

XYZIL SW80, 102-SW80-1418, SW80-1160

XYZIL 24V 100A SW80 Series Contactor Solenoid User Manual

Models: SW80, 102-SW80-1418, SW80-1160

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your XYZIL 24V 100A SW80 Series Contactor Solenoid. Please read these instructions thoroughly before installation and operation to ensure proper function and longevity of the product. This solenoid is designed for use in golf cart applications.

2. PRODUCT OVERVIEW

The XYZIL SW80 series contactor solenoid is a robust electrical component designed to handle high current switching in 24V DC systems. It is commonly used in golf carts and similar electric vehicles to control motor power.

2.1 What's in the Box

- 1X Contactor Solenoid with Bracket

2.2 Product Features

- **Voltage:** 24V DC
- **Amperage:** 100A
- Integrated mounting bracket for easy installation.
- Designed for reliable switching in demanding applications.

3. SPECIFICATIONS

Attribute	Value
Brand	XYZIL

Models	SW80, 102-SW80-1418, SW80-1160, ALSW80-1418, CT13223360, SW80-1418, SW80-113L
Voltage	24V DC
Amperage	100A
Item Weight	14.6 ounces
Package Dimensions	4.25 x 2.76 x 2.24 inches
Exterior Finish	Polished
Application	Golf Cart

4. SETUP AND INSTALLATION

Safety Warning: Before beginning any installation, ensure that the vehicle's power supply is completely disconnected to prevent electrical shock or damage to components. If you are unsure about any steps, consult a qualified technician.

4.1 Identifying Components

Familiarize yourself with the solenoid's terminals. Typically, there are two large terminals for the main power circuit and two smaller terminals for the coil control circuit.



Figure 1: Front view of the solenoid with label and terminals. This image displays the main body of the solenoid, clearly showing the product label with model number SW80-1418 and voltage rating 24V/DC. The two large terminals for power connections are visible at the top, and the two smaller coil control terminals are at the bottom.



Figure 2: Top view of the solenoid showing power terminals. This image provides a clear overhead view of the solenoid, highlighting the two robust main power terminals, each secured with a nut and washer, ready for high-current cable connections.

4.2 Mounting the Solenoid

1. Select a secure, dry location for mounting the solenoid, away from excessive heat or moisture.
2. Use the integrated bracket to firmly attach the solenoid to a stable surface. Ensure the mounting screws are appropriate for the surface material and provide a secure fit.



Figure 3: Side view with mounting bracket. This image shows the side profile of the solenoid, clearly displaying the sturdy metal bracket designed for secure attachment to a vehicle chassis or mounting plate.

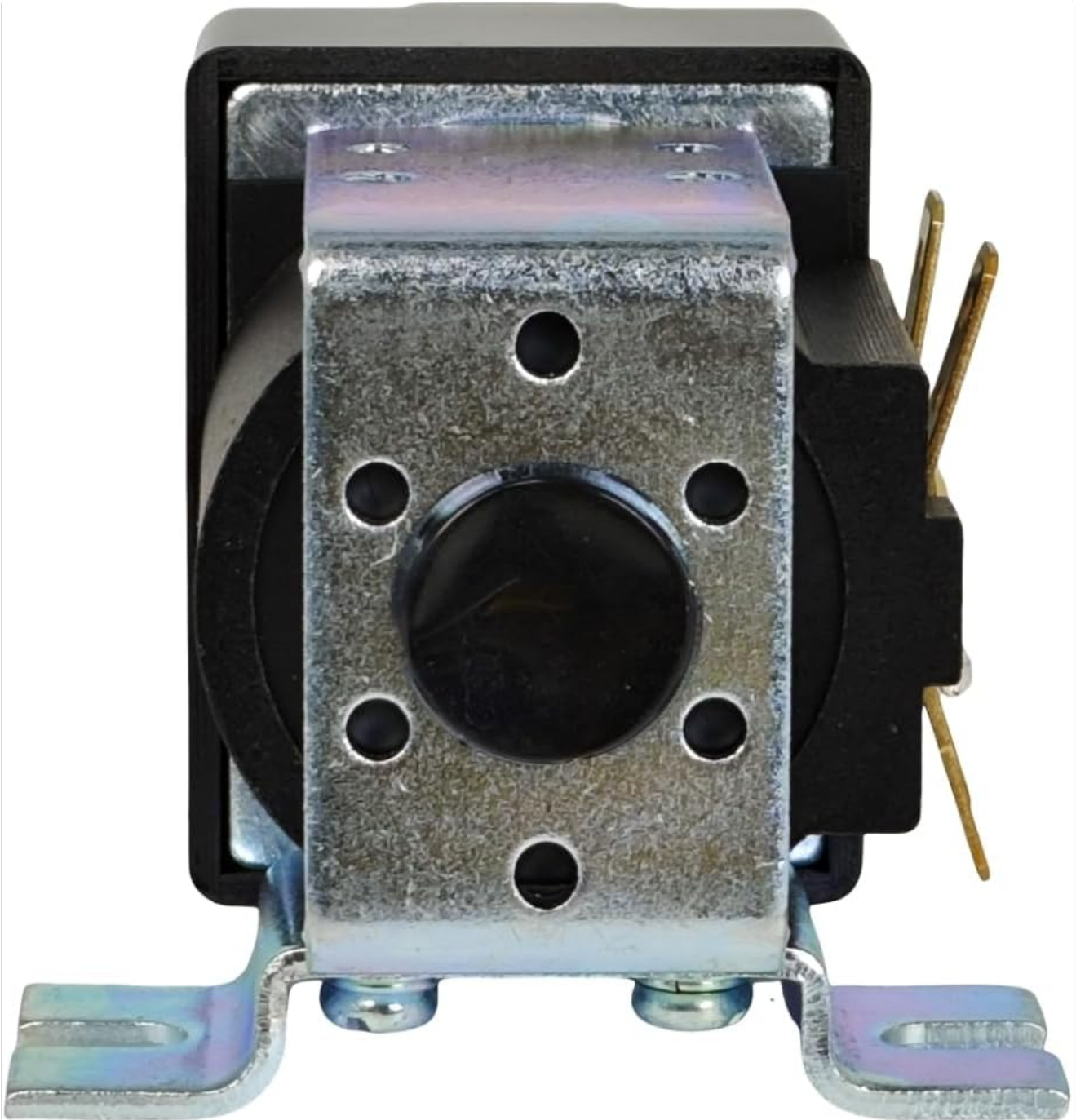


Figure 4: Bottom view showing mounting holes. This image provides a view from the bottom of the solenoid, highlighting the pre-drilled mounting holes on the bracket, indicating points for secure installation.

4.3 Wiring Connections

Refer to your golf cart's specific wiring diagram for exact connection points. General wiring principles are as follows:

1. Connect the main power cables to the large terminals. One terminal typically connects to the battery positive (+), and the other to the motor or load. Ensure correct polarity and use appropriately sized cables for 100A current.
2. Connect the control circuit wires to the smaller terminals. These wires typically come from the ignition switch, foot pedal switch, or controller, providing the 24V DC signal to activate the solenoid coil.
3. Ensure all connections are tight and secure to prevent arcing and overheating.
4. Double-check all wiring against your vehicle's diagram before restoring power.

5. OPERATION

The contactor solenoid acts as an electrically controlled switch. When 24V DC is applied to its small control terminals (the coil), an electromagnetic field is generated, which pulls a plunger to close the contacts between the two large power terminals. This allows high current to flow from the battery to the motor or other load.

- When the control circuit is activated (e.g., by pressing the accelerator pedal in a golf cart), the solenoid engages, completing the main power circuit.
- When the control circuit is deactivated, the solenoid disengages, opening the main power circuit and cutting power to the load.

Important: Do not exceed the rated voltage (24V DC) or amperage (100A) of the solenoid, as this can lead to premature failure or safety hazards.

6. MAINTENANCE

Regular inspection and basic maintenance can extend the life of your solenoid.

- **Visual Inspection:** Periodically check the solenoid for any signs of physical damage, corrosion, or loose connections.
- **Terminal Cleanliness:** Ensure all terminals are clean and free of dirt, grease, or corrosion. Clean with a wire brush if necessary and apply a dielectric grease to prevent future corrosion.
- **Connection Tightness:** Verify that all wiring connections are tight. Loose connections can cause resistance, heat buildup, and arcing.
- **Mounting Security:** Confirm that the solenoid remains securely mounted and does not vibrate excessively during operation.

Caution: Always disconnect the main power source before performing any maintenance or inspection on the solenoid.

7. TROUBLESHOOTING

If you experience issues with your solenoid, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
Solenoid does not click or engage.	No power to control coil; faulty control switch; open circuit in control wiring.	Check 24V DC supply to small terminals. Test control switch (e.g., ignition, pedal). Inspect control wiring for breaks or loose connections.
Solenoid clicks but no power to motor/load.	Corroded or burnt main contacts; loose main power connections; faulty solenoid.	Inspect large terminals for corrosion or damage. Tighten main power cables. If contacts are burnt, solenoid may need replacement.
Solenoid overheats.	Loose connections; excessive current draw; continuous duty cycle for intermittent solenoid.	Tighten all connections. Verify load current does not exceed 100A. Ensure solenoid is rated for the application's duty cycle.
Solenoid makes a buzzing noise.	Low voltage to coil; loose mounting; internal coil issue.	Check 24V DC supply to coil. Ensure solenoid is securely mounted. If buzzing persists, internal coil may be failing.

If these steps do not resolve the issue, it may indicate an internal fault with the solenoid or a more complex electrical problem within the vehicle. Consult a qualified technician for further diagnosis.

8. WARRANTY AND SUPPORT

For specific warranty information and customer support, please refer to the documentation provided at the time of purchase or contact your retailer or the manufacturer, XYZIL, directly. Warranty terms typically cover manufacturing defects for a specified period from the date of purchase.

Keep your proof of purchase for any warranty claims.
