

IMPEDANCE MATCH ADAPTER
(for universal transmission Cables)
(IMP-1000)

TransDoctor™



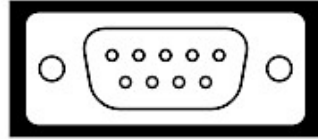
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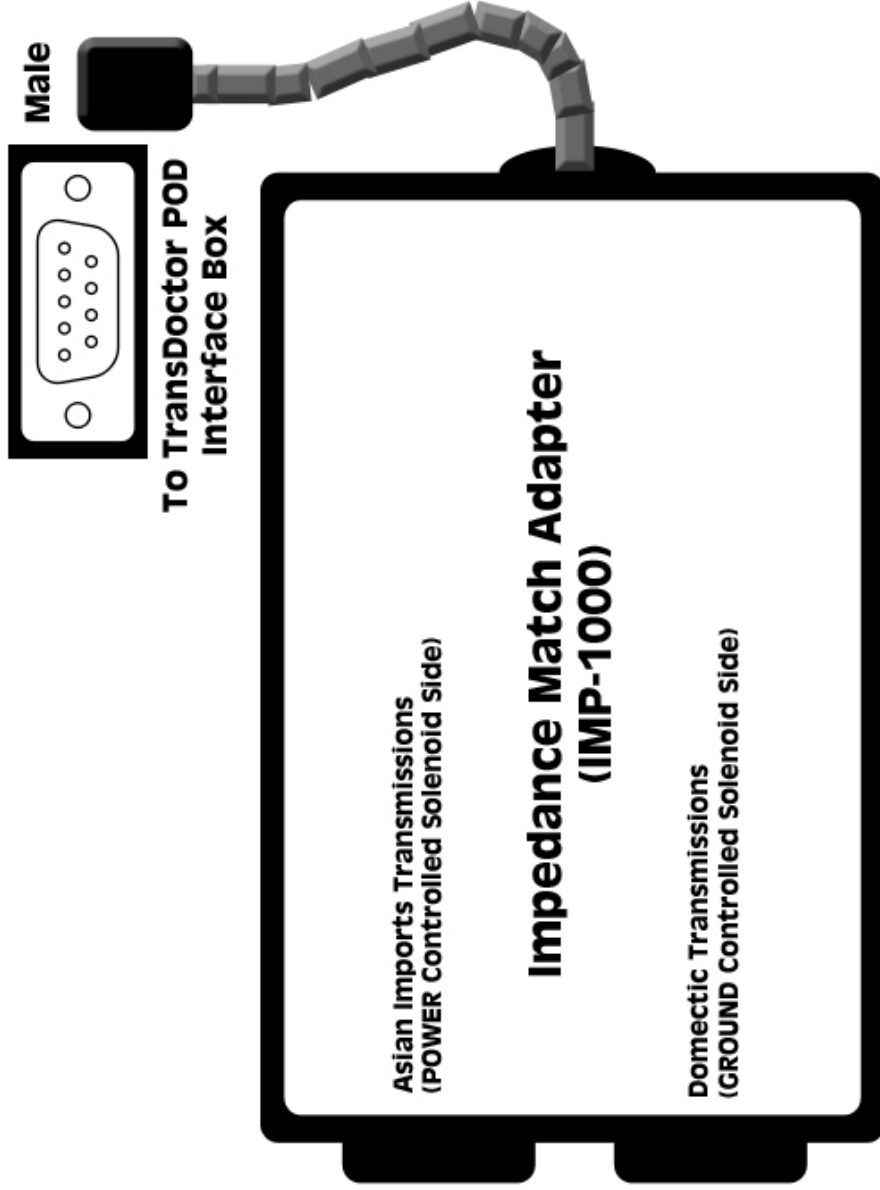
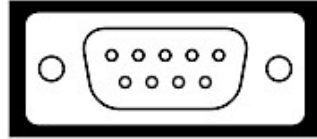
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UNIVERSAL IMPEDANCE MATCH ADAPTER (IMP-1000)

Male DB-9
(used for Asian and
Domestic Imports Trans
only. This side for **POWER**
actuated solenoids.)



Female DB-9
(used for Domestic
Transmissions only. This
side for **GROUND**
actuated solenoids.)



IMPEDANCE MATCH ADAPTER BOX (IMP-1000)

The Impedance Match Adapter Box is used in conjunction with all TransDoctor cable sets, whether you're using the Universal or the transmission specific cables. This impedance match box contains the appropriate circuitry to make sure the TransDoctor can actuate all modern transmission solenoids, regardless of year, make and model. The internal impedance (reactance and resistance) of modern automatic transmission shift solenoids varies from one unit to the other. The IMP-1000 ensures that the internal impedance always matches with the TransDoctor internal circuitry. Due to the IMP-1000, the TransDoctor is the only unit capable of addressing the shifting and signaling of such a wide variety of transmissions. The IMP-1000 also ensures that future transmission units still under development by the manufacturer will also work with the TransDoctor. This has the effect of allowing the TransDoctor to be always software and hardware upgradeable.

The IMP-1000 also serves to protect both the TransDoctor and related circuitry from accidentally connecting the wrong cable or misuse of the equipment. There are basically two ways of triggering or actuating an automatic transmission shift solenoid; through GROUND or POWER control. The following is true of all automotive transmissions.

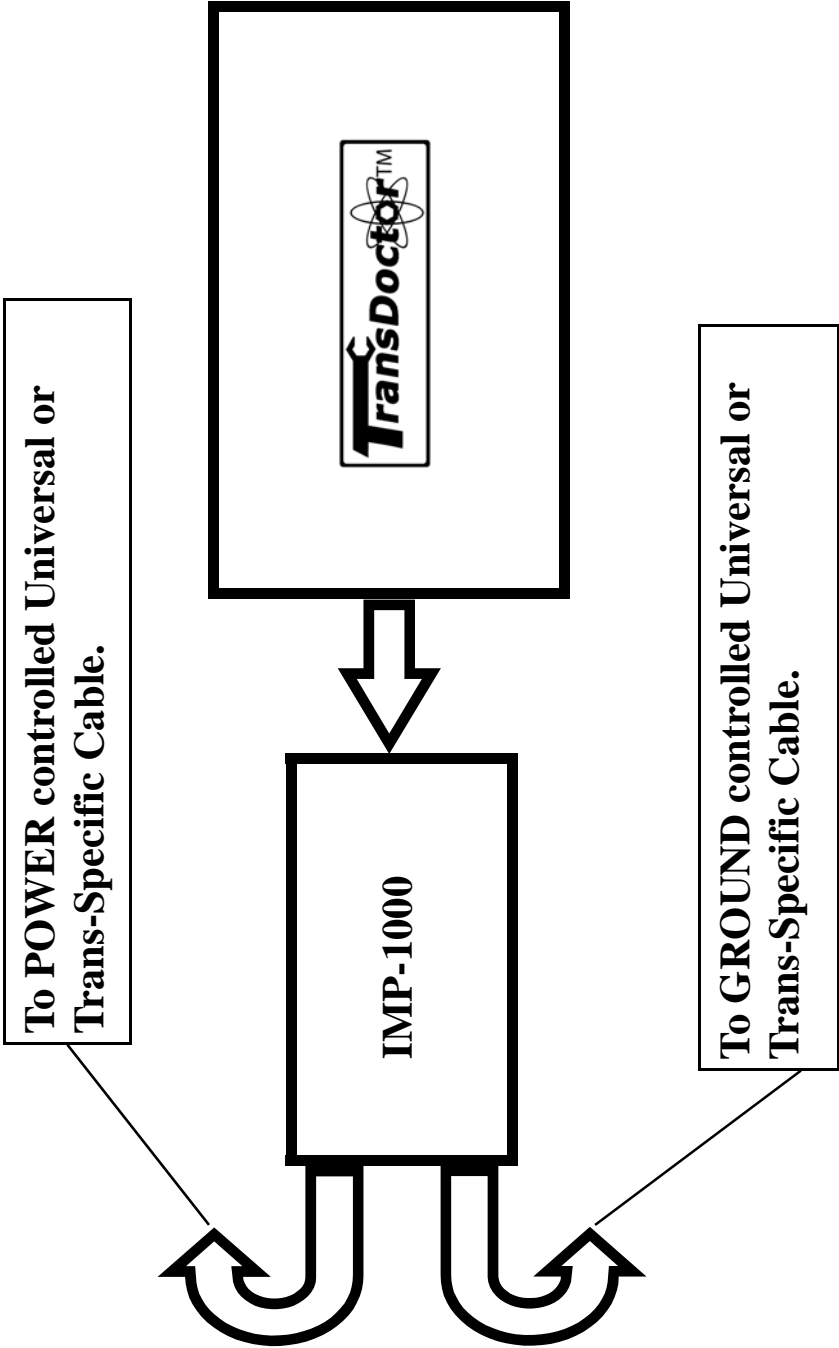
- All Domestically made transmissions (not Dom. Imports) are GROUND controlled. A transmission relay provides power and the TCM or PCM provides the ground pulse to trigger the solenoid.
- All Asian Imports are POWER controlled. Each shift solenoid is either grounded at the body or grounded at a central location somewhere at the chassis of the vehicle.

The TransDoctor can be made to work with either of these two types of circuits. The side switch at the TransDoctor casing can be set to either ground or power controlled actuation. This action is prompted by the software. So the technician does nothing until the software indicates that the switch should be changed.

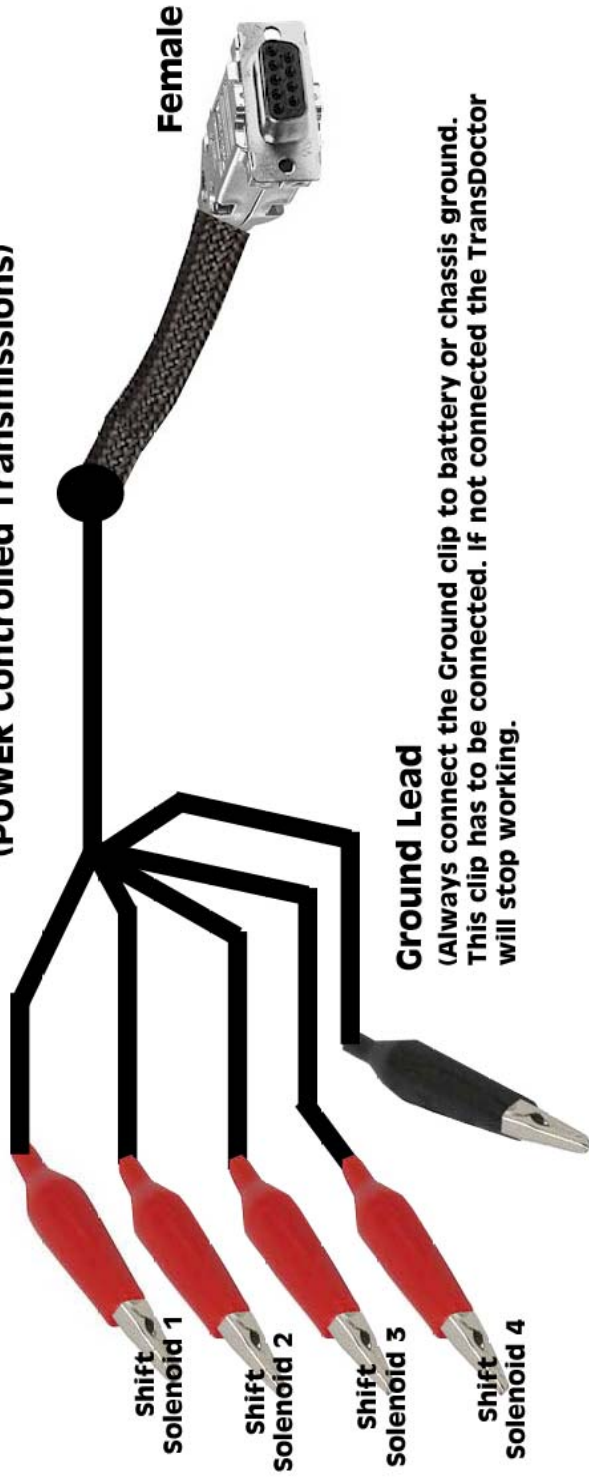
It is then up to the IMP-1000 to be able to match the actual transmission circuit to the TransDoctor so that it works smoothly and without the intervention of the technician, other than flipping the side switch at the TransDoctor POD box.

IMPORTANT: The IMP-1000 must always be connected to the TransDoctor POD box. **DO NOT** connect either a universal or trans-specific cable directly to the TransDoctor POD. If so the unit may be damaged.

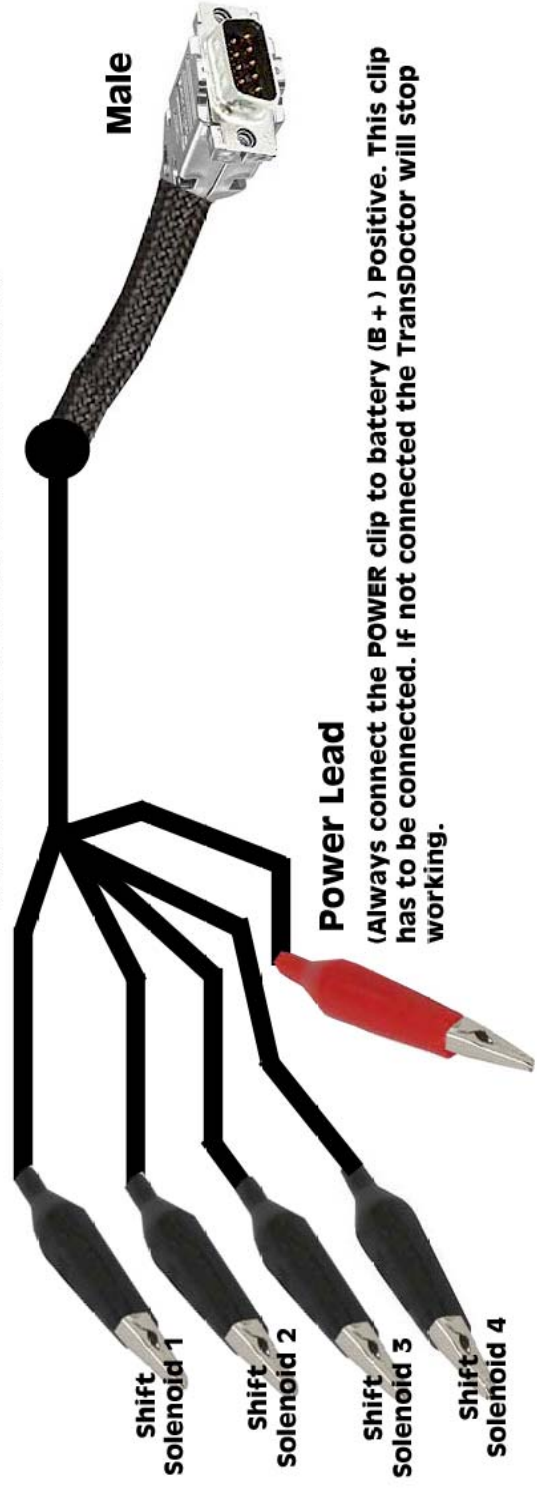
Always connect the IMP-1000 to the TransDoctor POD first, then connect the universal or dedicated cables to the IMP-1000. All signaling must go through the IMP-1000 first then to the TransDoctor.



Universal Asian Transmission Cable (POWER Controlled Transmissions)



Universal Domestic Transmission Cable (GROUND controlled Transmissions)



Universal GROUND and POWER controlled cables

The two Universal Cables provided with the IMP-1000 are used to splice right into the transmission or TCM/PCM wiring harness to actuate the shift solenoids. The two cables are Domestic (ground controlled) and the Asian Imports (power controlled) and are used in place of the dedicated trans-cables. Transmission specific cables for the TransDoctor can also be purchased. These cables also go through the IMP-1000 as well. So regardless of whether you're using the universal or a transmission specific cable, each cable must be connected to the IMP-1000 first then the IMP-1000 is connected to the TransDoctor. Do not connect either the universal or a trans-specific cable directly to the TransDoctor. This action may damage the unit.

The two universal cables are provided for low volume transmission diagnostics and for rare transmission, where it's not viable to purchase the dedicated cable. Use the wiring diagrams provided in the troubleshooting section of this software to splice directly into the wiring harness of shift solenoids 1,2,3 and 4, if available. Some systems have only 2 shift solenoids, such as S.Sol 1-2 and S.Sol 2-3. In this case then only use the shift solenoid 1 and 2 alligator clip circuit of the universal cable. In other words, you're given 4 solenoid outputs, but you may only need 2 or 3 depending on the transmission that you're working on. Using the universal cables may take longer to set up as opposed to the dedicated cable units, but it beats having to disassemble the transmission to test the shift solenoids. However, when speed and production is of the essence, the TransDoctor dedicated cables can also be purchased. At the end of this booklet you'll find the cable list with part numbers.

IMPORTANT: The TransDoctor is the only unit on the market whereby if you need a custom made cable and software module, we can do it for you. Some repair or trans shops are geared to do fast and accurate diagnostics. If you're one of these shops, Automotive Diagnostics and Publishing and TransDoctor are here for you. You may actually order a dedicated-custom made cable and software module for the transmission of your choosing. Of course this is from a transmission type NOT found on the TransDoctor cable list at the end of this booklet. Just send us the transmission type, connector shape and description or a photo, application (year, make and models), and any other type of information that you deem necessary. You may contact your tool distributor for any further information.

TransDoctor Cable List

Specialty items software modules and connectors can also be ordered. These items have to be pre-paid and may take up to 4 weeks for delivery. The following information is needed from the customer/repair shop: Transmission type desired, number of connector pins, description of trans-connector, year, make and models applicable to the particular trans-type.

TransDoctor Automatic Transmission Cable List:

General Motors:

- 4T80-E (FWD) – (91-up) Allante, Concours DeVille, Seville STS, El Dorado, Aurora 4.0
(94-up 20 way-connector, cable # 4T80E-1GEN)
- 4T60-E (FWD Century, LeSabre, Park Ave, Reatta, Regal, Riviera, Skylark, Allante, DeVille, El Dorado, Fleetwood, Seville, STS, Lumina, Malibu, Monte Carlo, Ventura, Olds 98, Achieva, Aurora, Cierra, Cutlass, Intrigue, Toronado)
(94-up, 3 solenoid units, cable # 4T60E-1GEN)
- (4T65-E) and (4T40-E/45-E (FWD) Century, LeSabre, Park Ave, Reatta, Regal, Riviera, Skylark, Allante, DeVille, El Dorado, Fleetwood, Seville, STS, Lumina, Malibu, Monte Carlo, Ventura, Olds 98, Achieva, Aurora, Cierra, Cutlass, Intrigue, Toronado, Cavalier
(1991-up, cable # 4T40-45-65E-1GEN)
- 4L80E/85-E (RWD) – (93-up) Blazer, Suburban ¾ ton, Tahoe, Truck C/K, Vans, GMCs, Yukon
(93-up, cable # 4L80E-1GEN)
- 4L60-E/65-E/70E (RWD) – (94-up) Roadmaster, Fleetwood, Astro Van, Blazer, Camaro, Caprice, Corvette, Impala SS, S10 Truck, Suburban ½ ton, Truck C/K, Vans, Jimmy, S15 GMC, Safari, Bravada, Syclone
(94-up, cable # 4L60E-65-70-1GEN)
- 4L30-E (RWD) – (98-up) Cetera and Asian Imports, BMW
(98-up, round connector, cable # 4L30E-1GEN)
- 5L40-E – (98-up) Cadillac CTS, BMW 5-speed
(98-up, 5 speed, cable # 5L40E-1GEN)

Ford:

- 4R44-E, 4R55-E, 5R55-E (RWD) – (96-up, all years) Explorer, Ranger, Mountaineer
(96-up, all years, cable # 4R44-55-5R55E-1GEN)
- 5R110W (RWD) – (98-up) Diesel Trucks (Coming Soon !!!)
- 5R55-N/5R55-S/5R55W (RWD) – (1999-up) Explorer, Mountaineer, Jaguar S-Type
(99-up, cable # 5R55N-S-W-1GEN)
- AODE/4R70W (RWD) – (98-up) Crown Vic, F150, F250, F350, T-Bird, Town Car, Mark VIII, Cougar, Grand Marquis, Mountaineer
(98-up, cable # AODE-4R70W-1GEN)
- AXODE, AX4N, AX4S (FWD) – (1993-up) Taurus, Continental, Sa-
ble, Windstar
(93-up, all years, cable # AXODE-AX4N-S-1GEN)
- 4F27E (FWD) – (2000-up) Focus
(2000-up, Focus & others, cable # 4F27E-1GEN)
- CD4E (FWD) – (94-up) Mystique, Contour, Escape
(94-up, cable # CD4E-1GEN)
- E4OD/4R100 (RWD) – (95-up) Expedition, F250, F450, Van, Navi-
gator
(95-up, cable # E4OD-4R100-1GEN)
- 4EAT-F/F4AEL (FWD) – (91-up) Escort, Tracer
(91-up, 6-way connector, cable # 4EATF-F4AEL-1GEN)

Dodge/Chrysler:

- A500/518 (42-44RE/45RFE/46RE) (RWD) – (1990-up) Dakota, Truck 2.4/3.0, Van, Jeep Cherokee, RAM, Durango, Van, Prowler
(90-up, cable # A500-518-1GEN)
- A618 (47RE) (RWD) – (91-up) Durango, Truck, Van, Jeep G. Cherokee
(91-up, cable # A618-1GEN)

- A45RFE/5-45RFE (RWD) – (2000-up) Durango, Ram Truck, Jeep
(2000-up, cable # A45RFE-545RFE-1GEN)
- A604 (41TE) (FWD) – (91-up) Sebring, Stratus, Breeze, Cirrus,
New Yorker, Avenger, Premier, Acclaim, Sundance, Caravan, Town
& Country, Voyager
(91-up, cable # A604-1GEN)
- A606 (42LE) (FWD) – (92-up) Vision, Intrepid, Concorde, LHS
(92-up, cable # A606-1GEN)
- F4A33-1, W4A33-1, KM175-5/F4A22-2 (FWD) - (91-up) Eclipse,
Stealth, Talon, 2000 GTX, Laser, Colt, Summit
**(91-up, all models, 4-pin square connector, cable # F4A33-W4-
KM175-1GEN)**

Honda/Acura

(All Honda Acura adapter connectors are available upon request. Custom ordered)

- M5HA/M5DA – (1995-2005) 3.2TL, 3.5RL
- M7WA/MGFA/ – (2000-06) 3.2TL, CL
- MGHA – (2000-02) MDX-SUV
- MDKA/BDKA – (2003-up) MDX-SUV
- BAXA – (97-2002) Accord, Odyssey
- MP1A – (1991-02) Prelude, Civic
- M6HA – (1997-2004) Prelude, Civic
- BMXA/SLXA – (2000-05) Civic
- B7TA/B7YA – (1999-2000) Odyssey, Accord V-6
- BYBA/BVGA – (2000-04) Odyssey, Pilot, Ridgeline
- BGRA – (2005-up) Odyssey, Pilot, Ridgeline
- BZKA/MZKA – (2003-07) Element
- MCVA/MRVA – (2001-2004) CRV
- MKYA/GPLA/MKZA/GPPA – (2004-07) CRV
- 4L30-E – (1996-2002) Honda-Passport, SLX
(98-up, round connector, cable # 4L30E-1GEN)

Isuzu/Mazda/Subaru:

- 4L30-E (RWD) – (1989-2003) Isuzu, Amigo, Rodeo, Trooper, Vehi-
cross
(98-up, round connector, cable # 4L30E-1GEN)

- R4A-EL (RE4R01A) (RWD) – (89-01) Mazda 929, MPV, Pick-up, RX7
(89-up, 8-way conn. (not same as Nissan), R4AEL-1GEN)
- CD4E (FWD) – (96-00) Triton, 626, MX6
(94-up, cable # CD4E-1GEN)
- 4R44-E, 4R55-E, 5R55-E (RWD) – (95-2000) Mazda, Pick-up, SUV
(96-up, all years, cable # 4R44-55-5R55E-1GEN)
- 5R55-E/5R110W (RWD) – (98-2000) Mazda, Pick-up, SUV
(99-up, cable # 5R55N-S-W-1GEN)
- G4A-EL, 4EAT (FWD) – (93-up) Mazda, 323, 626, Millenia
(93-up, cable # G4AEL-4EAT-1GEN)
- F4A-EL (FWD) – (1991-2000) Mazda, 323, MX3, Potege
(91-2000, cable # F4AEL-F4EAT-1GEN)
- LJ4A-EL (JF403E)– (1993-02) Millenia
(93-02, cable # LJ4AEL-JF403E-1GEN)
- 4EAT – Subaru (95-up), Forester, Impresa, Outback, SVX
(95-up, 16-way connector, cable # 4EAT-1GEN)
(AWD-4AT, 12-way, cable # AWDSUB-1GEN)

Kia/Hyundai/Mitsubishi:

- F4A-EL (FWD) – (97-up) Sephia SD and SE
(91-2000, cable # F4AEL-F4EAT-1GEN)
- F4A33-1, W4A33-1 (FWD) – (91-01) Eclipse, 3000GT, Diamante, Galant
(91-up, all models, 4-pin square connector, cable # F4A33-W4-KM175-1GEN)
- A604 (41TE) (FWD) – (94-99) Eclipse, Galant
(91-up, cable # A604-1GEN)

Nissan/Infinity:

- RL4F03A (FWD) – (91-00) Sentra, 200SX, G20
(91-up, cable # RL4F03A-1GEN)
- RE4F03A, RE4F04A (FWD) – (92-up) Sentra, G20, Altima, Maxima, Quest, I30
(92-up, most fwd, cable # RE4F-1GEN)
- RE4R01A (R4A-EL mazda) (RWD) – (90-01) Frontier, Pathfinder, Pickup, Xterra, J30, QX4
(90-up, 8-way conn. (not same as Mazda), cable # RE4R01A-1GEN)
- RE4R03A (RWD) – (91-02) 300ZX, Q45
(91-up, most rwd, 8-way conn., cable # RE4R-1GEN)

Toyota/Lexus:

- A340-E/341-E – (89-02) 4Runner, Supra, Tacoma, T100, Previa, Sequoia, Tundra, GS300
(89-up, A340E 3-way connector, cable # A340E-1GEN)
(89-up, A341E 8-way connector, cable # A341E-1GEN)
- A343-E (RWD) – (97-02) 4Runner, Supra, Tacoma, T100, Previa, Sequoia, Tundra, GS300
(97-up, A343E 8-way connector, cable # A343E-1GEN)
- A140-E/A141-E/142-E (FWD) – (1983-2002) Camry, Celica, ES300
(83-91, A140E 6-way connector, cable # A140E91-1GEN)
(92-up, A140E, cable # A140E-1GEN)
- A240-E/A241-E/A245-E (FWD) – (1989-2005) Celica, Corolla, Rav4, Prizm, Tercel
(89-up, A240E 3-way connector, cable # A240-41-45E-1GEN)
- A540-E/A541-E/5L40-E (RWD) – (88-up) Lexus, Camry, Avalon, Sienna, ES300
(88-up, A540E 3-way triangle connector, cable # A540E-1GEN)

Specialty items software modules and connectors can also be ordered. These items have to be pre-paid and may take up to 4 weeks for delivery. The following information is needed from the customer/repair shop: Transmission type desired, number of connector pins, description of trans-connector, year, make and models applicable to the particular trans-type.

