



REMOTE CONTROL TV CRADLE HEAD MODEL MCH-5

The Houston Fearless Model MCH-5 Remote Control Cradle Head is an excellent mount for monochrome TV studio cameras and Vidicon color cameras, permitting unattended cameras to be operated from remote points. It makes possible positioning of cameras in inaccessible and dangerous locations where manual operation would not be practical.

PAN AND TILT

Pan and tilt are powered by two separate series-type motors, mechanically isolated from the base by rubber shock mounts and enclosed in sound-proof housings. Azimuth rotation is 370° and tilt is 30° up and 38° down. Rotation is driven by a worm drive within the cradle base. Tilting is accomplished by a friction drive through the cradle guide rollers. Adjustable limit switches are provided for both movements. Manual operation of the head is also possible for both movements by disconnecting both motors mechanically. An adjustable handle is provided for operator control when manual operation is desired.

MOUNTING

The head mounts on any Houston Fearless TV Pedestal, Dolly, Crane, Tripod, Hi Hat or other standard mount.

PERFECT BALANCE

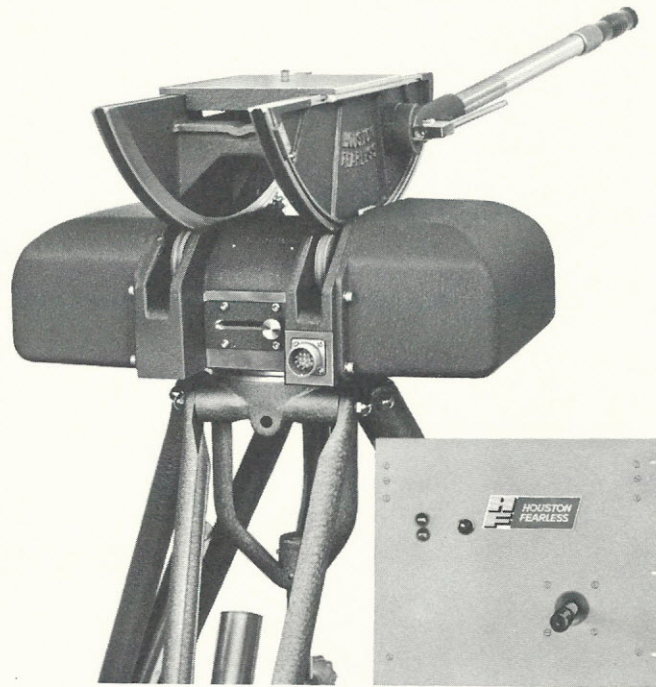
Because of the cradle-type design, the camera is always in perfect balance around a constant center of gravity as it is tilted or panned. With all accessories attached, the camera can be precisely balanced when mounted on the head by moving the top plate of the head forward or back with a lead screw, making it unnecessary to loosen the camera hold-down screws.

SMOOTH ACTION

The cradle is supported by and rolls on four phenolic ball bearing rollers mounted in the base of the head, providing exceptionally smooth, quiet tilting movement. A screw and wedge controls the amount of drag on the tilt, allowing fine adjustment. This also acts as a tilt brake. Panning action rolls smoothly on two ball bearings in the base of the head. A panning drag and brake is provided in a one screw adjustment. All bearings are of the sealed type and never require lubrication.

RUGGED CONSTRUCTION

All major parts are made of sturdy aluminum castings to provide and maintain accurate alignment.



CONTROL PANEL

The remote control panel can be either console or rack mounted. Control of the camera is by means of a "joy stick," which when moved in any direction causes the head to tilt or pan in that direction. Both actions can be performed simultaneously. Speed of movement is governed by the distance the joy stick is moved from vertical. An on and off switch and a power-on indicator lamp are also provided on the panel. Additional control panels for the same head can be installed at different locations with selective switches to determine the active control point.

SPECIFICATIONS

Azimuth rotation	370°
Range of tilt.....	38° down and 30° up
Top plate dimensions.....	67/8" wide x 8" long
Height of Mounting Head, including Cradle.....	11"
Motor controls.....	Two 1/30 H.P. series-type motors
Manual control handle.....	Included
Finish	Umber grey
Weight	Approx. 40 lbs.
Shipping Weight	Approx. 60 lbs.
Model No.	MCH-5

SM 22

HF-75-1M-8-59



HOUSTON FEARLESS

RCH-3

REMOTE CONTROL TV CAMERA HEAD

Houston Fearless Model RCH-3 Remote Control Head provides a practical, economical means for remotely controlling small industrial TV cameras weighing up to 20 pounds.

MOUNTS ON STANDARD TRIPOD

The RCH-3 mounts on any light-duty tripod (not included) or other support with a 1/4-20 screw fitting. In turn, the camera is attached to the mounting plate of the head with the same size screw.

DEGREE OF TILT AND ROTATION

Cameras can be tilted 45° up or down and rotated 370° with the RCH-3, simultaneously or separately.

Limit of tilt in either direction is controlled by cam-actuated limit switches. The cams are externally located and can be quickly, easily adjusted with a screwdriver.

Limit of azimuth in either direction is controlled in the same manner. By removing one cam, 370° rotation of the camera is possible.

The head may also be mounted vertically for operation of the camera in a vertical position.

SPEED OF OPERATION

In azimuth the head rotates 3½ degrees per second, in elevation 2 degrees per second.

WEIGHT LIMITS

With the head set in the normal horizontal position, a 20 lb. camera load, with its center of gravity 2¾" above the mounting plate, can be rotated 45° either side of the vertical. With the head set in a vertical position, a camera load of 12 lbs., with its center of gravity 2¾" above the mounting plate, is permissible. This is based on an allowable load of 60" pounds torque on the tilt shaft.

CONTROL UNIT

The control unit incorporates two toggle switches, one controlling rotation of the camera to left or right, the other up or down tilt. The control box as shown can be set on desk



or table or mounted on a panel (on special order) for relay rack installation. The connecting cable (not furnished) may be 20 gauge, 5 conductor Alpha 1247 or equal. Cable connectors are supplied. For distances up to 500 ft., 22 gauge is satisfactory; up to 1000 ft., 20 gauge; up to 2000 ft., 18 gauge.

DEPENDABLE OPERATION

The RCH-3 head is powered by strong, dependable Bodine motors. All gears on both motors and head are precision-cut for long life and smooth operation. The main tilt gears are a worm and worm type to prevent over-travel and provide a positively-located tilt position. The motor bearings and high-speed gear shafts are factory-lubricated and will require little or no attention under normal usage.

SPECIFICATIONS

	RCH-3	CONTROL UNIT
Height	5½"	4½"
Width	10"	5"
Depth	—	4"
Weight	9 lbs.	2 lbs.
Shipping weight (both units)	14 lbs.	
Voltage	115 volts A.C., 60 cycle	
Amperes12	



THE HOUSTON FEARLESS CORPORATION

11801 W. Olympic Blvd., Los Angeles 64, Calif.



Model **RTC**

REMOTE CONTROL TV CAMERA HEAD

The Houston Fearless Model RTC Remote Control Head is designed to remotely pan and tilt weather-proofed industrial type TV cameras weighing about 40 lbs. Mounts on any standard medium-weight tripod, high hat or other suitable mount.

PAN AND TILT

Both pan and tilt action are motor driven. Azimuth rotation is 320°. Tilt range is 45° up and 45° down. No tilt counter-balance springs are necessary. Both actions can be achieved simultaneously or separately as desired. Speed of both actions is variable up to 1½ rpm. Limit switches on both pan and tilt prevent damaging the motors at the extreme limits of travel.

CAMERA SIZE

The RTC Head will handle cameras weighing as much as 40 lbs. and the yoke will accommodate camera housings up to 12¾" wide. Wider yokes are available on special order.

WEATHERPROOFED

The entire head including motors is completely weather-proofed and will operate in extremes of temperature and rain.

CONTROL UNIT

The portable control unit is a desk type with slanting panel. Also available for rack mounting on special order.

Tilting of the camera is controlled by a three-position switch. Panning is controlled by a second switch and the speed of both actions is governed by rheostats. A speed range of about three to one is obtainable.

Joy-stick-type control available as optional equipment. Camera position indicators can also be supplied on special order.



A ten wire cable (not furnished, connectors only furnished), is required between the control unit and the head. Specified sizes for various distances are: 100 ft.—24 gauge. 200 ft.—22 gauge. 500 ft.—18 gauge. 1000 ft.—14 gauge. 2000 ft.—12 gauge.

S P E C I F I C A T I O N S

RTC HEAD	CONTROL UNIT
Width24"	Width7"
Length13"	Length9½"
Height23¼"	Height6½"
Voltage115V. A.C.	Weight6 lbs.
Cycle60	Shipping weight10 lbs.
Amperes2.6	
Weight65 lbs.	
Shipping weight ..124 lbs.	

Write for information on other Houston Fearless Remote Control Heads or on specially built equipment for your specific needs.

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LEADING MANUFACTURER OF FILM PROCESSING AND TV STUDIO EQUIPMENT