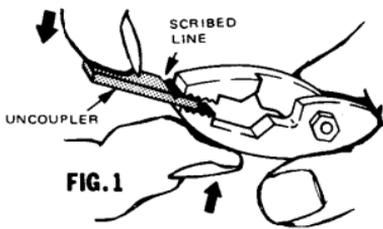


## SHORTENING UNCOUPLERS



Sometimes it is desirable to alter the length of ceramic uncouplers. The length is up to you. Remembering that the shorter an uncoupler, the harder it is to spot cars accurately over it. Generally, shortening them about 25% will not affect performance.

The first item you will need is a silicon carbide scribe, available at most hard-ware stores. Lay a metal straight edge evenly across the uncoupler at the point you wish to shorten.

Scribe across the uncoupler with the scribe. Make many passes, scribing evenly up to 1/64" deep. Place the end to be removed in a vise or jaws of pliers. Close vise or jaws just enough to support, not squeeze, the uncoupler at the scribed line. Apply finger pressure to the scribed area until it snaps apart, Fig. 1. After shortening, shape the new end with a green (silicon carbide) stone so that it is the same shape as the other end.

## WHERE TO PLACE UNCOUPLERS

The Kadee® Delayed Action Magne-Matic® Couplers are more automatic than prototypes. No actual contact occurs between the coupler and uncoupler to cause uncoupling. Uncoupling is accomplished over one of our patented Magne-Matic® uncouplers, either the permanent magnet or electromagnetic type. These Magne-Matic® uncouplers cause the trip pins of the couplers to spread when slack occurs between the two couplers. This operation is known as "slack uncoupling".

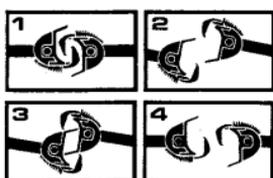
Our Magne-Matic® couplers are designed so that two conditions must be met in order to uncouple: 1) Slack between the two couplers, and 2) Being over a Magne-Matic® uncoupler. If a train is pulled over an uncoupler, keeping steady tension, uncoupling will not occur. If the train is backed over or slowed down while moving forward, the couplers over the uncoupler will uncouple automatically. PLEASE NOTE: This will not occur with our Magne-Electric type of uncouplers.

All Kadee® Magne-Matic® uncouplers come with detailed installation instructions, which should be followed carefully. Kadee® has developed accessories such as the Coupler Height Gauges and Uncoupler Gluing Jigs for Magne-Matic® Uncouplers. These gauges were designed and manufactured by Kadee® especially to help you in installing, setting and checking the operation of your Magne-Matic® couplers and uncouplers. They will insure correct, trouble free model railroading.

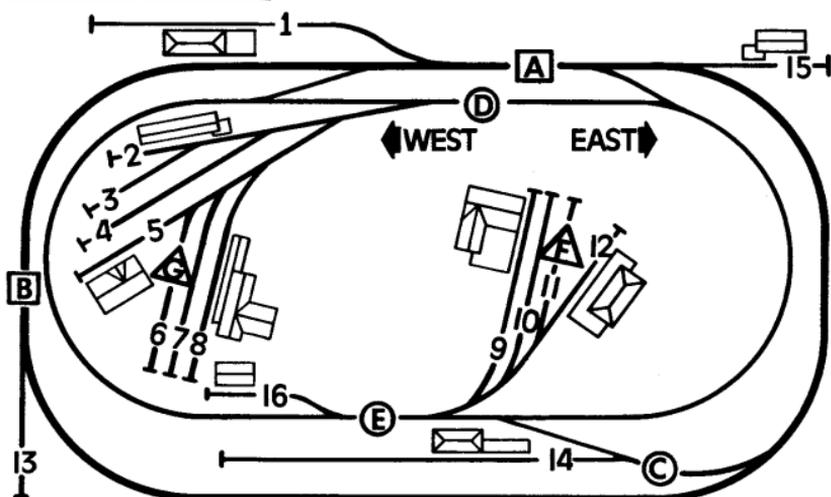
Where to place Kadee® Magne-Matic® Uncouplers: The following information on uncoupler placement is based on general practices and tests made on Kadee's® test layout. We will give you the basic procedures to follow, you can adapt them to your own layout and operation. Many variables enter into coupler and uncoupler performance - lengths of engines and rolling stock, wheelbase, track radius, etc. Due to all these variables it would be impossible for us to give you the best uncoupler placement for "your" layout. However, we will give the tried and tested basics. One important point to remember is that Kadee® Magne-Matic® Couplers are Delayed Action, when used with our Delayed Action Magne-Matic® Uncouplers, so there is really no reason to place our uncouplers on short radius curves or blind spots. As you can see, one Magne-Matic® Delayed Uncoupler can serve many areas of your track layout.

Kadee® Magne-Matic® Uncouplers come in different configurations and should be used for the purpose for which they were designed. Our Magne-Electric Delayed Action Uncoupler is for well traveled mainlines where false uncoupling can occur. Since the Magne-Electric uncoupler is an electromagnet, it only functions as an uncoupler when electric current passes through it. Our Permanent Magnet Delayed Action Magne-Matic® Uncouplers are ideal for less traveled secondary, yard and siding tracks. These uncouplers are available in "between the rails" and "under the ties" types. Last, is our Permanent Magnet Non-Delayed Magne-Matic® #312 Uncoupler for use on specific sidings and spurs.

**To simplify locating these different types of uncouplers on the diagram, we have designated each type in the following manner:** □, is our Magne-Electric Delayed Action Uncoupler, ○ is our Permanent Magnet Delayed Action Magne-Matic® Uncoupler and, △, is our Permanent Magnet Non-Delayed Magne-Matic® Uncoupler. Now refer to the track illustration. On it locate the Magne-Electric Uncoupler 'A'. Assume we have a locomotive with one car headed east, it is possible to "set" the couplers in delayed position over uncoupler 'A'. From this Magne-Electric Uncoupler the car can now be pushed west to points 1 and 13 or by the use of the secondary loop of track to points 2 through 12. Upon reaching the spur where the car is to be dropped, the train is halted, then reversed to pull away leaving the uncoupled car, or cars. The foregoing



1.) Stop with the couplers over an uncoupler and back up slightly with the couplers still over the uncoupler, allowing slack to occur between couplers. 2.) Pull forward slightly. Couplers are now in the delayed position. 3.) Back up, pushing the car(s) to the desired location. Do not permit slack to develop between couplers. 4.) Pull forward, leaving the car(s) where desired. Couplers automatically return to normal coupling position.



Is over simplified, but it serves to point out the advantages and versatility of Kadee® Delayed Action Magne-Matic® uncoupling. Now let's go into this a little further, this time with a loco headed east on the mainline with two cars. You want one car on spur track 2 and the other car on spur track 6. You will set the Magne-Matic® Couplers between the first and second cars in delayed position over uncoupler 'A' for the cars to be pushed west around secondary loop track to location 2. Now, pull away leaving the second car there. Pull back to uncoupler 'A' and uncouple and set in delayed action position, the remaining car, to be dropped at location 6. These movements will show you that if the distance between uncoupler 'A' and locations 2 through 8 are far enough, you would be better off adding a Permanent Magnet Delayed Action Magne-Matic® Uncoupler on the secondary track at location 'O'. That way, cars to be dropped at points 2 through 8 can be pushed from the mainline to the secondary track past the switch and pulled forward on the secondary loop to uncoupler 'O' set in delayed position and dropped at the desired location. Points 9 through 12 may be served from uncoupler 'O', but once again to eliminate the long trip back to the uncouplers 'A' or 'O' for delayed action setting, another uncoupler is placed at position 'E'. Such refinements, must be determined by you for your own particular track design and operating procedures. The other lettered uncoupler 'c' is shown as a convenient location for delayed setting use to spur 14. The Non-Delayed Permanent Magnet Magne-Matic® Uncouplers could be installed in areas like 'F' and 'G' where the great number of spurs make returning constantly to uncoupler 'O' or 'E' repetitive.

**One more point to go over:** While delayed uncoupling allows you to drop cars on curved sections of your layout, what is the minimum radius curve that the Kadee® Magne-Matic® Couplers will recouple on? The best procedure is to make tests on your layout using your equipment coupled and uncoupled in various configurations to determine the minimum radius curve your equipment will operate consistently on. Remember also, that if a car is on a tight curve and will not recouple, it can be pushed further along the track until it will couple up.

**One last comment:** allow enough room between the uncoupler and the switch to pull your average size train away far enough to clear the switch. This will allow you to take cars out of the middle of the train, drop them, then go back and pick up the rest and be on your way.

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**WARNING:**  
CHOKING HAZARD - Small Parts  
Not for children under 14 years.