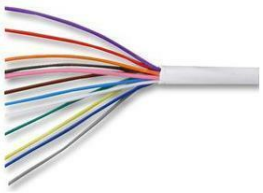
Chapter 9 Final assembly

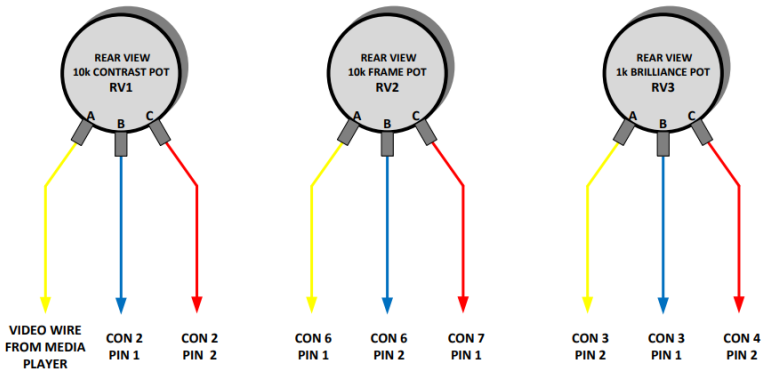
With the lightbox, sensor boxes and lens assembly safely stored ensure all panel mounted components are securely fixed too the base unit.



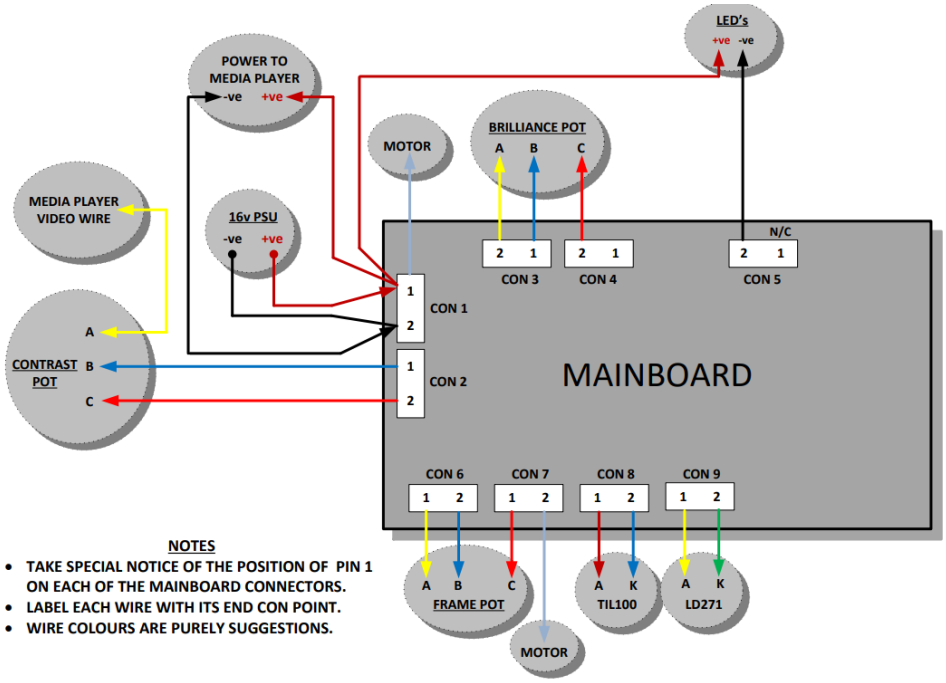
In order to wire-up the televisor we suggest purchasing five metres of twelve core alarm type cable as shown to the left, this is an economical method of acquiring equipment cable. The outer protecting sheath can be used to group cables around the televisor to keep them neat and tidy. Cut a 400mm length of cable, open one end and by gripping hold of the red trace braid pull and this hard and this will open the outer sheath to reveal twelve individual-coloured cables.

- Drill four 3mm holes in the bottom shelf of the unit and mount the populated control PCB on spacers.
- Stick cable cradles around the inside of the base unit with cable ties loosely tied to define the shortest cable runs required to connect all components.
- Using slightly thicker equipment cable connect the zero and plus 16-volt supply from the ‘Power input’ socket. Verify polarity before connecting amplifier, player, control board, motor, and terminals 1/1 (positive) terminal 1/2 zero Volts.
- Using the schemes below wire up the internals as shown below.

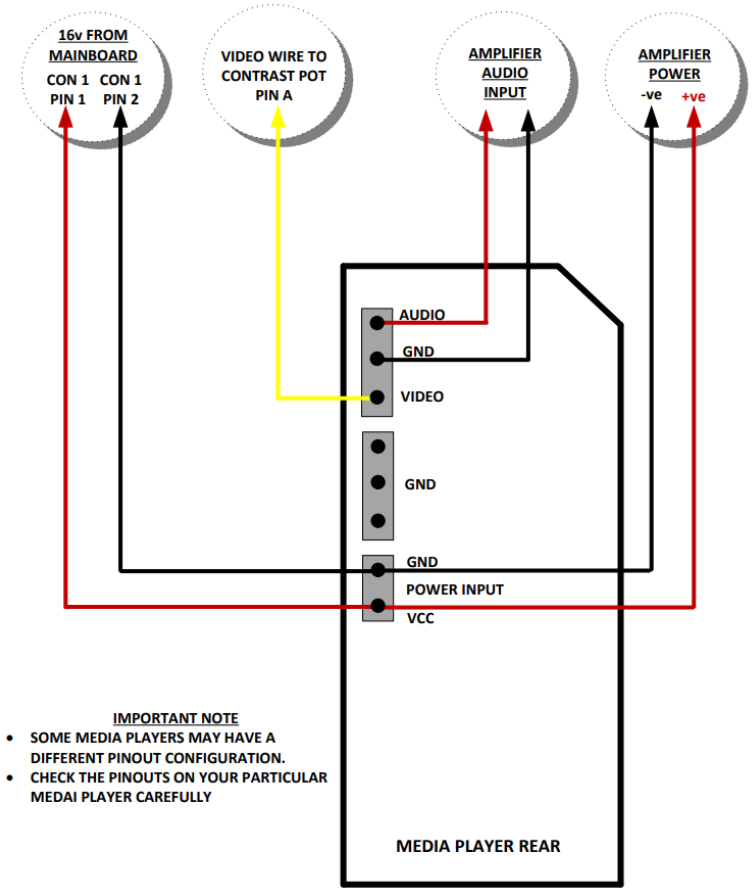
POTENTIOMETER WIRING GUIDE



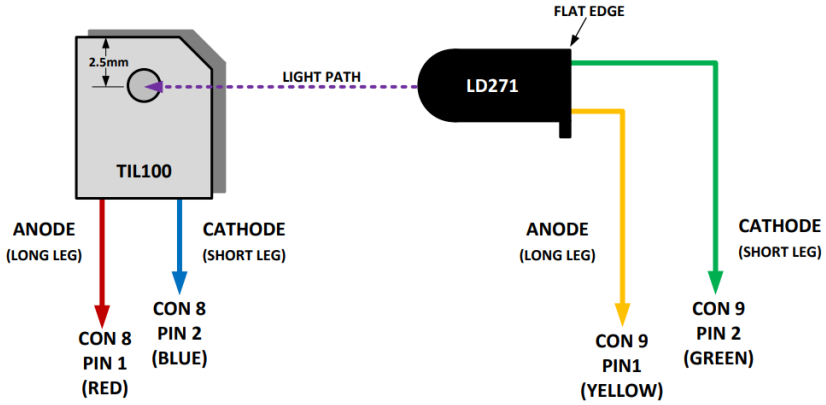
(WIRE COLOURS ARE SUGGESTIONS ONLY)



Media Player Wiring



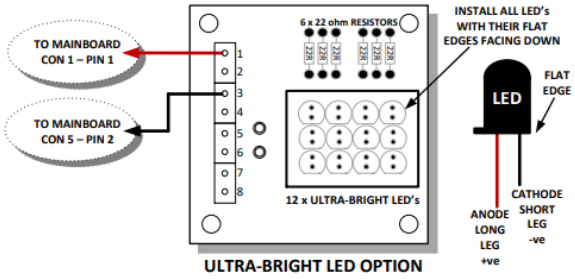
SYNC HOLE DETECTOR WIRING



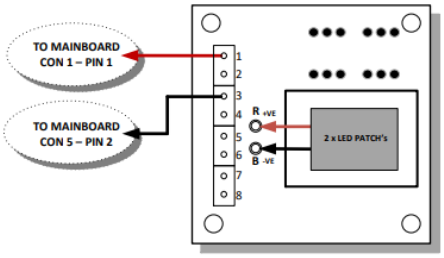
(WIRE COLOURS ARE SUGGESTIONS ONLY)

THE LED LIGHTBOX

The PCB board was designed by Ralph Taggart and is perfectly suited for the club monitor lightbox. There are 2 options for making up the lightbox circuit board. One option is to populate the board with 12 ultra-bright LED's and the other option is to fit 2 LED patches in parallel. The choice is up to the builder as both options will give satisfactory results with the LED's giving a warmer image but the patch option being the easier of the builds for a beginner. If opting for the patch option then the PCB board may be even be omitted.



ULTRA-BRIGHT LED OPTION

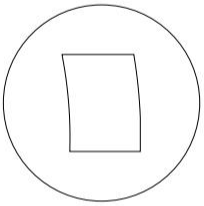


LED PATCH OPTION

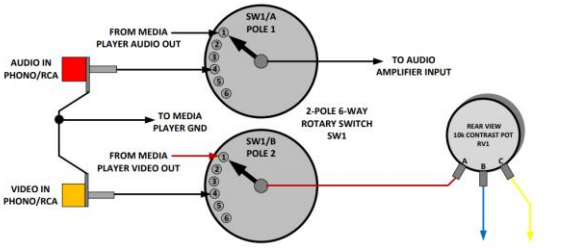
THE LENS VIEWING BOX

A CARD MASK IS GLUED TO THE REAR OF THE LENS VIEWER TO MASK OUT UNWANTED LIGHT FROM THE LIGHTBOX. THE MASK POSITION IS ADJUSTED WHILST VIEWING AN IMAGE BEFORE FIXING IN PLACE.

NOTE: BE CAREFUL OF THE SPINNING DISK TO AVOID ACCIDENTS



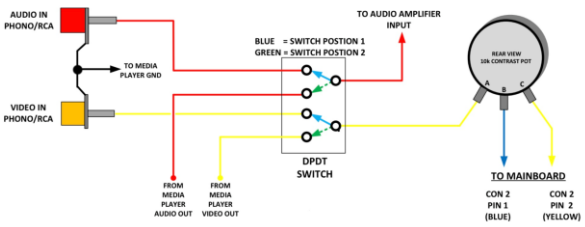
OPTIONAL INTERNAL/EXTERNAL SWITCHED INPUT WIRING



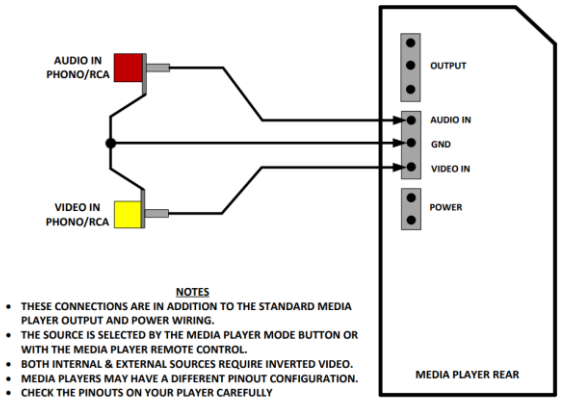
NOTES

- IT IS RECOMMENDED TO USE SCREENED CABLES.
- SWITCH POSITION #1 = INTERNAL MEDIA PLAYER INPUT.
- SWITCH POSITION #4 = EXTERNAL SOURCE PHONO/RCA INPUT.
- SWITCH POSITIONS 5 & 6 ARE RESTRAINED.
- EXTERNAL SOURCE REQUIRES NON-INVERTED VIDEO FEED.
- MEDIA PLAYER SOURCE REQUIRES INVERTED VIDEO FEED.

OPTIONAL TOGGLE SWITCHED INPUT WIRING



OPTIONAL MEDIA PLAYER SWITCHED INPUT WIRING



NOTES

- THESE CONNECTIONS ARE IN ADDITION TO THE STANDARD MEDIA PLAYER OUTPUT AND POWER WIRING.
- THE SOURCE IS SELECTED BY THE MEDIA PLAYER MODE BUTTON OR WITH THE MEDIA PLAYER REMOTE CONTROL.
- BOTH INTERNAL & EXTERNAL SOURCES REQUIRE INVERTED VIDEO.
- MEDIA PLAYERS MAY HAVE A DIFFERENT PINOUT CONFIGURATION.
- CHECK THE PINOUTS ON YOUR PLAYER CAREFULLY

- Connect the two loudspeaker wires to the amplifier output.
- Except for the sensor and display housings neatly wire the remaining connections to the control board as shown below. At this stage the sensors and displays should be connected to the control board but external to the unit so that optimum positioning can be attained during testing.