

3M™ Wireless Drive Thru System Model G5 Technical Bulletin - #181



Timer Connections to the G5 Base

Overview:

This document describes and illustrates the wiring to connect to any Timer System requiring a Greet Event, Line Time, or Window Time.

For purposes of illustration, this document

- Assumes the vehicle detector boards used in 3M™ Wireless Communication System Model XT-1 basestation, are 3M's internal vehicle detector board (SKU# 78-9236-6905-1).
- Assumes you will connect the timer to Relay #1 for the Start Time when the vehicle arrives.

The GPIO ports provide numerous options for the connection of any device including a timer to the G5 basestation.

- Please note that the GND of the GPIO pins and GND of the Loop detectors are the same ground.
- Know your timer GND and connect only GND to GND or COM, failure to connect GND's correctly will create phantom cars and unpredictable results.
- Both Relay connections COM and NO or NC are independent from any part of the basestation or each other.
- The 2nd loop bay and connector are not active without the dual lane code – however you can work around that with the following.

Option 1: 2nd Loop activation for an Internal Window Loop Detector (Orange Circles and Lines)

- Connect the 2nd loop to its connector and jumper the **GND** and **DET** connections to **GPIO GND** and **GPIO #9** respectively.
- System Menu #12 Digital IO Setup – IO Pin #9 set to <IN> <Unused >
- System Menu #12 Digital IO Setup – IO Relay #2 set to <OUT> <Dig IO #9 >
- Now Relay #2 will be active for the Second Loop – Most often the window loop

Option 2: 2nd or 3rd Loop detector activation

- Connect the 2nd loop to its connector but do not connect the **DET** or yellow wire.
- Connect a device to the **GND** of the Connector and the Yellow wire to provide a closure at detect.
- The Loop board has a relay on the board that provides the closure for your additional device.
- A 3rd Loop can be connected to the 12 vdc connector to the left of the Loop Connectors. (Yellow Square)

PLEASE NOTE: The Greet connection must NOT be connected to the speaker line in any case.

Greet Option 1: Talk low or voltage drop method (Red Circle)

- This is the primary method intended for connection of the Greet Signal
- Connect Timer GND to the **GPIO GND** and Timer active to **GPIO #11** (Lane 1) and/or GPIO #13 (Lane 2)
- GPIO 11 will have 5vdc when not talking – when TALK is active GPIO #11 will go to 0 volts
- The connected Timer will need to recognize the voltage drop to 0 volts and will be configured for that drop

Greet Option 2: No Internal (2nd) or window loop in the G5 (Green Circle)

- Connect the Greet cable pair to the **Relay 2 – COM** and **NO** terminals
- Set System Menu #12 Digital IO Setup – IO Relay #2 set to <OUT> <TALK_1 >
- When TALK is pushed the NO relay will close and NC relay will open

NOTE: Additional Options and Details on the Next Page.

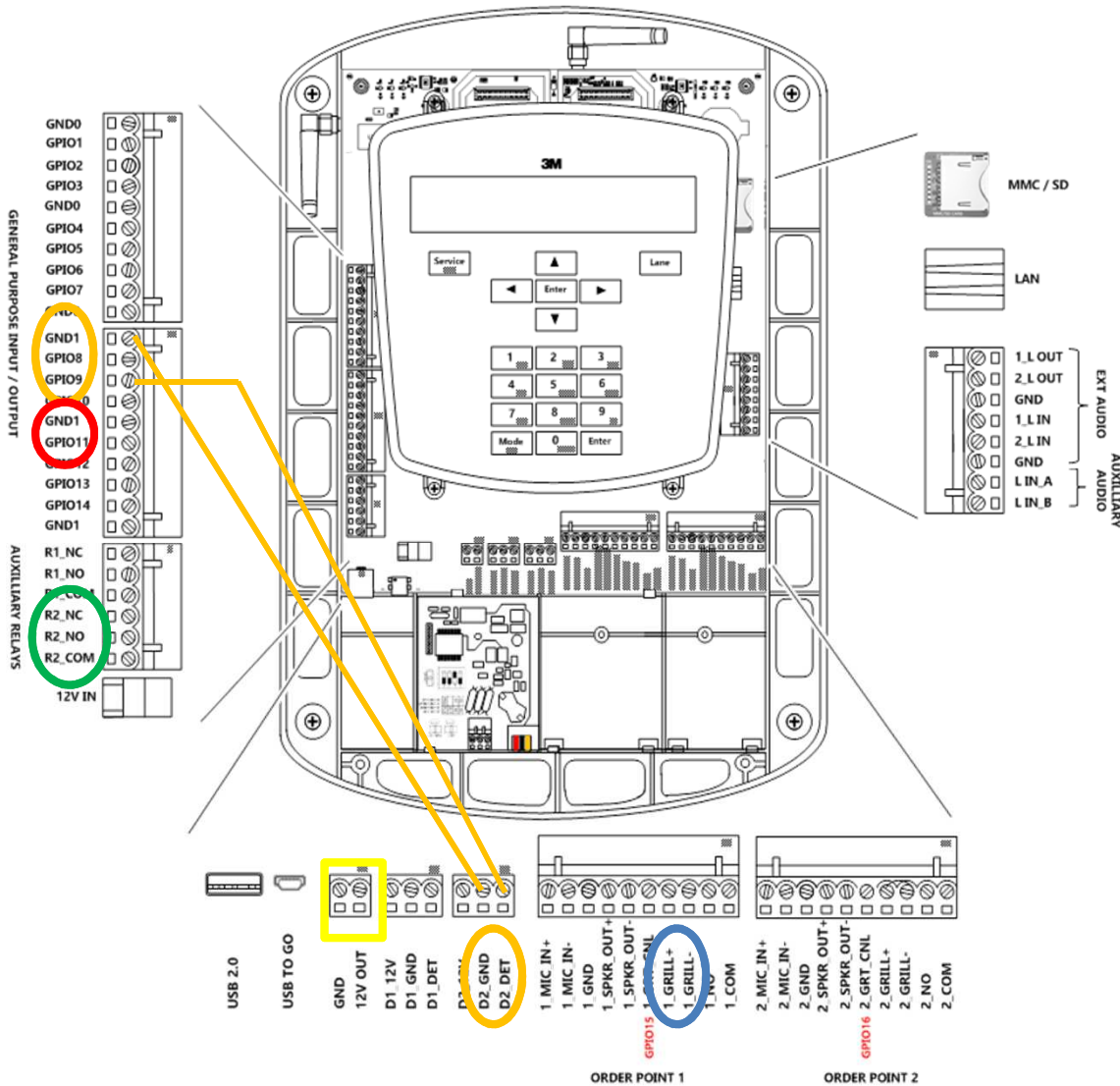


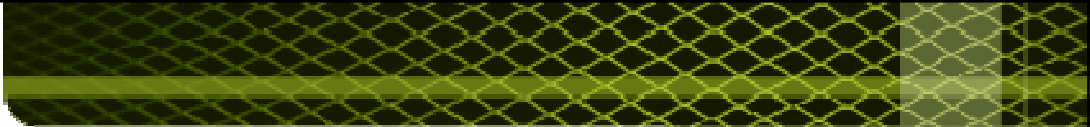
Timer Connections to the G5 Base (Continued)

PLEASE NOTE: The Greet connection must NOT be connected to the speaker line in any case.

Greet Option 3: Connection to the Grill Monitor Channel – ONLY If not used for the Grill Monitor (Blue Circle)

- Connect the Greet cable pair to the **GRILL +** and **GRILL -** connections for Lane 1 or Lane 2 as needed
- Set System Menu #2 Monitor Volume = Outbound Talk: Volume <10> Enable: <ON>
- Set System Menu #2 Monitor Volume = ALL other Volume <0> Enable: <OFF>
- When TALK is push the monitor speaker output will trigger the Greet Event





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