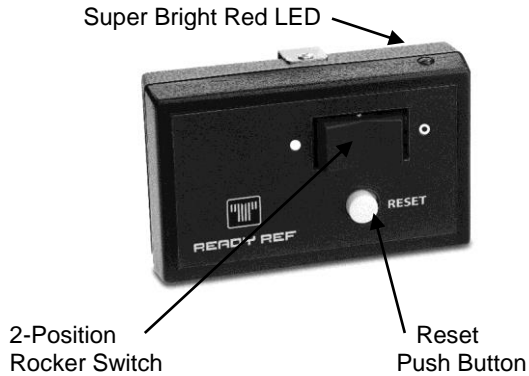


Model #1190 Ready Ref



- ✓ **Small & Lightweight**
3.8" Wide x 2.4" High x 1" Deep
4.7 ounces
- ✓ **9-Volt Battery Included**
10,000-cycle battery life
- ✓ **Microprocessor Circuit**
Accurate to within .001 seconds
- ✓ **Secure 2" Belt Loop**



- ✓ **Rain Case Included**



- ✓ **Lifetime Warranty**
Guaranteed to operate reliably for as long as you own it. Simply return Ready Ref with \$8 for return shipping, and we repair it free.

To Order

Ready Ref is manufactured, sold, and serviced directly from our factory in Marietta, Ohio. Order online or call toll-free, Monday through Friday, 8:00 a.m. to 5:00 p.m. EDT. We are often available before and after office hours. Call us anytime.

Telephone orders placed using a credit card are shipped within 24 hours via USPS Priority Mail. Mail-in orders with a check or money order are shipped within 24 hours.

Model 1190 Ready Ref.....\$79.00

Shipping & Handling.....\$8.00

Ohio residents add 7.25% sales tax

Order Online

www.ready-ref.com

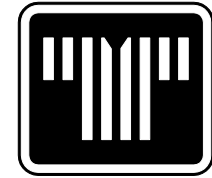
or

1-800-223-5395



GrimmTM

Grimm Scientific Industries, Inc. TEL: 800-223-5395
P.O. Box 2143 FAX: 740-374-5745
Marietta, OH 45750 EMAIL: grimm@ee.net



READY REFTM

**The Officials' Standard
for On-Field Timing**



Model 1190 Universal Timer

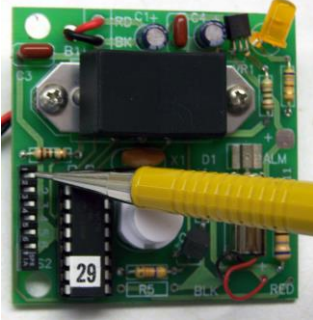
- ✓ Allows you to concentrate on your responsibilities without the distraction of checking a wrist watch
- ✓ Gives teams the fairness of timing intervals permitted by rule and develops a nice, even flow to the game
- ✓ Silent vibrator provides discreet notification with pre-warning signals

#020117-1-17-13

www.ready-ref.com

Operation

Remove two screws and back cover of Ready Ref for access to selector switch



Selector Switch Position Chart

Model	Sport	Assoc.	1	2	3	4	5	6
1100	Football	NFHS	Off	Off	Off	Off	Off	Off
1128	Football	NCAA	On	Off	Off	Off	Off	Off
1129	Football	Texas	Off	On	Off	Off	Off	Off
1130	Football	Mich.	Off	Off	On	Off	Off	Off
1140	Baseball	NCAA	Off	Off	Off	On	Off	Off
1150	Lacrosse	NFHS	Off	Off	Off	Off	On	Off
1151	Lacrosse	NCAA	On	Off	Off	Off	On	Off

Timing Chart

Model	“○” 2-Sec. Pre-warn Vibration	“○” 5-Sec. Final Vibration	“●” 2-Sec. Pre-warn Vibration	“●” 5-Sec. Final Vibration
1100	@ 20 Sec.	@ 25 Sec.	@ 45 Sec	@ 60 Sec
1128	@ 15 Sec.	@ 20 Sec.	@ 30 Sec	@ 35 Sec
1129	@ 15 Sec.	@ 20 Sec.	@ 40 Sec	@ 60 Sec
1130	@ 15 Sec.	@ 20 Sec.	@ 45 Sec	@ 60 Sec
1140	@ 15 Sec.	@ 20 Sec.	@ 60 Sec	@ 90 Sec
1150	None	@ 20 Sec.	@ 100 Sec	@ 120 Sec
1151	None	@ 30 Sec.	@ 100 Sec	@ 120 Sec

1. Press the rocker switch to “○” Ready Ref will vibrate for two seconds and again for five seconds. (see Timing Chart above)
2. Press the rocker switch to “●” Ready Ref will vibrate for two seconds and again for five seconds. (see Timing Chart above)
3. The “Reset” push button resets the timer. Place finger on this button when teams line up and press it at the snap. Ready Ref will then only signal when needed.

Football Pre-Warning Mechanics

20-Second Pre-Warning

NFHS Officials Manual recommends the Back Judge be responsible for timing the 25-second count following the ready-for-play signal. When on field 25-second clocks are not utilized the Back Judge will provide a visible count the last 5 seconds.

When Ready Ref signals the 2-second pre-warning vibration the Back Judge can either give the hand up signal and/or a five second basketball style count based on the recommendation of your state or local association. The signal being used should be communicated to the head coaches during the pre-game meeting.

15-Second Pre-Warning with hand count

NCAA, Texas, & Michigan Manuals recommend the Back Judge be responsible for timing the 25-second count. When on field 25-second clocks are not utilized the Back Judge will provide a visible a hand up at 10 seconds followed by a visible count the last 5 seconds.

When Ready Ref signals the 2-second pre-warning vibration signal the Back Judge will give the hand up signal. When Ready Ref signals the 5-second final vibration signal, give a basketball style count till the vibration stops.

Maintenance

1. Start each season with a new battery.
2. Protect from direct heavy rain.
3. When wet remove battery cover and battery then allow 24 hours to air dry.

Important: Every time you reconnect the battery, press the rocker switch to “○”, and allow Ready Ref to finish one complete timing cycle thru both vibration signals until the LED cycles off. This assures your timer is operating correctly and activates the microprocessor’s battery saving feature.