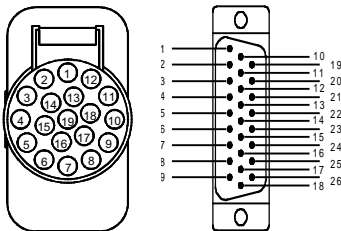# GM Tech 2/VCI/cable test

Caution: To ensure accurate test results you must have Tech 2 software version # 23.005 (minimum) loaded on your Tech 2 before performing these tests. This software should be available the last week of August, 2003. Using pre-August software could result in faulty test results!

Test to verify Tech 2/VCI/Cable System integrity. Necessary components are:
1. Tech 2 with VCI Module installed
2. DLC Burndy cable
3. AC/DC power source
4. ALDL or VCI Loop back adapter (Part Number 3000109) from the Tech 2 kit

VCI Loop back adapter view from the Burndy cable connection end and the VCI DB-26 connection end.

With the VCI loop back adapter (Part Number 3000109) connected directly to the VCI Module of the Tech 2,

- Navigate to the self test option; select "F3: Tool Options", then choose "Self Test"
- Execute the "F2: Automated VCI" test. The following screen should appear if the test passes.

```
Wednesday  January     29 2003   17:30:03

Test Complete

MUX.......Pass        ADC.......Pass
SIPO 8....Pass        SIPO 20...Pass
DLC 1.....Pass        DLC 2.....Pass
TPU.......Pass        HBCC......Pass
CCD.......Pass        Dual Uart.Pass
J1708.....Pass        Gnd FET...Pass

Level Shifters......Pass
Cross Point.........Pass
Short L and M.......Pass
Test I/O1-I/O16.....Pass
LoopBack............Pass
```

 (Note: If failures are noticed on the CCD test and the HBCC test, these will not affect diagnostics on GM vehicles).

- Next, choose the "F4: Selectable VCI" and press the "More Test" soft key.
  - Choose "F1: VCI Dual Uart". The following screen will appear if the test passes:

```
        Testing Dual Uart    17:32:03



Testing         Expected  Actual   Status
Channel A    =       85         85 Pass
Channel B    =      170        170 Pass
Channel A    =       97         97 Pass
Channel B    =       97         97 Pass
```

  - Next, choose the "F5: VCI J1708" test. The following screen will be displayed:

```
        Testing J1708        17:32:2



Testing         Expected  Actual   Status
I. Transceiver =     97         97 Pass
Differential + =     98         98 Pass
Differential - =     99         99 Pass
```

  - Finally, choose the "F6: VCI TPU" test. The following screen will be displayed:

```
        Testing TPU          17:33:00



    Testing             Status
    TPU0                Pass
    TPU1                Pass
    TPU5                Pass
    TPU12 and 15        Pass
    TPU13 and 14        Pass
```

    When performing the TPU test, it is critical that TPU12 and TPU15 indicate "Pass". If these two TPU channels indicate "Fail", or if they are not present in the above list, then the VCI module and/or the Tech 2 main unit are possibly damaged.

Insert the DLC Burndy cable into the Tech 2/VCI and the VCI loop back adapter at the end of the cable and repeat the tests listed above. (Note: When running the VCI TPU test, TPU12 and TPU15 must show up as pass. If they indicate, "fail", or if they are not present on the screen, then the cable might be damaged. This is assuming that TPU12 and TPU 15 passed with the VCI loop back adapter connected directly into the VCI. Also, when performing the VCI TPU test, TPU 13 and TPU14 will not appear on the screen when running this test with the DLC burndy cable inserted into the Tech 2/VCI and the loop back adapter at the end of the cable.)