OPERATING MANUAL

HM-398 and HM-398F
Pro-Loader Load Frame
0.02—2.0in/min, 10,000lbf

INTRODUCTION:

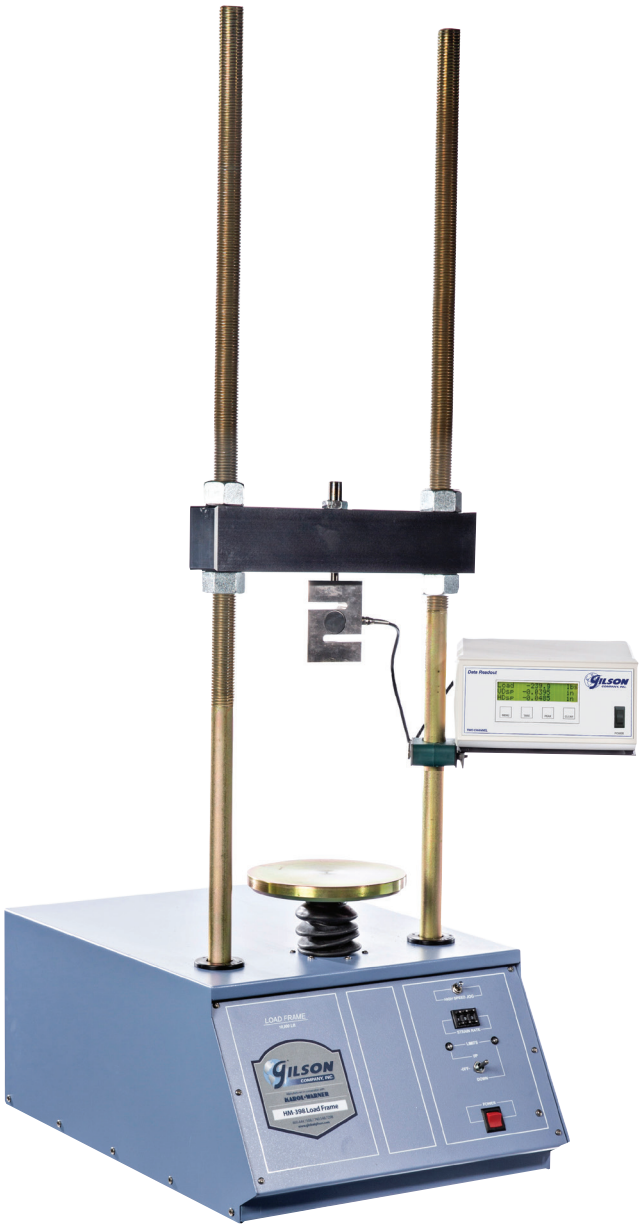
The HM-398 Load Frame is one of our most versatile testing units. The Pro-Loader can be utilized for the following soil tests: California Bearing Ratio (CBR), Unconfined Compression (UC), Triaxial Compression, and Soil Cement. In addition, the following Asphalt tests: Marshal, Lottman, TSR, IDT, SCB and Tack Coat shear can all be performed. This unit also features strain rates – 0.02-2.0in/min (0.508-50.8mm/min) – controlled to ±1% of set point. Front panel controls allow the operator to adjust the direction and speed of the platen, as well as select the strain rate. Sliding the cross-arm up or down the coarse-threaded 1.25in (32mm) diameter rods and tightening the nuts makes adjustment for the wide variety of testing components quick and easy.

FEATURES:

- Strain rate of 0.02-2.0in/min (0.508-50.8mm/min) allows for multiple testing options (calibration chart included)
- Powerful 3/4hp DC drive motor
- Load capacity up to 10,000lbf (44kN)
- Durable 14-gauge steel cabinet and precision loading screw with protective boot
- Standard 8in (203mm) diameter platen
- 1.25in (31.8mm) diameter vertical rods with coarse threads
- Front panel controls
- Upper and lower limit indicator lights
- Three-position control switch has built-in hesitation to prevent damage to the motor when reversing direction
- Corrosion-resistant components

UNPACKING & SET UP:

1. Inspect your HM-398 for damage, remove it from the pallet.
2. Place the HM-398 on a sturdy, level surface such as a bench top or HMA-94 Rolling Load Frame Cart.
3. Connect to grounded power supply with correct voltage and amperage to output.



HM-398 shown with HM-413

(Continued on back.)

Rev: 05/24/2018

PHONE: 800-444-1508
740-548-7298
P.O. Box 200, Lewis Center, Ohio 43035-0200
E-mail: customerservice@gilsonco.com **Website:** www.globalgilson.com
FAX: 800-255-5314
740-548-5314

4. Adjust and level the crossarm to the appropriate height.
5. Install required Component Set and any accessories required for testing.

CONTROLS:

1. **Main Power On/Off:** Includes an indicator light to show when the power is on.
2. **Platen Direction:** Three-position switch (up, down and off) includes built-in hesitation to prevent motor damage when reversing direction.
3. **Limit Lights:** Indicate when upper and lower limits are attained.
4. **Strain Rate:** Three-segment thumb wheel selector (strain rate calibration chart included).
5. **High-Speed Jog:** Increases the speed of the platen when the switch is pushed to the up position.

OPERATING INSTRUCTIONS:

ELECTRIC SHOCK WARNING



DISCONNECT AND LOCKOUT POWER SUPPLY WHEN SERVICING THE UNIT OR INSTALLING COMPONENTS.



1. Read all safety and operating instructions before operating the unit.
2. Power the unit with the Main Power switch (indicator light will show that the unit is on).
3. Based on the calibration chart (included), set the desired strain rate for the test using the three-segment thumbwheel selector.
4. Use the Platen Direction and High-Speed Jog switches to adjust the direction and speed of the platen for testing.
5. Center the Platen Direction switch to the off position when the test is complete.
6. Refer to ASTM and/or AASHTO test methods for specific test instructions.

COMPONENT SETS:

California Bearing Ratio (CBR)	
ASTM D1883; AASHTO T 193	
HMA-684	6,000lbf load ring, dial indicator, piston
HMA-685	10,000lbf load ring, dial indicator, piston
HMA-685D	10,000lbf load cell, LVT, readout box, piston

Soil Cement	
ASTM D1632, D1633	
HMA-687	10,000lbf load ring, dial indicator, 4 in platen
HMA-687D	10,000lbf load cell , LVT, Readout box, 4 in platen

Triaxial	
ASTM D2850, D4764; AASHTO T 296, T 297	
HMA-686	1,000lbf load cell, dial indicator
HM-413	1,000lbf load cell, LVT, Readout box

Unconfined Compressive Strength	
ASTM D2166; AASHTO T 208	
HMA-681	500lbf load ring, dial gauge, plastic discs
HMA-683	1000lbf load ring, dial gauge, plastic discs
HMA-683D	1,000lbf load cell, dial gauge, plastic discs

Marshall Stability	
ASTM D5581, D6927; AASHTO T 245, T 283	
MSA-860	10,000lbf load ring, dial indicator
MSA-860D	10,000lbf load cell, LVT, readout box

Accessories	
HMA-94	Rolling Load Frame Cart