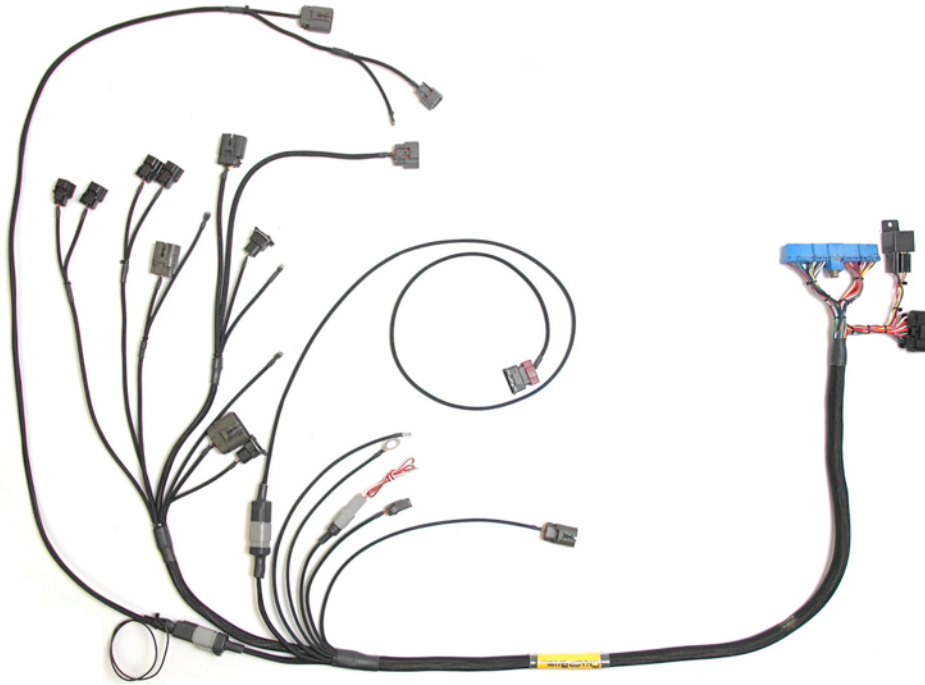


Chase Bays KA24DE Engine Harness Install Guide

Congratulations on your purchase of the KA24DE Engine Harness from Chase Bays, Inc! This harness is for the USDM KA24DE into 89-94 240sx S13 or 95-98 240sx S14. This harness has been completely redesigned with functionality and aesthetics in mind, and extreme attention to detail. This guide will help you through the install process, as we know wiring can be overwhelming.



Lets go over what this harness is, and what it does. The obvious, is that it's an KA24DE into 240sx Engine Harness. This harness uses brand new wire and brand new pins, and mostly brand new plugs. The upper and lower/trans harnesses are both integrated into one, eliminating a huge amount of clutter and wasted space around the engine. In the initial mockup and R&D process the harness was completely re-designed and re-measured to fit perfectly along the motor. No wasted length on any of the sensor looms, but just enough slack to ensure durability. The harness now routes underneath the intake manifold and each connector to its dedicated location. This makes for a great look, an easier install, an engine bay with less clutter, and much easier to work on when under the hood.

Amphenol Mil Spec connectors are used at the MAF/MAP, Coil or Coils, and Boost Solenoid to keep options open for different setups. This means, if you're running MAF and you get a Stand Alone and want to run MAP & IAT, all you have to do is call us and purchase a MAP & IAT sub-harness. Then you'd just un-plug the MAF sub-harness, and plug the MAP/IAT sub-harness. It's that easy.

Contents of the Engine Harness (CB-N-CM1-KA24, CB-N-CM2-KA24, & CB-N-CMS-KA24):

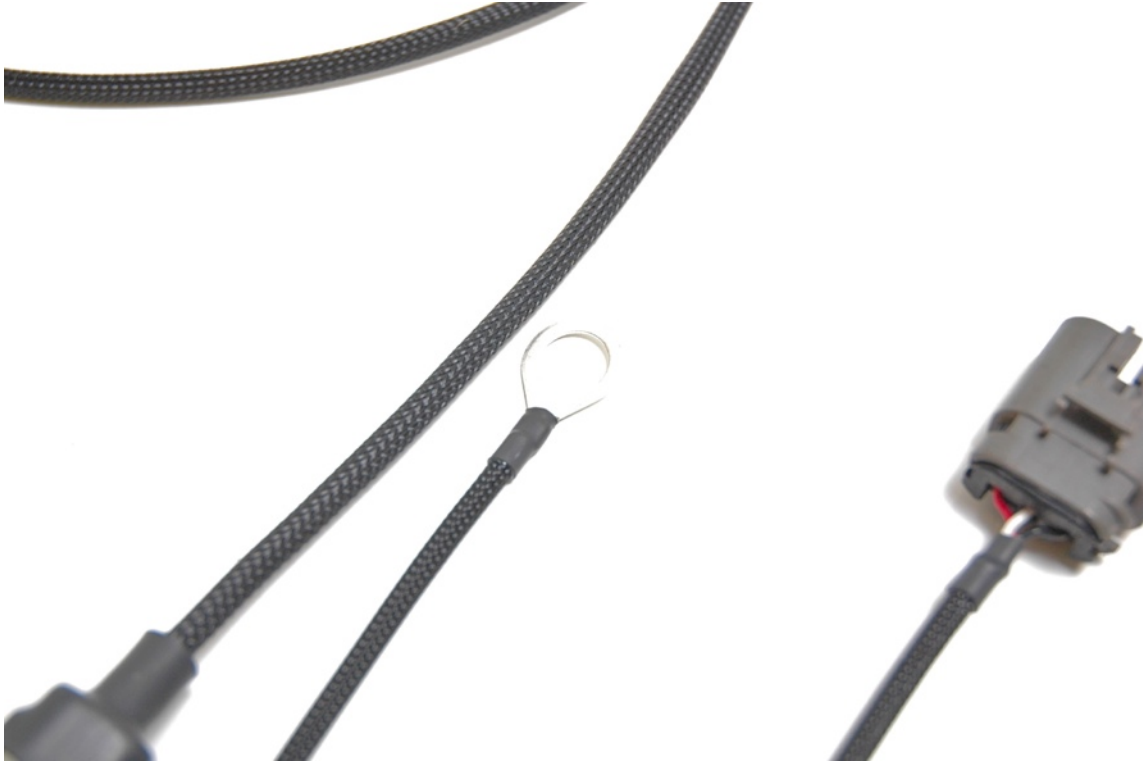
- I. Complete Chase Bays KA24DET Engine Harness
- II. MAF or MAP/IAT Sub-Harness w/ correct plug for your specified application
- III. Plug-n-Play Chassis Sub-Harness (connects to 12 way & 4 way plugs near ECU)
- IV. Charge harness for main battery power to alternator and starter

The first part of the install is deciding how you will route the ECU & Chassis plugs through the firewall. (we underlined deciding, because deciding doesn't mean doing. It's one of the last steps to put the harness through the firewall) If it's a CM2 or CM Mil Spec then it's a slightly simpler install, you can undo the connector and install the "back half" or ECU/Chassis portion through the firewall, then the engine side onto its sensors and to the Mil Spec connector on the firewall. The CM1 you will start in the engine bay and put the ECU and Chassis plugs through the firewall one at a time. We will address firewall locations later in the install.

We recommend you put the harness on starting at the back of the motor, and moving along to the front. Everything we say in these instructions is very important, and if they're not done properly can result in the engine not starting up. So pay attention!

Chase Bays KA24DE Engine Harness Install Guide

1) **Engine Harness Ground** – This should be bolted to the back of the cylinder head using a CLEAN non-painted, non-anodized, and non-plated bolt. Bare stainless steel or aluminum bolts are the best for this.



2) **MAF or MAP & IAT** – If using a MAF sensor, which is located on the drivers side near the headlight, you have enough length to go behind the cylinder head and along the frame rail OR side of the valve cover. If using a MAP & IAT most put them directly in the intake manifold. You can zip tie the slack along the rest of the harness that run under the intake manifold for a stealthier look.



Chase Bays KA24DE Engine Harness Install Guide

3) **o2 Sensor** – o2 sensor runs along the back of the cylinder head and plugs into the OEM o2 sensor plug, o2 sensor is on the turbo downpipe OR header



4) **External Coil** – These 3 connectors plug into the OEM external coil

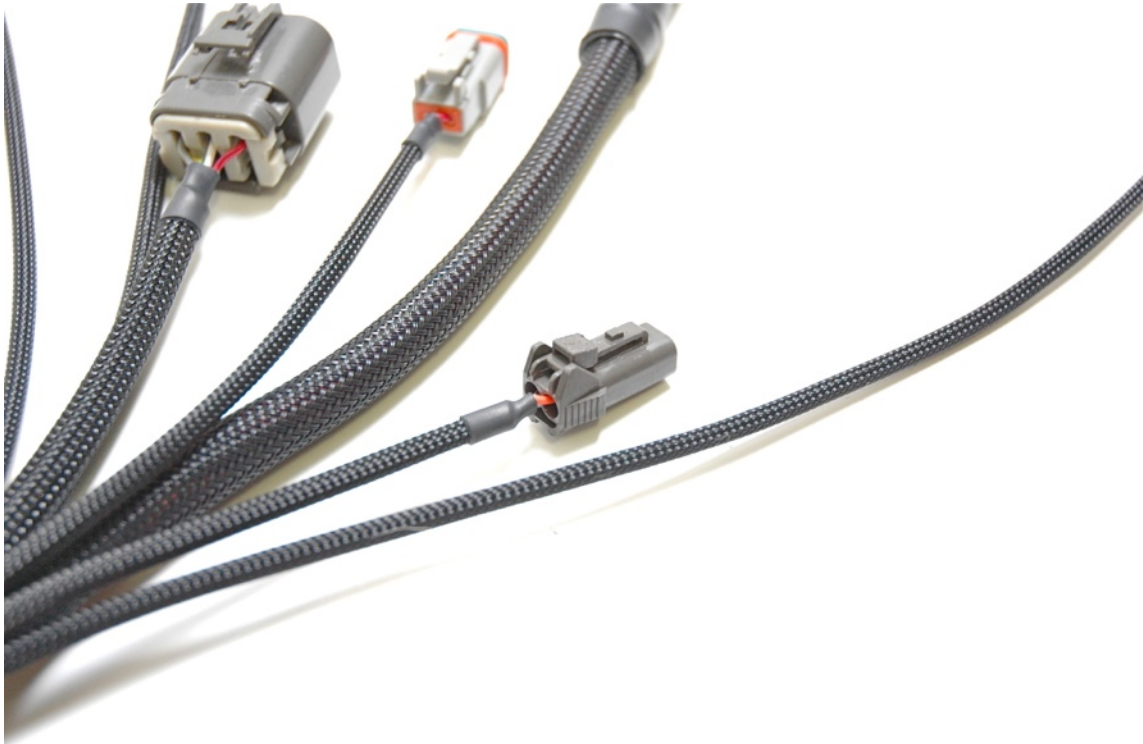


Chase Bays KA24DE Engine Harness Install Guide

5) **Boost Solenoid/Wastegate Control** – Pictured is just the male connector side of our Amphenol disconnect, depending on which option was selected or told verbally to us, your boost solenoid plug will be on the opposite end of this. If you aren't using a boost solenoid, disregard this connector.



6) **VSS Vehicle Speed Sensor** – This is located on the transmission. The OEM sensor has a sub-harness that leads up to the top of the transmission and will plug into our harness.

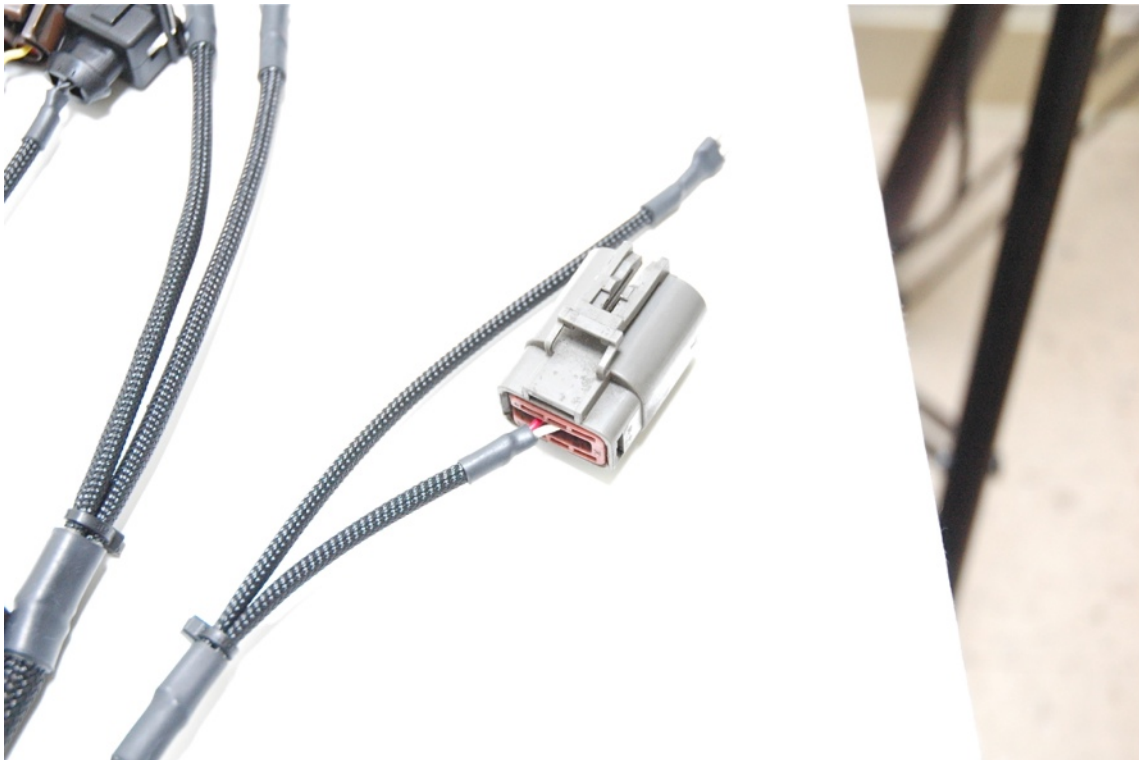


Chase Bays KA24DE Engine Harness Install Guide

7) **RV Reverse Lights** – This turns the reverse lights on when reverse gear is selected. Its location is on the LHD passenger side, middle of the transmission casing.



8) **Alternator & Oil pressure** – The 2 way plug is for the alternator, which is on the front right of the motor. Oil Pressure Sending Unit is located on the oil filter housing. Our heat shrunk terminal plugs directly into the center of the sensor



Chase Bays KA24DE Engine Harness Install Guide

9) **STS Starter Solenoid, IACV** – Mentioned left to right, STS plugs directly onto the starter, IACV is located on the intake manifold



10) **Knock Sensor** – The knock sensor plug DELETES the OEM sub-harness that leads to the center of the block, ours plugs directly into the sensor.



Chase Bays KA24DE Engine Harness Install Guide

11) **Injectors** – Injector colors are; #1 – Brown, #2 – Violet, #3 – Blue, #4 – Yellow. #1 cylinder is located closest to the front of the vehicle. #1 and #2 go through #1 and #2 runners. #3 and #4 go through #3 and #4 runners.



12) **H2O Temp, TPS, ECT** – H2O Temp is on the front side of the intake manifold and is for the gauge temp reading only. TPS Throttle Position Sensor is on the side of the throttle body, and ECT is Engine Coolant Temp for the ECU and is located on the front side of the intake manifold.

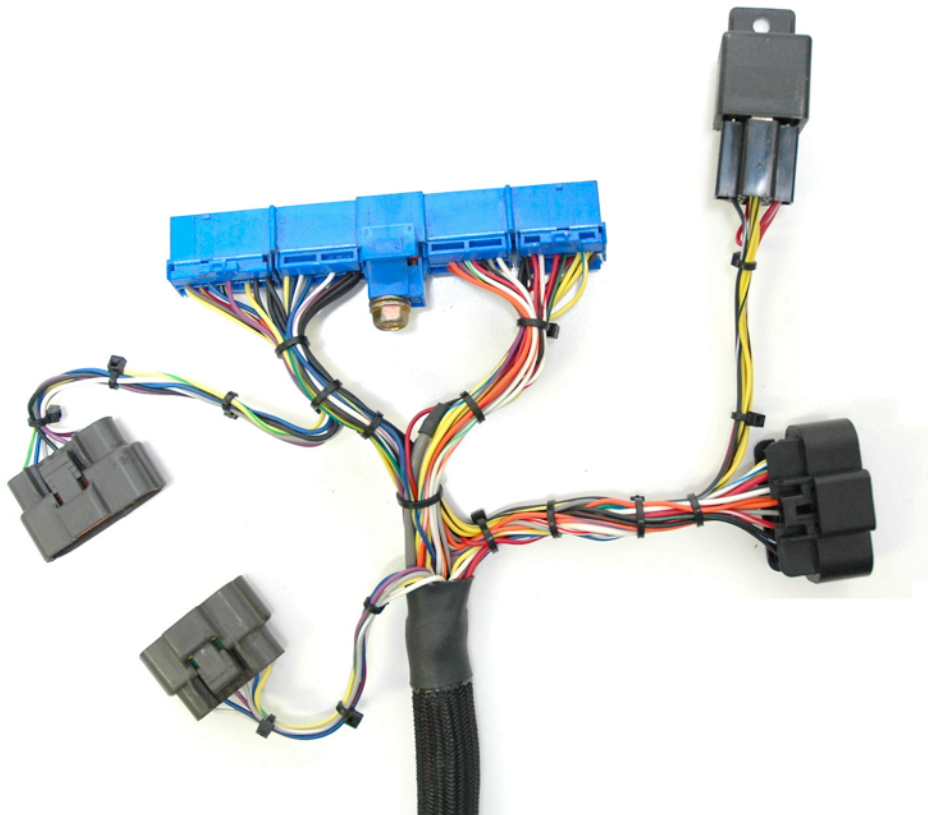


Chase Bays KA24DE Engine Harness Install Guide

13) **CAS, Crank Angle Sensor** – CAS is located on the front left of the motor and can route along the front of the cylinder head.



14) **ECU & Chassis Plugs** – Left to Right, the two gray plugs are for the now relocated Coil Igniter, this can be zip tied to the harness or bolted to the chassis. If your motor doesn't use a coil igniter, disregard. The wide blue plug is the ECU plug. The relay is for the ECU and can be zip tied to the harness or bolted to the chassis, or whatever. The black plugs will plug into the chassis sub-harness as pictured in step 13.



Chase Bays KA24DE Engine Harness Install Guide

15) **S13 chassis sub-harness.** The brown and gray 8 way connectors plug in at the front passenger shock tower. These can easily be relocated to the opposite side of the fender-well for a stealthier look. The gray 2 way and gray 8 way connector plug into the passenger side fuse box (lower/trans harness) these can be relocated for a stealthier look along with the fuse box. The harness has plenty of length to leave options open.

S14 chassis sub-harness. Left to right, the black wiper amplifier connector that's now relocated into the interior, above that is the wiper plug. We recommend routing the wiper plug through the fender-well and into the right side of the engine bay, then plugging into the wiper motor. In the center is a ground, just find a chassis bolt to ground it to. Also in the center is the white "m63" plug, this plug will be found in the lower right corner near where the ECU mounts. Lastly, the lower/trans harness plugs. These are found on the passenger side fuse box and can be routed in the fender-well for a stealthier look.

