

**omega.com**<sup>®</sup>

Ω OMEGA<sup>®</sup>

# Remote Contact Assembly

HHT13-RCA

INSTRUCTION  
SHEET

Shop online at: [omega.com](http://omega.com) e-mail: [info@omega.com](mailto:info@omega.com)  
For latest product manuals: [omegamanual.info](http://omegamanual.info)

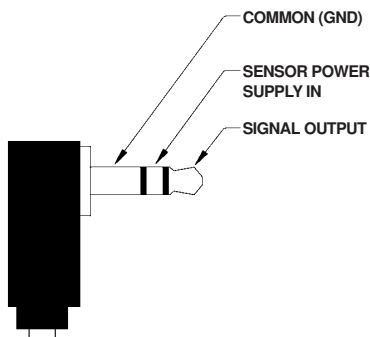


**WARNING:** Making measurements in direct contact with rotating equipment can be dangerous. Keep all loose clothing and hair away from exposed moving machinery. Keep the hand holding the HHT13-RCA well behind the front flange of the Remote Contact Assembly. Properly replace all the machinery guards after completing measurement. Do not use for rotation greater than 20,000 RPM.

**Not designed for continuous operation.**

The HHT13-RCA is an accessory for measuring contact RPM, linear speeds or totalizing lengths. It needs to be plugged into a tachometer to be functional. It is supplied with two rubber tips (one concave and one convex) and a 10 cm wheel. An optional 12 inch wheel (HHT13-LCW) is available. When used with the HHT13 Pocket Laser Tachometer, the unit outputs 12 pulses per revolution (ppr). When used with the HHT11-R Pocket Tachometer, the unit outputs 2 ppr. The maximum operating range of the HHT13-RCA is 20,000 RPM when used with a contact tip and 12,000 RPM when used with a linear wheel.

The HHT13-RCA plugs into the 3.5 mm stereo input jack of the tachometer. Connector pinouts are as shown below.



RCA Output Connector - Connection Detail

To measure rotational speed (RPM), select either a convex or concave rubber tip appropriate for the measurement to be made and install it firmly on the shaft of the HHT13-RCA. Note that the shaft has a flat surface that must align with the flat in the rubber tips. The pointed convex (conical) tip is used for moderate to large diameter shafts that are equipped with a turned center, while the concave (inverted conical) tip is used on smaller diameter shafts. The circumference of the concave tip is 1.0 inch (2.54 cm).

Refer to each tachometer's operating instruction on how to set up the tachometer for contact measurement of speed, rate, or totalization.

To make a measurement, start the rotating equipment and carefully move the contact tip against the center on the end of the rotating shaft. Keep the hand holding the HHT13-RCA well behind the back edge of the front flange of the HHT13-RCA. Use only a moderate amount of pressure to keep the rubber tip in contact with the rotating shaft.

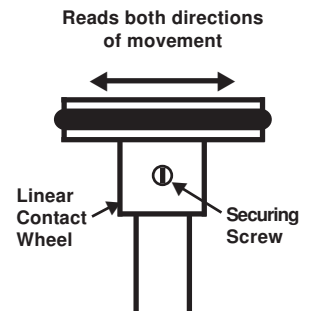
Surface speed linear rate measurements are made with the Linear Speed Wheels. The 10 cm Linear Speed Wheel must be pushed back onto the shaft, aligning the flats. Secure it in position by firmly tightening the small machine screw on the wheel. The optional 12 inch wheel also has a slot that must engage with the pin in the HHT13-RCA shaft and a locking screw which must be tightened.

**WARNING:** Do not attempt to use the Linear Speed Wheel if the securing screw is not tight.

To measure a linear surface speed and/or total length such as a moving belt, roll or web, first select the Rate (Linear Contact) or Total mode on the tachometer and set the wheel size (10 cm or 12 inch). Hold the HHT13-RCA at a right angle (90 degrees) to the direction of movement and gently contact the rubber edge of the wheel against the belt or top surface of the object to be measured. For accurate results, be sure that the wheel edge is held perpendicular (at 90°) to both the measurement plane and the direction of travel. Only a very moderate amount of pressure is required. Excess pressure can load the HHT13-RCA shaft causing an erroneous reading and eventual wear in the bearings of the HHT13-RCA.



Remote Contact Assembly with 8 ft (2.5 m) cable, contact tips and two linear speed wheels (12 inch wheel sold separately)





<b>OMEGAnet® Online Service</b> www.omega.com	<b>Internet e-mail</b> info@omega.com
--	--

**Servicing North America:**

**USA:** One Omega Drive, Box 4047  
Stamford CT 06907-0047  
Tel: (203) 359-1660 FAX: (203) 359-7700  
e-mail: info@omega.com

**Canada:** 976 Bergar  
Laval (Quebec) H7L 5A1, Canada  
Tel: (514) 856-6928 FAX: (514) 856-6886  
e-mail: info@omega.com

**For immediate technical or application assistance:**

**USA and Canada:** Sales Service: 1-800-826-6342 / 1-800-TC-OMEGA®  
Customer Service: 1-800-622-2378 / 1-800-622-BEST®  
Engineering Service: 1-800-872-9436 / 1-800-USA-WHEN®  
TELEX: 996404 EASYLINK: 62968934 CABLE: OMEGA

**Mexico:** En Español: (001) 203-359-7803 e-mail:espanol@omega.com  
FAX: (001) 203-359-7807 info@omega.com.mx

**Servicing Europe:**

**Benelux:** Managed by the United Kingdom Office  
Tel: +31 (0)20 3472121 FAX: +31 (0)20 6434643  
Toll Free in Benelux: 0800 0993344  
e-mail: sales@omegaeng.nl

**Czech Republic:** Frystatska 184, 733 01 Karviná, Czech Republic  
Tel: +420 (0)59 6311899 FAX: +420 (0)59 6311114  
Toll Free: 0800-1-66342 e-mail: info@omegashop.cz

**France:** Managed by the United Kingdom Office  
Tel: +33 (0)1 61 37 2900 FAX: +33 (0)1 30 57 5427  
Toll Free in France: 0800 466 342  
e-mail: sales@omega.fr

**Germany/Austria:** Daimlerstrasse 26, D-75392 Deckenpfronn, Germany  
Tel: +49 (0)7056 9398-0 FAX: +49 (0)7056 9398-29  
Toll Free in Germany: 0800 639 7678  
e-mail: info@omega.de

**United Kingdom:** One Omega Drive, River Bend Technology Centre  
ISO 9001 Certified Northbank, Irlam, Manchester  
M44 5BD United Kingdom  
Tel: +44 (0)161 777 6611 FAX: +44 (0)161 777 6622  
Toll Free in United Kingdom: 0800-488-488  
e-mail: sales@omega.co.uk

It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.  
The information contained in this document is believed to be correct, but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. **WARNING:** These products are not designed for use in, and should not be used for, human applications.

**WARRANTY/DISCLAIMER**

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear are not warranted, including but not limited to contact points, fuses, and triacs.

**OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by it will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.**

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

**RETURN REQUESTS / INQUIRIES**

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

PATENT NOTICE: U. S. Pat. No. 6,074,089; 5,465,838 / Canada 2,228,333; 2,116,055 / UK GB 2,321,712 / Holland 1008153 / Israel 123052 / France 2 762 908 / EPO 0614194. Other patents pending.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

© Copyright 2004 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.