

61" Dome Slit Controller

The 61" Dome Slit Controller is a a controllino that uses [NG Protocol](#) for its network and serial command syntax. The serial communication is done via the USB port and the serial NG protocol does not need (in fact it can't have) the obsid or sysid. So each command should start with COMMAND or REQUEST. You can find the firmware for the controller [here](#).

OBSID = "BIG61"

SYSID = "DOMESLIT"

List of Commands/Requests

Remember when using serial to send the commands you do not need to start with "BIG61 DOMESLIT".

COMMANDS

BIG61 DOMESLIT 123 COMMAND OPEN\n

Open the dome. The response should be OK or an error message

BIG61 DOMESLIT 123 COMMAND CLOSE\n

Close the dome. The response should be OK or an error message

BIG61 DOMESLIT 123 COMMAND IPADDR <IPADDR>\n

Set the ip address of the unit in EEPROM. The address will become active on the next restart

REQUESTS

BIG61 DOMESLIT 123 REQUEST STATE\n

Request the limit state. The answer should be OPENED, CLOSED or TRAVELING

BIG61 DOMESLIT 123 REQUEST IPADDR\n

Request the IPADDR from the EEPROM. The response should be the IP address. Note this may be different from the actual ip address if you set it using the IPADDR command without restarting the.

Logic (As per Greg Stafford)

61" Kuiper Telescope shutter control specs: included are basic I/O and operation in this initial phase.

Relay0 - R0 - Open Shutter Command (Output, 1 = on, 0 = off)

Relay1 - R1 - Close Shutter Command (Output, 1 = on, 0 = off)

Analog0 - A0 - Open Shutter Command (Input, active high, 1 = on, 0 = off)

Analog1 - A1 - Close Shutter Command (Input, active high, 1 = on, 0 = off)

Analog2 - A2 - Remote/Local (Input, 1 = Remote, 0 = Local)

Analog3 - A3 - Opened Limit (Input, active low, 1 = non-limit, 0 = in-limit)

Analog4 - A4 - Closed Limit (Input, active low, 1 = non-limit, 0 = in-limit)

States	Open LM	Close LM	Command Status
Opened	0	1	Open Cmd Disabled, Close Cmd Enabled
Closed	1	0	Close Cmd Disabled, Open Cmd Enabled
Partially Open	1	1	Open & Close Cmds Enabled
Shutter Error	0	0	All Cmds Disabled
Remote	X	X	All Cmds Enabled
Local	X	X	All Cmds Disabled

*

- R0 and R1 cannot be on (1) at the same time
- A3 and A4 cannot be low (0) at the same time - indicates error
- Open/Close commands require time-out feature of ???seconds

From: <https://lavinia.as.arizona.edu/~tscopewiki/> - MOON

Permanent link: https://lavinia.as.arizona.edu/~tscopewiki/doku.php?id=public:tcs:kuiper_61_telescope_dome_slit_controller

Last update: 2019/06/10 13:03

