

INSTALLATION GUIDE

MODEL NUMBER: 17278

TRUCK MODEL: 2021+ WESTERN STAR 49X SFA, DUAL TOW - HIGHWAY

IMPORTANT INFORMATION

THIS GUIDE IS ONLY APPLICABLE TO PRODUCTS AND TRUCK MODELS SPECIFIED. THE CORRECT SIZE AND GRADE OF HARDWARE SPECIFIED IN THIS GUIDE MUST BE USED. CHECK ALL MOUNTING POINTS AFTER THE FIRST 5000KM'S IN SERVICE AND PERIODICALLY THERE AFTER - RE-TORQUE IF NECESSARY. RECOMMENDED ADDING THREADLOCKER (LOCTITE BLUE 242) TO ALL THREADS BEFORE INSTALLING. ALL MAGNUM PRODUCTS MUST BE INSTALLED ACCORDING TO THIS INSTALLATION GUIDE. ANY DEVIATIONS OR ALTERATIONS MAY RESULT IN VOID OF WARRANTY.

SAFETY INFORMATION

PROPER PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHEN INSTALLING THIS PRODUCT. SOME PARTS OF THIS PRODUCT MAY BE HEAVY OR AWKWARD TO HANDLE. USE CAUTION WHEN HANDLING.

OEM BRACKET TRIMMING

SOME VEHICLES MAY HAVE A PASSENGER-SIDE BRACKET CONFIGURATION THAT REQUIRES TRIMMING TO ALLOW INSTALLATION OF THE MOOSE GUARD. IF THIS BRACKET IS PRESENT, IT MUST BE TRIMMED AS SHOWN IN FIGURES 2 AND 3. IF THE VEHICLE MATCHES THE CONFIGURATION SHOWN IN FIGURE 1, NO TRIMMING IS REQUIRED.

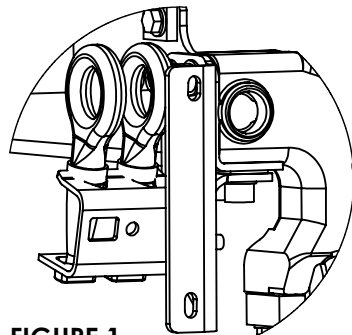


FIGURE 1



FIGURE 2



FIGURE 3

MAGNUM TRAILER & EQUIPMENT INC.

MAGNUM

FRACTIONS CHART

1/32	.03125	9/32	.28125	17/32	.53125	25/32	.78125
1/16	.0625	5/16	.3125	9/16	.5625	13/16	.8125
3/32	.09375	11/32	.34375	19/32	.59375	27/32	.84375
1/8	.125	3/8	.375	5/8	.625	7/8	.875
5/32	.15625	13/32	.40625	21/32	.65625	29/32	.90625
3/16	.1875	7/16	.4375	11/16	.6875	15/16	.9375
7/32	.21875	15/32	.46875	23/32	.71875	31/32	.96875
1/4	.25	1/2	.5	3/4	.75		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

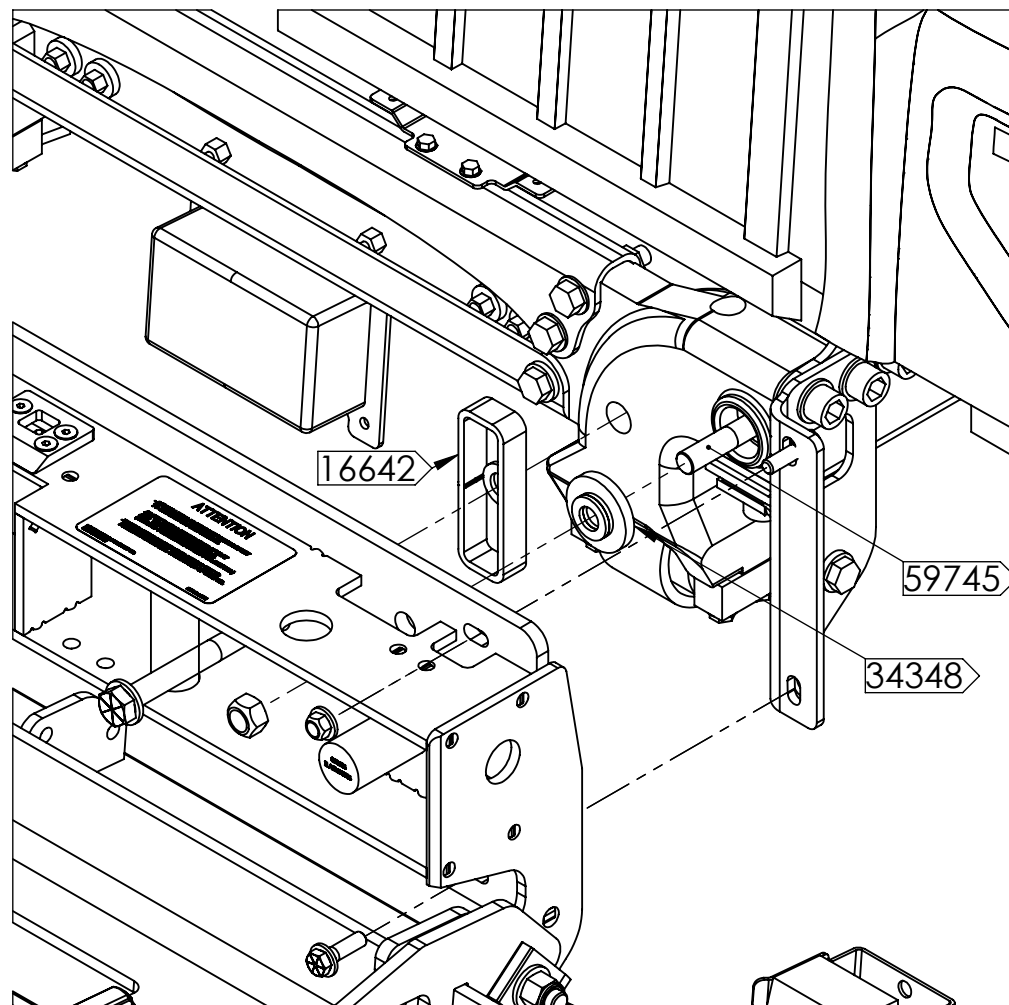
FRACTIONS	ANGLES
+/- 1/16"	+/- 1°
.XX"	.XXX"
+/- 0.03"	+/- 0.005"

DIMENSIONS TO SHARP POINTS

SHEET NAME	TITLE			
BRACKET TRIM	17278 ON 2021 WESTERN STAR 49X SFA TOW RECIEVERS TRUCK			
CURRENT CUSTOMER	STOCK NUMBER	VENDOR NUMBER	WEIGHT - LB.	
			378.	
WO#	DRAWN BY	DRAWN DATE	CHECKED BY	CHECKED DATE
	MD	8/4/2021	LS	8/12/2021
SCALE	MODELLER	DRAWING NUMBER	REV.	
1:12	MD	AA-59056	C	
			NUMBER OF SHEETS	
			4	

INSTALLING 17278 ON WESTERN STAR 49X SFA

1. REMOVE OEM BUMPER FROM TRUCK
2. UNINSTALL RADAR FROM TRUCK.
3. INSTALL TOW MOUNT ASSEMBLY 59745 (2) INTO THE TOW RECIEVERS. LOCK IT INTO THE BACK OF THE TOW RECIEVER BY PUSHING IT AGAINST THE SPRING AND TURNING THE TOW MOUNT A QUARTER TURN.
4. ADD THE WASHER PLATE 34348 (2) AND 3/4" GR.8 FLAT WASHERS (4 TOTAL, 2 PER SIDE) ONTO THE TOW MOUNT ASSEMBLIES 59745 (2).
5. PLACE THE SPACER ASSEMBLY 16642 (2) BEHIND THE STEEL ASSEMBLY IN THE VERITCAL POSITION AS ILLUSTRATED. SUPPORT THE SPACER BY USING THE 3/4" X 5 3/4" GR.8 HEX BOLT (2) WHEN ATTACHING THE GUARD.
4. ATTACH THE GUARD TO THE TRUCK USING THE FOLLOWING SUPPLIED HARDWARE:
 1/2" X 1 3/4" GR.8 HEX BOLT (4)
 1/2" GR.C STOVER NUT (4)(TORQUE SPEC = 80FT-LBS)
 1/2" GR.8 FLAT WASHER (8)
 3/4" X 5 3/4" GR.8 HEX BOLT (2)
 3/4" GR.8 FLAT WASHER (2)
 3/4" GR.C STOVER NUT (4)(TORQUE SPEC = 282FT-LBS)
5. INSTALL FOG LIGHTS IN GUARD. (SEE SHEET 2)
6. INSTALL RADAR ON BRACKET AND THEN INTO THE GUARD. (SEE SHEET 3)



MAGNUM TRAILER & EQUIPMENT INC. 	FRACTIONS CHART				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ANGLES +/- 1/16" +/- 1° .XX" .XXX" +/- 0.03" +/- 0.005"	SHEET NAME GUARD		TITLE 17278 ON 2021 WESTERN STAR 49X SFA TOW RECIEVERS TRUCK			
	1/32 .03125	9/32 .28125	17/32 .53125	25/32 .78125		CURRENT CUSTOMER	STOCK NUMBER	VENDOR NUMBER	WEIGHT - LB.	378.	
	1/16 .0625	5/16 .3125	9/16 .5625	13/16 .8125		WO#	DRAWN BY MD	DRAWN DATE 8/4/2021	CHECKED BY LS	CHECKED DATE 8/12/2021	REV. C
	3/32 .09375	11/32 .34375	19/32 .59375	27/32 .84375		SCALE	1:12		DRAWING NUMBER AA-59056		NUMBER OF SHEETS 4
1/8 .125	3/8 .375	5/8 .625	7/8 .875	DIMENSIONS TO SHARP POINTS							
5/32 .15625	13/32 .40625	21/32 .65625	29/32 .90625								
3/16 .1875	7/16 .4375	11/16 .6875	15/16 .9375								
7/32 .21875	15/32 .46875	23/32 .71875	31/32 .96875								
1/4 .25	1/2 .5	3/4 .75									

INSTALLING FOG LIGHT

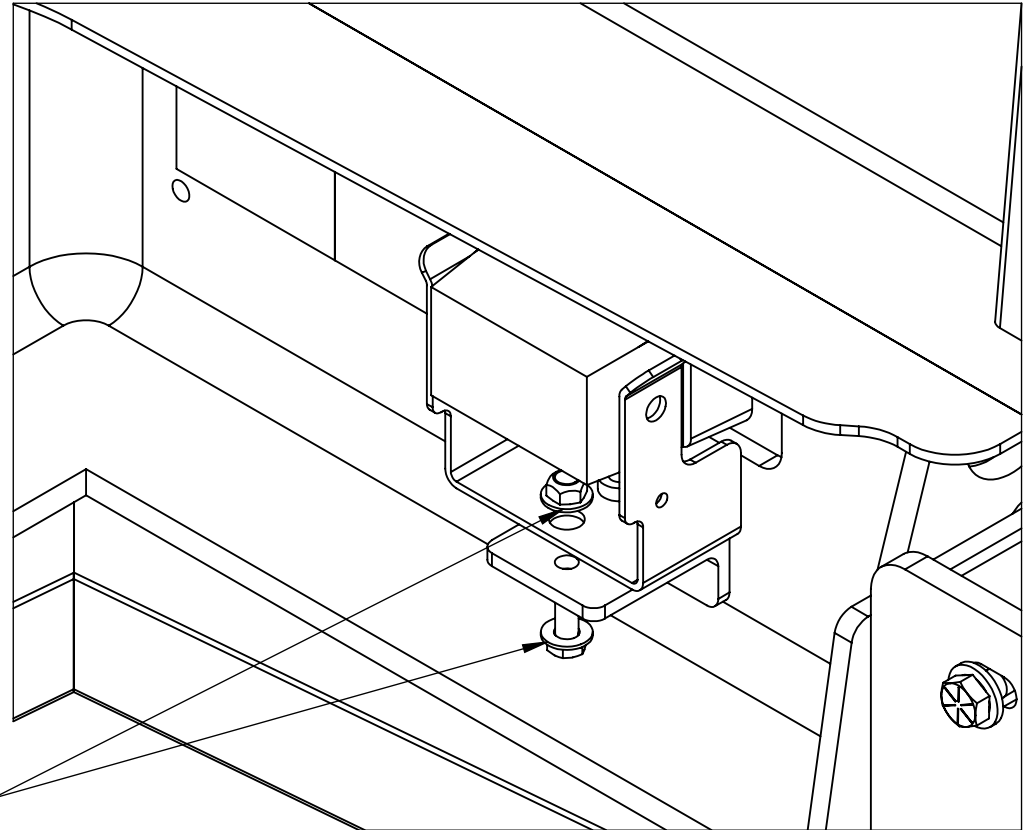
1. ATTACH FOG LIGHT TO THE ANGLE ALUMINUM BRACKET USING THE SUPPLIED HARDWARE AND OEM HARDWARE:

SUPPLIED:

- 3/8" X 1" GR.5 HEX BOLT (2)
- 3/8" GR.C STOVER NUT (2)
- 3/8" GR.2 FLAT WASHER (4)

OEM HARDWARE:

- M10 HEX BOLT (2)
- M10 WASHER (2)



SUPPLIED HARDWARE

MAGNUM TRAILER & EQUIPMENT INC. 	FRACTIONS CHART				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		SHEET NAME FOG LIGHT		TITLE 17278 ON 2021 WESTERN STAR 49X SFA TOW RECIEVERS TRUCK								
	1/32 .03125	9/32 .28125	17/32 .53125	25/32 .78125	FRACTIONS		ANGLES		CURRENT CUSTOMER		STOCK NUMBER		VENDOR NUMBER		WEIGHT - LB.		
	1/16 .0625	5/16 .3125	9/16 .5625	13/16 .8125	+/- 1/16"		+/- 1°		DRAWN BY		DRAWN DATE		CHECKED BY		CHECKED DATE		
	3/32 .09375	11/32 .34375	19/32 .59375	27/32 .84375	.XX"		.XXX"		MD		8/4/2021		LS		8/12/2021		
1/8 .125	3/8 .375	5/8 .625	7/8 .875	+/- 0.03"		+/- 0.005"		WO#		SCALE		MODELLER		DRAWING NUMBER		NUMBER OF SHEETS	
5/32 .15625	13/32 .40625	21/32 .65625	29/32 .90625	DIMENSIONS TO SHARP POINTS				1:12		MD		AA-59056		4			
3/16 .1875	7/16 .4375	11/16 .6875	15/16 .9375														
7/32 .21875	15/32 .46875	23/32 .71875	31/32 .96875														
1/4 .25	1/2 .5	3/4 .75															

INSTALLING RADAR

1. FISH THE RADAR WIRE THROUGH THE HOLE ON THE BACK OF THE STEEL ASSEMBLY.

2. ATTACH THE RADAR TO THE RADAR BRACKET USING THE FOLLOWING HARDARE:

- 1/4" X 1" GR.5 NC HEX BOLT (3)
- 1/4" GR.2 NC NYLOC NUT (3)

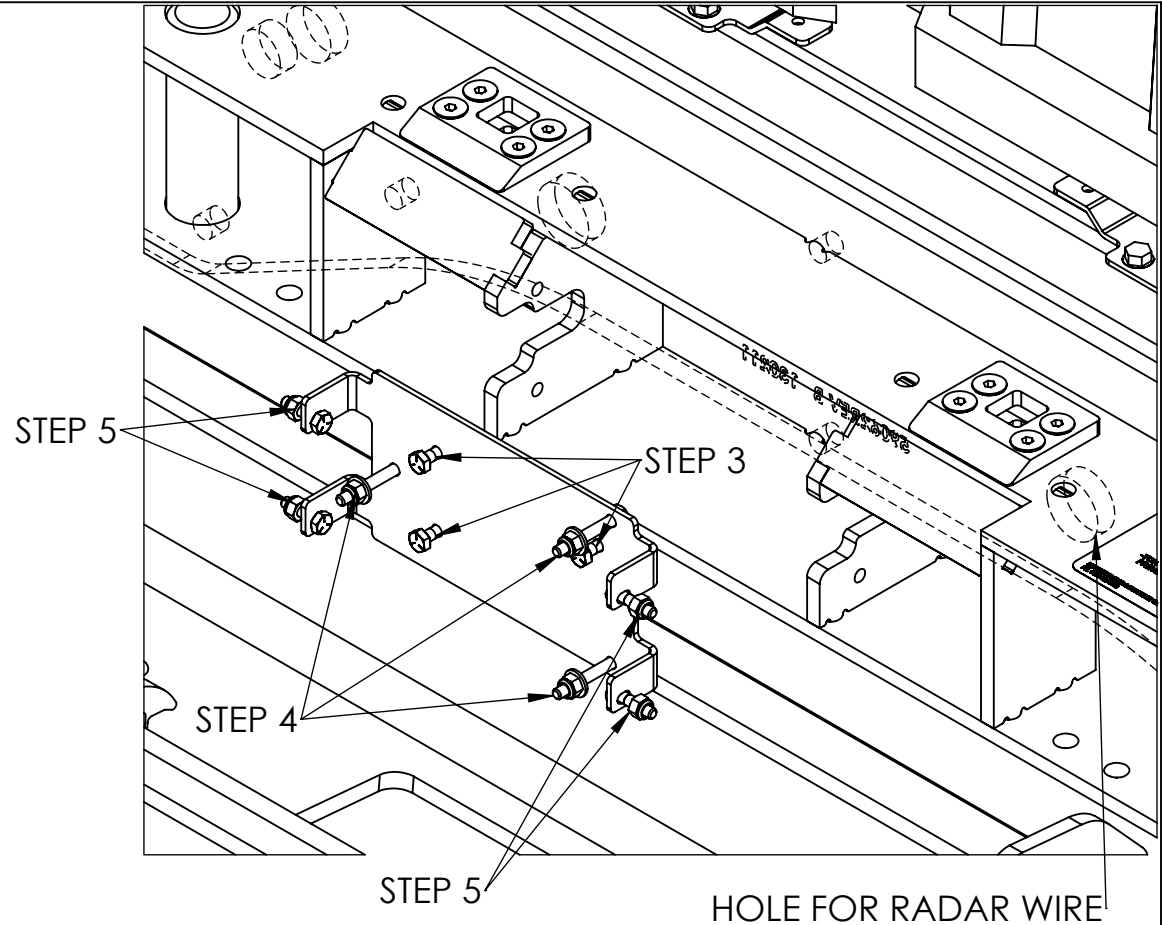
3. PLUG IN THE RADAR

4. INSTALL THE RADAR COVER ONTO THE BRACKET USING THE SUPPLIED HARDWARE:

- 1/4" X 1 3/4" GR.5 NC HEX BOLT (3)
- 1/4" GR.2 FLAT WASHER (3)
- 1/4" GR.2 NC NYLOC NUT (3)

5. INSTALL THE RADAR BRACKET WITH ATTACHED RADAR INTO THE GUARD USING THE SUPPLIED HARDWARE:

- 1/4" X 1" GR.5 NC HEX BOLT (4)
- 1/4" GR.2 NC STOVER NUT (4)



NOTE:

IF EQUIPED, RADAR MUST BE REMOVED BEFORE GUARD INSTALLATION. RADAR MUST BE RE-CALIBRATED AFTER GUARD INSTALLATION. CALIBRATION CAN ONLY BE DONE BY AUTHORIZED PERSONNEL

MAGNUM TRAILER & EQUIPMENT INC. 	FRACTIONS CHART				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ANGLES +/- 1/16" +/- 1° .XX" .XXX" +/- 0.03" +/- 0.005"	SHEET NAME RADAR		TITLE 17278 ON 2021 WESTERN STAR 49X SFA TOW RECIEVERS TRUCK				
	1/32 .03125	9/32 .28125	17/32 .53125	25/32 .78125		CURRENT CUSTOMER		STOCK NUMBER		VENDOR NUMBER		WEIGHT - LB. 378.
	1/16 .0625	5/16 .3125	9/16 .5625	13/16 .8125		WO#		DRAWN BY MD	DRAWN DATE 8/4/2021	CHECKED BY LS	CHECKED DATE 8/12/2021	REV. C
	3/32 .09375	11/32 .34375	19/32 .59375	27/32 .84375		SCALE 1:12		MODELLER MD		DRAWING NUMBER AA-59056		NUMBER OF SHEETS 4
1/8 .125	3/8 .375	5/8 .625	7/8 .875	DIMENSIONS TO SHARP POINTS								
5/32 .15625	13/32 .40625	21/32 .65625	29/32 .90625									
3/16 .1875	7/16 .4375	11/16 .6875	15/16 .9375									
7/32 .21875	15/32 .46875	23/32 .71875	31/32 .96875									
1/4 .25	1/2 .5	3/4 .75										