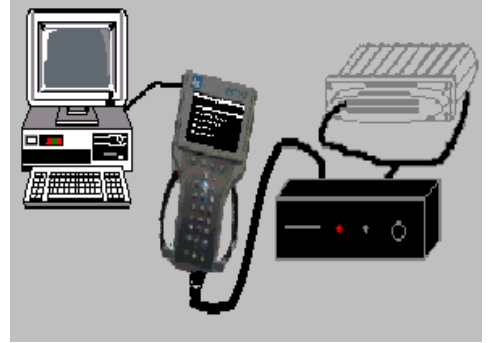# Off-Board Programming Adapter (OBPA) User's Guide

The OBPA is used in situations where a module must be programmed without having the vehicle present. This need may arise, for example, when a dealership parts department sells a control module to a retail or aftermarket customer. To perform SPS in this scenario requires an Off-Board Programming Adapter. The adapter allows the module to be powered up and communicate with the scan tool.
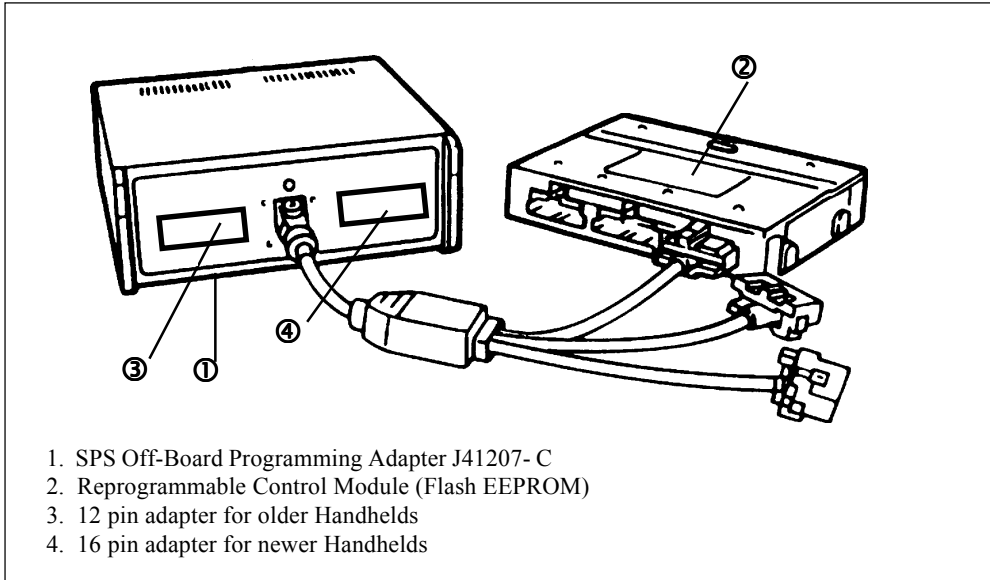
OBPA Connection

NOTICE:

- **Prior to performing SPS, make sure that the scan tool and the terminal are both equipped with the latest software**

- **To help avoid possible controller failure, make sure all cable connections are secure**

To perform Off-Board Programming:

(TIS 2000 Software will appear similar to screens shown in "Pass-Thru" programming procedure.)

1. **Launch** TIS 2000. **Double-click** the "Service Programming System" icon.

2. At the "Select Diagnostic Tool and Programming Process" screen, **select** Pass-Thru, Reprogram ECU, and Off-Board Programming Adapter as the ECU location. **Select** Next.

3. At the "Preparing for Communication/Determine Vehicle" screen, complete all terminal-directed data until Next is highlighted (vehicle data will vary). **Select** Next.

4. Follow the on-screen directions for connecting the control module, OBPA, and scan tool. Be sure to use the correct connector for the control module (refer to the chart on page 9 for a listing of adapters). **Select** Next.

5. "Pass-Thru" will display the VIN stored in the control module (or if programming a new control module, enter the correct VIN of the vehicle to be programmed). Select Next.

6. If the "Options" screen appears, **select** the appropriate options. **Select** Next.

7. The PC will display a screen asking you to select the type of programming to be performed: normal or VCI. **Select** normal. If you select VCI, a series of screens will direct you through the process. **Select** Next.

8. A "Calibration Selection" screen will appear showing the calibration to be used. Make a calibration selection, if necessary. When all calibrations are selected, a green check mark will appear on each folder tab. **Select** Next.

9. A "Summary" screen will appear that summarizes the current and selected calibrations of the control module. Verify selections, then **select** Next.

10. A "Transfer Data" screen will appear. The PC will automatically load the calibration into the control module.

11. When programming is complete, a "Program Controller/Programming Complete" screen appears. Follow the on-screen instructions (if any), then **select** Close.

12. **Power OFF** the OBPA, then **power OFF** the scan tool (wait 60 seconds after OBPA is shut off before disconnecting the control module).

1. SPS Off-Board Programming Adapter J41207- C
2. Reprogrammable Control Module (Flash EEPROM)
3. 12 pin adapter for older Handhelds
4. 16 pin adapter for newer Handhelds

Handheld scan tool to OBPA Hook-up

OBPA Adapter Selection

OBPA Cable	Adapter Color	Years	Body	Engine			
Cable #1	Black	1990–94	R	1.6L LO1 VIN 6			
		1991–94	R	1.8L LV6 VIN 8			
	Clear	1996	A, J, L, S/T Truck	2.2L LN2 VIN 4			
		1995	J	2.3L LD2 VIN D			
		1996	J, N	2.4L LD9 VIN T			
		1994–95	S/T Pickup	4.3L LB4 VIN Z			
	Blue	1993	S/T Pickup	4.3L LB4 VIN Z			
Cable #2	Blue & Smoke	1993	W	3.1L LH0 VIN T			
		1994–95	L, N, W	3.1L L82 VIN M			
		1993–95	F	3.4L L32 VIN S			
		1994–96	B	4.3L L99 VIN W			
		1994–96	B, D, Y	5.7L LT1 VIN P			
		1996	Y	5.7L LT4 VIN 5			
		1994–97	F	5.7L LT1 VIN P			
	Pink	1992–93	A, J	2.2L LN2 VIN 4			
		1993	L	2.2L LN2 VIN 4			
Cable #3	Smoke	1995–97	S/T Truck	4.3L L35 VIN W			
		1996–97	S/T Truck	4.3L LF6 VIN X			
		1996–97	C/K, G, L/M, P Trk	4.3L L35 VIN W			
		1996–97	C/K, G Truck	5.0L L30 VIN M			
		1996–97	C/K, G, P Truck	5.7L L31 VIN R			
		1996–97	C/K, G, P Truck	7.4L L29 VIN J			
		1997	W4	5.7L L31 VIN R			
Cable #4	Blue	1996	A, L, N, W	3.1L L82 VIN M			
		1996–97	W	3.4L LQ1 VIN X	1997	W	3.8L L67 VIN 1
		1997	N, W	3.1L L82 VIN M			
		1997	J, S/T Truck	2.2L LN2 VIN 4			
		1997	J, N	2.4L LD9 VIN T			
		1996–97	U Van	3.4L LA1 VIN E			
		1995-97	F	3.8L L36 VIN K			
		1997	Y	5.7L LS1 VIN G			
		1996–97	C, G, H, W	3.8L L36 VIN K			
		1996–97	C, G, H	3.8L L67 VIN 1			
		1996–97	G	4.0L L47 VIN C			
		1996–97	E, K	4.6L LD8 VIN Y			
		1996–97	E, K	4.6L L37 VIN 9			
	Light Blue	1996–97	C/K, G, P Truck	6.5L L65 VIN F			
		1996–97	C/K Truck	6.5L L56 VIN S			
		1997	C6/C7, Pg/B7	6.5L L65 VIN F			
		1997	Z	1.9L LLO VIN 7			
		1997	Z	1.9L L24 VIN 8			
Cable #5	Black	1997	V	3.0L L81 VIN R (sold separately)			

- *For years 1998 through 2000:*

  All Truck VCM applications use Cable #3.

  All other applications use Cable #4.

- Beginning year 2001 and beyond, **ALL** applications use Cable #4.

- All 1996-1999 Saturn vehicles **require** the red adapter, P/N J-41207-PROG2 (sold separately), in place of the black DLC adapter.