

Instruction How To Connect RDAS Telescope Remotely

The Telescope menu contains a number of commands that allow you to check/set the status of the scope to which you are connected.

Protocol

There are four different allowable ways to use Autostar Suite to communicate with and control your telescope. The protocol menu allows you to select how you want to talk to your telescope and how your telescope can talk back to you.

None

Selecting this menu item disconnects the Starmap from the telescope if it is presently connected.

Autostar Via Comm Port

Meade Instrument Corporation, has developed the Autostar family of computer controlled telescopes. These unique instruments can automatically drive the telescope to any object contained in its own database, or to any specified R.A. and Dec. coordinate. The coordinates may be supplied either from the telescope's control pendant or from an RS-232 interface. Autostar Suite supports many of the telescope's commands, but uses the program values for R.A. and Dec. instead of the telescope's internal database. This assures future compatibility as new databases become available.

Warning: Use extreme caution when using the Autostar in remote control mode. Autostar Suite cannot determine if there are any mechanical interferences that may develop as the telescope is moved, such as, a camera extending too far from the back of the telescope. As a result, it is possible to move the telescope into positions that may cause serious damage to the equipment or personal physical injury!

Via Modem

Autostar Suite can also control a telescope that is remotely connected via a telephone modem. In order to communicate via a modem, the Autostar telescope should be connected to the modem. The modem is connected to an incoming telephone line. The modem must be configured to automatically answer incoming calls and to communicate with the telescope at 9600 bits per second. You will need to consult with the manufacturer's literature to configure these settings.

With the Autostar telescope attached to its modem, you can then use the telescope. When you select this option you will be prompted by a dialogue box, like the one below, to supply the phone number and dialling instructions to the computer's modem.

Follow instructions from this point onwards



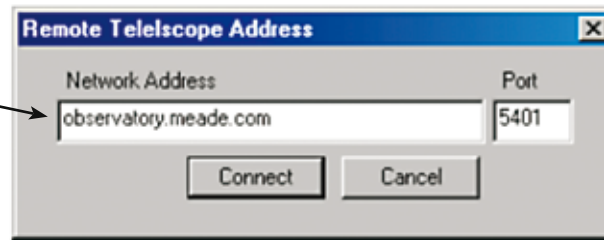
The dialog box is titled "Remote Autostar". It contains a text input field for "Phone Number" with the value "555-1212". Below this is a dropdown menu. At the bottom, there are several buttons: "Dial", "Hangup", "Initialize Telescope", "Park Telescope", "Cancel", and "OK".

Via Network

Autostar Suite can also control a telescope over a network connection. The connection may be a TCP/IP network, or over the internet. Thus you can operate your instrument from across the room or from around the world. In order to connect to a network telescope, the telescope must be connected to another computer on the network and must be running the Autostar Network Server module (see section below).

When you select a network connection the following dialog will appear:

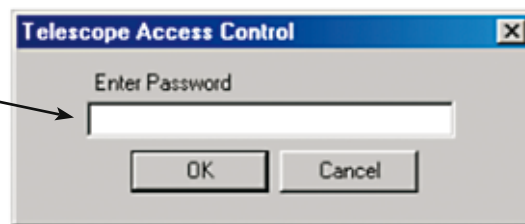
Type IP address of RDAS computer connected to telescope



You will need to enter the network or IP address of the computer running the Network Communications module and its IP port number. By default Autostar Suite uses port 5401. Unless your network administrator requires you to change this value, Meade recommends you leave this setting unchanged.

When network communications is established, you will usually be prompted for a password to access the telescope. Whenever you put a telescope on a network, you must consider that some careless or malicious user may access your scope. A strong password is the best way to ensure only trusted users can control the scope.

Type password given to you by RDAS



Enter the telescope password and click on OK. After a moment you will be able to control the remote telescope from within the Autostar Suite.

A Single Machine Network/Port Sharing

One of the benefits of network scope control is that it allows several modules to share a single serial connection to your telescope. Thus with only a single serial cable, the Remote Handbox, Starmap, LPI and Dome control modules can all access the telescope at once. The simplest way to achieve this benefit is to run the Network Communications Module on your computer and then use the Autostar Via Network protocol to access your telescope. Conceptually, you are running a single computer network.

Operationally, you first start the Autostar Network Server module, then select the Autostar Via Network protocol. When prompted for the Network Address, enter your Computer's name. You can find your computer's name by pointing to the "My Computer" icon on your screen and clicking the right mouse button. When the dialog appears, click on "Properties". Then select the tab that says "Computer Name" to find out your computer name.

Set Field Sizes

The Set Field Sizes command displays the current sizes of the fields of view of both the guide scope and main telescope. The field .. may be either rectangular or circular; the sizes are degrees, minutes and seconds of arc. The displayed values would be updated as soon as the communication to the observatory was established. You may change these values as you wish to reflect your own equipment. The values are saved between sessions so that you can plan your observing run without being connected to the telescope.

The field sizes can be displayed as an overlay on the starmap by selecting the Telescope Fields entry in the Starmap, Options dialogue box .