



## Mounting/Assembly/User Instructions for Flexbar Universal Interlocked Guards Model Nos. 13490-13492 and Model No. 13570



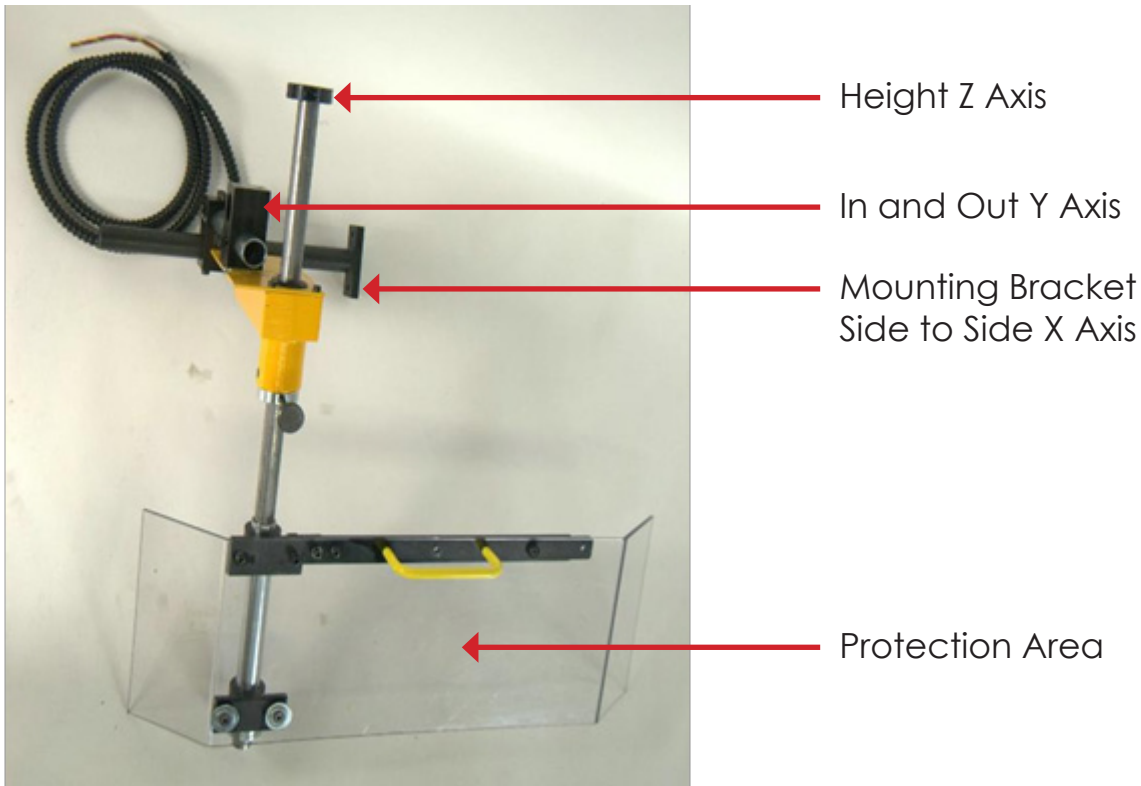
Please read the entire assembly/mounting instructions before proceeding to the installation. This unit was designed for left side machine mounting.

In the necessary event of a right machine mount situation, please call technical support for reversal instructions. 1(800) 879-7575

### Required Tools:

- Electric hand drill
- #3 drill - 7/32 @.2130"
- 1/4-28 hand tap
- 7/16 wrench

Shown below: Fully assembled guard prior to mounting and wiring.

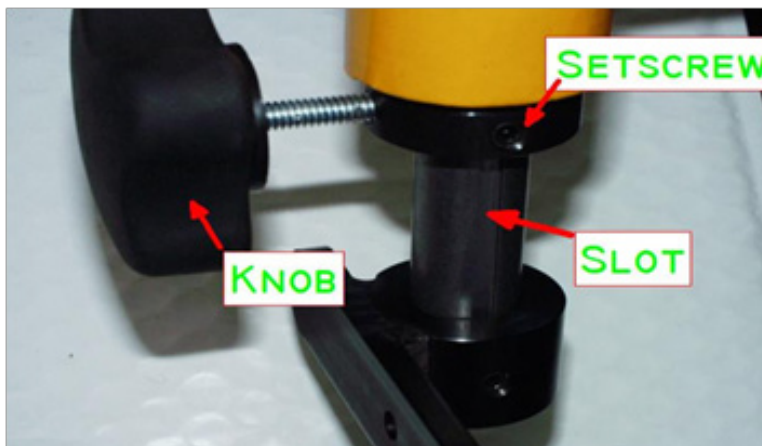


First visualize the unit mounted on your machine with the protection area centered over your tool region. The guarding system's three axis of adjustment will have to be positioned accordingly.

One of the best ways to decide where your mounting area will be is to assemble the device and temporarily suspend it in position. This will give you an approximate location where to drill and tap the holes for the mounting bracket. The X axis mounting bar has two holes which are your mounting point.

**Assemble the unit together so you can visually gauge where the guarding system will be mounted.**

Unpack all the items from the box. Next insert the 24" Z axis slotted pipe in through the yellow interlock mechanism. Take notice that the slot engages the internal flat of the set-screw.



Tighten the large black height adjustment knob so the vertical post is approximately at half mast.



Next install the safety height stop collar at the top of the slotted pipe. At this time mate the X and Y axis pipes into their clamp body holes about halfway. (See image below)

Tighten all the hex head holding screws. The trick is to imagine the distance they would be if properly mounted on the machine.

Hold the assembled unit in the proper position where it needs to be mounted.

Look for an area on your machine where you will drill and tap the two holes.

(If the Y axis tube is too short to find a mounting area, the part #13264 30" extension tube can be ordered separately.)

Make sure that the area is solid and is safe to mount to. The wall needs to be .30" thick or better.

The X axis support post has a 2.25" dual hole pattern. Mark the hole pattern on your machine. Remove the X axis post from the assembly. Recheck your hole markings by holding X axis post mount over the area.

Drill and tap two holes with a 1/4-28 thread. Bolt on the X axis bar post with the two 1/4-28 bolts provided.



Slide the clamp bodies over the bars and tighten the hex clamping screws. You will need to readjust the X, Y and Z adjustments to position the shield properly. The trick here is to leave one of the two clamp screws loose while you position. After final position is established, tighten all screws in the clamp bodies.

Minor angular variations from mounting can be adjusted by loosening the two button head screws on the underside of the yellow interlock plate.

When finished the shield should be parallel to the tool spindle.



When the shield is parallel, the switch in the interlock is made/ Normally Closed.

When you swing the door open a few degrees, you will hear a click, the internal cam opens the switch cutting the power from the machine. If you require more friction on the shield swing (due to high vibration), move the safety collar on top of the rubber grommet. You can set varying pressure by how much the collar compresses the rubber.



Perform wire routing management at this time. A qualified electrician is necessary to install the interlock circuit to the machines safety circuit wiring.

See Flexbar electrical interlock assembly information sheet for specifications and wiring examples. (See Next 2 Pages).

# FLEXBAR ELECTRICAL INTERLOCK ASSEMBLY INFORMATION

This publication refers to Flexbar model numbers:  
17001-17004, 13490-13492, 13570, 13590, 13591

When this type of guard is opened or disconnected the limit switch disengages, which results in the machine coming to a stop. The machine cannot restart until the safety guard is back in position and the reset button is pressed. The above models utilize Flexbar part number 80514 limit switches.

## Limit Switch specifications are as follows:

Characteristic	Parameter
Housing Material	High-strength glass re-enforced thermoplastic
Actuators	Top roller plunger
Termination	0.5-14 NPT, PG 13,5, 20mm, PF 1/2, Deutsch style 4-pin connector
Contact Type	Snap-action, slow-action break-before-make (BBM), slow-action make-before-break (MBB), slow action
Contact Material	Silver (standard)
Thermal Current (Ith)	10A
Rated Insulation Voltage	300V
Rated Impulse Voltage	2.5kV
Sealing	NEMA 1, 4, 12, 13; IP66
Operating Temperature	-40° C to 85° C (-40° F to 185°F)
Mechanical Life	Up to 10 million cycles
Pollution Code	3
Max. Actuation Frequency	250 operations/minute; 100 operations/minute (wobbles)
Shock	50g per IEC 60068-2-27
Vibration	10g per IEC 60068-2-6
Approvals	CE, UL, CSA, and CCC
Conforming to Standards	CE, EN50047, IEC/EN 60947-5-1; CSA C22.2 #14; UL 508; CCC GB14048.5; EN45545-2

## Electrical Rating

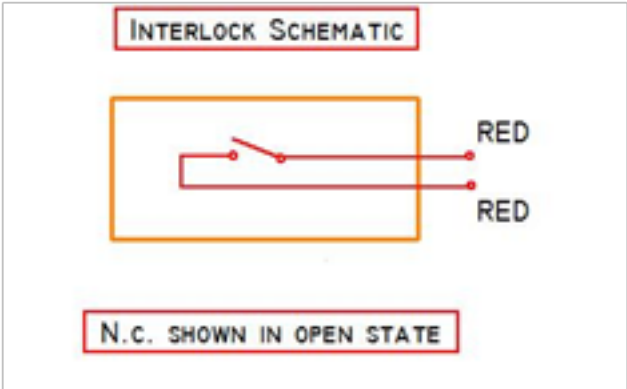
IEC 60947-5-1 (EN60947-5-1) AC 15, A300; DC 13, Q300

Silver Contacts							
AC				DC			
A300 Ue	AC15 Ie	VA		Q300 Ue	DC13 Ie	VA	
Volts	Amps	Make	Break	Volts	Amps	Make	Break
120	6	7200	720	125	0.55	69	69
240	3	7200	720	250	0.27	69	69



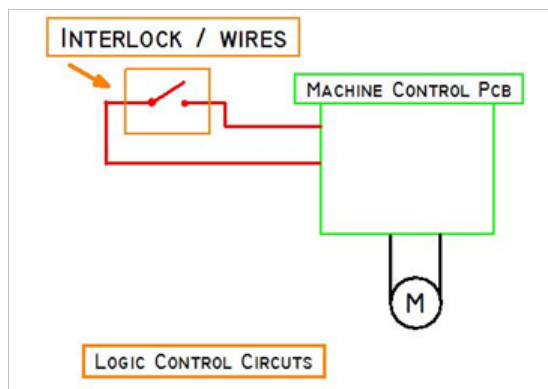
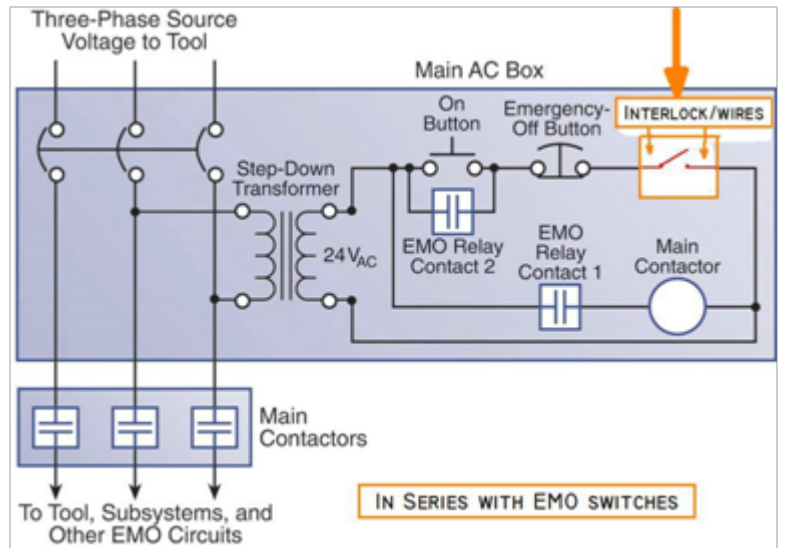
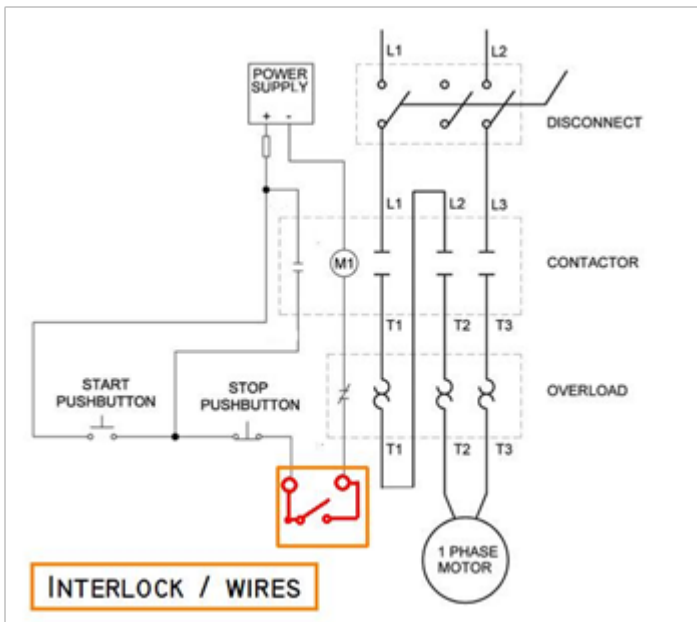
A licensed and qualified electrician must perform the wiring installation to connect the Interlock to the machine's electrical system.

# FLEXBAR ELECTRICAL INTERLOCK ASSEMBLY INFORMATION CONTINUED.



Safety Guard should be wired in series with the stop circuit of your machine.

Some typical wiring methods (shown below) may be acceptable based on type of machinery and site requirements.



\* Above circuits are shown with a Safety Shield in an open state.  
**NEVER WIRE THE SAFETY GUARD DIRECTLY IN SERIES WITH THE MOTOR!**

## Operation

The Flexbar interlock shield will block any flying debris and chips if properly adjusted and maintained. The goal is to adjust the shield so that it becomes a barrier protecting the operator. The protection area of the shield should always be adjusted so that it is in between the operator and the moving parts and debris.

The shield can be swung open to get to parts and tooling. With our design multiple setup adjustments are easily carried out by the three axis adjustment mechanism. After proper installation and adjustment, if the shield takes a hit from large debris or is swung open it will stop the motor of the machine.

## Maintenance

Lubrication of the unit is not necessary. A mild soap solution works well to clean all Flexbar guards.

Solvents suitable for cleaning polycarbonate (Shield portion) include mild concentrations of ethanol, isopropanol, petroleum ethers, heptane, white kerosene and mild soaps. The resistance of polycarbonate against these solvents is good.

**Solvents which should not be used include:** ketones, toluene, trichloroethylene, benzene and Alkali bleaches, all of which cause crazing or cracking.

Some known chemicals which can have a reaction to polycarbonate are:

Sodium Hypochlorite, Acetone, Acrylonitrile, Ammonia, Amyl, Benzene, Bromine, Butyl Acetate, Sodium Hydroxide, Chloroform Dimethylformamide, Hydrochloric Acid, Hydrofluoric Acid, Iodine, Methanol Methyl Ethyl Ketone, Styrene, Tetrachloroethylene Toluene, Sulfuric Acid, Xylene Cyanoacrylate Monomers.

## Replacement parts

Spare polycarbonate shields can be ordered by contacting Flexbar Customer Service. For faster service, please provide the model number of your guard.

All other component replacement needs can be obtained by contacting the Flexbar Product manager.

For technical support call 1-800-879-7575.

# WARRANTY

## PLEASE READ BEFORE USE

Flexbar warrants that the products are free from defects in materials and workmanship for a period of one year after date of sale by Flexbar.

This limited warranty does not cover, and Flexbar shall have no obligation or liability with respect to, any damage or problems resulting from:

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- Misuse, negligence, or accidents.
- Alterations, modifications or repair work performed by anyone other than the authorized agent or employees of Flexbar.
- Products returned beyond the applicable warranty period, or used other than in the manner intended.
- Damage caused by chemical or other foreign body contamination.

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