

## EMC Declaration of Conformity

This receiver has been tested and found to comply with the limits for a Class B digital device for radio noise for digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communication, and is pursuant to part 15 of the Federal Communication Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This receiver generates radio frequency. If it's not used in accordance with the instructions, it may cause harmful interference to radio or television reception. Such interference can be determined by turning the receiver off and on. You are encouraged to try eliminating the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the laser and the receiver.

For more information, consult your dealer or an experience radio/television technician.

**CAUTION:** Changes or modifications to the receiver that are not expressly approved by Trimble could void authority to use the equipment.

## Declaration of Conformity

Application of Council Directive(s): 89/336/EEC  
Manufacturer's Name: Trimble Inc.  
Manufacturer's Address: 5475 Kellenburger Road  
Dayton, Ohio 45424-1099 U.S.A.  
Trimble GmbH Am Prime Parc 11  
65479 Raunheim, Germany

European Representative Address: CR700

Model Number: EC Directive 89/336/EEC using  
Conformance to Directive(s): EN55022 and EN50082-1

Equipment Type/Environment: ITE/residential, commercial  
& light industrial

Product Standards: Product meets the limit B and  
methods of EN55022  
Product meets the levels and  
methods of IEC 801-2, 8 kV air,  
4 kV contact IEC 801-3, 3 V/m  
26 to 1000 MHz 80%, @ 1 kHz

## Specifications

Working Radius: 1 m - 460 m (3 ft - 1500 ft)  
(Laser dependent):  
Laser Detection Height: 127.0 mm (5")  
Numeric Readout Height: 102.0 mm (4")  
Internal Radio: Full 2-way communication, operation  
and security lock with paired device  
Radio Working Radius: Up to 200 m (660 ft), depending on  
orientation, conditions and paired device

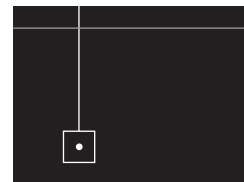
Accuracy (Deadband):  
Ultra Fine 0.5 mm 0.02 in 1/32 in  
Super Fine 1.0 mm 0.05 in 1/16 in  
Fine 2.0 mm 0.10 in 1/8 in  
Medium 5.0 mm 0.20 in 1/4 in  
Coarse 10.0 mm 0.50 in 1/2 in  
Machine 25.0 mm 1.00 in 1 in

Reception Angle: 200° (laser and distance dependent)  
Strobe Anti-strobe sensor  
Detectable Spectrum: 610 nm ... 780 nm  
Beeper Volumes: Loud = 110 dBA  
Medium = 95 dBA, Low = 65 dBA

LED Grade Indicators: Green on-grade, Red Hi, Blue Low  
Brightness: Off, Bright, Super-Bright  
Power Supply: 3 x 1.5 Volt "AA" batteries  
Battery Life: 60+ hours; 16 continuous backlight  
Automatic Shut Off: 30 minutes  
Environmental: Waterproof, Dustproof to IP67  
Weight without clamp: 471 g (16.6 oz.)  
Dimensions w/o clamp: 98 x 200 x 37 mm  
(3.9" x 7.8" x 1.5")

Operating Temperature: -20°C...+60°C (-4°F... +140°F)  
Storage Temperature: -40°C...+70°C (-40°F...+158°F)  
Regulatory CE EMC / RoHS Compliant

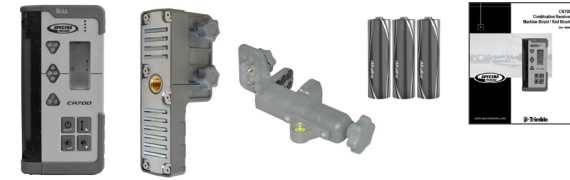
\*Specifications subject to change without notice.



## CR700 Combination Receiver Machine Mount / Rod Mount

User Guide

## Contents



CR700 Receiver, C71 Magnet Clamp, C70 Grade Rod Clamp,  
3 x AA Alkaline Batteries, User Guide

## Attach Clamp



Attach the CR700 to the  
C71 magnet clamp for  
machine mounting



Attach the CR700 to the  
C70 grade rod clamp for  
rod mounting

## Warranty

Trimble warrants the CR700 to be free of defects in material and workmanship for a period of three years. Trimble or its authorized service center will repair or replace, at its option, any defective part, or the entire product, for which notice has been given during the warranty period. If required, travel and per diem expenses to and from the place where repairs are made will be charged to the customer at the prevailing rates. Customers should send the product to Trimble or the nearest authorized service center for warranty repairs or exchange, freight prepaid. Any evidence of negligent, abnormal use, accident, or any attempt to repair the product by other than factory-authorized personnel using Trimble certified or recommended parts, automatically voids the warranty. The foregoing states the entire liability of Trimble regarding the purchase and use of its equipment. Trimble will not be held responsible for any consequential loss or damage of any kind. This warranty is in lieu of all other warranties, except as set forth above, including any implied warranty merchantability of fitness for a particular purpose, are hereby disclaimed. This warranty is in lieu of all other warranties, expressed or implied.

## Notice to Our European Union Customers

For product recycling instructions and more information,  
please go to: [www.trimble.com/environment/summary.html](http://www.trimble.com/environment/summary.html)

## Recycling in Europe

To recycle Trimble WEEE,  
call: +31 497 53 2430, and  
ask for the "WEEE associate," or



Mail a request for recycling instructions to:  
Trimble Europe BV c/o Menlo Worldwide Logistics  
Meerheide 45 5521 DZ Eersel, NL



Trimble - Precision Tools  
5475 Kellenburger Road  
Dayton, Ohio 45424-1099  
U.S.A.  
+1-937-245-5600 Phone  
Toll Free USA 1-888-527-3771

[www.spectralasers.com](http://www.spectralasers.com)



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## CR700 Quick Start

### Machine Mounted

Set up the laser to the desired grade. The laser should be within 200m (660 ft) of the machine.

Plumb the dipper stick. Position the bucket on height benchmark, or at correct depth.

Attach the CR700 to the C71 magnet clamp.

Adjust deadband to desired accuracy (5, 10 or 25mm).

Attach CR700 assembly to the dipper stick. Adjust height to be on grade (green lights).

While digging, bring dipper stick to plumb position and lower to dirt depth to determine height from desired grade.



### Rod Mounted

Set up the laser to the desired grade.

Attach the CR700 to the grade rod clamp.

Attach the assembly to a grade rod.

Adjust deadband (accuracy) and volume as desired.

Place the grade rod on a height benchmark or to desired grade.

Adjust the grade rod to "on grade" (green light).

While checking other locations, the LED arrows indicate high or low while the LCD provide digital distance from grade.



### Vertical Mounted

Set up the laser in vertical mode.

Consider setting CR700 to Drift Alarm (see menu) to enable warning if the laser is disturbed.

Consider using Planlok to set laser direction. With Planlok, the laser will find the CR700. Must use a laser that can be paired with CR700.

CR700 can be placed directly on a floor in a building. Vertical adapter 105516 (sold separately) may be useful to attach to a batter board or tripod.



**NOTE: Do not power up receiving a laser**

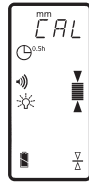
CR700 is ready after "CAL" disappears from LCD

## Keypad Functions

### Power ON/OFF



ON - 1 sec  
OFF - 2 sec



Do not power up in a laser beam

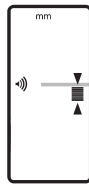
Unit is ready after "CAL" disappears

### Accuracy



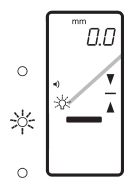
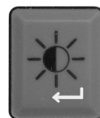
Accuracy in mm:  
0.5 1 2 5 10 25  
Accuracy in frac. inch:  
1/32 1/16 1/8 1/4 1/2 1

### Beeper Volume



Beeper Loud  
Beeper Medium  
Beeper Low

### LED Brightness



LEDs Bright  
LEDs Dim  
LEDs OFF (No symbol)

Press both buttons repeatedly to change LED brightness

Selected settings are retained after power off

## Menu Functions



Menu activation "Back" key



△ Scroll Up



▽ Scroll Down



↵ Enter

### Backlight

- Activate menu.
  - Scroll to LGHT. Enter.
  - Scroll to On or Off. Enter
- Pair with Laser. This will enable laser functions GradeMatch and PlanLok.**

- Activate menu.
- Scroll to RDIO. Enter.
- Scroll to RDIO LS. Enter
- Scroll to PAIR. Enter and also press appropriate buttons on laser (Manual and Power On)

### Pair with another HL760 to be used as remote

- Activate menu.
- Scroll to RDIO. Enter.
- Scroll to RDIO HL. Enter
- Scroll to PAIR. Enter. And also perform same function on the other HL.
- Power receiver Off.
- The first receiver powered on is "laser receiver". The second displays "RMT.D okay" Press enter to accept as remote display

### Unit of Measure

- Activate menu.
  - Scroll to UNIT
  - Scroll to desired unit of measure. Enter
- Sensitivity. Increased sensitivity – longer distance. Decreased sensitivity – better strobe light rejection.**

- Activate menu.
  - Scroll SENS. Enter.
  - Scroll to desired sensitivity. Enter
- Fractional inches reduction. Fraction denominator stays the same. May be useful to check fine surface flatness. Example converts 4/8 in to 1/2 in.**

- Activate menu.
- Scroll to FRC.R. Enter
- Scroll to On or Off. Enter

### Drift Alarm (when laser is in vertical orientation. This results in no sound when aligned, but beeper alarms when laser is disturbed)

- Activate menu.
- Scroll to DRFT. Enter.
- Scroll to On or Off. Enter

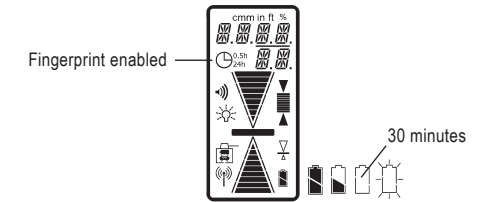
### Fingerprint. CR700 will react only with paired laser, rejecting other laser strikes

- Activate menu.
- Scroll to FRPT. Enter.
- Scroll to On or Off. Enter

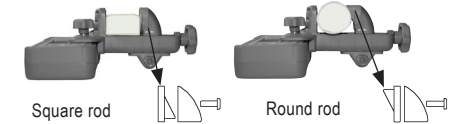
## Menu Function Flow

Function		Description
LGHT OF	↵	Backlight ON-OFF
▼	LGHT OF	Backlight Off. Enter
	LGHT ON	Backlight On. Enter.
RDIO	↵	Radio functions
▼	RDIO LS	Connect with laser
	RDIO HL	Connect with another receiver for remote display
	RDIO OF	Communications Off
PAIR	↵	Pair with selected device (Laser or Receiver)
	PAIR +	Pair with device now. Enter.
UNIT MM	↵	Unit of Measure MM-CM-IN-FRAC-FT
	MM	Select Millimeter
	FT	Select Feet
	FR	Select Fractional Inches
	IN	Select Decimal Inches
	CM	Select Centimeter
SENS MD	↵	Sensitivity Medium-High-Low Increased sensitivity increases distance Lower sensitivity improves strobe light rejection
▼	SENS MD	Select Med sensitivity (recommended; default)
	SENS LO	Select Low sensitivity (to improve strobe light rejection)
	SENS HI	Select High sensitivity to improve distance
FRC.R ON	↵	Fractional reduction ON-OFF
▼	FRC.R ON	Turn on fraction reduction. Example reduce 4/8" to 1/2"
	FRC.R OF	Turn off fractional reduction. Fraction denominator stays the same. Useful to check fine surface flatness.
DRFT OF	↵	Vertical mode drift alarm. Alerts you that laser has moved
▼	DRFT OF	Vertical drift alarm OFF
	DRFT ON	Vertical drift alarm ON
FPRT ON	↵	Fingerprint locks on to paired laser. Other lasers are rejected.
▼	FPRT ON	Fingerprint ON
	FPRT OF	Fingerprint OFF

## Display Status Symbols



## Rod Clamp - Grade Rod Adjustment



## Optional Vertical Adapter



Vertical Adapter PN 105516  
Threads to mount on 5/8x11 or 1/4 inch tripod.