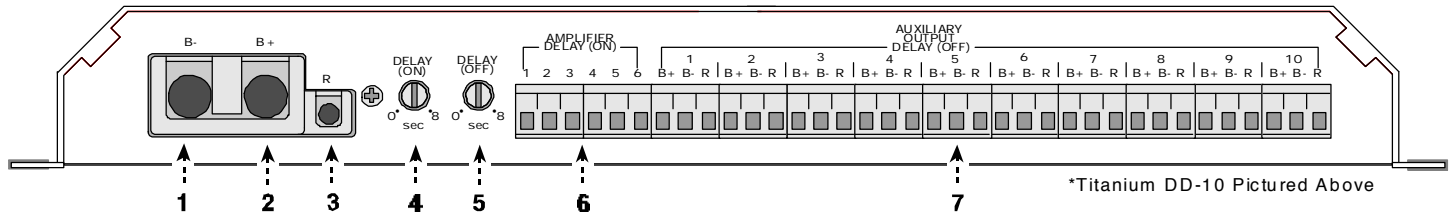


Titanium DD-10 Tantrum DD-5

PHOENIX GOLD

Installation Instructions and Diagram



1. B- TERMINAL (CHASSIS GROUND) Connect the 4 gauge (TiDD-10) or 8 gauge (TDD-5) input to a clean, solid chassis ground. Remove all paint and dirt from the chassis connection point.

2. B+ TERMINAL (BATTERY POSITIVE) Connect the 4 gauge (TiDD-10) or 8 gauge (TDD-5) input directly to the 12 volt source at the positive battery terminal. Remember to properly fuse this input cable within 18 inches of the positive battery terminal. Internally, two 40 amp fuses (TiDD-10) or one 40 amp fuse (TDD-5) are used to protect the unit from a short circuit or excess current draw.

3. REMOTE TURN-ON TERMINAL Connect to a switched 12 Vdc source such as the headunit's remote wire.

4. DELAY ON Adjusting this potentiometer delays the six (TiDD-10) or four (TDD-5) amplifier remote outputs turn on time from 0 to 8 seconds.

5. DELAY OFF Adjusting this potentiometer delays the ten (TiDD-10) or five (TDD-5) auxiliary outputs turn off time from 0 to 8 seconds.

6. AMPLIFIER (DELAY ON) These six (TiDD-10) or four (TDD-5) outputs are remote leads that delay the turn on time of multiple amplifiers in the system. The outputs are buffered by an internal relay that will allow 500 milliamps of current draw PER OUTPUT, so an external relay is not needed. A typical amplifier consumes about 100 milliamps so 5 amplifiers PER OUTPUT can be turned on. These outputs are also protected from short circuit or excess current draw by polyswitch protection devices. The polyswitch devices will take a few minutes to recover if the protection is activated.

7. AUXILIARY OUTPUTS (DELAY OFF)

B+: 12 volt Constant Source
B-: Chassis Ground
R: Remote turn-on lead

These ten (TiDD-10) or five (TiDD-5) outputs are used to power and turn on multiple system components such as crossovers, equalizers, video monitors, navigation systems, or other system components. Each output has a fused remote and B+ lead for short circuit or excess current draw protection. Corresponding LEDs on the circuit board will be lit blue (TiDD-10) or green (TDD-5) when the fuse is good, or red when the fuse is open.

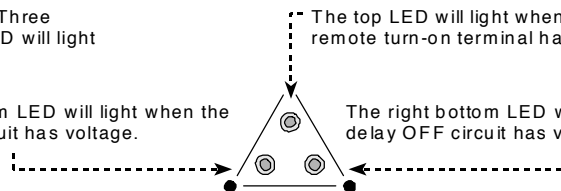
The outputs' turnoff time can be adjusted from 0 to 8 seconds by turning the Delay off potentiometer. Maximum current draw is 10 amps continuous per output. Don't use these outputs to power amplifiers.

POWER-ON LEDS Located on top of the TiDD-10 only, the Three Superbrite™ blue LEDs light when the TiDD-10 is on. Each LED will light according to remote lead or the delay turn on/off circuit.

The left bottom LED will light when the delay ON circuit has voltage.

The top LED will light when the headunit's remote turn-on terminal has voltage.

The right bottom LED will light when the delay OFF circuit has voltage.



OPERATIONAL DETAILS

The TiDD-10 and TDD-5 (Desmazes Delayeator) is designed to eliminate the spaghetti of butt connectors, relays, and heatshrink solder connections that are buried somewhere in the vehicle never to be seen. The TiDD-10 and TDD-5 allows both the remote and 12 volt power sources to be safely fused and displayed in a neat and organized fashion. It also allows trouble shooting of system problems from one simple location.

The TiDD-10 and TDD-5 also includes a revolutionary turn on and off delay system to eliminate turn on/off noises. The six delayed remote outputs are used to turn the system's amplifiers on and off. These six outputs can delay an amplifier from turning on for up to 8 seconds. It is ideal that the amplifier should always turn on last. This is because if equipment (equalizers, processors, crossovers, navigation systems, etc.) upstream from the amplifier has a turn on noise, the amplifier will not pass the noise to the speakers if the amplifier has not turned on yet. If the amplifier is off it can't pass any signal (i.e. turn on noises) from upstream components to the speakers. However, if the amplifier itself is the cause of the turn on/off noise there is little you can do to stop the turn on/off noise except for using a different amplifier.

The delayed outputs are also used to keep noisy components on for a longer period of time. This allows the amplifier to shut off first, then the other components can turn off. If the equipment upstream has a turn off noise that is sent downstream to the amplifier it won't pass the turn off noise to the speaker, because the amplifier has already turned off.

Amplifiers should TURN ON LAST and TURN OFF FIRST to eliminate turn on/off noise problems.

TITANIUM DD-10 SPECIFICATIONS

Dimensions	13.825" L by 6.5" W by 1.5" H
Type of Fuses Shipped with Unit	10 ATO style 1 amp
Number of Remote Fuse locations	10 ATO style from 1 to 10 amps
Number of B+ Fuse locations	10 ATO style from 1 to 10 amps
Number of Delayed Turn On Remote Outputs	6
Turn On Delay of Remote Outputs	0 to 8 seconds
Number of of Delayed Turn Off Aux. Outputs	10
Turn Off Delay of Aux. Outputs	0 to 8 seconds

TANTRUM DD-5 SPECIFICATIONS

Dimensions	11.0" L by 6.5" W by 1.5" H
Type of Fuses Shipped with Unit	5 ATO style 1 amp
Number of Remote Fuse locations	5 ATO style from 1 to 10 amps
Number of B+ Fuse locations	5 ATO style from 1 to 10 amps
Number of Delayed Turn On Remote Outputs	4
Turn On Delay of Remote Outputs	0 to 8 seconds
Number of of Delayed Turn Off Aux. Outputs	5
Turn Off Delay of Aux. Outputs	0 to 8 seconds



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