustrations are credited in each source manifest. AEM water/meth manuals are scoped to the documented V2 harness; Snow controller revisions and both NOS Mini generations are deliberately separate.

FD Design LS has six conditioned 0–5 V inputs, two low-side AUX sinks and four high-side outputs. Those channels are shared across functions. The original controller's driver rating does not establish an FD load rating.

Saved configurations execute on the ESP. The phone provides configuration, display and recording; recording depends on the samples actually received. Log measured delivery separately from commands and inferred states.

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— FIND YOUR EXACT MODEL

Boost controllers



Turbosmart eBoost2

Keep it: Candidate SSB integration: two AUX wires, matching 2–6 groups, physical synchronization and pulse qualification required.

Replace it: Conditional migration to FD with a qualified valve/driver and independent pressure source; original coil reuse is not automatically approved.

[turbosmart-eboost2.pdf](#)



Turbosmart eBoost3

Keep it: Candidate two-wire SSB control on main-loom A7/A8; CAN pins documented but no supported telemetry protocol qualified.

Replace it: Qualified conventional solenoid route only; 12.7 W supplied valve is not a nominal 1 A AUX load approval; specialist actuator arrangements excluded.

[turbosmart-eboost3.pdf](#)



GFB G-Force III

Keep it: Custom one-wire seven-position PrE cycle; GFB SCr is a separate qualified timed-request route, not the same configuration.

Replace it: Conditional conventional solenoid migration; exact valve/driver and wideband-protection replacement must be qualified.

[gfb-g-force-iii.pdf](#)



AEM Tru-BoostX 30-0352

Keep it: Ground-triggered scramble request plus documented AEMnet receive-only telemetry; no A/B/Off group-cycle control.

Replace it: Conditional valve/driver migration; original coil fault diagnostics do not transfer to FD Design LS.

[aem-tru-boostx-30-0352.pdf](#)



APEXi AVC-R 420-A004/A005

Keep it: Qualified ground/isolated-contact scramble request only; no supported four-group cycling or telemetry output established.

Replace it: Conditional conventional solenoid conversion; preserve ECU taps/grounds, supply FD measurements and rebuild removed learning/monitoring functions.

[apexi-avc-r.pdf](#)



GREDDY Profec OLED + Profec MAP 15500215

Keep it: MAP yellow +12 V optional-input route via a qualified isolated relay or high-side interface; base OLED alone has no qualified direct AUX route here.

Replace it: Conditional qualified solenoid/measurement migration; MAP maps, signal interfaces and PC functions do not transfer automatically.

[greddy-profec-oled-map.pdf](#)

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— FIND YOUR EXACT MODEL

Water / methanol



Includes harness/wiring and MAP sensor.

Snow VC-30 • 20010 / 212 • 2019-and-later harness

Keep it: Independent measurement; no documented native remote-enable input

Replace it: New boost-based pump setup with direct FD OUT when the pump fits; retain native strategy if its required functions cannot be reproduced.

[snow-vc30-20010-212.pdf](#)



Snow VC-50 • 210 / 210-BRD • New Style

Keep it: Independent measurement; no documented native remote-enable input

Replace it: New boost-based pump setup with direct FD OUT when the pump fits; retain native strategy if its required functions cannot be reproduced.

[snow-vc50-210-new-style.pdf](#)



Snow Stage 3 • 310 / 310-BRD • EFI controller

Keep it: Independent measurement; no documented native remote-enable input

Replace it: New boost-based pump setup with direct FD OUT when the pump fits; retain native strategy if its required functions cannot be reproduced.

[snow-stage3-310.pdf](#)



Snow Stage 3 DI • 320 / 320-BRD • FRP controller

Keep it: Independent measurement; no documented native remote-enable input

Replace it: New boost-based pump setup with direct FD OUT when the pump fits; retain native strategy if its required functions cannot be reproduced.

[snow-stage3-di-320.pdf](#)



AEM 30-3300 • V2 internal-MAP kit • documented 12-way harness

Keep it: Independent measurement + qualified isolated +12 V ARM option

Replace it: New boost-based pump setup with direct FD OUT when the pump fits; retain native strategy if its required functions cannot be reproduced.

[aem-30-3300-v2.pdf](#)



AEM 30-3305 • V2 multi-input controller • documented 12-way harness

Keep it: Independent measurement + qualified isolated +12 V ARM option

Replace it: New boost-based pump setup with direct FD OUT when the pump fits; retain native strategy if its required functions cannot be reproduced.

[aem-30-3305-v2.pdf](#)

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— FIND YOUR EXACT MODEL

Nitrous controllers



NOS Mini 15974NOS

Keep it: Model-specific additional permission proposed; exact interface and failure states require physical qualification.

Replace it: Supported FD stages with direct compatible OUT loads; independent fuel/ignition strategy and installed measurements still required.

[nos-mini-15974nos.pdf](#)



NOS Mini 25974NOS

Keep it: Model-specific additional permission proposed; exact interface and failure states require physical qualification.

Replace it: Supported FD stages with direct compatible OUT loads; independent fuel/ignition strategy and installed measurements still required.

[nos-mini-25974nos.pdf](#)

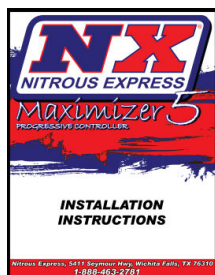


NOS Launcher 15975NOS

Keep it: Model-specific additional permission proposed; exact interface and failure states require physical qualification.

Replace it: Supported FD stages with direct compatible OUT loads; independent fuel/ignition strategy and installed measurements still required.

[nos-launcher-15975nos.pdf](#)



Nitrous Express Maximizer 5

Keep it: Conditional: monitoring first; MAX5 native secondary-input arm logic must be established before control.

Replace it: Supported FD stages with direct compatible OUT loads; independent fuel/ignition strategy and installed measurements still required.

[nx-maximizer-5.pdf](#)



Nitrous Express Maximizer 6 • 16011

Keep it: Model-specific additional permission proposed; exact interface and failure states require physical qualification.

Replace it: Supported FD stages with direct compatible OUT loads; independent fuel/ignition strategy and installed measurements still required.

[nx-maximizer-6-16011.pdf](#)



Nitrous Outlet ProMax • 00-61002

Keep it: Model-specific additional permission proposed; exact interface and failure states require physical qualification.

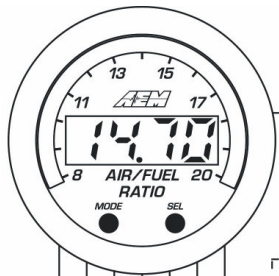
Replace it: Supported FD stages with direct compatible OUT loads; independent fuel/ignition strategy and installed measurements still required.

[nitrous-outlet-promax-00-61002.pdf](#)

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— FIND YOUR EXACT MODEL

Sensors & gauges

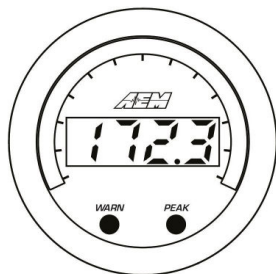


AEM 30-0300 X-Series - Bosch LSU4.9

Keep it: Dedicated logging output measurement; electrical and fault qualification required.

Replace it: Display/logger migration; required sensor/controller electronics remain.

[aem-30-0300-bosch.pdf](#)

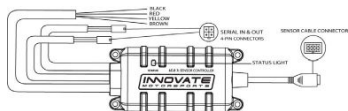


AEM 30-0301 X-Series 100 psi pressure gauge

Keep it: Dedicated logging output measurement; electrical and fault qualification required.

Replace it: Display/logger migration; required sensor/controller electronics remain.

[aem-30-0301-pressure.pdf](#)

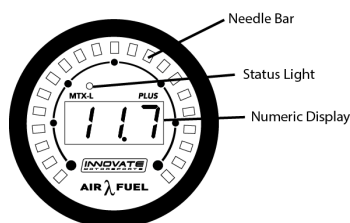


Innovate LC-2 wideband controller

Keep it: Dedicated logging output measurement; electrical and fault qualification required.

Replace it: Display/logger migration; required sensor/controller electronics remain.

[innovate-lc2.pdf](#)



Innovate MTX-L PLUS wideband gauge

Keep it: Dedicated logging output measurement; electrical and fault qualification required.

Replace it: Display/logger migration; required sensor/controller electronics remain.

[innovate-mtx-l-plus.pdf](#)

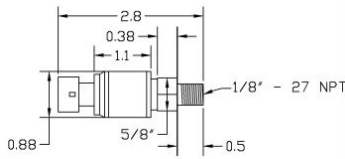


AEM 30-2310 inline wideband controller

Keep it: Dedicated logging output measurement; electrical and fault qualification required.

Replace it: Display/logger migration; required sensor/controller electronics remain.

[aem-30-2310-inline.pdf](#)



AEM 30-2130-150 stainless pressure sensor

Keep it: Dedicated sensor measurement; electrical and fault qualification required.

Replace it: Direct linear sensor ownership; replace gauge only after warning/ownership review.

[aem-30-2130-150.pdf](#)

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— FIND YOUR EXACT MODEL

More boost & water/meth

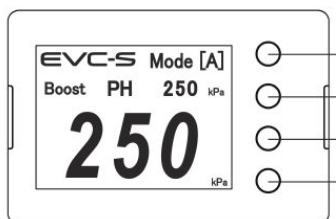


HKS EVC7 • 45003-AK013

Keep it: Independent/buffered measurements; native control retained. No invented enable input.

Replace it: New FD control with compatible direct OUT loads; native stepper, metering strategy and specialist features do not transfer automatically.

[hks-evc7-45003-ak013.pdf](#)



HKS EVC-S2 • 45003-AK015

Keep it: Independent/buffered measurements; native control retained. No invented enable input.

Replace it: New FD control with compatible direct OUT loads; native stepper, metering strategy and specialist features do not transfer automatically.

[hks-evc-s2-45003-ak015.pdf](#)



GFB G-Force II • 3004

Keep it: Ground-request control and independent boost logging; no state acknowledgment.

Replace it: New FD control with compatible direct OUT loads; native stepper, metering strategy and specialist features do not transfer automatically.

[gfb-g-force-ii-3004.pdf](#)

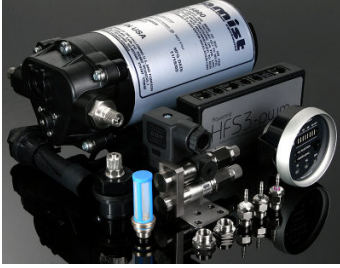


GReddy P-Profec B-spec II

Keep it: Independent/buffered measurements; native control retained. No invented enable input.

Replace it: New FD control with compatible direct OUT loads; native stepper, metering strategy and specialist features do not transfer automatically.

[gredy-profec-b-spec-ii.pdf](#)

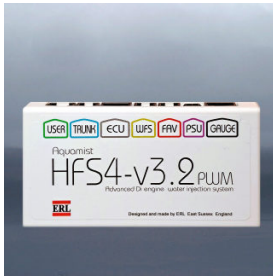


Aquamist HFS3 • v3.2

Keep it: Published analog monitoring with exact transfer qualification; preserve native controller.

Replace it: New FD control with compatible direct OUT loads; native stepper, metering strategy and specialist features do not transfer automatically.

[aquamist-hfs3-v3-2.pdf](#)



Aquamist HFS4 • v3.2

Keep it: Published analog monitoring with exact transfer qualification; preserve native controller.

Replace it: New FD control with compatible direct OUT loads; native stepper, metering strategy and specialist features do not transfer automatically.

[aquamist-hfs4-v3-2.pdf](#)



Coolingmist CMGS System X • FSB/FCB

Keep it: Independent/buffered measurements; native control retained. No invented enable input.

Replace it: New FD control with compatible direct OUT loads; native stepper, metering strategy and specialist features do not transfer automatically.

[coolingmist-cmgs-fsb.pdf](#)



Coolingmist CoolBoost Stage 2 V2 • boost based

Keep it: Boost-variant ground-pause plus independent WMI measurements; release is not fail-safe inhibit.

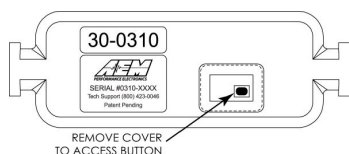
Replace it: New FD control with compatible direct OUT loads; native stepper, metering strategy and specialist features do not transfer automatically.

[coolingmist-coolboost-stage2-v2.pdf](#)

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— FIND YOUR EXACT MODEL

CAN & measurement accessories

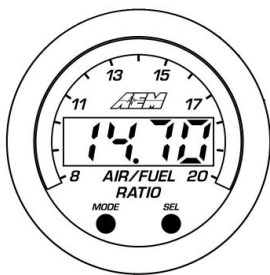


AEM 30-0310 X-Series inline wideband — Bosch LSU4.9

Keep it: Documented conditioned measurement route; exact setup and physical fault qualification required.

Replace it: Display/logger migration only; the required sensor conditioner, native interface and protection functions remain.

[aem-30-0310-x-series.pdf](#)



AEM 30-0334 X-Series OBDII wideband gauge — Bosch LSU4.9

Keep it: Documented conditioned measurement route; exact setup and physical fault qualification required.

Replace it: Display/logger migration only; the required sensor conditioner, native interface and protection functions remain.

[aem-30-0334-obdii.pdf](#)



ECUmaster Lambda to CAN revision 2 — Bosch LSU4.9

Keep it: Documented conditioned measurement route; exact setup and physical fault qualification required.

Replace it: Display/logger migration only; the required sensor conditioner, native interface and protection functions remain.

[ecumaster-lambda-to-can-rev2.pdf](#)



14point7 Spartan 3 v2 wideband controller

Keep it: Documented conditioned measurement route; exact setup and physical fault qualification required.

Replace it: Display/logger migration only; the required sensor conditioner, native interface and protection functions remain.

[14point7-spartan3-v2.pdf](#)



Zeitronix ZT-3 CAN wideband controller

Keep it: Documented conditioned measurement route; exact setup and physical fault qualification required.

Replace it: Display/logger migration only; the required sensor conditioner, native interface and protection functions remain.

[zeitronix-zt3-can.pdf](#)



Zeitronix ECA-2 CAN ethanol-content and fuel-temperature interface

Keep it: Documented conditioned measurement route; exact setup and physical fault qualification required.

Replace it: Display/logger migration only; the required sensor conditioner, native interface and protection functions remain.

[zeitronix-eca2-can.pdf](#)



Zeitronix KT-4 four-channel K-type thermocouple amplifier

Keep it: Documented conditioned measurement route; exact setup and physical fault qualification required.

Replace it: Display/logger migration only; the required sensor conditioner, native interface and protection functions remain.

[zeitronix-kt4-can.pdf](#)



ECUmaster Wheel Speed to CAN — firmware 16.0 or later

Keep it: Documented conditioned measurement route; exact setup and physical fault qualification required.

Replace it: Display/logger migration only; the required sensor conditioner, native interface and protection functions remain.

[ecumaster-wheel-speed-to-can.pdf](#)

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— FIND YOUR EXACT MODEL

More sensors, gauges & cooling



AEM 30-0302 X-Series fluid temperature gauge

Keep it: Documented analogue or CAN2 telemetry; native gauge and sensor remain in control.

Replace it: Complete removal requires a qualified matching signal conditioner or replacement transducer; raw sensor direct to FD unsupported.

[aem-30-0302.pdf](#)



AEM 30-0305 X-Series EGT gauge

Keep it: Documented analogue or CAN2 telemetry; native gauge and sensor remain in control.

Replace it: Complete removal requires a qualified matching signal conditioner or replacement transducer; raw sensor direct to FD unsupported.

[aem-30-0305.pdf](#)



AEM 30-0307 X-Series 150 psi pressure gauge

Keep it: Documented analogue or CAN2 telemetry; native gauge and sensor remain in control.

Replace it: Direct identified brass sender route with one 5 V supply; physical qualification required.

[aem-30-0307.pdf](#)



AEM 30-2014 air-temperature sensor

Keep it: Keep original excitation; read a documented receiver output/CAN signal or add a separate conditioned sensor.

Replace it: Requires matching nonlinear signal conditioning; bare thermistor direct-to-FD temperature conversion is unsupported.

[aem-30-2014.pdf](#)



AEM 30-2200 flex-fuel content sensor

Keep it: Preserve the existing frequency receiver; use its documented output/CAN data or a separately qualified decoder.

Replace it: FD requires an external frequency/low-pulse-width decoder; direct frequency input is unsupported.

[aem-30-2200.pdf](#)



Innovate MTX-D 39040 ethanol and fuel-temperature gauge

Keep it: Documented dual 0–5 V outputs; retain gauge, sensor loom and native alarms.

Replace it: Requires a separately qualified exact-sender decoder; native pulse signal cannot connect directly to FD analogue IN.

[innovate-mtx-d-39040.pdf](#)



Innovate MTX-D 39130 oil-pressure and temperature gauge

Keep it: Keep native gauge; FD needs independent qualified measurements or a documented external MTS bridge.

Replace it: Native sender transplant is unverified; replace/condition measurements and recreate warnings before removing the gauge.

[innovate-mtx-d-39130.pdf](#)



Derale 16795 PWM electric fan controller

Keep it: Documented positive override via isolated relay; native thermal/PWM control and fan power remain with Derale.

Replace it: Direct FD OUT for a compatible fan within capacity, plus an independent thermal fallback; higher-current or different-interface fans need the matching power stage.

[derale-16795.pdf](#)



Questions?

Documentation · fusiondrive.io/docs

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Review library · [Local FD V3](#) / [accessory-integration](#) / [model-guides](#)

FusionDrive switches real current to real loads and can control boost, water/methanol injection and nitrous. Fuse every feed and every load, respect the ratings in the specifications, and set failsafes before you drive. Configure and tune with the vehicle stationary. The installer is responsible for compliance with local vehicle regulations. Independent local review draft. Exact-model electrical compatibility and the commissioning tests in this guide have not received physical sign-off. Product photographs and manufacturer names identify equipment only; no manufacturer endorsement is implied. Follow the matching original manual and the qualification requirements for each proposed interface. No universal replacement or load-rating approval is given.