

PROJECT RX-8

TO SOLO 2 STX
AND BEYOND!

Story & Photos **David Pratte**



When it was time to retire our '06 Infiniti G35 sports coupe from the project car fleet, we knew we wanted to replace it with something that could match its practicality as a daily driver, exceed its on-track performance capabilities and provide more of a sports car feel (rather than a luxury cruiser), all on a budget appropriate to the current economic times. Oh, and we wanted to have some fun in Street Touring Solo 2 class as well, because autocross competition is a great fit for cash-strapped racers like us.

Tall order, but we think we've struck gold with our '05 Mazda RX-8, a car that has already met most of the above criteria even in very close to stock form. Right off the used car lot (at the low, low price of \$11,000 – less than half of what we sold our G35 for), our rotary-powered 8 felt far more nimble than the G35 (thanks to its approximately 600-lb weight advantage). With just a Mazdaspeed front bumper, cold-air intake, BC Racing coilovers and a high-quality wheel and tire upgrade consisting of 18x9-inch Volk Racing G2 wheels and 265/35R18 Bridgestone RE11 tires, our well-used RX-8 has already turned lap times very close to our fully modified G35.

The Solo 2 STX class transformation has been slower than originally planned, though, so our assault on the Solo Nationals may have to wait until 2011. This isn't the end of

the world, since it'll give us a lot more time to dial in our STX setup and do some proper autocross tuning by attending plenty of local events as well as a National Tour event or two. It'll also give Lincoln, Nebraska, an extra year to develop some nightlife.

In the meantime, we've taken the advice of Racing Beat's Jim Mederer to heart by installing oil pressure, oil temperature and water temperature sending units, allowing us to monitor our hot-running Renesis closely. But rather than kickin' it old school with separate gauges, we decided to go with the very elegant and appropriately named Multi Function Dash (MFD) from ARK Design.

This compact unit, no bigger than a credit card and featuring a 2.4-inch TFT display, is a surprisingly powerful and flexible meter. With the ability to read and display boost pressure, vacuum, rpm, vehicle speed, throttle position, air/fuel ratio and fuel injector duty cycle, you can also wire up ARK Design's plug-n-play sending units for oil pressure, oil temperature, and water temperature. Add to that the MFD's ability to warn you if any of the engine's vital signs wander outside the ideal operating range, as well as record peak values during street or track use, and you've got an all-in-one engine health monitor that takes up next to no real estate on your dashboard and is remarkably easy to install.

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The biggest challenge was finding a way to cleanly install the oil temperature, oil pressure and water temperature sending units, but thanks to Racing Beat's adapters and a couple 0.125-inch NPT to 0.375-inch NPT converters we tackled that part of the installation quite easily as well. Racing Beat's oil filter adapter is a nicely constructed billet aluminum piece that allows you to thread in the oil temp and oil pressure sending units without having to tap the oil pan or anything obtrusive like that. Similarly, Racing Beat's water temp adapter takes all of 5 minutes and a serrated blade to install, thanks to its well-thought-out approach that locates the adapter inline with an easily accessible coolant hose. And since ARK's sending units have nice little plugs that connect to the MFD's main harness, it's literally a snap to plug them in and see in HD color what your engine's temp and pressure readings are.

We're planning a trunk-mounted lightweight Odyssey PC680 battery using a West Coast Batteries aluminum hold down, a modification that'll get the big heavy underhood OEM battery away from the radiator (where it's known to reduce airflow efficiency). Rather than hacking into the OEM wiring,

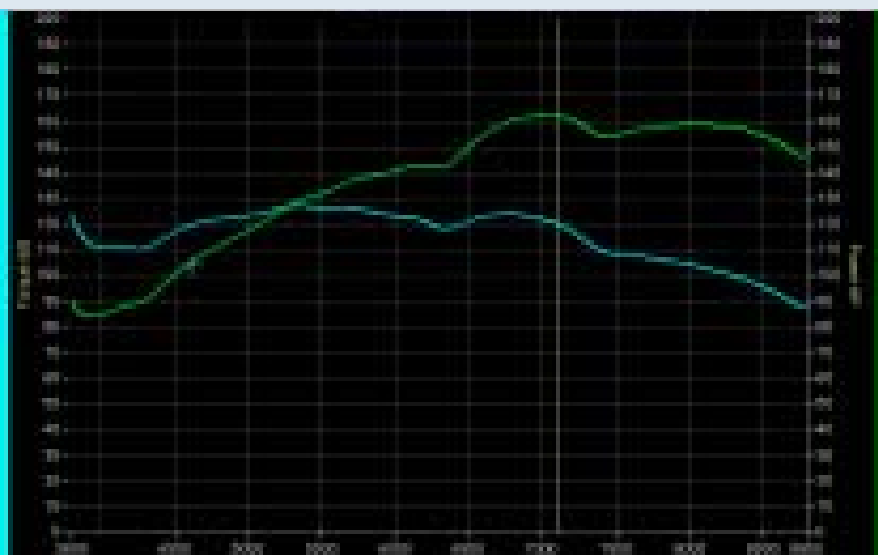
we've decided to spend a little extra time to find the adapters necessary to cleanly connect to the OEM wires without having to make a single cut. Keep your eyes peeled for this in a future issue.

We'll also be starting the bolt-on power-adding modifications soon, including a Racing Beat header and exhaust system, a WRC-spec catalytic converter from Milltek in the UK that can survive the very high EGTs produced by the Renesis, and a COBB AccessPORT to dial it all in. But for starters we baselined our 8 on the U2Ndyno.com dynpack dyno and found it be lacking some top end power, a telltale sign of a tired and worn ignition system.

To cure this and the weak clutch pedal (that flexes and causes gear engagement problems), we've got some pretty trick parts from Black Halo Racing coming up next that'll help us fix these two well-known RX-8 gremlins.

There are lots of other tasty mods coming down the pipe that we'll keep you guessing about for now, so stay tuned as we continue to look for ways to meet and exceed all the objectives set out for this fun and affordable sports car project. ■

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SOURCEBOX

ARK Design
Multi-function Display
arkdesign-us.com
714-630-6144

Racing Beat
Type II Oil Pressure
Temperature Sensor Adapter
Water Temperature Sensor Adapter
racingbeat.com
714-779-8677

