

## 1998 MY for Transmission Range Sensor Circuit Malfunction (PRNDL Input) Monitor (P1780)

## 1998 MY for Park/Neutral Switch Input Circuit Monitor (P1780)

To return to monitor description, see page [Ct-2](#).

### MONITOR STRATEGY

| Required sensors/Components | Main                                                                                                                                                                                                 | Park/Neutral position switch |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
|                             | Sub                                                                                                                                                                                                  | None                         |
| Frequency of operation      | 1ZZ-FE, 5S-FE (CAMRY), 1MZ-FE, 2JZ-GE, 2JZ-GTE, 1UZ-FE, 3S-FE, 5E-FE (TERCEL), 3RZ-FE (Expect Prerunner), 5VZ-FE (Expect Prerunner), 5S-FE (CELLICA), 3RZ-FE (Prerunner), 5VZ-FE (Prerunner), 2UZ-FE | (A)<br>Continuous            |
|                             | Expect 1UZ-FE                                                                                                                                                                                        | (B)<br>Continuous            |
| Duration                    | 1ZZ-FE, 5S-FE (CAMRY), 1MZ-FE, 2JZ-GE, 2JZ-GTE, 1UZ-FE, 3S-FE, 5E-FE (TERCEL), 3RZ-FE (Expect Prerunner), 5VZ-FE (Expect Prerunner), 5S-FE (CELLICA), 3RZ-FE (Prerunner), 5VZ-FE (Prerunner), 2UZ-FE | (A)<br>Less than 10 sec.     |
|                             | Expect 1UZ-FE                                                                                                                                                                                        | (B)<br>30 sec.               |
| MIL operation               | 2 driving cycles                                                                                                                                                                                     |                              |
| Sequence of operation       | None                                                                                                                                                                                                 |                              |

### TYPICAL ENABLING CONDITIONS

| Item                                                              |  | Specification                  |         |
|-------------------------------------------------------------------|--|--------------------------------|---------|
|                                                                   |  | Minimum                        | Maximum |
| The monitor will run whenever the following DTCs are not present. |  | See page <a href="#">In-39</a> |         |

| Engine family | Item          | Specification |         |
|---------------|---------------|---------------|---------|
|               |               | Minimum       | Maximum |
| All models    | Condition (A) |               |         |
|               | None          | —             | —       |

|                                        |                      |                                     |           |
|----------------------------------------|----------------------|-------------------------------------|-----------|
| 5E-FE                                  | <b>Condition (B)</b> |                                     |           |
|                                        | Vehicle speed        | 80 km/h (50 mph) or more            | –         |
|                                        | Engine speed         | 2,000 rpm                           | 3,000 rpm |
|                                        | PM                   | 60 kPa (450 mmHg, 18 in.Hg) or more | –         |
| 5S-FE                                  | <b>Condition (B)</b> |                                     |           |
|                                        | Vehicle speed        | 80 km/h (50 mph) or more            | –         |
|                                        | Engine speed         | 2,000 rpm                           | 5,000 rpm |
|                                        | PM                   | 55 kPa (410 mmHg, 16 in.Hg) or more | –         |
| 2JZ-GE, 2JZ-GTE                        | <b>Condition (B)</b> |                                     |           |
|                                        | Vehicle speed        | 70 km/h (43 mph) or more            | –         |
|                                        | Engine speed         | 1,200 rpm                           | 2,500 rpm |
|                                        | G/N                  | 0.6 g/rev. or more                  | –         |
| 2UZ-FE                                 | <b>Condition (B)</b> |                                     |           |
|                                        | Vehicle speed        | 70 km/h (43 mph) or more            | –         |
|                                        | Engine speed         | 1,200 rpm                           | 2,500 rpm |
|                                        | G/N                  | 0.6 g/rev. or more                  | –         |
|                                        | PM                   | 60 kPa (450 mmHg, 18 in.Hg) or more | –         |
| 3S-FE                                  | <b>Condition (B)</b> |                                     |           |
|                                        | Vehicle speed        | 70 km/h (43 mph) or more            | –         |
|                                        | Engine speed         | 1,200 rpm                           | 2,500 rpm |
|                                        | PM                   | 47 kPa (350 mmHg, 14 in.Hg) or more | –         |
| 1ZZ-FE                                 | <b>Condition (B)</b> |                                     |           |
|                                        | Vehicle speed        | 70 km/h (43 mph) or more            | –         |
|                                        | Engine speed         | 1,200 rpm                           | 2,500 rpm |
|                                        | PM                   | 60 kPa (450 mmHg, 18 in.Hg) or more | –         |
| 3RZ-FE, 1MZ-FE, 5VZ-FE, 3RZ-FE, 2RZ-FE | <b>Condition (B)</b> |                                     |           |
|                                        | Vehicle speed        | 70 km/h (43 mph) or more            | –         |
|                                        | Engine speed         | 1,500 rpm                           | 2,500 rpm |
|                                        | G/N                  | 0.6 g/rev. or more                  | –         |

## TYPICAL MALFUNCTION THRESHOLDS

| Engine family                                                               | Detection criteria                                   | Threshold           |
|-----------------------------------------------------------------------------|------------------------------------------------------|---------------------|
| 5E-FE (TERCEL), 1ZZ-FE, 5S-FE,<br>1MZ-FE, 2JZ-GTE, 3S-FE, 3RZ-FE,<br>5VZ-FE | <b>Condition (A)</b>                                 |                     |
|                                                                             | Shift lever position signal (N, R, 2, L)             | Any 2 or more input |
|                                                                             | <b>Condition (B)</b>                                 |                     |
|                                                                             | PNP signal                                           | ON                  |
| 2JZ-GE (SUPRA)                                                              | <b>Condition (A)</b>                                 |                     |
|                                                                             | Shift lever position signal (P, D, 2, L)             | Any 2 or more input |
|                                                                             | <b>Condition (B)</b>                                 |                     |
|                                                                             | PNP signal                                           | ON                  |
| 2JZ-GE (SC300)                                                              | <b>Condition (A)</b>                                 |                     |
|                                                                             | Shift lever position signal (P, D, 3, 2, L)          | Any 2 or more input |
|                                                                             | <b>Condition (B)</b>                                 |                     |
|                                                                             | PNP signal                                           | ON                  |
| 2UZ-FE                                                                      | <b>Condition (A)</b>                                 |                     |
|                                                                             | Shift lever position signal (P, R, N, D, 2, L)       | Any 2 or more input |
|                                                                             | <b>Condition (B)</b>                                 |                     |
|                                                                             | PNP signal                                           | ON                  |
| 2JZ-GE (GS300)                                                              | <b>Condition (A)</b>                                 |                     |
|                                                                             | Shift lever position signal (P, R, N, 4, 3, 2, L)    | Any 2 or more input |
|                                                                             | <b>Condition (B)</b>                                 |                     |
|                                                                             | PNP signal                                           | ON                  |
| 1UZ-FE                                                                      | <b>Condition (A)</b>                                 |                     |
|                                                                             | Shift lever position signal (P, R, N, D, 4, 3, 2, L) | Any 2 or more input |