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#### **General Notice**

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# This unit is made for the purpose of persons who have special techniques and certifications.

#### Disclaimer

- To take full advantage of the unit, you should be familiar with tires of various kinds.
- All information, illustrations, and specifications contained in this manual are based on the latest information available at the time of publication. The right is reserved to make change at any time without notice.

### **Safety Precautions**

- This manual is a necessary part of the product. Please read carefully.
- Keep the manual for later use when maintaining the machine.
- This machine can only be used for the designated purposes. Never use it for any other purpose. The manufacturer is not held responsible for the damage incurred by improper use or use other than the intended purpose.
- The equipment can only be operated by qualified personnel with special training. Modification to any components
  or parts, or use the machine for other purpose without either obtaining the agreement from the producer, or
  observing the requirement of the instructions may lead to direct or indirect damage to the equipment.
- This machine should be installed on the stable ground.
- Keep the back panel 0.5m away from the wall for good ventilation. Enough room should be left on both sides of the machine for convenient operation.
- Do not put this machine in a place with high temperature or moisture, or near the heating system, water tap, air-humidifier or furnace.
- Do not put the machine near the window with sunlight. Protect the unit with a curtain or shield if necessary.
- Avoid lots of dust, ammonia, alcohol, thinner or spraying binder.
- People who are no operating the machines should be kept away when it is used.
- Use appropriate equipment and tools, protective and safety equipment, including eyeglasses, earplugs and working boots.
- Pay special attention to the safety marks on the machine.
- Do not touch or approach the moving parts by hand during operating.
- Do not remove the safety device or override it.
- Use #2 lithium lubricants (grease) only within the safety range. Refer to the appendix for the safety data.
- Before moving the tire changer, contact maintenance personnel.
- The product is better used under the following conditions:

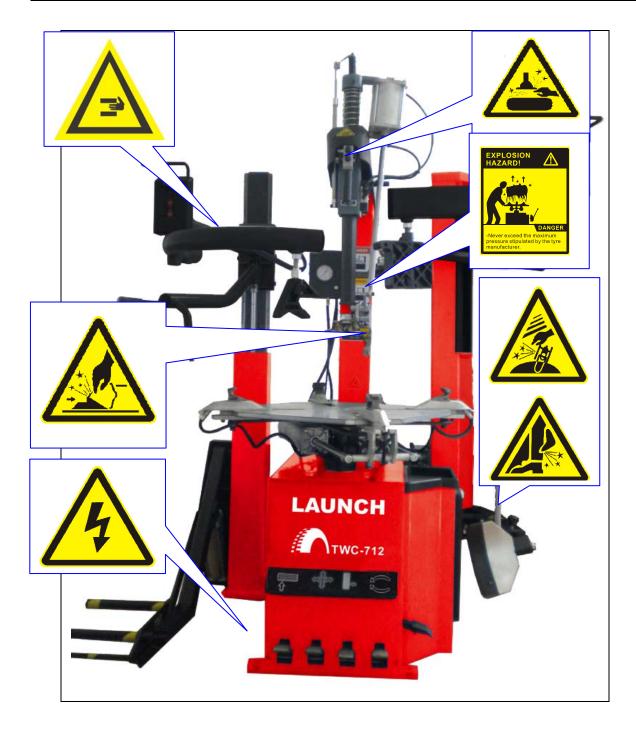
Temperature: 0°C ~45°C Relative humidity: 30~95%

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# 1. Warning Signs and Their Positions

Do not put your hand(s) between the MOUNT/DEMOUNT head and the tire.	4	Keep safety for electrified devices.
Please pay much attention to the pipeline connections! Before operation, the air sources must be cut off, and the air inside the machine must be emitted off in order to prevent the personnel from being injured.		Do not stand within the column swing area to avoid personnel injury!
Do not put your leg(s) between the splitter and the tire when the splitter is used.	MAX 10bar	The pressure of compressed air cannot be more than 10bar.
Do not put your hand(s) between the tire and turntable when machine is operated.		Here is the connection joint of the air inflation gun, please connect it with the pipeline of the compressed air.
Do not put your hand(s) and/or other body parts between the jaws and the wheel rim when cylinder clamps.	EXPLOSION HAZARD!  DANGER  -Never exceed the maximum pressure stipulated by the tyre manufacturer.	Before inflation, please check for the match between tire and rim, otherwise it will be extremely dangerous to the operators around the machine!



# **Please Pay Attention to the Following:**

- Please replace the safety signs if they get blurred or lost.
- When one or more safety signs get lost, don't operate the machine. The safety signs must be kept within the sight of the operator.

# 2. Introduction

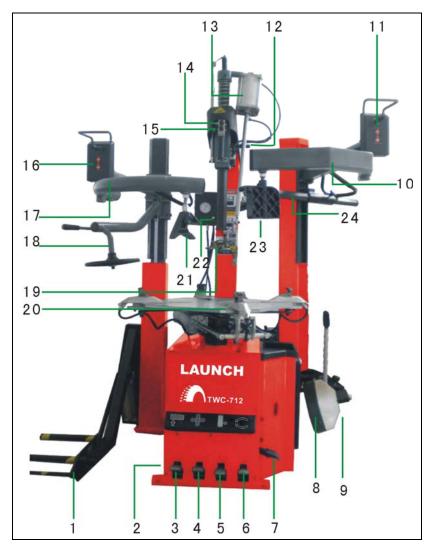
Thank you for purchasing our tire changers. The machine has been manufactured in accordance with the very best quality principles. This manual is one integral part of the product. Before using the tire changer, read carefully the warnings and instructions contained in this manual since they provide important information on operation safety and maintenance.

Keep this manual for future reference.

#### 1. Technical Data

Tire changer weight	413 kg
Max tire diameter	1100mm (43")
Max tire width	355mm (14")
Internal locking rim dimensions	14" -32"
External locking rim dimensions	12"-30"
Turntable rotation speed	7 r/min
Working pressure	8-10bar
Power supply voltage	220V/110V/380V
Motor power	1.1KW/0.75KW
Noise level in working conditions	<75dB
Lifting force of tire lifting device	75 kgf
Working temperature	0℃~45℃
Relative humidity	30~95%

### 2. Description of Machine



- 1. Tire lifting device
- 4. Clamping cylinder control pedal
- 7. Column tilting control pedal
- 10. Right manipulator
- 13. Tire lifting pneumatic cylinder
- 16. Left manipulator control bar
- 19. Mount/Demount head
- 22. Emission button

- 2. Air inflation control pedal
- 5. Splitter control pedal
- 8. Splitter
- 11. Right manipulator control bar
- 14. Locking control button
- 17. Left manipulator
- 20. Jaw
- 23. Right holding block

- 3. Tire lifting device control pedal
- 6. Turntable control pedal
- 9. Splitter handle
- 12. Head control bar
- 15. Releasing control button
- 18. Tire holder pan
- 21. Left holding block
- 24. Tire depressor lateral bar

# 3. Safety Requirement

#### 1. Usage

This tire changer has been designed and manufactured exclusively for demounting and mounting tires from/into rims from 12" to 32" and with the maximum diameter of 1100mm.

Any other use is to be considered incorrect and unreasonable.

In particular the MANUFACTURER (herein LAUNCH TECH CO., LTD.) can't be held responsible for any damage caused through the use of this tire changer for purposes other than those specified in this manual, and therefore inappropriate, incorrect and unreasonable.

#### 2. General Safety Precautions

This tire changer may only be used by specially trained and authorized expert.

Any tampering and modification to the equipment carried out without the manufacturer's prior authorization will free him from all responsibility for damage caused directly or indirectly by the above actions.

The tire changer comes complete with instructions and warning transfers which are designed to be long-lasting. If they should for any reason be damaged or destroyed, please ask immediately for replacements from LAUNCH.

Keep it away from combustible, explosive objectives, avoid strong light, sunshine, and keep it in good ventilation.

Make sure to use original spare parts and accessories, installed by authorized personnel according to the Manual.

Be careful if there are any dangers happen, stop the machine, and contact us without any hesitation.

Non-operation personnel should be kept away from the machine.

Operators should be protected by protective devices (glove, eye-protection glasses, and working-clothes) to avoid any accidental injuries.

# 4. Operation

Don't use the machine until you have read and understood the entire manual and the warnings it provides. The operation of the tire changer is divided into three parts:

- 1. Splitting the tire and wheel rim:
- 2. Demounting the tire;
- 3. Mounting the tire.

Warning: before carrying out any operation, deflate the tire and take off all the wheel balancing weights as shown in the following figure.



#### 1. Control Pedal Adjustment

Caution: The all four control pedals should be on the original positions before adjustment.

• Air Inflation Control Pedal "": Press the control pedal to the middle position, the air inflation gun begins to work, and press the control pedal to the lower position, the air inflation gun and the small hole on the sliding block of the turntable begin emitting simultaneously.

- Clamping Cylinder Control Pedal "": Press down the control pedal, the clamping jaws are closed, and press the control pedal again, the clamping jaws are opened.
- **Splitter Control Pedal** " Keep the control pedal pressed, the splitter starts moving, and when the control pedal is released, the splitter will go <u>back</u> to the original position.
- Tire Lifting Device Control Pedal "T": Keep the control pedal pressed, the tire lifting device will go upwards, and when the control pedal is released to the original position, the tire lifting device will go back to the original position, too.
- Column Tilting Control Pedal "\[ \textsize \]": Press the control pedal, the column tilts backwards, and press the control pedal once more, the column go back to the original position.
- Turntable rotation control pedal "": When the control pedal is pressed, the turntable should turn in clockwise direction. When the control pedal is pulled up, the turntable should turn in the counterclockwise direction. When the control pedal is released, the turntable will stand still.

#### 2. Splitting the tire and wheel rim

Warning: when the splitter control pedal is operated, anything within the action space of splitter arm can be in the danger of being crushed.

Check whether the tire is deflated or not, if not, please deflate it first.

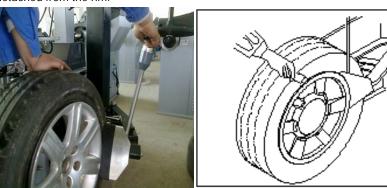
Close the turntable clamps completely.

Warning: splitter with the clamps in the open position can be extremely dangerous for operator's hands; during the splitting operations never touch the side of the tire.

Position the wheel against the rubber stop on the right side of the tire changer. Position the splitting blade against the tire upper side with a distance of about 1 cm from the rim. Pay attention to the blade, which must be correctly onto the tire not onto the rim.

Press the pedal (5) to activate the splitter and release it when the blade has reached to the end of its travel or in any case when the tire and wheel rim is split.

Rotate the tire slightly and repeat the operation around the entire circumference of the rim and from both sides until the tire is completely detached from the rim.



#### 3. Demounting the Tire

Before any operations remove the old wheel balancing weights and check whether the tire is deflated or not, if not, please deflate it first.

When tilting the vertical arm, be sure that nobody stands behind the tire changer. Press pedal (4) to tilt the vertical arm, and clean the turntable.

Spread the grease onto the tire and the rim as shown in the above figure.

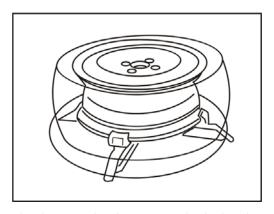
Failure to use the appropriate grease may cause the serious damage to the tire.

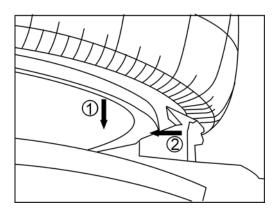
When clamping the tire, never have your hand(s) under the tire. To clamp the tire correctly, position the wheel exactly aiming to the center of the turntable.



Note: Different clamping methods can be chosen according to different rims.

- If you choose rim locking from inside, please draw back the jaw first, then place wheel on the turntable, finally depress clamping cylinder pedal " to clamp the rim.
- If you choose rim locking from outside (as shown in following figure), stretch out the jaw first, then place the wheel on the turntable to allow the two jaws inside to clamp on the rims, hold the proximal side of tire by hands, depress clamping cylinder pedal " to place pedal at low range, jaws begin to tighten. Observe the relative positions of the two proximal jaws to rims, when they are close to the rim, lower down the proximal side, jaws will clamp the rim tightly.





Position the clamps so that they are completely closed.

Place the tire on the clamps and press the pedal (5) to open the clamp hand thereby lock the rim.

Make sure the rim is firmly fixed to the clamps.

Press the pedal (4) to restore the vertical arm to its working position.

Push out the locking button in the handle, release hex bar.



Lower the hex bar until the mounting tools rests against the edge of the rim.

Then lock it using the locking button in the handle. This way the mounting arm is locked in a vertical and horizontal direction and the mounting head is automatically moved to a distance of about 2mm from the rim.



Do not put hands on the wheel, when moving the mounting arm to its working position your hand could be crushed between the rim and the mounting head with the crowbar inserted between the tire and the front section of the mounting head, move the tire over the mounting head.



WARNING: In order not to damage the inner tube, if there is one, it is advisable to carry out this operation with the valve 10cm to the right of the mounting head.

Chains, bracelets, loose clothing or foreign objectives in the vicinity of moving parts may cause danger to the operator. With the crowbar held in this position, rotate the turntable in a clockwise direction by pressing pedal (6) until the tire is completely separated from the wheel rim. To prevent industrial accidents, keep hands and other parts of the body as far as possible from the tool arm when the table top is turning.

Remove the inner tube if there is one, need not release the mounting arm, press pedal(4), directly tilt the vertical arm. Repeat the operation for the other tire side.





### 4. Mounting the Tire

Warning: this checking of tire and rim is of utmost importance to prevent tire explosion during the inflating operation. Before beginning mounting operation make sure that:

The tire and the cord fabric are not damaged. If you note the defects, do not mount the tire.

The rim is without dents and is not warped. Attention with alloy rims, dents because internal micro-cracks not visible to naked eye. This can compromise the rim and also be the source of danger especially during inflation.

The diameter of the rim and tire are exactly the same. Never try to mount a tire on a rim if you cannot identify the diameter of both.

Lubricate the tire with the special grease in order to avoid damaging them and to facilitate the mounting operations. When tilting the vertical arm, make sure that nobody stands behind the tire changer.

When you are working with the rims of the same size, it is not necessary always to lock and unlock the hex bar. Just tilt and restore the vertical arm with the horizontal arm and mounting arm locked.

Move the tire so that it passes below the front section of the mounting head and is brought up against the edge of the rear section of the mounting head itself. Keep the tire pressed into the wheel rim channel with your hands, and press the pedal (6) to rotate the turntable clockwise. Continue until you have covered the whole circumference to the wheel rim; insert the inner tube (if there is one).



Repeat the same operations to mount the upper side of the tire.

WARNING: dismounting and mounting are always done with the clockwise turntable rotation. Anticlockwise rotation is used only to correct operator's errors or if the turntable stalls.



### 5. Inflation

The greatest attention is called for when inflating the tires. Keep strictly to the following instructions since the tire changer is not designed and built to protect the user (or anyone else in the vicinity of the machine) if the tire bursts accidentally.

A burst tire can cause serious injury or even death of the operator.

Check carefully that the wheel rim and the tire are of the same size.

Check the state of wear of the tire and that it has no defects before beginning the installation stage.

Inflate the tire with brief jets of air, checking the pressure after every jet.

Maximum inflating pressure is 3.5bar. In any case never exceed the pressure recommended by the manufacturer.

Keep your hands and body as far away as possible from the tire.

#### 1. Tire Blasting

There is a pedal on the side of the machine. This pedal has two positions. The first position is for the inflation for the tire with tube. Step the pedal lightly for several times during the inflation. Make sure the reading on the gauge does not exceed the manufacturer's limit.

The second position is for the inflation for the tubeless tire, step the pedal down fully to the bottom, and then make the pedal to the first position to continue the inflation. Make sure that the reading on gauge doesn't exceed the manufacturer's limit.

Warning: the operator should wear safety goggles when operating.

#### 2. Inflating tire using airline gauge

Inflating a tire proceeds as follows:

Connect the airline gauge fitting to the tire valve.

Make a last check to be certain that the tire and rim diameter correspond.

Between air jets, constantly check the pressure until required pressure has been reached explosion hazard!

Never exceed 3.5bar, when inflating tire on a fixed position. If a higher inflating pressure is required remove the wheel from the turntable and continue the inflation inside a special protection cage (commercially available).

Never exceed the max. Inflating pressure given by the tire manufacturer.

Always keep hands and body back from inflating tire.

Only specially trained personnel are allowed to perform these operations. Do not allow other persons to operate or to stay near the tire changer.

## 6. Moving

Move the tire changer you need a fork-lift.

Disconnect the pneumatic and electric power supplies.

Apply leverage to one side of the base so as to raise it slightly from the floor. Insert the forks of the fork-lift under the base and slide the tire changer onto them.

Set the tire changer down in its new position.

# 7. Storage

In the event of storage for long periods of time, make sure to disconnect all sources of power and grease the clamp sliding guides on the turntable to prevent from oxidizing.

# 8. Scrapping

If you decide scrape the machine, be sure to make it inoperative by disconnecting it from all sources of power.

Remove all non-ferrous materials and dispose of them as prescribed by national law.

Collect the oil and dispose of it at an authorized point as prescribed by national law.

Scrape the rest ferrous material.

### 9. Maintenance

#### General warning

Unauthorized personnel may not carry out maintenance work.

Regular maintenance as described in the instructions is essential for correct operation and long lifetime of the tire changer.

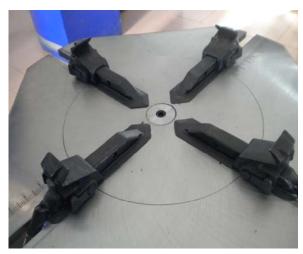
If maintenance is not carried out regularly, the operation and reliability of the machine may be compromised, thus placing the operator and anyone else in the vicinity at risk. Before carrying out any maintained work, disconnect the electric and pneumatic supplies. Moreover, it is necessary to release the tire load less 3-4 times in order to let the air in pressure go out of the circuit.

Defective parts must be replaced exclusively by expert personnel using the manufacture's spare parts.

Removing or tampering with safety devices (pressure limiting and regulating valves) represents a contravention of safety regulations. In particular, the manufacturer shall not be held responsible for complaints deriving from the use of spare parts made by other manufacturers or for damage caused by tampering or removal of safety systems.

#### 2. Maintenance Operations

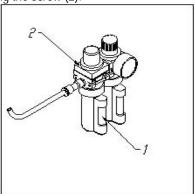
Clean the turntable once a week with diesel fuel so as to prevent the formation of dirt, and grease the clamp sliding quides.



Carry out the following operations at least once every 30 days:

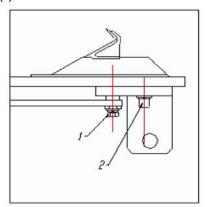
• Check the oil level in the lubricator tank (1). If necessary, fill up by unscrewing screw (2); only use SAE30 oil.

• Check that a drop of oil is injected into the reservoir, every 3-4 times the pedal is pressed, one drop every 3-4 times pressing. If not, regulate using the screw (2).



If the oil is less than the minimum oil line please add the lubricating oil in time and if there is water in the water cup please pour it in time. Please pay attention to the red line on the oil filter time by time. Recommended Oil: Lubricant ISO VG-32

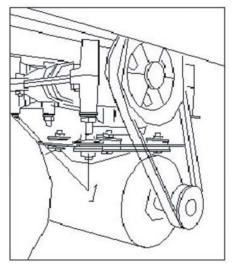
Retighten the clamp tightening screws (1) and the screws on the turntable slides (2).

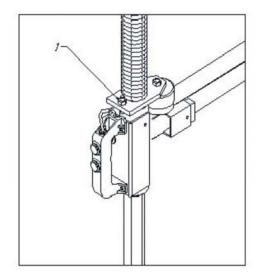


If the turntable doesn't work, it may be caused by loose drive belt, check it as follows: Before any operations, please disconnect the electric power supplies.

Remove the left side body panel of the tire changer. Tighten the drive belt by means of the special adjusting screw (1) on the motor support.

It is necessary to adjust the screw (1) in the locking plate of the mounting arm, if the mounting head doesn't lock or it doesn't rise from the rim of 2mm necessary for working.





If clamps or splitter open/close slowly, it is necessary to clean or replace the silencer, and proceed as follows:

- 1) Remove the left side panel of the machine.
- 2) Unscrew the silencer put on the clamp opening/closing pedal.
- 3) Clean by a jet of compressed air or, if damaged, replace by referring to the spare parts catalogue.



# 10. Right and Left Manipulator

### 1. Structure

Please refer to the corresponding figure (10. Right Manipulator and 17. Left Manipulator). The main pipeline connections for right and left manipulators are as shown in following figures.



Right Manipulator Connections



Left Manipulator Connections

#### 2. Safety Requirement

This machine may only be used by specially trained and authorized personnel.

- 1) Any tampering and modification to the equipment carried out without the manufacturer's prior authorization will free him from all responsibility for damage caused directly or indirectly by the above actions.
- 2) Keep it away from combustible and/or explosive objectives; avoid strong light, sunshine, and good ventilation.
- 3) Make sure to use original spare parts and accessories.
- 4) Installed by authorized personnel according to manual.
- 5) Be careful if there are any dangers happen stop the machine, please contact us without hesitation.
- 6) Non-operation personnel should be kept away from the machine.
- 7) Operators should be protected by protective materials (glove, eye-protection glasses, and working-clothes, etc.) to avoid any accidental injuries.

#### 3. Unpacking

- 1) Use proper tools and protection devices (gloves etc.) to unpack the goods package.
- 2) Check that the equipment is in perfect condition, making sure that no parts are damaged or missing, if in doubt do not use the machine and contact your distributor.
- 3) Read the packing list carefully; check if there is any missing, if in doubt contact your distributor.
- 4) Put the packing materials (plates, nails, screws, plastic bags, etc.) in safety place.
- 5) Deal with any contamination or dissolvable materials contained in the packing box according to local laws.

#### 4. Installation Instructions for Left and Right Manipulators

- 1) Open the packing for the well packed manipulator complete carefully and place it on one side of the splitter blade on the machine body;
- 2) Put one of the vertical arm padding plates(2 pieces/machine) onto the horizontal slot steel, aim it at the hole on the slot steel;
- Put the vertical arm complete onto the padding plate and aim it at the hole, then thread the four bolts & plain washers through the holes;
- 4) Place the other vertical padding plate onto the bolt below the slot steed, install the plain washers, spring washers & the nuts in turn, then fasten them carefully:
- 5) Connect the PU pipe with the joint of the device at last.

# **CE Declaration of Conformity**

# LAUNCH

LAUNCH TECH. CO., LTD Add: Launch Industrial Park, North of Wuhe Avenue, Banxuegang,Bantian,Longgang,Shenzhen,Guangdong,P.R.China Zip Code: 518112 Tel: 86-755-84528861 86-755-84528892 Fax: 86-755-84528872 http://www.cnlaunch.com

# **CE Declaration of Conformity**

For the following equipment:

(Product Name) Tyre Changer

(Model Designation) TWC-512RMB, TWC-411NIC, TWC-711TMB, TWC-712SMB+

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Low Voltage Directive (2006/95/EC) and Machinery Directive(2006/42/EC). For the evaluation regarding the Directives, the following standards were applied:

T. William	EN 60204-1:2006+A1:2009	
	EN ISO12100-1:2003+A1:2009	
	EN ISO12100-2:2003+A1:2009	
	EN ISO14121-1:2007	

The following importer/manufacturer is responsible for this declaration:

(Company Name, Importer/Manufacturer) Launch Tech Co., Ltd.

(Company Address, Importer/Manufacturer)

Launch Industrial Park, North of Wuhe Rd., Banxuegang, Longgang, Shenzhen, China

Person responsible for this declaration:

(Name, Surname, Importer/Manufacturer) James. Jiang (Position/Title) Vice President

(Legal Signature)

Launch Industrial Park, North of Wuhe Rd., Banxuegang, Longgang, Shenzhen, China

(Date) June.29,2012

### Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE LAUNCH PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BUYER'S BUSINESS.

LAUNCH electronic product is warranted against defects in materials and workmanship for one year (12 months) from date of delivery to the user. This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and LAUNCH shall not be liable for any consequential or incidental damages. Final determination of defects shall be made by LAUNCH in accordance with procedures established by LAUNCH. No agent, employee, or representative of LAUNCH has any authority to bind LAUNCH to any affirmation, representation, or warranty concerning LAUNCH automotive meters, except as stated herein.

#### **Disclaimer**

THE ABOVE WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

#### **Order Information**

Replaceable and optional parts can be ordered directly from your LAUNCH authorized tool supplier. Your order should include the following information:

Quantity
Part number
Item description

#### **Customer Service**

If you have any questions on the operation of the unit, please contact us: 4000666666 or 86-755-84528767.

If your unit requires repair service, return it to the manufacturer with a copy of the sales receipt and a note describing the problem. If the unit is determined to be in warranty, it will be repaired or replaced at no charge. If the unit is determined to be out of warranty, it will be repaired for a nominal service charge plus return freight. Send the unit pre-paid to:

Attn: Overseas Department LAUNCH TECH. CO., LTD. Launch Industrial Park, North of Wuhe Rd., Banxuegang, Longgang, Shenzhen, Guangdong, P. R. China