

## MODEL TR68A USER' S MANUAL

### PRE-INSTALLATION CHECK


1. For safety sake, check first if your ignition key can activate engine start while the hand gear is engaged. If engine starting is possible while hand gear is engaged , the gear mode must be in “manual hand gear mode” during installation ( Refer to the operation guide ) .
2. Check if immobilization feature is present in your auto mobile [A1].If so, another accessory ( Item no: 444 )is required to enable remote engine start and this is buyable from the same dealer.
3. Check the circuits and their current first. Refer to [ Installation diagram for input / output current values]. If the output current is lower than requirement, additional relays must be added.]

### Check the followings after installation of alarm system

1. Installation is abnormal if the remote engine start can be done under these conditions (a) the gear is engaged (b) ignition key is in “Ignition On Mode” (c) the engine hood is open ( d) the hand brake is not engaged.
2. The remote control should enable operation of functions in the same way as the original ignition key. If remote control can hardly remote engine start, the installation abnormal. Check the related circuit connection of the ignition cylinder.
3. For servicing , repair and valet parking, “ Valet Mode “ must be set to “ON”


### REMOTE CONTROL FEATURES

#### 1. Remote door lock


To lock door , press button  , siren chirps once and parking light flashes once.


Middle button of the remote transmitter lights up with 1 buzzer sound.[ If remote' s buzzer makes 4 sounds, system is not working normally.]

#### 2. Remote door unlock

To remote unlock the locked vehicle, press button  , siren chirps twice and parking light flashes twice. Upper LED lights up with 2 buzzer sounds.

#### 3. Two steps door unlock or Channel # 3 [ Refer o Features Programmed Table , at # 32]

Another accessory buyable from the same dealer is required to have this feature. A press on button  can unlock driver' s door and longer press on the same button can unlock all other doors. Siren chirps 3 times and parking light flashes 3 times.

 The remote Upper LCD lights up with 3 buzzer sounds.


#### 4. Car locator / search

To locate the car, press button  , siren chirps 6 times with 6 parking light flashes.

 The remote LED indicates car' s status with melody

#### 5. Remote engine start

To remote engine start, press and **hold** this button  ; siren chirps 3 times with 3 parking light flashes.


 The remote lower-LED lights up with melody upon engine start success ( LED blinks differently depending on car' s status of unlock/lock ).


For runtime setup, refer to Program Table at # 30. Engine run stops when preset time expires.












#### 6. Remote activate engine run time

Following the success of engine start, press engine run time button to automatically add up engine runtime with 5 min stepup for each button press .Maximum 20 min runtime can be attained . Engine stops automatically when the runtime expires. [Refer to Remote Transmitter' s Features]

#### 7. Remote engine stop

To remote stop engine run (excluding engine run by ignition key) , press and **hold** the button .Car engine stops with 2 confirming siren chirps & 2 parking light flashes.

 The remote lower-LED sounds melody , the lower-LED does not light up .(The rest LED may light up depending on lock / unlock status)

<p><b>8. Remote temperature-controlled start on/off</b> [Refer to Remote Transmitter's Features]</p> <p>This feature enables engine start automatically when the pre-set temperature is reached. The engine running will stop when the pre-set runtime expires. [refer to Features Program Table at 31 ]</p>
<p><b>9. Programmed daily start time on/off</b> [ refer to Features Program Table, at # 32]</p> <p>Daily start time can be programmed. Decide and set daily start time exactly at the desired time of the day .Once this feature is “ ON ” ; from the next day, your car will auto engine start at pre-set time daily.</p>
<p><b>10. Trunk release ( activate channel # 1 )</b></p> <p>To release trunk regardless of the car's lock or unlock status, press and hold button <b>Trunk</b> . The parking light flashes twice to confirm trunk release.</p> <p> The remote transmitter sounds melody , LED lights up to show car status</p>
<p><b>11. Headlight delay ( activate channel # 2 )</b> [refer to Features Program Table ,at # 31 ]</p> <p>To have head delay, press buttons  and <b>Trunk</b> simultaneously either in arm or disarm modes. Following 2 parking light flashes, headlight stays on 30 sec before it automatically turns off.</p> <p> The remote transmitter sounds melody and LED lights up to show car status</p>
<p><b>12. Defective zones alert upon remote start</b></p> <p>Remote engine start fails if there is a defective zone like the trunk being released or handbrake un-engaged</p> <p> The remote transmitter reflects with 4 buzzer sounds and its LED lights up to show car status.</p>
<p><b>13. Status Check</b></p> <p>Press button  to monitor the latest vehicle status. The parking light flashes 3 times.</p> <p> The remote transmitter sounds melody and its LED lights up to show vehicle's status.</p>
<p><b>14. Remote valet mode</b> [ refer to Features Program Table 1 at # 31 or Remote Transmitter's Features]</p> <p>Press button ,  and <b>Trunk</b> to switch valet mode “ON” ; car's parking light flashes 4 times, its siren chirps 4 times; the remote transmitter reflects with 3 buzzer sounds with its upper- and middle-LED blinking a while . Under valet mode ”ON” , the remote engine start is not operative while other features are still operative. All features become operative when the valet mode is turned “OFF”.</p> <p>To switch valet mode “OFF” , press and hold all ,  and <b>Trunk</b> simultaneously for a few sec, siren chirps 3 times;</p> <p> The remote transmitter reflects with 3 buzzer sounds with all LED blinking a while.</p>
<p><b>15. Remote siren ( horn ) on/off</b> [ refer to Features Programmed Table at #30 or Remote Transmitter's Features ]</p> <p>Different programming can set the siren's ( horn's ) sound loud / soft or mute as desired.</p>
<p><b>16. Status feedback &amp; confirmation signal</b> [Refer to Remote Transmitter's Features ]</p> <p>Having received transmitter's command and successfully processed its command, the main system will sends feedback signal to the transmitter which will then reflect with confirmation signal or latest status reports by its buzzer sound and/ or LED lights.</p>

## FEATURES OF MAIN UNIT

<p><b>17. System's code-learning from 4 different transmitters</b> [Refer to Code Learning at #29]</p> <p>The main unit can learn coding from 4 remote transmitters.</p>
<p><b>18. Power failure memory</b></p> <p>The main unit retains the memory of last settings if its power source is disrupted.</p>
<p><b>19. Low voltage auto engine-rest</b></p> <p>The main unit will terminate engine running if its power voltage becomes low at 5 v.</p>
<p><b>20. Safety remote engine start/stop engine circuit</b></p> <p>For each time of remote engine start, the main unit will perform check on related circuit .Only in perfect condition of all switches , will the engine start.</p>
<p><b>21. Smart of engine crank circuit</b></p> <p>Having received remote engine start signal by remote transmitter, the system will try engine starting. Cranking will automatically terminate immediately after engine-start success.</p>
<p><b>22. Success of engine start diagnosed RPM/voltage</b> [ Refer to the Installation Diagram, note (9) ]</p> <p>The main unit will diagnose the engine-start success be means of RPM or voltage sensing.</p>

**23. Valet mode by override switch** [ Refer to Features Program Table ,at # 32 ]

While valet mode"ON", all other functions are still operative except for the engine-start which will not be operable unless valet mode is switched "OFF".

**24. Auto relock**

After car door is unlocked , it will automatically relock itself if nobody opens the door within 15 sec.

**25. Safety door lock/unlock upon ignition on/off** [ refer to Features Program Table, at # 33 ]

The central door locking system will be activated and all doors are automatically locked if the ignition is turned on. All doors will be unlocked immediately the ignition is turned off.

**26. Immobilizer by-pass features** [ Refer to Installation diagram note ( 5).]

In case of inability to remote start your car with original immobilizer, this system feature can overcome this problem by means of by-passing the immobilizer feature.

**27. Remote start with automatic and manual gear** [ Refer to Installation diagram note (10) ]

Auto transmission gear : The remote transmitter is compatible with this type. The automobile must be in free gear mode otherwise the auto remote start is not operative.

Manual gear car : To enable remote engine start for this type, following steps must be done.

- (a) Engage the hand brake while the engine is running
- (b) Press the remote engine start button of the remote transmitter and try to complete steps (c) and ( d ) within 30 secs.
- (c) While the engine is still running, turn the ignition "OFF"
- (d) Open the car door and re-close it .Power door lock is activated.( The engine will automatically stop running at the same time). All the features become operative now.

**If there is any mistake in any of the above steps, the system can fail its remote engine start.**

**28. LED Status indicator**

Mount the LED status indicator in the interior of the car at an visible place. Car owner can learn the current setting status of main unit. Refer to the table below.

Normal mode

\* \* \* \* \*

Programmed daily start-time in standby mode

\*\* \*\* \* \*

Temperature-controlled start in standby mode

\*\* \* \* \*

Temperature-controlled & daily start-time in standby mode

\*\* \* \* \* \*

Valet mode on



\*\* \* \* \* \* \*

**29. Code learning of remote transmitters**

Follow the steps as below.

- (1) Turn the ignition "ON" ( Engine must not be running)

Press and hold override switch for about 6 sec and release after the siren chirps 4 times when the main system has entered learning mode.




- (2) Press and hold remote transmitter' s button  and  and *Trunk* simultaneously till the siren chirps 1 time. Do the same step (2) with other remote transmitters one after another , to let the main system learn codes of each transmitter. (maximum 4 remotes can be learned )

**Note: The previously-memorized coding will be erased each time learning mode is activated.**

### 30. Features Program Table ( 1 )

Follow the steps as below.

- (1) Turn the ignition “ON” ( Engine must not be running)
- (2) Press and release the override switch 6 times.
- (3) Turn the ignition “OFF” , siren chirps 6 times to confirm it has entered programming mode.
- (4) During programming mode, each press on override switch is followed by 1 siren chirp .The number of siren chirps reflect default “ ON “ and “OFF” as shown in the chart below. The shaded value is the factory default setting.

Features Program Table ( 1 ) Buttons of the remote transmitter	
Pressing times on override switch Programmed features	Press & release Button  Press & release Button  Press & release Button  Press & hold Button <i>Trunk</i>
Engine runtime upon ignition for 5/ <u>10</u> /15/20 min	1 time 5 min 15 min 20 min
Temp-controlled auto start at -5/ <u>-10</u> /-20/-30C ° -5 C °	2 times <u>-10 C °</u> -20 C ° -30 C °
Crank time for <u>800ms</u> /1000ms/1600ms/2000ms	3 times <u>800ms</u> 1000ms 1600ms 2000ms
Channel #2 output time <u>0.8s</u> /10s/30s/on-off	4 times <u>0.8s</u> 10s 30s On/Off
Channel #3 output time <u>0.8s</u> /10s/30s/on-off	5 times <u>0.8s</u> 10s 30s On/Off
Siren/horn time for <u>100ms</u> /20ms/15ms/20ms	6 times <u>100ms</u>

Features programming	Override switch	10ms
		15ms
		20ms
On/off setting of ignition # 2 output while cranking		7 times
		<b>ON</b>
		OFF
		OFF

### 31 Features Programming Table ( 2 )

Follow the steps as below.

- (1) Turn the ignition 'Off'
- (2) **【 Total 3 times press of override switch for valet mode 】**  
**【 Total 4 times press of override for programmed daily start time 】**  
**【 Total 5 times press on override for temp-controlled auto start. 】**  
 Same number of presses on override switch is followed by same numbers of siren chirps.
- (3) Turn the ignition "ON" to decide in each features mode.
- (4) Press again override switch once /twice to decide each feature "ON" or "OFF"

**The shaded indication like OFF is the factory default modes.**

Features Program Table ( 2 )

		Once
		Twice
3 times, valet		ON
		<b>OFF</b>
4 times, programmed daily start time on/off	ON{ Refer below note }	OFF
5 times, time-controlled auto start on/off		ON
		<b>OFF</b>
Siren and L E D indicator		1
		2

**Note: NOTE: Having set the programmed daily start time mode "ON" , when the ignition is turned "OFF", the engine will immediately be running to indicate this feature in at standby mode .( Use remote control to engine stop engine running in this case.)**

### 32. How to restore setting to factory default.

Follow the steps as below.

- (5) Turn the ignition "ON" ( Engine must not be running)
- (6) Press and release the override switch 10 times.
- (7) Turn the ignition " OFF" ( Siren chirps 10 sounds. This confirms system has entered features programming mode.)
- (8) Press over-ride switch.1 more time. Siren chirps 1 time to confirm the # 30, #31 are ready for change of default
- (9) Press remote' s button **【 🔒 】** Its buzzer makes 1 sound to confirm # 30, # 31 are restored to factory default.

### 33. 程式設定開關功能表 [ 3 ]

#### 硬體程式設定功能表[3]

Set no

項目

出廠原設定值/off

on

Set 4

Ignition 預熱時間

汽油

柴油

Set 3

Central lock time

0.8s

3.6s

Set 2

Unlock 2 step/ch3

### 33. Pre-programmed Hardware Features Table ( 3 )

Pre-programmed hardware features [ selectable by mode switches]

Mode switch

Features

Factory default/ Off

on

Mode switch # 4

Remote start pre-ignition time

Gasoline

Diesel

Mode switch # 3

Central lock delay time

0.8 sec

3.6 sec

Mode switch # 2

2 steps unlock , Ch # 3

2 step Unlock

Ch # 3

Mode switch # 1

Safety door lock / unlock upon ignition on / off

Off

On

Black wire

Auto gear / manual hand gear

Auto gear

For manual gear, cut the wire loop (Refer to wiring installation guide Note (10))

The 2-way pager is a low-powered transmitter device used in monitoring the automobile security status as well as in remotely arming/disarming car security system and other optional features. Its features and functions are described in the separate attached sheet.

The transmission is powered by 12 V of the car alarm control module and works on 433.92 Mhz single fixed frequency. Details of circuit diagram and its block diagram are shown on the attached sheets.

The automobile's sensor will trigger the digital control signals and modulate the carrier signal. The carrier signal is generated by a crystal oscillator/amplifier circuit of a 433.92 MHz crystal and a npn transmitter. The modulated output of the RF amplifier is coupled to the coil.

Fundamental Frequency  
433.92MHz

Power Source  
12V

Transmitting Time  
Periodic  $\leq 5$  seconds

Associated Transceiver  
FCC ID : NJQTR68A

All the tuning and verification are done by manufacturer during the production process and no adjustment is allowed by any consumer. No external ground is needed in such device.

#### FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference. (2) this device must accept any interference received, including interference that may cause undesired operation

#### Warning:

Note: This equipment has been tested and found to comply with the limits for digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference: and
- (2) This device must accept any interference received: including interference that may cause undesired operation.

**THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. Such modification could void the user's authority to operate the equipment.