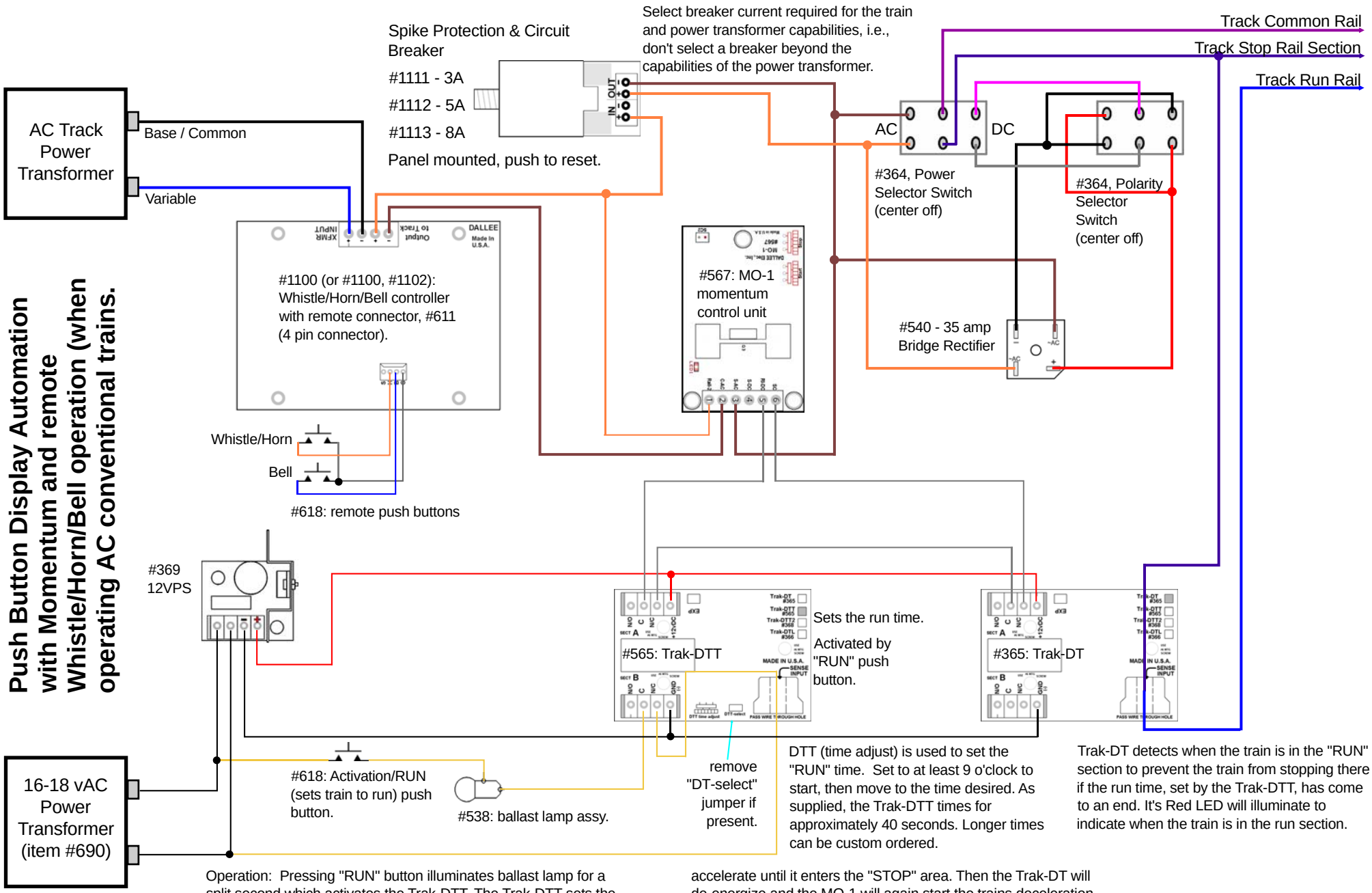
Push Button Display Automation with Momentum and remote Whistle/Horn/Bell operation (when operating AC conventional trains.



Operation: Pressing "RUN" button illuminates ballast lamp for a split second which activates the Trak-DTT. The Trak-DTT sets the run time and activates the MO-1 which accelerates the train based upon it's "START" rate setting (CCW = Fast).

When times up, and the Trak-DT is no longer activated (thus indicating that the stop area is now being traversed), the MO-1 will de-activate and start to stop the train based upon the "STOP" rate setting (CCW = Fast). If the train is too close to the end of the stop section, the Trak-DT will energize and prevent the train from stopping. Instead of an instant "jerk", the train will again accelerate until it enters the "STOP" area. Then the Trak-DT will de-energize and the MO-1 will again start the trains deceleration. If the stop section of track is too short, or the MO-1 STOP time is not set fast enough, the train will never stop in the stop section of track. This is also true if the train is running too fast for the setup.

A Trak-DTRL could also be used instead of the Trak-DT. Then a latched stop and start section of track would be used to control the stop area.

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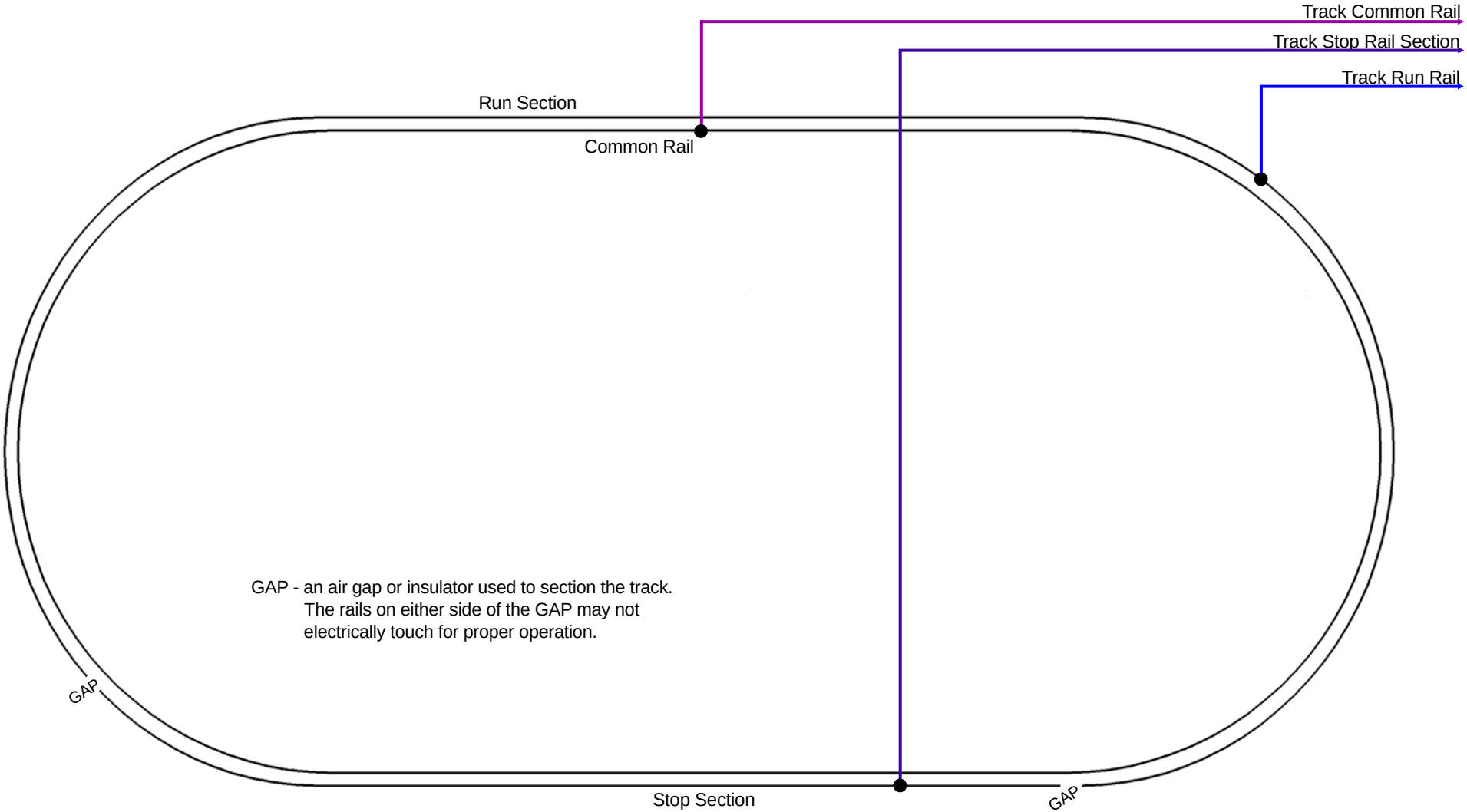

Stop Section - section of track that is designated for the train to stop in. This can be as long as you want or need it to be. For freight trains with unlit cabooses, this section can be shorter since the engine is the only thing sensed. For all other trains, passenger and lit cabooses, the section needs to be fairly long since the MO-1 will only turn off a few seconds after the last illuminated car has cleared the GAP into this section. The engine has to have enough track ahead of it for the train to come to a stop before entering the "RUN" track section. Otherwise the train will never stop!

Run Section - section of track for the main line train running. This section of track can be as long as necessary. It can also have switches in it for divergent routes / automation. The track has to join back to one track before entering the "Stop Section".

Operation: The train can be set to run in either direction. This is why the MO-1 and other circuitry is before the reverse switch when operating on DC power. AC track power is not of concern other than the Whistle/Horn/Bell push buttons. If they're reversed, merely reverse the connections from the center terminals of the AC/DC power selector switch. You can eliminate the switches if you don't need them. This was designed to operate both AC and DC type trains.

Notes: The drawing is shown for CCW wiring. For CW operation, just reverse which rail is the common and run/stop sense rails. Or reverse the power feeds from the AC/DC power selector switch. The second GAP is shown with a straight section behind it (for CCW operation). This isn't necessary but for best starting conditions, it's easier for the engine to pull out since the cars are not going around curves.