

# Mustang Horn Kit (FR20120MU) Installation Instructions



## Contents

Installing a Standard Mustang Steering Wheel.....	2
Installing a Wood Finish Mustang Steering Wheel .....	10

## Installing a Standard Mustang Steering Wheel

The following instructions will help you install a standard Ford Mustang steering wheel (1965-66) onto a Flaming River steering column with the Mustang Horn Kit (FR20120MU). These instructions were specifically written for the stock metal/plastic three spoke configuration steering wheel. The center horn button/assembly is connected to three spokes that fit over top of the plastic arms on the wheel base.

Required:

- The following contents from kit FR20120MU:
  - (102669) Ford Cancelling Cam with spring-loaded pin
  - (102730) Mustang Steering Wheel Insulator
  - (102727) Jumper Clip



- (FR2000MUDS1) 65-66 Mustang Wheel Spacer. This part is supplied on most Flaming River Mustang columns. If your column does not come with the wheel spacer, call 1-440-826-4488 or 1-800-648-8022 to order. You will need one to complete this installation.



- Standard Ford Mustang (1965-66) Steering Wheel (not provided)



### Replacing the Ford Cancelling Cam

Please unplug the turn signal switch connector (steering column wiring harness) from the female connector in your vehicle before proceeding.

Remove the original Ford Cancelling Cam from the Flaming River steering column.

Install the new Ford Cancelling Cam (102669) with the spring-loaded pin included in the kit, see Figure 1. Be sure to replace the large spring that fits around the spline on top of the cancelling cam.



Figure 1

### Install the Jumper Clip (102727)

Insert the jumper clip into the space between the outer ring tab and the grounded center plate using pliers or a screwdriver.

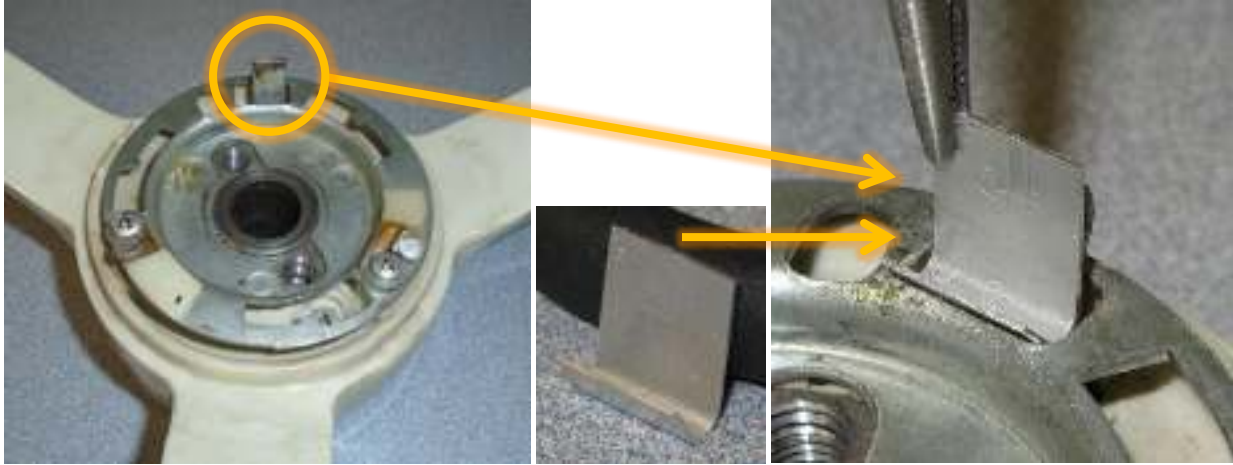


Figure 2

Make sure that the taller side of the clip is touching the vertical outer ring tab. The lower side will lock under the lip of the plate.



Figure 3

### Insert the Mustang Steering Wheel Insulator (102730)

Insert the insulator between the inner and outer rings on the back of the steering wheel. It is designed to fit around the center spline.



Figure 4

Push the insulator down into the gap until it stops.

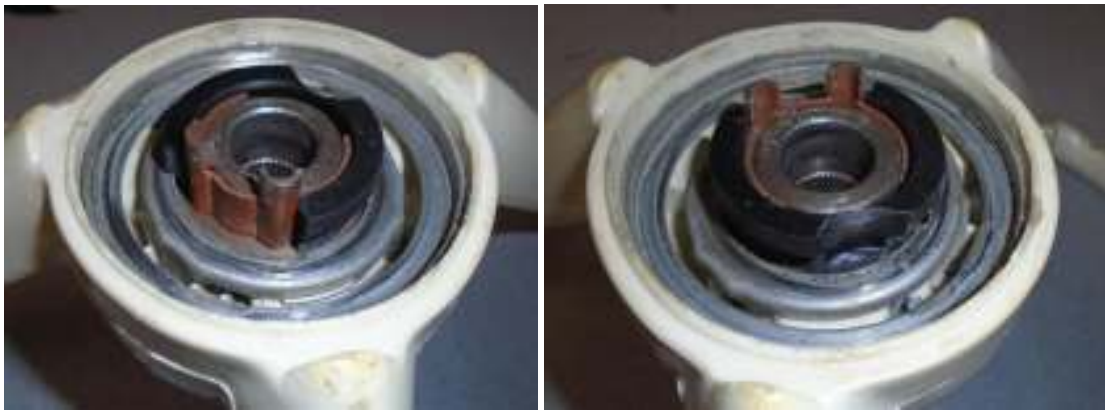


Figure 5

## Installing the Steering Wheel

Take the Mustang Wheel Spacer (FR2000MUDS1) and carefully line up the two cancelling cam tabs on the steering wheel with the matching holes on the steering wheel spacer. As you place the spacer onto the steering wheel, note that the single hole is just above the notch cut out of the insulator.



Figure 6



Figure 7

The cancelling cam fits into the hole on the spacer opposite of the two holes that match the tabs on the steering wheel. The spring-loaded pin on the cancelling cam will make contact with the inner metal ring just outside of the insulator that was installed in Figure 4.



Figure 8

Once the tabs and holes are lined up, push the steering wheel down onto the column. The column, spacer, and base of the steering wheel should all be flush.



Install and tighten the nut that came with your steering column.



Figure 9

Place the large horn button spring in the center of the steering wheel.



Figure 10



Install the horn contact's cover by simply inserting the tabs into the larger holes on the round plate and twisting clockwise until the arms of the button line up with the steering wheel arms.



Figure 11

Connect your steering column wiring to the main wiring harness and test your horn!

### Testing Your Connections

If you have diagnostic tools such as a multimeter you can test the horn button continuity before reconnecting the steering column wiring harness.

Connect the black wire (for the horn) from the steering column wiring to one lead from the multimeter.

Touch the other lead to the outside of the steering column or chassis ground.

Press the arms on the steering wheel one at a time to ensure proper contact. You should receive audible or visual confirmation from your test equipment indicating that the horn contacts are working properly.

### If your horn contacts do not appear to be working:

- Check the jumper installation. Make sure that the piece is tightly pressed up against the outer ring tab and the grounded center plate and check the continuity between these two pieces.
- Make sure the spring-loaded pin inside the cancelling cam is making contact with the inner ring when the steering wheel is being installed onto the column. The insulator will separate it from the other metal contacts.

## Installing a Wood Finish Mustang Steering Wheel

The following instructions will help you install a wood finish Ford Mustang steering wheel (1965-66) onto a Flaming River steering column with the Mustang Horn Kit (FR20120MU). These instructions were specifically written for the metal three spoke configuration with a wood grain wheel and a center cap that is separate from the steering wheel spokes.

### Required:

- The following contents from kit (FR20120MU):
  - (102669) Ford Cancelling Cam with spring-loaded pin
  - (102730) (Mustang Steering Wheel Insulator)
  - (102670) 10-32, machine screw, hex head, length: 1"



- (FR2000MUDS1) 65-66 Mustang Wheel Spacer. This part is supplied on most Flaming River Mustang columns. If your column does not come with the wheel spacer, call 1-440-826-4488 or 1-800-648-8022 to order. You will need one to complete this installation.



- Wood Finish Ford Mustang (1965-66) Steering Wheel (not provided)



### Replacing the Ford Cancelling Cam

Please unplug the turn signal switch connector (steering column wiring harness) from the female connector in your vehicle before proceeding.

Remove the original Ford Cancelling Cam from the Flaming River steering column.

Install the new Ford Cancelling Cam with the spring-loaded pin (102669) included in the kit, see Figure 1. Be sure to replace the large spring that fits around the spline on top of the cancelling cam.



Figure 12

### Insert the Mustang Steering Wheel Insulator (102730)

Insert the insulator between the inner ring and center spline on the back of the steering wheel. It is designed to fit around the center spline as shown in Figure 2. Push it down into the gap until it stops.



Figure 13

### Installing the Steering Wheel

Take the Mustang Wheel Spacer (FR2000MUDS1) and carefully line up the two cancelling cam tabs on the steering wheel with the matching holes on the steering wheel spacer. As you place the spacer onto the steering wheel, note that the single hole is just above the notch cut out of the insulator.



Figure 14

The cancelling cam fits into the hole on the spacer opposite of the two holes that match the tabs on the steering wheel. The spring-loaded pin on the cancelling cam will make contact with the inner metal ring just outside of the insulator that was installed in Figure 2.



Figure 15

Once the tabs and holes are lined up, push the steering wheel down onto the column. The column, spacer, and base of the steering wheel should all be flush.



Figure 16

### Install the Mounting Screw

Remove the lower right mounting screw (the screw that is not touching a spring) from the steering wheel. Replace this screw with the 1-inch long, 10-32 machine screw with a hex head (102670).



Figure 17

Tighten the screw down until it is making contact with the metal plate behind it, you should feel a slight increase in resistance. PLEASE NOTE that the screw in Figure 7 is NOT flush with the surface of the steering wheel. DO NOT force the screw head flush with the front surface of the steering wheel or you may bend components in the wheel. This is essential to connecting the outer ring to the grounded components of the steering wheel.

Install and tighten the nut that came with the steering column.



Figure 18

Install the steering wheel cover. Connect your steering column wiring to the main wiring harness and test your horn!

## Testing Your Connections

If you have diagnostic tools such as a multimeter you can test the horn button continuity before reconnecting the steering column wiring harness.

Connect the black wire (for the horn) from the steering column wiring to one lead from the multimeter.

Touch the other lead to the outside of the steering column or chassis ground.

Press the arms on the steering wheel one at a time to ensure proper contact. You should receive audible or visual confirmation from your test equipment indicating that the horn contacts are working properly.

### **If your horn contacts do not appear to be working:**

- Check the 10-32 machine screw installation. Check for continuity between the center spline (ground) and the outer ring on the back of the steering wheel. If there is no connection, adjust the screw until constant contact is made.
- Make sure the spring-loaded pin inside the cancelling cam is making contact with the inner ring when the steering wheel is being installed onto the column. The insulator will separate it from the other metal contacts.

