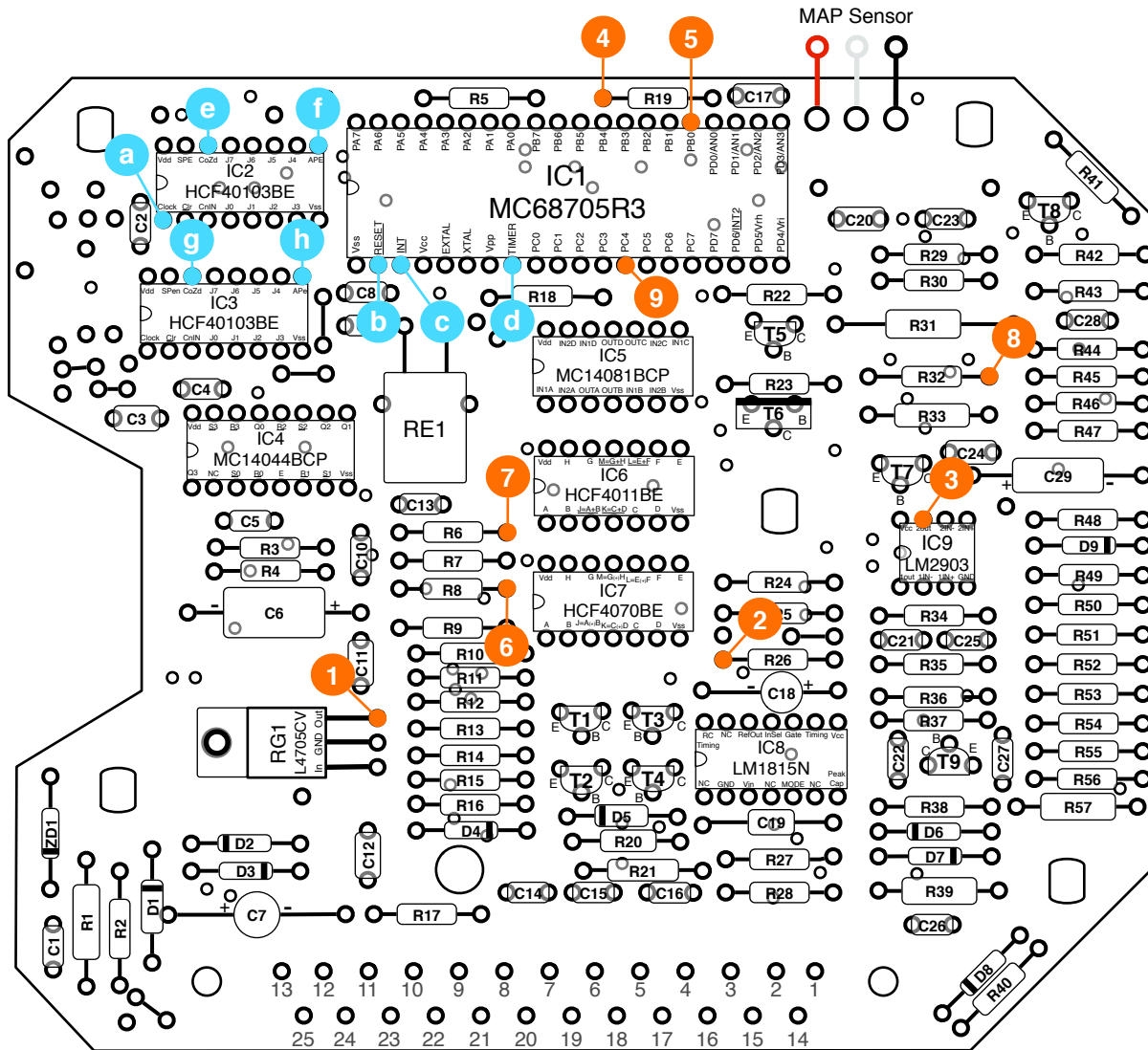


Magneti Marelli Microplex 120B (Ferrari Testarossa '85-'89, Ferrari 412 '85-'89)
Circuit Board Diagram, Test Points
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Input & Output Test Points

1. **Internal Voltage Supply, 5V**
2. **TDC Zero Crossing Pulse, 0-5V**
Pulse when a negative going TDC signal crosses zero
3. **RPM Pulse, 0-5V**
Square wave signal based on RPM sensor input
4. **Map Sensor Analog Out, 0.5-2.2V**
DC voltage, depending on applied vacuum
5. **Throttle Switch Input, 0-5V**
5V at closed throttle position
6. **IGN Pulse #1 at T1, 0-5V**
Trigger for external ignition module via T1/T2, Cylinder 7-12
7. **IGN Pulse #2 at T3, 0-5V**
Trigger for external ignition module via T3/T4, Cylinder 1-6
8. **Tacho Pulse Output, 0-12V**
Pulse output for Tacho.
Start in sync with IC3 CoZD (g).
The tacho output supplies a single pulse on power up.
9. **Control signal for T5/T6, 0-5V**
Cold Start Injector driver



Logic Test Points

- a. **Counter Clock Signal, 0-5V**
Pulse, Clock Hz = RPM Hz *2
(each time RPM signal crosses zero)
- b. **Reset (Power On Delay)**
Reaches 5V after 50-80 ms after unit has been powered on. Goes low every ~2.8s if TDC/RPM is not present.
- c. **IC1 INT, 0-5V**
Supplied by LM1815 RC Timing.
Low each time TDC is positive
- d. **IC1, Timer, 0-5V**
Goes low 90µs after TDC crosses zero
- e. **IC2, CarryOut/ZeroDetect, 0-5V**
Peak at start of each ignition trigger
- f. **IC2, Async Preset Enable, 0-5V**
Peak before end of each ignition trigger
- g. **IC3, CarryOut/ZeroDetect, 0-5V**
Peak before end of IGN #1 triggers (Cyl 7-12). Supplies IC1 INT2.
- h. **IC3, Async Preset Enable, 0-5V**
In sync with TDC crossing zero.