**PART 1 GENERAL**

1.1 RELATED WORK

.1 Electrical Starting and Testing General Requirements Section 16070

.2 Electrical Performance Testing by [Owner’s] [Contractors] Testing Agent Section 16072

.3 Electrical Performance Testing by Owner Section 16073

1.2 INTENT

.1 Read this Section in conjunction with Section 16070, Electrical Starting and Testing – General Requirements and other related electrical starting and test sections.

.2 Tests included in this section will be performed by the [(Choose One) Contractor] [Owner] in the presence of the owner.

.3 These tests are provided for information purposes to permit the Contractor to make appropriate allowances for coordination of work with the Owner.

.4 Should the owner choose not to be present for any or all tests listed Division 16 or their applicable subtrade is to carry out all tests and provide written records as applicable test sheets.

**PART 2 PRODUCTS**

2.1 N/A

**PART 3 EXECUTION**

3.1 WIRING AND WIRING DEVICES

.1 Test receptacles for proper polarity.

.2 Verify panelboard directories and branch circuit designations as indicated on record drawings, directories and lamicoid labelling.
3.2 LIGHTING

.1 Function test all light switches, luminaires, dimmers and lighting control equipment.

.2 Record all photo-cell and time-clock settings.

.3 Verify that correct lamps and ballasts have been used.

.4 Record lighting levels for typical rooms and specialized areas.

.5 Confirm operation of battery operated emergency lighting units including battery size and operating time.

.6 Confirm operation of exit lights and connections of exit lights to emergency lighting units.

3.3 CLOCK EQUIPMENT

.1 Review installation of all equipment.

.2 Function test master clock with respect to automatic secondary clock correction, manual clock correction and automatic daylight savings corrections.

.3 Check secondary clock correction.

.4 Check the start, stop, reset operations of interval time clocks.

.5 Record results on approved test report forms.

3.4 PUBLIC ADDRESS SYSTEM

.1 Confirm operation of all public address equipment.

.2 Record sound pressure levels (SPL) under each speaker and half-way between each speaker.

.3 Perform all tests after Interim Acceptance.

.4 Record results on approved test report forms.

3.5 RF TELEVISION SYSTEM

.1 Confirm that installation and operation of all cable television equipment complies with specifications or manufacturer’s recommended installation instructions.
.2 Test TV signal on at least one outlet on each splitter. Connect a TV to outlet and check each channel for picture clarity or test TV signal at one outlet on a loop system. Connect a TV to outlet and check each channel for picture clarity.

.3 Record test results on approved test forms.

3.6 SECURITY SYSTEM

.1 Check installation of all equipment.

.2 Confirm operation of each door. Check door contacts, proper latching of magnetic locks, card operation and exit pushbuttons.

.3 Confirm correct labelling of doors on annunciators, CRT monitor and in programming.

.4 Confirm system programming and printer operation.

.5 Check remote alarming via automatic diallers.

.6 Record results on approved test report forms.

3.7 NURSE CALL SYSTEM

.1 Check identification of all equipment and ensure equipment is clean and dust free.

.2 Perform a room by room check of visual portion of system between patient room bedside station and corridor dome light for that same room, by doing the following:

.1 Place a normal call. Check dome light for steady white. Reset.

.2 Remove call cord. Check dome light for flashing white indicating an emergency call.

.3 Confirm operation of emergency bath stations. Check dome light for flashing red.

.3 Function test audio portion of nurse call system on a room by room basis. Repeat test above and ensure proper room number and call indication appears on master station. Check clarity of audio and zone light operation. In addition test following:

.1 From master station, place a green nurse service call. Check room corridor dome light for flashing green.
.2 From master station, place an amber nurse service call. Check room corridor dome light for flashing amber.

.3 Place a “STAT” service call and check for dome light for flashing green and amber.

.4 Perform following function tests at Master Station:

.1 Calls waiting screen.
.2 Utility screen.
.3 Overtime reminder.
.4 Room dialled.
.5 Hold current call.
.6 Recall current call.
.7 Change priority.
.8 Display privacy.
.9 Change privacy.
.10 Monitor feature.
.11 Staff-follow.
.12 Room-page.
.13 All-page.
.14 Night transfer.
.15 Record results on approved test report forms.

3.8 FIRE ALARM VERIFICATION

.1 Verification and testing of the new system according to requirements of Verification of Fire Alarm Systems, CAN/ULC-S537-96.

3.9 VOICE/DATA

.1 Check voice/data outlets to confirm proper identification and integrity of subcontractors test results.

END OF SECTION