

INCREASING THE AREA UNDER THE CURVE

# TWISTED TUNING A90/A91 Supra and BMW Z4

# **CANBUS Line Lock Kit**



We bring to you a CANBUS line lock kit for your A90/A91/Z4 to help staging, and save your brakes for a drag run or simply just wanting to do easy burnouts. Our line lock kit does not add extra buttons to the cabin that don't match. Activation is done utilizing the OEM Steering wheel buttons for great OEM integration with unmatched reliability and problem free function. Designed to keep the OEM lines in use for easy reversal of the installation with the included brake lines.

## Whats in the Kit?

- Two Line Lock Actuating Solenoids
- Two DOT Approved brake lines
- Activation/Power and Ground Harness
- CANBUS Module
- -Kaizen Solid State Relay
- Mounting hardware

Install Manual V1.2

### TIME NEEDED FOR INSTALL: 2-3 hours

#### **TOOLS NEEDED:**

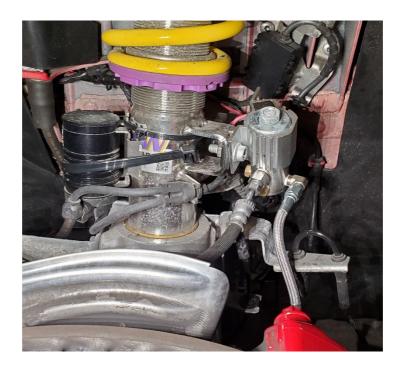
- 13mm Socket
- Associated Ratchet for Socket
- 10mm Open/Box end wrench
- Universal Wire Crimp pliers
- Brake Fluid
- Brake Bleeding tools
- Drain pan

#### **INSTALLATION INSTRUCTIONS:**

- 1. Start by positioning the vehicle on level ground and the front of the car up and put on jack stands. If you have access to a lift, simply get the wheels off the ground.
- 2. Pop the hood and pop the trunk and then proceed to disconnect the battery to ensure nothing activates while installing the line lock kit.
- 3. Remove both front wheels from the vehicle and put to the side.
- 4. Open hood all the and remove the drivers side cowl cover that covers the master cylinder, and both strut tower covers.
- 5. Take the main harness and passenger side solenoid and route the harness as pictured below in yellow. You will be using the engine cowl cable slot to route the harness over the engine.



6. Mount the passenger side solenoid to the shock via the included mounting bolt.



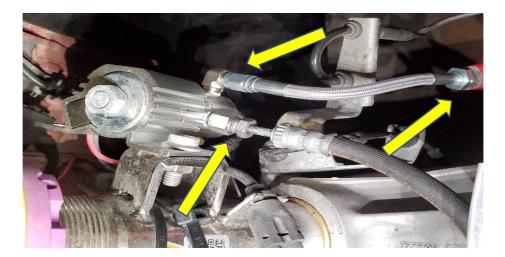
- 7. Mount the Driverside solenoid to the driverside shock as shown above.
- 8. Route the Driverside solenoid wiring up into the engine back and connect to the main harness.
- 9. Zip tie the solenoid harnesses on both side the to OEM harness to keep it out of the way.
- 10. Mount the K-Relay package to the grounding bolt near the master cylinder as pictured below.



- 11. Ensure the black ground wire gets connect to that ground point as seen above.
- 12. Connect the single power wire to the K-relay power feed (Left most wire on the K-relay)
- 13. Plug in main solenoid harness to the K-relay via the plug and play connector.
- 14. Move back to the passenger side of the car and connect the power wire to the vehicles positive terminal which is normally used for jumping the vehicle. See below circled in yellow.

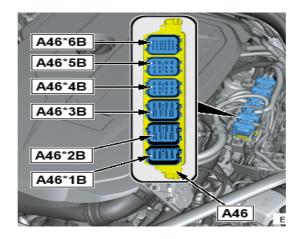


- 15. Start on either side and remove the OEM brake line from the brake caliper and install into the TT line lock solenoid.
- 16. Install the Twisted Tuning supplied Brake line into the caliper and connect the other end to the solenoid. See bellow:



- 17. Once all wiring is connected and brake lines are installed. Connect the battery and hit the test button on top of the middle of the K-Relay to activate the solenoids manually to make sure everything works.
- 18. Disconnect battery one more time
- 19. Route the CANBUS harness to the ECU from the K-relay Control module
- 20. Connect to the CANBUS network using the supplied tap as described below:

<u>WIRE</u>	Vehicle Connection (A46*1B) at ECU	Twisted Tuning CANBUS Harness	
	PTCAN2	CANBUS	
	White/Green - 35 (High)	V1 Harness	Green (High)
	Whited/Blue - 36 (Low)		Yellow (Low)
		V2 Harness	White (High)
			White/Blue (Low)





21. Button up any panels and reconnect the battery and you're done.

### **ACTIVATING THE LINE LOCK:**

- 1. Get to your position where you want to perform your burnout
- 2. Hold brake hard, Put transmission in the gear you wish to start the burnout in.
- 3. Press and Hold the cruise control dynamic range "decrease" button for 3 seconds to activate the line lock. Correct button is circled in yellow below:



NOTE – We know it is hard to count and time that. So actiating the line lock wou can look at the dash and when you press the button to activate the line look a warning will pop up saying "Cruise Control Cannot Be Activated". This indicates you are activating the line lock. Once that warning goes away, your line lock is engaged. See image below:



4. Once line lock is engaged, release the brake pedal and proceed to do your burnout. Releasing the cruise button will disengage the line lock immediately.

Enjoy your Smoke Shows!!!