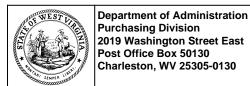


2019 Washington Street, East Charleston, WV 25305 Telephone: 304-558-2306 General Fax: 304-558-6026

Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.





## State of West Virginia Solicitation Response

Proc Folder: 1084346

Solicitation Description: COMPACT PORTABLE SIGN STANDS

Proc Type: Central Master Agreement

 Solicitation Closes
 Solicitation Response
 Version

 2022-08-31 13:30
 SR 0803 ESR08302200000001059
 1

**VENDOR** 

000000179694

DICKE TOOL COMPANY

Solicitation Number: CRFQ 0803 DOT2300000018

**Total Bid:** 64500 **Response Date:** 2022-08-30 **Response Time:** 14:19:50

Comments: Additional contact Meke Burke 206-818-9277, regional sales mgr. mike@dicketool.com. Had difficulties logging in

under that profile to submit formal response.

### FOR INFORMATION CONTACT THE BUYER

John W Estep 304-558-2566 john.w.estep@wv.gov

Vendor Signature X FEIN# DATE

All offers subject to all terms and conditions contained in this solicitation

Date Printed: Aug 31, 2022 Page: 1 FORM ID: WV-PRC-SR-001 2020/05

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	COMPACT PORTABLE SIGN STANDS	600.000	00 EA	107.500000	64500.00

Comm Code	Manufacturer	Specification	Model #	
55121908				

Commodity Line Comments: Dicke UF2000W, MASH tested. https://www.dicketool.com/pdf/UF2000W.pdf

**Extended Description:** 

COMPACT PORTABLE SIGN STANDS

Date Printed: Aug 31, 2022 Page: 2 FORM ID: WV-PRC-SR-001 2020/05





In Reply Refer To: HSST-1/WZ-392

Mr. John Pasakarnis Dicke Safety Products 1201Waren Ave. Downers Grove, IL 60515

Dear Mr. Pasakarnis:

This letter is in response to your December 30, 2019 request for the Federal Highway Administration (FHWA) to review a roadside safety device, hardware, or system for eligibility for reimbursement under the Federal-aid highway program. This FHWA letter of eligibility is assigned FHWA control number WZ-392 and is valid until a subsequent letter is issued by FHWA that expressly references this device.

### **Decision**

The following device is eligible within the length-of-need, with details provided in the form which is attached as an integral part of this letter:

• Dicke Safety Products UFW2000W Sign Stand with 48"x48" Vinyl Roll-up Sign

### **Scope of this Letter**

To be found eligible for Federal-aid funding, new roadside safety devices should meet the crash test and evaluation criteria contained in the American Association of State Highway and Transportation Officials' (AASHTO) Manual for Assessing Safety Hardware (MASH). However, the FHWA, the Department of Transportation, and the United States Government do not regulate the manufacture of roadside safety devices. Eligibility for reimbursement under the Federal-aid highway program does not establish approval, certification or endorsement of the device for any particular purpose or use.

This letter is not a determination by the FHWA, the Department of Transportation, or the United States Government that a vehicle crash involving the device will result in any particular outcome, nor is it a guarantee of the in-service performance of this device. Proper manufacturing, installation, and maintenance are required in order for this device to function as tested.

This finding of eligibility is limited to the crashworthiness of the system and does not cover other structural features, nor conformity with the Manual on Uniform Traffic Control Devices.

### **Eligibility for Reimbursement**

Based solely on a review of crash test results and certifications submitted by the manufacturer, and the crash test laboratory, FHWA agrees that the device described herein meets the crash test and evaluation criteria of the AASHTO's MASH. Therefore, the device is eligible for reimbursement under the Federal-aid highway program if installed under the range of tested conditions.

Name of system: Dicke Safety Products UFW2000W Sign Stand with 48"x48" Vinyl

Roll-up Sign

Type of system: Work Zone

Test Level: MASH Test Level 3 (TL3)

Testing conducted by: Applus IDIADA KARCO Engineering, LLC.

Date of request: December 30, 2019

FHWA concurs with the recommendation of the accredited crash testing laboratory on the attached form.

### **Full Description of the Eligible Device**

The device and supporting documentation, including reports of the crash tests or other testing done, videos of any crash testing, and/or drawings of the device, are described in the attached form.

#### **Notice**

This eligibility letter is issued for the subject device as tested. Modifications made to the device are not covered by this letter. Any modifications to this device should be submitted to the user (i.e., state DOT) as per their requirements.

You are expected to supply potential users with sufficient information on design, installation and maintenance requirements to ensure proper performance.

You are expected to certify to potential users that the hardware furnished has the same chemistry, mechanical properties, and geometry as that submitted for review, and that it will meet the test and evaluation criteria of AASHTO's MASH.

Issuance of this letter does not convey property rights of any sort or any exclusive privilege. This letter is based on the premise that information and reports submitted by you are accurate and correct. We reserve the right to modify or revoke this letter if: (1) there are any inaccuracies in the information submitted in support of your request for this letter, (2) the qualification testing was flawed, (3) in-service performance or other information reveals safety problems, (4) the system is significantly different from the version that was crash tested, or (5) any other information indicates that the letter was issued in error or otherwise does not reflect full and complete information about the crashworthiness of the system.

### **Standard Provisions**

- To prevent misunderstanding by others, this letter of eligibility designated as FHWA control number WZ-392 shall not be reproduced except in full. This letter and the test documentation upon which it is based are public information. All such letters and documentation may be reviewed upon request.
- This letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented system for which the applicant is not the patent holder.
- This FHWA eligibility letter is not an expression of any Agency view, position, or determination of validity, scope, or ownership of any intellectual property rights to a specific device or design. Further, this letter does not impute any distribution or licensing rights to the requester. This FHWA eligibility letter determination is made based solely on the crash-testing information submitted by the requester. The FHWA reserves the right to review and revoke an earlier eligibility determination after receipt of subsequent information related to crash testing.

Sincerely,

Michael S. Griffith

Director, Office of Safety Technologies

Wichard & Tuffeth

Office of Safety

**Enclosures** 

# Request for Federal Aid Reimbursement Eligibility of Highway Safety Hardware

	Date of Request:	December 30, 2019	<ul><li>New</li></ul>	○ Resubmission
	Name:	Steven Matsusaka		
itter	Company:	Applus IDIADA KARCOEngineering. LI	LC.	
Address: 9270 Holly Rd, Adelanto, CA 92301				
Suk		STITLE CLARES OF A THORSE		
	To:	Michael S. Griffith, Director FHWA, Office of Safety Technologies		

I request the following devices be considered eligible for reimbursement under the Federal-aid highway program.

Device & Testing Criterion -	!-!-!		!-!-!		
SystemType	SubmissionType	Device Name / Va	riant	TestingCriterion	Test Level
'WZ':CrashWorthyWorkZon	<ul><li>Physical Crash Testing</li><li>Engineering Analysis</li></ul>	UF2000WSignStan with 48" x 48" Vinyl I Up Sign		AASHTOMASH	TL3

By submitting this request for review and evaluation by the Federal Highway Administration, I certify that the product(s) was (were) tested in conformity with the AASHTO Manual for Assessing Safety Hardware and that the evaluation results meet the appropriate evaluation criteria in the MASH.

### **Individual or Organization responsible for the product:**

Contact Name:	e: John Pasakarnis Same as Submitter			
CompanyName:	DICKESafetyProducts	SameasSubmitter		
Address:	1201 Warren Ave., Downers Grove, IL 60515	SameasSubmitter		
Country:	United States of America	SameasSubmitter		
Enter below all disclosures of financial interests as required by the FHWA `Federal-Aid Reimbursement Eligibility Process for Safety Hardware Devices' document.  DICKESafetyProducts is the manufacturer and marketer of device.				
Applus IDIADA KARCOEngineering, LLC (IDIADA KARCO) is an independent research and testing laboratory having no affiliation with any other entity. IDIADA KARCO is actively Involved In data acquisition and compliance/certification testing for a variety of government agencies and equipment manufacturers. The principals and staff of IDIADA KARCO have no past or present financial, contractual or organizational interest in any company or entity directly or indirectly related to the products that KARCO tests. If any financial interest should arise, other than receiving fees for testing, reporting, etc., with respect to any project, the company will provide, In writing, a full and immediate disclosure to the FHWA.				

#### PRODUCT DESCRIPTION

_		١lı	$\hat{}$
	ı	; II	J

New Hardware or	Modification to
Significant Modification	Existing Hardware

The DICKESafety Products UF2000W sign stand is a work-zone traffic control device. The as-tested device consisted of one (1) 48.0 in. (1.2 m) square vinyl roll up sign, one (1) fiberglass cross brace assembly, one (1) carbon steel Speedclamp bracket, and one (1) base assembly. The as-tested device weighed approximately 27.0 lbs (12.2 kg). The device had a height of 80.75 in. (2.1 m) measured to the top of the sign. The UF2000W sign stand was tested with four (4) 25.0 lb. (11.3 kg) sand bags; one (1) for each of its legs.

The square vinyl roll-up sign was attached to a fiberglass cross brace and wasset at a mounting height of 12.75 in. (324 mm) measured to the bottom corner. The vertical cross brace member was constructed of 1.25 in. (32 mm) wide by 66.25 in. (1683 mm) long by 0.38 in. (10 mm) thick fiberglass and extended from the top to bottom corners of the roll up sign. The horizontal cross brace member consisted of 1.25 in. (32 mm) wide by 66.25 in. (1683 mm) long by 0.19 in. (5 mm) thick fiberglass and extended from the left to the right corners of the roll up sign. The sign was attached to the base with ascrew lock on the Speedclamp bracket.

The base assembly consisted of one (1) spring assembly, one (1) U-bracket, one (1) carbon steel base, and four (4) telescoping legs. The U-bracket and Speedclamp were attached the to the carbon steel base with one (1) carbon steel coil spring. The legs consisted of two (2) portions: one (1) 1.25 in. (32 mm) aluminum square tube piece and one (1) 1.0 in. (25 mm) aluminum square extension tube piece. In its deployed state, the base assembly had a footprint measuring 57.0 in. (1.4 m) by 91.0 in. (2.3 m).

### **CRASH TESTING**

By signature below, the Engineer affiliated with the testing laboratory, agrees in support of this submission that all of the critical and relevant crash tests for this device listed above were conducted to meet the MASH test criteria. The Engineer has determined that no other crash testsare necessary to determine the device meets the MASH criteria.

Engineer Name:	StevenMatsusaka	StevenMatsusaka		
EngineerSignature:	Steven Matsusaka Digitally DN: CHE Date: 20	Steven Matsusaka Digitally signed by Steven Matsusaka DN: cn=Steven Matsusaka, email=steven.matsusaka@idiada.com, c=US Date: 2019.12.3014:22:09-08'00'		
Address:	9270 Holly Rd, Adelanto, CA 92301 Sameas Submitter			
Country:	United States of America Same as Submitter			

A brief description of each crash test and its result: Help

RequiredTest Number	Narrative Description	Evaluation Results		
3-70(1100C)	Designed to evaluate the ability of asmall vehicle to activate any breakaway, fracture, or yielding mechanism, Test 3-70 is considered optional for work-zone traffic control devices weighing less than 220 lb (100 kg).  The UF2000 sign stand weighed approximately 27.0 lbs (12.2 kg) and therefore the test was non-relevant and not conducted.	Non-Relevant Test, not conducted		

		Page 3 01 4
RequiredTest Number	Narrative Description	Evaluation Results
3-71 (1100C)	Two (2) UF2000W sign stands were impacted on the same test run. The devices were spaced 60.0ft. (18.3 m) apart and set at two (2) critical impact angles (CIA), 0° and 90°. The 1100C small car used for this test wasa 2013 KiaRio 4-door sedan with a test inertial weight of 2,470.2 lbs (1,120.5 kg). The test vehicle impacted the 0° test sign at aspeed of 62.96 mph (101.32 km/h) and proceeded to impacted the 90° test sign at a speed of 61.27 mph (98.60 km/h). Upon impact, both UF2000W's vinyl signs broke away from their upright assemblies. The occupant compartment was not penetrated and the deformation limits were not exceeded. The UF2000W sign stand broke away in a predictable manner. Debris from the test articles did not cause a hazard to the driver's vision. The vehicle remained stable and upright throughout the test. The UF2000W sign stand met all the requirements for MASHTest 3-71.	PASS
3-72 (2270P)	Two (2) UF2000W sign stands were impacted on the same test run. The devices were spaced 60.0ft. (18.3 m) apart and set at two (2) critical impact angles (CIA), 0° and 90°. The 2270P vehicle used for this test was a 2014RAM 1500 4-door pick-up truck with a test inertial weight of 5,019.8 lbs (2,277.0 kg).  The test vehicle impacted the 0° test sign at aspeed of 61.35 mph (98.73 km/h) and proceeded to impacted the 90° test sign at a speed of 60.34 mph (97.10 km/h). Upon impact, both UF2000W's vinyl signs broke away from their upright assemblies. The occupant compartment was not penetrated and the deformation limits were not exceeded. The UF2000W sign stand broke away in a predictable manner. Debris from the test articles did not cause a hazard to the driver's vision. The vehicle remained stable and upright throughout the test. The vehicle did not leave its lane and its trajectory wasstable after the sign stand was impacted. The UF2000W sign stand met all the requirements for MASHTest 3-72.	PASS

Full Scale Crash Testing was done in compliance with MASH by the following accredited crash test laboratory (cite the laboratory's accreditation status as noted in the crash test reports.):

Laboratory Name:	Applus IDIADA KARCOEngineering, LLC	C.
LaboratorySignature:	Steven Matsusaka	DN:cn=StevenMatsusaka,email=steven.matsusaka@idiada.com,c=US Digitally.signedbyStevenMatsusaka Date:2019.12.3014;22:19-08'00'
Address:	9270 Holly Rd, Adelanto, CA 92301	SameasSubmitter 🖂
Country:	United States of America	SameasSubmitter 🖂
Accreditation Certificate Number and Dates of current Accreditation period :	TL371:July 1,2019 - July 1,2022	·

SubmitterSignature\*: Steven

Digitally signed by Steven Matsusaka
DN: cn=Steven Matsusaka,
email=steven.matsusaka@idiada.com, c=US
Date: 2019.12.30 14:22:28 -08'00'

**Submit Form** 

### **ATTACHMENTS**

#### Attach to this form:

- 1) Additional disclosures of related financial interest as indicated above.
- 2) A copy of the full test report, video, and a Test Data Summary Sheet for each test conducted in support of this request.
- 3) A drawing or drawings of the device(s) that conform to the Task Force-13 Drawing Specifications [Hardware Guide Drawing Standards]. For proprietary products, a single isometric line drawing is usually acceptable to illustrate the product, with detailed specifications, intended use, and contact information provided on the reverse. Additional drawings (not in TF-13 format) showing details that are relevant to understanding the dimensions and performance of the device should also be submitted to facilitate our review.

#### FHWA Official Business Only:

Eligibility Letter		
Number	Date	Key Words

## MASH 2016 Test 3-71 Summary



GENERAL INFORMATION			
Test Agency	. Applus IDIADA KARCO		
Test No	.P39250-01		
Test Designation	. 3-71		
Test Date	. 8/29/19		
TEST ARTICLE			
Name / Model	. UF2000W sign stand		
Туре	. Work-Zone Traffic Control Device		
Device Height			
Key Elements	. Carbon steel, fiberglass, vinyl, aluminum		
Road Surface	Smooth, clean concrete		
TEST VEHICLE			
Type / Designation	.1100C		
Year, Make, and Model	. 2013 Kia Rio		
Curb Mass	. 2,400.8 lbs (1,089.0 kg)		
Test Inertial Mass	. 2,470.2 lbs (1,120.5 kg)		
Gross Static Mass	. 2,634.5 lbs (1,195.0 kg)		

Impact Conditions
Impact Velocity Device 1 62.96 mph (101.32 km/h)
Impact Velocity Device 2 61.27 mph (98.60 km/h)
Device 1 Angle 0.0°
Device 2 Angle 90.0°
Device 1 Kinetic Energy 327.3 kip-ft (443.8 kJ)
Device 2 Kinetic Energy 310.0 kip-ft (420.3 kJ)
Exit Conditions
Device 1 Exit Velocity 62.39 mph (100.4 km/h)
Device 2 Exit Velocity 59.84 mph (96.3 km/h)
Vehicle Resting Position 357.8 ft. (109.1 m) Downstream
2.2 ft. (0.7 m) Right
Vehicle Stability Satisfactory
Maximum Roll Angle N/A*
Maximum Pitch AngleN/A*
Maximum Yaw AngleN/A*
* Not Applicable, device weighs less than 220 lbs (100 kg)

Occupant Risk	
Longitudinal OIV	. N/A*
Lateral OIV	. N/A*
Longitudinal RA	. N/A*
Lateral RA	. N/A*
THIV	. N/A*
PHD	N/A*
ASI	. N/A*
Test Article Deflections	
0° Sign Debris Field (longitudinal)	65.8 ft. (20.1 m)
0° Sign Debris Field (lateral)	12.3 ft. (3.7 m)
90° Sign Debris Field (longitudinal)	153.3 ft. (46.7 m)
90° Sign Debris Field (lateral)	21.0 ft. (6.4 m)
Vehicle Damage	
Vehicle Damage Scale	12-FD-1
CDC	. 12FDGW1
Maximum Deformation	1.5 in. (39 mm) at windshield

Figure 3: Summary of Test 3-71

## MASH 2016 Test 3-72 Summary



**Impact Conditions** 

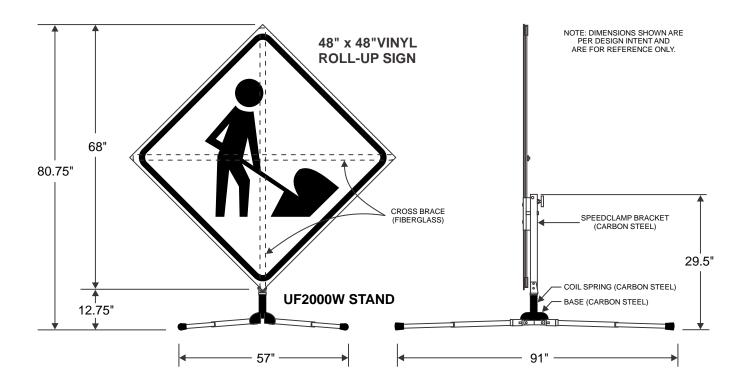
GENERAL INFORMATION				
Test Agency	. Applus IDIADA KARCO			
Test No	P39251-01			
Test Designation	. 3-72			
Test Date	8/29/19			
TEST ARTICLE				
Name / Model				
Туре	Work-Zone Traffic Control Device			
Device Height				
Key Elements	. Carbon steel, fiberglass, vinyl, aluminum			
Road Surface	Smooth, clean Concrete			
TEST VEHICLE				
Type / Designation	.2270P			
Year, Make, and Model	2014 RAM 1500			
Curb Mass	. 4,915.1 lbs (2,229.5 kg)			
Test Inertial Mass	. 5,019.8 lbs (2,277.0 kg)			
Gross Static Mass	. 5,019.8 lbs (2,277.0 kg)			

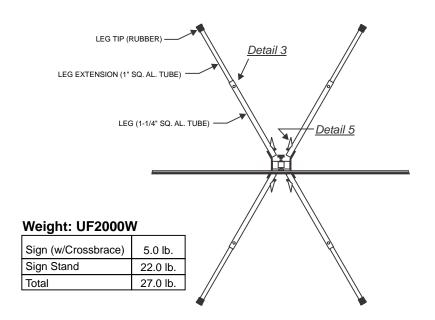
Impact Velocity Device 1 61.35 mph (98.73 km/h)
Impact Velocity Device 2 60.34 mph (97.10 km/h)
Device 1 Angle 0.0°
Device 2 Angle 90.0°
Device 1 Kinetic Energy 631.6 kip-ft (856.3 kJ)
Device 2 Kinetic Energy 610.9 kip-ft (828.3 kJ)
Evit Conditions
Exit Conditions
Device 1 Exit Velocity 60.77 mph (97.8 km/h)
Device 2 Exit Velocity 59.84 mph (96.3 km/h)
Vehicle Resting Position 272.0 ft. (82.9 m) Downstream
0.5 ft. (0.2 m) Left
Vehicle Stability Satisfactory
Maximum Roll Angle N/A*
Maximum Pitch AngleN/A*
Maximum Yaw AngleN/A*
* Not Applicable, device weighs less than 220 lbs (100 kg)

_	
1	Occupant Risk
	Longitudinal OIVN/A*
	Lateral OIVN/A*
	Longitudinal RAN/A*
	Lateral RAN/A*
	THIVN/A*
	PHDN/A*
	ASIN/A*
	Test Article Deflections
	0° Sign Debris Field (longitudinal) 250.1 ft. (76.2 m)
	0° Sign Debris Field (lateral) 15.9 ft. (4.8 m)
	90° Sign Debris Field (longitudinal) 213.3 ft. (65.0 m)
	90° Sign Debris Field (lateral) 0.1 ft. (0.0 m)
	Vehicle Damage
	Vehicle Damage Scale 12-FD-1
	CDC12FDWE1
	Maximum Deformation 0.2 in. (5 mm) at windshield

Figure 3: Summary of Test 3-72

### **UF2000W**





### **UF2000W STAND**

- Base- Steel with single upright spring system
- Legs- Telescopic 1-1/4" and 1" sq. aluminum tubing

#### **VINYL ROLL-UP SIGN**

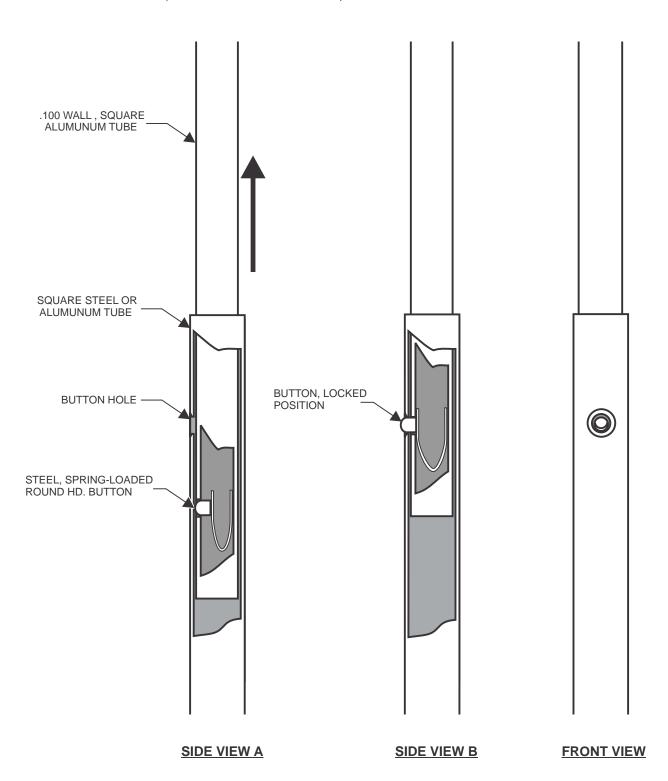
- Panel vinyl, 48" x 48"
- Crossbrace- Vertical member is 3/8" th. x 1-1/4" w x 66-1/4" long fiberglass
- Crossbrace- Horizontal member is 3/16" th. x 1-1/4" w x 66-1/4" long fiberglass





### **ATTACHMENT METHODS**

**REF: DETAIL 3** (TELESCOPING TUBES)

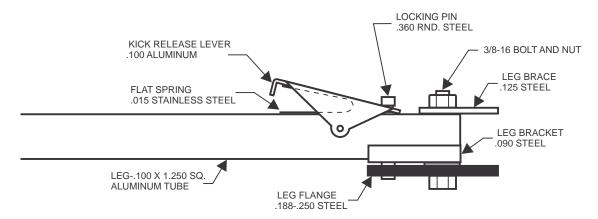




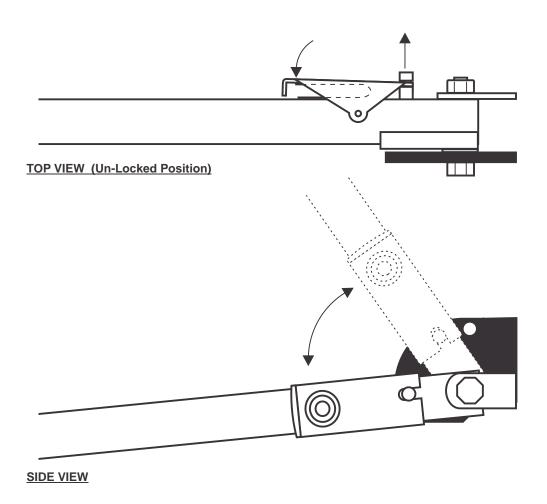


### ATTACHMENT METHODS

REF: DETAIL 5 (KICK RELEASE)



### **TOP VIEW (Locked Position)**

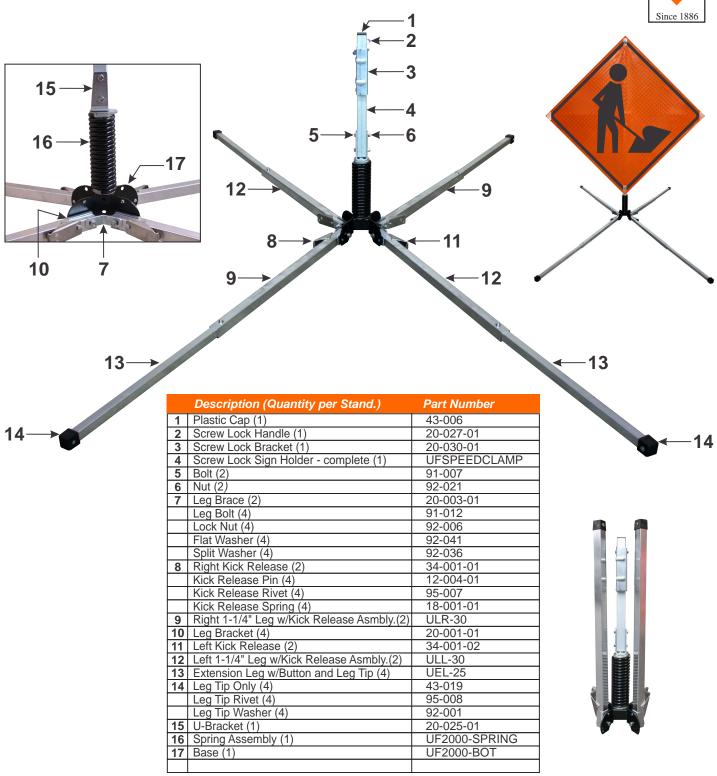






## **UF2000W - Parts List**









## **UF2000W Sign Stand**

### FACT SHEET





ScrewLock™ sign holder



UF2000W Spring System



### FEATURES: .

- Meets MUTCD specifications, NCHRP-350 compliant.
- Steel and aluminum construction.
- Heavy duty single spring design flexes in windy conditions.
- Displays both 36" and 48" roll-up signs.
- Supplied with popular Screwlock<sup>™</sup> panel holder.
- Telescoping legs are equipped with kick releases which allow for quick set-up and tear-down, and two position height adjustment which allows for uneven terrain.
- Open footprint: 56" x 92"
- Closed storage dimensions: 7" x 7" x 30"
- · Weight: 22 lbs.



**UF2000W** Storage Configuration



