



DynoTRAC User Guide

Software under Windows 95

For use with Dynojet dynamometers

Equipped with a variable brake

Dynojet[®] Research Inc.

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Dynojet DynoTRAC for use with Microsoft® Windows® 95.

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DynoTRAC User Guide



This manual is designed to help the user install and get started using the DynoTRAC software in conjunction with the optional Dynojet dynamometer variable brake hardware.

Software Installation

Note:

DynoTRAC is an addition to the WinPEP software. Therefore, WinPEP must be properly installed and configured before DynoTRAC is used.

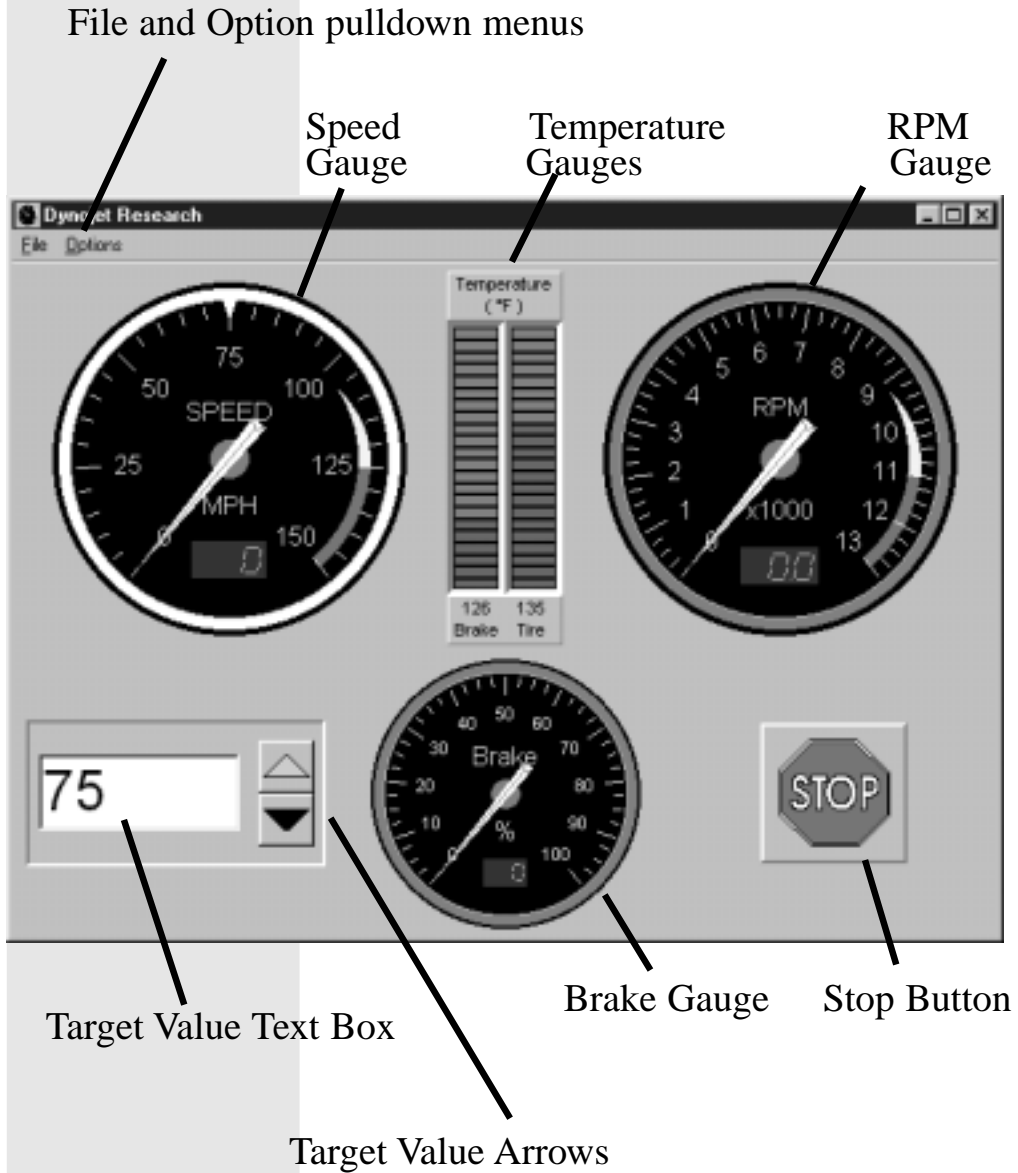
Insert the DynoTRAC install disk in drive "A:". From the start menu select "Run". Type "a:\setup.exe" and then click on the "OK" button. DynoTRAC will begin to install. DynoTRAC must be installed into the same directory as WinPEP.

Note:

The install program may ask you if you want to overwrite DynoTRAC.ini. Always choose yes unless otherwise instructed by Dynojet.

DynoTRAC Main Screen

The main DynoTRAC interface screen is shown below.



File and Option pull-down menus

File

The exit program option can be found in the File pull-down menu. You can also exit the program by clicking the X button in the far upper right corner of the main screen.

Option

Click on **Control** to select a gauge.

Click on **Gauge** to bring up the Gauge Configuration Window.

Click on **Step** to bring up the Step Size Window (Step Size is the amount the value in the Target Value Text Box is increased or decreased when an **UP** or **DOWN** Arrow is Clicked on or the up or down arrow key on the keyboard is pressed).

Click on **Rev Limit** to toggle this option on or off.

Speed Gauge

When the user selects the **Speed gauge** the braking will be based on the speed value in the Target Value Text Box.

RPM Gauge

When the user selects the **RPM gauge** the braking will be based on the RPM value in the Target Value Text Box.

Brake Percentage Gauge

When the user selects the **Brake% (Percentage) gauge** the braking will be set to the value in the Target Value Text Box.

Temperature Gauges

These gauges display the brake and tire temperatures, when the appropriate sensors are connected.

Target Value Text Box

The Target Value Text Box represents the Speed, RPM or a percentage of braking dependent on the Gauge (mode) the user has selected.

Target Value Arrows

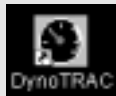
The Target Value Arrow will increase or decrease the value in the Target Value Text Box. The new value is determined by the Step Size for that particular gauge.

Stop Button

The Stop Button is used to set the brake to 100% braking.

(The Space Bar on the computer keyboard will also toggle the Stop Button on and off.)

Setup



Step 1

Double click the Icon that the installation created on your desktop. This will start the software.

Note:

DynoTRAC and WinPEP cannot be running simultaneously. You must exit WinPEP before running DynoTRAC.

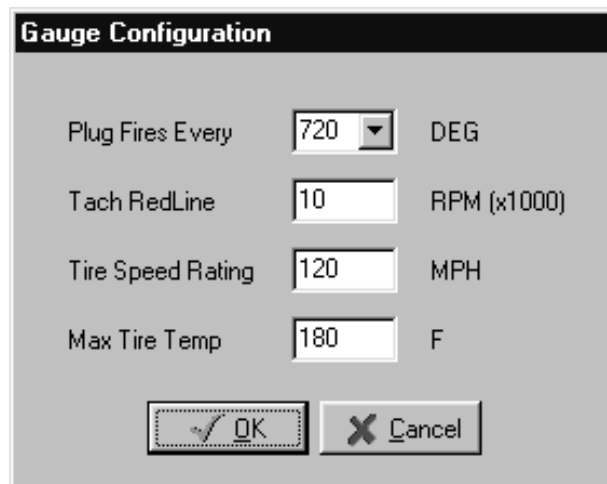


Step 2

Select Gauges from the option menu.



Enter the values for “Plug Fires Every” and the “Tach Redline” for the RPM Gauge. Enter the “Tire Speed Rating” for the Speedometer Gauge. Enter “Max Tire Temp” for the Tire Temperature Gauge.



For example:

Plug Fires Every: 720

Typical for a four cycle engine with the pickup on a spark plug wire. (Refer to the RPM Pickup section of Chapter 4 in the WinPEP User Guide for more information.)

RPM Redline : 10

For a redline at 10,000 RPM.

Tire Speed Rating: 120

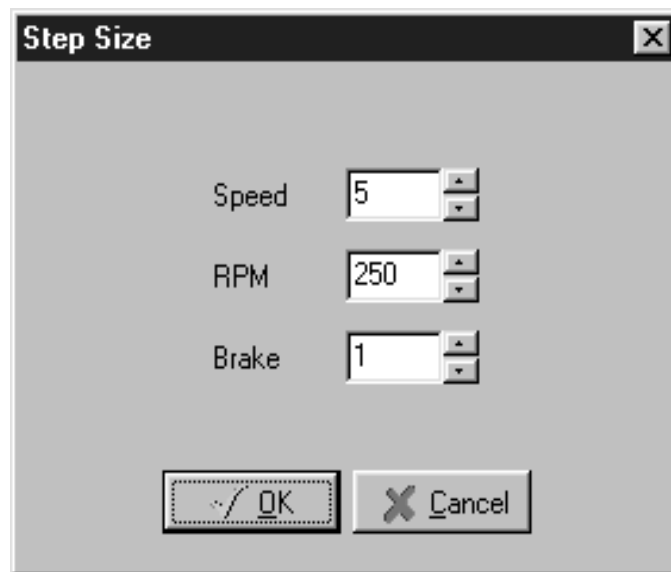
For a Speed redline at 120 MPH.

Max Tire Temp: 180

Scales the Tire Temp. Gauge for a danger indication at 180 degrees.

Step 3

Select Steps from the option menu to select the step size of the Braking Target for each gauge.



Step 4

The Options Menu allows the user to choose the Active Braking Gauge or the user can use the mouse and click on the gauge to make it active or use the Tab key to toggle through them.

Note: *DynoTRAC will maintain a specific speed, RPM, or % Braking, depending on which gauge is selected. The outer ring on the selected gauge will be white.*

For instance: RPM



Use the mouse to click the Up or Down Target Value Arrow or use the up and down arrow keys on the keyboard or click on the gauge directly to change the target value. The user can also select the value in the text box by double clicking the mouse and typing in the desired value.

For instance, enter 4500 as the target for the RPM gauge. DynoTRAC will now vary the braking to hold the engine at 4500 RPM while the brake button on the remote pendant is on.



Note:

The remote pendant can also be used to select the Active Gauge and make target value adjustments. Select the gauge by double clicking the sample (green) button. Single click the sample button to toggle back and forth between the up and down arrows. Press and hold the sample button to modify the target value by the step size.

Using the Brake

Step 1

Start the vehicle's engine and let it warm up to normal operating temperature. Verify correct tachometer operation and gauge redline values.

Put the vehicle in gear to begin the test. Shift up to the desired test gear and press the brake button on the Remote Pendant.

As the target RPM is approached the brake will begin to engage. The amount or percentage of braking will depend on the power of the engine being tested and the test gear.



Note: *As a safety precaution, if you change modes (select another gauge) while the brake button is pressed, the current value in the gauge will be copied to the Target Value Text Box.*

Emergency Stop

In an emergency, the brake can be set to 100% by clicking on the STOP button or pressing the Space Bar on the keyboard. Refer to the screen on the next page:



Brake Over Heating

The DynoWare EX+ electronics continuously monitors the brake temperature. If the brake temperature approaches an unsafe limit, the brake gauge perimeter will begin flashing red. Should this occur, stop testing and allow the brake to cool to a normal operating temperature, as indicated by the temperature gauge.

Warning!!

If the brake temperature exceeds a safe operating limit, the brake will be deactivated.

If the brake temperature exceeds the safety limit the gauge perimeter will remain red and the Brake Gauge will become the active gauge. The target value will be set to 0 (no braking). Click off the brake on the remote pendant. When the temperature of the brake has cooled sufficiently, the brake gauge will return to normal. Normal testing may now be resumed.



Rev Limit

From the option menu select "Rev Limit".



With this option enabled, if the engine reaches redline, DynoTRAC will be automatically apply full braking. When the engine RPM drops below redline, normal brake operation resumes. (This feature operates whether or not the pendant brake button is on.)



Exiting DynoTRAC

To exit the program:

Bring the dyno to a complete stop. (This may be done by clicking on the stop button.)

Select EXIT from the File menu and the program will close.



Warning!!

Exiting DynoTRAC while the pendant brake button is on, will fully engage the brake.