

**Table VI B.2 (continued)**

C:L	P, T	Variable Name	Meaning (units)	Notes
7a:1	1-80, A	WHAT	<p>“RADII are in KEY-WORD format”,</p> <p>or</p> <p>“CHANNe1 radius parameters follow”</p>	If using the first option, the phrase “key-word” must occur somewhere on the line.
<p>See Table VI B.1 for an itemized list of the valid key words used in this card set.</p> <p>Many test cases contain examples of this card set: tr041,tr043,tr119, tr151. Below is one example from test case tr059, file t059cz.par :</p> <pre> Channel RADIUS PARAMETERS FOLLOw Radius=   3.200   3.200  Flags=1   3   PP=n+160   L=all Radius=   3.200   3.200  Flags=3  -1   PP=alf+13C  L=all Radius=   3.200   3.200  Flags=3   1   PP=n+160   1  L=all Radius=   3.200   3.200  Flags=3   3   PP=n+160   2  L=all </pre>				
7a:2			<p>Channel radii parameters are given in key word format, with the key word followed by an equal sign followed by the value. Radii values must be specified first, prior to the information regarding which channels are associated with these radii.</p> <p>Valid key words for radii: RADIus, RADII, EffeCtive radius, TRue radius. Only those letters in caps must be included; they may be either caps or lowercase in the file. If key word RADIus is used, it can be followed by one or two values (separated by space or comma); the first is the effective radius, and the second is the true radius. In any case, if only one radius value is specified, the other is assumed to be equal to that same value.</p> <p>No other key words may be included on this line.</p>	
7a:3			<p>Uncertainties may be given for the radii. Use the key word RElative to specify relative uncertainties, and ABsolute or UNcertainty to provide absolute uncertainties. Give two values after the equal sign, the first for the effective radius and the second for the true radius. It is permitted to give only one value, in which case that value is used for both radii. However, if only one value is given, it must be the last item on this line.</p>	

Table VI B.2 (continued)

C:L	P, T	Variable Name	Meaning (units)	Notes
7a:4, 7a:5, etc.				<p>Valid key words for particle-pair names: <code>PARTicle-pair</code>, <code>PP</code>. Particle-pair names must be specified before the orbital angular momenta values, and must be <i>exactly</i> as in the <code>INPut</code> file, card set 4 or 4a.</p> <p>Valid key words for orbital angular momentum: <code>L</code>, <code>ORbital angular momentum</code>. After the equal sign, values may be given as <code>ODd</code>, <code>EVEn</code>, or <code>ALl</code>. In addition (or instead), specific values of <math>l</math> can be specified (separated by commas or blank spaces).</p> <p>The orbital angular momentum specification can be on the same line or a following line after the particle-pair specification.</p> <p>In principle more than one particle pair can be specified for a given pair of channel radii. In practice this is not recommended, since different particle pairs correspond to different physical situations, and hence the radii are intrinsically different (though the <i>value</i> may be the same).</p>
7a:6				<p>Valid key word for flags: <code>FLags</code>. One or two values are given, separated by blanks or commas. If only one flag is given, it applies to the effective radius; the true radius is assumed to be held fixed. If two flags are given, the first applies to the effective radius and the second to the true radius.</p> <p>Values may be “Y” or “1” (indicating that the radius is to be varied) or “N” or “0” (indicating that the value for the radius is fixed), or 3 (indicating that the radius is to be treated as a PUP). For the effective radius, a value “-1” indicates that the two radii are to be treated as identical.</p> <p>If both radii are listed explicitly, the key word <code>FLags</code> may be given on the same line with the radii.</p>
7a:7 etc.				<p>Valid key word for spin groups: <code>GRoup</code>. Following the equal sign, a single group number is given, or “All” may be specified. After the group number, give the key word <code>CHannels</code>. Following the equal sign, appropriate channel numbers are listed, separated by commas and/or blanks. NOTE: Channels <i>must</i> be specified on the same line as groups.</p> <p>More than one group can be assigned to the same radii values; each group must be given on a separate line.</p>
7a: last				(blank)