

“The Extra Hand”

Remote Ignition Key Control



by **POWER PROBE**

INSTRUCTIONS

“The Extra Hand”

The best way to remotely START and STOP a vehicle’s engine

The Key Assist takes a 2-man job and turns it into a ONE man job!

Key Assist puts a single technician in complete control of the vehicle’s ignition key. It’s your extra hand, always ready to help extend your reach right into the driver’s seat, making it possible to turn the key to the run, start, or stop position without taking a technician away from another job. The Key Assist sets up quickly and can accommodate most vehicles.

The Key Assist allows a technician to control the ignition key from under the car, the hood or from either side of the vehicle. It is ideal for compression testing, fuel injection testing, starting the vehicle while it is on the lift to test for exhaust leaks or engine noises, bumping the engine to install fan belts, setting the engine to TDC (top dead center), setting timing marks for valve, distributor and camshaft adjustments. The Key Assist is invaluable for performing voltage drop tests, when you have to keep one eye on the meter as you crank the engine. It can be used for turning the key to the ON position for testing electronic components and can be used to turn the key to the OFF position before disconnecting sensitive electronic components.

Keep your production and profits humming along without looking for an assistant or holding a valuable technician hostage by keeping him up on the hoist, waiting for the command to turn the key.

IMPORTANT: The Key Assist is designed to turn the ignition key of motorized vehicles, thereby cranking and starting the engine. It is imperative that the user of this product be familiar with all safety precautions dealing with starting and operating motorized vehicles.

Disclaimer

Power Probe, Inc. cannot be held liable for accidents resulting from misuse or negligence in following safety precautions. Not following the precautions and directions given in this instruction booklet can lead to injury or death.

MODERN VEHICLE SAFETY FEATURES

Most new vehicle manufacturers design their products with consideration for safety. For instance, neutral safety switches prevent the engine from starting while the transmission is in gear. Transmission parking locks prevent the vehicle from moving even if the parking-brake is not applied. However some vehicles with standard shift transmissions without these safety features can be started in gear and run away if safety precautions are not met. This means it is very important to make sure that the transmission is in *neutral* and the *parking brake is applied* and working properly. Starting a vehicle while it is in gear and without the wheels blocked with approved wheel chocks may lead to runaway vehicle. **SO BE CAREFUL!**

WARNINGS: DO NOT operate the Master Control Valve Switch when hands or tools are in the way of the vehicle’s moving parts. (such as the vehicle fan, pulleys, flywheel, etc.)

DO NOT operate the Master Control Valve Switch without checking that the vehicle is secured and will not roll.

DO NOT operate the Master Control Valve Switch when under the influence of drugs or alcohol.

Danger: The Key Assist’s Master Control Valve Switch can create curiosity in others. Warn them that they are not to touch it! The last thing you need is to have someone press the switch while you are working on the vehicle.

When using the Key Assist from under a hoist, be sure that the vehicle is secured and will not slip off. Also when using the Key Assist from under a hoist, be sure that wheels, drive-shafts and axles can freely turn without rubbing against obstructions.

Regulator Set Up

The Air Regulator is equipped with a 1/4 inch NPT hole in the event you need to swap out the air nipple to conform to your shop's air supply. Vehicles that require clutch pedal depression in order to start, will need a clutch pedal clamp, which you can buy from your local automotive tool dealer.

There is a spare port on the end of the regulator (nipple side). The plug may be removed with a 1/4" Allen wrench and replaced with a female quick coupler (not included). This provides an additional air supply while your main air hose is connected to the Key Assist Regulator.



WARRANTY: Power Probe warranties the Key Assist for a period of 1 year against defects in parts or workmanship.

Damage due to dropping, excessive heat, moisture or excessive force is not covered under warranty.

Key Assist will work on almost all keyed ignitions provided it can be mounted as instructed.

Beware of hot exhaust pipes and manifolds that can damage air lines. Damage to air lines are not covered by warranty.

Maximum continuous temperature on the hoses and hose cover is 189 degrees F.

IMPORTANT: Air lines must be free of moisture. As in any pneumatic environment, moisture breaks down lubricant and causes oxidation. We have used a lubricant that is best for fighting moisture degradation but damage can still occur. Be sure to clear shop airlines of moisture regularly and add a moisture trap if necessary. Moisture damage is not covered by warranty.

In the event that you lose air pressure, your Key Assist comes equipped with an air reservoir that can give you the ability to shut off the engine. There is only enough air stored to assure 1 "STOP" operation. It is not intended as an air supply for normal operation. Once used, the vehicle cannot maintain the stop position for long. It will try to return to the "RUN" position once air is exhausted (Approximately 5 min). If battery life is a factor you may want to remove the ignition key if air remains absent.

SUPPLY AIR MUST BE CONNECTED AT ALL TIMES when using the key assist. **DO NOT** rely solely on the air in the air reservoir for turning off the vehicle.

The minimum air pressure needed to operate the Key Assist is: 100 PSI.

If you have any questions about your Key Assist please contact us.

Key Assist Set up

1 With the Key Assist in hand, sit in the driver's seat, place the Key Assist on the passenger seat, then hang the Regulator and the Master Control Valve Switch on the drivers door, out of the way.



2 Center the Key in the key chuck with the key shank on axis to the spline hole...



...remove the ignition key from key chain if necessary.

3 Insert the key and key chuck into the ignition and turn it to the ON position.



4 Insert the spline drive of the Air Motor into the Key Chuck while maintaining its axis. Be sure to have the mounting end of the Air Motor pointing upward toward the windshield as pictured (Tilting the steering wheel in some applications may aid for proper alignment).



Note: If needed, use the included Extender.



Spline Drive Shaft

5 Loosen the Swivel Clamp and Ball Joint Nut so the Articulating Rod can move and rotate freely.



While holding the Air →
Motor on axis to the Key
Chuck, place the Suction
Mount flat against the
windshield (be sure that
the rubber suction cup &
glass are clean) and tighten
the Suction Mount Nut so
it is held firm against the
windshield.

6



Make minor adjustments to
the angle of the Air Motor
then tighten the Ball Joint
Nut and the Swivel Clamp.
**Over tightening can reduce
the life of the clamp.**
The Key Assist should now
be in alignment and held
firmly in place.

7



Connect shop air to the
Air Regulator and test
the operation of the Key
Assist.

8



Operational Test:

9

Check to be sure the vehicle
is out of gear and will not roll.
Start by moving the Master
Control Valve Switch to the
STOP position.

(The accessory lights should shut off.)



Then move the Master
Control Valve Switch to the
RUN position, the accessory
lights should come back on.
If they do not, then it will be
necessary to make some
adjustments to the
Key Assist.

10



11 Verify...

Finally move the switch to the **START** position and verify that
the motor turns over.

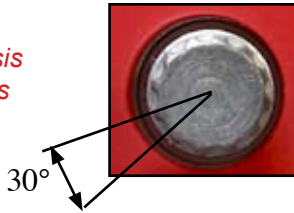
*If step 10 is successful without adjustments, but 11 is not,
then follow the same instructions in step 12... (See next page)*

12 Making Adjustments...

1. Loosen the swivel clamp and ball joint nut. Rotate the air motor with the chuck still installed, along the axis of the spline shaft, in the direction of the starting rotation, (i.e. clockwise) approximately 5 to 10 degrees. Retighten the swivel clamp and the ball joint nut. Then repeat, Set-up step 10 & 11.

2. If it is not possible to rotate the air motor because of clearance issues, then you will need to remove the spline shaft and rotate the key chuck in the direction of the starting position by one spline tooth (i.e. clockwise by 30 degrees) and replace the spline shaft. Then repeat, Set-up step 10 & 11.

Note: There is a slight hysteresis in the air motor and these steps are to account for it.



Hang the Air Regulator and the Master Control Valve Switch nearby for easy access. Keep Air Regulator clear of all moving parts.

13

Positional Hook Ring

Place Positional Hook Ring on a flat metal surface to position your Master Control Valve Switch within reach.



If you have any questions regarding the installation of the Key Assist, please call: **1-800-655-3585** for assistance

Parts:



Spline Drive
(located on other side)

Air Motor

Suction
Mount Nut

Suction Cup
Assembly

Swivel
Clamp

Ball Joint Nut

Air Hose

Articulating
Rod

Extender

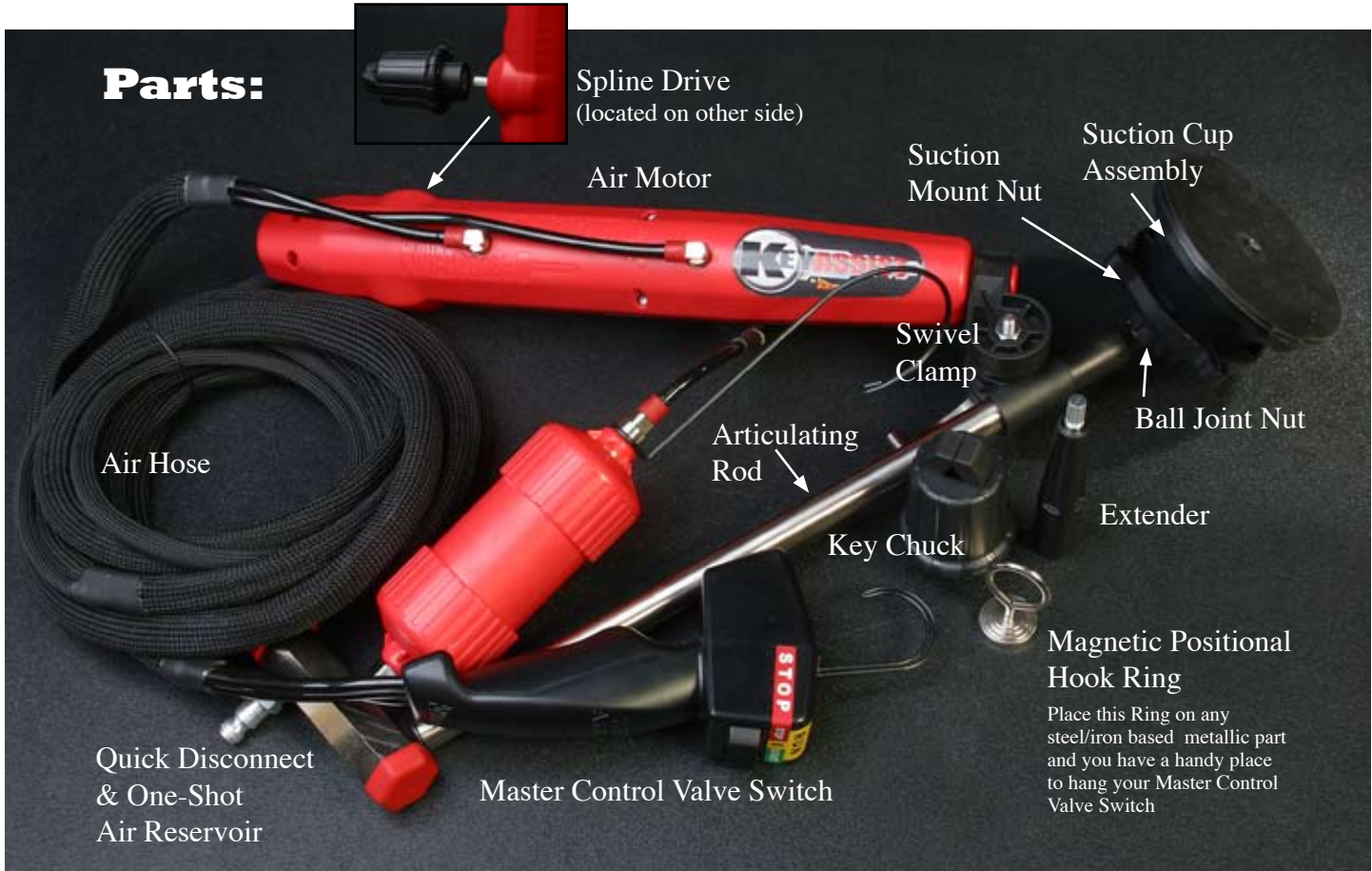
Key Chuck

Magnetic Positional
Hook Ring

Place this Ring on any
steel/iron based metallic part
and you have a handy place
to hang your Master Control
Valve Switch

Quick Disconnect
& One-Shot
Air Reservoir

Master Control Valve Switch





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