

All specifications are subject to change without notice.

All sales subject to standard terms and conditions.

©2023 ORI Design Inc.

sekhmetonline.com

sekhmetairgun@gmail.com

1.626.501.4602

SEKHMET®

SEKHMET®

SmartGauge 28 Pro

OWNER'S MANUAL

SOUL OF YOUR AIRGUN

DATA SHEET

SmartGauge 28 Pro

FEATURES

- Accurate digital pressure reading
- Multi Smart functions
- Rechargeable High-Capacity Battery
- MEMS Sensor for excellent shock resistance
- Sealed case prevents dust, water, and corrosion

TYPICAL USES

- Internal/External Regulator
- Adjustable Regulator
- Main Chamber/Pressure Tank
- Portable compressor equipment
- Specialized OEM equipment



1.1 Dial Size
28mm dial size

SPECIFICATIONS

Accuracy:	±0.25%FS over +10 to +40 deg C (+50 to +104 deg F) ±0.5%FS over -10 to +80 deg C (+14 to +149 deg F)
Sizes:	1.1" (28mm)
Repeatability:	Better than 0.5%
Range:	30 - 300 bar (435 - 4,350 psi)
Process Connection Location:	Back
Process Connection Size:	1/8 BSP Male
Dial:	White figures on black background
Display:	0.49" OLED
Sampling Rate:	10Hz
Approvals:	High Pressure Gas

COMPONENTS

Case	Window	Restrictor
6061-T6	Polycarbonate	Safety plug

MIN/MAX TEMPERATURE LIMITS

Version	Ambient	Process	Storage
SmartGauge 28 Pro	23°F to 104°F (-5°C to 40°C)	-4°F to 150°F (-20°C to 65°C)	41°F to 77°F (5°C to 25°C)

KEY BENEFITS



Get real accurate
air pressure instantly



No parallax
No drift errors



Better shock
resistance



Good for
old eyes

Pro Owner's Manual

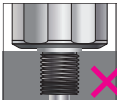
NAME OF EACH PART

- Display Area
- Touch-Key Area: Three touch button
- Magnetic Charging Connector: 5V In
- Snubber: To protect pressure sensors and pressure gauges against pressure surges, if it is loose, use a screwdriver to tighten it.
- Vent Hole: Explosion-proof do not block this hole.

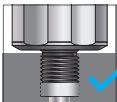


INSTALLATION

- Before install the gauge on your air gun, choose the seal component properly.



A Complimentary Bonded Seal is **NOT** recommended on this gauge.



Pom/ PTFE/Rubber gaskets are recom mended on this gauge.

- Note: Using Pom/ PTFE/Rubber gaskets could possibly block the air inlet due to over-tightening, which may cause the gauge to read ZERO. Please make sure the air inlet is clear.

FIRST TIME USE

- For first time use after unpacking, charge the gauge using USB cable for at least 20 minutes. * The USB cable is at the bottom of packaging.

It takes one hour to fully charge this device from zero battery, and if the screen keeps on, the battery last for 24 hours. In most cases, the gauge works with a black screen or just sleeps. So basically, you can recharge it once two or three months, depends on the using frequency.

The extreme battery life will be at least 400 days without using in one charge cycle.

To display the current battery, tap the Middle Key to wake up the gauge, it shows 0 bar, then touch & hold the Middle Key.



DISPLAY & MODES

Enter the menu.

- ① After waking up the gauge by touching the middle key.
- ② Long touch the right/left touch key in the main interface



- Simple Mode: the main interface shows current pressure and the number of shots at the upper right corner.
- The gauge counts the number of shots by identifying pressure drops. If you place the gauge on regulator, it would only be able to display reg pressure it wouldn't be able to do shot count. For shot count it need to be on the bottle/main chamber gauge.
- Temperature drop after filling will add the number of shots. If recording too many datas or error counting, the screen will flash with gibberish like pictures below. The little 15 under 139 which means you recorded 1015 times of data already, please

try to clear data and the problem should be solved.



■ Two methods to clear the number of shots:

- ① Combination key: Touch and hold the Middle key and then touch the Right key in pressure display. This only works in pressure display.



PRESSURE DISPLAY

②Filling: Pressure rises over 30bars in one time.

- Due to above reasons, the regulator gauge can only read the pressure without counting the number of shots.
- Pro Mode: Switch off Simple mode in the menu. In this mode you will get three more displays: Shot Left / Last Shot Pressure Drop / Average Pressure Drop.
- LEFT SHOT: Remaining shots.
- <<: Last air consumption.
- AVG: Average air consumption
- **Regulator Mode:** If you place the gauge on the regulator, the Regulator mode is recommended. The shot count function/Clear data by pressure rising part is disabled in this mode. It displays the same information as a simple mode, and there is no other option to cycle through different screens, only the current pressure screen. The main difference between the regulator and

simple modes is the Filter Function. In contrast, the pressure in the regulator chamber changes rapidly; it requires a unique software data filter for a stable display. A regulator gauge with a simple mode may get stuck in some extreme cases.

Functions in the Menu

- Fill wake up: This function allows the gauge to identify the pressure rise and automatically turns on the screen when the device is powered. After power off, this function doesn't work to extend battery life. Also filling a tank with a hand pump or small pump which fills your gun too slow could not trigger this feature too
- Power Off: Set Auto Shutdown time, any operation will refresh the countdown.
- Screen Off: Set Auto Display Turn Off time, any operation will refresh the countdown.

- Data Clear: Clear the shot counts.
- P-minimum: Manually give this gauge a regulator pressure you have set to calculate the left shots with the main reservoir pressure, it only works for the main reservoir gauge.
- Rotate Screen: To adjust different installing angle, this function could rotate the display 180 degrees.
- Wake by Shot: This function allows the gauge to identify the pressure drop and automatically turns on the screen when the device is powered. After power off, this function doesn't work to extend battery life. It is possible to trigger this function by slowly leaking.
- Pressure Unit: switch units between PSI and BSR.
- Device Info: check the software version.
- Temperature: Turn on the temperature display.
- Temp Unit: switch units between °F and °C.

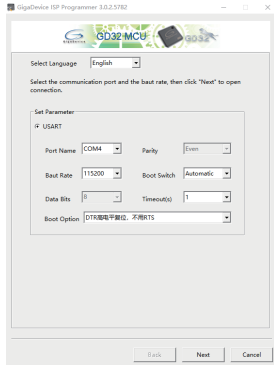
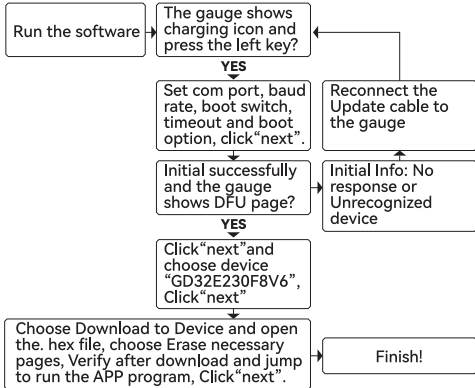
SOFTWARE UPDATE

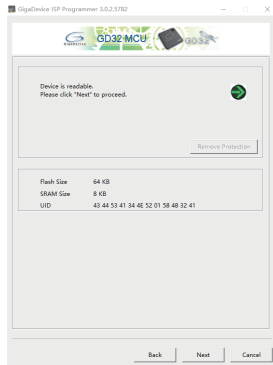
This software is running on PC and compatible computers, and on platforms of WINDOWS. There's no need to setup the software, the only thing you need to do is to click the icon to operate the software.

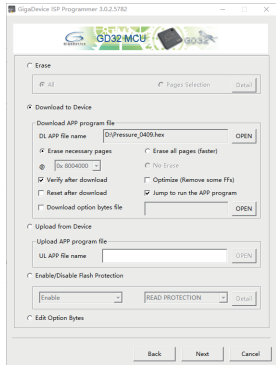
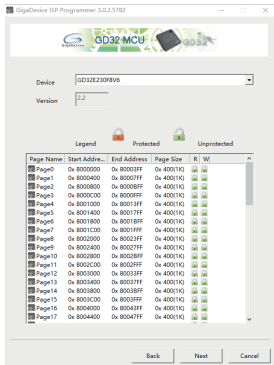
Software Requirements : English Windows XP、 Windows 7 and advanced operation systems.

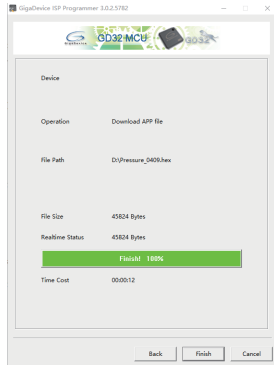
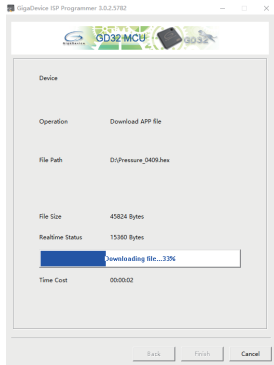
Hardware Requirements: Available com port. SEKHMET programmer.

If you want to use this software, you shouldn't worry about the installment. It is very easy for everyone. When you get the document, you just have to decompress the document, and find out the document named GD32 MCU ISP Programmer.exe and place it in a file for your convenience. Then click the icon, open it and you are welcome to run it.









NOTES

- The coating on the threads may have been damaged. This doesn't mean this gauge has been used. It was scratched during the two calibrations and pressure tests.
- The gauge is water resistant but do not use under water.
- Max working pressure is 350 bar and this gauge could show 400 bar at most.
- If the Carbon Fiber Cover is loose, you can put a little tape on the pressure gauge and increase the outer diameter of the pressure gauge.
- There is a buffer in the air inlet hole; it protects the sensor from the shock of high-pressure air, don't take this screw out. If the POM seal is used while uninstalling the gauge, the screw may get stuck in the plastic, screw it back is recommended. If this screw sticks out and you can not tighten it in, the only way to solve this is removing it.



DIMENSIONS in [] are millimeters

For reference only, consult SEKHMET for specific dimensional drawings

Back Connection

Model No. Inches	A	B	C	D	Weight
					oz/kg
28mm	1.1	1.06	0.80	1.20	1.128oz
	[28]	[27]	[20.5]	[30.5]	32 g

