

# SERVICE BULLETIN



M-1128

November 14, 2002

## New Password Learn Procedures

### Purpose

Some problems have been experienced with the Password Learn procedure after ECM or TSSM module replacement. The following tables have improved procedures.

### Motorcycles Affected

All motorcycles equipped with Delphi electronic fuel injection.

- 2001 and newer Softail models
- 2002 and newer VRSCA models
- 2002 and newer Touring models

### Required Dealer Action

Use Table 1 for setting TSM/TSSM and ECM password using Digital Technician.

Use Table 2 for setting TSM/TSSM and ECM password using a Scanalyzer.

Use Table 3 for setting TSM/TSSM and ECM password without Scanalyzer (manual mode).

#### IMPORTANT NOTE

In the interest of preserving customer safety and satisfaction, always check for outstanding recalls whenever any motorcycle is brought into your dealership for either maintenance or service.

| ROUTING      | SERVICE MANAGER | SALES MANAGER | PARTS MANAGER | LEAD TECHNICIAN | TECHNICIAN NO.1 | TECHNICIAN NO. 2 | TECHNICIAN NO. 3 | TECHNICIAN NO. 4 | RETURN THIS TO |
|--------------|-----------------|---------------|---------------|-----------------|-----------------|------------------|------------------|------------------|----------------|
| INITIAL HERE |                 |               |               |                 |                 |                  |                  |                  |                |

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**Table 1: Setting TSM/TSSM and ECM Password Using Digital Technician**

| No. | Action   | Confirmation  | Notes  |
|-----|--|---|--|
|     | Before beginning, the Scanalyzer should not be connected and the ignition must be turned off for at least 15 seconds.  | With ignition turned off, Check Engine Lamp and Security Lamp will be off.<br><br>If Security Lamp is illuminated, cycle IGN switch <b>ON-OFF</b> . | V-Rod Security Lamp is active with either TSM or TSSM. TSM (non-security modules) do not have a Security Lamp function on Twin Cam Vehicles. Step 11 of this procedure must be manually timed. |
| 1   | Install new TSM/TSSM or ECM. If vehicle has EFI, continue with Step 2. If vehicle is carbureted, Password Learn is not required. Perform all steps under <b>3.3 TSM/TSSM Vehicle Delivery</b>  |   |  |
| 2   | Set <b>Run/Off</b> switch to <b>Run</b>  |   |  |
| 3   | Turn <b>IGN key On</b>   | Verify Check Engine Lamp and Security Lamp illuminate then turn off.<br>Note: Security Lamp will not illuminate with TSM on Twin Cam vehicles.      | TSM/TSSM enables starter relay.  |
| 4   | Attempt normal start one time.   | Engine starts and stalls. Check Engine Lamp illuminates and stays on.   | Password has not been learned. ECM sets DTC P1009. Fuel flow is stopped.   |
| 5   | Wait ten seconds. Then begin 10 minute countdown cycle for TSM replacement.  | Security Lamp will illuminate and stay on.<br>Note: Security Lamp will not illuminate with TSM on Twin Cam vehicles.                                | ECM enters Password Learning mode for ten minutes. Do not cycle ignition switch or interrupt vehicle power or Password Learn will be unsuccessful.   |
| 6   | Connect Scanalyzer to connector [91A]. After Scanalyzer initializes, verify ECM and TSSM part numbers using System ID. Check for trouble codes. Verify that ECM set DTC P1009. Select tab for Module Replacement. Press the <b>BEGIN</b> button. |   |  |
| 7   | Ignore screen "Make sure scanalyzer is connected and operational". Click <b>OK</b>   |   |  |
| 8   | Ignore screen "Set Run/Stop switch to RUN position". Click <b>OK</b>   |   |  |
| 9   | Ignore screen "Press starter button". <b>Do not press starter button</b> . Click <b>OK</b>   |   |  |
| 10  | Ignore screen "Leave the ignition on. Wait for 10 seconds". Click <b>OK</b> .  |   |  |
| 11  | Next screen will read "The ECM will remain in password learn for 10 minutes". <b>Wait until Security Lamp goes out (or a minimum of ten minutes for TSM replacement)</b> . Then click <b>OK</b> .  |   |  |
| 12  | When first segment of timer bar fills in, turn IGN <b>OFF</b> . <b>Wait 15 seconds</b> , then turn IGN <b>ON</b> and start engine to verify Password Learn was successful.   |   |  |

**Table 2: Setting TSM/TSSM and ECM Password Using Scanalyzer**

| No. | Action  | Confirmation  | Notes  |
|-----|---|---|--|
|     | Before beginning, the Scanalyzer should not be connected and the ignition must be turned off for at least 15 seconds.   | With ignition turned off, Check Engine Lamp and Security Lamp will be off.<br><br>If Security Lamp is illuminated, cycle IGN switch <b>ON-OFF</b> .   | V-Rod Security Lamp is active with either TSM or TSSM. TSM (non-security modules) do not have a Security Lamp function on Twin Cam Vehicles. Steps 5 and 7 of this procedure must be manually timed. |
| 1   | Install new TSM/TSSM or ECM. If vehicle has EFI, continue with Step 2. If vehicle is carbureted, Password Learn is not required. Perform all steps under <b>3.3 TSM/TSSM Vehicle Delivery</b>   |   |  |
| 2   | Set <b>Run/Off</b> switch to <b>Run</b>   |   |  |
| 3   | Turn <b>IGN</b> key <b>On</b>   | Verify Check Engine Lamp and Security Lamp illuminate then turn off.<br>Note: Security Lamp will not illuminate with TSM on Twin Cam vehicles.        | TSM/TSSM enables starter relay.  |
| 4   | Attempt normal start one time.  | Engine starts and stalls. Check Engine Lamp illuminates and stays on.   | Password has not been learned. ECM sets DTC P1009. Fuel flow is stopped.   |
| 5   | Wait ten seconds. Then begin 10 minute countdown cycle for TSM replacement.   | Security Lamp will illuminate and stay on for V-Rod and Twin Cam with TSSM.<br>Note: Security Lamp will not illuminate with TSM on Twin Cam vehicles. | ECM enters Password Learning mode for ten minutes. Do not cycle ignition switch or interrupt vehicle power or Password Learn will be unsuccessful.   |
| 6   | Connect Scanalyzer to connector [91A]. After Scanalyzer initializes, verify ECM and TSSM part numbers using System ID. Check for trouble codes. Verify that ECM set DTC P1009. Return to main menu and select menu item 7 (calibrations) then select menu item 2 (module replacement). <b>Do not press Enter.</b> |   |  |
| 7   | Wait until Security Lamp turns off or a minimum of ten minutes has passed.  |   |  |
| 8   | Press <b>Enter</b> on Scanalyzer key pad. Wait 5 seconds.   |   |  |
| 9   | Turn ignition switch <b>OFF. Wait 15 seconds before turning Ignition on.</b> Turn ignition switch <b>ON</b> and start engine to confirm successful Password Learn procedure. Clear trouble codes.   |   |  |
| 10  | Perform all steps under <b>3.3 TSM/TSSM Vehicle Delivery</b>  |   |  |

**Table 3: Setting TSM/TSSM and ECM Password Without Scanalyzer (Manual Mode)**

| No | Action   | Confirmation   | Notes   |
|----|--|--|---|
| .  | Before beginning, the Scanalyzer should not be connected and the ignition must be turned off for at least 15 seconds.  | With ignition turned off, Check Engine Lamp and Security Lamp will be off.<br><br>If Security Lamp is illuminated, cycle IGN switch <b>ON-OFF</b> .  | V-Rod Security Lamp is active with either TSM or TSSM.<br>TSM (non-security modules) do not have a Security Lamp function on Twin Cam Vehicles. Steps 6, 8 and 10 of this procedure must be manually timed. |
| 1  | Install new TSM/TSSM or ECM. If vehicle has EFI, continue with Step 2.<br>If vehicle is carbureted, Password Learn is not required. Perform all steps under <b>3.3 TSM/TSSM Vehicle Delivery</b>           |  |   |
| 2  | Set <b>Run/Off</b> switch to <b>Run</b>  |  |   |
| 3  | Turn <b>IGN</b> key <b>On</b>  | Verify Check Engine Lamp and Security Lamp illuminate then turn off.<br>Note: Security Lamp will not illuminate with TSM on Twin Cam vehicles.       | TSM/TSSM enables starter relay.   |
| 4  | Attempt normal start one time.   | Engine starts and stalls. Check Engine Lamp illuminates and stays on.  | Password has not been learned. ECM sets DTC P1009. Fuel flow is stopped.  |
| 5  | Wait ten seconds.  | Security Lamp will illuminate and stay on for V-Rod and Twin Cam with TSSM<br>Note: Security Lamp will not illuminate with TSM on Twin Cam vehicles. | ECM enters Password Learning mode for ten minutes. Do not cycle ignition switch or interrupt vehicle power or Password Learn will be unsuccessful.  |
| 6  | Wait until Security Lamp turns off or a minimum of ten minutes has passed.   |  |   |
| 7  | Quickly (within two seconds) turn <b>IGN</b> key <b>OFF-ON</b> .   | Security Lamp will illuminate and stay on for V-Rod and Twin Cam with TSSM<br>Note: Security Lamp will not illuminate with TSM on Twin Cam vehicles. |   |
| 8  | Wait until Security Lamp turns off or a minimum of ten minutes has passed.   |  |   |
| 9  | Quickly (within two seconds) turn <b>IGN</b> key <b>OFF-ON</b> .   | Security Lamp will illuminate and stay on for V-Rod and Twin Cam with TSSM<br>Note: Security Lamp will not illuminate with TSM on Twin Cam vehicles. |   |
| 10 | Wait until Security Lamp turns off or a minimum of ten minutes has passed.   |  |   |
| 11 | Quickly (within two seconds) turn <b>IGN</b> key <b>OFF-ON</b> .   | Security Lamp will illuminate and then turn <b>off</b> .<br>Note: Security Lamp will not illuminate with TSM on Twin Cam vehicles.                   |   |
| 12 | Turn ignition switch <b>OFF</b> . <b>Wait 15 seconds before turning Ignition on</b> . Turn ignition switch <b>ON</b> and start engine to confirm successful Password Learn procedure. Clear trouble codes. |  |   |
| 13 | Perform all steps under <b>3.3 TSM/TSSM Vehicle Delivery</b>   |  |   |