Table of Contents

Page No.

Driving Tip: The key to a good engagement is to smoothly throttle up to and slightly past the set target speed. PerfectPass will seamlessly take over once the actual speed passes the set point. <u>Do Not</u> pull back on the handle to slow boat as you pass the set point or the over ride feature may not permit proper engagement.
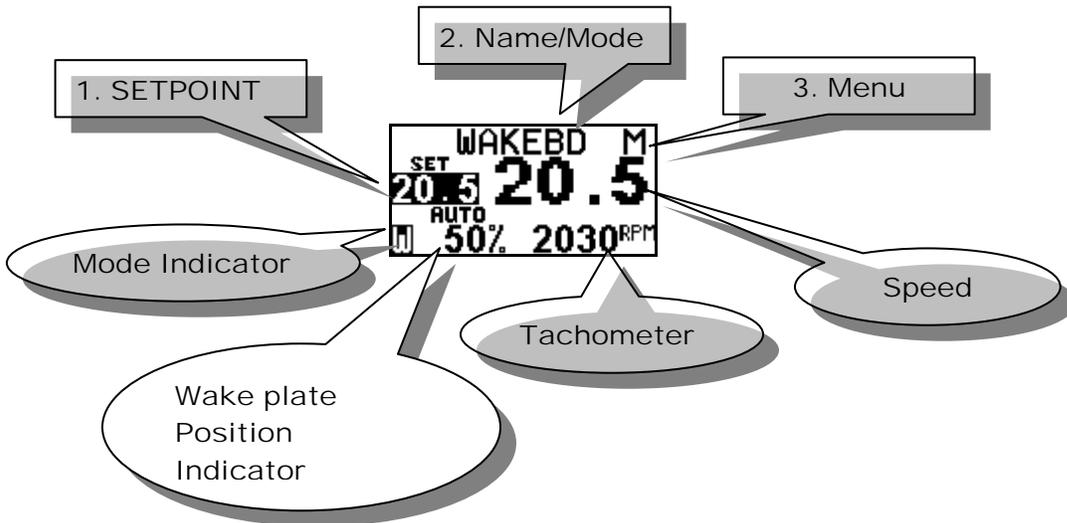
Section 1   USING WAKEBOARDPRO

There are three operating modes to choose from: (1) **Wakeboard Mode** is speed based and controls from the paddle wheel; (2) **RPM Mode** allows the user to set an RPM value; and (3) **Slalom Mode** (RPM based) allows recreational slalom skiers to enter a speed for open water skiing. (24 – 36 mph).

The ON/OFF key is pressed to turn control ON or OFF. When OFF, the Medallion LCD display will show other boat/engine data.

Typically, wakeboarders prefer the pull characteristics of the speed based Wakeboard Mode. This mode is designed for speeds 25 mph or lower. Open water skiers at higher speeds should use the RPM or Slalom Mode.

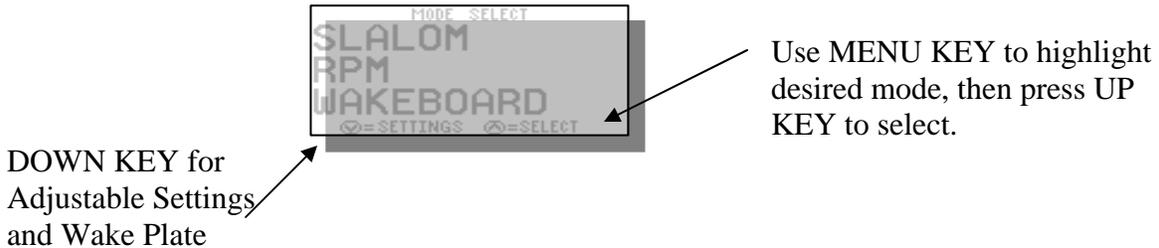**Wakeboard Mode (Speed Based)**   **Figure 1**

When system is ON, the screen will appear as above with set point speed at left. By using Menu Key, you can move around the screen and highlight set point to make speed changes.

Once desired speed has been set, you can simply drive normally and when set point has been reached or exceeded the system will engage and take over automatically. (You will note that the "WAKEBD" heading will become highlighted to confirm engagement).

To disengage system, pull back on the throttle.

If the rider falls, pull throttle back and system will disengage. Return slowly to rider. PerfectPass will once again engage automatically when set speed is reached.
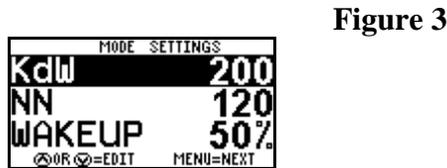
Menu "M" – To move to another mode, use menu key to highlight the "M" in upper right hand corner, and press up key to confirm. The following screen will appear with the other operating modes you can select.

Use MENU KEY to highlight desired mode, then press UP KEY to select.

DOWN KEY for
Adjustable Settings
and Wake Plate

BACKGROUND SETTINGS

ADJUSTABLE PULL CHARACTERISTICS

KDW, NN – These background adjustable settings allow you to tailor the pull characteristics of WakeboardPro. To access from normal wakeboard screen, highlight "M" in upper right hand corner, then press UP Key. Wakeboard will now be highlighted as show in Figure 2, press DOWN Key for settings and KDW will appear as shown.

Figure 3

KDW (Throttle Pull Rate) – KDW can be changed using up or down keys. The higher the value, the more aggressive the control. Heavy boats may need higher values. Factory setting is about 180. Normal range is 100 – 200.

NN (Paddle wheel Filter Factor) – NN is set at about 120. The higher the value the more filtering is done. If you feel you boat is surging a little, raise value by 20 or 30. (Normal range is 80 – 150).

CS (Control Setting) – There is an adjustable control setting (CS), which primarily affects engagement. 2900 is normal, however, if you feel your boat "overshoots" the target speed too much, you can lower the value a little. Adjustment of 50 at a time is recommended. (Range is 2700 - 3000). (See Figure 4).

SMART PLATE (Auto Wake Plate Operation)

Figure 3

```
     MODE  SETTINGS
KdW              200
NN               120
WAKEUP           50%
 ⊗0R⊘=EDIT   MENU=NEXT
```

Figure 4

```
     MODE  SETTINGS
WAKEDN          100%
XOVER           12.0
CS              2900
 ⊗0R⊘=EDIT   MENU=NEXT
```
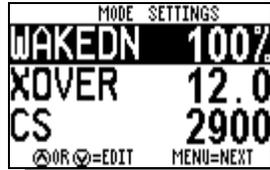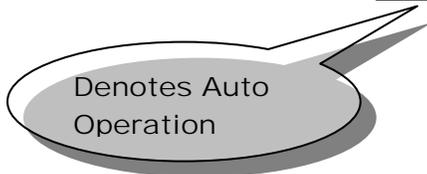
The PerfectPass system has an automatic wake plate operation exclusive to 2007 Supra Boats. This allows the user to set an ideal wake plate position (example 50%) and PerfectPass will adjust the plate automatically as the boat speed approaches the set point. The plate normally starts at 100% (fully down) and as it moves up the wake size increases. Typical values depending on the size and shape of wake you desire ranges from about 75 – 50%. (0% is fully up for a very large wake).

Figure 5

```
      WAKEBD   M
SET
20.5  20.5
      AUTO
Ⓜ   50%  2030ᴿᴾᴹ
```

Denotes Auto Operation

When the plate is in "Auto" position as shown on PerfectPass screen, the plate will smoothly move up to preset position as boat approaches target speed (50% as shown in Figure 5). The position where the Wake Plate makes its move is called the "Cross Over" point. (XOVER) Ex. XOVER 12 mph. If the set point is 22 mph, the Wake Plate will move into position as the speed crosses 12 mph. This "cross over" speed value is adjustable, however the default value of 12 mph should be ideal for most users.
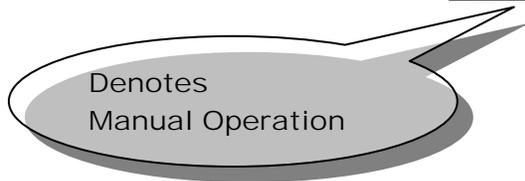
If a set speed is selected below the "cross over" value, Ex: 12 mph, PerfectPass will calculate a correct "cross over" value to permit auto operation.

Setting Wake Plate Position

1. Enter background settings as discussed above and use MENU KEY to scroll down to WAKEUP. Set Desired position.
2. Press MENU again and WAKEDN will appear. 100% is normal. Change value if desired.
3. Press MENU again and XOVER (cross over point) can be adjusted. 15 mph is normal.

Manual Override of Smart Plate / Return to Auto Operation

If the driver adjusts the plate position using the toggle lever, this will immediately place the Smart Plate operation in Manual Mode. The plate position on the PerfectPass screen will change to "MAN". To return to automatic operation of Smart Plate, use Menu Key to highlight Smart Plate position in lower left part of screen, then use up key to switch to "AUTO".
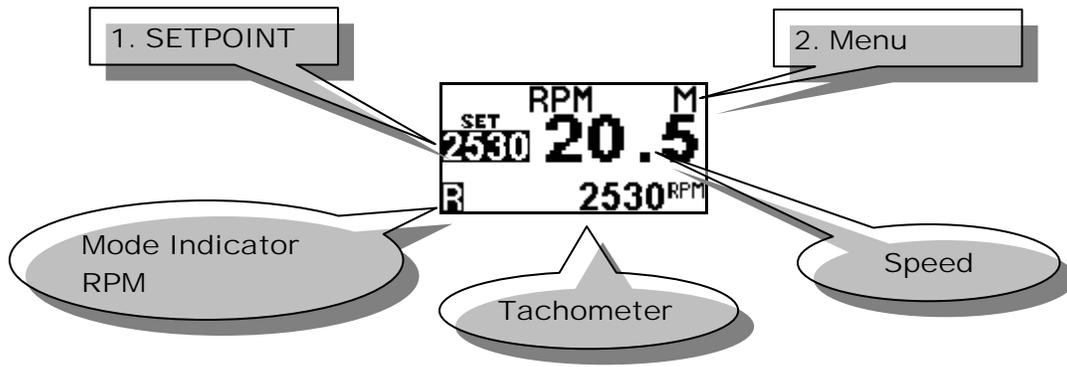

Denotes
Manual Operation

SECTION 2   RPM MODE

USING RPM MODE

In this mode, the screen will appear as follows:

Operating in this mode is very similar to using the Wakeboard mode, except the system is now controlling to an RPM **SETPOINT**.

RPM DRIVING

Prior to towing the rider / skier, select the RPM **SETPOINT** by using the **UP** or **DOWN** keys with the SETPOINT highlighted on the screen. Pull the rider up smoothly and continue to accelerate up to or beyond the RPM **SETPOINT** so the system can engage and take control. The digital tachometer should match the RPM set point.

Changes can be made to the RPM SETPOINT while the system in engaged ("on the fly") to fine-tune the RPM you desire.

SECTION 3　　　　　　SLALOM MODE

SIMPLE SLALOM (Requires Calibration)

This Simple mode is for recreational skiing and will provide an excellent, tournament quality pull, however, it is not designed to be as accurate as the tournament class Slalom modes.

This mode allows you to set speeds in 2 mph increments ranging from 24 – 36 mph. It is designed for those wishing to use the system for open water skiing.

Although you have selected a speed setting such as 34 MPH, the system is actually running an RPM value. You must calibrate this RPM "Baseline" value for your boat at each speed you intend to use. After calibration, the new RPM "Baseline" values will be retained in memory.

Step 1　　　　**Calibrate RPM Baseline** – Initial calibration of baselines should be done with 2 – 3 people in boat and without a skier. If you set the speed at 34.0 mph, but your digital speed readout shows something different such as 33, simply press the **MENU** key until the "M" is highlighted, then press the **DOWN** key to access Baseline Calibration screen. This can be done on the fly. Press the **UP** key several times and the rpm baseline will increase 25 rpm per press. This will increase the rpm on the boat which will increase the actual speed. Adjust the rpm until the actual speed matches the **SETPOINT**. Press the **MENU** key to highlight the "M" then press the **UP** key to return to the main Simple Slalom screen.

Baseline Calibration Screen

If you are towing skiers, you can change the **SETPOINT** on the fly (i.e. 30 to 32), or you can raise the rpm baseline setting on the fly by going into the BasCal Screen as described above**.** For example, you have 32 mph set, but because you have five people in the boat, the speed may be running a little slow due to the extra weight. You can adjust the speed by entering the BseCal Screen and raising the rpm baseline until the digital speedometer matches the desired speed.

SECTION 4   USING NAME LIST

Highlight heading and
Press **UP KEY**

NAME LIST

This version of PerfectPass allows you to store up to eight names and their preferred speed. The Name List can be accessed by pressing the **UP** key when the NAME/MODE section is highlighted. Once in the Name List press the **MENU** key to move through the list. With the desired name highlighted, press the **UP** key to select the name from the list and load their settings or press the **DOWN** key to edit the name.

Creating Names – First enter the Quick List. Press the **MENU** key until [**NEW ENTRY**] is highlighted. Then press the **UP** key to enter a new name. The following screen will then appear:

Scroll through the alphabet using **UP** & **DOWN** keys, and then press **MENU** to move to next position. Press the **MENU** key to move through the settings. You can even enter a rider's preferred wake plate position and KDW value.

Editing Names – As you scroll through list of names, instead of pressing **UP** key to select that name, press the **DOWN** key to edit.

Note: Names can be changed by "Editing Names" but can only be deleted by performing "System Reset".

Section 5   **OTHER FEATURES**

More Throttle

Denotes More
Throttle Required

If you see the "T" replace the "M" in the upper right hand corner of screen, this indicates the boat throttle handle is not far enough advanced and PerfectPass is running out of control room. If you see the "T" appear, gently advance the handle a little and the "T" will disappear.

Throttle Override

Once engaged and controlling, the driver can override the system temporarily for a few seconds. If you are in a turn or "double-up" maneuver and require extra power, advance the throttle handle and additional rpm will be applied. After a few seconds, PerfectPass will retake control and settle back to set point.