

PRINT ON CLEAR
TRANSPARENCY
MATERIAL

DATE RULER

DATE LINES: 1, 5, 10, 15, 20, 25

THE SUNDIAL PRIMER
"DIALLING BUDDY"
SOUTHERN HEMISPHERE
INSTRUCTIONS

1. Rotate the transparent plate until the "Latitude Selector" arrow points to the desired latitude. The position of four special locations have been marked. Use a paper clip to hold the plates in position.
2. Select the date of interest. The date lines for the summer/winter solstices and the equinoxes have been connected. Use the transparent "Date Ruler" to connect other date lines across the plate. Within the inner circle these lines indicate the sun's path on any given day of the year. For more information see The Sundial Primer "Sun Charts" page.
3. The times of sunrise and sunset are indicated at the point where the sun's path for a given date intersects the "Horizon" line. The time is given in local apparent or solar time. To obtain standard time be sure to get The Sundial Primer "Correct-A-Dial" calculator.
4. The sun's declination can be obtained from either of the scales located at the date lines on the transparent plate.
+ is south and - is north of the celestial equator.
5. The sun's altitude is obtained from the "Altitude" scale located on the back plate. Follow the horizontal lines for a given date and time. Altitude lines are drawn at 10° intervals. For dates and times that fall between these lines use the



6. The sun's azimuth is obtained from the "Azimuth" scale located on the back plate. First obtain the altitude for a given date and time. Follow the vertical lines from the date and time point to the appropriate **altitude circle**. Rotate the "Azimuth Pointer" until it passes through this point. Read the azimuth. The azimuth scale indicates angles to the west or the sun's p.m. position relative to true south. For angles to the east or the sun's a.m. position change the sign to negative (-).
7. Dialling data using the Summer Solstice line: horizontal sundial range: sunrise to sunset; vertical direct south sundial range: time at "Vertical Wall" from a.m. to p.m.; vertical direct north sundial range: sunrise to time at "Vertical Wall" for a.m. and time at "Vertical Wall" to sunset for p.m.; vertical direct east sundial range: sunrise to noon; vertical direct west sundial range: noon to sunset.
8. To determine the time range for a vertical declining sundial calculate azimuth values as follows:
90° ± wall declination. Using the "Date Ruler" drop vertical lines from the azimuth scale at the two values calculated above to where they intersect the "Summer Solstice" line. Two a.m. and two p.m. will be tagged. If the wall declines to the east use the earlier values of the a.m. and p.m. times. If the wall declines to the west use the later values of the a.m. and p.m. times.

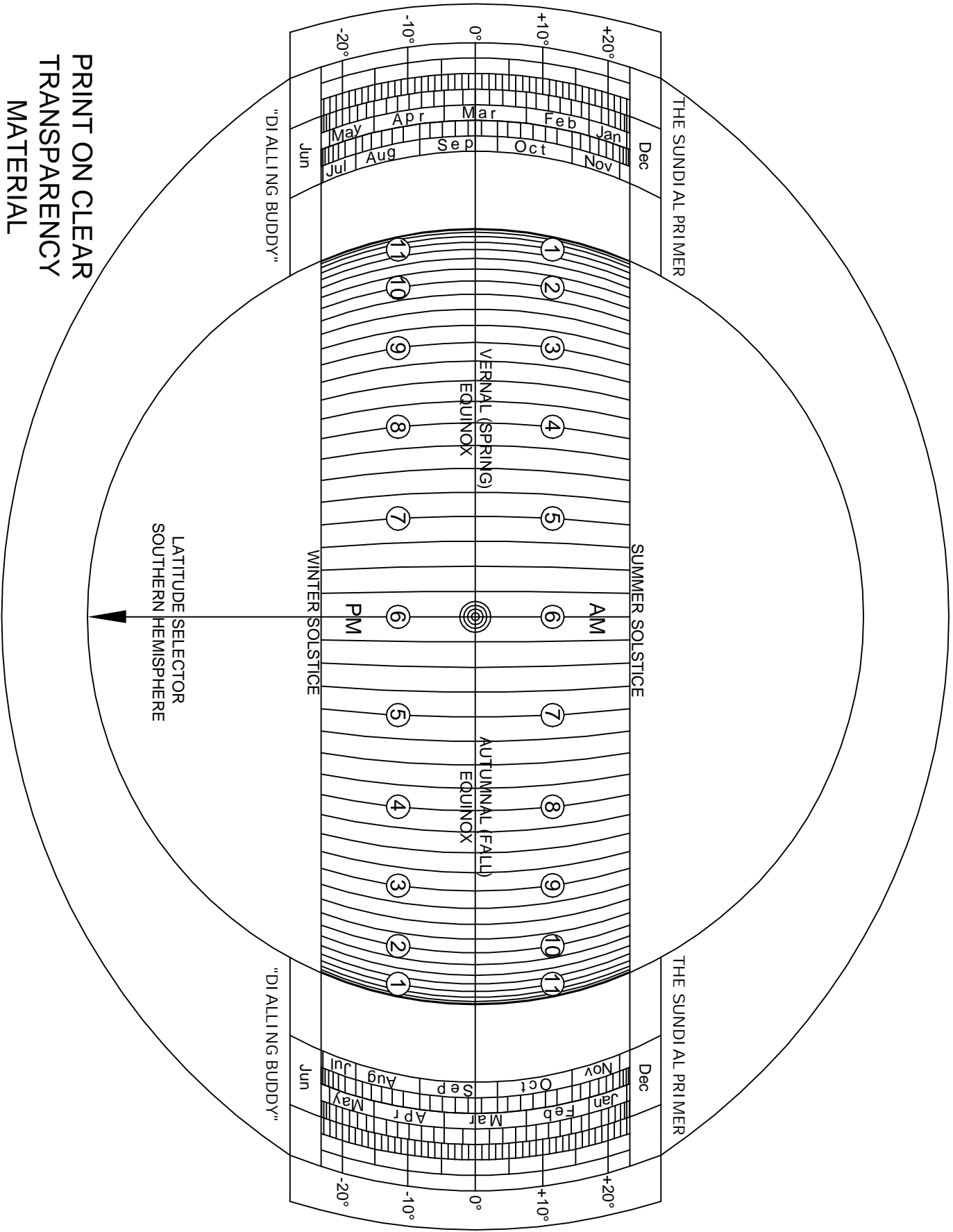
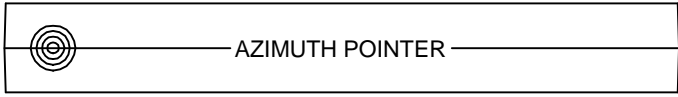
www.mysundial.ca

"BUDDY"
PRIMER
SUNDIAL

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PRINT ON CARD STOCK. CUT OUT ON INSIDE OF OUTER LINE. GLUE
TO THE BACK OF THE OTHER CARD STOCK PLATE.

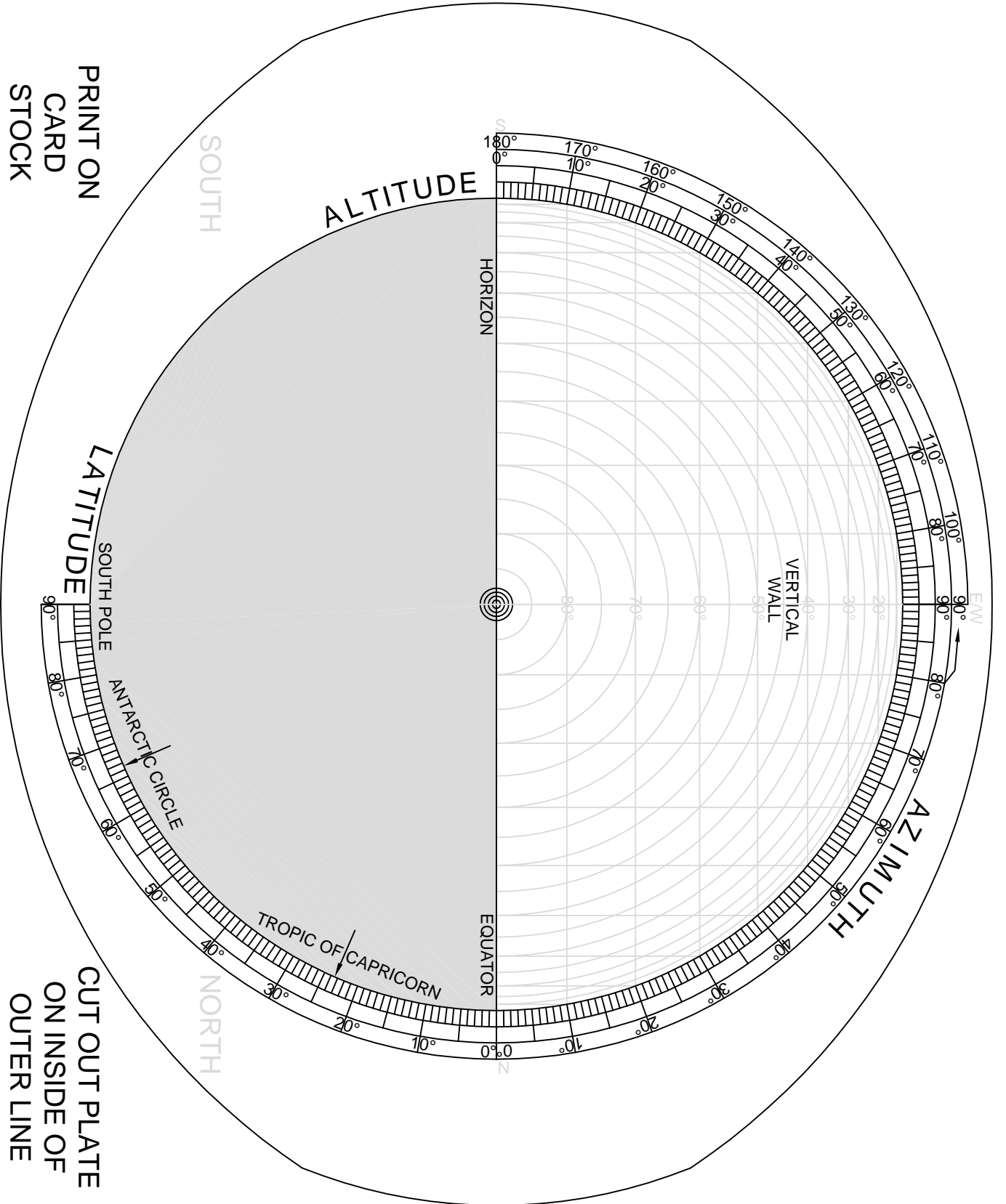


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