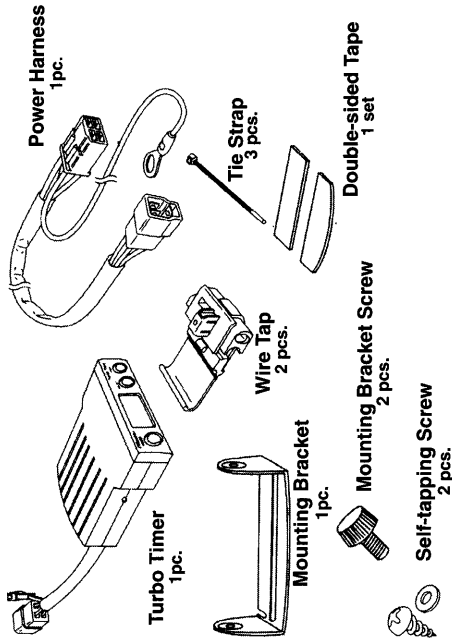


1.0 Parts List

Important

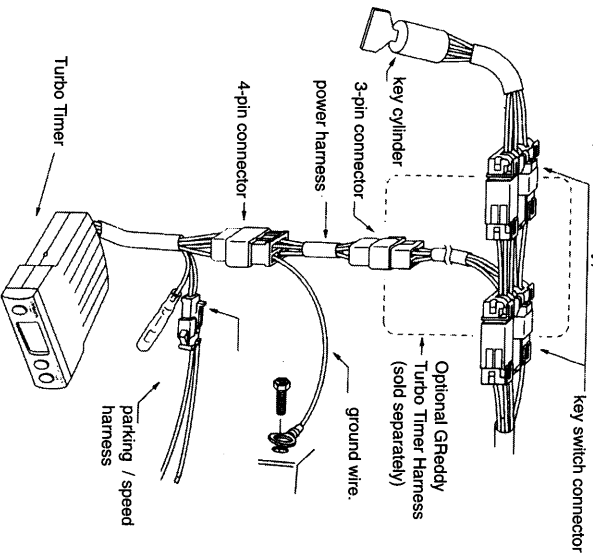
Please check the list below to make sure you have all of the following part before you proceed. If you are missing parts please contact the GReddy Authorized Dealer you purchased the unit from.



| Minimum Tools Required | Tools for a Professional Installation |
|--|---|
| <ul style="list-style-type: none"> • Pliers • Dikes • Phillips and Flat Screw drivers • 10mm Wrench • Wire Tester (15v-min) | <ul style="list-style-type: none"> • Soldering Iron & Solder • Drill and Drill Bits • Electrical Tape • Wire Connectors |

2.1 Installation (using Optional Turbo Timer Harness)

- (1) Follow the key switch to it's electrical connector, then unplug the harness and place the Optional Turbo Timer Harness in-line with the key switch harness.
- (2) Connect the supplied power harness in between the 3-pin connector of the optional harness and the 4-pin connector of the Turbo Timer. Then connect the black wire with the loop connector to a good chassis ground. (to steel body)
- (3)

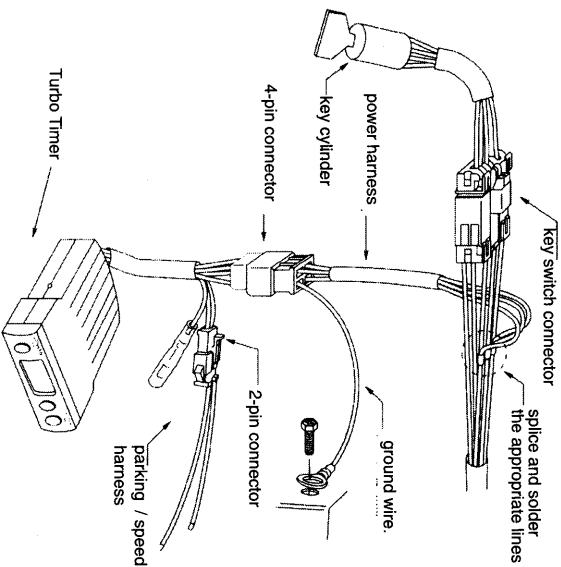


Important!

A bad ground connection can lead to a mechanical failure, therefore please attach the ground to a non-painted surface of the vehicles steel body.

2.2 Installation (without Optional Turbo Timer Harness)

- (1) Follow the key switch to it's electrical connector, then unplug the harness. Find the appropriate wires with either a factory service manual or a volt meter. (see 2.3 for wiring)
- (2) Cut off the 3-pin connector on power harness. Then splice and solder the appropriate wires to the power harness. (be sure to cover connections)
- (3) Then connect the black wire with the loop connector to a good chassis ground. (to steel body)
- (4) Reconnect the key switch harness.



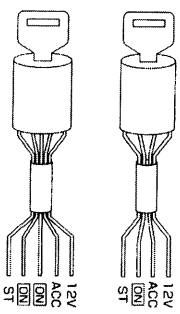
Important!

A bad ground connection can lead to a mechanical failure, therefore please attach the ground to a non-painted surface of the vehicles steel body.

2.3 Wiring Diagram

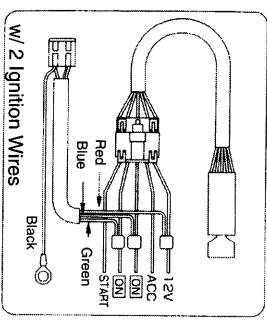
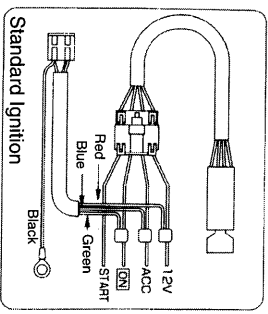
The wires coming out from the key switch usually consist of:

- 12 v** - 12 volt constant power
 - ON** - Ignition power
 - ACC** - Accessory power
 - ST** - Starter signal
- Other than these four wires, the vehicle may have two ON wires.



Wiring Procedure:

- (1) Cut the Power harness close to the 3-pin connector
- (2) Use a volt meter or test light to find the appropriate wires. Connect the Red wire to the 12v, the Green to ON, and the Blue to ACC using solder.
- (3) Cover all connections carefully with electrical tape.



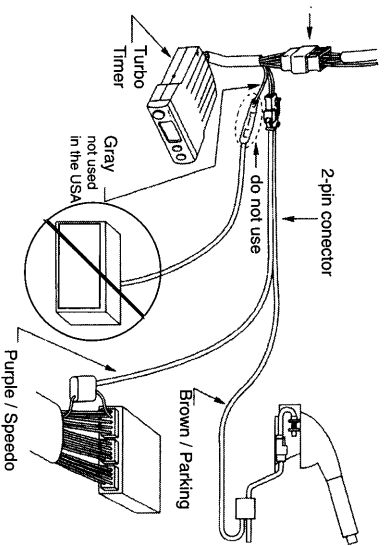
Warning

With vehicles that have 2 ignition (ON) wires, connect the Green wire to the ignition (ON) wire which does not drop voltage when the starter is activated. Then connect the Blue wire to the other ignition wire.

2.4 Harness Connections

Parking Brake Feature:

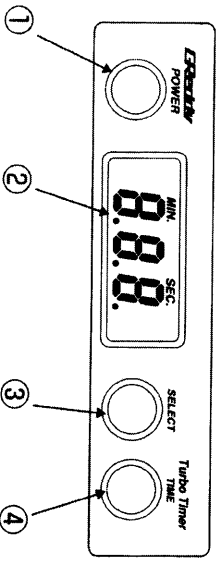
- (1) Remove the cover over the parking brake and find the parking switch wire(s). (See your factory service manual)
 - * If there is one wire, make sure the wire:
 - shows 0 volts, when the parking brake is engaged, and shows 12 volts, when the parking brake is released.
 - * If there are two wires, find the wire that:
 - shows 0 volts, when the parking brake is engaged, and shows 12 volts, when the parking brake is released.
 - (2) Route the Brown wire from the 2-pin connector to the parking brake switch you found in (2).
 - (3) Route the Brown wire from the 2-pin connector to the parking brake switch you found in (2).
 - (4) Connect the Brown wire to the wire found in (2)
 - (5) Replace the parking brake cover.



Speedometer / Autotimer Feature:

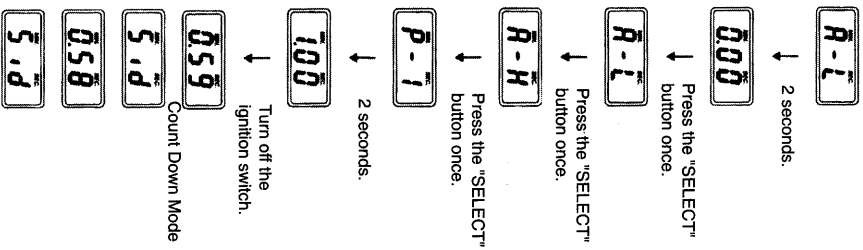
- (Some vehicles do not have a speed signal to connect)
- (1) Check you factory service manual for the proper speed signal wire.
 - (2) Access the speed signal wire on the ECU harness.
 - (3) Connect the Purple wire to the speed signal wire.

Note: This feature should only be attempted by a trained mechanic, serious electrical damage can result from improper installation.



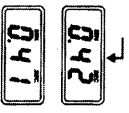
- (1) POWER switch**
 - * Turns ON or OFF the Turbo Timer
 - * Used to set-up or delete
 - * Shuts off engine and timer during count down
- (2) Display**
 - * Displays Set-up time, Count-down time, and Voltage
 - * Displays each Mode
 - * Displays Set-up conditions
- (3) SELECT switch**
 - * Used to change the count-down mode
 - * Used to switch between Voltage Mode and Music Creation Mode
 - * Used to return back to Mode Display from either Count-down mode or Voltage Mode
 - * Used to forward (or reverse) the note while creating music
 - * Used for misc. set-ups
- (4) TIME switch**
 - * Used to change the count-down time and set-up time
 - * increases count-down time during Count-down
 - * Used for misc set-ups

- (1)** Engage parking brake. Manual Transmission: Place into Neutral (Automatic Transmission: Place into Park). Start the engine. Make sure the Turbo Timer powers up with the music and display lights operating. (note: The Turbo Timer may be turned "Off" so, press the "POWER" button once to turn on the unit)
- (2)** Next, check to see if the Turbo Timer displays [000] after the the initial [A-L] is shown.
- (3)** Press the "SELECT" button once, the display will go back to [A-L]. Press the "SELECT" button again, the display will change to [A-H]. Press the "SELECT" button again, and the display will show [P-1]. Then wait, [P-1] will change to [1:00]
- (4)** First depress the brake pedal, so that the car does not roll, then turn the ignition "Off" with the key switch.
- (5)** The Turbo Timer will then give a warning "Beep" and display [Sid] Next the unit should begin the counting-down mode.



4.2 (cont.)

- (6) Re-engage the Parking Brake. Check to see if the [SId] display disappears and the unit continues to count-down.

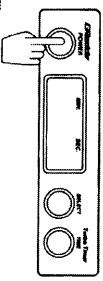


- (7) Now release the Parking Brake. the count down should stop and [OFF] displayed. Then the Timer and engine should immediately turn off.

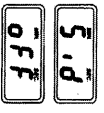


4.3 Eliminating the Parking Brake Feature

If you do not connect the (brown) Parking Brake line, you may disable this feature by doing the following:

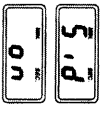


- (1) Turn the ignition key switch "OFF"
- (2) Press and hold down the "POWER" button, while turning on the key switch. Keep the button depressed for 2 seconds.



Parking Brake Function OFF

- (3) The display will show [SId] then either:
[OFF] - Function Disabled
[on] - Function Abled



Parking Brake Function ON

Important!

When packaged, the Parking Brake Feature is Active. By pressing the "SELECT" button once during the warning [SId] count-down you will stop the warning tone for that count-down. (You must follow the above to eliminate the warning.)

4.4 Speed Signal Function (Check)

Warning!

Before moving your vehicle, be sure that the area around your vehicle is clear. If not, you may cause an accident.

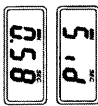
- (1) Go over check procedure 4.3 "Parking Brake Feature Check" before continuing.



Turn off the key switch



Count down mode



- (2) Carefully, place the vehicle into gear and move the vehicle slowly. The [OFF] sign should display and then the Turbo Timer and engine should then turn off.



During count down, place the car in gear and move the vehicle.

- (3) This concludes the check procedures:

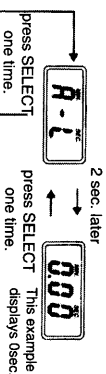


Timer and engine should turn off.

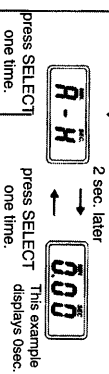
If the Turbo Timer did not power up, or these safety features are not working, please recheck all the wiring connections and then contact your Authorized GReddy Dealer.

4.5 Basic Operations

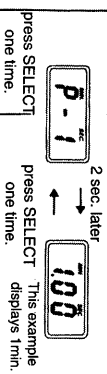
Count Down Mode Display Count Time Display



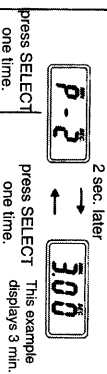
Auto Timer Lo Mode
counts down with the auto-matically preset time.



Auto Timer Hi Mode
counts down with the auto-matically preset time. (but longer than Lo Mode)



Manual Mode P-1
counts down with the preset time (1:00 standard but this can be changed.)



Manual Mode P-2
counts down with the preset time (3:00 standard but this can be changed.)



Volt Meter Mode
displays the battery voltage.



Music Creation Mode
allows you to program your own original music



Off Mode
by pressing the power switch during any count down modes, the Turbo Timer and engine will shut down.

5. Auto Timer Mode

Auto Timer Mode automatically calculates a suggested count down time for your vehicle, according to your car's RPM. You may also choose 2 count down time offset ratios. This will add a preset time to your calculated count down time.

The Turbo Timer begins calculating, when your RPM reaches approximately 3000 RPM for **LO** mode(2000 RPM for **HI** mode)

A minimum value can be set from 0 sec. to 1.3 min. by increments of 10 sec. The minimum factory setting is 0 sec.

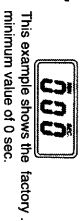
5.2 Setting the Auto Timer Minimum Amount

- (1) Press the **SELECT** switch to display **A-L** or **A-H**. Two sec. later, the current minimum offset value will be displayed.



↓ 2 sec. later

- (2) By pressing the **TIME** switch (once), you can increase the minimum value by 10 sec. increments

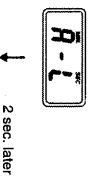


- (3) By holding down the **TIME** switch, you can increase the minimum value by 1 min. increments



↓ 3 sec. later

- (4) 3 sec. after releasing the **TIME** switch, the unit will alert a confirmation beep. Then the unit will switch back to **A-L** or **A-H** mode. (2 sec. later the current minimum value will be displayed.)

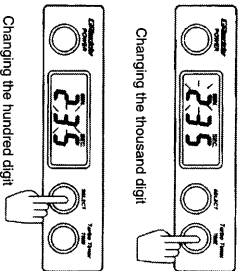
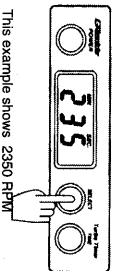
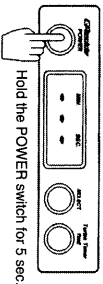


This example shows the factory minimum value of 13 sec.

5.3 Setting the Engine RPM

In order to set this function you will need to monitor your engine tachometer.

- (1) Start the engine with the power turned off on the Turbo Timer. Hold the POWER switch for 5 sec.
- (2) The Turbo Timer will then display the RPM signal it reads. Raise and hold the RPM of the engine to a steady state between 2000-3000 RPM, and press the SELECT switch once.
- (3) The first digit on the display will begin to flash. You can now use the TIME switch to match the display of the first digit to your tachometer's display. Then press the SELECT switch lock that value and move to the next digit.



- (4) Repeat step (3) until the Turbo Timer and tachometer values match.
- (5) After you are done setting the display, press the POWER switch. It will display off and then it will shut down and save the calibration.

Important!

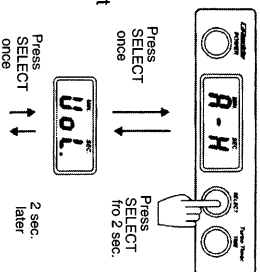
If you input a higher RPM signal than you tachometer reading, you can start the auto timer calculation at a lower starting RPM.

6. Voltmeter Mode

This feature displays the "real-time" battery voltage. The count down mode can still be activated while still in Voltmeter Mode. When the key switch is turned off, the count down will activate, even if the unit is in Voltmeter Mode.

Switching to Voltage Display Mode.

- (1) Press the SELECT switch for 2 sec. while in the Count Down Mode.
- (2) 2 sec. later, the Turbo Timer will display VOL, "beep" and then display the current battery voltage.
- (3) If you wish to exit the Voltage Mode, press the SELECT switch once while the unit is displaying the voltage. The unit will then display VOL. Press the SELECT switch again and it will return to Count Down Mode.

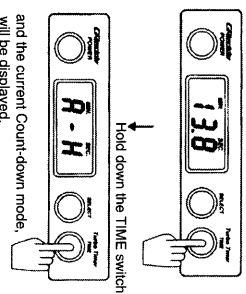


This example shows battery voltage of 13.8 volts

Confirming the Count Down Mode

(A-L, A-H, P-1, or P-2)

- (1) While in Voltmeter Mode, hold down the TIME switch. Then the current Count Down Mode will be displayed.
- (2) Release the TIME switch and the unit will return to the current voltage reading.



7. Manual Mode (P-1 / P-2)

This mode will count down to a pre-programmed time. The count-down time can be programmed from 0 sec. to 9 min, 59 sec in 10 sec intervals. There are two programmable settings: P-1 and P-2 which can be set. Factory setting for : P-1 is 1 min, P-2 is 3 min.

7.1 Programming a Manual Mode Time

- (1) Press the SELECT switch once to display either P-1 or P-2, 2 sec. later the current count-down time will be displayed.



After 2 sec.



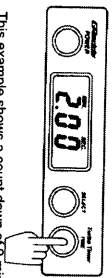
This example shows a count down of 1min.

- (2) By pressing the TIME switch, you can toggle up the count-down time by 10 sec.



This example shows a count down of 1min 10sec.

- (3) If you hold down the TIME switch, the count-down time will increase by 1 min.



This example shows a count down of 2 min.

- (4) 3 sec. after you release the TIME switch, the display will change back to either P-1 or P-2. Then 2 sec. later the display will confirm the new count-down time.



After 3 sec. the value is then set

After 2 sec.



This example shows a count down of 2 min.

8. Music Creation Mode

With this mode you can create your own original music (Melody/Key/Function) Music can be made within 2 octaves with a maximum of 99 notes. The presetted Count-down mode will operate in this mode when the key switch is turned off.

Switching to Music Creation Mode.

- (1) Press the SELECT switch for 5 sec. while in the Count Down Mode or Voltage Mode (it will display Vol., but continue to hold.)



Press and hold SELECT for 5 sec.

- (2) It will then display Snd



Continue to hold the SELECT switch.

- (3) Press the TIME switch once, it will then display PLY and play the current programmed music. Then it will display Snd. (If it is playing original music and you press the TIME switch during the music playback, the display will show the notes being played.)

- (4) If you press the TIME switch for 2sec. it will display the note #

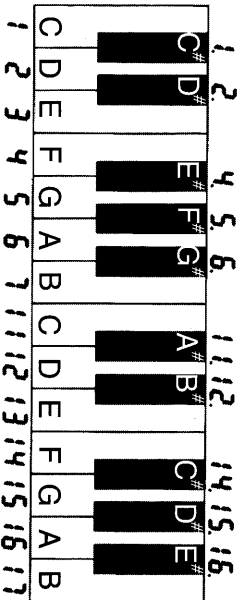
- (5) By pressing the SELECT switch once more, the display will return to the display it showed before you were in Snd mode.



"Sound of the Note"
This example shows the note of C#



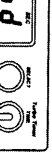
Skip



"Length of the Note"
This example shows 1/4 Note

| | |
|-----------|---|
| Full Note | 0 |
| 1/2 Note | 2 |
| 1/4 Note | 4 |
| 1/8 Note | 8 |
| 1/16 Note | 6 |
| 1/32 Note | 3 |

8.2 Programming the Music Notes

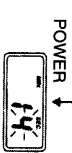


key of note length of note

2 sec. later
Hold TIME switch for 2 sec.



Press POWER = SELECT for 3 sec.



- While in the **Snd** mode, press and hold the **TIME** switch for 2 sec., the display will change to the note number.

- 3 sec. later you may then change the note by using the **TIME** switch.
 - If you press both the **POWER** and **TIME** switches at the same time the notes will change in the reverse order.
 - By continuing to press the **POWER** switch the unit will change to notes one octave higher.

- Then if you press the **POWER** switch once, the display will show the length of the note. By pressing the **TIME** switch you can also change the length of the note.
 - By pressing the **POWER** and **TIME** switch simultaneously the note length will change in reverse order.

- Holding down the **SELECT** switch will change the display to the next note.
 - By pressing the **POWER** and **SELECT** switch simultaneously, the unit will display the previous note.
 - By continuing to press the **SELECT** switch the unit will fast forward through the notes.

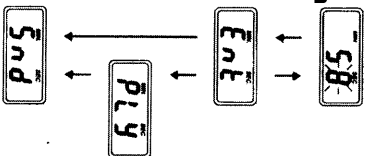
- Repeat steps (2) - (4) until your music is complete.

8.2 Programming the Music Notes (cont.)

(6) After you are done entering the notes, press the **POWER** switch for 5 sec. and the unit will display Ent.

- (7) While in the Ent mode,
- * Press the **POWER** switch once, it will now display PLY and begin to play the notes that have been programmed. After play-back the unit will go back to the Snd display.
 - * The music can be used when the last note number changes to Ent.
 - * Or while the music is playing back, press the **SELECT** switch once, and the unit will change instantly to display Snd again.
 - * Or by pressing the **TIME** switch once, it will return to Note number display.

To activate music function
See 8.4 and/or 8.5



Important!

While in the Ent mode, if you press the **POWER** switch once, you will change to Snd and the notes before the Ent will be deleted!

8.3 Correcting, Entering, & Deleting Music

From the **Snd** mode, you can change it to the Note Number:

(1) **For correction...**

Switch to the note number that you wish to correct. Then enter the new note and length.

*Example:

Change C,D,E,F, to C,D,G,F
display E and enter G

(2)

For Entering...

Move to the next note number where you wish to insert a note. Press and hold down the **SELECT** switch and then press the **TIME** switch. The display will now show the new note number.

*Example:

Change G,A,B,C to G,A,G,B,C
Display C and use the programming procedure to insert G.

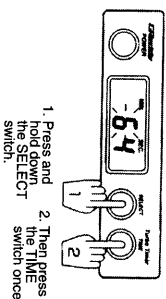
(3)

For Deleting...

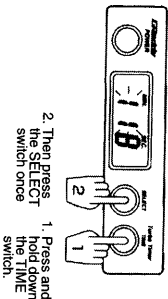
Go to the note number that you wish to delete. Press and hold down the **TIME** switch and then press the **SELECT** switch. The current note number will disappear and the next note number will then appear.

*Example:

Change C,B,A,G to C,B,G
Display A and follow the above procedure.



1. Press and hold down the **SELECT** switch once.
2. Then press the **TIME** switch once.



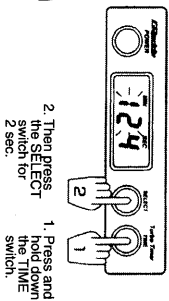
1. Press and hold the **TIME** switch.
2. Then press the **SELECT** switch once.

(4) For Deleting Everything...

Move to the beginning note number
Press and hold down the **TIME**
switch and then press the **SELECT**
switch for 2 sec. Then all the notes
after the beginning note number will
be deleted.

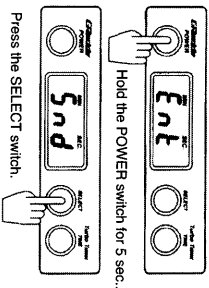
*Example

Change C,D,E,F,G,A,B,C to C,D,E
Display F and follow the above
deleting procedure.



Now press the **POWER** switch for 5 sec. to return to Ent.

Then press the **SELECT** switch once to return to Snd.



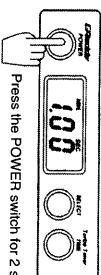
Important!

Always return to Snd display by pressing the **SELECT** switch. If you press the **POWER** switch to return to Snd display, all of the notes after the correction, entering, and deleting will not be saved.

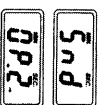
To activate music function see 8.4 and/or 8.5

When the Turbo Timer Powers up, you can choose the opening music. (Factory Programmed Music, User Programmed Music, or No Music)

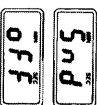
(1) While in a Count-down Mode, press the **POWER** switch for 2 sec.



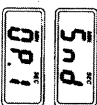
(2) The display will show Snd then the next opening music selection - OP.2 (the Factory Programmed Music)



(3) Repeat step (1) and the display will show Snd, then the next opening music selection - OFF (No Music - silent)



(4) Repeat step (1) and the display will show Snd, then the next opening music selection - OP.1 (Your Programmed Music)



(5) Repeat until you have chosen the selection you wish to have played when you start the Turbo Timer.

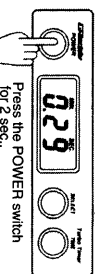
- | | |
|------|-----------------------------------|
| OP.1 | -Factory Programmed Opening Music |
| OP.2 | -User Programmed Opening Music |
| OFF | -No Opening Music |

Important!

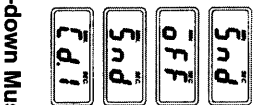
- * When packaged, the unit is pre-set with OP.1
- * If there is no User Programmed Music entered, OP.2 will not play any music.
- * While the music is playing, you may stop the music by pressing the **SELECT** switch.

8.5 Changing the Count-down Music

When the key switch is turned off, the Turbo Timer begins to count-down. While counting-down the unit can play music. (Factory Programmed Music, User Programmed Music, or No Music)



- (1) While the unit is Count-downing, press the POWER switch for 2 sec.
- (2) The display will show Snd then the next opening music selection - Cd 2 (Your Programmed Music)
- (3) Repeat step (1) and the display will show Snd, then the next opening music selection - OFF (No Music - silent)
- (4) Repeat step (1) and the display will show Snd, then the next opening music selection - Cd 1 (Factory Programmed Music)
- (5) Repeat until you have chosen the selection you wish to have played when your Turbo Timer counts down



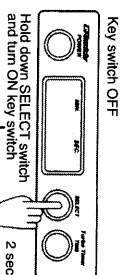
- (3) Repeat step (1) and the display will show Snd, then the next opening music selection - OFF (No Music - silent)
- (4) Repeat step (1) and the display will show Snd, then the next opening music selection - Cd 1 (Factory Programmed Music)
- (5) Repeat until you have chosen the selection you wish to have played when your Turbo Timer counts down

Important!

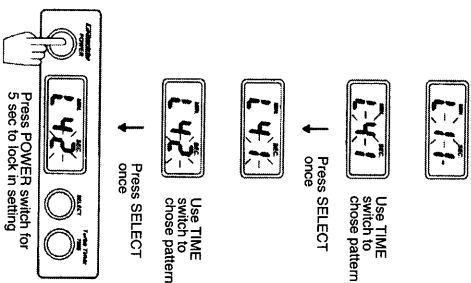
- * When packaged, the unit is pre-set with Cd. 1
- * If there is no User Programmed Music entered, Cd.2 will not play any music.
- * While the music is playing, you may stop the music by pressing the SELECT switch.

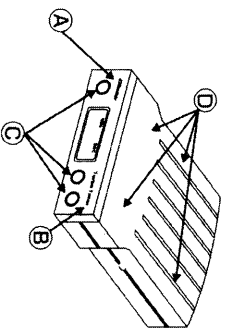
8.6 LED Controls

Opening, driving and count-down LED patterns can be changed from 5 different choices.



- (1) Turn the key switch off.
- (2) Press and hold down the SELECT switch, while you turn on the key switch. Continue to hold down the SELECT for 2 sec.
- (3) The display will show "1" and a flashing number. Use the TIME switch to change the number and the corresponding pattern when the power is on. When you have chosen a pattern press the SELECT switch once.
- (4) The number on the right side of the display will flash. Choose the appropriate pattern by pressing the TIME switch. This number will control the LED when the Turbo Timer is counting-down.
- (5) Press the POWER switch for 5 sec and the patterns will be set.





* (C), (D)
Only on Clear Turbo Timers

LED Patterns

- 1 - A,B,C,D illuminates
- 2 - A,B,C illuminates
- 3 - A,B,D illuminates
- 4 - A,B illuminates
- 5 - A illuminates

- * A - illuminates dim while the power is off
- * C - turns off when switches are pressed. Also flashes with music
- * D - illuminates and flashes according to the program
- * C & D applies only on clear Turbo Timers.

