KW
Karol•Warner

OPERATING MANUAL

Marshall Stability Load Frame
Models 7690 & 7690F

INTRODUCTION

The 7690 Marshall Stability Load Frame has a 10,000lbf (44.5kN) capacity and the loading rate is fixed at 2in (50.8mm) per minute as specified for Marshall testing. The loading rate is maintained at ±1% by the 1hp AC motor and controller.

An 8in (203mm) diameter lower platen is included and the load frames have a vertical clearance of 37.3in (947mm) and horizontal clearance of 11.9in (302mm). Crosshead heights are quickly and accurately changed using the self-centering adjusting nuts. Cabinet construction is 14-gauge steel with a durable enamel finish. The 1.25in (32mm) diameter vertical threaded rods are plated for corrosion resistance. Malleable boots protect the precision loading screws from dust and dirt.

FEATURES

- Built for Marshall Testing with fixed 2in (50.8mm) per minute loading rate
- 10,000lbf (44.5kN) capacity
- Consistent loading rate maintained at ±1% by the 1hp AC motor and controller
- Standard 8in diameter platen
- Easily changeable crossheads with self-centering adjusting nuts
- Front panel direction switch with limit lights

UNPACKING & SET UP

1. After inspecting your 7690 for shipping damage, remove it from the pallet.
2. Set cross bar to appropriate height.
3. Install component set *(ordered separately)*
   Model 5510-B Load Ring with Dial Indicator and Brake, and Model 7042 Flow Meter with Dial Indicator.
   Accessories (sold separately)
   - Model 7026-A: Loading button for triaxial and asphalt test
   - Model 6757: Marshall Test Data Acquisition Software

Model 7690
Shown with Model 6572-28 Digital Component Set, Model 7021-B LVDT bracket, and Model 7699 Rolling Cart.

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PHONE: 800-999-SOIL (7645)
410-987-7330
PO Box 1213 Powell, OH 43065
FAX: 410-987-2124
E-mail: customerservice@karolwarner.com **Product Web Page:** www.karolwarner.com

OPERATING INSTRUCTIONS

1. Please read and understand all operating instructions for the Karol Warner 7690 Marshall Load Frame before placing it into service.

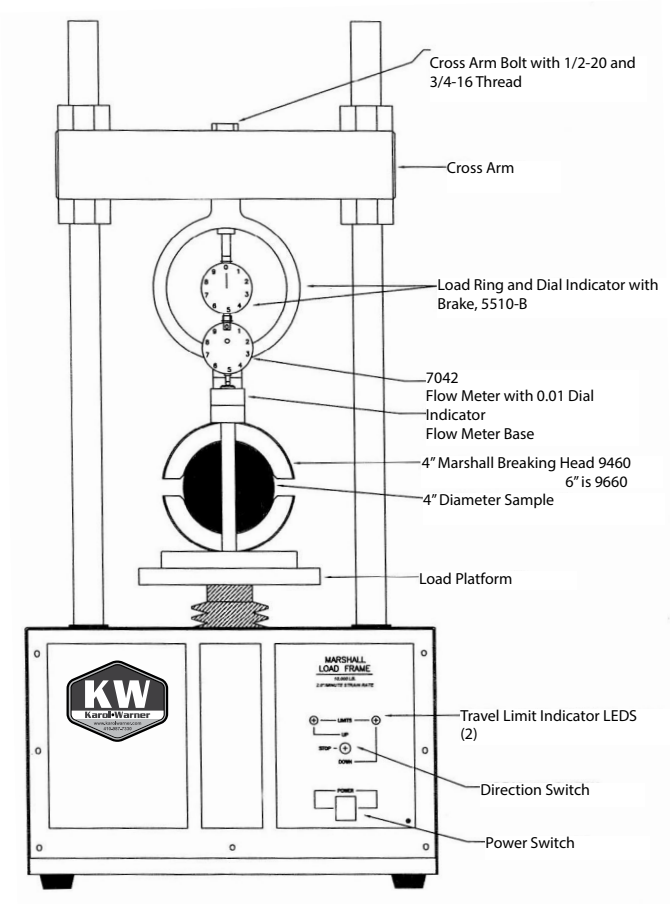
2. The controls are located on the front right side of the panel. The main power switch has an indicator light to show when power is on.

3. The three position toggle switch controls the platen direction of travel; up, off (in the center position), and down. The switch has a built-in hesitation to prevent damage to the motor when reversing direction.

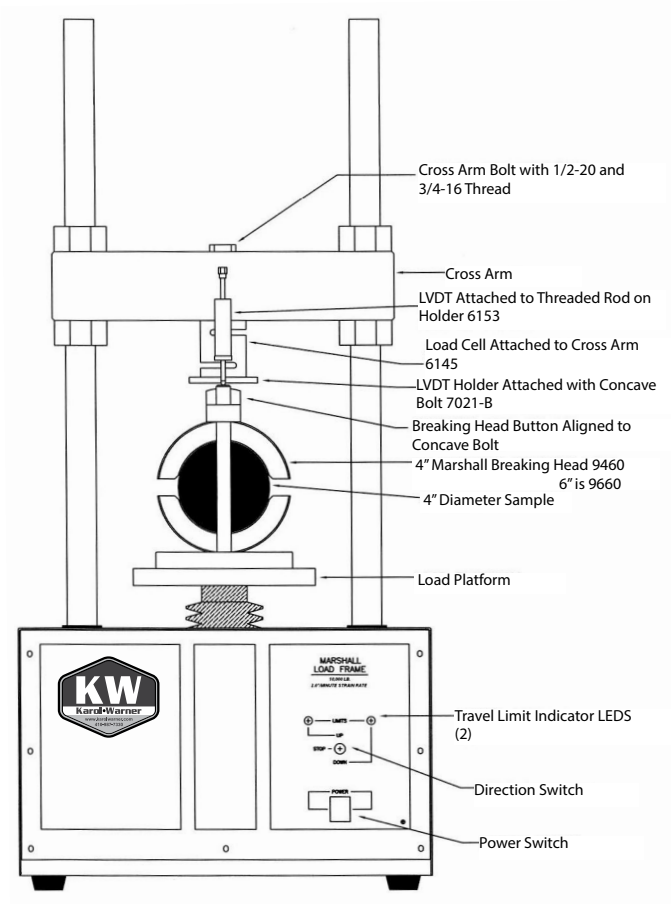
4. The red limit lights indicate the maximum travel limits of the platen. The platen can travel 3.0 inches (76.2 mm).

5. The machine does not stop automatically when the stability load is reached. You must use the toggle switch to stop the test.

6. Refer to the following specifications for full test procedures:
   - ASTM D5581 / D6927 Marshall Stability and Flow
   - ASTM D6931 Indirect Tensile (IDT) Strength
   - ASTM D4867 Effect of Moisture on Asphalt
   - AASHTO T 283 Resistance of Asphalt to Moisture-Induced Damage
   - AASHTO T 245 Resistance to Plastic Flow of Asphalt Mixtures



7690 Marshall Load Frame with Load Ring and Flow Meter



7690 Marshall Load Frame with Load Cell and LVDT