

CELADON

STANDARD CODE 4 – SC45 Low Volume Remote Control

NEC FORMAT: SINGLE REPEAT

Custom Code: 00FF

Custom Code: C0 C1 C2 C3 C4 C5 C6 C7 Custom Code': C0' C1' C2' C3' C4' C5' C6' C7'

BIN CODE: 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1

HEX CODE: 0 0 F F

| Key No. | Hex | Function | Data | | | | | | | |
|---------|-----|----------|------|----|----|----|----|----|----|----|
| | | | D0 | D1 | D2 | D3 | D4 | D5 | D6 | D7 |
| 1 | 00h | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 01h | | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 02h | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 03h | | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 04h | | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 6 | 05h | | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7 | 06h | | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8 | 07h | | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 9 | 08h | | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 10 | 09h | | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 11 | 0Ah | | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 12 | 0Bh | | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 13 | 0Ch | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 14 | 0Dh | | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 15 | 0Eh | | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 16 | 0Fh | | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 17 | 10h | | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 18 | 11h | | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 19 | 12h | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| 20 | 13h | | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| 21 | 14h | | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 22 | 15h | | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 23 | 16h | | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 24 | 17h | | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 25 | 18h | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 26 | 19h | | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 27 | 1Ah | | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| 28 | 1Bh | | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| 29 | 1Ch | | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| 30 | 1Dh | | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| 31 | 1Eh | | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| 32 | 1Fh | | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |

CELADON

STANDARD CODE 4 – SC45 Low Volume Remote Control

NEC FORMAT: SINGLE REPEAT

Custom Code: 00FF

Custom Code: C0 C1 C2 C3 C4 C5 C6 C7 Custom Code': C0' C1' C2' C3' C4' C5' C6' C7'

BIN CODE: 0 0 0 0 0 0 0 0

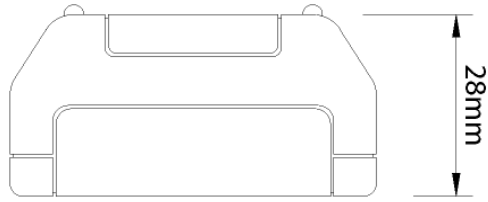
1 1 1 1 1 1 1 1

HEX CODE: 0 0

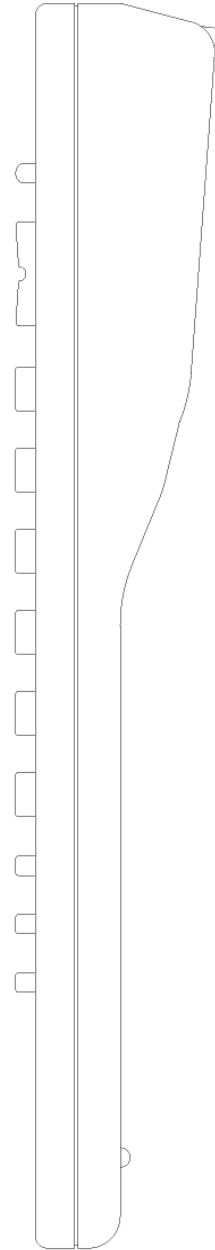
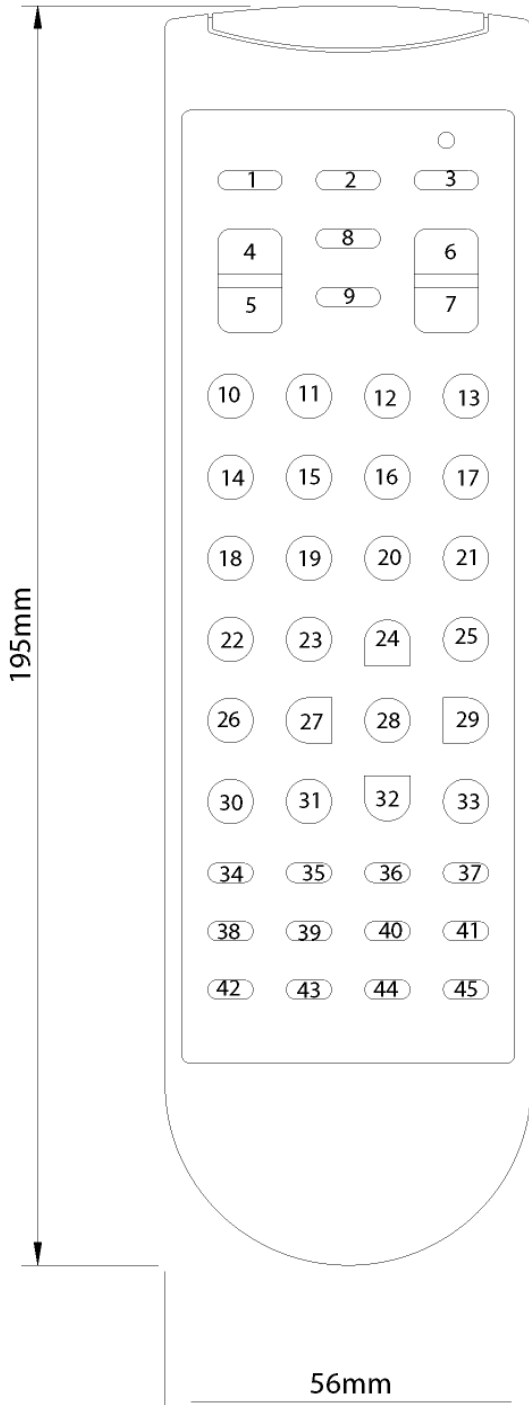
F

F

| Key No. | Hex | Function | Data | | | | | | | |
|---------|-----|----------|------|----|----|----|----|----|----|----|
| | | | D0 | D1 | D2 | D3 | D4 | D5 | D6 | D7 |
| 33 | 40h | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 34 | 41h | | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 35 | 42h | | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 36 | 43h | | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 37 | 44h | | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 38 | 45h | | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 39 | 46h | | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| 40 | 47h | | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| 41 | 48h | | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 42 | 49h | | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 43 | 4Ah | | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 44 | 4Bh | | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 45 | 4Ch | | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |



CASE: SC-45



Celadon Blank Keypad Layout

| | | | |
|------------|------------|---------|--|
| MODEL NAME | | | |
| CASE NO. | SC-45 | SCALE | |
| DATE | 2000.07.13 | DRAWING | |

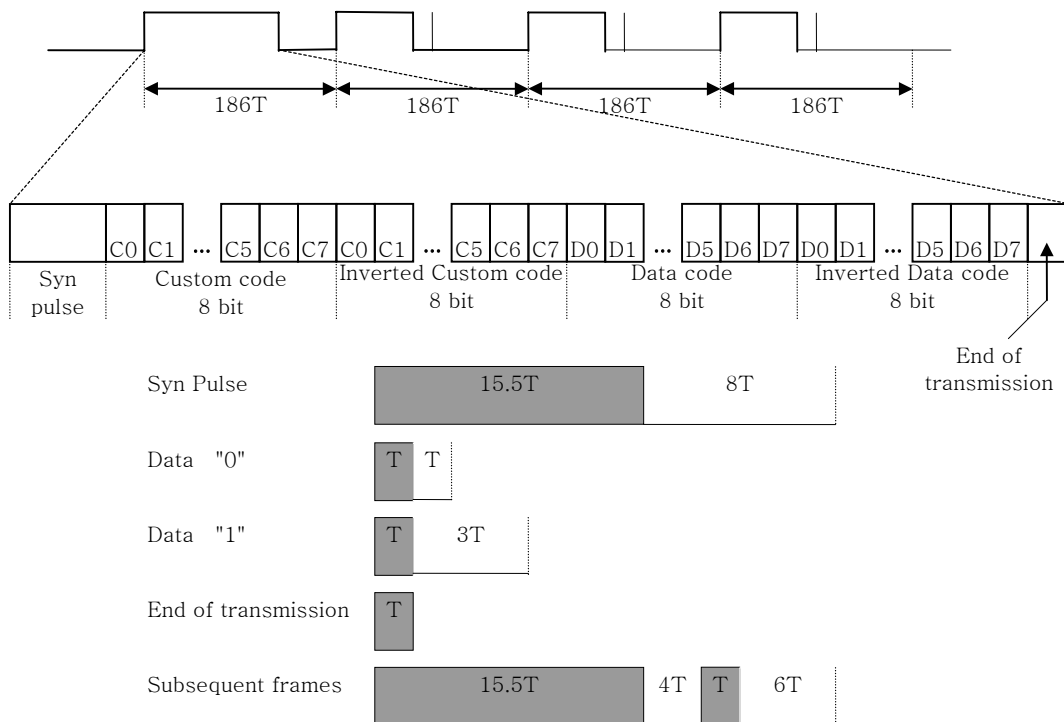
NEC Protocol

The modulated carrier is usually derived from 455kHz and is 1/12 of the frequency with 1/3 duty cycle.

When data are transmitted repeatedly, the frame cycle is 107.9ms or 186 period.

A frame consists of a syn pulse, an eight-bit custom code, an eight-bit inverted custom code, an eight-bit data code and an eight-bit inverted data code.

The timing definitions of the output code waveform are shown below.



| Data Item | Time (sec.) | Time (no. of period) |
|---------------------------------------|-------------|----------------------|
| Syn pulse on time | 8.993ms | 15.5T |
| Syn pulse off time | 4.642ms | 8T |
| Syn pulse off time (subsequent frame) | 2.321ms | 4T |
| Data on time (0) | 0.561ms | T |
| Data off time (0) | 0.598ms | T |
| Data on time (1) | 0.561ms | T |
| Data off time (1) | 1.7582.63ms | 3T |
| Data period (0) | 1.160ms | 2T |
| Data period (1) | 2.321ms | 4T |
| Frame output cycle | 107.9ms | 186T |

Where T=0.58ms