All pinout diagrams are referenced to the tab underneath, cable connector at the bottom and counted left to right.

AC4 Timer to Display (RS232 serial cable) Race America AN-CBL004 diagram:

RJ45	RJ45	Cable should not be longer than 200 ft. as per Race America
1	1	Used as a guide point for inserting the pins, not used
2	2	Ground
3	6	Logic data
4	5	Serial Data
5	4	Serial Data
6	3	Logic Data
7	7	Not used
8	8	Do not use – CBL005 is for the POD and 8 is a power connection

AC4 to T Link Wireless (aka T Link Z) Race America Diagram AN-CBL012:

As per the AN-CBL012 note: No external connection should be made to T-Link pins 7 or 8 to avoid damage to T-Link.

RJ45	RJ45	
1	5	Logic data
2	2	Ground
3	3	
4	4	
5	1	Logic data
6	6	
7	7	Not used
8	8	Not used

T Link Wireless Start/Stop to Sensor – Race America Timing Cable AN-CBL002 Diagram:

The two AN-CBL002 diagrams conflict. The SSCC cables are pinned as below (using the 01/29/09 pinout) and it works. The cable should not be longer than 25 ft. as per Race America

RJ45	RJ12	
1	1	Propriety input
2	2	Ground
3	3	Sensor output to T Link Input (RJ45)
4	4	Sensor Input
5		
6		
7	5	12 VDC
8	6	Propriety input

AN-CBL002 (dated 01/29/09) references that pins 1 and 8 used for Propriety input or N/C

AN-CBL002 (dated 02/18/03) shows only the RJ12 is pinned on 2,3, and 5.

Timer AC4 directly to Track Sensor Interconnect Cable AN-CBL007

Track Sensor Cable used to connect a Timer AC4 (model 3800B or later) to the Track Sensors (model 5100/5140). Race America cable lengths are sold at 100 and 300 ft. so it assumed that 300 feet is the maximum length that should be used.

RJ45	RJ12	
1	1	
2	2	Ground
3	3	Sensor
4	4	
5		
6		
7	5	12 VDC
8	6	

Notes:

With commercially built ethernet cable and connectors, you typically cannot see which white cable color is anyway. Since the Race America cable end connections are not using the industry standard, it may be easier to just cut off the commercial ends. Buy ethernet cable (solid cable not stranded and it does not need shielding) and just make your own.

RJ45 connectors are fairly easy to insert the pins. RJ11/12 have 6 pins connected from an 8 pin cable and it is difficult to align the pins. RJ11/12 connectors are also shorter than RJ45 connectors. Buy Passthrough EZ style connectors (RJ45 and RJ12). Cable crimp tools can be purchased that crimp the connector and cut the passed through pin cables at the same time.

RJ12 female to female connector must be 6P6C (6 Pin and 6 Connector). Telephone connection types are usually a subset of the complete connection pins. RJ45 female to female is 8P8C – at least I have not seen a subset.

I recommend that the Race America hardware connection(s) be with a short (1 foot) cable and a female-to-female connector vs. using the usual cable. The RJ45/12 hardware female connectors can be damaged over time. This way the cable can get damaged but not the Race America female hardware connection.

Finding a functional cable tester for a RJ45/RJ12 connection is, so far, impossible. Everything bought so far has failed within days. Which, of course, meant chasing functional cables that were failed by the tester.

Viewing the wiring diagram with a commercial straight through RJ45 (tab down and cable connector at the bottom) from left to right is:

T568B is the commercial standard.

T568A is the Europe and US Govt. standard. T568A flip the orange and green pairs location used in T568B.