

DUAL-SBC SPEC S

High performance Digital boost controller

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DUAL-SBC SPEC R

High performance Digital boost controller

**"BLITZ" - the ability to progress in every parameter of the motor vehicle.
Established in 1980, "BLITZ" has revolutionized the automotive industry.**

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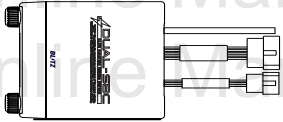
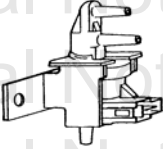
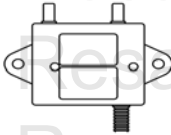














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DISCLAIMER

- * The DSBC SPEC S (part # 15058) is not recommended for high boosting cars or cars with twin turbo or sequential turbo set ups.
- * The DSBC SPEC R (part # 15059) is recommended for high boosting vehicles or cars equipped with a twin turbo set up or sequential set up .
- * "Blitz" and it's are not responsible for any injuries or damages caused by installation of this product
- * "Blitz" and it's dealers are not responsible for any damages caused to the vehicle by installation of this product.
- * This device is to change boost pressure but does not give or reduce fuel to the vehicle.
- * Boost controller does not go below the stock boost pressure.
- * Check the parts list to make sure you are not missing any parts to this device.
- * Too much boost or not enough fuel pressure can cause damage to engine and vehicle. Be careful and make sure that the vehicle sufficient fuel pressure for desired boost setting. We are not responsible for damage to the device, vehicle, or engine cause by improper tuning.
- * **IMPORTANT!** The product from Blitz North America has been designed and intended for off road applications. Some products are legal for sale and use only on racing vehicles, which may never be driven on the public highway.
- * Do not try to install this device on a hot engine. Please take this unit to a qualified installer.
- * Removal of warranty sticker and or modification of any parts may void warranty.

PARTS LIST

CONTROL UNIT 	SPEC S SOLENOID * 	SPEC R SOLENOID ** 	SPEC S HARNESS * 
1 Pc.	1 Pc.	1 Pc.	1 Pc.
SPEC R HARNESS ** 	PLASTIC HOSE 	RUBBER HOSE 	CLAMPS 
1 Pc.	1 Pc.	1 Pc.	6 Pc.
PLASTIC HOSE JOIN 	METAL T 	PLASTIC T 	PLASTIC REDUCER 
1 Pc.	1 Pc.	1 Pc.	1 Pc.
WIRE TAPS 	PLASTIC TIES 	NUT AND BOLT SET 	DOUBLE SIDED TAPE 
2 Pc.	6 Pc.	2 SET	1 Pc.
INSTALLATION MANUAL 			
1 Pc.			

- * The Spec S boost controller and will come with the Spec S harness and Spec S solenoid.
- ** The Spec R boost controller and will come with the Spec R harness and Spec R solenoid.
- * The harness for the Spec S boost control will not plug into the Spec R solenoid.
- ** The harness for the Spec R boost control will not plug into the Spec S solenoid.

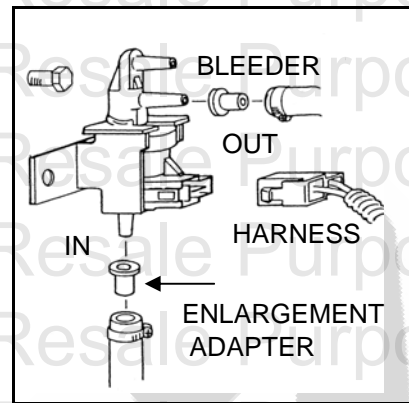
Spec S solenoid unit installation

For best results keep the solenoid unit within three feet from the turbo.

If the solenoid unit is more than three feet away, boost response can be poor and boost spikes or surges may occur.

Use hose enlargement adapter as show in the picture if necessary. Use the supplied clamps to prevent leakage.

The IN port is for the pressure source from the turbo.
The OUT port connects to the actuator or wastegate.
The BLEEDER port is left open.



Connect main wiring harness to the solenoid unit and to the control unit.

*** The DSBC SPEC S (part # 15058) is not recommended for high boosting cars or cars with twin turbo or sequential turbo set ups.**

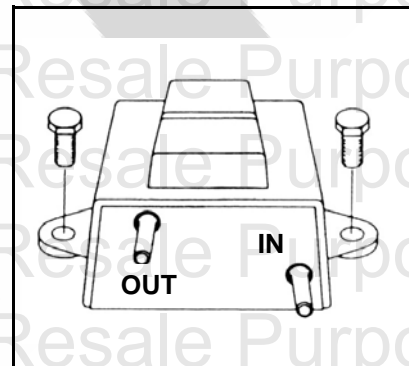
Spec R solenoid unit installation

For best results keep the solenoid unit within three feet from the turbo.

If the solenoid unit is more than three feet away, boost response can be poor and boost spikes or surges may occur.

The IN port is for the pressure source from the turbo.
The OUT port connects to the actuator or wastegate.

Connect main wiring harness to the solenoid unit to the control unit.



*** The DSBC SPEC R (part # 15059) is recommended for high boosting vehicles or cars equipped with a twin turbo set up or a sequential set up .**

WARNING -- keep hands and parts away from hot engine components. Install items when the engine is cool. The turbo may still be hot even after engine is cooled.

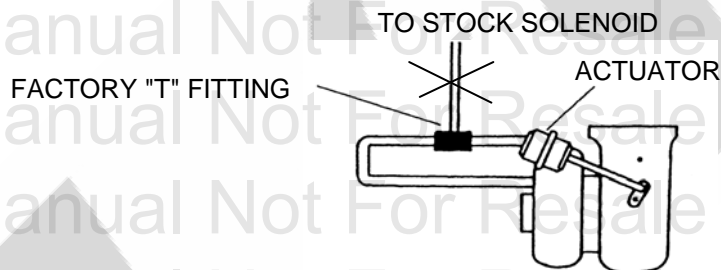
TURBO SYSTEM EXAMPLES

Actuator type set up



Remove the stock hose which connects the actuator to the turbo. Use the supplied rubber hose to connect the actuator port to the out port of the solenoid. Use the supplied rubber hose to connect the out port on the turbo to the in port of the solenoid.

Vehicles equipped with stock solenoids

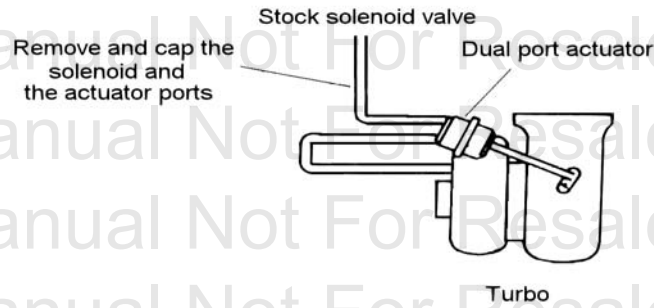


For vehicles equipped with stock a stock solenoid, locate the factory T and remove the factory solenoid line from the factory "T". The cap off the stock solenoid line. Leave the factory solenoid in the vehicle still connected to factory electrical harness.

After this procedure is complete, follow the instructions above for the actuator type set up.

IMPORTANT: For Actuator setup, please be sure that AC is set on back of the controller

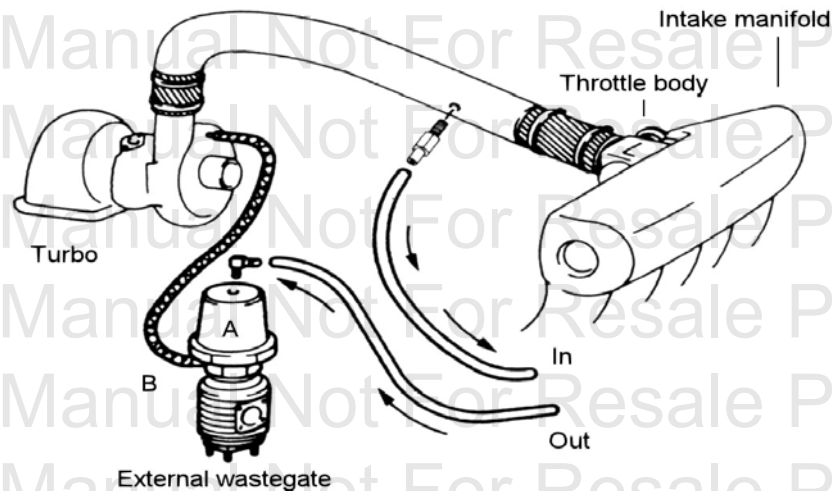
Dual port actuator set up



Cut the hose between stock solenoid and dual port actuator. Cap off both ends of the hoses. Leave the factory solenoid in the vehicle still connected to factory electrical harness.

After this procedure is complete, follow the instructions on the previous page for the actuator type set up.

External wastegate set up



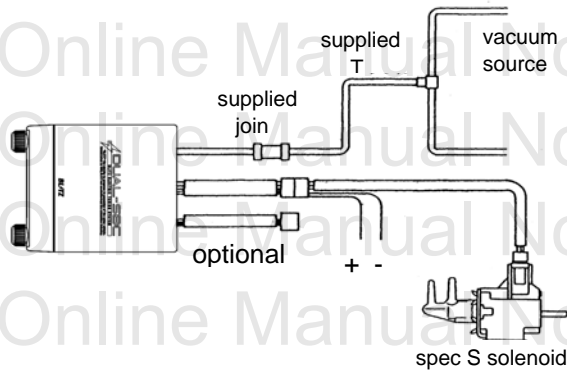
Connect a pressure port from before the throttle body to the IN side of the solenoid unit. The solenoid unit out port will connect to the top port of the external wastegate (A). The bottom port of the wastegate (B) should be connected to the turbo.

Use supplied hose clamps to prevent pressure leak.

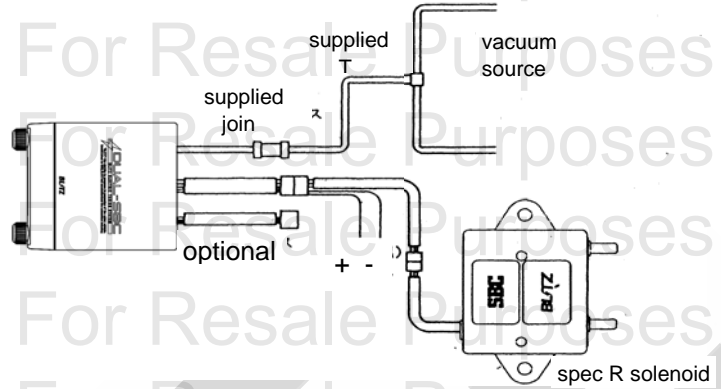
IMPORTANT: For External Wastegate setup, please be sure that WG is set on back of the controller

Control unit installation

Dual-SBC spec S



Dual-SBC spec R



Connect the harness to the solenoid unit and to the control unit.

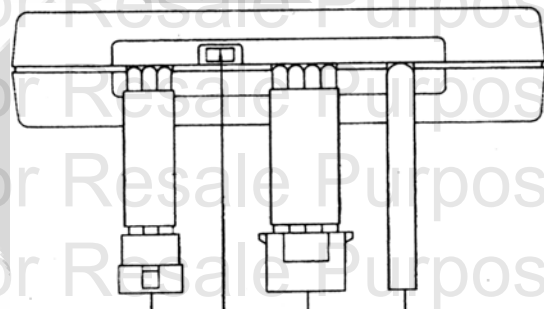
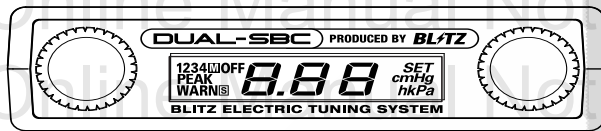
Tap the supplied metal T to a vacuum source behind the throttle body. Then use the supplied plastic hose and join to connect the vacuum source to the control unit.

Connect the red wire (+) to a 12 volt ignition.

Connect the black (-) wire to a ground.

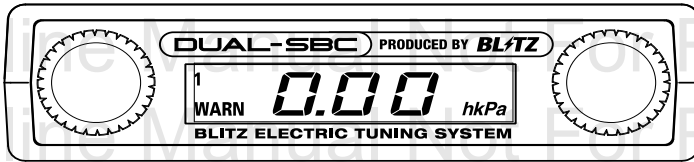
The 3-wire coupler is not to be used in basic installation. It is for an optional unit.

ABOUT THE CONTROLLER

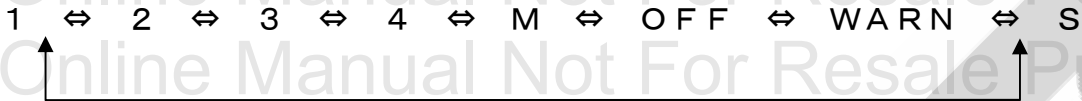


- 1- Left knob
 - * Left knob is used to change modes and when depressed will unlock boost settings
- 2- LCD display
 - * Shows different modes and turns red when warning function is used.
- 3- Right knob
 - * Right knob is used to set boost settings and to change various functions within each mode
- 4- 3 pin harness
 - * Optional harness for data system. **Not used** for basic operations.
- 5- AC / WG switch
 - * Switch to change between actuator and external wastegate settings.
- 6- 4 pin harness
 - * Connects to the main harness.
- 7- Pressure hose
 - * Used to sense pressure from behind the throttle body

MODE SETTINGS



Modes in order when turning knob clockwise



NOTE - When the warning goes off, the "WARN" blinks and the screen turns red.

NOTE - When Scramble function is on, the "S" will blink.

EXPLANATION OF EVERY MODE

Mode - 1, 2, 3, 4



The DSBC allows the user to program in 4 independent boost settings

Mode - Off



This mode turns off boost controller. The boost settings will return to factory set specifications. The boost gauge and peak hold can still be used in off mode.

Mode - warning & limiter



This displays the user set warning level. The screen should turn red and an alarm should sound when warning is activated



This mode displays the user set limiter setting (boost reduction level when warning mode is activated)

The warning & limiter is used to warn and prevent the user from over boosting or boost spikes.

Mode - Scramble boost



This displays the percentage of boost set for scramble boost function.



This displays the time duration (in seconds) scramble boost is activated

Mode - Boost and peak hold



This mode displays current vehicle boost or vacuum.



This shows the highest level of boost achieved by the vehicle.

Mode - M



This mode is for the optional Map Analyzer mode. When the Map Analyzer is not connected, this mode will stay at zero.

* The user must purchase the optional map analyzer unit to use this function.

Mode - Gain setting



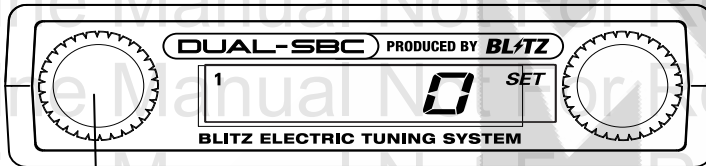
The gain setting adjust the boost sensitivity of the boost controller. This is used to adjust boost response and to lower boost spikes.

OPERATION INSTRUCTIONS

Setting the desired boost.

The DSBC allows the user to set boost at 4 different settings (channels 1, 2, 3, 4). To set boost:

- A** - Turn the mode button to channel 1. The number " 1 " will appear. Push the mode button the number " 1 " will flash on the left.



EXAMPLE ONLY

- B** - Push volume button until the " SET " appears on the right. Then turn volume knob to desired ratio.



EXAMPLE ONLY

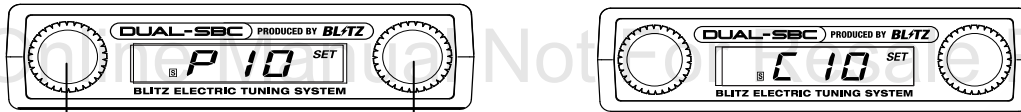
- C** - Repeat steps A and B to set channels 2 - 4.

WARNING - the number boost setting displayed does not represent actual boost, it is a percentage ratio. 0 represents stock boost, 100 represents maximum turbo charger capabilities. Always start of by setting the ratio low and slowly increase the ratio until the desired boost setting is achieved.

IMPORTANT - A boost gauge, an egt gauge, or an Air Fuel Analyzer should used when setting the DSBC. The DSBC does not add fuel in any way. The user should always start with the boost percentage set at low then slowly adjust to the desired setting.

SCRAMBLE MODE

Scramble boost allows the user to set an increase in boost pressure for a desired time.



MODE BUTTON VOLUME BUTTON

IMPORTANT - the scramble boost setting is an additional amount of boost added on top of what the current channel is set on.

IN EXAMPLE - if channel 2 is set at 50, and the scramble boost is set at 10 then the total boost when scramble boost is activated will be at 60.
This will continued every gear until the scramble boost is turned off.

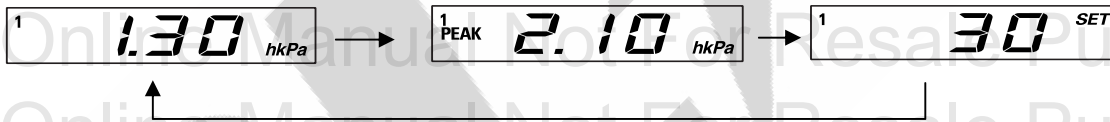
To set the scramble boost mode turn mode button until " S " flashes.

- 1- Turn volume button to set to desired scramble boost. The letter " P " should appear.
- 2- Press volume button to enter time setting. Turn volume button to set the duration of scramble boost. The letter " C " should appear.
(Scramble time is set in duration of seconds)

IMPORTANT - To turn scramble boost off both " P " and " C " have to be set at 0.

BOOST GAUGE AND PEAK HOLD DISPLAY

When in channel 1, 2, 3, 4, M, or Off, pressing the volume knob will change to boost display mode, peak hold mode, and boost setting mode.

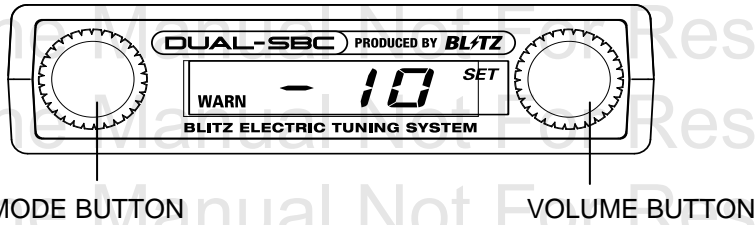


*Peak hold records the highest boost pressure achieved by the vehicle.

*Peak hold remains in memory until the user resets the unit.

* To reset peak hold reading, switch modes to peak hold mode and press the Mode button.

WARNING AND LIMITER MODE



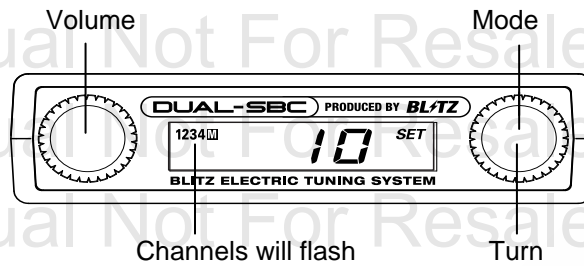
WARNING MODE

- The DSBC allows The user to set boost warning. This unit will sound and The screen will turn red when boost levels are passing the desired warning.
- To set the warning, turn the Mode knob until the screen turns red and the " WARN " appears. (If the DSBC is in the limiter mode, press the Volume button and it will switch to warning mode.)
- When in warning mode turn the Volume button to the desired warning setting.
- The warning is set in hkPa and can be set from 0 to 2.5 hkPa.
- To shut off the warning leave the warning at 0. When warning is on "WARN" will appear. When the Warning is off the letter "WARN" will not show up.

LIMITER MODE

- The limiter mode is activated automatically when boost levels go above the set warning.
- To set limiter mode unit must be in warning mode. Press volume button once and a negative sign should appear. Then turn volume button to desired setting. (Recommended - 7 to - 10 setting).
- This will reduce the boost the ratio set.
- The limiter does not work when limiter is set to 0. To turn the limiter off, set limiter to 0.

GAIN SETTING



Gain is used to adjust boost response. The gain must be set to achieve the quickest boost response without boost spikes or overboosting. If the gain is set too low the boost response may be poor. If the gain is set to high there may be boost spikes or overboost.

To set gain:

- 1- Unit must be in either channel 1, 2, 3, 4, or M.
- 2- Press mode button and hold for three seconds. The unit will beep. Channels 1, 2, 3, 4 and M should flash.
- 3- Turn the volume button to set gain.
- 4- Press mode button to exit.

CAUTION -If the gain is set to high it may cause boost spikes or increase boost pressure.

Recommended gain settings

Vehicle	Motor	Gain
JZA80	2JZGTE	5
MA70	7MGTE	5
SW20	3SGTE	5
FD3S	13BREW	5
FC3S	13BT	5
S13/S14	SR20DET	20
R32,R33	RB26DETT	5
Z32	VG30DETT	5
D32A	4G63	10
Z16A	6G72	5

****This is only a recommendation.**