METEOROLOGICAL INSTRUMENTS

MODEL 52202 / 52203
TIPPING BUCKET RAIN GAUGE

INSTRUCTION MANUAL

MANUAL PN 52202-90

January 2009

WARRANTY AND ASSISTANCE

R.M. YOUNG PRODUCTS are warranted by CAMPBELL SCIENTIFIC (CANADA) CORP. ("CSC") to be free from defects in materials and workmanship under normal use and service for **twelve (12) months** from date of shipment unless specified otherwise. CSC's obligation under this warranty is limited to repairing or replacing (at CSC's option) defective products. The customer shall assume all costs of removing, reinstalling, and shipping defective products to CSC. CSC will return such products by surface carrier prepaid. This warranty shall not apply to any CSC products which have been subjected to modification, misuse, neglect, accidents of nature, or shipping damage. This warranty is in lieu of all other warranties, expressed or implied, including warranties of merchantability or fitness for a particular purpose. CSC is not liable for special, indirect, incidental, or consequential damages.

Products may not be returned without prior authorization. To obtain a Return Merchandise Authorization (RMA), contact CAMPBELL SCIENTIFIC (CANADA) CORP., at (780) 454-2505. An RMA number will be issued in order to facilitate Repair Personnel in identifying an instrument upon arrival. Please write this number clearly on the outside of the shipping container. Include description of symptoms and all pertinent details.

CAMPBELL SCIENTIFIC (CANADA) CORP. does not accept collect calls.

Non-warranty products returned for repair should be accompanied by a purchase order to cover repair costs.

CAMPBELLSCIENTIFIC
CANADA CORP.
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tel 780.454.2505 fax 780.454.2655
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MODEL 52202 / 52203
TIPPING BUCKET RAIN GAUGE

INSTRUCTION SHEET 52202-90
REV F031308

INTRODUCTION

The YOUNG Model 52202 / 52203 Tipping Bucket Rain Gauge meets the specifications of the World Meteorological Organization (WMO). Extensive use of molded thermoplastic components gives maximum performance and resistance to corrosion. Model 52202 is heated for year-round use, Model 52203 is unheated for use in temperate climates.

LOCATION OF RAIN GAUGE

Precipitation measurement is greatly affected by location of the rain gauge. Select a location that is naturally protected from gusts and crosswinds. Avoid a site prone to contamination from debris such as falling leaves, dirt, etc...

INSTALLATION

The Model 52202 / 52203 is fully calibrated at the factory. The movable bucket is retained to prevent damage during shipment. On installation, the following procedure should be followed.

1. Loosen 3 screws that retain housing to base assembly. Carefully lift housing free of base.
2. Remove shipping retainer from bucket. Verify that bucket tips freely.
3. Attach sensor wires and heater wires (when used) to terminals as shown in wiring diagram.
4. Adjust leveling screws until bulls eye level is centered.
5. Replace housing. If heated, heater wires (gray) must be attached to terminals C & D before housing is fully engaged. Retighten screws.

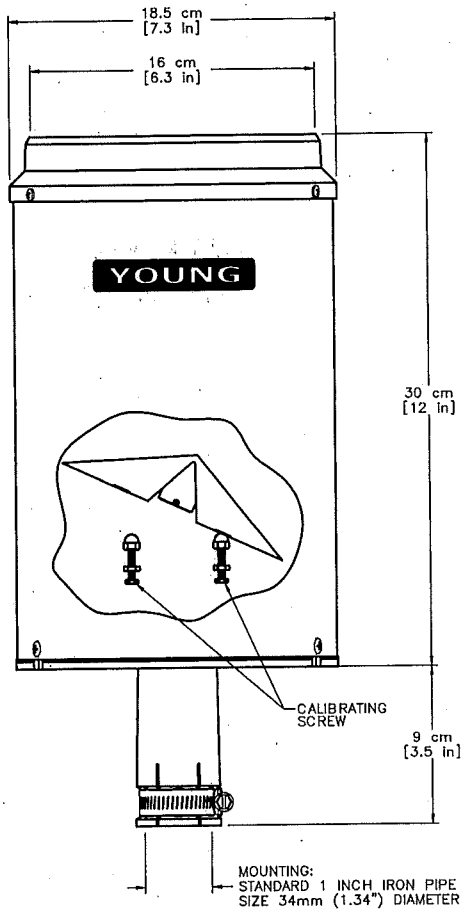
MAINTENANCE

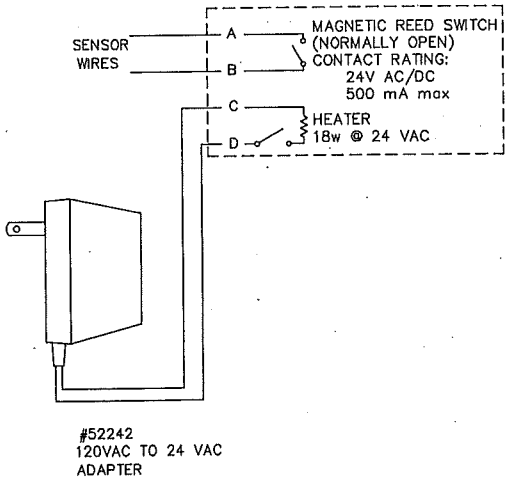
The rain gauge should be inspected periodically. Accumulated dirt and debris should be cleaned from funnel, screen and bucket assembly. Electrical connections should be inspected and cleaned. Leveling screws may be readjusted at this time. Periodic recalibration may be desirable to ensure measurement accuracy.

CALIBRATION

To check or recalibrate the rain gauge, Model 52260 Rain Gauge Calibrator will simplify the process. If a calibration device is not available, the following steps will yield satisfactory results:

1. With the rain gauge properly leveled, slowly pour a measured volume of water into the collection funnel. The rate should not exceed 10 ml per minute which is approximately 1 inch per hour. The bucket should tip 5 times for each 10 ml of water. For example, 100 ml should give a count of 50 ±1. Bucket tips may be counted manually or with a counter connected to the rain gauge terminals.
2. If the count shows an error of more than 2%, adjust the calibrating screws to correct the error. Raise the screws if the count is low, lower the screws if the count is high. **Always adjust both screws equally.**





#52242
120VAC TO 24 VAC
ADAPTER

SPECIFICATIONS

CATCHMENT AREA:	200 cm²
RESOLUTION:	0.1 mm per tip
ACCURACY:	2 % up to 25 mm / hr, 3% up to 50 mm/hr
OUTPUT:	Magnetic reed switch, normally open
CONTACT RATING:	24V AC / DC 500 mA MAX
OPER. TEMP:	-20°C to + 50°C (heated)
POWER:	18 Watts @ 24 VAC for heater only
MOUNTING:	Standard 1 Inch Pipe Size, 34mm (1.34") Dia.

R. M. YOUNG COMPANY 2801 Aero Park Drive , Traverse City, Michigan 49686 USA
TEL (231) 946-3980 FAX (231) 946-4772

BIRD PROTECTION

Model 52250 Bird Wire Assembly will discourage bird perching on the funnel rim. Contact your YOUNG supplier to order this accessory.

WARRANTY

This product is warranted to be free of defects in materials and construction for a period of 12 months from date of initial purchase. Liability is limited to repair or replacement of defective item. A copy of the warranty policy may be obtained from R. M. Young Company.

CE COMPLIANCE

This product has been tested and shown to comply with European CE requirements for the EMC Directive. Please note that shielded cable must be used.

Declaration of Conformity

Application of Council Directives:
89/336/EEC

Standards to which Conformity is Declared:
EN 50081-1
EN 55022 (CISPR 22 class A)
EN 50082-1(IEC 801-2,3,4)

Manufacturer's Name and Address:
R. M. Young Company
Traverse City, MI, 49686, USA

Importer's Name and Address:
See Shipper or Invoice

Type of Equipment:
Meteorological Instruments

Model Number / Year of Manufacture:
52202/52203/1999

I, the undersigned, hereby declare that the equipment specified conforms to the above Directives and Standards.

Date / Place:
Traverse City, Michigan, USA May 3, 1999

David Poinsett
R & D Manager, R. M. Young Company