



## TR85

Telemetry Receiver Unit, 5 AC Drives

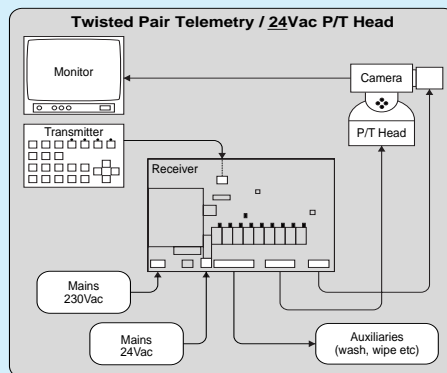
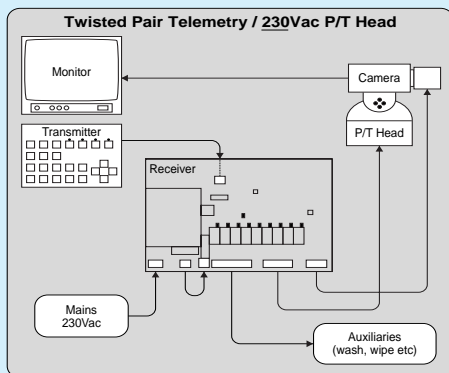
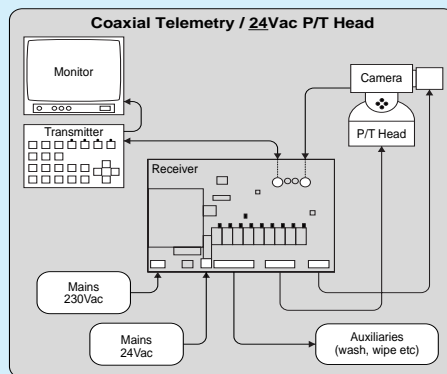
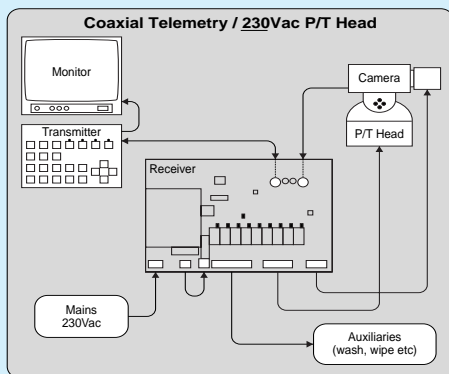
## TR89

Telemetry Receiver Unit, 9 AC Drives

## TP88

Preset Positioning Board (plug-in)

The Nortek range of telemetry receivers operate over coax or 20mA twisted pair cable and are available in three packaging formats. Units may be fitted in an industry standard IP66 weatherproof enclosure, in an economical metal box where waterproofing is not essential or supplied as a PCB assembly to fit into a camera housing or other equipment.



All TR80 series units have the following drives: PAN L/R, TILT U/D, AUTOPAN, ZOOM, FOCUS and IRIS. The TR89 has four additional auxiliary drives designated to the following functions: WIPE, WASH, LAMP. and AUX.; the 'L' subscript denotes a latched function, all others are momentary.

The following lens types are supported:

- (a) common-wired zoom / focus / iris
- (b) independently wired zoom / focus

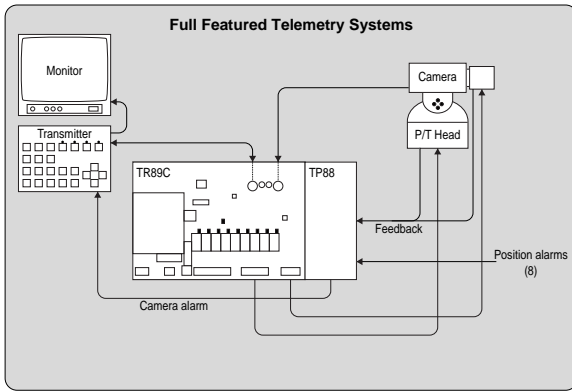
Type (b) has the advantage that zoom and focus can operate simultaneously - but the disadvantage of losing the iris drive.

The coax versions of the TR80 series incorporate a line boost amplifier.

Installation is aided by an incorporated drive test sequence and LED indicators which show the state of the relays.

- INTERNAL BOX
- EXTERNAL BOX
- COAX / TWISTED PAIR
- ADJUSTABLE GAIN & TILT
- 8 POSITION-PRESETS\*
- PATROL FUNCTION\* (\*option)





The TP88 plug-in board upgrades a TR80-series unit; it adds the ability to auto-seek to a preset position. Eight pan / tilt / zoom / focus position presets can be stored each of which has an associated alarm input. When an alarm is activated the camera moves to the preset position, a relay contact is provided which can trigger a TT88 transmitter to select the alarmed camera. On time-out the camera will revert to autopan (if active) or remain in the preset position awaiting further commands. The system can be configured such that autopan selects a patrol function which takes a tour through each preset position in turn.

## SELECTION CHART

Model	Description	Model	Description
TR85TP	5 relay twisted pair receiver PCB.	TR89CP	9 relay twisted pair or coax receiver PCB.
TR85TI	5 relay twisted pair receiver in Metal Wall Box.	TR89CI	9 relay twisted pair or coax receiver in Metal Wall Box.
TR85TX	5 relay twisted pair receiver in IP66 Waterproof Box.	TR89CX	9 relay twisted pair or coax receiver in IP66 Waterproof Box.
TR85CP	5 relay twisted pair or coax receiver PCB.	TP88	8 preset pluggable PCB.
TR85CI	5 relay twisted pair or coax receiver in Metal Wall Box.		
TR85CX	5 relay twisted pair or coax receiver in IP66 Waterproof Box.		

## SPECIFICATION

### TR-89C Board

#### BOARD POWER

- Supply: Mains 230Vac
- Fuse: 250mA quick-blow (F250mA, 250Vac, 20mm x 5mm).

#### VIDEO

- Camera Input: { Composite video 75Ω 1V<sub>pk-pk</sub>,
- Line Output: { CCIR 625-line 50Hz.
- Line Boost: Adjustable gain from 0db to 6db, also adjustable hi-freq. boost
- Connectors: BNC

#### SWITCHED POWER DRIVES

- Supply: External 230Vac or 24Vac supply.
- Functions: Pan-L/R + dedicated auto-pan + tilt-U/D + 4 auxiliaries.
- Relays: has 9 relay, all connected to the same supply, each has a snubber circuit to their commoned return.
- Rating: Each relay can switch 800mA; total for all relays must not exceed 3A.
- Fuse: 3.15A quick-blow (F3.15A, 250Vac, 20mm x 5mm).

#### LENS

- Voltage: Either 6Vdc or 12Vdc, selectable via jumper.
- Current: Maximum 100mA.
- Types: Commoned zoom, focus & iris (common line must NOT be grounded). Independent zoom & focus.
- Protection: Resettable fuse.
- Features: Soft-start (slow for first 1sec), can be disabled. Polarities can be individually altered via jumpers.

#### TELEMETRY METHODS

- Coaxial: FSK carrier transmitted during vertical blanking.
- Twisted Pair: 20mA current loop 300 / 1200 bps.
- Compatibility: Baxall system.

#### DIMENSIONS (L x W x H; mm)

- External Box: 229 x 299 x 87
- Internal Box: 185 x 280 x 60
- PCB + Carrier: 115 x 275 x 50

### TR-85C Board

Same as TR-89C but with the following differences:

- Only 5 relays are fitted, these give pan-L/R + dedicated auto-pan + tilt-U/D.

### TR-85T Board

Same as TR-89C but with the following differences:

- Only 5 relays are fitted, these give pan-L/R + dedicated auto-pan + tilt-U/D.
- Only the 20mA current loop interface can be used, non-of the video / coaxial features are present.