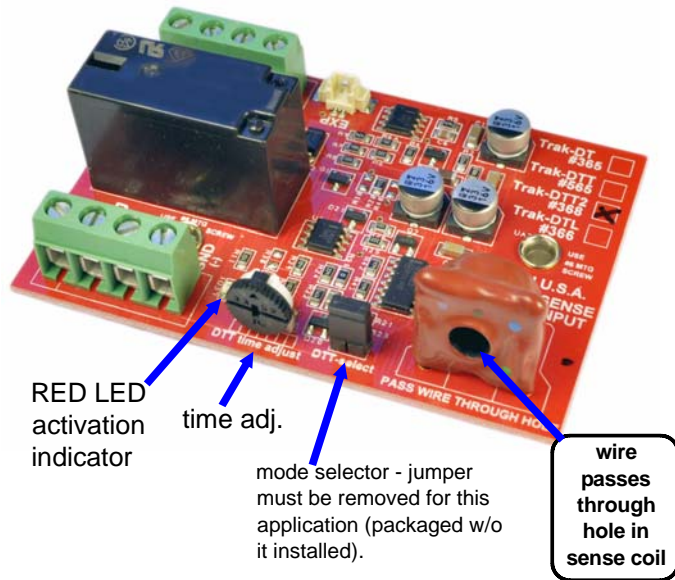


TIMED STATION STOP package

Item 683

for use with any type of track power,
consists of 1-#369 (12VPS), 1-#368 (TRAK-DTT2)



not present this possible problem), it becomes necessary to lengthen the "STOP" section to encompass not only the engine but also the caboose. The caboose should enter the "STOP" section before the engine leaves it at the other end. When adding multiple stops, remember to allow at least a few seconds of run time between stops. Otherwise the TRAK-DTT2 will not reset for the next stop and it will be missed.

The "16vAC accessory input" can be from any AC power source of 14 to 18 volts. It is desirable that this be from a separate transformer than the one used to operate your trains. If you don't have one, item #690 is an excellent source.

If you need to add another timed station stop operation on another track or a station stop of different duration, you merely need to add another TRAK-DTT2 (#368) since you already have the 12VPS. You can also add TRAK-DT's (#365), TRAK-DTT's (#565) and TRAK-DTL's (#366) to the 12VPS for other signaling and automation operations. Providing enough AC input power is available, 10 or more DT's can be added to one 12VPS.

Three rail operators: it is recommended that you use the center rail for the "STOP" section of track. When using 3 rail track with insulated outer rail track, you should always add jumper wires to connect them together throughout the layout. When viewing the first drawing, the center rail would be the upper track rail (towards the components). Hence the lower rail would become the outside rails. When operating with automatic station stops it is necessary to lock the e-unit into the forward / start in forward position.

Operational requirement for use with a train utilizing a lit caboose: The "STOP" section must be long enough to encompass the engine and caboose. The train will stop as soon as it enters the "STOP" section but w/o allowing for the caboose to enter before the engine leaves will create a stop every other passing of the "STOP" section instead of each pass.

You can now make your stops and starts with momentum by adding the MO-1, item 567.

To do so, merely move the lower two track power wires from the Trak-DTT2 to the MO-1's stop control (S-AC or S-DC, depending on how you are operating. Plug in the "EXP" to the MO-1 "SC2" and away you go! (Follow the MO-1 instructions for the rest of the wiring. The "Rail-2", "R1-DC" / "C-AC" of the MO-1 need to be connected accordingly). For proper momentum, the STOP section has to be long enough to encompass the entire train. This is explained in the MO-1 instructions.

A station stop is easily made with the TRAK-DTT2. Simply create an isolated section of track to trigger the TRAK-DTT2, change a few wires, and you have it.

The TRAK-DTT2 combines three functions in one unit. The input circuitry has a latch function incorporated into it. Therefore the timer function is only activated on every other sense of current flow. The first time current flows, the timer is activated. The second time current flows the input to the timer is "reset" for the next current activation. Thus performing a simple station stop device. When you first enter the stop section, the TRAK-DTT activates and is wired to remove power from the stop section of track. Then, after the time is up, the TRAK-DTT2 relaxes its relay which re-applies power to the stop section. When power is re-applied to the stop section, the TRAK-DTT2 becomes reset and is ready for the next activation.

The time period of the TRAK-DTT2 is adjustable from a momentary relay activation as minimum to a maximum of approximately 75 seconds. The minimum setting should not be used for station stop applications. Be sure to turn the potentiometer to a setting beyond its minimum setting.

In order for the electronics to function properly it is essential that a "regulated" power supply of 12 VDC be employed. This 12 VDC power is only for the electronics and has absolutely nothing to do with track power. Failure to use a "regulated" 12 VDC can cause erratic functioning or actual destruction of the TRAK-DTT2. For proper power supply refer to the 12VPS (Item 369). This is included in this package.

For basic station stops in either direction, refer to the drawing on the next page. This drawing shows how to "splice" a station stop within an existing section of track. The track power is "killed" when the engine enters the "STOP" section. The "STOP" section needs to be long enough for the entire engine to coast to a stop without over-running.

STATION STOP wiring for multiple stops within a loop of track can be made by simply cutting the track and making more stop sections wired as the previous. The second wiring diagram shows a single stop within a loop of track and also details how easy it is to add multiple stops utilizing the same TRAK-DTT2 device. If you are using this for trains rather than traction cars and are operating with illuminated cabooses (passenger cars do

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Timed STATION STOP

within a section of track

STOP sections have power removed during timed stops. This section must contain the locomotive when coasting to a stop.

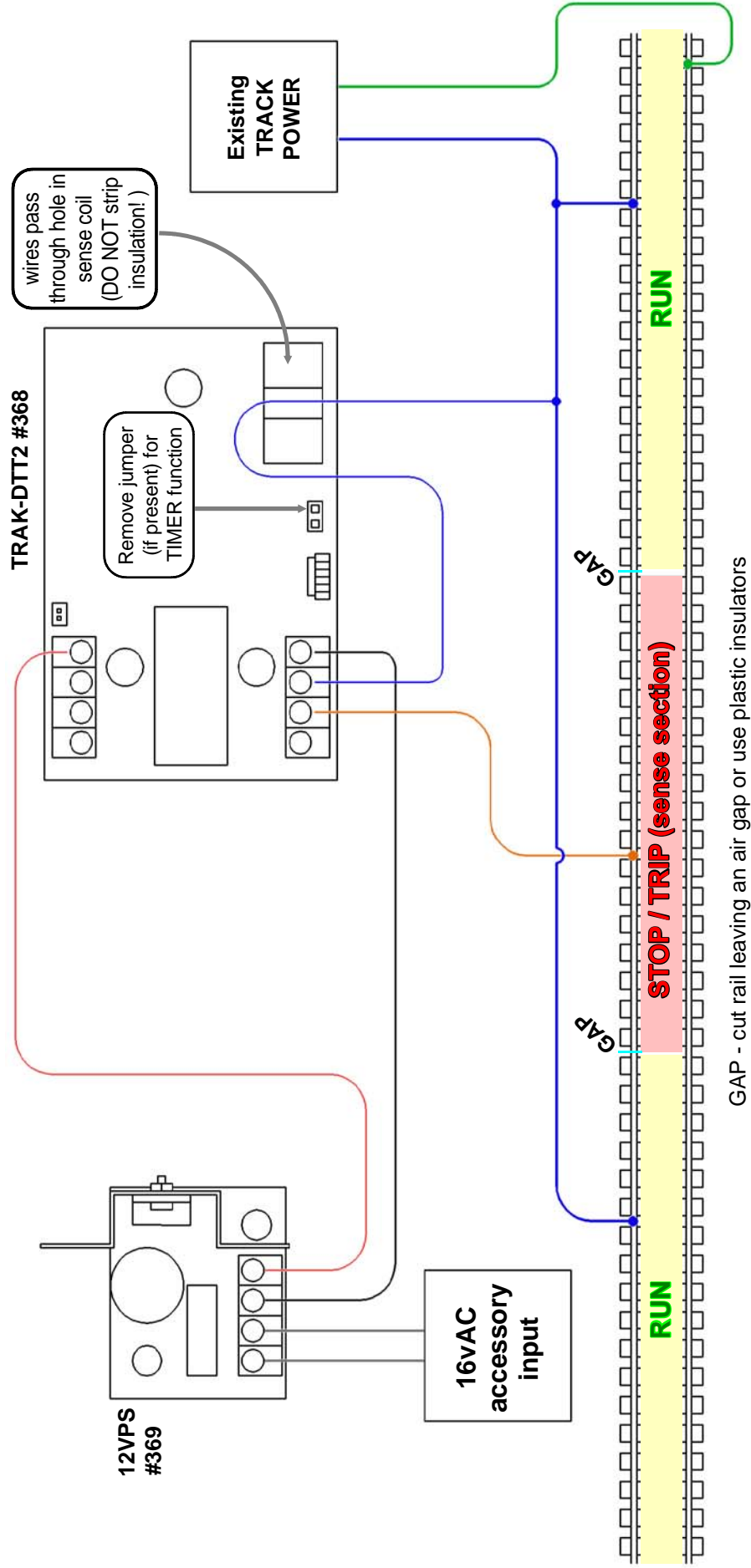
For MU operation (more than one locomotive), use drawing on page 3.

3-Rail operators, use the center rail as the upper sense rail or both outer rails. If using with sequence reverse units, the E-Unit must be locked in forward or a ballast lamp can be used to supply minimal power to the "STOP" section as shown on page 4.

All operators: If using an illuminated caboose in a freight train (3-rail operators - center rail), a re-trip of the Trak-DTT2 will occur creating improper operation since the Trak-DTT2 will most likely re-trip when the caboose enters the stop section and not remain there for the sequence to complete. This will result in the train stopping at the station every other pass. If this is not desired and you are running in the same direction, make the stop section long enough to encompass the locomotive and the caboose. The stop will occur when the locomotive enters the stop section so lengthening it does not effect operation. Otherwise, use a Trak-DTT with a ballast lamp (item #538) for your station stops instead of the Trak-DTT2.

install stranded wires by stripping insulation back 3/16", place wire in hole, run screw down to clamp in position. Make sure wires do not short to adjacent terminals!

Make sure wires are connected as shown. Improper power connections may result in permanent damage to the units. For individual unit description and full terminal details, please refer to our catalog or individual instructions found on our web site.



GAP - cut rail leaving an air gap or use plastic insulators

Timed STATION STOP

Utilizing the Trak-DTT2

within a section of track for single or multiple engines

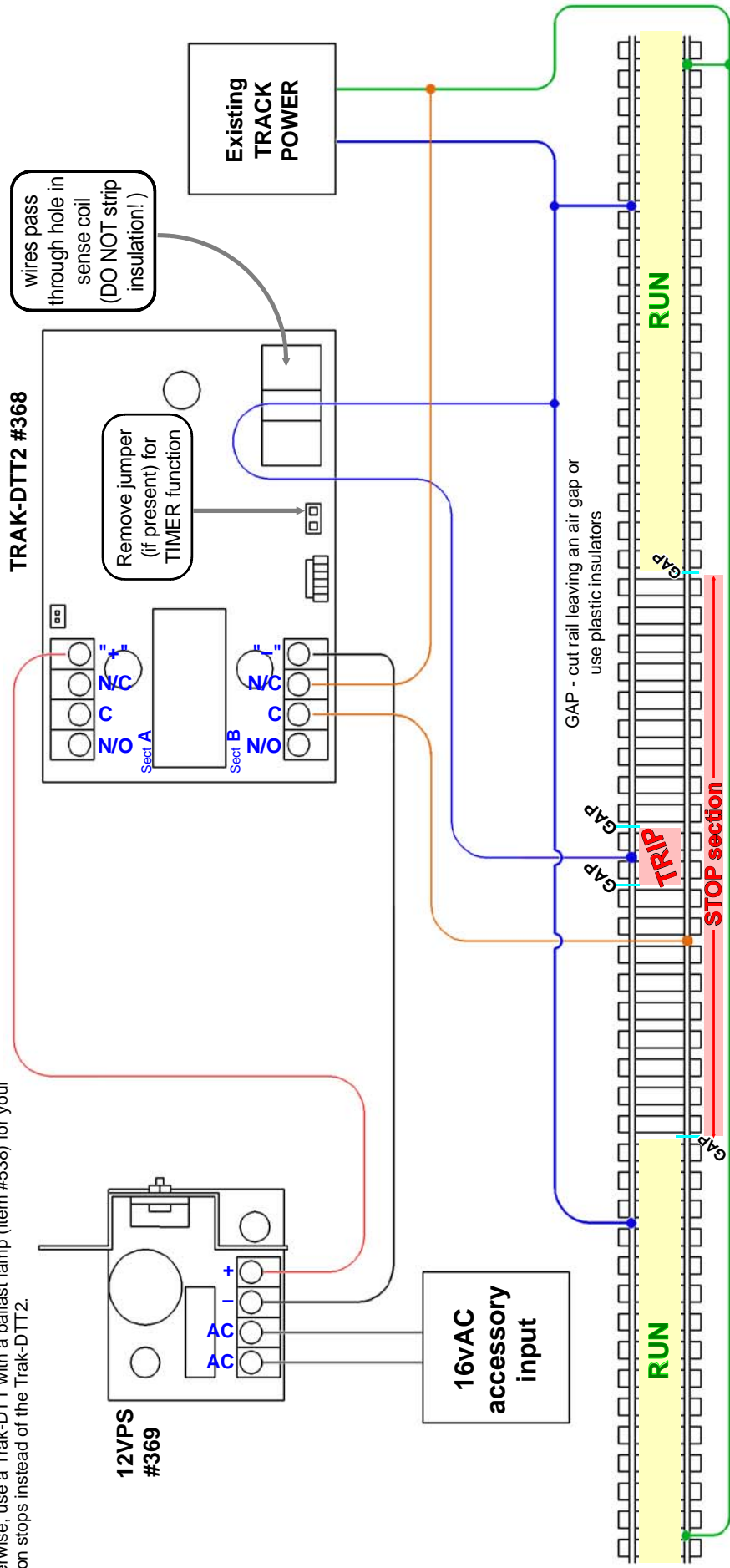
For MU operation (more than one locomotive). For operation in either direction, the "TRIP" section must be positioned in the center of the "STOP" section and encompass all of the locomotives. When the lead engine enters the "TRIP" section, the "STOP" section has it's power removed. When time is up power is restored.

3-Rail operators, use the center rail as the upper sense rail or both outer rails. If using with sequence reverse units, the E-Unit must be locked in forward or a ballast lamp can be used to supply minimal power to the "STOP" section as shown on page 4

All operators: If using an illuminated caboose in a freight train (3-rail operators - center rail), a re-trip of the Trak-DTT2 will occur creating improper operation since the Trak-DTT2 will most likely re-trip when the caboose enters the stop section and not remain there for the sequence to complete. This will result in the train stopping at the station every other pass. If this is not desired and you are running in the same direction, make the stop section long enough to encompass the locomotive and the caboose. The stop will occur when the locomotive enters the stop section so lengthening it does not effect operation. Otherwise, use a Trak-DTT with a ballast lamp (item #538) for your station stops instead of the Trak-DTT2.

install stranded wires by stripping insulation back 3/16", place wire in hole, run screw down to clamp in position. Make sure wires do not short to adjacent terminals!

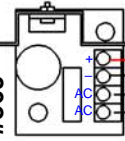
Make sure wires are connected as shown. Improper power connections may result in permanent damage to the units. For individual unit description and full terminal details, please refer to our catalog or individual instructions found on our web site.



Alternating Timed STATION STOP for a loop of track

This drawing allows for a timed station stop to occur every other time the train passes the "Stop" section. The "Alternate trigger" section sets and resets the Trak-DTL which then either powers the "Stop" section or routes it through the Trak-DTT2 sensor to create a stop. Thus, two passes are required to stop again. The "Alternate trigger" and "Stop" section needs to be long enough to encompass the engine as well as any lit caboose / tail car. Otherwise two triggers will occur each time the train passes thus negating the alternate stopping and stop on each time the train is suppose to. Fully lit passenger trains may use a smaller section. Momentum start/stop operation is accomplished by adding the MO-1, item 567 with a bit different wiring. Operators utilizing an E-Unit need to lock it into the "Forward" direction or be utilizing an electronic e-unit that offers start in forward as well as a rapid reset to forward. This way when the stop time is up, the train will pull out in forward. All DALLEE E-Units provide this function.

12VPS #369



install stranded wires by stripping insulation back 3/16", place wire in hole, run screw down to clamp in position. Make sure wires do not short to adjacent terminals!

16VAC accessory input



DC operators:

Rail 1 = "-" left hand rail per NMRA conventions.

Rail 2 = "+" right hand rail.

"G" operators would switch the rail1 & 2 wiring since they are reverse of NMRA standards.

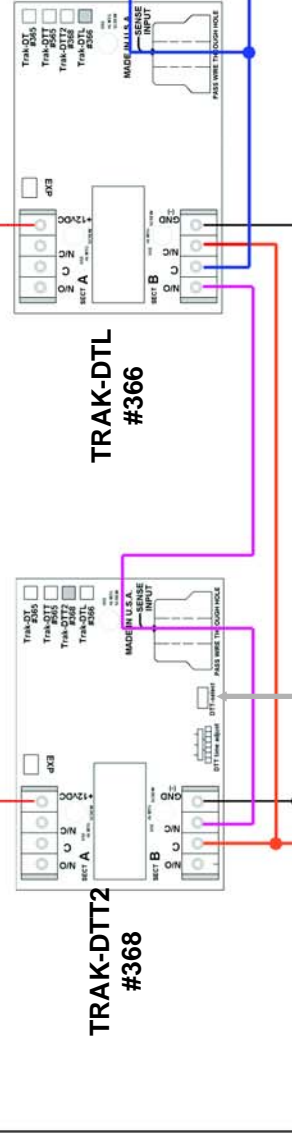
AC operators:

2 rail operators: Rail 1 = left, Rail 2 = right (these may be reversed w/o any problem)

3 rail operators: Rail 1 = center rail, Rail 2 = outside rails

TRAK-DTT2 #368

TRAK-DTL #366



wires pass through hole in sense coil (DO NOT strip insulation!)

Remove jumper (if present) for TIMER function

GAP - cut rail leaving an air gap or use plastic insulators

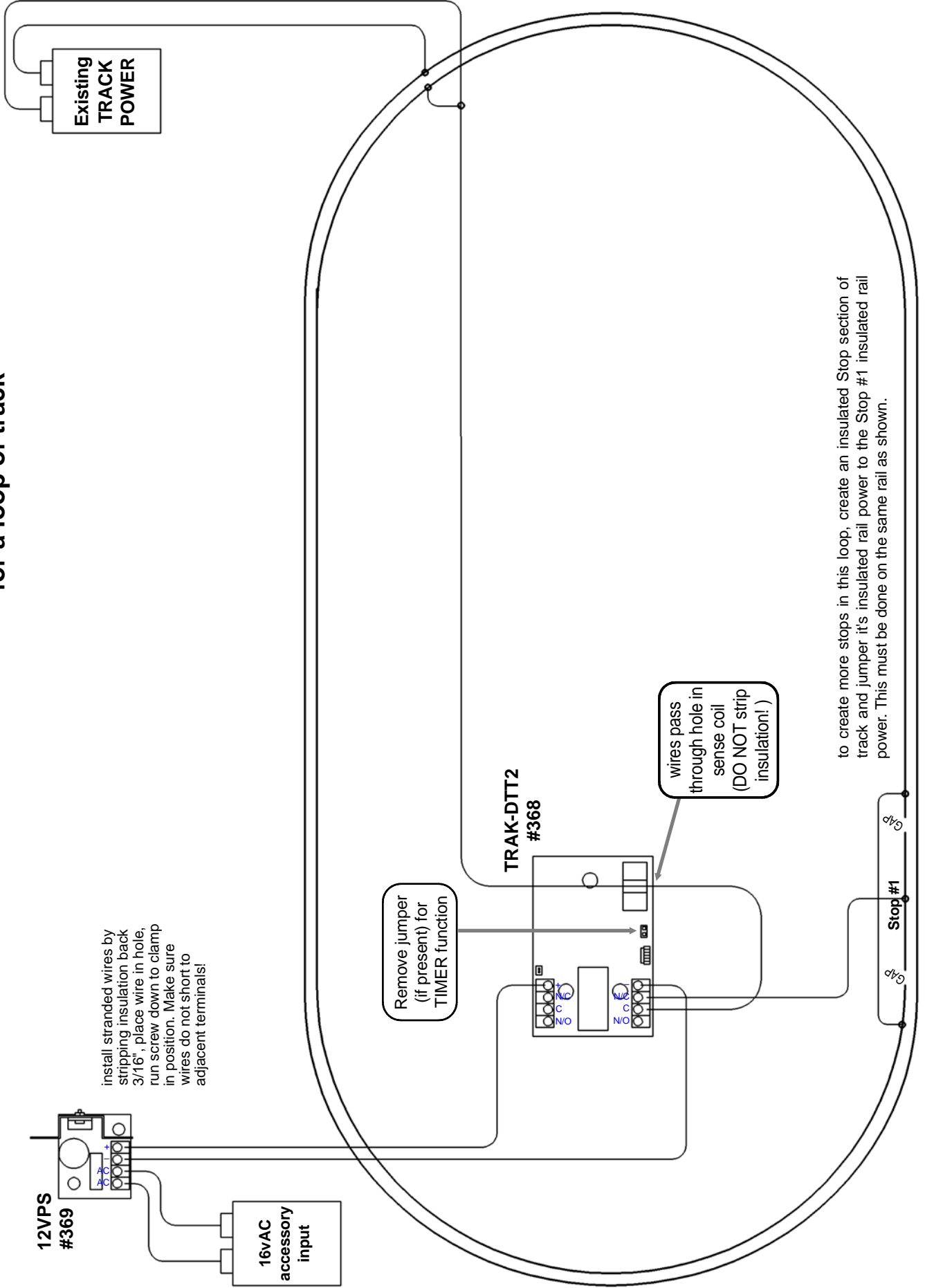
Direction of travel

Stop

Gap

Gap

Timed STATION STOP for a loop of track



install stranded wires by stripping insulation back 3/16", place wire in hole, run screw down to clamp in position. Make sure wires do not short to adjacent terminals!

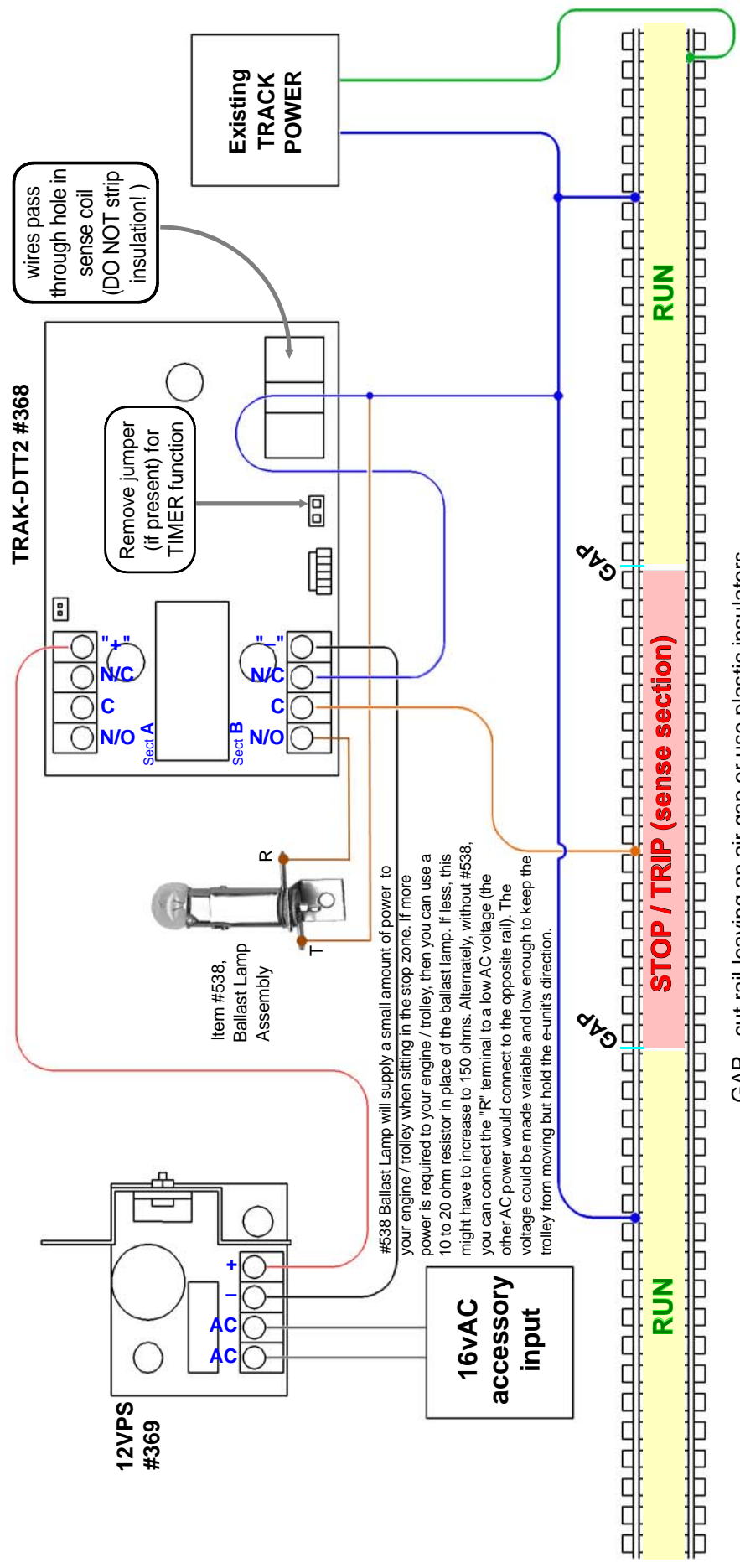
Timed STATION STOP

within a section of track for AC operators requiring a direction hold.

STOP/TRIP section has power removed during the timed stop. This section must contain the locomotive when coasting to a stop.
 For MU operation with sequencing E-Units connect as on page 3 and add the ballast lamp operation or other low voltage to keep the engines powered at a low voltage w/o allowing them to move.
 3-Rail operators, use the center rail as the upper sense rail or both outer rails.

All operators: If using an illuminated caboose in a freight train (3-rail operators - center rail), a re-trip of the Trak-DTT2 will occur creating improper operation since the Trak-DTT2 will most likely re-trip when the caboose enters the stop section and not remain there for the sequence to complete. This will result in the train stopping at the station every other pass. If this is not desired and you are running in the same direction, make the stop section long enough to encompass the locomotive and the caboose. The stop will occur when the locomotive enters the stop section so lengthening it does not effect operation. Otherwise, use a Trak-DTT1 with a ballast lamp (item #538) for your station stops instead of the Trak-DTT2.

install stranded wires by stripping insulation back 3/16", place wire in hole, run screw down to clamp in position. Make sure wires do not short to adjacent terminals!
 Make sure wires are connected as shown. Improper power connections may result in permanent damage to the units. For individual unit description and full terminal details, please refer to our catalog or individual instructions found on our web site.



#538 Ballast Lamp will supply a small amount of power to your engine / trolley when sitting in the stop zone. If more power is required to your engine / trolley, then you can use a 10 to 20 ohm resistor in place of the ballast lamp. If less, this might have to increase to 150 ohms. Alternately, without #538, you can connect the "R" terminal to a low AC voltage (the other AC power would connect to the opposite rail). The voltage could be made variable and low enough to keep the trolley from moving but hold the e-unit's direction.

GAP - cut rail leaving an air gap or use plastic insulators

Timed STATION STOP

Utilizing the Trak-DTT

within a section of track for single or multiple engines

For MU operation (more than one locomotive). For operation in either direction, the "TRIP" section must be positioned in the center of the "STOP" section and encompass all of the locomotives. When the lead engine enters the "TRIP" section, the "STOP" section has it's power removed. When time is up power is restored.

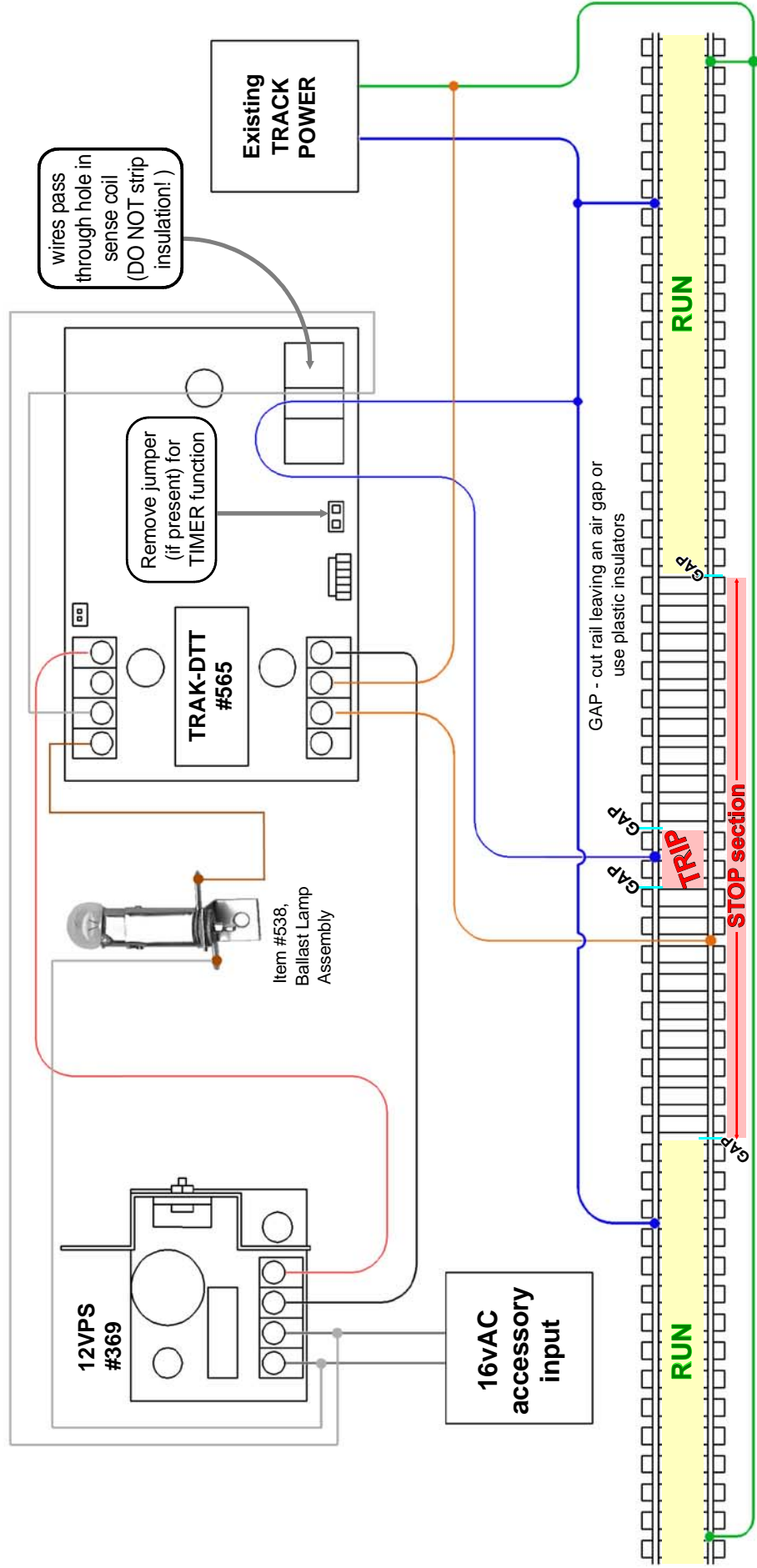
3-Rail operators, use the center rail as the upper sense rail or both outer rails.

If using with sequence reverse units, the E-Unit must be locked in forward or a ballast lamp can be used to supply minimal power to the "STOP" section as shown on page 6.

All operators: If using an illuminated caboose in a freight train (3-rail operators - center rail), a re-trip of the Trak-DTT2 will occur creating improper operation since the Trak-DTT2 will most likely re-trip when the caboose enters the stop section and not remain there for the sequence to complete. This will result in the train stopping at the station every other pass. If this is not desired and you are running in the same direction, make the stop section long enough to encompass the locomotive and the caboose. The stop will occur when the locomotive enters the stop section so lengthening it does not effect operation. Otherwise, use a Trak-DTT with a ballast lamp (item #538) for your station stops instead of the Trak-DTT2.

install stranded wires by stripping insulation back 3/16", place wire in hole, run screw down to clamp in position. Make sure wires do not short to adjacent terminals!

Make sure wires are connected as shown. Improper power connections may result in permanent damage to the units. For individual unit description and full terminal details, please refer to our catalog or individual instructions found on our web site.



Timed STATION STOP

Utilizing the Trak-DTT

within a section of track for single engines

For single engine operation. When the engine enters the "STOP/TRIP" section, the "STOP/TRIP" section has its power removed. When time is up, power is restored. Lighted cars trailing the engine, must not enter the "STOP/TRIP" section or power will be restored in that section via the lighted cars pickups!

3-Rail operators, use the center rail as the upper sense rail or both outer rails (easier wiring to use the upper rail as the center rail and the lower rail as the two outside rails).

If using with sequence reverse units, the E-Unit must be locked in forward or a ballast lamp can be used to supply minimal power to the "STOP/TRIP" section as shown on page 6.

All operators: A stop will occur when the locomotive, or illuminated car (if pushing) enters the "STOP/TRIP" section so lengthening it does not effect operation. It's best however, to have the "STOP/TRIP" section long enough to encompass the entire train so that the engine, when leaving, has the last illuminated car in the "STOP/TRIP" section before the engine leaves. This way the Trak-DTT will not retrigger and removing power in the "STOP/TRIP" section. When operating a trolley car, you can create a stop on both sides of the road by making the "STOP/TRIP" section longer than the road width. That way you will always stop before the road regardless of the direction of travel!

install stranded wires by stripping insulation back 3/16", place wire in hole, run screw down to clamp in position. Make sure wires do not short to adjacent terminals!

Make sure wires are connected as shown. Improper power connections may result in permanent damage to the units. For individual unit description and full terminal details, please refer to our catalog or individual instructions found on our web site.

