

Astronomical institute of the Czech Republic
Control of Danish 1.54m telescope

SERVICE MANUAL

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1 INTRODUCTION

This manual briefly describes how to switch the telescope to a service mode (LOCAL mode), where is possible to safely work on it and how to switch it back to an operating mode (REMOTE mode).

Before starting any operation, the personnel assigned to operate the system must be trained and familiar with this manual.

2 REMOTE / LOCAL MODE

The telescope is able to operate in two modes - LOCAL and REMOTE. Switching between these two modes is possible using a switch button.

- REMOTE mode: In this mode the telescope could be operated remotely and nobody should enter the observation floor. Human presence detector and optical sensors are active and if triggered, they cause immediate stop of every movement on the observation floor and opens the safety relay.
- LOCAL mode: In this mode the telescope could be operated only from the control room and it is safe to enter the observation floor if there is no operator in the control room. Human presence detector and optical sensors are not active.

3 STEP BY STEP PROCEDURE

3.1 Work on the observation floor

3.1.1 Switch to the LOCAL mode

- .Switch to the LOCAL mode - green light should blink.



MS4 in front of the entrance door

- Just to be sure, press one of three red emergency STOP buttons.



R6 on the observation floor



MS2 on the observation floor



MS1 in the control room

- Now you can safely work on the observation floor.

3.1.2 Switch to the REMOTE mode

- Check all red emergency STOP buttons and unlock them.
- Switch to the REMOTE mode - red light should blink.



MS4 in front of the entrance door

3.2 Work in the control room

3.2.1 Switch to the LOCAL mode

- Switch to the LOCAL mode - green light should blink.



MS4 in front of the entrance door

- Restart safety relay if necessary (push button on the left side of the main control cabinet R1/1).



R1/1 in the air-conditioned room behind the control room

- Switch on the control voltage - white light should lit.



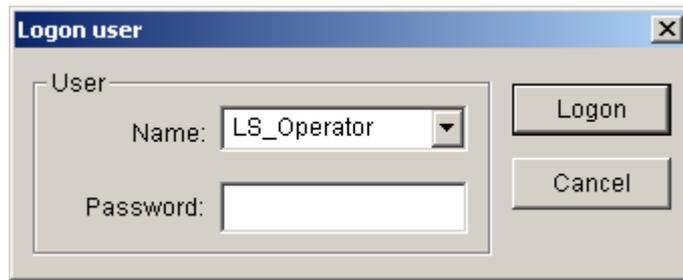
MS1 in the control room

3.2.2 Work with the TCS

- Logon as LS_Operator, password uw12.



Main control screen of the telescope control system



Logon dialog

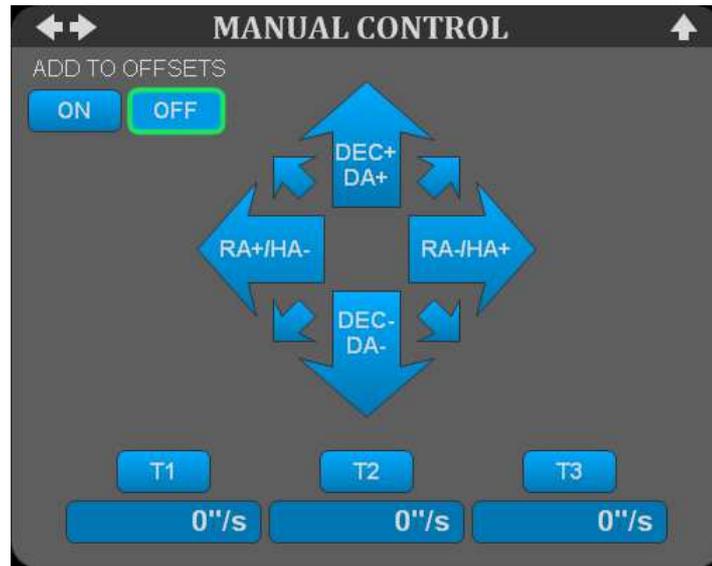
- Switch on the telescope (ON button) and wait for the READY state.



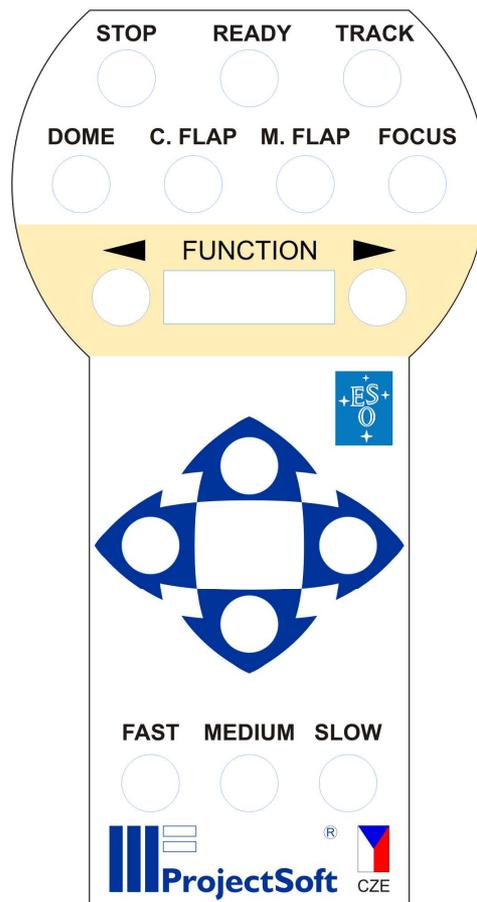
- If the telescope is not initialized, press INIT button and wait for the READY state.



- Now you can operate the telescope with the arrows in MANUAL CONTROL panel or by the hand-paddle (function TELE). Telescope control system is automatically checking the telescope position to prevent the collision.



MANUAL CONTROL panel



Hand-paddle

- Close all and park the telescope (CLOSE ALL button), wait for the SWITCHED OFF state.



TELESCOPE panel

3.2.3 Switch to the REMOTE mode

- Switch off the control voltage - white light should not lit.



MS1 in the control room

- Switch to the REMOTE mode - red light should blink.



MS4 in front of the entrance door

3.3 Emergency closing of the slit

- Turn the switch on MS5 to the second position.
- Take the cable which hangs on the red fork and plug it to the blue plug on MS5 and some nearest socket.
- Hold push buttons OPEN or CLOSE – limit switches are used also in this mode.



3.4 Halogen lamp in the dome

If it is necessary to switch on/off the halogen lamp in the dome, go to the TECHNOLOGIES screen and use the ON/OFF button in the DOME panel.

