	Computer Sports Medicine, Inc.		
	Title:	Performing a HUMAC NORM Mock Test	
	Document #:	300208	
	Rev:	A	Effective Date: 3/02/06
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1.0 Purpose

- 1.1 The purpose of this document is to define the procedure for performing a NORM mock test using the HUMAC program.

2.0 Scope

- 2.1 These procedures are to be followed during the installing of HUMAC/NORM systems.

3.0 Definitions

- 3.1 N/A.

4.0 Responsibility

- 4.1 This procedure applies to all employees that have responsibility for installing HUMAC NORM Systems.

5.0 Procedure

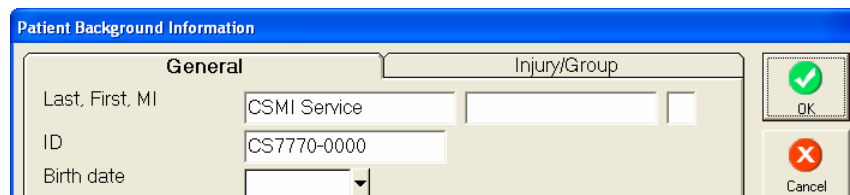
- 5.1 Create a Patient



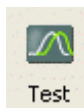
- 5.1.1 Click the **Patient** button .

- 5.1.2 From the **Patient Selection** screen, click the **New** button.

- 5.1.3 From the **Patient Background Information** screen, enter **CSMIService** as the Patient's Last Name and the system **Serial Number** as the ID. Click **OK** to continue.

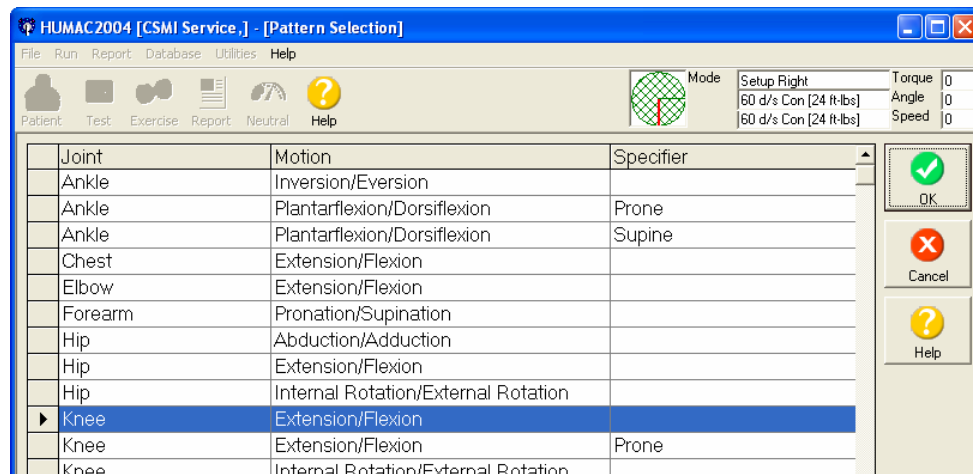


- 5.2 Select a Pattern



- 5.2.1 Click the **Test** button .

5.2.2 From the **Pattern Selection** screen, single click **Knee Extension/Flexion** and click the **OK** button.



5.3 Select a Protocol

5.3.1 Click the **Delete** button to delete all sets in the displayed protocol.

5.3.2 Click the **Add** button to add a new set.

5.3.3 Program the set as follows:

Parameter	Setting
Mode	Isokinetic
Action	Con/Con
Set Termination	1 Rep
Set Rest	0
Trial Reps	0
Trial Rest	0
Speed EXT/FLX	60/15
Cushion	0
Concentric Torque Limit ADBS/ADDS	500/500
Eccentric Torque Limit ADBS/ADDS	0/0
Torque Threshold	0

Protocol

Mode

☒ Isokinetic
☐ CPM
☐ Isometric
☐ Isotonic

Action

☒ Con (EXTS) / Con (FLXS)
☐ Con (EXTS) / Ecc (EXTS)
☐ Con (FLXS) / Ecc (FLXS)
☐ Ecc (EXTS) / Ecc (FLXS)

Set

Termination: 1 Repetitions

Rest: 0

Trial Reps

Reps: 0

Rest: 0

Isokinetic

Speed

☐ EXT=FLX
 EXT: 60
 FLX: 15

Cushion: 0

Torque Limits

Concentric

☒ EXTS=FLXS
 EXTS: 500
 FLXS: 500

Eccentric

☐ EXTS=FLXS
 EXTS: 0
 FLXS: 0
 Torque Threshold: 0

OK Cancel Help

5.3.4 Click **OK** to save the Set.

5.3.5 Enter **Mock Test** as the **Description** in the Protocol Selection screen.

5.3.6 Click **OK** to save the Protocol.

HUMAC2004 [CSMI Service.] - [Protocol Selection]

File Run Report Database Utilities Help

Patient Test Exercise Report Neutral Help

Mode: EXTS FLXS

Setup Right: 60 d/s Con [24 ft-lbs]

Torque: 0

Angle: 0

Speed: 0

Protocol: 2 Speed Protocol (60/180)

Description: Mock Test

Mode	Setting	Termination	Set Rest
Isokinetic Con/Con	60 - 15 deg/sec	1 Repetitions	0 sec

OK Cancel

5.4 Performing the Test

5.4.1 From the Test Status screen, click the **Left** side. Click **Single Set**.

HUMAC2004 [CSMI Service.] - [Status]

File Run Report Database Utilities Help

Patient Test Exercise Report Neutral Help

Mode: EXTS FLXS

Setup Left: 60 d/s Con [24 ft-lbs]

Torque: 0

Angle: 0

Speed: 0

Mode	Setting	Termination	Set Rest	Left	Right
Isokinetic Con/Con	60 - 15 deg/	1 Repetitio	0 sec	Not Tested	Not Tested

Side

☐ Right
☒ Left

OK

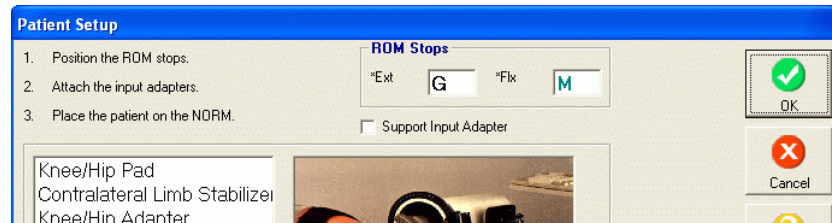
Single Set Preview

5.5 Dynamometer Settings

5.5.1 Set the **ROM Stops** at Teal “**V**” and White “**F**”.

5.5.2 Install the **Hip/Knee adapter** at the **37** setting. Remove any pads from the adapter.

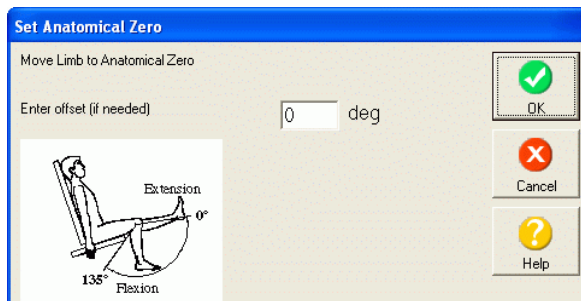
5.5.3 Click **OK** to save the settings.



5.6 Anatomical Zero

5.6.1 Position the arm against the White “F” stop.

5.6.2 Click **OK** to set the Anatomical Zero.



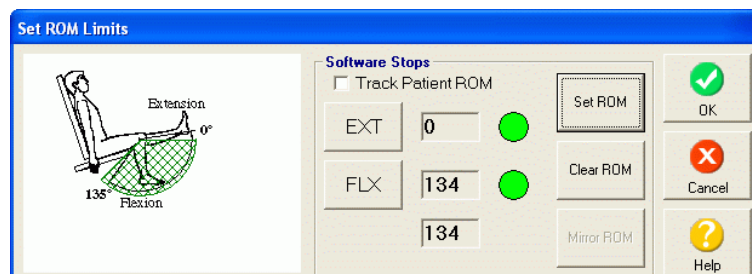
5.7 Set ROM Limits

5.7.1 Position the arm against the White “F” stop and click the **EXT** button.

5.7.2 Position the arm against the Teal “V” stop and click the **FLX** button.

5.7.3 Click the **Set ROM** button.

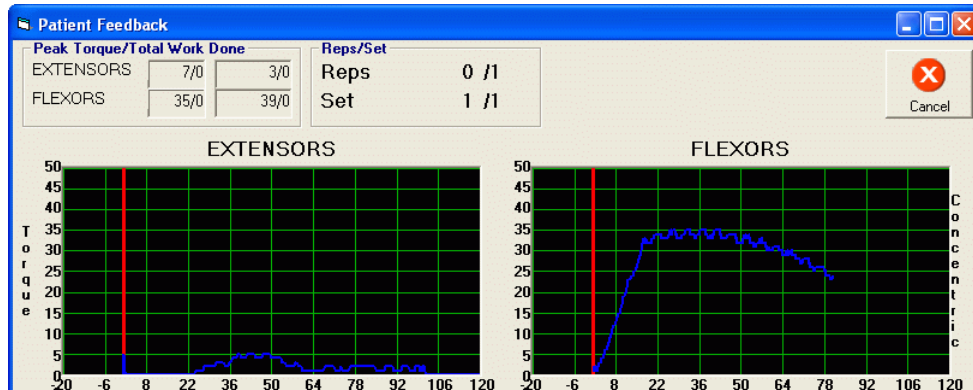
5.7.4 Click **OK** to save the settings.



5.8 Perform the Test

5.8.1 The HUMAC will instruct you to place the arm in full Flexion. Position the arm straight down and place the single 25 pound calibration weight on the adapter. Move the arm against the Teal “V” stop. The feedback display will appear.

- 5.8.2 Perform a single repetition by raising the arm to the White “F” stop. After you reach the stop, allow the arm to begin falling smoothly.
- 5.8.3 After the arm moves to straight down, if the feedback display is still showing, gently move the arm against the Teal “V” stop and release the arm.



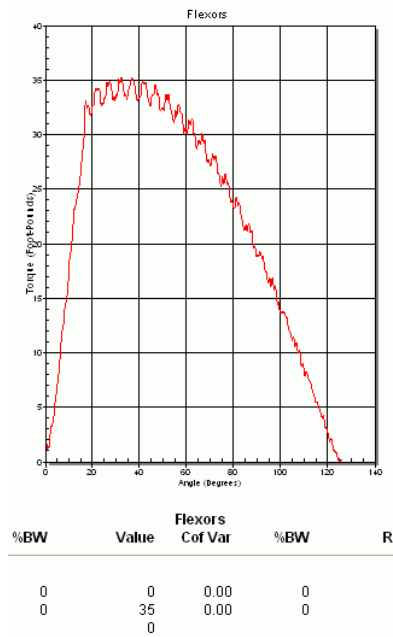
- 5.8.4 Repeat the test for the Left side.

5.9 Printing the Report

- 5.9.1 From the Status screen, click the **Preview** button.



- 5.9.2 The HUMAC will display a short report. Verify the **Flexion** torque is **35 ± 2 ft-lbs (45 to 50 nm)**.



5.10 Ending the Mock Test.

5.10.1 Click the **Print** button to print the test.

5.10.2 Click **OK** to close the **Print Preview** window.

5.10.3 Click **OK** to exit the **Test Status** screen.

5.10.4 Click **Yes** to the “Not all test were run” message.

5.10.5 Click **OK** to exit the **Print Report** screen.

6.0 Related Documents and/or Attachments