

# TRINITY



**5A LINEAR  
30A DYNA PULSE**



- Discharges Ni-MH or Ni-Cd sub "c" cells
- 5 amp linear discharge
- 30 amp Dyna Pulse™ discharge
- 4 or 6 cell discharging in internal tray
- 4 to 9 cell discharging with external leads
- Voltage cutoff adjustable from .2 to 1 volt
- Perfect equalization of each cell
- User friendly operating menu
- Accurate data
- Runs on 2 "AA" batteries, no power supply needed

Cell data				
T	V	C	R	
0523.3	1.29	4389	02.6	
0514.0	1.28	4312	01.6	
0525.0	1.28	4403	01.6	
0524.8	1.29	4402	01.6	
0527.6	1.28	4425	01.7	
0514.0	1.28	4312	01.8	

When used in the internal mode the DPD displays individual cell data.

**T = Discharge Time**  
**V = Average Voltage**  
**C = Capacity**  
**R = Internal Resistance**

Pack data
Cycle No:0115
30A discharge time
0514.05
Average voltage
07.73V
Resistance:011.3mΩ
Capacity:4312mAh

When charging is done the DPD will display the data for your battery pack.

**Number of Cycles**  
**30 Amp Discharge Time In Sec.**  
**Battery Pack Average Voltage**  
**Battery Pack Internal Resistance**  
**Battery Packs Capacity**



The DPD runs off 2 "AA" batteries so no power supply is needed.

Your new DPD Discharger was designed to discharge and condition your battery packs and keep their performance at the highest level for the longest number of cycles. Both Ni-Cd & Ni-MH battery packs can be discharged in side x side (in tray) or stick pack configuration (with external leads). The external function works great for discharging your Speed Spec™ packs and Dyna Pulsing them for better performance.

The DPD also employs a 5 amp linear or 30 amp Dyna Pulse™ discharge mode. Read more information on Dyna Pulse discharging at the end of the instructions.

The DPD uses menu driven software for all discharging functions. It will be displayed on the easy to read LCD screen and is fairly simply to use. We programmed the DPD with settings that are actually usable for the serious racer.

Read the instructions and become familiar with the functions before using. You will find the DPD the best tool you ever bought for taking care of your R/C battery packs.

#### GETTING STARTED:

The DPD functions on 2 AA batteries not included. On the back of the unit simply remove the battery door, install two AA batteries (spring is negative), reinstall the door and the unit is ready to function. No external power source is needed!

#### LEARNING THE BUTTONS:

1. Left Button: Power on and off.
2. Red Light: Warning, malfunction, end of discharge.
3. Upper Right Button: Scroll up.
4. Middle Right Button: Select.
5. Lower Right Button: Scroll down.
6. Levers: Up for installation of battery pack, levers pushed forward or down to lock.
7. External Wires: For discharging an external battery as one unit. *You cannot discharge two batteries at one time or ever connect the external wires to an internal pack while the unit is in operation!*



## BATTERY CONFIGURATION:

There are six cell slots, from left to right. Slot one is for cell one, slot six is for cell six when looking at the data.



It is important that for six cell use, your positive connection tab is lower right.



In four cell mode the positive connection tab is lower right in cell slot four.

If the battery is installed incorrectly you will receive a warning sound and the warning light with flash until the problem is corrected. Any time during the use of this discharger, if the warning sounds and light flashes it will stop functioning until the problem is corrected. If the problem cannot be corrected turn the unit off and start over. This is a fail safe measure.

## DISCHARGING:

To power up the DPD, push the start button once. The welcome screen will appear followed by the main menu. You will have three options:

- 1: Linear: Select this to discharge at a 5 amp constant discharge rate.
- 2: Pulse: Select this to discharge at a 30 amp Dyna Pulse rate. This mode is used for conditioning your battery pack after you are through racing for the day.
- 3: Last Data: Select this for viewing the previous discharge data. Only the last discharge can be displayed. They are not saved. The previous results are viewable until you start the next discharge. Even if the unit is powered down you can still access them.

After selecting the linear or pulse discharge mode the menu will ask if you want to discharge an internal pack or external pack. Choose internal for a side x side battery pack and external for a stick battery pack. Push mode to select the type battery you are using.

### Internal Select:

After you choose internal select, it will ask you for the cutoff voltage. It is defaulted at .90 per cell. This is what we recommend for the IB 4200, Intellect 4200 GP4300 and most of the high end Ni-MH batteries being used. You can change this by pushing the scroll buttons.

After selecting your cutoff voltage press mode and the DPD will check the connections and the unit will start discharging.

### External Select:

After selecting your discharge mode the unit will again display options. This time scroll down to external pack. Connect the battery using the two external wires, Red+ Black-

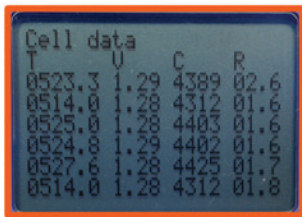


Remember you can not install the pack in the unit and attempt to discharge using external wires! External means out of the battery cradle and out side of the unit!

Now that you have selected external pack, the unit will ask how many cells are in the pack. You can select 4-9 cells. Make your selection by pushing the mode button. The unit will then ask for voltage cutoff. Again it is defaulted to .90 per cell. It will calculate .90 X 6 cells for a final pack cut-off at 5.40 volts. Press mode again to start. The DPD will start the discharge process.

#### DISPLAY:

While discharging the DPD will display the voltage of each cell as it discharges. After each discharge cycle, the final results will be displayed on the LCD Screen. First the entire pack averages will be shown and then it will be followed by each individual cell result (internal only)

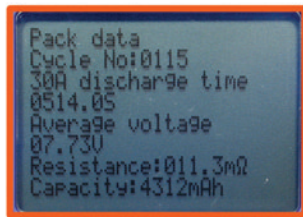


The LCD screen displays a table of cell data with columns labeled T, U, C, and R. The data is as follows:

T	U	C	R
0523.3	1.29	4389	02.6
0514.0	1.28	4312	01.6
0525.0	1.28	4403	01.6
0524.8	1.29	4402	01.6
0527.6	1.28	4425	01.7
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When used in the internal mode the DPD displays individual cell data.

**T = Discharge Time**  
**V = Average Voltage**  
**C = Capacity**  
**R = Internal Resistance**



The LCD screen displays pack data with the following text:

```
Pack data
Cycle No:0115
30A discharge time
0514.05
Average voltage
07.73V
Resistance:011.3mΩ
Capacity:4312mAh
```

When charging is done the DPD will display the data for your battery pack.

**Number of Cycles**  
**30 Amp Discharge Time In Sec.**  
**Battery Pack Average Voltage**  
**Battery Pack Internal Resistance**  
**Battery Packs Capacity**

#### TROUBLE SHOOTING:

If your battery pack is incorrectly installed polarity wise or not in contact with contact pins the alarm will sound and red light will flash. The same thing will also happen if the battery pack has a bad solder connection or bad cell. The Display will prompt you to check battery pack.

Press mode to restart and if that does not work try removing battery and replacing it in the tray to make sure it is making a good connection with the contacts.

You must wait 5 seconds before you can restart the unit.

#### MISC:

At any time you can toggle on the backlight by pushing a scroll key. The light automatically shuts off when the process starts.

#### DYNA PULSE:

The Dyna Pulse mode uses a Dynamic Pulse™ discharge which removes crystal build up inside the cell resulting in higher voltage and capacity. Use of the Dyna Pulse mode will prolong the high performance life of the battery pack and increase voltage output.

The Dyna Pulse mode discharges in 30 amp blocks followed by a cooling-down period. This prevents a heat cycle during the discharge process but provides the high amp rate discharge needed for serious racing.

Discharging a fully charged battery can take more than two hours due to the Dynamic Pulse technology. This is the only way your batteries have enough time to dissipate all the energy and prevent a heat cycle.

#### RACING TIPS:

Always immediately stop racing when your battery goes flat. If you keep racing too long, you might damage your battery.

After racing for the day, connect the DPD and Dyna Pulse discharge as soon as possible. This will give the best results for the next race day.

Charge and Discharge your battery again just before charging it for racing. Top racers do this. The pack will accept more energy when doing this and voltage will be higher.

DPD is not intended for use by children under the age of 14.

Specifications may change due to ongoing research and development.

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