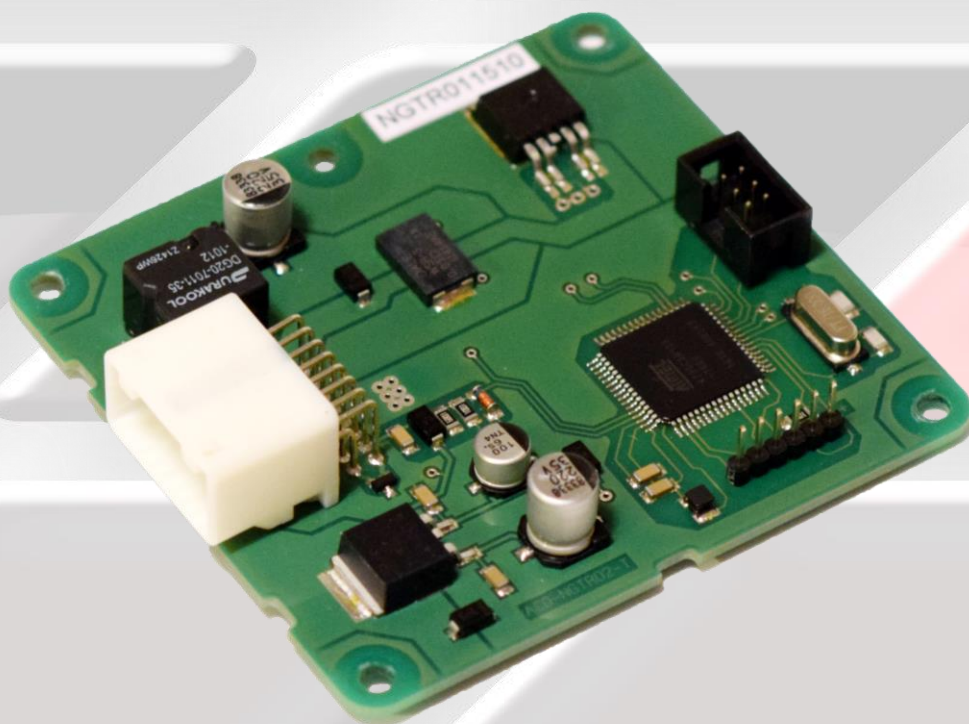


# **AWD TCS**

## **INSTRUCTION MANUAL**





## ***DESCRIPTION OF FUNCTIONS OF THE ALL WHEEL DRIVE TRACTION CONTROL SYSTEM FOR NISSAN GTR***

***The All Wheel Drive Traction Control System (AWD TCS) is very important for controlling vehicles at a high speed and in difficult driving conditions. The AWD TCS is both a road and race system that will enable the Nissan GTR to drive more aggressively without the loss of traction on the wheels.***

***The AWD TCS is a revolutionary system that utilises all of the available data and sensors in the GTR to adjust the torque split between front and rear wheels to deliver maximum traction!***

***In high horsepower GTRs, being able to deliver all the power to the wheels while maintaining full traction is the biggest challenge to tuners. Additionally, handling suffers.***

***The AWD TCS puts the car GTR back on rails! It is fast reacting to minimise slippage and the mapping allows the braking, cornering and acceleration of the GTR all to be improved significantly.***

***The AWD TCS finally allows you to utilise the GTR's maximum potential with fully customisable maps for all conditions, which no other controller on the market can deliver!***

### **MAIN ADVANTAGES**

- 1. Storing capacity of up to 4 created maps right in the AWD TCS unit. Switching over by the toggle button on the vehicle dashboard. Active maps are between 1-4.***
- 2. A possibility to create your own map files.***
- 3. Maximum torque split available between front and rear wheels of 50/50.***
- 4. Burnout mode with differential deactivation.***
- 5. Plug and play***
- 6. No wires or any plastic boxes showing in the interior***

## ***GTR AWD TCS Contents***

- 1. Installation and setup***
- 2. Selection of maps***
- 3. Burnout mode***
- 4. Map Tab explained***
- 5. Creating a new map***
- 6. Password protection of maps***
- 7. Steering Angle parameters variable***
- 8. Wheel vs Angle values***
- 9. Diagnostics***
- 10. Setup tab explained***
- 11. Brake Sensitivity***
- 12. Memory ACD Maps***
- 13. Launch control***
- 14. Upload of upgraded firmware***

## **1. INSTALLATION and SETUP**

***The GTR AWD TCS does not require specialist setup. There is no setup procedure necessary for compatability of the AWD TCS unit. It is only necessary upon installation to ensure the ignition and engine is switched off.***

***Maps can be selected by activating the Torque split screen on the dash.***

***To install the unit, locate the original ECU under the front passengers seat. It is hidden in the floor under the carpet.***

***Replace the OEM unit with the KAPS Transmissions GTR AWD TCS unit.***

## **2. SELECTION OF MAPS**

### **CHANGING OF ACTIVE MAP**

***It is necessary to have the TORQUE SPLIT graph active on the dash.***

***To change the map, select the left toggle switch DOWN, UP, DOWN, UP. This combination must be done within 2 seconds. This will activate the change map mode.***



***After the torque split graph will start flashing. The maps are set up as follows:***

- Map 1 = Torque split 25%***
- Map 2 = Torque split 50%***
- Map 3 = Torque split 75%***
- Map 4 = Torque split 100%***

***Each press of the left toggle switch down will result in the next map being selected.***

***Once the desired map has been selected, the map will be saved after a few seconds and the torque split will stop flashing.***

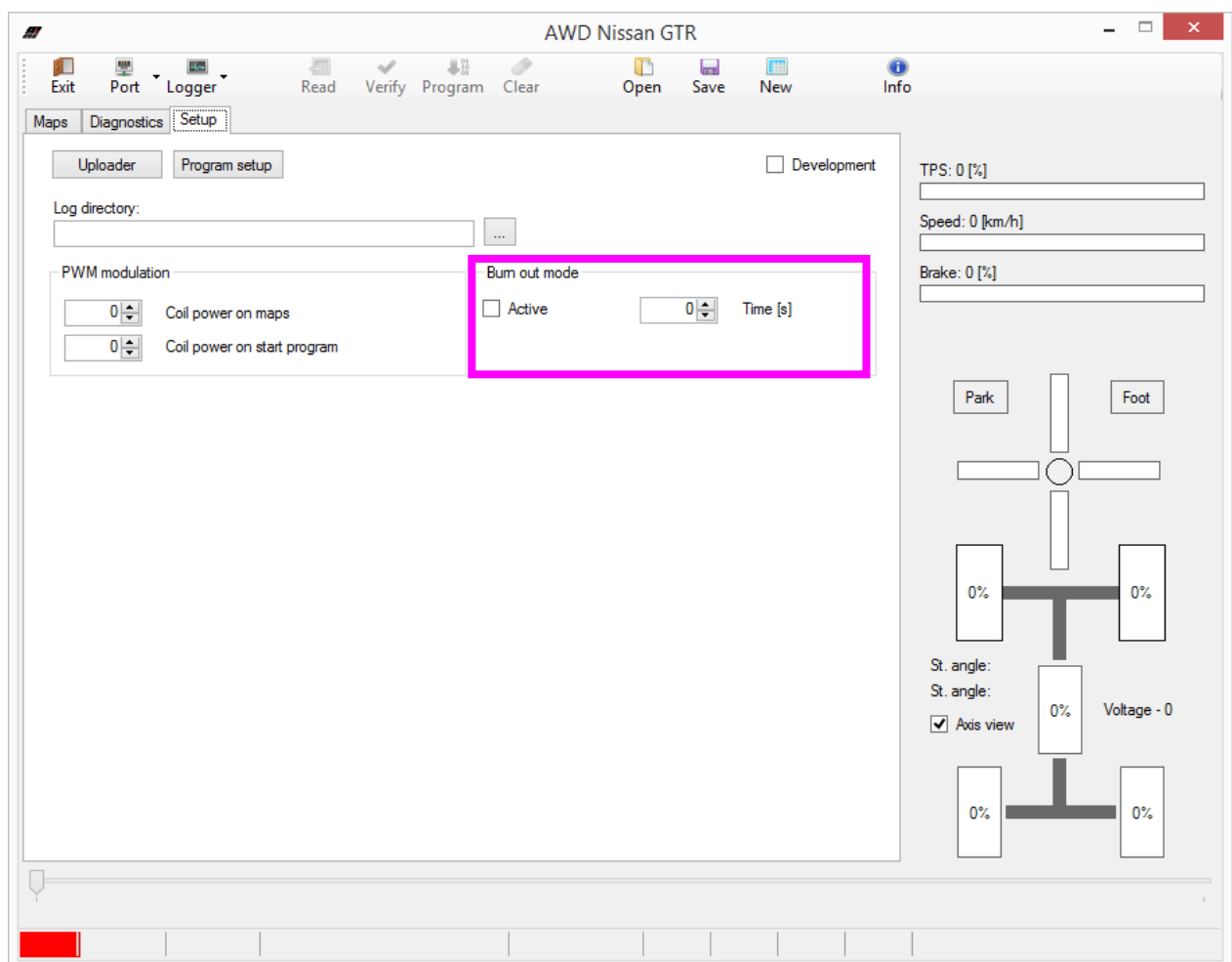
***Note: Maps do not have a constant 25, 50, 75 or 100% torque split between the front and rear wheels. Torque split graph only indicates which map is selected.***

### 3. BURNOUT MODE

***It is possible to completely disable the center differential and drive only the rear wheels. To do this, a map can be created and saved where all values are 0 (zero). Then select this map on the dash for 100% rear wheel drive.***

***Alternatively, burnout mode is active when the change map mode is active. Before any map has been changed, the differential is switched off so the GTR will be in full rear wheel drive only to make a short burnout. Once the change map mode time elapses, the differential will again default to the previous map that was selected.  
[check firmware version for this functionality]***

***Tick active burnout mode  
Set ACTIVE time (seconds)***



## 4. MAP TAB EXPLAINED

**Top Left: Main mapping table Speed kmph x TPS%**

TPS [%]	Speed [km/h]											
	20	40	60	80	100	120	140	160	180	200	220	>
10	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

**Middle Left: Left Foot braking Speed kmph x Foot Brake x TPS**

Left foot braking	[km/h]											
	20	40	60	80	100	120	140	160	180	200	220	>
0	0	0	0	0	0	0	0	0	0	0	0	0

**Bottom Left: Main brake table Speed kmph x Foot Brake%**

Brake [%]	[km/h]											
	20	40	60	80	100	120	140	160	180	200	220	>
20	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

**Top Right: Compensation tables Steering Angle, Slip Axle**

Steering angle [°] ☐ Active

	>1	>3	>5	>7	>9	>12	>15
0	0	0	0	0	0	0	0

Slip axle

Front [%] ☐ Active

	>5	>10	>15	>20	>25
0	0	0	0	0	0

Rear [%] ☐ Active

	>5	>10	>15	>20	>25
0	0	0	0	0	0

**Bottom Right: Start program and active map info**

Start program ☐ Active Speed [km/h] 20 Lock [%] 20

Memory ACD ☐ Map read disable ☒ Map 2

Indicator ACD ☐ ACD switch

Map user name (max 20 chars):

**Far Right: Live Graphical AWD TCS interface**

TPS: 0 [%]  
Speed: 0 [km/h]  
Brake: 0 [%]

Park Foot

0% 0%

St. angle: 0% Voltage - 0

0% 0%

**Top Left: Main mapping table Speed kmph x TPS%**

**This table is used to input the primary values for lock of the center differential**

**Middle Left: Left Foot braking Speed kmph x Foot Brake x TPS**

**This table is used as a replacement to the main mapping table if both the TPS and Foot Brake Pedal sensor is active. The TPS>% condition field can be toggled to adjust the point of activation of the table.**

**Bottom Left: Main brake table Speed kmph x Foot Brake%**

**This table is used as a replacement to the main mapping table and helps fine tune the adjustment of lock based on the pressure applied to the brake pedal**

**Top Right: Compensation tables Steering Angle, Slip Axle**

**These tables are used in addition to the main mapping table. Steering angle and slip axle help fine tune the lock on the center differential.**

**Bottom right: Start program and active map info**

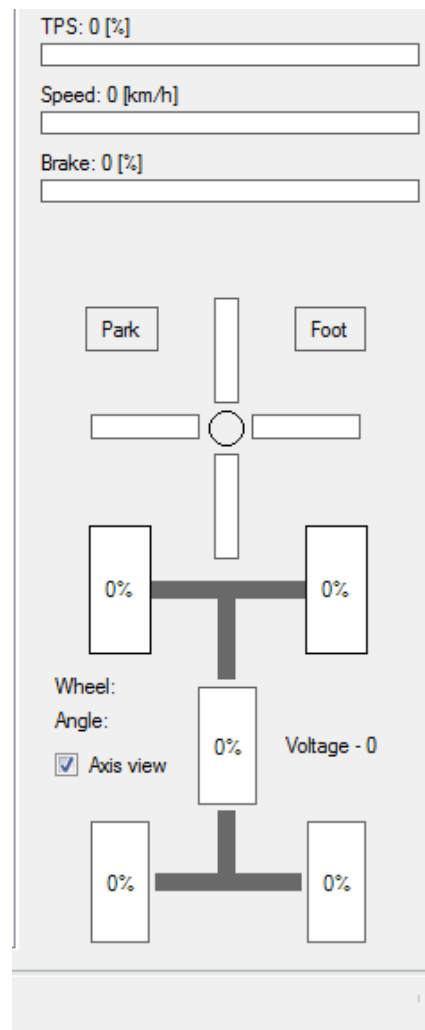
**There is a start program feature for launching from a standing start.**

**Far Right: Live Graphical AWD TCS interface**

**After the AWD TCS unit is connected to a notebook, the data may be read when driving - graphic representation of the current state of the vehicle (very helpful for completing the notion of how individual sensors work and how they influence the clamp of the centre differential in percentage).**

### **Live Graphical AWD TCS interface**

- 1. TPS - indication of the gas pedal position in the range of 0-100%**
- 2. SPEED - indication of the speed of the vehicle (in km/hour)**
- 3. BRAKE - indication of the pressure on the brake**
- 4. PARK - signals the hand brake engagement**
- 5. FOOT - signals the use of brake pedal (brake light sensor)**
- 6. G- sensor - shows the value of longitudinal and lateral overload**
- 7. SLIP indication - shows the slip of individual wheels (0-100%). If you click the AXIS view field, the slip of the fore axle as against the rear axle will be graphically represented**
- 8. % indication - shows the level of clamp of the centre differential in %**





## 5. CREATING A NEW MAP

***It is necessary to press NEW to create a new map.***

AWD Nissan GTR

Exit Port Read Verify Program Clear Open Save **New** Help

Maps Diagnostics Setup

TPS [%] Speed [km/h]

	20	40	60	80	100	120	140	160	180	200	220	>
10	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Steering angle [°] ☐ Active

	>1	>3	>5	>7	>9	>12	>15
	0	0	0	0	0	0	0

If TPS > [%] 5 If Speed < [km/h] 5

Slip axle

Front [%]

	>5	>10	>15	>20	>25
	0	0	0	0	0

Rear [%] ☐ Active

	>5	>10	>15	>20	>25
	0	0	0	0	0

Left foot braking [km/h] ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
	0	0	0	0	0	0	0	0	0	0	0	0

Brake sensitivity [%] 100 If TPS > [%] 5

Brake [%] [km/h] ☐ Compensation ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
20	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Start program

☐ Active Speed [km/h] 20 Lock [%] 20

Memory ACD

☐ Map read disable **!!! Different map** Map 2

Indicator ACD

☐ ACD switch

Map user name (max 20 chars):

TPS: 0 [%]

Speed: 0 [km/h]

Brake: 0 [%]

Park Foot

St. angle: 0% Voltage - 0

Axis view

***After this, you can enter new values to the mapping table.***

***If you wish to edit maps, only overtype the previous data to program.***

## 6. PASSWORD PROTECTION OF MAPS

**To protect a map file from being viewed, check the „MAP READ DISABLE“ box**

The screenshot shows the 'Maps' tab in the AWD Nissan GTR software. The interface includes several data tables and control options. The 'Map read disable' checkbox is highlighted with a pink box, indicating it should be checked to protect the map file. Other visible elements include the 'Steering angle' table, 'Slip axle' settings, 'Start program' options, and a diagram of the vehicle's drivetrain.

TPS [%]	20	40	60	80	100	120	140	160	180	200	220	>
10	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Speed [km/h]	20	40	60	80	100	120	140	160	180	200	220	>
10	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Steering angle [°]	>1	>3	>5	>7	>9	>12	>15
0	0	0	0	0	0	0	0

Slip axle	Front [%]	Rear [%]
0	0	0

Start program	Speed [km/h]	Lock [%]
0	20	20

Map read disable	Map 2
0	2

Indicator ACD	ACD switch
0	0

Map user name (max 20 chars):

TPS: 0 [%]
0

Speed: 0 [km/h]
0

Brake: 0 [%]
0

Park	Foot
0%	0%

St. angle:	St. angle:	0%	Voltage - 0
0%	0%	0%	0%

**Password is of your choosing as a 4 digit pin code only.**

The 'Enter password' dialog box contains two input fields: 'Map read enable (PIN):' and 'ECU serial number:'. The 'Map read enable (PIN):' field is a text box, and the 'ECU serial number:' field is a numeric box with a spinner. The dialog has 'OK' and 'Cancel' buttons.

**NOTE: The password protection is associated to the map. To lock all maps, you must password protect each individually. Changes are saved only by the Program button. It is possible to add a serial number to the map so the map will run on only the corresponding GTR unit.**

## 7. STEERING ANGLE PARAMETERS VARIABLE

**When the steering angle compensation table is active, it is possible to amend the parameters so the mapping of the steering will become more condensed or more expanded. Minimum value is 1 and maximum value is 30. Default values are >1>3>5>7>9>12>15**

The screenshot shows the 'AWD Nissan GTR' software interface. The 'Maps' tab is selected. The 'Steering angle' table is highlighted with a pink box. The table has columns for speed ranges (>1, >3, >5, >7, >9, >12, >15) and rows for TPS values (0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100). The value '0' is highlighted in the first row, first column. To the right of the table are input fields for 'If TPS > [%]' (set to 5) and 'If Speed < [km/h]' (set to 5). Below the table are sections for 'Slip axle' (Front and Rear) and 'Start program' (Active, Speed, Lock). The 'Memory ACD' section shows 'Map 2' selected. The 'Indicator ACD' section has an 'ACD switch' button. The 'Map user name' field is empty. On the right side, there are input fields for 'TPS: 0 [%]', 'Speed: 0 [km/h]', and 'Brake: 0 [%]'. A diagram of the vehicle's steering system is shown on the far right.

TPS [%]	Speed [km/h]	>1	>3	>5	>7	>9	>12	>15
0		0	0	0	0	0	0	0
10		0	0	0	0	0	0	0
20		0	0	0	0	0	0	0
30		0	0	0	0	0	0	0
40		0	0	0	0	0	0	0
50		0	0	0	0	0	0	0
60		0	0	0	0	0	0	0
70		0	0	0	0	0	0	0
80		0	0	0	0	0	0	0
90		0	0	0	0	0	0	0
100		0	0	0	0	0	0	0

**Double click on the parameter cell to adjust values and the pop up box will appear.**

**NOTE: Any changes you make, you must press the PROGRAM button to save your changes to the ACD computer. If not, changes will be lost. Alternatively, pressing save will save the map file to an alternative medium.**

The 'Edit value' dialog box is shown. It has a title bar with a close button. The main area contains a label 'Header value:' followed by a text input field containing the number '5'. At the bottom are 'OK' and 'Cancel' buttons.

**NOTE: It is possible to give a value greater than the number to the right. For example:**

**>1 >3 >8 >7 >9 >12 >15. If this is to occur, the ACD computer will ignore parameters to the right of >8 that are less than 8.**

**In the example below, >7 will be ignored, but >9, >12 and >15 will still be used.**

Steering angle [°] ☒ Active

	>1	>3	>8	>7	>9	>12	>15
	0	0	0	0	0	0	0

If TPS > [%]  If Speed < [km/h]

**The mapping table is active only in the range of the conditioning parameters TPS and speed.**

## 8. WHEEL ANGLE vs STEERING ANGLE values

**There are 2 ways of analysing the steering and cornering of the car. That is by Wheel angle and steering angle.**

**WHEEL ANGLE relates to the steering wheel turn and STEERING ANGLE relates to the angle (°) of the front tyres.**

### Parameters

**WHEEL ANGLE: max scores L420 : R420 (left and right)**

**STEERING ANGLE: max scores L30 : R30 (left and right)**

**Wheel angle max values determined from GEMS dash +/- 420.**

AWD Nissan GTR

Exit Port Read Verify Program Clear Open Save New Info

Maps Diagnostics Setup

TPS [%] Speed [km/h]

	20	40	60	80	100	120	140	160	180	200	220	>
10	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Left foot braking [km/h] ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
0	0	0	0	0	0	0	0	0	0	0	0	0

Brake sensitivity [%] 100 If TPS > [%] 5

Brake [%] [km/h] ☐ Compensation ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
20	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Steering angle [°] ☐ Active

	>1	>3	>5	>7	>9	>12	>15
0	0	0	0	0	0	0	0

If TPS > [%] 5 If Speed < [km/h] 5

Slip axle

Front [%]

	>5	>10	>15	>20	>25
0	0	0	0	0	0

Rear [%] ☐ Active

	>5	>10	>15	>20	>25
0	0	0	0	0	0

Start program ☐ Active Speed [km/h] 20 Lock [%] 20

Memory ACD ☐ Map read disable Map 2 !!! Different map

Indicator ACD ☐ ACD switch

Map user name (max 20 chars):

TPS: 0 [%]

Speed: 0 [km/h]

Brake: 0 [%]

Park Foot

St. angle: 0% Voltage - 0

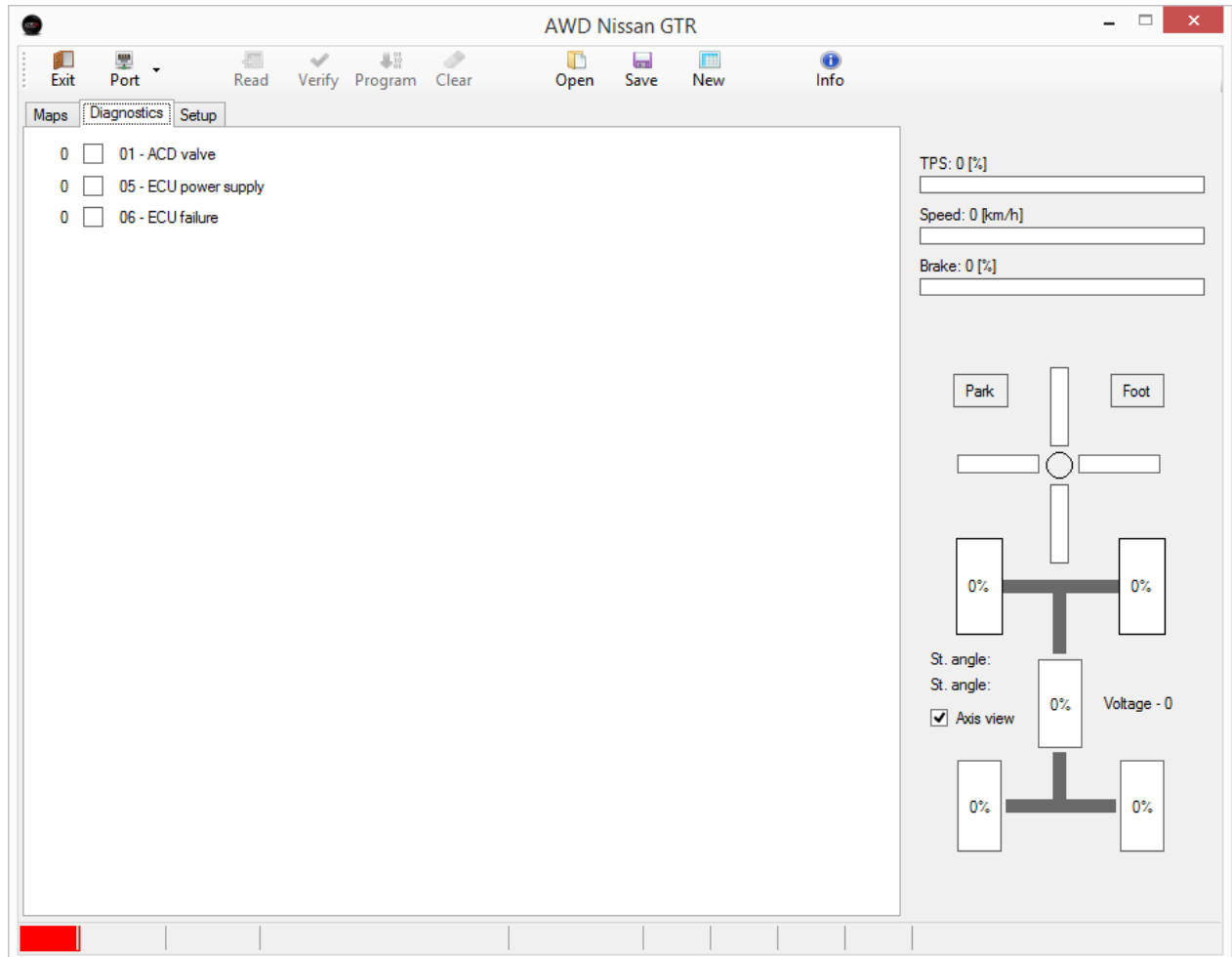
Axis view

0% 0% 0% 0%

## 9. DIAGNOSTICS

***Should there be any errors in the system, it is possible to diagnose the issue on the diagnostics tab.***

***The error code is indicated on the display of the control unit by red colour.***

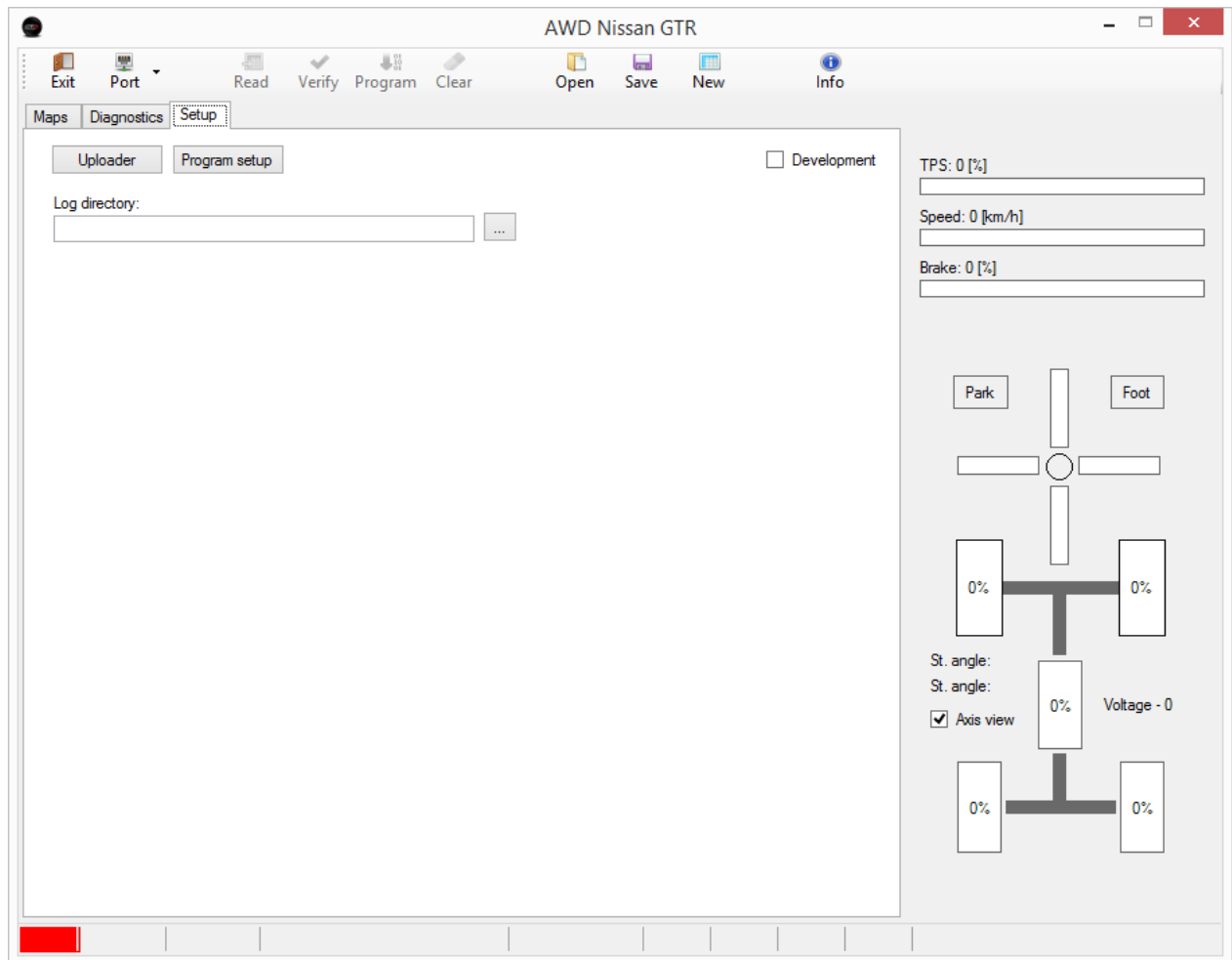


- |            |   |
|------------|---|
| <b>01.</b> | <b>ACD valve</b>                            |
| <b>05.</b> | <b>ECU power supply</b>                     |
| <b>06.</b> | <b>ECU failure - Defective control unit</b> |

***Currently error codes are inactive in the software.***

## 10. SETUP TAB EXPLAINED

**Setup tab has been simplified.**



### **Uploader button**

**This is used to upload inside the ACD computer new versions of firmware.**

### **Program Setup**

**Any changes to the setup tab must be confirmed by pressing the Program setup button. If not, changes will not be saved.**

**Do not use the development box for any reason. Changes can only be made there if advised by KAPS Transmissions.**

## 11. BRAKE SENSITIVITY

***It is possible to change the sensitivity of the brake pedal to suit your car. The brake sensitivity feature is only associated with the main brake table. The level of 100% is the base value for changes to be calculated. Base value of 100% is determined from the maximum stopping power of the GTR on dry tarmac conditions during testing.***

***The brake sensitivity has a value range from 50%-150%. Should your car have a higher or lower level of grip, then you can adjust the sensitivity accordingly.***

***For example: Any changes to the setting of the brake sensitivity, the system will recalculate so it will be max 100% brake percentage on the brake mapping table.***

***NOTE: The TPS % toggle box is related to the left foot brake table, not the main brake map table.***

***NOTE: Brake sensitivity is programmed to the selected map only. Each map can have different brake sensitivity.***

The screenshot displays the 'Setup' tab of the 'AWD Nissan GTR' software. The interface includes several data tables and configuration options:

- TPS [%] vs Speed [km/h] Table:** A 10x12 grid with columns for speed (20-220 km/h) and rows for TPS (10-100%). The cell at (10, 20) is highlighted in green.
- Steering angle [°] Table:** A 1x7 grid with columns for steering angle (>1 to >15°) and rows for TPS (>5 to >15%). The cell at (>1, >5) is highlighted in green.
- Slip axle Front [%] Table:** A 1x5 grid with columns for slip angle (>5 to >25%) and rows for TPS (>5 to >25%). The cell at (>5, >5) is highlighted in green.
- Slip axle Rear [%] Table:** A 1x5 grid with columns for slip angle (>5 to >25%) and rows for TPS (>5 to >25%). The cell at (>5, >5) is highlighted in green.
- Left foot braking [km/h] Table:** A 1x12 grid with columns for speed (20-220 km/h) and rows for TPS (20-100%). The cell at (20, 20) is highlighted in green.
- Brake sensitivity [%]:** A dropdown menu set to '100%'. It is highlighted with a pink box.
- Brake [%] vs Speed [km/h] Table:** A 6x12 grid with columns for speed (20-220 km/h) and rows for brake percentage (20-100%). The cell at (20, 20) is highlighted in green.
- Start program:** Includes checkboxes for 'Active', 'Speed [km/h]' (set to 20), and 'Lock [%]' (set to 20).
- Memory ACD:** Includes a checkbox for 'Map read disable' and a dropdown for 'Map 2'.
- Indicator ACD:** Includes a checkbox for 'ACD switch'.
- Map user name (max 20 chars):** A text input field.
- Right Panel:** Includes input fields for 'TPS: 0 [%]', 'Speed: 0 [km/h]', and 'Brake: 0 [%]'. It also features a diagram of a car chassis with 'Park' and 'Foot' labels, and a 'Voltage - 0' indicator.



## Compensation Check Box

The „Compensation“ check box associated with the main brake table when ticked, will add into the diff lock the rear axle slippage % mapping values.

AWD Nissan GTR

Exit Port Read Verify Program Clear Open Save New Info

Maps Diagnostics Setup

TPS [%] Speed [km/h]

	20	40	60	80	100	120	140	160	180	200	220	>
10	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Left foot braking [km/h] ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
0	0	0	0	0	0	0	0	0	0	0	0	0

Brake sensitivity [%] 100 If TPS > [%] 5

Brake [%] [km/h] ☐ Compensation ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
20	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Steering angle [°] ☐ Active

	>1	>3	>5	>7	>9	>12	>15
0	0	0	0	0	0	0	0

If TPS > [%] 5 If Speed < [km/h] 5

Slip axle

Front [%]

	>5	>10	>15	>20	>25
0	0	0	0	0	0

Rear [%] ☐ Active

	>5	>10	>15	>20	>25
0	0	0	0	0	0

Start program

☐ Active Speed [km/h] 20 Lock [%] 20

Memory ACD

☐ Map read disable Map 2

Indicator ACD

ACD switch

Map user name (max 20 chars):

TPS: 0 [%]

Speed: 0 [km/h]

Brake: 0 [%]

Park Foot

St. angle: 0% St. angle: 0% Voltage - 0

Axis view

0% 0%

## 12. MEMORY AWD TCS MAPS

**The AWD TCS has a possibility to run with 4 maps.**

**Map 1 - 25% Torque split level**  
**Map 2 - 50% Torque split level**  
**Map 3 - 75% Torque split level**  
**Map 4 - 100% Torque split level**

**Maps can be saved to a computer and loaded also to additional AWD TCS units. If any values are edited directly inside the AWD TCS unit, it is necessary to press the program button to save those changes.**

AWD Nissan GTR

Exit Port Read Verify Program Clear Open Save New Info

Maps Diagnostics Setup

TPS [%] Speed [km/h]

	20	40	60	80	100	120	140	160	180	200	220	>
10	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Left foot braking [km/h] ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
	0	0	0	0	0	0	0	0	0	0	0	0

Brake sensitivity [%] 100 If TPS > [%] 5

Brake [%] [km/h] ☐ Compensation ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
20	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Steering angle [°] ☐ Active

	>1	>3	>5	>7	>9	>12	>15
	0	0	0	0	0	0	0

If TPS > [%] 5 If Speed < [km/h] 5

Slip axle

Front [%]

	>5	>10	>15	>20	>25
	0	0	0	0	0

Rear [%] ☐ Active

	>5	>10	>15	>20	>25
	0	0	0	0	0

Start program ☐ Active Speed [km/h] 20 Lock [%] 20

Memory ACD ☐ Map read disable **!!! Different map** Map 2

Indicator ACD ☐ ACD switch

Map user name (max 20 chars):

TPS: 0 [%]  
Speed: 0 [km/h]  
Brake: 0 [%]

Park Foot

St. angle: 0% St. angle: 0% Voltage: 0

☒ Axis view

0% 0% 0% 0%

## 13.LAUNCH CONTROL

**The Launch control sequence is a special feature in the AWD TCS that will lock the differential for maximum grip upon take off.**

**To activate the Launch control, tick the startprogram active box. (Start program is saved on the map only, Each map is tuned individually).**

**Select the top speed that the start program will deactivate and set the amount of lock that the differential will have during the launch phase.**

**Program any changes in the software.**

**The Launch control is active when the car is stationary (>5kmph) and TPS (throttle) is depressed 80% for approximately 0.5 seconds. The launch control will remain active for 10 seconds if the car remains stationary (>5kmph).**

**Once the car reaches the programmed speed, launch control sequence will end and revert to the main mapping table. It will also end if the brake is pressed or the steering angle is greater than .**

AWD Nissan GTR

Exit Port Read Verify Program Clear Open Save New Info

Maps Diagnostics Setup

TPS [%] Speed [km/h]

	20	40	60	80	100	120	140	160	180	200	220	>
10	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Steering angle [°] ☐ Active

	>1	>3	>5	>7	>9	>12	>15
	0	0	0	0	0	0	0

If TPS > [%] 5 If Speed < [km/h] 5

Slip axle

Front [%]

	>5	>10	>15	>20	>25
	0	0	0	0	0

Rear [%] ☐ Active

	>5	>10	>15	>20	>25
	0	0	0	0	0

Left foot braking [km/h] ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
	0	0	0	0	0	0	0	0	0	0	0	0

Brake sensitivity [%] 100 If TPS > [%] 5

Brake [%] [km/h] ☐ Compensation ☐ Active

	20	40	60	80	100	120	140	160	180	200	220	>
20	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0

Start program

☐ Active Speed [km/h] 20 Lock [%] 20

Memory ACD

☐ Map read disable Map 2

Indicator ACD

ACD switch

Map user name (max 20 chars):

TPS: 0 [%]

Speed: 0 [km/h]

Brake: 0 [%]

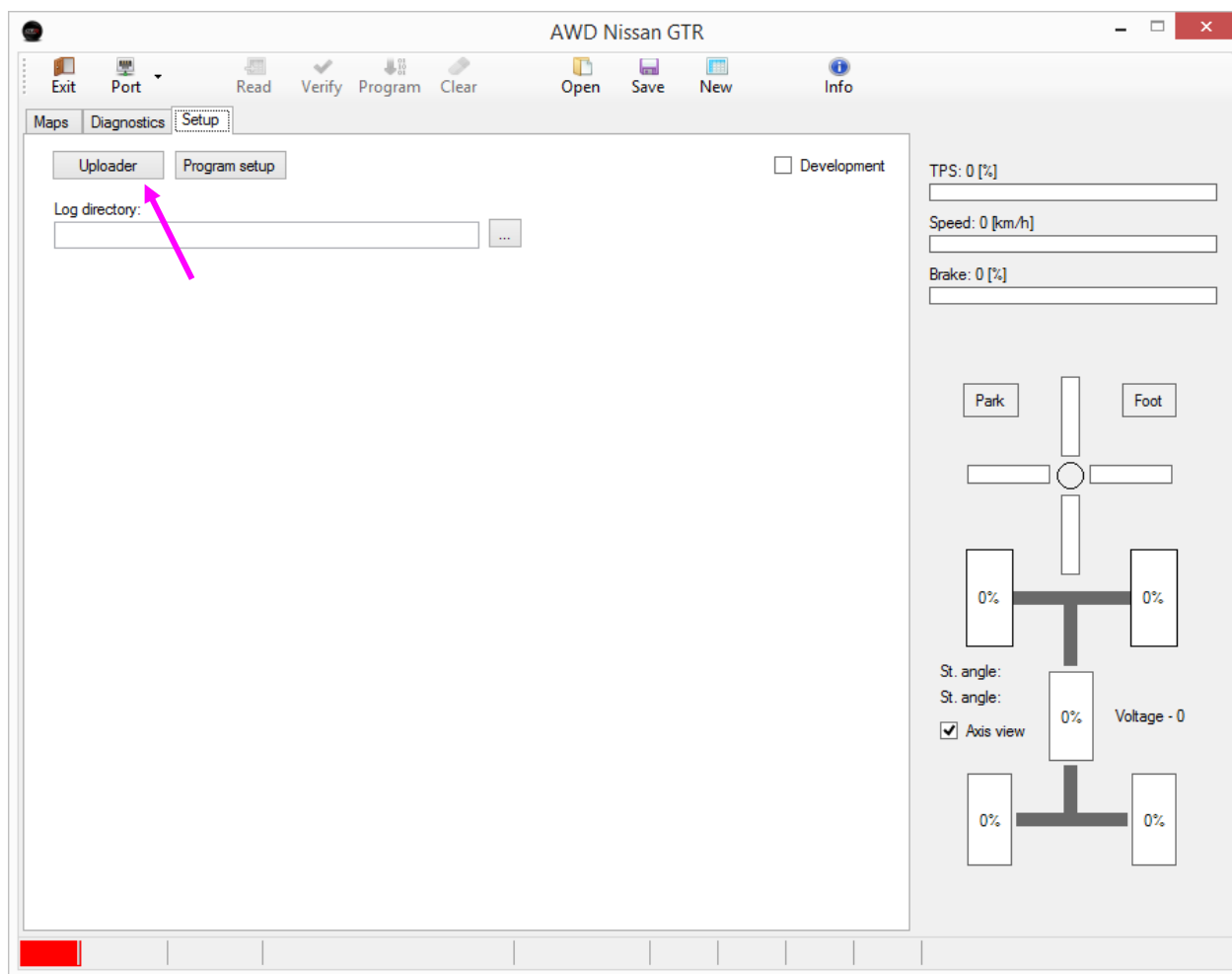
Park Foot

St. angle: 0% St. angle: 0% Voltage: 0

Axis view

## 14. UPLOAD OF UPGRADED FIRMWARE

**On the setup tab, click the „Uploader“ button.**



**Select the file sent by KAPS TRANSMISSIONS .upg**

