

SERIES -2 DRAWINGS

**TERMINAL CONNECTIONS, APPLICATIONS, DESCRIPTIONS
TIMING CONTROL INTERFACE
CRANKSHAFT TRIGGER TIMING SIGNAL**

GENERATION 3 IGNITION



SERIES -2:

MAGNETIC CRANKSHAFT TRIGGER SENSOR SOURCE:

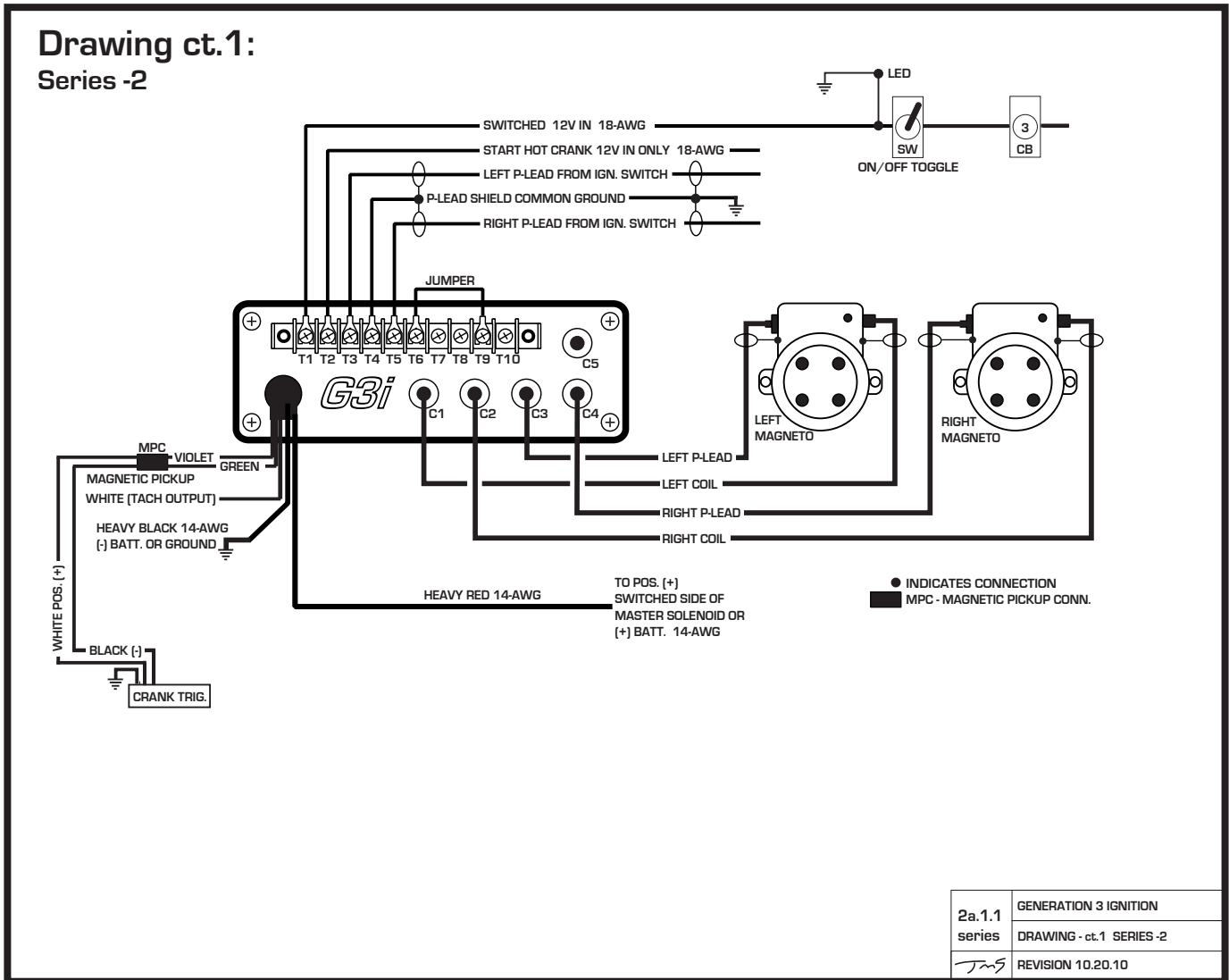
***Note:** All configurations will provide a signal to G3i Series -2 module that will excite to fire both magnetos at start up. There is no for need Slick Start or Shower of Sparks. The G3i Series -2 module will provide the synchronized Multiple Discharge Spark when starting.*

Following drawings (ct.1 thru ct.5) are the different configurations using a Crankshaft Trigger Sensor as the signal source to excite both magnetos. See drawings for further explanation, description and detailed terminal connections.

The Crankshaft Pickup Sensors used are the Magnetic type that requires ferrous studs mounted in the flywheel for the trigger signal. Most flywheels have machined holes every 30° that can be used for proper timing stud locations. The 4-cylinder engine requires 2 timing studs opposed at 180° from each another and the 6-cylinder requires 3 timing studs at 120° from each another.

The left and right magneto contacts are timed as normal (25° etc.). Depending on the application the Crank Trigger must be within specified degrees of synchronization / phase with the magneto timing. This ensures proper rotor phasing.

Generation 3 Ignition does provide Magnetic Pickup Sensors in different sizes. Generation 3 Ignition does NOT provide a Magnetic Crankshaft Trigger Sensor mounting installation hardware kit. Due to the many different mounting locations and hardware configurations, only consulting and custom fabrication is available at this time.

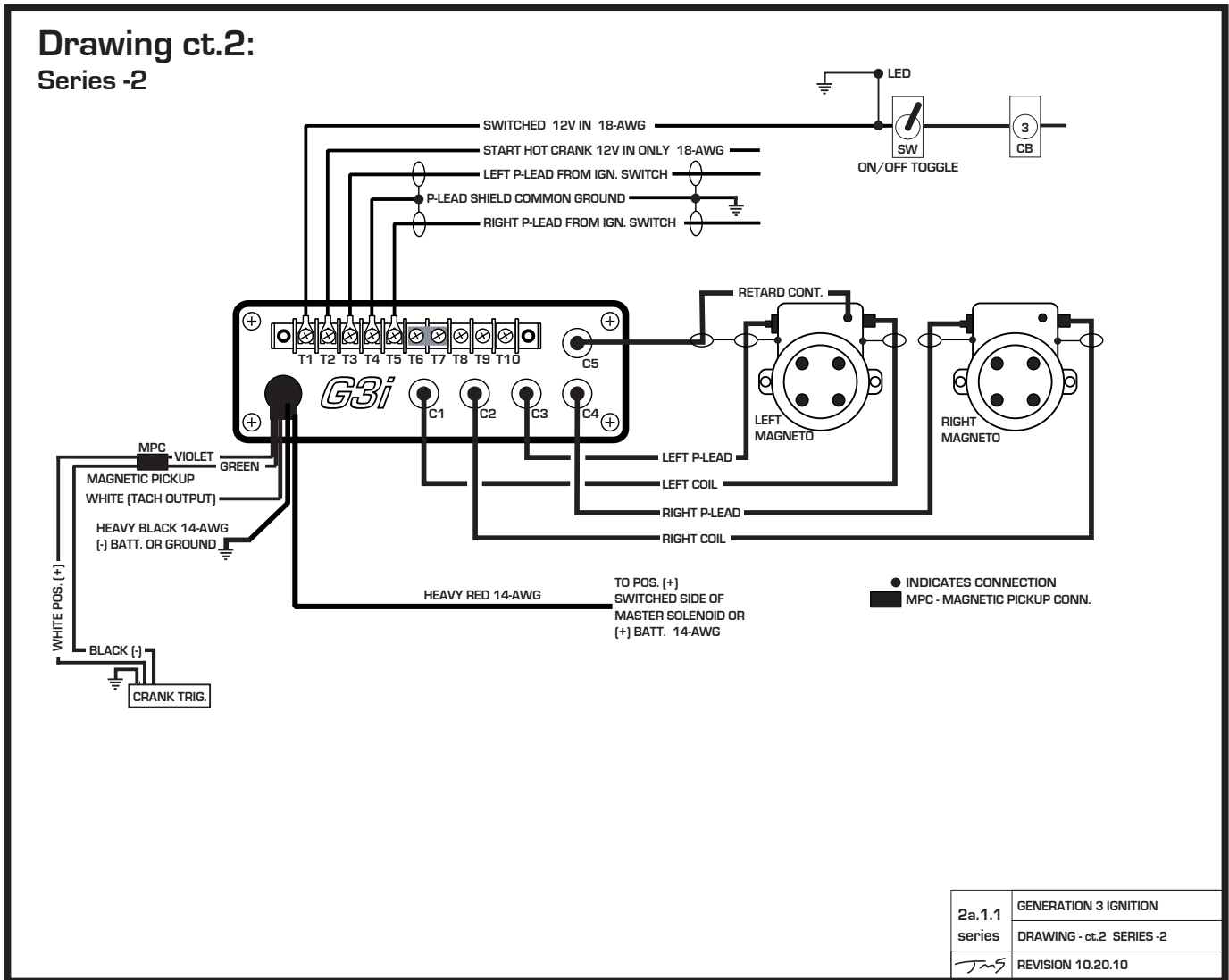


**Crankshaft Trigger Signal
Left Magneto Lag – Retard Impulse Coupler
Left Magneto Normal Contacts are Trigger Source on Starting
*** BRIDGE TERMINALS (T6 - T9) *****

This option allows the use of a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal in run mode. The left and right magneto contacts are timed as normal (25° etc.). The Crank Trigger must be within 2° of synchronization / phase with the magneto timing. This ensures proper rotor phasing. The left magneto normal contact set (points) and impulse coupler will serve as the retard signal on start up. This will provide the retard signal to G3i Series -2 module that will excite to fire both magnetos in a synchronized multiple spark discharge during start up.

Note: An extended jumper lead will be needed for the (T6 –T9) bridge.

Note: ACS-510 ignition switch, in starting mode, the right magneto ground jumper needs to be removed to use the right ignition also during start up.



Crankshaft Trigger Signal

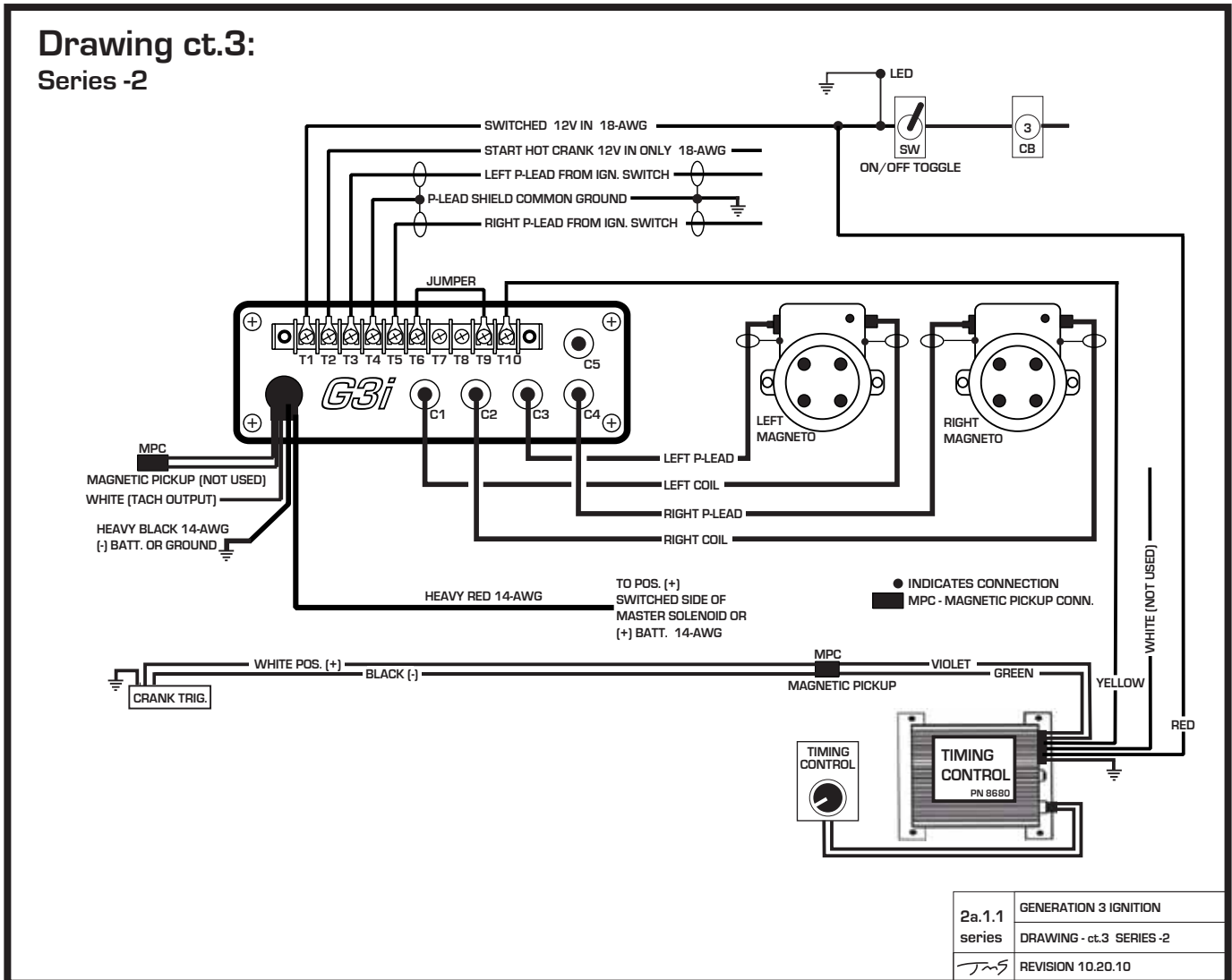
Left Magneto Retard Contacts are Trigger Source on Starting

*** BRIDGE TERMINALS (T6 - T7) ***

Retard Contact P-Lead to BNC (C5)

This option allows the use of a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal in run mode. The left and right magneto contacts are timed as normal (25° etc.). The Crank Trigger must be within 2° of synchronization / phase with the magneto timing. This ensures proper rotor phasing. The left magneto retard contact set (points) will serve as the retard signal on start up. This will provide the retard signal to G3i Series -2 module that will excite to fire both magnetos in a synchronized multiple spark discharge during start up.

Note: ACS-510 ignition switch, in starting mode, the right magneto ground jumper needs to be removed to use the right ignition also during start up.



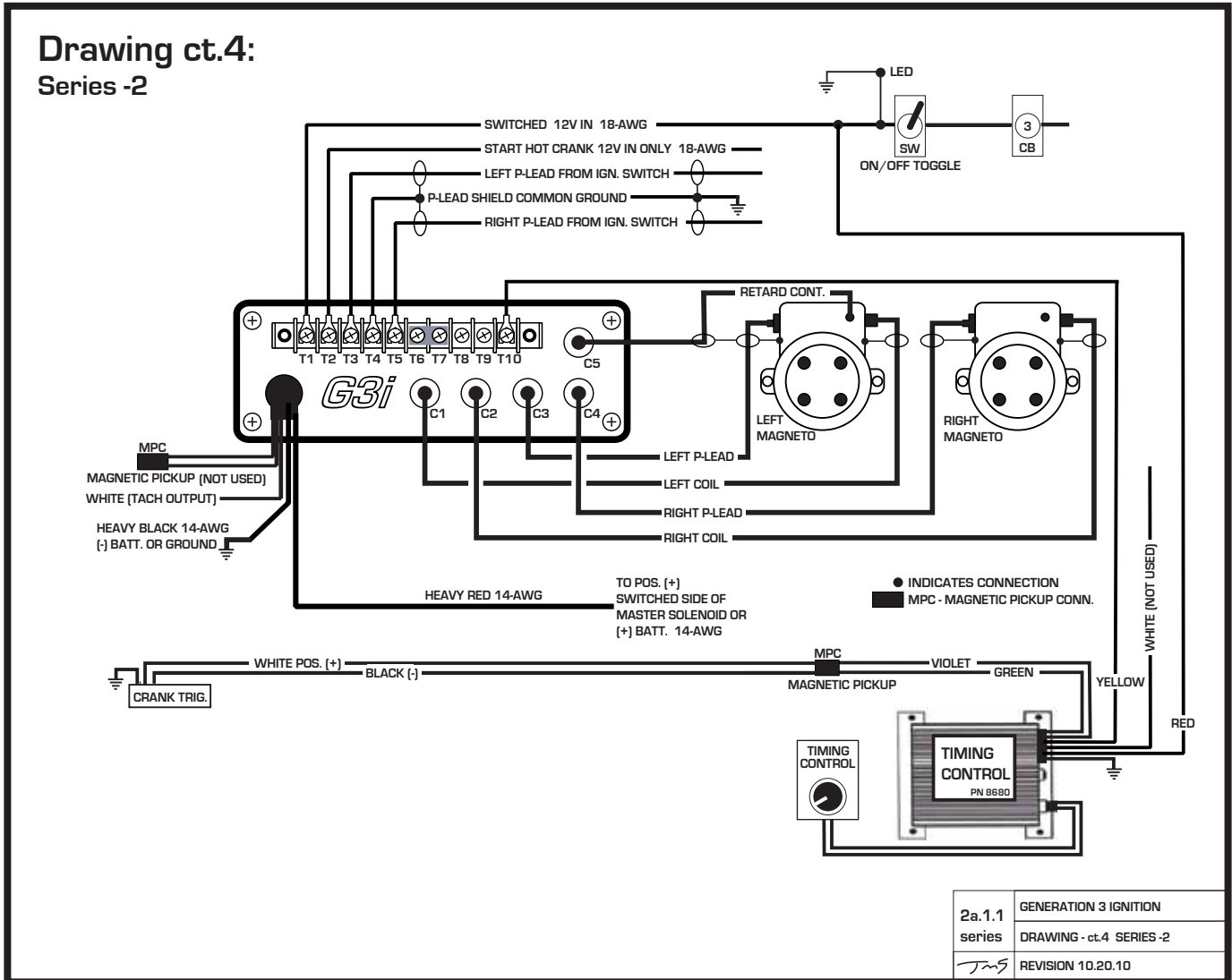
Crankshaft Trigger Signal
Left Magneto Normal Contacts are Trigger Source on Starting
Left Magneto Lag – Retard Impulse Coupler
MSD 8680 Adjustable Timing Control Module
Timing Control Leads (Yellow - T10)
***** BRIDGE TERMINALS (T6 - T9) *****

This option allows the use of the MSD P/N 8680 Adjustable Timing Control Module with a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal in run mode. The left and right magneto contacts are timed as normal (25° etc.). With ZERO -0° advance set on the control knob, the Crank Trigger must be minus -5° of synchronization / phase with the magneto timing. This ensures proper rotor phasing during timing changes. The left magneto normal contact set (points) and impulse coupler will serve as the retard signal on start up. This will provide the retard signal to G3i Series -2 module that will excite to fire both magnetos in a synchronized multiple spark discharge during start up.

Note: An extended jumper lead will be needed for the (T6 –T9) bridge.

Note: Refer to the MSD 8680 Adjustable Timing Control installation instructions for your specific timing requirements and connections.

Note: ACS-510 ignition switch, in starting mode, the right magneto ground jumper needs to be removed to use the right ignition also during start up.

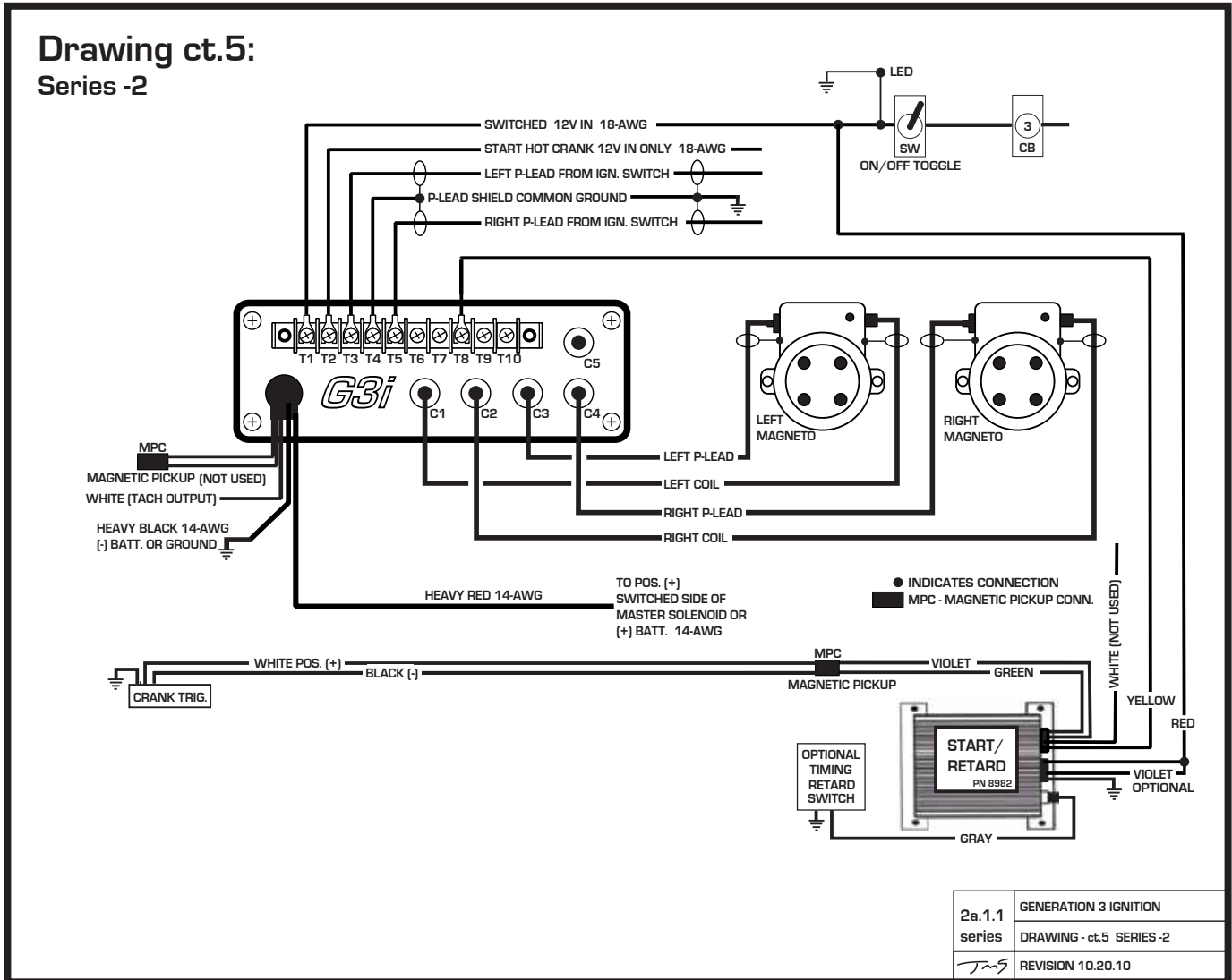


Crankshaft Trigger Signal
Left Magneto Retard Contacts are Trigger Source on Starting
MSD 8680 Adjustable Timing Control Module
Timing Control Leads (Yellow - T10)
***** BRIDGE TERMINALS (T6 - T7) *****
Retard Contact P-Lead to BNC (C5)

This option allows the use of the MSD P/N 8680 Adjustable Timing Control Module with a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal in run mode. The left and right magneto contacts are timed as normal (25° etc.). With ZERO -0° advance set on the control knob, the Crank Trigger must be minus -5° of synchronization / phase with the magneto timing. This ensures proper rotor phasing during timing changes. The left magneto retard contact set (points) will serve as the retard signal on start up. This will provide the retard signal to G3i Series -2 module that will excite to fire both magnetos in a synchronized multiple spark discharge during start up.

Note: Refer to the MSD 8680 Adjustable Timing Control installation instructions for your specific timing requirements and connections.

Note: ACS-510 ignition switch, in starting mode, the right magneto ground jumper needs to be removed to use the right ignition also during start up.



**Crankshaft Trigger Signal
Crankshaft Trigger Signal on Start Up and Run
MSD 8982 Start/Retard Control
Start/Retard Control Lead (Yellow - T8)**

This option allows the use of the MSD 8982 Start/Retard Control with a Magnetic Pickup Sensor on the Crankshaft/Flywheel for the timing signal. This provides the timing signal in all modes of electronic ignition operation (Starting and Run). The left and right magneto contacts are timed as normal (25° etc.). The Crank Trigger must be within 2° of synchronization / phase with the magneto timing. This ensures proper rotor phasing. The MSD 8982 Start/Retard Control will provide the retard signal to G3i Series -2 module that will excite to fire both magnetos in a synchronized multiple spark discharge during start up. The MSD Start/Retard Control can provide a second retard signal when switched activated (boost retard etc.).

Note: Refer to the MSD 8982 Start/Retard Control installation instructions for your specific timing requirements and connections.

Note: ACS-510 ignition switch, in starting mode, the right magneto ground jumper needs to be removed to use the right ignition also during start up.