



Instructions and Parts List

TM-12 Mini Castle (modified)

MARTIN SAFETY SYSTEM

NOTES: (1) A complete system is packed in two boxes — post box and house box. House box contains hardware for both post and house assembly. 2) It is necessary to install post before house is put up, but house can be assembled at any time.

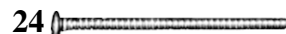
Check parts against this list (pgs. 1 and 2) before starting assembly. Refer to illustrations on page 4 to view house parts. If any shortages are found, see Packing Slip for claim instructions.



HOUSE PARTS PACKED IN THIS BOX

<u>Code #</u>	<u>Item</u>	<u>Qty.</u>	<u>Description</u>
27400	1	6	Floor section
25040	2	12	Door
27420	3	3	Ceiling
27410	4	6	Large roof section
27412	4A	6	Small roof section
27415	5	1	Finial
27406	6	6	Divider
927406	6A	6	Modified divider
925075	6B	6	White door plug (installed in 6 modified dividers)
27402	7	12	Spacer panel
27404	8	12	Back panel
28425	9	6	6-32 x 13" tie rod
65648	10	12	Door rod
27416	11	12	Long reinforcing channel
27418	11A	6	Short reinforcing channel
27427	13	12	Rail
66382	16	6	Perch tube
26241	17	12	Floor tray
753844	18	12	WDS-12 winter door stop

NOTE:
Top section pole (Q)
is packed INSIDE
bottom section pole (S)



PARTS IN SMALL PLASTIC BAG

35250	19	16	6x3/8 Sheet metal screw (SMS)
40050	20	2	10-24x1/2 Round head machine screw (RHMS)
35286	21	12	Flat C nut
35263	22	110	6-32x5/16 Pan head machine screw (PHMS)
40525	23	2	10-24 Lock nut
35270	24	24	6-32x1-1/4 Pan head machine screw (PHMS)
35288	25	12	6-32 Acorn nut
35266	26	6	6-32x5/8 Pan head machine screw (PHMS)
32020	27	1	5/16 Star washer
35252	28	140	6-32 Keps nut
32022	28A	6	#6 External lock washer



PARTS IN LANYARD LOCK BAG

726276	A	1	Lanyard lock assembly
26272	B	1	Cover

BEFORE STARTING ASSEMBLY: Wipe protective oily coating from all parts' surfaces prior to assembly. Read all instructions before starting assembly. This will acquaint you with each step. The exploded view of house on page 3 shows each major part numbered to correspond with item numbers on pages 1 and 2.

PARTS IN LARGE PLASTIC BAG

<u>Code #</u>	<u>Item</u>	<u>Qty.</u>	<u>Description</u>
25060	14	24	Rail support
27428	15	2	Perch bracket
27300	28	2	Kit wrench
35248	29	4	Tape strip (see step 15)
20414	30	2	1-1/4 A clamp
28024	31	2	1-1/2 B clamp
20416	32	2	Link
732001	33	1	Pulley end assembly
30052	34	4	1/4-20x3/4 Carriage bolt
42500	35	4	1/4-20 Hex nut
43550	36	4	1/4 Lock washer
32019	37	1	1/4-20 Lock nut
32006	38	1	1/4-20x2 Hex head bolt
35264	39	2	10-32x1/2 Self-threading screw
40525	40	1	10-24 Lock nut
32048	41	1	1/4 I.D. steel washer
32004	42	1	1/4x2 Spring pin

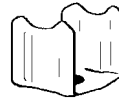
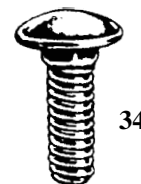
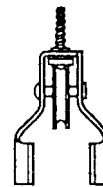
43



28



14

15
(reduced)33
(reduced)

34

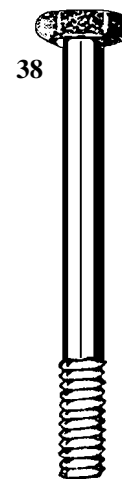
35



36



37



38



39



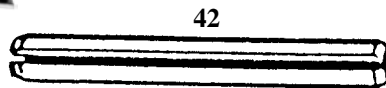
40



41



44



42



45

PARTS IN FLOOR CLIP BAG

25042	43	12	Floor clip
35260	44	12	6-32x1/4 Machine screw
35265	45	12	6-32 Keps nuts

PARTS PACKED IN BUNDLE (See page 3)

33000	N	1	22 ft. rope
26212	P	1	Rope cleat
26211	12	1	Center bracket

PARTS PACKED IN SS POST BOX

27856	Q	1	1-1/4" x 60-1/2" Post (top section)
27858	R	1	1-1/4" x 76" Post (center section)
27850	S	1	1-1/2" x 74" Post (bottom section)
28410	29	1	1-3/4" x 22" Ground Socket with hardware
Ground socket hardware includes:			
28024	30	2	'B' Tube clamp
42500	31	2	1/4-20 Hex nut
43550	32	2	1/4" Lock washer
30053	33	2	1/4-20x1-1/4" Carriage bolt

NOTE:
Top section post (Q)
is packed INSIDE
bottom section post (S).

To order parts, accessories or Nature House products call 877-833-2478 or 800-255-2692

E-mail <natsoc@adams.net>

Please use product code number when ordering parts



Regular — 12 compartments

NEW!

TM-12 (modified)

MARTIN SAFETY SYSTEM

can now be easily modified
from 12 to six compartments

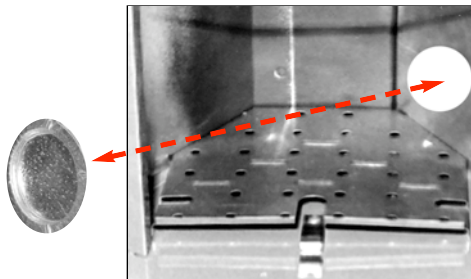


Converted to 6 compartments

A SUPERIOR QUALITY NATURE HOUSE PURPLE MARTIN HOUSE THAT NOW
OFFERS A CHOICE OF REGULAR 6"x6" COMPARTMENTS
OR ENLARGED 6"x12" COMPARTMENTS
BY SIMPLY INSTALLING OR REMOVING PLUGS FROM HOUSE DIVIDERS

CAUTION: Because of decreased entry size, it is important that regular nest checks be conducted during the nesting season when enlarged compartments are in use to make sure that martins are not trapped inside. It has been noted that sparrows may build a nest in front of the martin nest, trapping baby and/or adult birds.

NOTE: Dividers to be used in modifying the house now have a hole with plugs inserted. Leaving the plugs in place will keep the original 6"x6" compartments intact **OR** removing the plugs from those dividers will result in a modified house with enlarged compartments.



Not to scale — for illustration only

**Instructions to modify compartments on your newly constructed TM-12*

1. Remove plug from one center divider and from two side dividers on each floor.
2. Install starling resistant entrance Crescent Door on compartment front.
3. Install a Winter Door Stop **OR** a Blank Door at back of compartment.

**Once house has been put together, follow the above instructions to modify your TM-12 martin house from a 12-compartment to a 6-compartment house.*

TO ENLARGE THE COMPARTMENTS, simply remove plugs and replace doors with crescent entrance doors. Enlarged compartments create a dark cavity which is inviting to starlings, thus starling resistant crescent entrance doors are suggested to prevent starling predation.

*Crescent Door



CD-12 (12 pak)
CD-6 (6 pak)

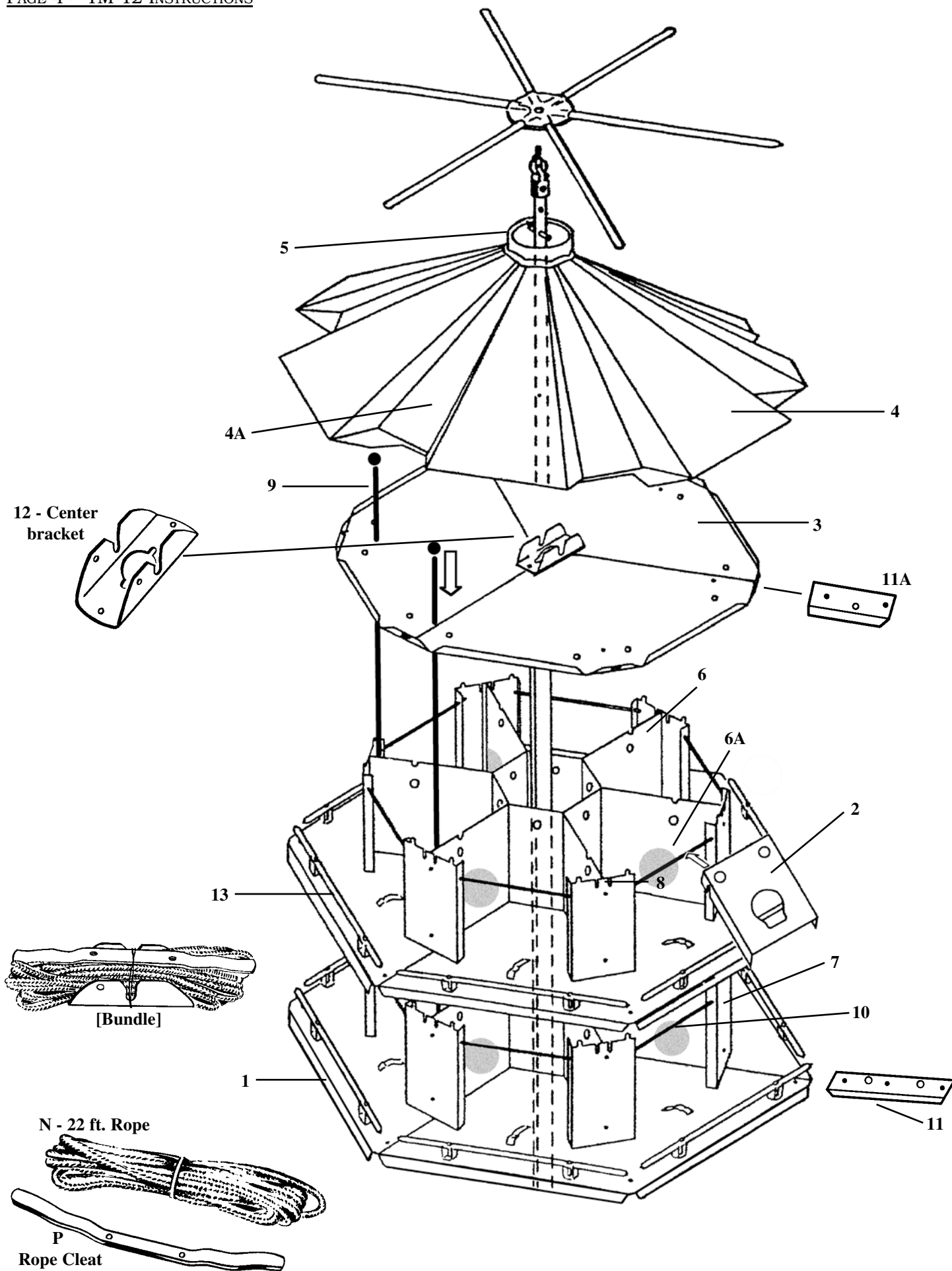
*Blank Door



BD-12 (12 pak)
BD-6 (6 pak)

***NOT INCLUDED WITH HOUSE KIT - ORDER SEPARATELY**

Call 800-255-2692 to order Crescent Doors (12 pak or 6 pak); Blank Doors (12 pak or 6 pak)



TM-12 MINI-CASTLE ASSEMBLY INSTRUCTIONS

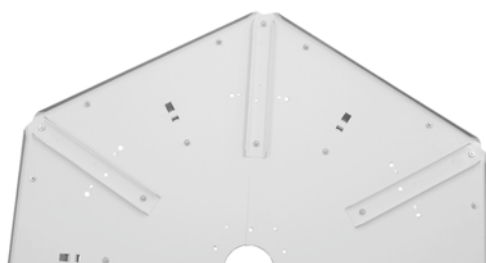
1. Attach two floor clips (43) to each floor section (1) using one 6-32x1/4 machine screw (44) and one 6-32 keps nut (45) per clip. Screw heads go on top (green) side of floor, front end of clip slips under edge of cutout in floor.

Install two rails (13) on each floor section. Use two rail supports (14), two 6-32x1-1/4 PHMS (24) and two 6-32 keps nuts(28) per rail. Screw heads should go at top of rails.

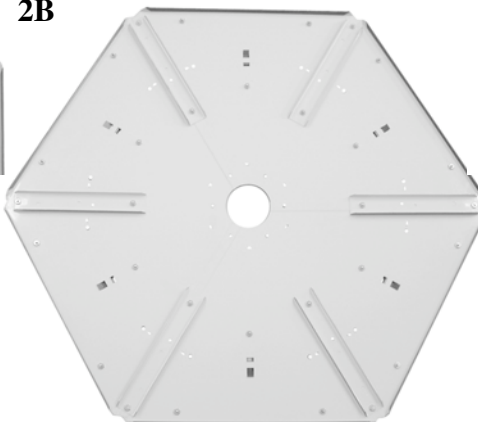
1A. Install one long reinforcing channel (11) on underside (white side) of each floor section (1) Use two 6-32x5/16" PHMS (22) and two 6-32 keps nuts (28) per channel, screw heads on green side of floor section. Tie rod hole must align in channels and floor sections. Refer to photo 1A.

2A. Arrange three floor sections (1) in hexagon shape (green side down) by overlapping edges.

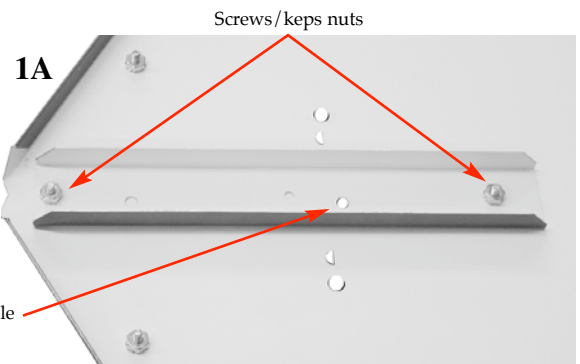
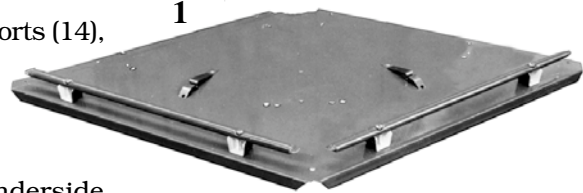
2B. Assemble sections by using two 6-32x5/16 PHMS (22) and two 6-32 keps nuts (28) and one long reinforcing channel (11) at each seam. Screw heads on green side of floor section. Tie rod holes must align as in Step 1A. Repeat for three remaining floor sections. See photos 2B.



2B

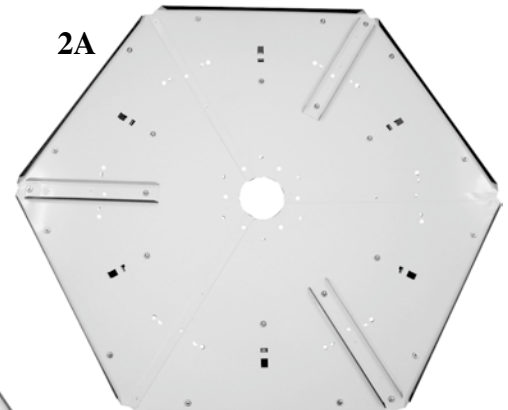


1

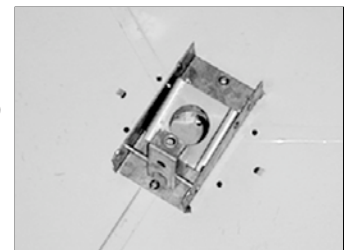


Tie rod hole

2A

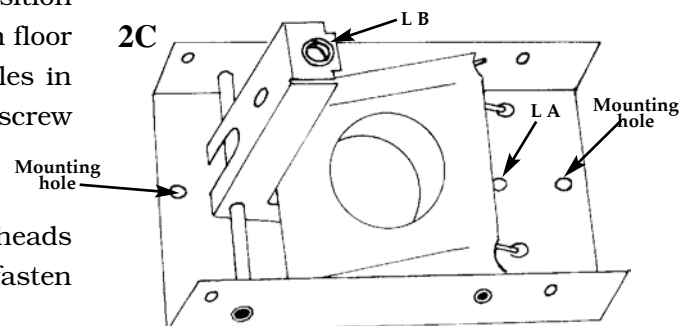


2D



2C, D. On underside of one complete floor assembly, position lanyard lock as shown in photo 2D. Line up center hole in floor assembly with center hole in lanyard lock. Mounting holes in lanyard lock case (see illustration 2C) will line up with screw holes in floor.

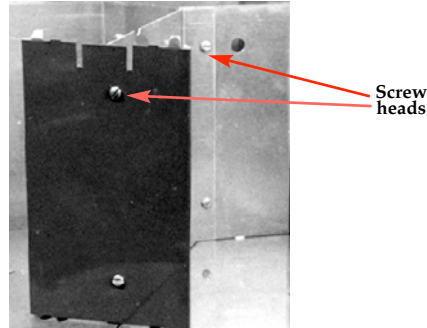
Using two each 10-24x1/2" RHMS (20) — making sure heads are on green side of floor — and 10-24 lock nuts (23), fasten lanyard lock in place.



TM-12 MINI-CASTLE ASSEMBLY INSTRUCTIONS — CONTINUED

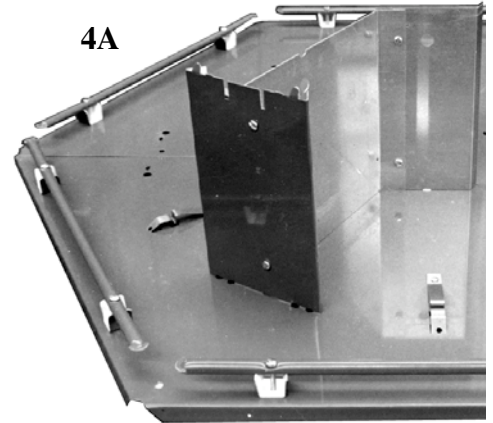
3. Assemble 3-piece divider assembly. This consists of parts 6, 7 and 8. Fasten together using four each: 6-32 x 5/16 PHMS (22) and 6-32 keps nuts (28) as shown. Twelve sets of these are required.

NOTE: Heads of screws ³ should be as shown in photo.

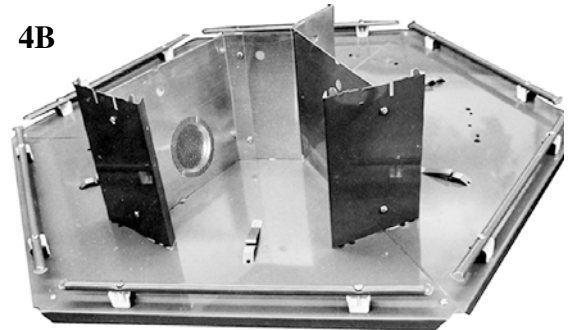


4A, B, C. Starting with bottom floor, green side up, place one divider assembly on floor (1) as shown. NOTE: Be sure to alternate divider (6) with modified divider (6A) as shown in illustrations 4B and 4C at right. Ventilation holes are up. The three square tabs go into "D" holes in floor. Bend tabs against STRAIGHT SIDE of "D" on underside of floor. Place another assembly adjacent to first and slide flange near center into slot provided. Bend tabs to hold in place. Repeat with balance of dividers for bottom floor. Slide last divider into slot and flange from above, interlocking all pieces around center.

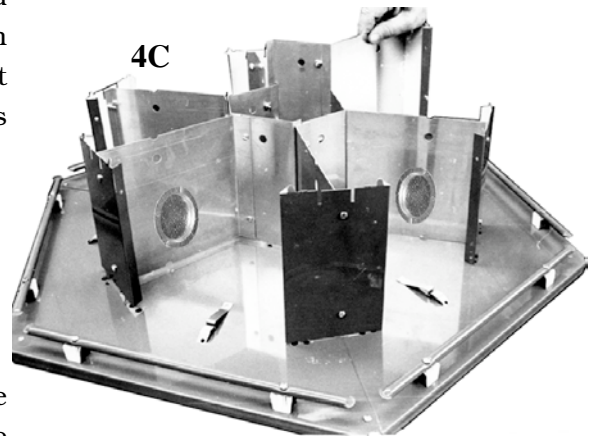
4A



4B



4C

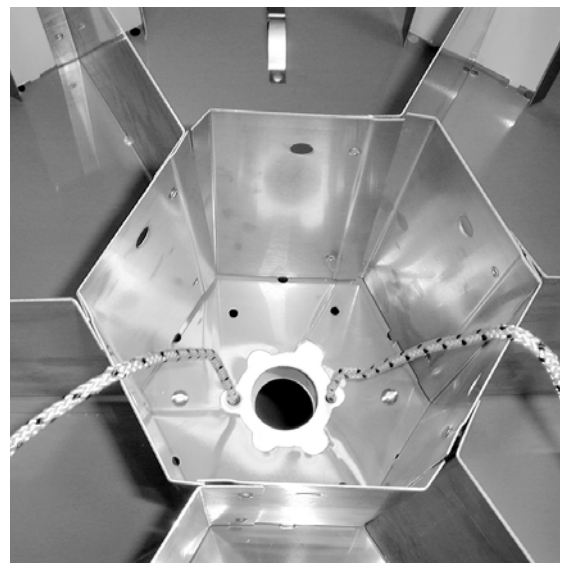


4D. Using the rope (N) furnished with the TM-12 house, double at approximate center. Feed both loose ends of rope through the first floor hole and into the lanyard lock from ABOVE. One rope end will go through hole marked "L A" in sketch 2C (pg. 5). Place a 1/4 I.D. washer (41) over end of rope (N); the other end will need to be fed through the grommet in lanyard lock and then through the hole marked "L B" in sketch 2C as shown. Tie an overhand knot on end of each rope.



Underside view of floor /lanyard lock assembly

4D



TM-12 MINI-CASTLE ASSEMBLY INSTRUCTIONS — CONTINUED

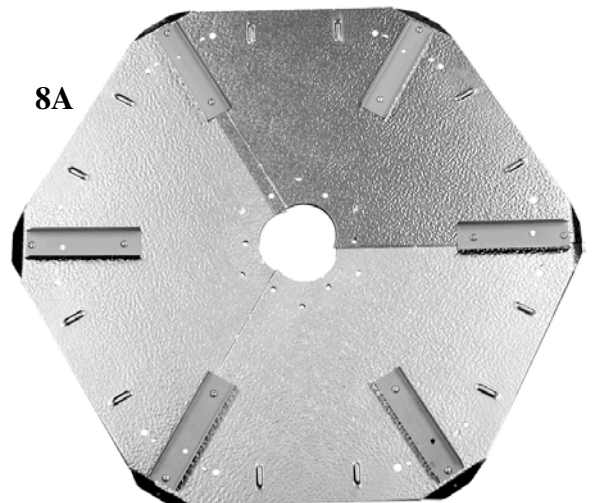
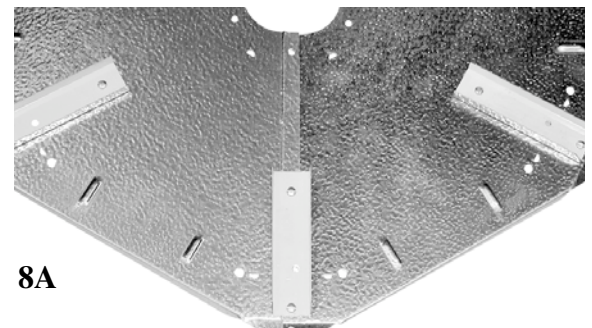
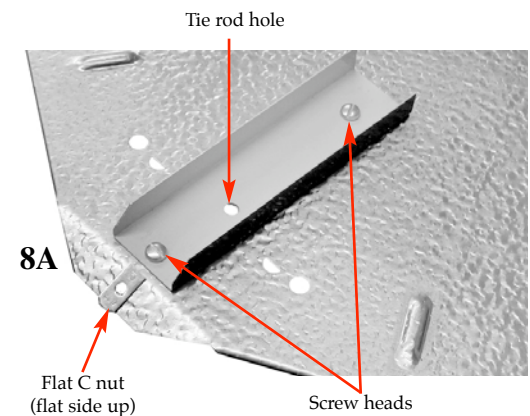
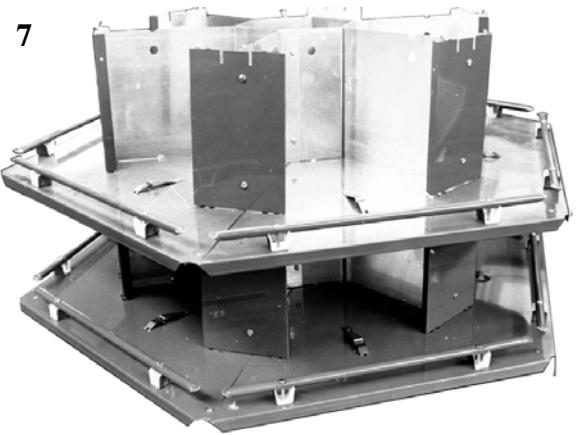
5. Repeat Steps 4A, 4B and 4C for second floor, but do not stack floors together at this point.

6. Place bottom floor assembly on a wastebasket and center so that floor may be held level. Position so that a few inches extends over edge for easy access to underside of floor.

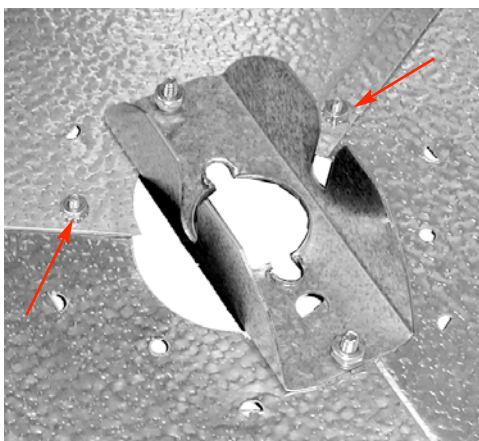
7. Nest second floor over first floor. (**NOTE:** Seams on second floor **MUST BE** directly above seams on bottom floor. This is very important for center hole alignment and proper rope operation.) Locate in proper position over dividers below by inserting the two round top tabs on each divider into the round holes in floor. **BE SURE** that round tabs are to the **INSIDE** of each divider front on second floor. Pull double rope through second floor as you go; the double rope goes on through ceiling and roof.

8A. Install one short reinforcing channel (11A) on underside of each ceiling section (3) as shown (photo 8A). Outside edge flanges on ceiling sections point down. Use two 6-32x5/16 PHMS (22) and two 6-32 keps nuts (28) per channel. Screw heads on channel side of assembly. Tie rod hole must align in channels and ceiling sections. Arrange the three ceiling sections in a hexagon shape by overlapping edges. Assemble sections by using two 6-32x5/16 PHMS (22), two 6-32 keps nuts (28) and one short reinforcing channel (11A) at each seam. Screw heads on channel side. Tie rod holes must align in channels and ceiling sections. Install one flat C nut (21), flat side up, on each corner of the ceiling assembly. (Photos 8A.)

8B. Turn ceiling assembly over (channels will now be on underside). Fasten center bracket (12) in center of top side of ceiling as shown in photo 8B using two each: 10-24/1/2 RHMS (20) and 10-24 lock nuts (23). Install one each: 6-32x5/16 PHMS (22) and 6-32 keps nut (28) in the locations indicated by arrows in photo 8B.

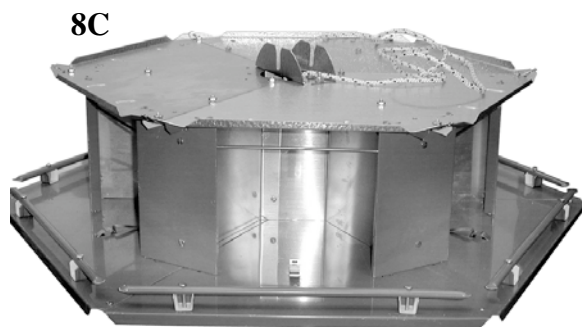


8B

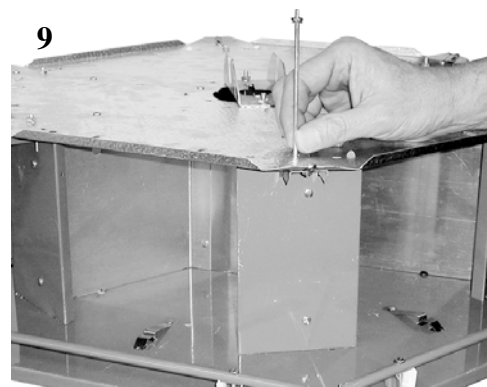


TM-12 MINI-CASTLE ASSEMBLY INSTRUCTIONS — CONTINUED

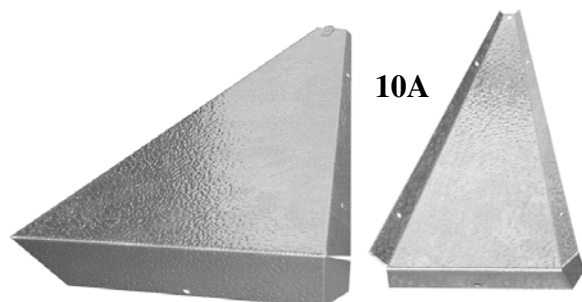
8C. Position ceiling assembly so the two rope notches in the ceiling center bracket (see Photo 8B) line up directly above the two rope holes in the lanyard lock on the bottom floor (see Photo 4D). This is critical for proper rope operation when house is installed on post. Ceiling is installed over top floor assembly by inserting the two round top tabs on each divider into the two large holes in ceiling. Pull doubled rope up through ceiling center bracket.



9. Install one 6-32 acorn nut (25) on one end of each of the six tie rods (9). Use kit wrench (28) after starting. On ceiling locate tie rod holes between two larger holes — about two inches in from edge of ceiling. (Refer to page 3, if necessary.) Insert tie rods (9) into these holes as shown. Use nail to align holes in assembly, if required. Guide tie rod through hole in top floor, then rotate rod slowly and it will drop through assembly. Thread 6-32 acorn nut (25) onto lower end of tie rod on underside of bottom floor. Do not tighten completely at this time. Repeat with balance of tie rods. **ASSEMBLY MUST BE HANDLED WITH CARE UNTIL ALL TIE RODS ARE IN PLACE.** Insert twelve door rods (10) into holes at top of each doorway. Now tighten nuts on vertical rods (9) until snug.

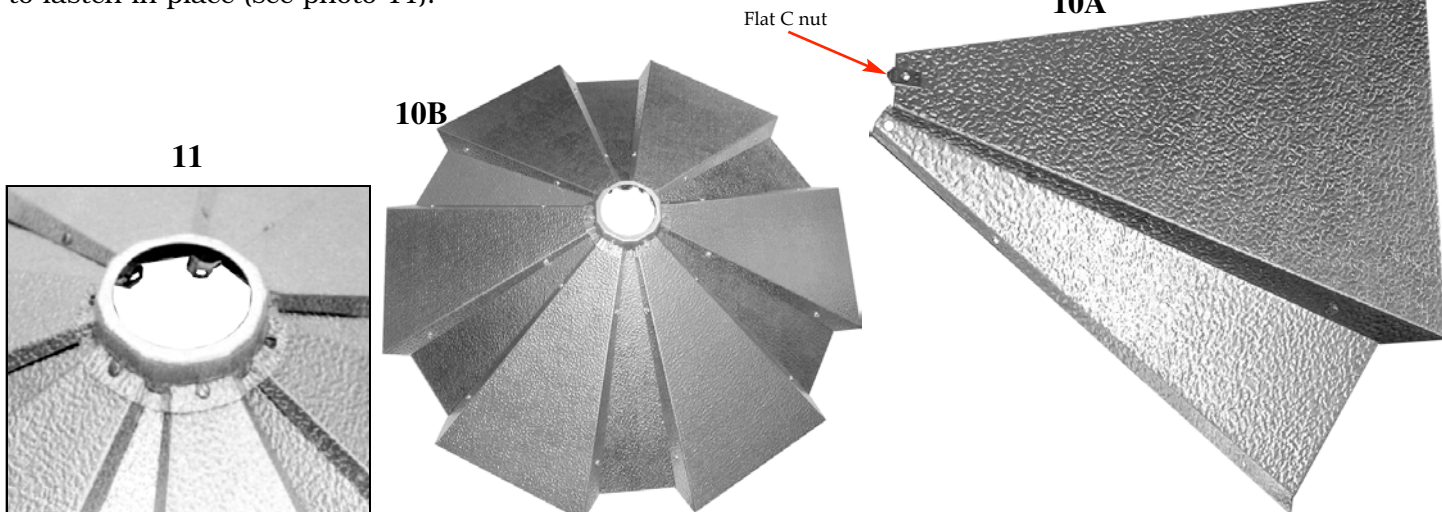


10A. Assemble roof by alternating large roof sections (4) and small roof sections (4A). Flanges on sides of large sections will fit over side flanges of small sections. Use two each: 6-32x5/16 PHMS (22) and 6-32 keps nut (28) at each overlap. Slide one flat C nut (21), flat side up, over the point of each large section. Hole in flat C nut (21) will align with hole in large roof section (4). Refer to photos 10A and 10B.



10B. See photo 10B of roof after completion of step 10A.

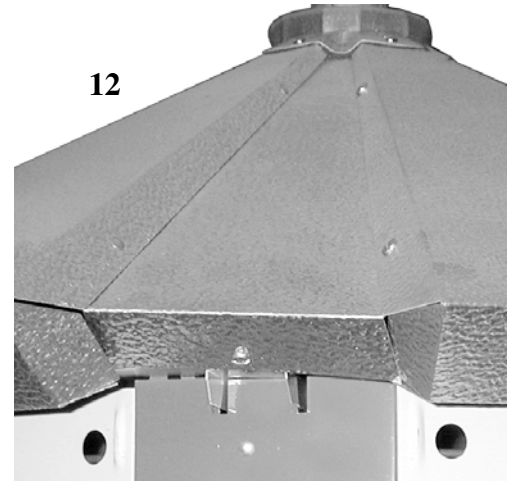
11. Place finial (5) over roof peak and use six #6x3/8 SMS (19) to fasten in place (see photo 11).



TM-12 MINI-CASTLE ASSEMBLY INSTRUCTIONS — CONTINUED

12. Slip roof assembly over ceiling edges and fasten to house using six each #6x3/8 SMS (19) and #4 external lock washers (28A).

NOTE: Flange of roof is located over flat C nut (21) on ceiling tab and screw is installed at an upward angle. See photo 12.

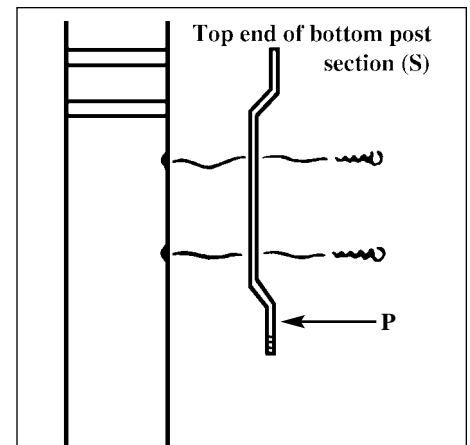
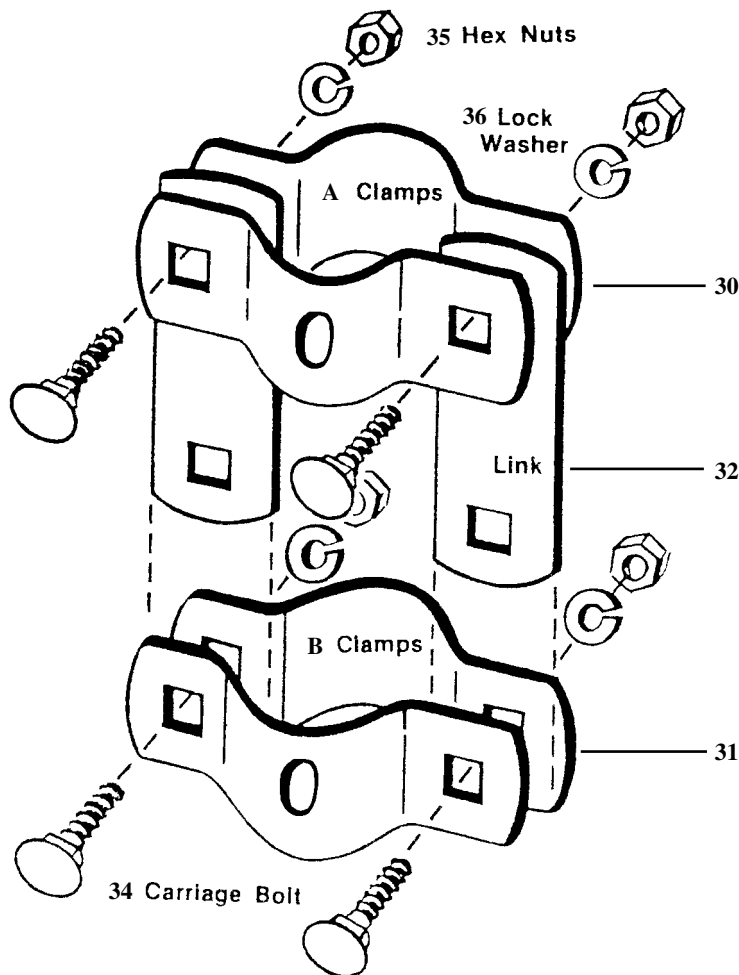


TM-12 MINI-CASTLE POST ASSEMBLY INSTRUCTIONS

Top section of post (Q) is packed inside bottom section (S) and MUST be removed before installation of post.

13. Attach rope cleat (P) to post bottom section (S) with two 10-32 x 1/2 self threading screws (39) in holes provided and tighten. This end is up.

Assemble tube clamps as shown. Place "B" clamps over top end of post (S) and tighten nuts. Leave "A" clamps loose.



NOTE:
Top section of post (Q)
is packed inside
bottom section (S)

TM-12 MINI-CASTLE POST ASSEMBLY INSTRUCTIONS — CONTINUED

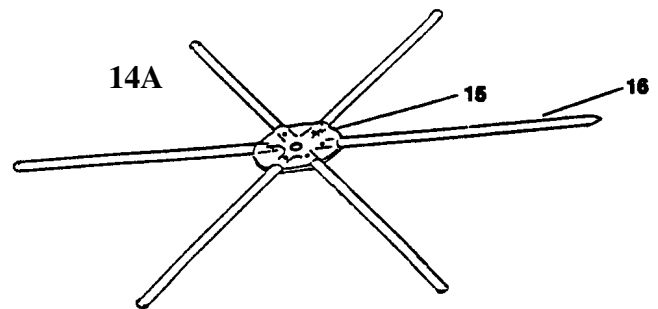
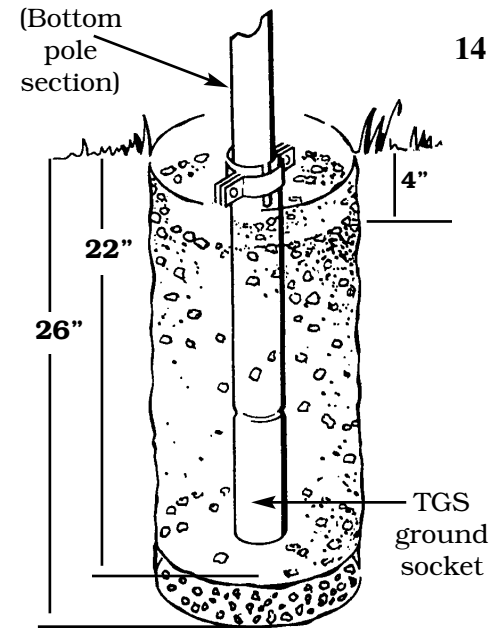
NOTE: If using TGS Mounting Post Ground Socket (included), skip Step 14 and follow instructions included with TGS, then proceed to Step 14A.

TGS GROUND SOCKET IS RECOMMENDED FOR EASE OF INSTALLATION.

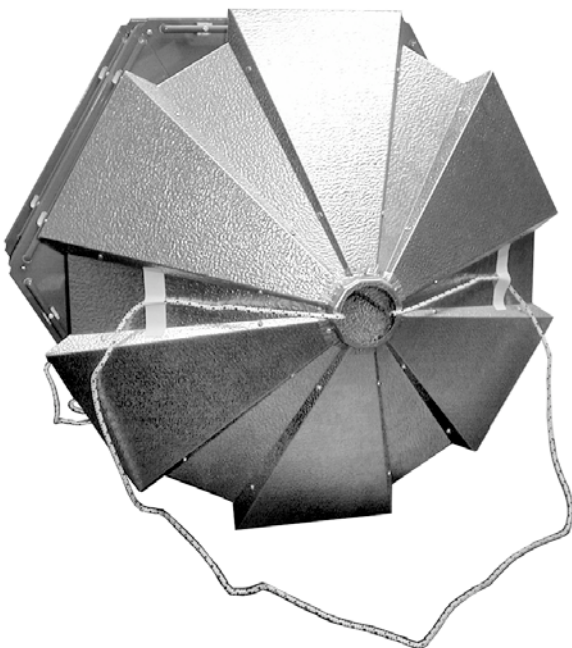
The ground socket is installed in concrete and clamps securely to post. This allows the pole and house to be moved to another location without losing the bottom section of post.

14. Dig hole eight inches in diameter and twenty-eight inches deep. Put four inches of coarse gravel in hole. Place bottom post section (S) in hole and fill with concrete to three or four inches below ground level (approximately ninety pounds). Use guy wires or rope to hold in vertical position while concrete sets up.

14A. Using six perch tubes (16), two perch brackets (15), six 6-32x5/8 PHMS (26) and six Keps nuts (27A), assemble as shown. Head of screws down, acorn nuts on top, when placed on post assembly. Tighten until snug.



15



14B. The perch assembly is part of the house, but is mounted on top post at step 18 and will be shown later.

15. By using a table or other flat surface, turn martin house assembly on its side. Pull the rope through hole in roof until the slack is taken up between knots below bottom floor and roof. Place half rope to right and half to the left at top of house. Take two pieces tape strip (29) and tape rope, one-half each side, to roof. Be sure that rope is not twisted inside of house.

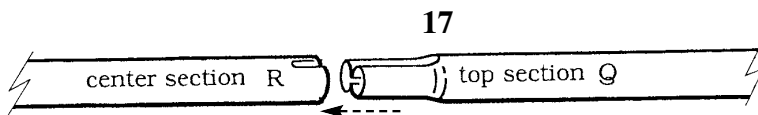
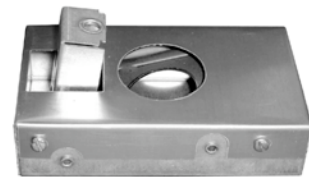
TM-12 MINI-CASTLE POST ASSEMBLY INSTRUCTIONS — CONTINUED

16. Taking the top section post (Q), 1-1/4 dia.x60-1/2" long, and the spring pin (42); tap the pin into the hole 5-1/2 inches from top end of tube and center on post. (See sketch 18.)

Place other end of post through roof hole and slide through house and lanyard lock about two feet. Check to see that ropes are still in place and not crossed.

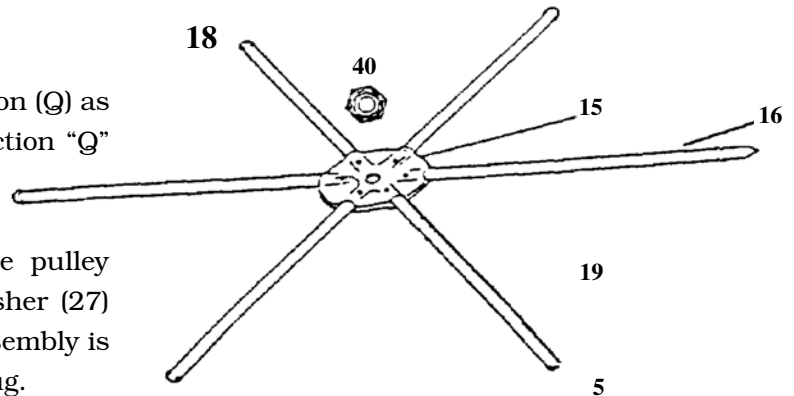
Using the pulley end assembly (33) and the far end of doubled rope, work the rope into pulley bracket over the pulley, as shown. Rotate one leg of the pulley assembly 90° to aid in rope placement. Check to determine ropes are not crossed. Place this unit over post top end and bolt in place using bolt (38) and nut (37). Tighten firmly. Check with sketch 18.

At this point, install lanyard lock cover on lanyard lock case using four #6x3/8 sheet metal screws (19).

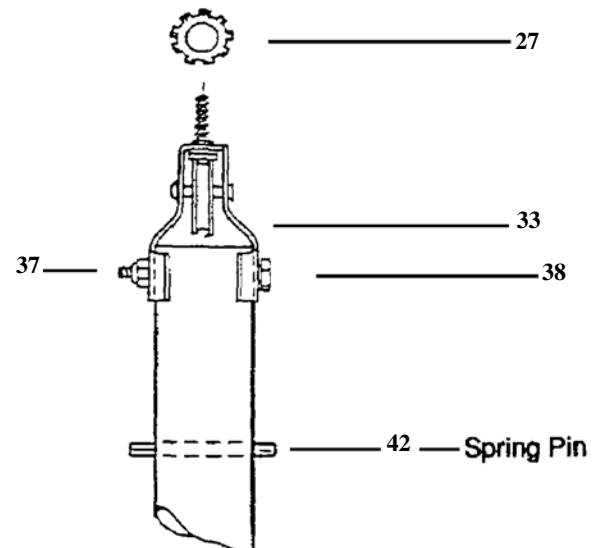
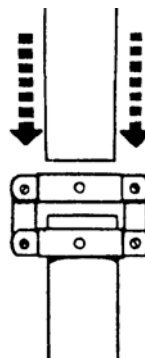


17. Attach center post section (R) to top post section (Q) as shown. Note alignment of crimped end of top section "Q" and grooved end of center section "R".

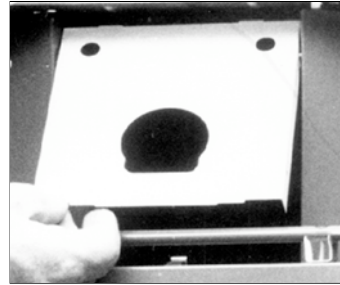
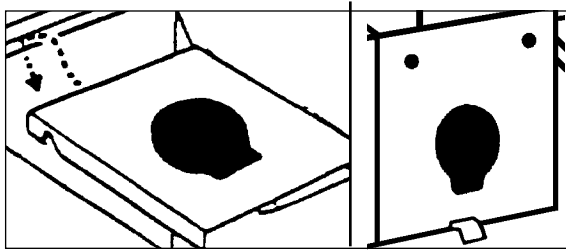
18. The perch assembly is now installed on the pulley assembly as shown in sketch 18. Place star washer (27) over stud at top of pulley assembly (33). Perch assembly is added next. Tighten 10-24 lock nut (40) until snug.



To safely lift and install house and upper post sections, two people are required. House should be positioned about two feet above the bottom end of center post section. This will provide a low center of gravity when lifting. Lift house and upper post sections to vertical position. Then slip bottom end of center post section through clamp assembly and down into bottom section. Make sure center post section slides down until it rests on top rope cleat screw. Rotate upper post sections and house until groove in pulley wheel is in line with rope cleat on bottom section. Tighten nuts on clamp assembly.



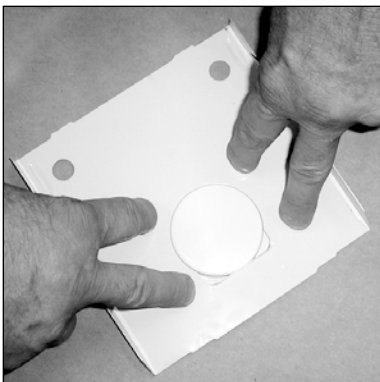
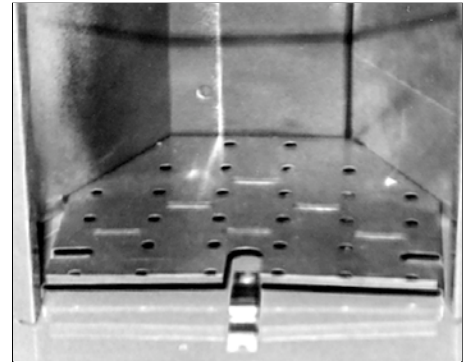
TM-12 MINI-CASTLE ASSEMBLY INSTRUCTIONS — CONCLUSION



19. Our suggestion is to install doors (2) at this point. Hook doors (2) over door rods (10). Do not force.

NOTE: Doors should hinge freely and snap into floor clips on floor. See sketches.

20. Floor trays (17) can now be placed in house. Flanges on sides of floor trays go down.



21. We suggest to install door stops; remove door, place door stop upside down on a flat surface and press door onto the door stop, then rehang door. Use door stops (18) to close house during winter months.

Rope should be checked yearly and replaced if worn. With house lowered, attach new rope to end of old rope with tape or wire and pull new rope through with old rope.

Lanyard lock operation

This device provides a positive means of locking your house into any position on the post. Pulling out on the rope releases this lock and allows house to be raised and lowered. Releasing rope allows lanyard lock to tighten against post securing it in position. When lowering house, stand out far enough from base of mounting post to allow for pulling rope out for release of lock. Slowly allow rope to feed up through lock, standing in this same position and lowering house. To stop lowering at any point, simply loosen pull on rope and allow to drop in position. When raising house, stand close to base of mounting post and pull rope straight down. With house at top of post, lock will engage ring in post for correct location.

→ **Rope should be checked yearly and replaced if worn. With house lowered, attach new rope to end of old rope with tape or wire and pull new rope through with old rope.** ←

For replacement parts or accessories call toll-free 877-833-2478 or 800-255-2692



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