

TOAD

SECURITY

INSTALLATION INSTRUCTIONS

**AI606 Thatcham Category 1 Alarm
Including AI606 LCV**

CONFIDENTIAL DOCUMENTATION

Confidentiality Statement

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Important Installation Information

This installation manual should be read in conjunction with the user guide, provided with the unit, before starting the installation. It is recommended that you follow the Code of Practice for vehicle alarm installations supplied by the Vehicle Systems Installation Board (VSIB).

These instructions must be followed carefully to ensure the officially recognised "Insurance Approved" status of the product is maintained. (MIRRC Thatcham recognition).

1. Code of Practice

Always follow the "Code of Practice" for vehicle alarm installation supplied by the Vehicle Systems Installation Board (V.S.I.B.) or its equivalent body. If you are not aware of the current industry standard "Codes of Practice", details are available from Toad Technical Support.

2. Certificate of Compliance

Always complete all appropriate paperwork and registration forms and return any required documentation promptly to the required location.

3. Positioning the Alarm Control Unit

Position this inside the passenger compartment, away from any potential source of damp or excessive heat. Mount the unit on a firm surface using the integral mounting lugs, ensuring that it is secure and not easily accessible. TOAD RECOMMENDS THAT THE UNIT SHOULD BE MOUNTED IN A POSITION THAT REQUIRES THE REMOVAL, WITH TOOLS, OF INTERIOR PANELS FOR ACCESS. The unit should be fixed in place with the supplied security screws only after final installation checks have been made. Fix, and disguise, wherever possible, all wires from the control unit. The thin black aerial wire, exiting the control unit opposite the main wiring loom should be free of metallic obstruction for maximum performance and ***should not be modified*** in any way.

Important Note:

This unit is not thatcham approved if it is not installed in it's metal security case

4. Positioning the Siren

Position this inside the engine bay, out of the crash zone, at least 30 cm away from the front or rear of the vehicle. It should be away from any water source and as far away as possible from any source of excessive heat. The siren unit bracket should be fixed to the vehicle using the self-tapping screws supplied, having first drilled 4 x pilot holes. Ensure that the front face of the siren is inclined downwards. The wire exiting the siren should also initially slope downwards to discourage water ingress, be fixed securely and as far as possible disguised. The wire should pass through the engine firewall via a grommet - care should be taken to ensure a water-resistant seal is maintained between the engine bay and passenger compartment. Anti-corrosion treatment should be applied to any holes drilled in the vehicle bodywork and any resulting metal swarf should be completely removed.

5. Positioning the Ultrasonic Sensors

Use the integral clips to securely fix the sensors, with the addition of screws if necessary, to ensure that they cannot be knocked out of position. They should be positioned towards the top of the vehicle's A pillars and should be slightly inclined towards the centre of the protected area - ensure that the position of the sun visor does not impair the operation of the sensors. Care must be taken not to damage the wires whilst routing these out of sight behind the vehicle trim.

6. Wiring Instructions

Please follow the Installation guidelines in this installation manual when fitting the device, but remember to use a voltmeter to identify a suitable connection point on the vehicle for each wire. Ensure that you check each connection carefully before proceeding.

Route the wires from the alarm unit to the point where you have selected and then make the connection. Ensure that you remove the cable identification and tape the joint carefully so that it is not easily identifiable.

**DO NOT USE SCOTCHLOCKS –
ALL JOINTS SHOULD BE SOLDERED AND PROTECTED BY HEATSHRINK TUBING,
SELF AMALGAMATING TAPE OR USE SPECIALIST CRIMPS AND TOOL.**

Pre-Installation Checks

Kit Contents -

Check that the contents of your kit are as follows. You will need all these items to complete your installation successfully:

- 1 x Alarm main unit
 - 1 x Metal Security Case
 - 1 x Pair of ultrasonic sensors
 - 2 x Radio-keys
 - 2 x Wiring loom's, with fuses (main feed and indicator feed)
 - 1 x Plug-in LED, bezel and wire
 - 1 x Bonnet contact switch
 - 1 x Coded battery back up siren
 - 1 x Siren mounting bracket and fixings
 - 1 x User guide
 - 1 x Quick reference card with PIN override
 - 1 x Warranty card
 - 2 x Protected by TOAD window stickers
- (Additional fuses may be needed depending upon the type of central locking outputs required and are not supplied with this system)

Optional Touch Key Kit Contents –

- 1 x Touch Key Receptacle
- 1 x Touch Key

Vehicle -

Before commencing the installation ensure all the vehicle systems work correctly; that the starter motor turns, the engine runs, that there are no dash warning lights illuminated, that all fitted perimeter switches work correctly, the interior light operates and all other circuits are working correctly.

As some of the alarm options can Auto-Lock the vehicle, ensure that a window is left open during the installation process to gain access if necessary.

Vehicle Locations for Alarm Hardware & Wiring Connections -

Locate positions on the vehicle to mount the Alarm Unit, Siren and Ultrasonic Sensors as described in "Important Installation Information" and in the correct orientation. Install the LED in the dashboard following the customer's wishes, using the supplied bezel.

Before making any connections to the vehicle locate the following points for connection and route the alarms appropriate wires to them

+12V ignition feed	Ground	Bonnet switch
Locking connections	Indicator connections	Boot switch
Starter solenoid drive (for starter kill)	Door circuit pick-up	Other optional control circuits
Secondary Immobilisation connection	+12V unfused supply	

Alarm Wiring Guide

Brown/Green Wire (*permanent power feed indicators*)

For +12V switched indicators connect the single pole connector to the mating connector on the red wire. For earth switched indicators remove the connector and join to earth.

Black Wire with Red Tag (*permanent power feed*)

Connect this wire to a permanent +12V unfused supply; *note that the brown/green wire may also be connected to the red wire from the alarm.*

Black Wires with Green Tags x2 (*ground*)

Connect to a ground point using a self-tapping screw and star washer. Do not connect to existing vehicle ground wires. Ensure bare metal is exposed at the grounding points.

Black Wire with Orange Tag (*ignition*)

Connect to an ignition supply at the fusebox. It is essential to connect this wire to a circuit that does not drop out whilst cranking.

Green Wire (*negative door circuit*)

Connect to a door light circuit that goes to ground when any door is open. If required fit additional pin switches or connect existing door circuits together (inserting diodes if necessary) to ensure correct operation of both the alarm and interior light.

Yellow Wire (*positive door circuit*)

Connect to a door light circuit that goes to +12v when any door is open. If required fit additional pin switches or connect existing door circuits together (inserting diodes if necessary) to ensure correct operation. Interior light illumination is not available from this wire.

Black Wires x4 (*immobilisation wires*)

- identified as a loop, by a tape or band at the ends

For correct operation, at least one of the immobilisation circuits must be ignition live and live while cranking. Cut each circuit to be controlled (check current rating if in doubt) and then form an immobiliser circuit by simply cutting each wire loop. Connect one end of the cut wire loop to each end of the circuit you wish to isolate - polarity is not important. DO NOT MAKE IMMOBILISER CONNECTIONS TO THE NEGATIVE SIDE OF THE IGNITION COIL. Re-tape the harness so that the immobiliser connection points are difficult to identify. Do not make connections at places that a thief could easily identify or access i.e. do not make any connections close to the ignition barrel or in the engine bay next to the ignition coil.

Note it is not possible to immobilise a permanent 12V supply

Black/Green and Black/White Wires (*indicator outputs*)

Connect one wire to each of the indicator circuits.

Pink Wire (*optional touch key override data wire*)

This wire will connect to the Red wire on the optional Touch key receptacle, the Blue wire on the receptacle is connected to ground and the Black wire on the receptacle is not used.

Blue/Black Wire (*boot release/optional output*)

Output signal pulls low (to ground) - connect to the coil of the driver relay for the boot release solenoid. For safety reasons this function can only be activated with the ignition off. Once activated, the boot and internal volume sensors are disabled until 20 seconds after the boot is closed. Alternatively this wire can be programmed for various outputs (**press and hold button 3**) *see page 8-9*

Grey/White Wire (*boot circuit*)

Connect this to any circuit that goes to ground when the boot is open. If no such circuit exists fit an additional pin switch. If the existing boot switch operates the passenger compartment interior light, then a separate pin switch or extra diodes will need to be fitted to ensure the alarm indicates triggering from the zone correctly.

Green/red Wire (*variable timed output*)

Connect this wire to other devices that require a signal that pulls low (to ground) for an interval controlled by the user. Once activated, the internal sensors are disabled until 10 seconds after the timed period. (**Press and hold buttons 3 and 4 together**). **Operates with the alarm armed/disarmed and the ignition on or off.**

Central Door Locking

See page 7 for connection details

Siren Wiring (*with 4-core cable*)

The 4-core siren cable should be routed from the area under the bonnet, where the siren is to be mounted, through the bulkhead via a grommet and into the passenger compartment. Run the siren cable to the female 4-pole siren connector in the main wiring loom near the ECU.

Once correctly routed, insert the 4-crimp terminals on the siren cable into the male 4-pole connector colour for colour. Join the connectors, ensuring that the catch and tooth connect to provide a reliable connection.

Grey wire (bonnet circuit)

The grey wire that exits the siren cable near the siren connects to any circuit that goes to ground when the bonnet is open. If no such circuit exists fit an additional pin switch. Care should be taken to ensure that this switch is not easily defeated, as this protects the siren from attack. If necessary, fit a duplicate switch.

Short Brown Wire (*Second siren or pager / horn output*)

This short wire is found at the main wiring plug at the ECU and can be used to drive a relay for an additional siren, horn or a pager. The output signal pulls positive when siren is active.

Check feature access code for correct output (will also give an output if the immobiliser is armed and the ignition is turned on)

Brown/white Wire (*armed low output*)

Indicates that the unit is armed by pulling low (to ground). Can be used to enable or arm other devices such as additional Led's, scanners etc, this wire also will also activate on passive immobilisation, passive arming and auto re-arming.

White Wire (*variable timed output 1 second – 2.5 minutes*)

Connect this wire to systems that need a signal that pulls low (to ground) for an interval automatically controlled by the alarm. Once activated, the internal volume sensors are disabled until 10 seconds after the timed period. (**Press and hold button 4, or programme to operate on arming**). Operates with the alarm armed or disarmed and the ignition off.

Important Safety Note:

Where outputs may be used to control window closure or total closure, it is important to consider any potential safety hazard to the vehicle's occupants - particularly young children. These outputs are not designed to control automatic closure systems without incorporation of the appropriate safety features!

Other Connections -

LED

Connect the three-pin connector to the mating plug on the main unit. This is retained by a snap lock and removal requires the locking ramp on the top face of the connector to be depressed before the connector can be detached - pulling on the wires alone may cause damage.

Ultrasonic Sensors.

These are retained by a snap lock connector and removal requires the locking ramp on the top face of the connector to be depressed before the connector can be detached - pulling on the wires alone may cause damage. The sensitivity of the sensor is set up as described in the section "Alarm Unit Set-Up". The 2 ultrasonic sensor assemblies have male and female plugs and sockets and care should be taken to ensure that the sensor assemblies are correctly connected.

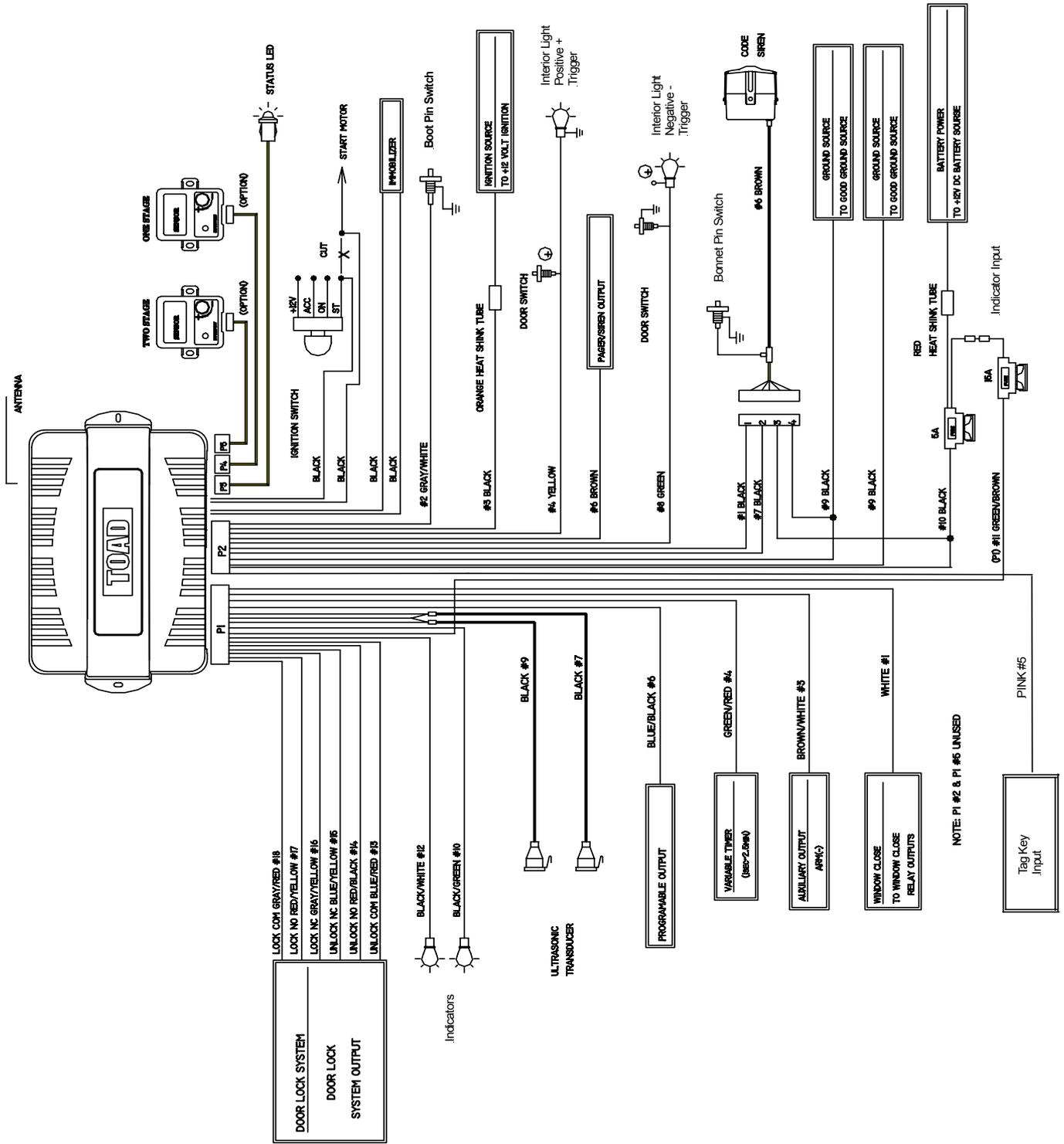
Optional Sensor Connection 4 Pin Plug.

This provides for both the standard alarm trigger input and for pre-warning when used with a dual zone sensor. Connect any compatible optional sensors using the 4-pin connector provided with the sensor cable.

Optional Sensor Connection 3 Pin Plug.

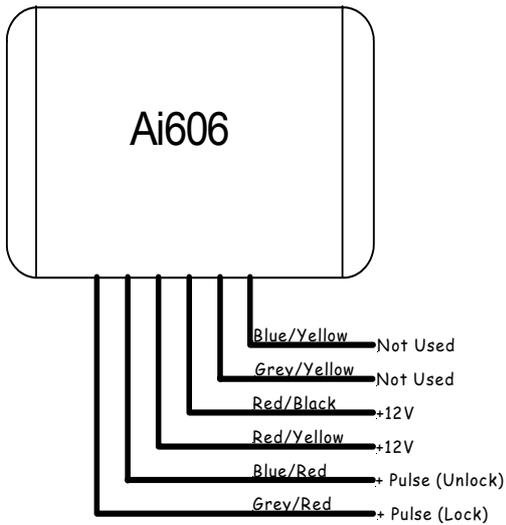
This provides the standard alarm trigger input for with a single zone sensor. Connect any compatible optional sensors using the 3-pin connector provided with the sensor cable.

WIRING DIAGRAM

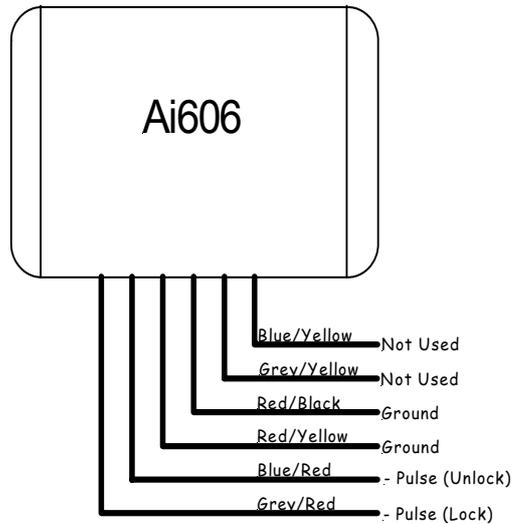


CENTRAL DOOR LOCKING

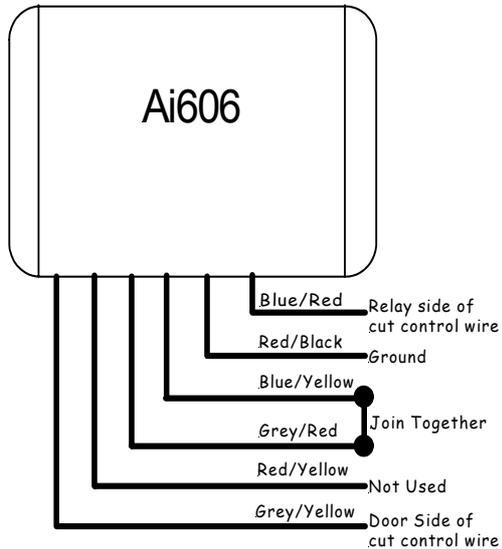
POSITIVE TRIGGER LOCKING



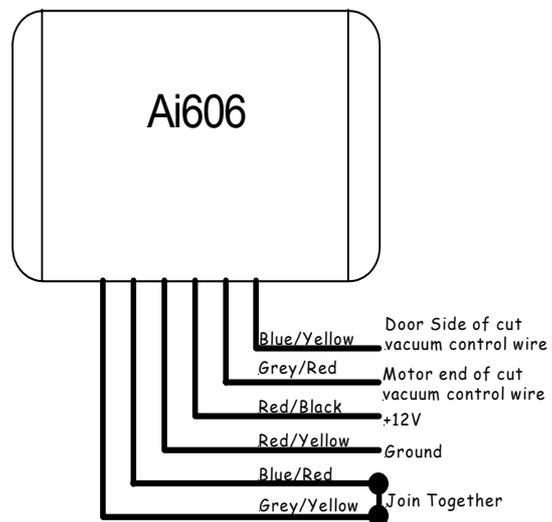
NEGATIVE TRIGGER LOCKING



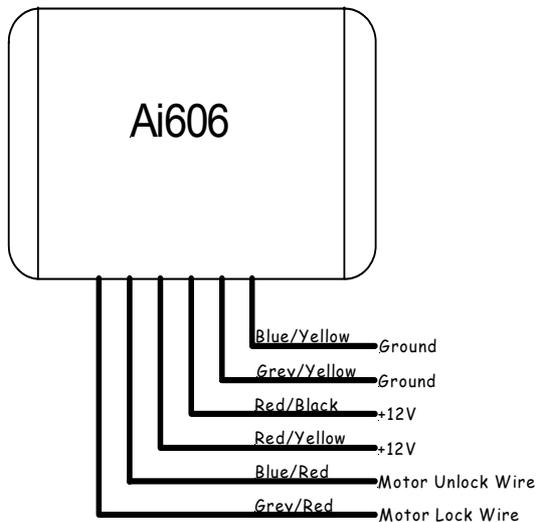
SINGLE WIRE LOCKING



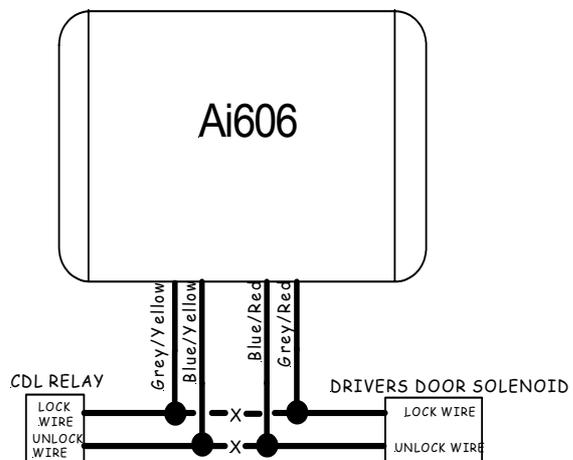
VACUUM LOCKING (USE 4 SEC. PULSE)



ADDITIONAL MOTOR LOCKING



UNIVERSAL MOTOR DRIVEN LOCKING



If both the Lock and Unlock wires to the solenoid rest at Negative connect Red/Yellow & Red/Black to +12v (10A fuse).

If both the Lock and Unlock wires to the solenoid rest at Positive connect the Red/Yellow & Red/Black to the vehicle Earth.

Post-Installation Checks

Check that wiring in the vicinity of the alarm is properly supported and that no undue strain is placed on any of the connectors. For maximum security, the aerial wire should be coiled-up to restrict the radio key range to the minimum necessary.

Check that the metal security box is correctly fitted and screwed into position to keep within Thatcham guidelines

Check to ensure that the vehicle's own systems continue to function correctly and have not been disrupted by the installation process.

Finally fit the fuses in the fuse holders.

Test arming and disarming of the unit, check that each circuit and sensor activates the alarm and that the vehicle locking is working correctly (where available Test Mode may be used to assist with this) .

Affix the alarm window warning stickers in a visible position and complete the Certificate of Installation. Ensure that all documentation and full training is given to the vehicle user at hand-over.

Test Mode -

The system can be placed in test mode to check the operation of the perimeter switches, sensors and to adjust sensitivity.

To Enter Test Mode:

- Turn the **ignition "on"**, then "**off**", "**on**" then "**off**", then turn and leave the ignition "**on**".
- The LED will illuminate
- Press and hold buttons 1 and 2 together for three seconds. The siren will emit a small chirp when in Test Mode.

All sensors, excluding ignition, can now be checked for function. When each sensor is activated the siren should chirp.

To Exit Test Mode:

- Turn the **ignition "off"**

Alarm Unit Set-Up

Ultrasonic Sensitivity & Adjustment -

Adjust the sensitivity of the sensors only when you have mounted them in place. Turning the potentiometer on the side of the main control unit controls the sensitivity. Put the system in test mode so that the siren chirps when the unit detects a zone violation. In the usual way, following the VSIB code of practice, adjust this sensitivity so that the ultrasonics detect movement of a large body inside the vehicle, but are not so sensitive that small disturbances lead to false activation's.

Note: The ultrasonics incorporate an automatic override, if the sensors are interrupted within the first 20 seconds they will automatically override (pet mode) and will monitor the sensors every 5 seconds, so if the movement stops they will automatically reinstate.

Trigger Memory, Smart LED & Troubleshooting

Trigger Memory -

From Ignition (*customer accessible*):

When the **ignition** is first turned "**on**" the sensor that caused the alarm system to trigger in the last armed period, will be indicated by the number of orange flashes from the LED. The LED flashes refer to the circuits shown in the table below. This flash sequence will repeat three times, each time the **ignition** is turned "**on**". The LED flash-back is cleared the next time the system is armed.

From Test Mode (*installer only*):

If the alarm system has been armed again, since the last trigger occurred the Trigger Memory described above will have been cleared and no circuit will be displayed. However, it is possible for the installer to display the cause of the last trigger at any time, regardless of the alarm system having been armed any number of times since the trigger occurred. To do this, enter Test Mode as described above. When in Test Mode, press and hold buttons 1 and 2 together again for three seconds. The LED will now display the last circuit to trigger the alarm. As before, the LED flashes refer to the circuits shown in the table below. Turning the **ignition "off"** exits this and Test Mode.

FLASHES	TRIGGER INPUT	FLASHES	TRIGGER INPUT
2	Optional sensors	5	Doors (+)
3	Doors (-)	6	Ultrasonic sensors
4	Boot/bonnet	7	Ignition

Smart LED –

Additionally the LED indicates the current status of the alarm as follows:

ARM	LED Slow RED flash
DISARM	LED Off
ARMING	LED Quick Green Flash
IMMOBILISER ARMING	LED Green Solid
IMMOBILISER ARMED	LED Red Solid

Trouble Shooting -

FAULT	POSSIBLE REMEDIES
UNIT FAILS TO ARM BY THE RADIO KEY	If LED not lit - check fuses and power connections. If LED lit check batteries in all Radio-keyss and that they are programmed into the unit. Remember that, other than by Radio-key or active rearm the alarm will only arm if passive arming is selected.
SIREN DOES NOT OPERATE WHEN ALARM ACTIVATED	Test by unplugging when armed – the siren will sound. Allow a few minutes for the siren battery to charge
UNIT WILL NOT ARM OR DISARM BY RADIO-KEY	Check current Radio-key operation with spare valid radio-key Check aerial positioning - the higher it is the better reception should be
FALSE TRIGGERING OF ALARM	Check sensor sensitivity and that switch operation is reliable
INTERMITTENT FAULT	Check all hard wired and plug-in connections Check for low vehicle battery voltage
IF ALL ELSE FAILS...	Contact the Technical Help Desk on 0870 1604433.

Programming the Alarm Unit

Programming the Customer PIN Code –

The customer PIN code is a 4-digit number used to dis-arm the alarm system in an emergency, and also to access programming mode. The factory default PIN setting is random, but each of the 4 digits can be set to any number requested by the customer. **The customer should carefully record this PIN. If this PIN is lost, then essential functions within the alarm will become inaccessible. This PIN code can only be reset by returning the unit to TOAD. Ensure that the customer is fully aware of the importance of this PIN code.**

To enter a 4 digit pin code; for example 4030:

Turn the Ignition  within 7 seconds, leaving it “on”.

The LED will now flash Red quickly for 3 seconds, then slows to 1 flash per second.

Count the **slow Red flashes** until the 4th occurs  - turn the **ignition “off”** immediately after the LED extinguishes.

Turn the **ignition “on”** - The LED illuminates Green, then slowly flashes Red.

Before the 1st slow Red flash  - turn the **ignition “off”**.

Turn the **ignition “on”** - The LED illuminates Green, then slowly flashes Red.

Count the **slow Red flashes** until the 3rd occurs  - turn the **ignition “off”** immediately after the LED extinguishes.

Turn **the ignition “on”** - The LED illuminates Green, then slowly flashes Red.

Before the 1st slow Red flash  - turn the **ignition “off”**.

Note:

As shown above, a 0-digit is entered by turning the **ignition “off”** immediately after the LED has finished flashing Red quickly for 3 seconds (if it 0 is the 1st digit of the PIN), or immediately after the LED has illuminated Green (if it is the 2nd, 3rd or 4th digit of the PIN). i.e. before the 1st **slow Red** flash occurs. All other digits are entered by turning the **ignition “off”** immediately after the LED has extinguished on the corresponding flash number.

If the PIN code is entered correctly, the system will return to the disarm state when the ignition is switched off. If the code is entered incorrectly then the system will stay armed and indicate a wrongly entered code by beeping the siren 5 times.

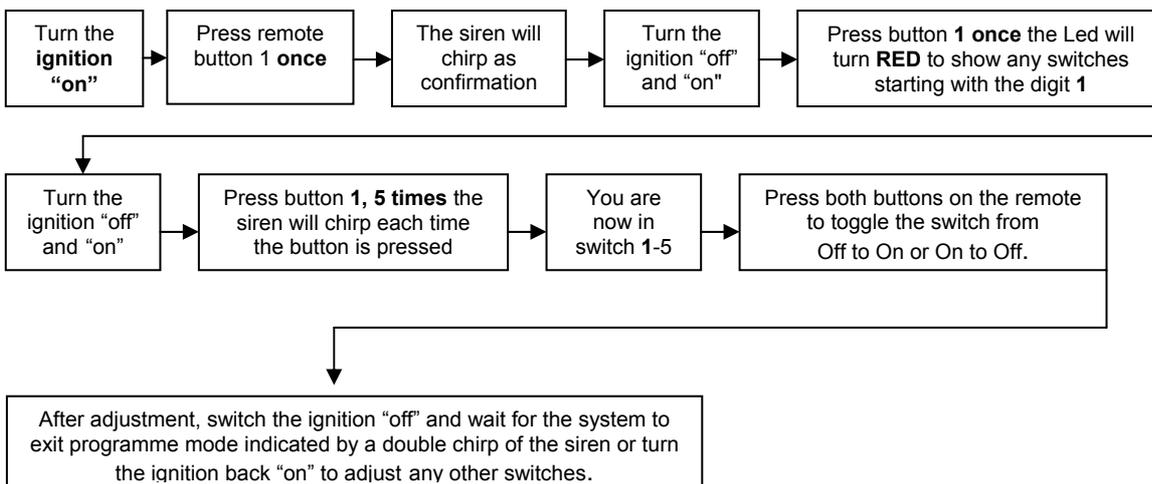
If an incorrect PIN code is entered 3 times in succession, the alarm will block any further PIN code attempts for 3 minutes. The PIN code block is shown by the LED giving a double flash in place of the single flash.

IF THE OPTIONAL TOUCH KEY IS FITTED TO THE ALARM SYSTEM, THIS WILL STILL DISARM THE ALARM SYSTEM.

Software Switch Sequence –

The alarm unit is supplied with standard default settings and features. To adjust the settings and to adjust ultrasonic sensitivity, follow the procedure as illustrated in the example below.

To change the Siren Chirp setting (switch 1-5) from On to Off, complete the PIN code entry sequence then:



Software Switch Selection Chart –

Software Switch Function		Default	LED On Indicates:	LED Off Indicates:
1-1	Passive Arm/Disarm Mode	Off	On	Off
1-2	Auto Re-arm On/Off	On	On	Off
1-3	Auto Re-Locking On/Off	On	On	Off
1-4	Lock with Ignition Key	On	On	Off
1-5	Siren Chirp	On	On	Off
1-6	Lock Pulse Duration	0.6 sec	0.6 sec	3.5 sec
1-7	Comfort Window Closing	On	Off	On
1-8	Automatic Pet Mode (Automatic ultrasonic override on arming)	Off	On	Off
2-1	Window Close Active with Arm	Off	On	Off
Software Switch Function		Default	Button One	Button Two
2-2	Programmable Output Setting	1 (9 options)	Press both together to increase by one (a 10 th press returns to 1)	
2-3	Time Delay before Door Lock Activation	10 second (Red LED)	Press both together: Once to select 0 seconds (Green Led) Twice to select 2.5 seconds (Orange Led) Three times to select 10 seconds (Red Led)	
2-4	Siren Chirp Volume	Low volume chirp and pre-warn (Green LED)	Press both together: Once to select low volume on arm/disarm and pre-warn (Green Led) Twice to select low volume on arm/disarm chirp but high volume on pre-warn (Orange Led) Three times to select high volume on arm/disarm and pre-warn (Red Led)	
2-5	Pager/Horn	Pager	Pager	Horn
Software Switch Function		Default	LED On Indicates:	LED Off Indicates:
2-6	Interior Light Override on Arming	Off	Off	On
2-7	15 Time Limited Trigger on Pre-Warn	Off	Off	On
Software Switch Function		Default	Button One	Button Two
2-8	Five/Two Chirp Pre-warn	Five	Five	Two
3-1	Changing the Pin Code	Contact technical support for further information		
3-3	Erase OTHER Radio-Keys/Touch Key Codes (Save code of Radio-keys Being Used)	-	Press both together	
3-4	Return ALL Software Switches to Default	-	Press both together	
3-6	Window Close Duration (1sec-2.5min) (White wire output only)	20 sec (1-150secs)	Press both together to start timer and both together again to stop timer. Duration is set as this period.	

Note:

Software switch 1-7 when selected, will replace the panic facility when button 1 is held and will remain active for as long as button 1 is held.

Programmable Output (Software switch 2-2) -

NOTE: THE REMOTE CAR START OPTION DOES NOT CURRENTLY CONFORM TO THATCHAM CRITERIA AND INSTALLING A REMOTE CAR START WILL INVALIDATE THE Ai606 CAT 1 STATUS.

The settings of the Programmable outputs are as follows, press buttons 1 and 2 together to increase the setting by 1: -

1. Boot release – Ignition off while armed, 1-second pulse with the sensors and boot input disabled until 20 seconds after the boot switch is closed. If this feature is selected, **the boot switch and the sensors will be re-instated 20 seconds after the output is activated, unless the alarm sees the boot switch open.** Once the boot has been opened (detected by the boot switch) the siren will beep once every 6 seconds until it is closed again to warn the user that the boot is not correctly closed, with alarm armed, disarmed, ignition on or off.
2. Remote Car Start Control – While armed 1second pulse with sensors and engine immobiliser disabled until the next disarm and arm command or the second Remote Car Start command. The second Remote Car start command (1 second pulse) activates the sensors and the engine immobiliser.
3. Free pulse – Gives a 1 second pulse, with the ignition on or off / Armed or Disarmed
4. Window Close Output – While Armed (or Disarmed) 20-second impulse with sensor disabled until the end of the pulse, with the ignition off.
5. Latched pulse – Output is active from the time the output is turned on or until it is switched off again using the same procedure. Active with the ignition switched On or Off, Armed or Disarmed
6. Battery Saver – The output is active from the time the output is turned on until either it is switched off again using the same command or until the alarm system arms. Note the ignition must be switched off and the alarm disarmed.
7. Headlight Output – Turn on automatically for 20 seconds whenever the alarm system is armed.
8. Two stage unlock output:-The system includes a 2 stage unlock feature. The first press of button 2 when disarming will disarm the alarm system and issue one unlock pulse via normal unlock wire. If button 2 is pressed again within 3 seconds a second unlock pulse will be issued via the Blue/Black wire. (vehicle dependant)
9. Armed negative output activated only when the remote control is pressed to arm the alarm.

Adding New Radio/Touch Keys -

Enter the PIN code as described previously.

After the PIN code is accepted turn the **ignition “on”** and press button 1 on a new Radio-key to teach it to the system, or touch the Touch-key receptacle with a new Touch-key.

Turn the **ignition “off”**.

Leave the **ignition “off”** for 25 seconds

If more radio-keys/touch-keys are introduced to the system than the maximum allowed (4 of each), then the earliest programmed radio-key/touch-key will be deleted. After introducing new radio-key/touch-keys to the system, check that all existing radio-keys/touch-keys are still recognised by the system.

Deleting Radio Keys & Touch Keys -

An already valid Radio-key or Touch-key cannot be introduced to the system a second time, and therefore cannot be used to force out an unwanted key. If you wish to delete existing keys from your system, for example if a Radio-key/Touch key has been lost or stolen this can be achieved using the System programming functions. Remember to re-introduce all Radio-keys/Touch keys that are still required.

Battery Replacement -

A long life Lithium battery is fitted as standard to the Radio-key, which should give exceptional life. The replacement part is CR2032 (one per Radio-key). To open the Radio-key, insert a slim coin into the recess near the key-ring loop and twist gently, separating the two halves of the casing. First noting the polarity, the old battery may be removed by sliding forward, out of the battery contact assembly. Observing the correct polarity, and taking care to ensure that the surface of the battery and contacts remain clean, the new part can be slid into place. The casing should be closed by pressing gently round the edges until it snaps together. Check that pressing any of the buttons causes the Radio-key LED to illuminate.

Note: The optional Touch key requires no batteries.

Technical Information

Electrical Specifications-

CURRENT DRAIN: ARMED, WITH ULTRASONICS	18mA max at 12.5 volts
ARMED, WITHOUT ULTRASONICS	10mA max at 12.5 volts
SIREN DRIVE (HIGH)	3Amps max (sufficient for 2 sirens at 1.25A each typically)
INDICATOR OUTPUT (HIGH)	7.5Amps max each
ARMED OUTPUT (LOW)	500mA max
BOOT RELEASE /OPTIONAL OUTPUT (LOW)	500mA max
TIMED OUTPUT DRIVE (LOW)	500mA max
VARIABLE TIMED OUTPUT DRIVE (LOW)	500mA max
SECOND SIREN OUTPUT - (LOW)	500mA max
CENTRAL LOCKING	15Amps max
IMMOBILISER CUT CAPACITY	18Amps max per circuit
ENCODING	Advanced random encryption, 66 bit
FITMENT POLICY	All12V negative ground vehicles
VOLTAGE RANGE	9-15V
WIRING	Automotive spec wiring, current carrying capacity sufficient for rated loads.
RADIO-KEYS	433.92MHz European standard. Approved to MPT 1340, WT Licence Exempt and R&TTE regulations.

Sensor Socket Pin-outs -

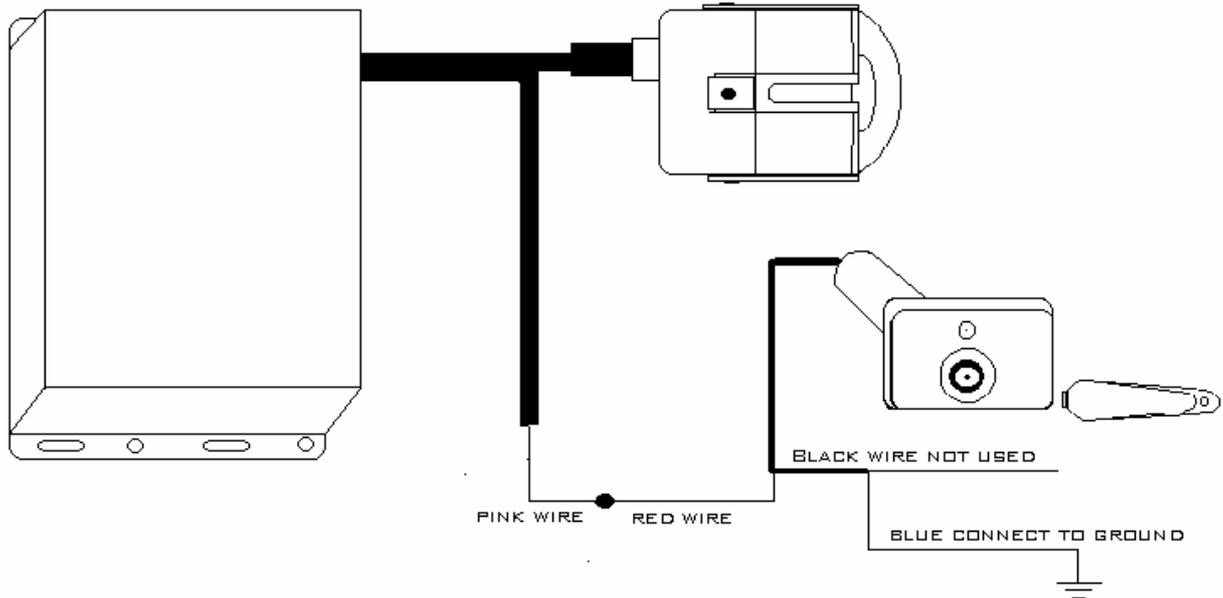
Sensor socket A - 3 pin (ultrasonics)		
Pin:	Function:	Note:
1	Ground	
2	Trigger	Low
3	+12v	300mA max

Sensor socket B - 4 pin (additional sensors)		
Pin:	Function:	Note:
1	Trigger - outer	Low
2	Trigger - inner	Low
3	Ground	
4	+12v	300mA max

Note:

Pins are numbered counting from the left, unit viewed from the front, Toad sticker upwards. Warning - where mating parts have pin numbers marked, these may not agree with this scheme.

The Optional TTK Touch Key



Mounting -

The TTK receptacle should be mounted inside the vehicle, and located in an easily accessible place? For customers to use as a touch key override.

Wiring -

BLUE WIRE – Connect to ground on the vehicle.

BLACK WIRE - Not used insulate this wire.

RED WIRE – Connect to the pink wire of the Toad Ai606 alarm system.

Note:

Only Toad Ai606 alarm systems with a serial number higher than that listed below have software to support the use of the TTK Touch Key.

Ai606	From serial number 109339502 – models with pink wire
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Coding of Touch Keys -

- Enter the PIN code as described in the customer quick reference card.
- After entering the PIN turn the **ignition “on”** and offer the touch key to the receptacle, the LED will flash and the siren will chirp. Offer further touch keys if applicable.
- Turn the **ignition “off”** and leave for 25 seconds, the siren will chirp when exiting programming.

For further coding information refer to the relevant section of this manual.