App Guide

Section 1: Installing

1. Install the Progression Ignition Tuner v2 app on your phone or tablet. It is available for iPhone/iPad on the Apple App Store and for Android devices on the Google Play Store.
2. Open the app. When the app is opened for the first time, it will ask you to give some permissions. You MUST grant these permissions for the app to work. Also, Location services MUST be turned on in your phone's settings.

Section 2: Main Screen

The Bluetooth status bar tells you about your Bluetooth connection and lets you control it.

- ***STATUS*** - Bluetooth Off

Go to your phone settings and turn Bluetooth ON.

- ***STATUS*** - Disconnected

Press CONNECT to go to the scan screen. Press SCAN to scan for any distributors within range. Power to the distributor must be **ON** to connect to the app. Press CONNECT next to the name of your distributor to connect to it. The first time you connect to a distributor , it will ask for the PIN number. The PIN is printed on the paper tag that came with the distributor. Every distributor has a unique PIN so **DO NOT LOSE IT!** If you lose the PIN and you have a user profile in the app, log in and press the VIEW PINS button to see your PIN. See Profile instructions below. **It is highly recommended to create a user profile for this reason!**

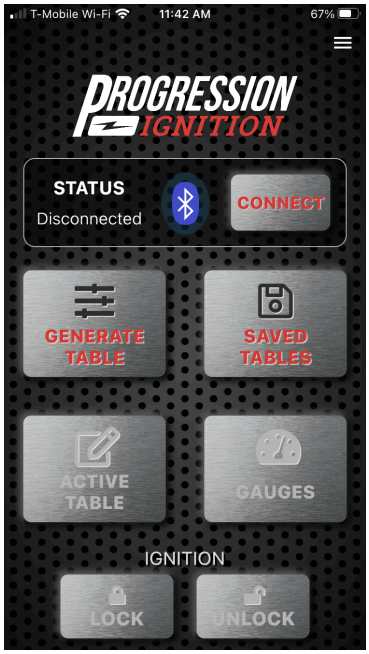
- ***STATUS*** - Connected

App is connected to the distributor.

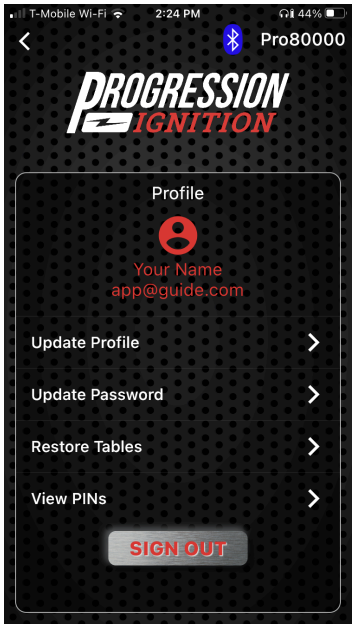
- ***STATUS*** - Searching

The app will automatically reconnect to the distributor it was last connected to whenever it is detected. Press STOP to prevent this.

- ***GENERATE TABLE*** - Press to create a new timing table. See Section 3.
- ***SAVED TABLES*** - Press to open the folder where all saved timing tables are stored. See Section 5.
- ***GAUGES*** - Press to open a screen that displays ignition timing, RPM, MAP, vacuum, speedometer in real time when the engine is running.
- ***ACTIVE TABLE*** - **IMPORTANT!** This button ALWAYS displays the table that is currently running the engine.
- ***IGNITION LOCK***- this is a theft prevention feature that prevents the engine from starting.
  - ***LOCK***- This button begins the lock process and starts a 20 second countdown. You MUST turn the key off before the countdown ends for the lock to be complete. When locked, **THE ENGINE WILL NOT START**.
  - ***UNLOCK*** - This button unlocks the ignition and the engine can start normally.
  - There is no way to physically bypass the ignition lock. The distributor will not fire any sparks until it is unlocked with the app which is secured with a unique PIN known only to the customer.

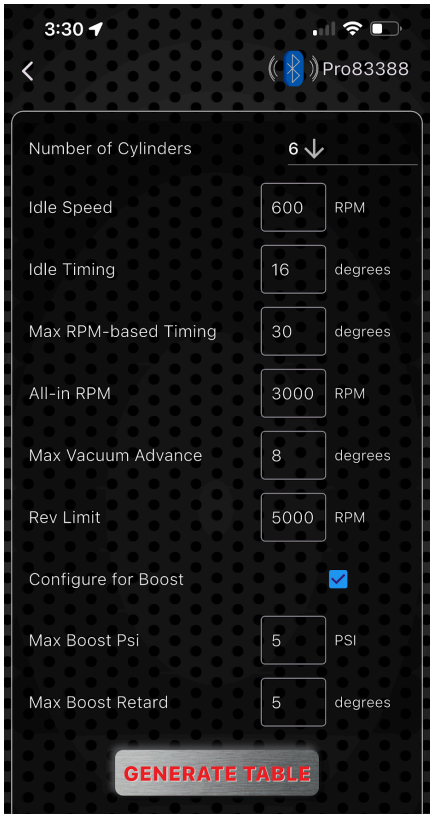


- **Settings Menu-** Press the menu icon in the upper right corner of the screen.
  - **Profile**- create an account to access the cloud backup features. When signed in, all tables and PIN numbers will be backed up to cloud storage. You can restore tables from cloud storage so all of your devices can access your tables. Also, you can share tables with other users. Also you can view your PIN if you forget it or need to unlock the ignition with another phone. **YOU MUST CREATE AN ACCOUNT AND BE SIGNED IN FOR CLOUD BACKUP TO WORK!!**
  - **Online Manuals**- View the instruction manuals
  - **Table Background**- choose the color of the table background
  - **Gauge Style**- customize the Gauges screen to look how you want.



Section 3: Generate Table

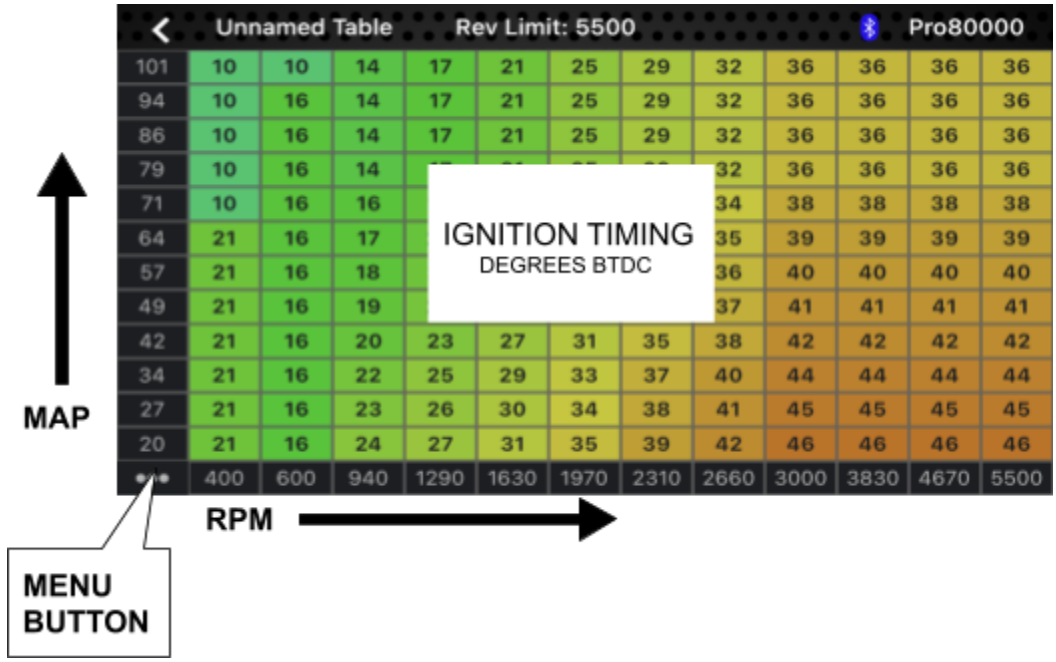
The generator allows you to enter some basic information and create a custom timing table. The default values are typical for a mild performance V8. Keep in mind that the distributor has a range from 10 degrees BTDC to 50 degrees BTDC. Cranking is always at 15 deg. BTDC and is not adjustable.



- **Number of Cylinders**- Select the number of cylinders in the engine. 4, 6 or 8.
- **Idle Speed**- Enter the RPM that your engine typically idles at when warm in Park/Neutral.
- **Idle Timing**- Enter the desired timing at the idle speed you entered in the previous step.
- **Max RPM-Based Timing**- Enter the max timing you want at wide open throttle. This is roughly equivalent to “centrifugal” advance + initial timing in a traditional distributor. Typical value is 30-36 in a small block engine.
- **All-In RPM**- This is the RPM at which the Max RPM Based Timing will be reached.
- **Max Vacuum Advance**- Enter how many degrees of vacuum advance will be added at high vacuum.
- **Rev Limit**- The rev limiter will cut the spark at the specified RPM. Range is 2000-9990 RPM.
- **Configure for Boost-** Check this box to make a table for a turbo/supercharged engine.
- **Max Boost Psi**- Enter the highest boost level you want to tune for in PSI.
- **Max Boost Retard**- Enter the number of degrees of timing retard when at the Max Boost Psi.
- ***GENERATE TABLE***- Press to generate the table and view it. **The table will NOT be sent to the distributor until you press the Send or Save button.** See Section 4.

Section 4: Table Editor

1. The table editor allows you to change the ignition timing, and also lets you change the RPM and MAP values. MAP stands for manifold absolute pressure. See the Tuning Guide for a detailed explanation of MAP. **Wide open throttle is at the top of the screen and high vacuum is at the bottom.** Changes happen instantly and can be made with the engine running or not. **IMPORTANT!** Pressing the button in the lower left corner brings up the menu.



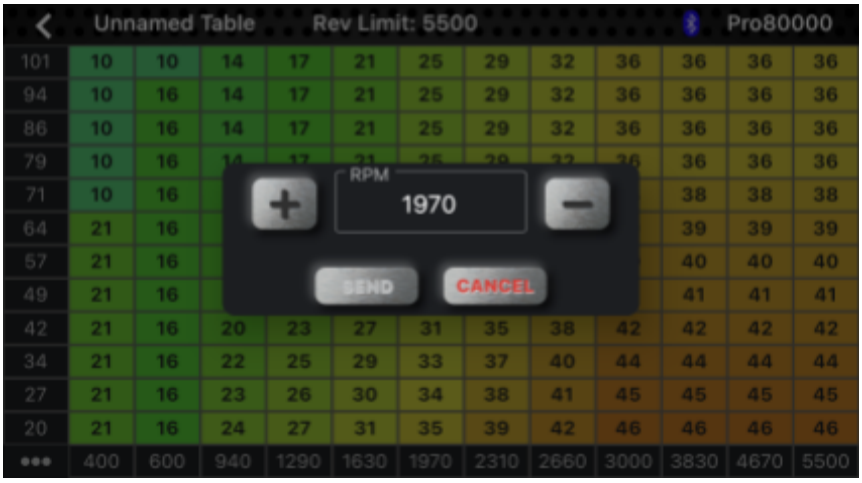
MAP \ RPM	400	600	940	1290	1630	1970	2310	2660	3000	3830	4670	5500
101	10	10	14	17	21	25	29	32	36	36	36	36
94	10	16	14	17	21	25	29	32	36	36	36	36
86	10	16	14	17	21	25	29	32	36	36	36	36
79	10	16	14					32	36	36	36	36
71	10	16	16					34	38	38	38	38
64	21	16	17					35	39	39	39	39
57	21	16	18					36	40	40	40	40
49	21	16	19					37	41	41	41	41
42	21	16	20	23	27	31	35	38	42	42	42	42
34	21	16	22	25	29	33	37	40	44	44	44	44
27	21	16	23	26	30	34	38	41	45	45	45	45
20	21	16	24	27	31	35	39	42	46	46	46	46

2. Pressing a timing cell brings up the Selection Menu at the top of the screen as shown below. To select more than one cell, press another cell in any direction. The app will select all cells in between, as if the two selected cells were the corners of a rectangle.

MAP \ RPM	400	600	940	1290	1630	1970	2310	2660	3000	3830	4670	5500
101	10	10	14	17	21	25	29	32	36	36	36	36
94	10	16	14	17	21	25	29	32	36	36	36	36
86	10	16	14	17	21	25	29	32	36	36	36	36
79	10	16	14	17	21	25	29	32	36	36	36	36
71	10	16	16	19	23	27	31	34	38	38	38	38
64	21	16	17	20	24	28	32	35	39	39	39	39
57	21	16	18	21	25	29	33	36	40	40	40	40
49	21	16	19	22	26	30	34	37	41	41	41	41
42	21	16	20	23	27	31	35	38	42	42	42	42
34	21	16	22	25	29	33	37	40	44	44	44	44
27	21	16	23	26	30	34	38	41	45	45	45	45
20	21	16	24	27	31	35	39	42	46	46	46	46

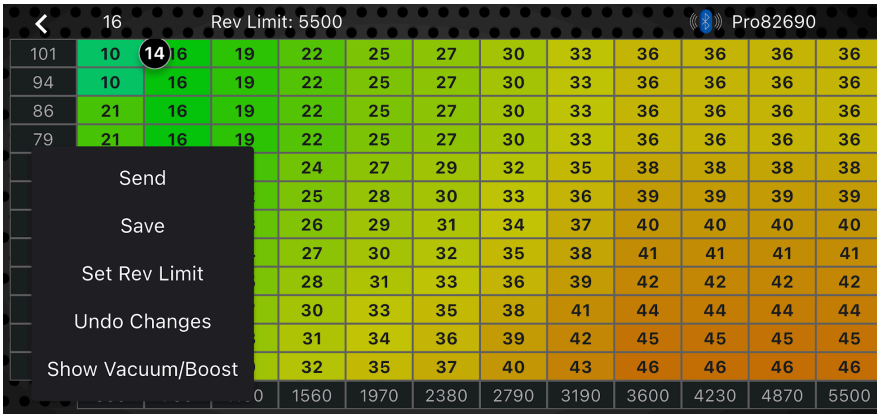
- Pressing the **+** or **-** button increments the selected cells up or down by one degree.
- The **Edit** button allows you to enter a value that is applied to all selected cells.
- The **Send** button transmits the edited table to the distributor. **IMPORTANT- The table is not saved until you press the Save button in the corner Menu. If the key is turned off you will lose your changes.**

3. To change a RPM or MAP value, simply press the desired cell to bring up the edit window as shown below.



- Pressing the **+** or **-** button increments the value up or down. Double tap the number field to bring up a keyboard to type in a new value.
- The **Send** button transmits the edited table to the distributor. **IMPORTANT- The table is not saved until you press the Save button in the corner Menu. If the key is turned off you will lose your changes.**

4. Pressing the button with three dots in the lower left corner brings up the corner menu as shown below.



- **Send**- The **Send** button transmits the table to the distributor. The distributor will IMMEDIATELY use this table to run the engine. However, if you turn off power to the distributor, the table will be lost from distributor memory.
- **Save**- The **Save** button also transmits the table to the distributor AND saves it in distributor permanent memory AND saves it to phone memory. **If you want the distributor to keep the changes you have made you must press Save!!!** The distributor can only store ONE table in its permanent memory. The app will store all saved tables in the Saved Tables folder accessible from the Main screen. See Section 5. Pressing the **Save** button allows you to name the table as well. If you wish to save changes to a table but also keep the table you started with, you must give the new table a different name.
- **Set Rev Limit**- This allows you to change the RPM at which the rev limiter cuts spark. **Press Save if you want to permanently keep this change!**
- **Undo Changes**- This gives you a way to revert to the table that was last saved. For example, you are running the engine and you make a change and press **Send**. Then, if you decide that you don't like the change, press **Undo Changes** to revert to the table that you saved last.
- **Show Vacuum/Boost**- This displays a vacuum/boost gauge on the table screen when the engine is running. You can drag it around the screen with your finger to place it where you want. Press Hide Vacuum/Boost to remove it.

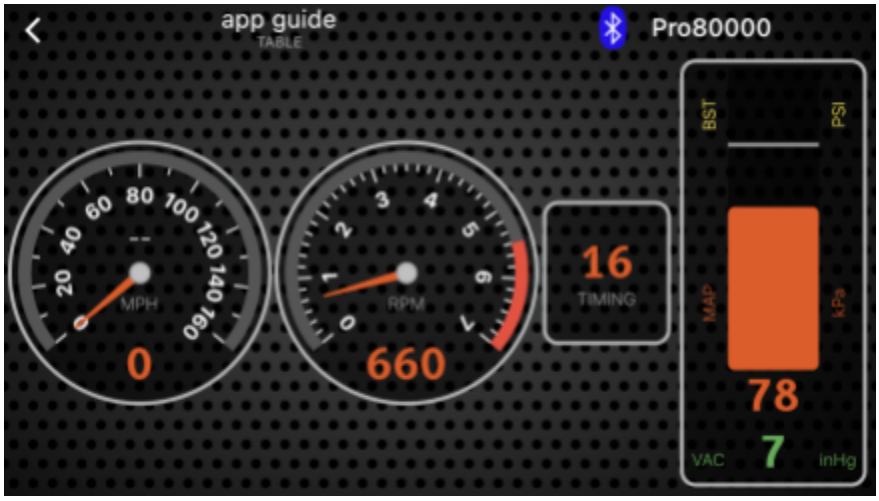
Section 5: Saved Tables

Pressing the ***SAVED TABLES*** button on the Main screen brings up the list of tables that you have saved. There are 3 sections.

1. **Phone**- These are tables that you have saved in your phone memory.
2. **Shared**- These are tables that have been sent to you from other app users.
3. **Example**- These example tables can be used as a starting point for tuning or just for seeing what a table for a specific application may look like. If you don't know what generator values to use you can try one of these tables based on what type of engine you have.
    - **IMPORTANT!** If you press a table name, it will open the table screen but it will NOT transmit to the distributor until you press **Send** or **Save** in the corner menu.
    - To delete a table, press the trashcan icon.
    - Press the Share icon to send a table to another user. Enter the email address of the recipient. The recipient must have the app and have created a user profile using that email address.

- When a table is saved repeatedly, the old version is overwritten with the new one. If you don't want to overwrite the old version, you must change the name when you save it.

Section 6: Gauges



The Gauges screen displays the real time data stream from the distributor. You can customize the gauges using the settings menu on the main screen.

- The speedometer uses the phones GPS data for speed
- The intake manifold pressure gauge can display 3 different values. See the Tuning Guide for a detailed explanation of MAP, vacuum and boost.
    1. **MAP** - The orange number is manifold absolute pressure in kPa. This comes straight from the MAP sensor built in the distributor.
    2. **VAC**- The green number is vacuum in in/Hg. This is the same as a traditional vacuum gauge. This feature uses the phones barometer/altitude data for an atmospheric pressure reference and then converts the MAP number to vacuum. If the phone data/GPS is not available then no number will be shown.
    3. **BST**- The yellow number is boost in PSI. This is the same as a traditional boost gauge. This feature uses the phones barometer/altitude data for an atmospheric pressure reference and then converts the MAP number to boost. If the phone data/GPS is not available then no number will be shown.